ARCTURUS
CONSTANT INNOVATION

APPLICARE 9.2.X

# Configuration Guides

Install and configure agents, collectors and integrations per technology.

Version 9.2

Arcturus Technologies Inc. · Published November 3, 2026
Generated from the Applicare master documentation. 210 of 210 articles were migrated from earlier documentation and are pending technical review.
The latest version is always available at https://helpdesk.arcturustech.com/hc/en-us

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CONFIGURATION GUIDES › .NET

# Monitor .NET Error Transactions with Applicare and OpenTelemetry (Offline Mode)

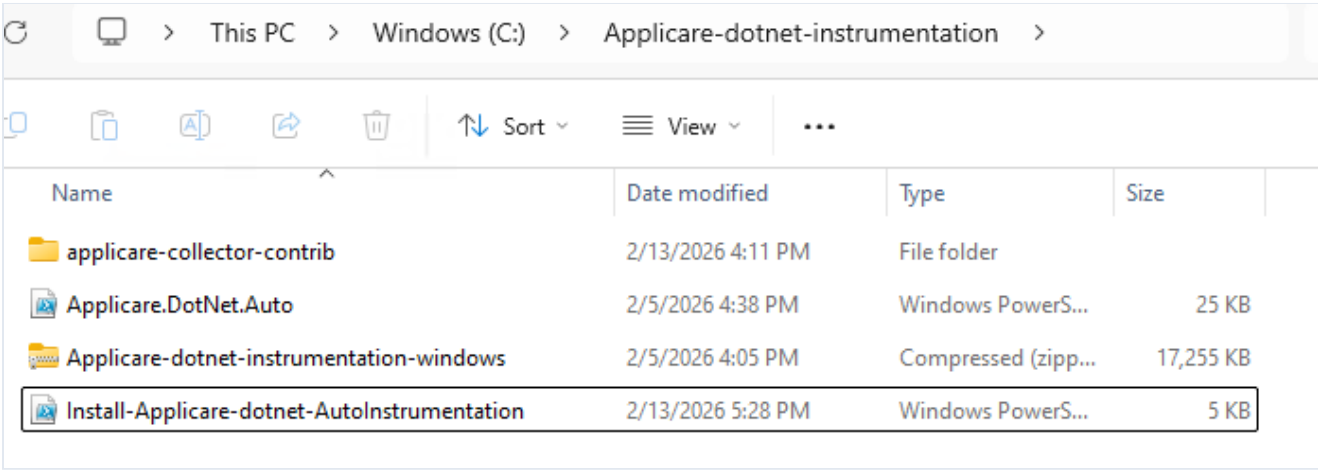
Applicare 9.2 · Updated February 13, 2026 · dotnet, opentelemetry, windows, iis · **Pending technical review**

**NOTE: Before starting the configuration, make sure that the system has .NET Framework 4.6.1 or higher. Use the command below to check. Lower versions are not compatible with this Applicare .Net configuration.**

```powershell
$PSVersionTable.PSVersion
```

**Step 1:** On the machine where the .NET application is running, download the **Applicare-dotnet-instrumentation** zip file. Then, create a folder named **Applicare-dotnet-instrumentation** in the **C - drive** and paste the zip file into that folder.

**Step 2:** Extract the zip file as shown in the following image.




**Step 3:** Open a **PowerShell window** as **Administrator** and navigate to the directory where extracted the zip file.

**Step 4:** Execute below command in powershell windows.

```powershell
.\Install-Applicare-dotnet-AutoInstrumentation.ps1
```

```
PS C:\Applicare-dotnet-instrumentation> .\Install-Applicare-dotnet-AutoInstrumentation.ps1
--- Starting Applicare .NET AutoInstrumentation Configuration ---
Step 1: Importing Applicare configuration module...
Successfully imported module.
Step 2: Installing Applicare binaries to C:\Program Files\Applicare .NET AutoInstrumentation...
Applicare binaries extracted successfully.
Step 3: Registering Applicare components for IIS...

Attempting stop...
Internet services successfully stopped
Attempting start...
Internet services successfully restarted
IIS Registration completed.
Step 4: Configuring System Environment Variables for Applicare...
Environment variables have been updated.

============================================================
Applicare .NET AutoInstrumentation setup is successfully done.
Installation Path: C:\Program Files\Applicare .NET AutoInstrumentation
============================================================
Action Required: Please run 'iisreset' to start instrumentation.
PS C:\Applicare-dotnet-instrumentation>
```

**Step 5:** After the script is executed, execute the command below to **restart IIS.**

```
TEXT
iisreset
```

**Step 6:** After the IIS restart is complete, open the **config.yaml** file in the **applicare-collector-contrib** directory using Notepad. Navigate to **line 39** and replace **<ApplicareControllerIP>** with the actual IP address of the machine where the **Applicare Controller** is running, then **save** the file.

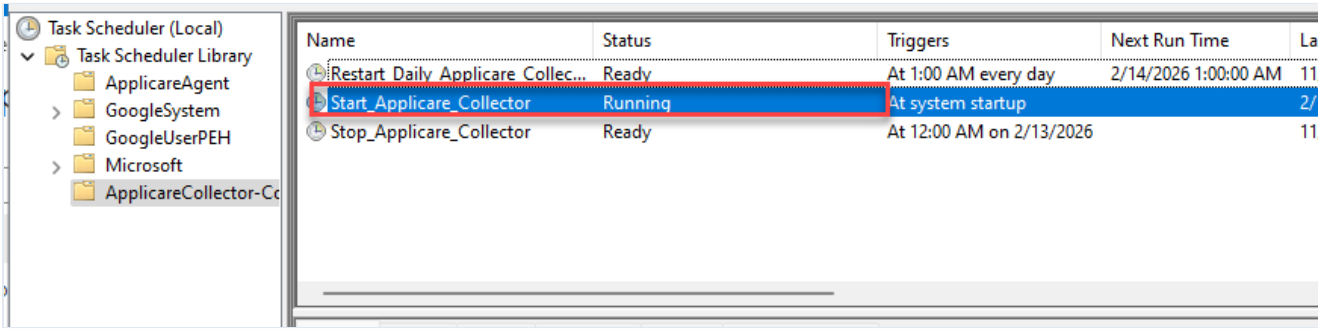
```
37  exporters:
38    otlp:
39      endpoint: "<ApplicareControllerIP>:4317"
40      tls:
41        insecure: true
42    debug:
43      verbosity: basic
44
```

**Step 7:** Open the **Command Prompt** as **Administrator**, navigate to the **applicare-collector-contrib** directory, and execute the **create-task-applicare-collector-contrib.bat** file.

```
C:\Applicare-dotnet-instrumentation\applicare-collector-contrib>create-task-applicare-collector-contrib.bat
==================================================
  APPLICARE COLLECTOR - TASK SCHEDULER SETUP
==================================================
[1/4] Creating START task (Triggers on Boot)...
SUCCESS: The scheduled task "ApplicareCollector-Contrib\Start_Applicare_Collector" has successfully been created.
[2/4] Creating STOP task (Manual trigger)...
WARNING: Task may not run because /ST is earlier than current time.
SUCCESS: The scheduled task "ApplicareCollector-Contrib\Stop_Applicare_Collector" has successfully been created.
[3/4] Creating DAILY MAINTENANCE task (01:00 AM)...
SUCCESS: The scheduled task "ApplicareCollector-Contrib\Restart_Daily_Applicare_Collector" has successfully been created
.
[4/4] TRIGGERING COLLECTOR START NOW...
SUCCESS: Attempted to run the scheduled task "ApplicareCollector-Contrib\Start_Applicare_Collector".

SUCCESS: All tasks created and Collector is starting.
Folder: Task Scheduler Library -> ApplicareCollector-Contrib
==================================================
```

**Note:** Open the task scheduler and make sure that the task Start_Applicare_Collector is running.




The following port must be opened on the Applicare controller machine.

**4317**

CONFIGURATION GUIDES › .NET

# Monitor .NET Error Transactions with Applicare and OpenTelemetry

Applicare 9.2 · Updated February 12, 2026 · dotnet, opentelemetry, windows, iis · **Pending technical review**

## Note: The following configurations are verified for .NET Framework 4.8.1 Application only

**Step 1:** Open powershell in administrator mode and execute the following commands one by one.

```powershell
$module_url = "https://github.com/open-telemetry/opentelemetry-dotnet-instrumentation/releases/latest/download/OpenTelemetry.DotNet.Auto.psm1"
$download_path = Join-Path $env:temp "OpenTelemetry.DotNet.Auto.psm1"
Invoke-WebRequest -Uri $module_url -OutFile $download_path -UseBasicParsing

Import-Module $download_path
Install-OpenTelemetryCore
```

**Step 2:** Run the command below to enable **auto-instrumentation** for all **IIS-hosted** applications using the OpenTelemetry module.

```text
Register-OpenTelemetryForIIS
```

**Step 3:** Execute the following PowerShell command to configure the system-level environment variables required for .NET Auto-Instrumentation

```
TEXT
$vars = @{
   "COR_ENABLE_PROFILING"="1"
   "COR_PROFILER"="{918728DD-259F-4A6A-AC2B-B85E1B658318}"
   "COR_PROFILER_PATH"="C:\Program Files\OpenTelemetry .NET AutoInstrumentation\win-
x64\OpenTelemetry.AutoInstrumentation.Native.dll"
   "CORECLR_ENABLE_PROFILING"="1"
   "CORECLR_PROFILER"="{918728DD-259F-4A6A-AC2B-B85E1B658318}"
   "CORECLR_PROFILER_PATH"="C:\Program Files\OpenTelemetry .NET AutoInstrumentation\win-
x64\OpenTelemetry.AutoInstrumentation.Native.dll"
   "DOTNET_ADDITIONAL_DEPS"="C:\Program Files\OpenTelemetry .NET
AutoInstrumentation\AdditionalDeps"
   "DOTNET_SHARED_STORE"="C:\Program Files\OpenTelemetry .NET AutoInstrumentation\store"
   "DOTNET_STARTUP_HOOKS"="C:\Program Files\OpenTelemetry .NET
AutoInstrumentation\net\OpenTelemetry.AutoInstrumentation.StartupHook.dll"
   "OTEL_DOTNET_AUTO_HOME"="C:\Program Files\OpenTelemetry .NET AutoInstrumentation"
   "OTEL_DOTNET_AUTO_INSTALL_DIR"="C:\Program Files\OpenTelemetry .NET AutoInstrumentation"
   "OTEL_DOTNET_AUTO_LOGS_CONSOLE_EXPORTER_ENABLED"="none"
   "OTEL_DOTNET_AUTO_METRICS_CONSOLE_EXPORTER_ENABLED"="none"
   "OTEL_DOTNET_AUTO_TRACES_CONSOLE_EXPORTER_ENABLED"="true"
   "OTEL_DOTNET_AUTO_ENTITYFRAMEWORKCORE_SET_DBSTATEMENT_FOR_TEXT"="true"
   "OTEL_DOTNET_AUTO_SQLCLIENT_SET_DBSTATEMENT_FOR_TEXT"="true"
   "OTEL_EXPORTER_OTLP_ENDPOINT"="http://<APPLICARE_CONTROLLER_IP>:4318"
   "OTEL_SERVICE_NAME"="<APPLICARE_AGENT_NAME>"
}; foreach($k in $vars.Keys) { [System.Environment]::SetEnvironmentVariable($k, $vars[$k],
[System.EnvironmentVariableTarget]::Machine) }
```

**Note:**

**<APPLICARE_CONTROLLER_IP>**: Replace this placeholder with the actual IP address or hostname of your Applicare controller instance.

**<APPLICARE_AGENT_NAME>**: The name of the agent as listed in the Applicare console.

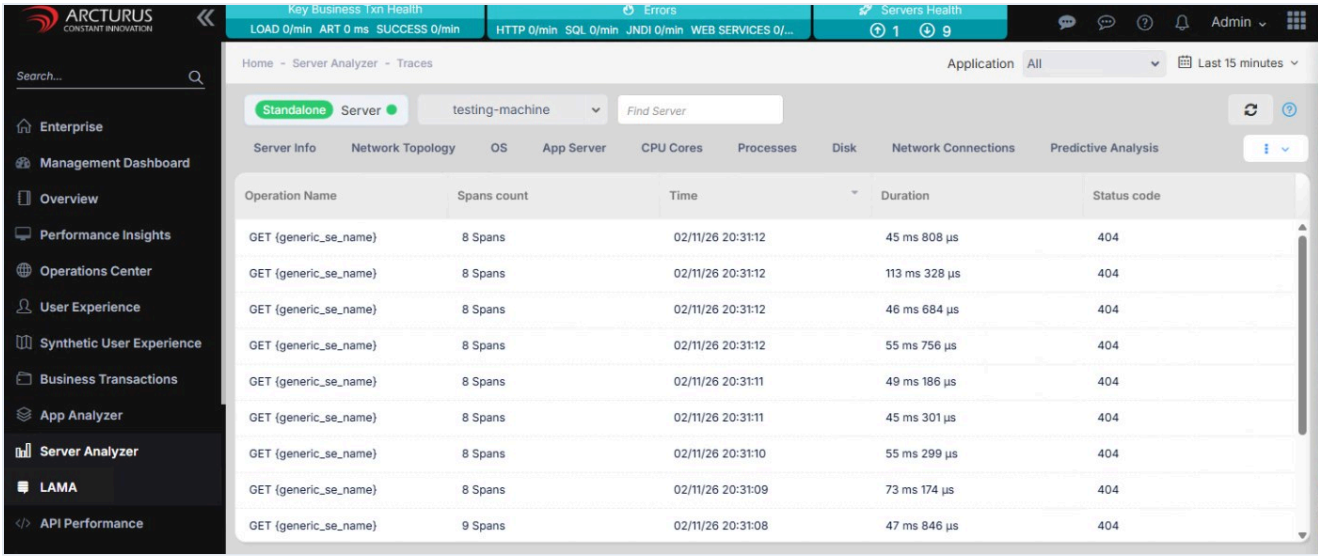
**Step 4:** Once the configuration is complete, an **IIS service restart is required**. Execute the below command .

```
TEXT
iisreset
```

**Step 5:** To start the OpenTelemetry Collector on the controller machine using the specified `config.yaml` *(sample file, available on the documentation site)* file, execute the following command.

```
TEXT
otelcol-contrib.exe --config=config.yaml
```

The collected traces will be shown in **Server Analyzer -> Telemetry Traces** screen in **Applicare console**.


ARCTURUS
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Key Business Txn Health
LOAD 0/min ART 0 ms SUCCESS 0/min
Errors
HTTP 0/min SQL 0/min JNDI 0/min WEB SERVICES 0/...
Servers Health
1 9
Admin
Search...
Enterprise
Management Dashboard
Overview
Performance Insights
Operations Center
User Experience
Synthetic User Experience
Business Transactions
App Analyzer
Server Analyzer
LAMA
API Performance
Home - Server Analyzer - Traces
Application All
Last 15 minutes
Standalone Server
testing-machine
Find Server
Server Info
Network Topology
OS
App Server
CPU Cores
Processes
Disk
Network Connections
Predictive Analysis
Operation Name
Spans count
Time
Duration
Status code
GET {generic_se_name} 8 Spans 02/11/26 20:31:12 45 ms 808 µs 404
GET {generic_se_name} 8 Spans 02/11/26 20:31:12 113 ms 328 µs 404
GET {generic_se_name} 8 Spans 02/11/26 20:31:12 46 ms 684 µs 404
GET {generic_se_name} 8 Spans 02/11/26 20:31:12 55 ms 756 µs 404
GET {generic_se_name} 8 Spans 02/11/26 20:31:11 49 ms 186 µs 404
GET {generic_se_name} 8 Spans 02/11/26 20:31:11 45 ms 301 µs 404
GET {generic_se_name} 8 Spans 02/11/26 20:31:10 55 ms 299 µs 404
GET {generic_se_name} 8 Spans 02/11/26 20:31:09 73 ms 174 µs 404
GET {generic_se_name} 9 Spans 02/11/26 20:31:08 47 ms 846 µs 404

CONFIGURATION GUIDES › .NET

# Monitoring Containerized .NET Applications with Applicare and OpenTelemetry

Applicare 9.2 · Updated July 14, 2025 · dotnet, docker, opentelemetry · **Pending technical review**

To enable OpenTelemetry auto-instrumentation for your .NET application and send traces to Applicare, you will need to apply configuration changes in both your **Dockerfile** and your application's **YAML deployment script** (e.g., Kubernetes Deployment, Docker Compose file, or other container orchestration tool's configuration).

## Step 1: Modify your Dockerfile

Add the following lines to your application's Dockerfile. These commands will install necessary utilities, download the OpenTelemetry .NET auto-instrumentation setup script, execute it.

**Note:** The `apt-get` commands assume a Debian/Ubuntu-based base image (e.g., `mcr.microsoft.com/dotnet/aspnet:8.0-alpine` would use `apk add --no-cache` instead). Adjust package manager commands as per your base image.

```
TEXT
ENV OTEL_AGENT_VERSION=1.9.0
ENV DOTNET_EnableDiagnostics=1
ENV OTEL_DOTNET_AUTO_HOME=/otel-dotnet-auto
ENV DOTNET_SHARED_STORE=$OTEL_DOTNET_AUTO_HOME/store
ENV
DOTNET_STARTUP_HOOKS=$OTEL_DOTNET_AUTO_HOME/net/OpenTelemetry.AutoInstrumentation.StartupHook
.dll
ENV DOTNET_ADDITIONAL_DEPS=$OTEL_DOTNET_AUTO_HOME/AdditionalDeps
ENV OTEL_TRACES_EXPORTER=otlp
ENV OTEL_DOTNET_AUTO_LOGGING_ENABLED=true
ENV OTEL_DOTNET_AUTO_ENTITYFRAMEWORKCORE_SET_DBSTATEMENT_FOR_TEXT=true
ENV OTEL_DOTNET_AUTO_SQLCLIENT_SET_DBSTATEMENT_FOR_TEXT=true
ENV COMPlus_EnableDiagnostics=1
ENV DOTNET_EnableDiagnostics=1
ENV DOTNET_ROLL_FORWARD=LatestMajor

RUN apt-get update && apt-get install -y unzip curl
ADD https://github.com/open-telemetry/opentelemetry-dotnet-
instrumentation/releases/download/v1.9.0/otel-dotnet-auto-install.sh /otel-install.sh

RUN chmod +x /otel-install.sh && \
    /otel-install.sh
```

## Step 2: Configure Environment Variables in your YAML Deployment

Add the following environment variables to the container definition section of your application's YAML deployment file (e.g., under `env:` in a Kubernetes `Deployment`'s container specification, or `environment:` in a Docker Compose `service`). These variables instruct the OpenTelemetry auto-instrumentation how to behave and where to send the telemetry data.

```
TEXT
OTEL_DOTNET_AUTO_HOME="/otel-dotnet-auto"
DOTNET_SHARED_STORE="/otel-dotnet-auto/store"
DOTNET_STARTUP_HOOKS="/otel-dotnet-
auto/net/OpenTelemetry.AutoInstrumentation.StartupHook.dll"
DOTNET_ADDITIONAL_DEPS="/otel-dotnet-auto/AdditionalDeps"
OTEL_TRACES_EXPORTER="otlp"
OTEL_EXPORTER_OTLP_ENDPOINT="http://<APPLICARE_CONTROLLER_IP>:4318"
OTEL_SERVICE_NAME="<APPLICARE_AGENT_NAME>"
OTEL_DOTNET_AUTO_ENTITYFRAMEWORKCORE_SET_DBSTATEMENT_FOR_TEXT="true"
OTEL_DOTNET_AUTO_SQLCLIENT_SET_DBSTATEMENT_FOR_TEXT="true"
```

**Before deploying your application, ensure you replace the following placeholders:**

- `<APPLICARE_CONTROLLER_IP>`: Replace this with the actual IP address or hostname of your Applicare controller instance.
- `<APPLICARE_AGENT_NAME>`: Provide a unique, descriptive name that will help you identify this specific container or application within the Applicare monitoring console.

**Sample Dockerfile with the above changes.**

```
# See https://aka.ms/customizecontainer to learn how to customize your debug container and how Visual Studio uses this Dockerfile to build your imag

# This stage is used when running from VS in fast mode (Default for Debug configuration)
FROM mcr.microsoft.com/dotnet/aspnet:8.0 AS base

ENV OTEL_AGENT_VERSION=1.9.0
ENV DOTNET_EnableDiagnostics=1
ENV OTEL_DOTNET_AUTO_HOME=/otel-dotnet-auto
ENV DOTNET_SHARED_STORE=$OTEL_DOTNET_AUTO_HOME/store
ENV DOTNET_STARTUP_HOOKS=$OTEL_DOTNET_AUTO_HOME/net/OpenTelemetry.AutoInstrumentation.StartupHook.dll
ENV DOTNET_ADDITIONAL_DEPS=$OTEL_DOTNET_AUTO_HOME/AdditionalDeps
ENV OTEL_TRACES_EXPORTER=otlp
ENV OTEL_DOTNET_AUTO_LOGGING_ENABLED=true
ENV OTEL_DOTNET_AUTO_ENTITYFRAMEWORKCORE_SET_DBSTATEMENT_FOR_TEXT=true
ENV OTEL_DOTNET_AUTO_SQLCLIENT_SET_DBSTATEMENT_FOR_TEXT=true
ENV COMPlus_EnableDiagnostics=1
ENV DOTNET_EnableDiagnostics=1
ENV DOTNET_ROLL_FORWARD=LatestMajor

RUN apt-get update && apt-get install -y unzip curl
ADD https://github.com/open-telemetry/opentelemetry-dotnet-instrumentation/releases/download/v1.9.0/otel-dotnet-auto-install.sh /otel-install.sh

RUN chmod +x /otel-install.sh && \
    /otel-install.sh

USER $APP_UID
WORKDIR /app
EXPOSE 8080

# This stage is used to build the service project
FROM mcr.microsoft.com/dotnet/sdk:8.0 AS build
ARG BUILD_CONFIGURATION=Release
WORKDIR /src
COPY ["WebApplication1/WebApplication1.csproj", "WebApplication1/"]
#COPY ["WebApplication1.csproj", "WebApplication1/"]
RUN dotnet restore "./WebApplication1/WebApplication1.csproj"
COPY . .
WORKDIR "/src/WebApplication1"
RUN dotnet build "./WebApplication1.csproj" -c $BUILD_CONFIGURATION -o /app/build

# This stage is used to publish the service project to be copied to the final stage
```

**Sample YAML with the above changes.**

```
      app: applicareapp
  template:
    metadata:
      labels:
        app: applicareapp
    spec:
      containers:
        - name: webapplication1
          image: applicare910/applicareapp:webapplicationwithenv
          ports:
            - containerPort: 8080
          env:
            - name: OTEL_DOTNET_AUTO_HOME
              value: "/otel-dotnet-auto"
            - name: DOTNET_SHARED_STORE
              value: "/otel-dotnet-auto/store"
            - name: DOTNET_STARTUP_HOOKS
              value: "/otel-dotnet-auto/net/OpenTelemetry.AutoInstrumentation.StartupHook.dll"
            - name: DOTNET_ADDITIONAL_DEPS
              value: "/otel-dotnet-auto/AdditionalDeps"
            - name: OTEL_TRACES_EXPORTER
              value: "otlp"
            - name: OTEL_EXPORTER_OTLP_ENDPOINT
              value: "http://192.168.0.117:4318"
            - name: OTEL_SERVICE_NAME
              value: "Applicare_demo"
            - name: OTEL_DOTNET_AUTO_ENTITYFRAMEWORKCORE_SET_DBSTATEMENT_FOR_TEXT
              value: "true"
            - name: OTEL_DOTNET_AUTO_SQLCLIENT_SET_DBSTATEMENT_FOR_TEXT
              value: "true"
---
apiVersion: v1
kind: Service
metadata:
  name: applicareapp
  namespace: applicare-ns
spec:
  selector:
    app: applicareapp
  ports:
    - protocol: TCP
```

CONFIGURATION GUIDES › .NET

# Monitor .NET Application

Applicare 9.2 · Updated September 13, 2024 · dotnet · **Pending technical review**

Currently, Applicare supports profiling only .NET applications hosted on IIS in Windows.

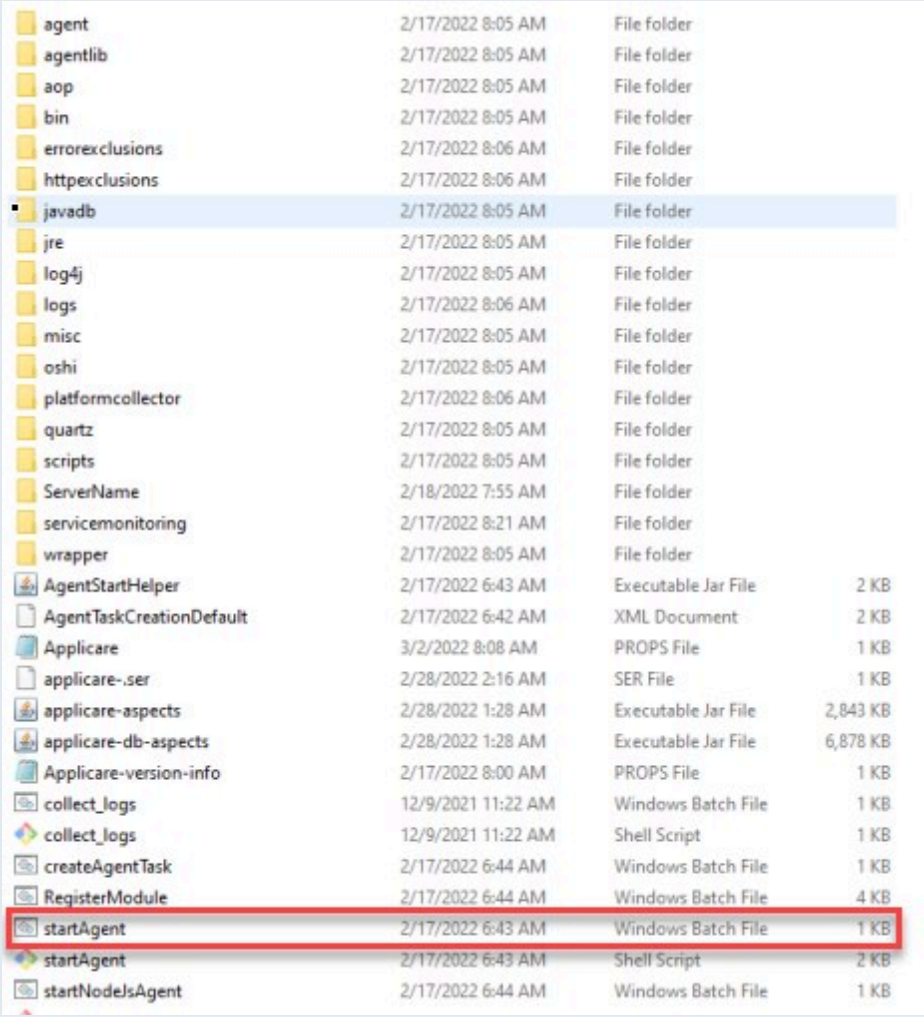
Follow these steps to configure .NET agent with SingleAgent.

**Steps 1: Follow the steps for installing Applicare SingleAgent .**

Do not start the agent immediately after installation. You will need to start it later.

**Steps 2:** Navigate to SingleAgent extracted directory.

**Steps 3:** Edit the **startAgent.bat** file.




**Steps 4:** In the **startAgent.bat** file, remove the **rem** that precedes the **call RegisterModule.bat** line and save the change.

**Before editing the file:**

```
@echo off
FOR /F "usebackq" %%i IN (`hostname`) DO SET SERVER_NAME=%%i_sa
rem set SERVER_NAME=Applicare_sa
set ARCTURUS_HOME=%CD%
set JAVA_HOME_PATH=%JAVA_HOME%

set INBUILD_JAVA_PATH=%ARCTURUS_HOME%\jre\windows
if exist "%INBUILD_JAVA_PATH%\bin" (
    set JAVA_HOME_PATH=%INBUILD_JAVA_PATH%
)

rem call RegisterModule.bat
```

**After editing the file:**

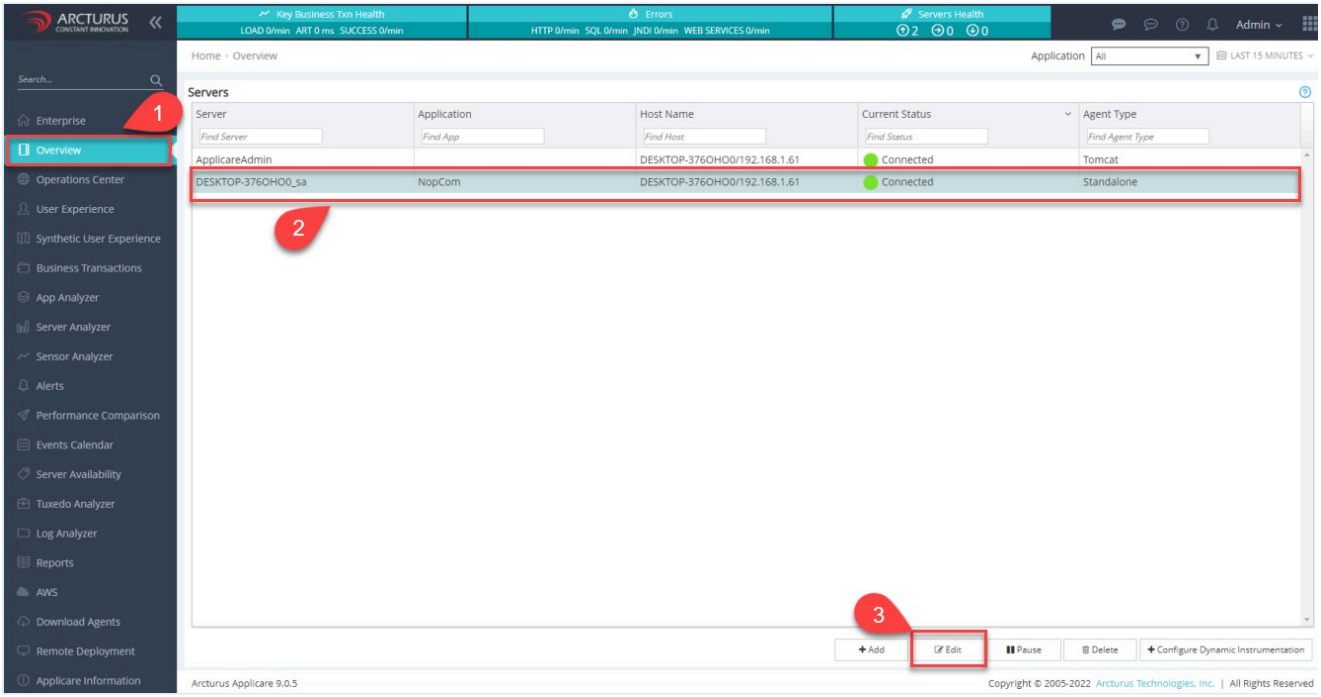
```
@echo off
FOR /F "usebackq" %%i IN (`hostname`) DO SET SERVER_NAME=%%i_sa
rem set SERVER_NAME=Applicare_sa
set ARCTURUS_HOME=%CD%
set JAVA_HOME_PATH=%JAVA_HOME%

set INBUILD_JAVA_PATH=%ARCTURUS_HOME%\jre\windows
if exist "%INBUILD_JAVA_PATH%\bin" (
    set JAVA_HOME_PATH=%INBUILD_JAVA_PATH%
)

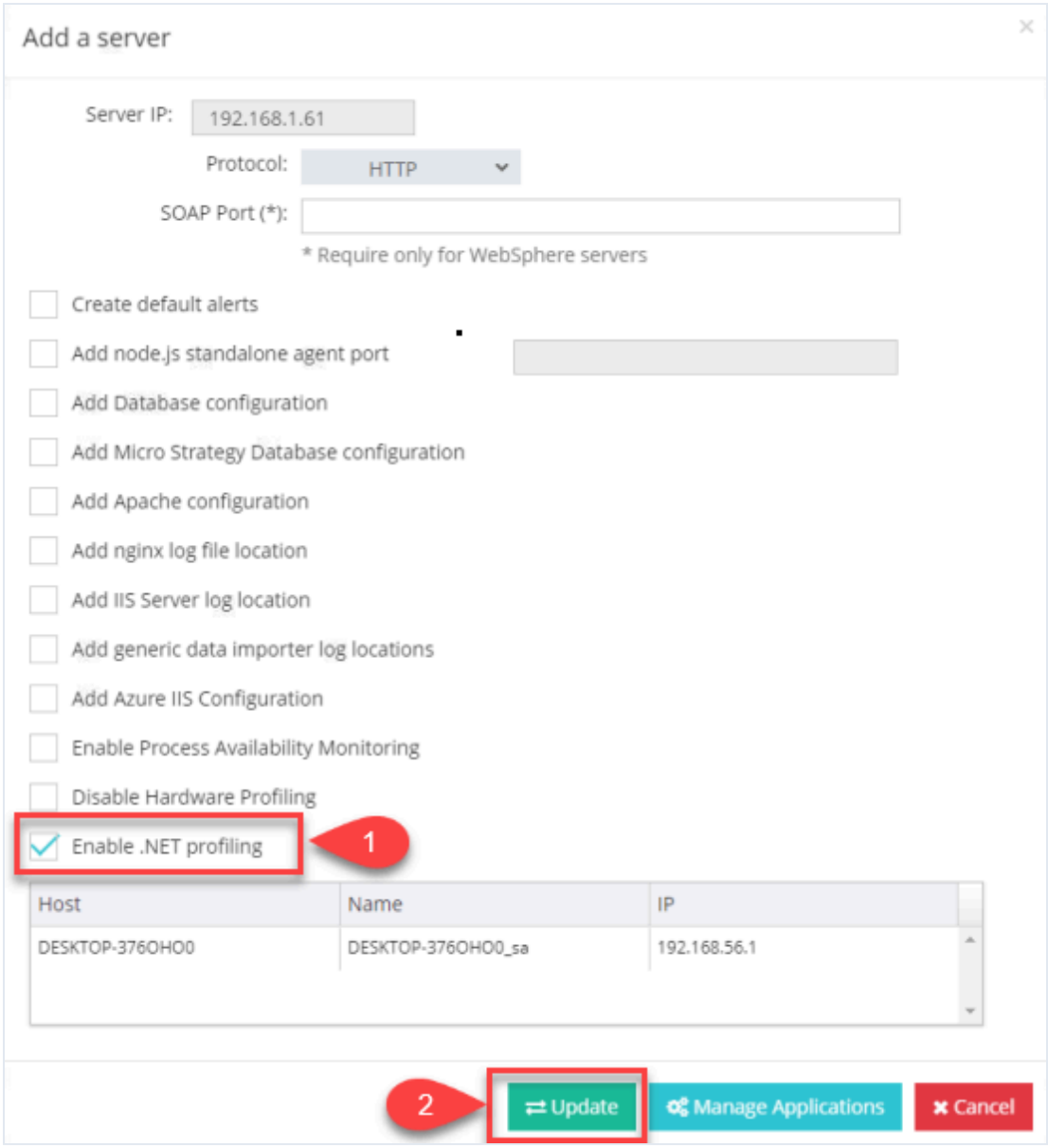
call RegisterModule.bat
```

**Steps 5:** Start Singleagent.

**Steps 6:** Log in to the **Applicare console,** navigate to the **Overview** screen, select the agent, click the Edit button.




**Steps 7:** When the "**Add a server"** popup window appears, check the box for "**Enable .NET profiling"** and click the **Update** button.




**Another steps to install Dotnet agent.**

## Docs Home

**Monitoring with Applicare**

CONFIGURATION GUIDES › .NET

# Manually Installing the .NET Applicare Agent

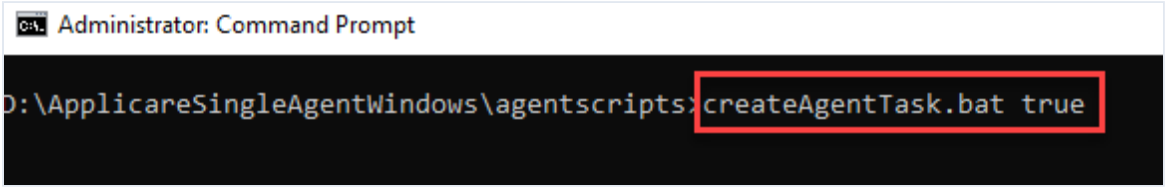
Applicare 9.2 · Updated September 13, 2024 · dotnet, singleagent · **Pending technical review**

1. Log in to **Applicare console,** Navigate to **Download Agents** screen but selecting it on left hand side menu.

2. Click the **SingleAgentWindows** button to download the agent. This will download the **ApplicareSingleAgentWindows.zip** file. Copy the **ApplicareSingleAgentWindows.zip** file to the directory where you intend to deploy the agent e.g. c:\ or d:\.

3. Extract the **ApplicareSingleAgentWindows.zip** file into a directory named **ApplicareSingleAgentWindows**.

4. Open command prompt as an administrator, navigate to the **ApplicareSingleAgentWindows\agentscripts** directory, and run the **createAgentTask.bat** file with **True** parameter.




Monitoring with Applicare

CONFIGURATION GUIDES › .NET

# Set up the .NET agent to run automatically using Task Scheduler

Applicare 9.2 · Updated September 13, 2024 · dotnet, singleagent · **Pending technical review**

**Step 1:** To initiate the .Net Agent with Task Scheduler. Navigate to the **Agent's installation home directory,** open a command window as an **administrator mode** and run the **createDotNetAgentTask.bat** file.

```
C:\ApplicareSingleagent>createAgentTask.bat
        1 file(s) moved.
SUCCESS: The scheduled task "\ApplicareAgent\SingleAgent" has successfully been created.
Microsoft (R) .NET Global Assembly Cache Utility.  Version 4.0.30319.1
Copyright (c) Microsoft Corporation.  All rights reserved.

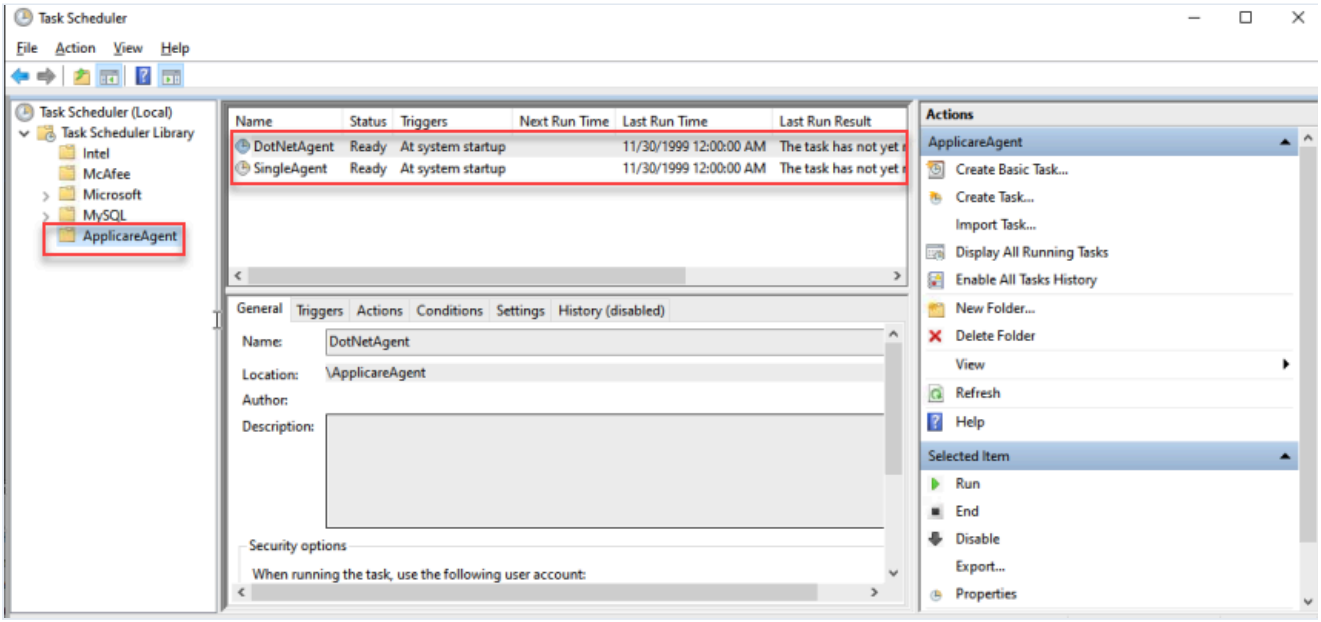
Assembly successfully added to the cache
ERROR ( message:Failed to add duplicate collection element "ApplicareAgentProxy". )

SUCCESS: Specified value was saved.

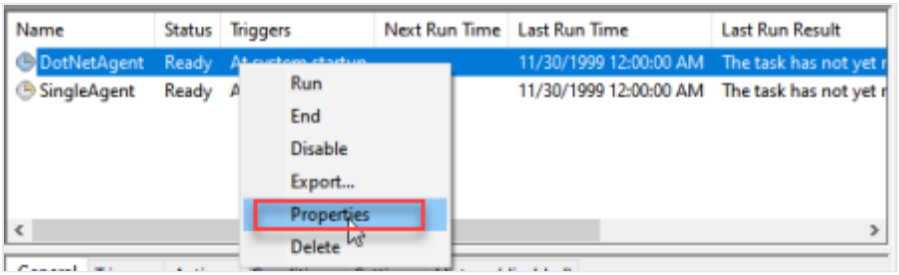
SUCCESS: Specified value was saved.
        1 file(s) moved.
SUCCESS: The scheduled task "\ApplicareAgent\DotNetAgent" has successfully been created.

C:\ApplicareSingleagent>
```

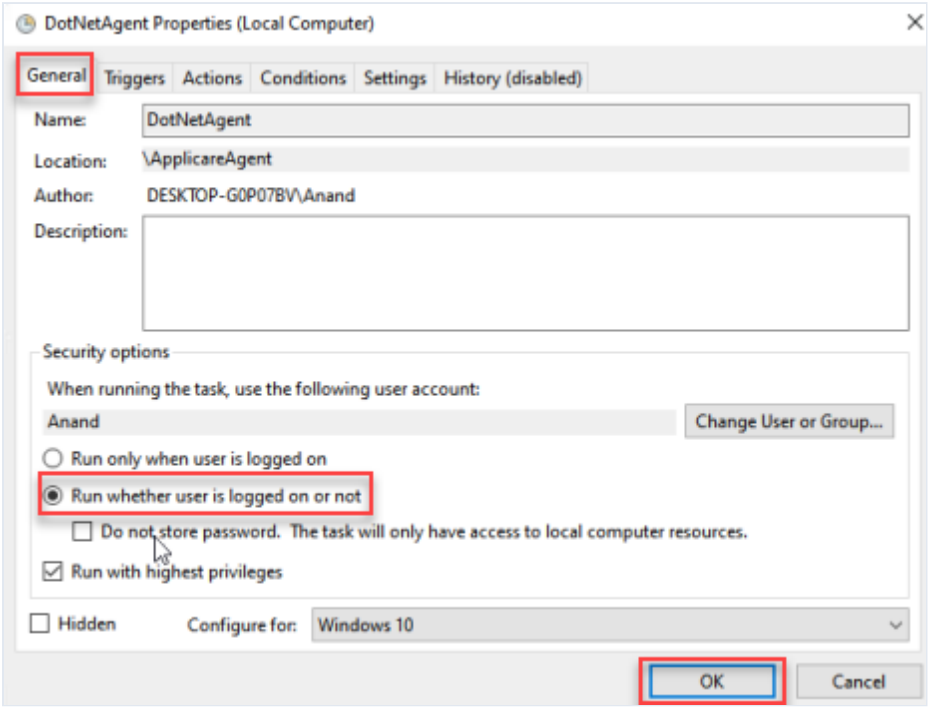
**Step 2:** Open Task Scheduler, expand the Task Scheduler Library and then select the **ApplicareAgent** Folder.



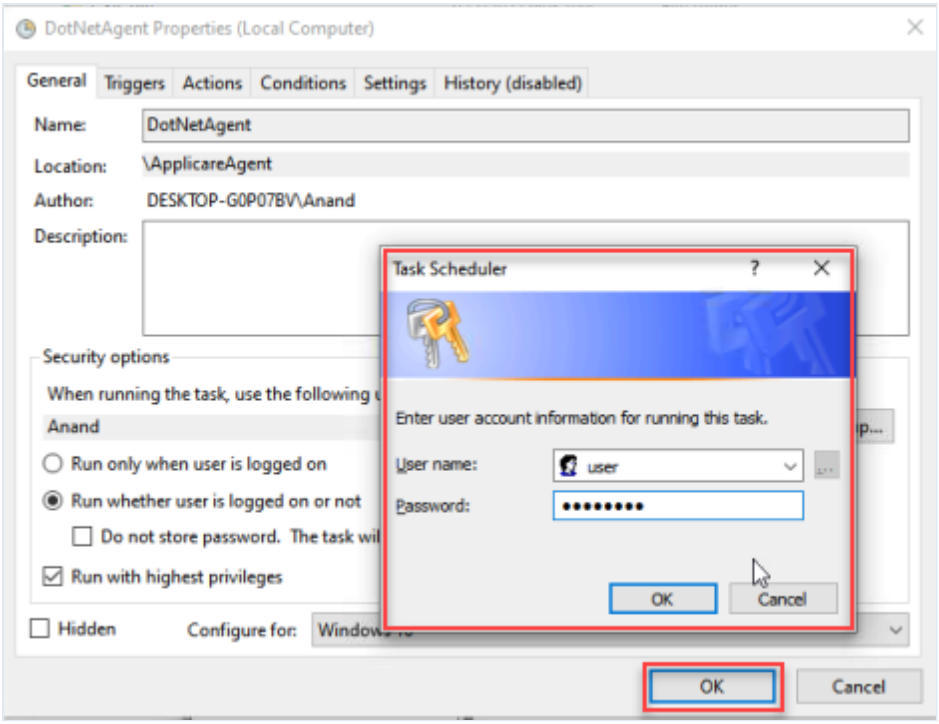

**Step 3:** Right-Click the **DotnetAgent** task and choose **Properties**.




**Step 4:** Select the Option to **Run whether user is logged on or not** and then click **OK**.

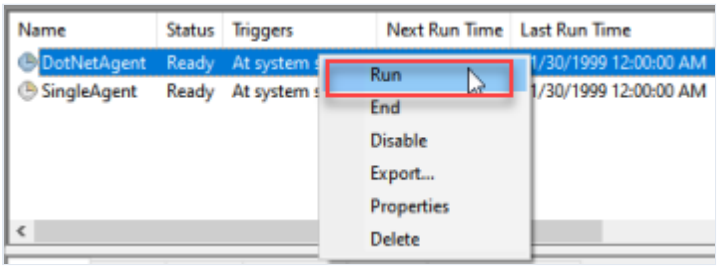



**Step 5:** Enter the **User name** and **Password** and click **OK**.

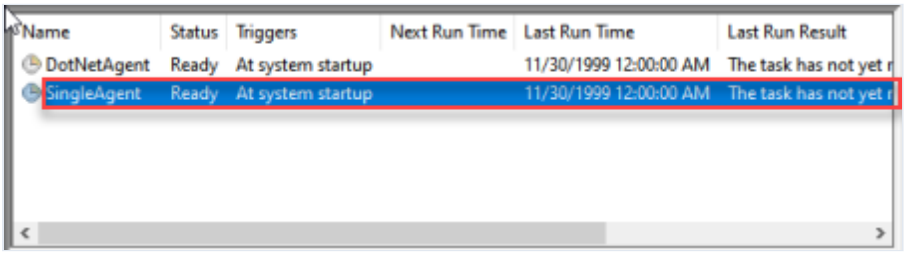


If you encounter error **2147943712** while saving the password. **Refer here**

**Step 6:** Right-click the **DotnetAgent** task and choose **Run**.




**Step 7:** Repeat **Steps 3,4,5 and 6** for the SingleAgent task in Task Scheduler.




## Monitoring with Applicare

CONFIGURATION GUIDES › .NET

# Monitor .NET applications running on Windows using Opentelemetry

Applicare 9.2 · Updated May 5, 2026 · dotnet, opentelemetry, windows · **Pending technical review**

To begin monitoring, Install the SingleAgent.

Once the **SingleAgent** installation is successfully completed, follow the subsequent steps below:

1. Open powershell in adminstrator mode and execute the following commands one by one.

```powershell
$module_url = "https://github.com/open-telemetry/opentelemetry-dotnet-instrumentation/releases/latest/download/OpenTelemetry.DotNet.Auto.psm1"
$download_path = Join-Path $env:temp "OpenTelemetry.DotNet.Auto.psm1"
Invoke-WebRequest -Uri $module_url -OutFile $download_path -UseBasicParsing
Import-Module $download_path
Install-OpenTelemetryCore
```

Additional commands.

```powershell
# List all available commands
Get-Command -Module OpenTelemetry.DotNet.Auto
```

`To monitor Dotnet Applications hosted in IIS, execute the below command`

```text
Register-OpenTelemetryForIIS
```

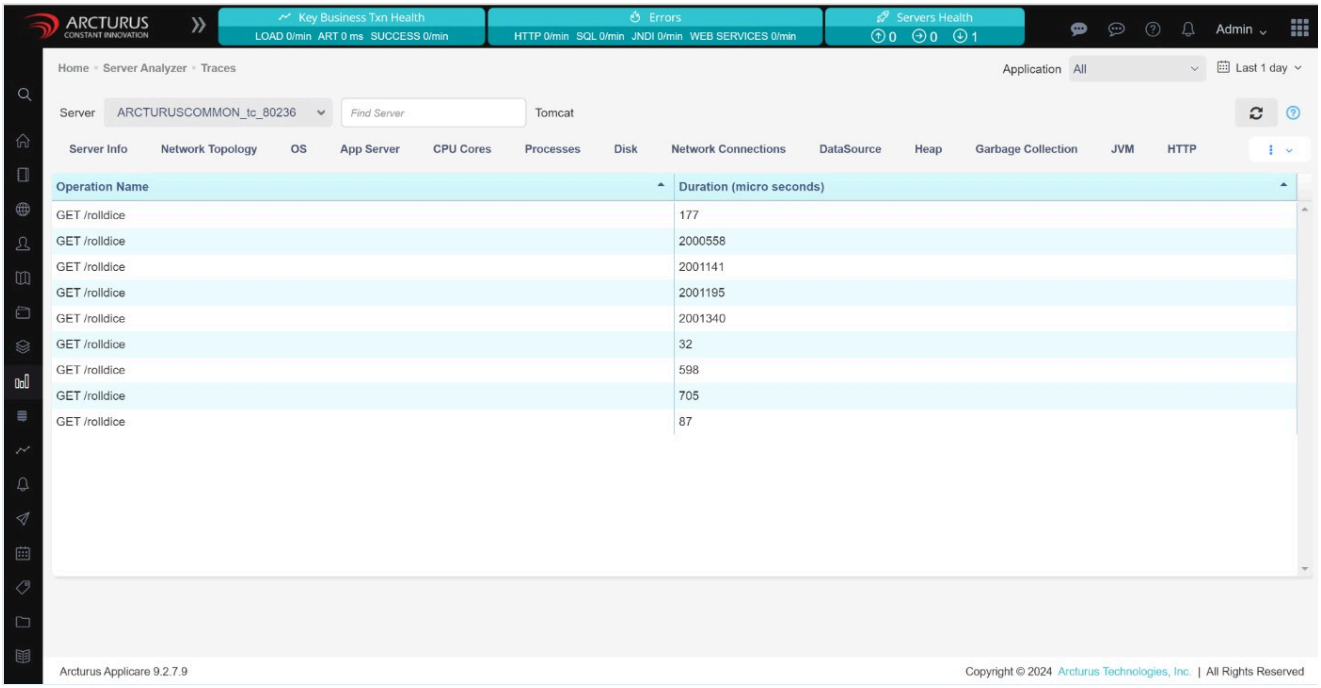
`Add below environment variables to start monitor both .NET Framework and .NET Core applications.`

```text
COR_ENABLE_PROFILING=1
COR_PROFILER={918728DD-259F-4A6A-AC2B-B85E1B658318}
COR_PROFILER_PATH=C:\Program Files\OpenTelemetry .NET AutoInstrumentation\win-x64\OpenTelemetry.AutoInstrumentation.Native.dll
CORECLR_ENABLE_PROFILING=1
CORECLR_PROFILER={918728DD-259F-4A6A-AC2B-B85E1B658318}
CORECLR_PROFILER_PATH=C:\Program Files\OpenTelemetry .NET AutoInstrumentation\win-x64\OpenTelemetry.AutoInstrumentation.Native.dll
DOTNET_ADDITIONAL_DEPS=C:\Program Files\OpenTelemetry .NET AutoInstrumentation\AdditionalDeps
DOTNET_SHARED_STORE=C:\Program Files\OpenTelemetry .NET AutoInstrumentation\store
DOTNET_STARTUP_HOOKS=C:\Program Files\OpenTelemetry .NET AutoInstrumentation\net\OpenTelemetry.AutoInstrumentation.StartupHook.dll
OTEL_DOTNET_AUTO_HOME=C:\Program Files\OpenTelemetry .NET AutoInstrumentation
OTEL_DOTNET_AUTO_INSTALL_DIR=C:\Program Files\OpenTelemetry .NET AutoInstrumentation
OTEL_DOTNET_AUTO_LOGS_CONSOLE_EXPORTER_ENABLED=true
OTEL_DOTNET_AUTO_METRICS_CONSOLE_EXPORTER_ENABLED=true
OTEL_DOTNET_AUTO_TRACES_CONSOLE_EXPORTER_ENABLED=true
OTEL_DOTNET_AUTO_ENTITYFRAMEWORKCORE_SET_DBSTATEMENT_FOR_TEXT=true
OTEL_DOTNET_AUTO_SQLCLIENT_SET_DBSTATEMENT_FOR_TEXT=true
OTEL_EXPORTER_OTLP_ENDPOINT=http://localhost:4418
OTEL_SERVICE_NAME=<APPLICARE_AGENT_NAME>
```

**Note:** `<APPLICARE_AGENT_NAME>`: Provide a unique, descriptive name that will help you identify this specific container or application within the Applicare monitoring console.

`After the above settings restart the .NET application` or IIS.

The collected traces will be shown in Server Analyzer -> Telemetry Traces screen in Applicare console.



CONFIGURATION GUIDES › JAVA

# Applicare Java Requirements

Applicare 9.2 · Updated April 14, 2026 · java · **Pending technical review**

### Applicare Controller

### Windows

https://download.oracle.com/java/25/archive/jdk-25.0.1_windows-x64_bin.zip

### Linux

https://arc-temp.s3.amazonaws.com/java-1.8.0-openjdk-1.8.0.275.b01-1.el8_3.x86_64.zip

### Applicare SingleAgent

**Windows** https://github.com/ojdkbuild/ojdkbuild/releases/download/java-1.8.0-openjdk-1.8.0.252-2.b09/java-1.8.0-openjdk-jre-1.8.0.252-2.b09.ojdkbuild.windows.x86_64.zip

**Linux** https://github.com/AdoptOpenJDK/openjdk8-binaries/releases/download/jdk8u265-b01/OpenJDK8U-jre_x64_linux_hotspot_8u265b01.tar.gz

CONFIGURATION GUIDES › JAVA

# Install SingleAgent in the Java Application

Applicare 9.2 · Updated August 22, 2024 · java, singleagent · **Pending technical review**

**Step 1:** Install Applicare SingleAgent on the machine where **Java application** is running. Follow the installation instructions for **Installing Applicare SingleAgent**

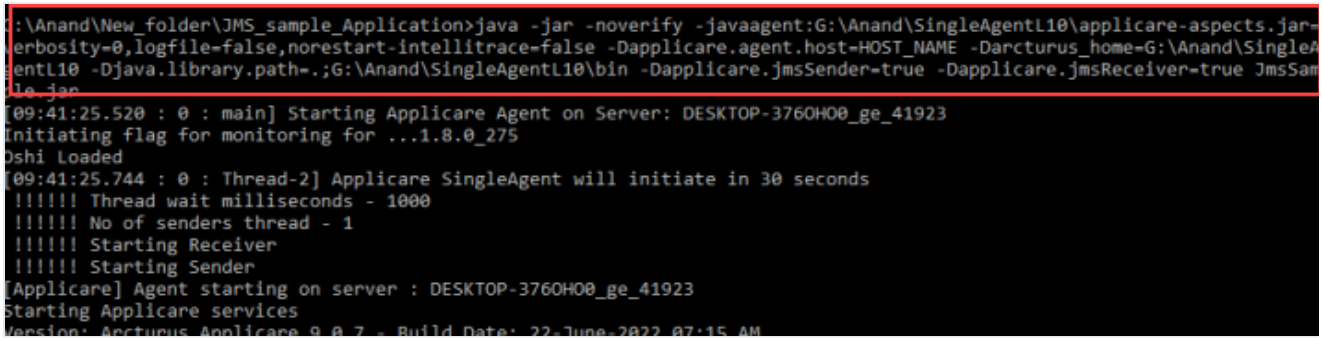
**Step 2:** Run the JAR file directly with Applicare SingleAgent.

**Step 3:** Assuming **javaapp.jar** is the executable JAR application that needs to be monitored, Use the following command to run the JAR.

To deploy Applicare SingleAgent, run the **Java Application** with the following arguments:

- -noverify
- -javaagent:**<ApplicareAgentDir>**\applicare-aspects.jar=verbosity=0,logfile=false,norestart-intellitrace=false
- -Darcturus_home=**<ApplicareAgentDir>**
- -Dapplicare.agent.host=HOST_NAME
- -Djava.library.path=.;**<ApplicareAgentDir>**\bin
- -Dlogback.configurationFile=**<ApplicareAgentDir>**\logback\logback.xml

**e.g.** java -jar -noverify -javaagent:**G:\ApplicareSingleAgent**\applicare-aspects.jar=verbosity=0,logfile=false,norestart-intellitrace=false -Dapplicare.agent.host=HOST_NAME -Darcturus_home=**G:\ApplicareSingleAgent** -Djava.library.path=.;**G:\ApplicareSingleAgent**\bin -Dlogback.configurationFile=**G:\ApplicareSingleAgent**\logback\logback.xml **javaapp.jar**




Few JVM Arguments

a) To enable IntelliTrace add **-DenableIntellitraceDaemon=true** to startup arguments.

**If Java Application is running as a service follow the steps in the below link.**

## Java Application running as a service

Another steps to install Applicare SingleAgent with Wrapper.

## Docs Home

CONFIGURATION GUIDES › JAVA

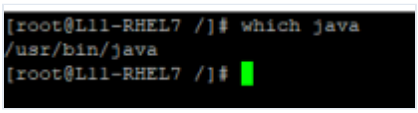
# Finding the Java Installation Directory

Applicare 9.2 · Updated September 13, 2024 · java · **Pending technical review**

Follow these steps to find Java Installation path.

**Steps 1:** Execute below command

```text
which java
```




**Steps 2:** Run the **ll** command with the directory path obtained from the previous command.

e.g. **ll /usr/bin/java**




**Steps 3:** Run the **ll** command with the directory path obtained from the previous command. This will reveal the path to the Java installation directory.

e.g. **ll /etc/alternatives/java**




## Monitoring with Applicare

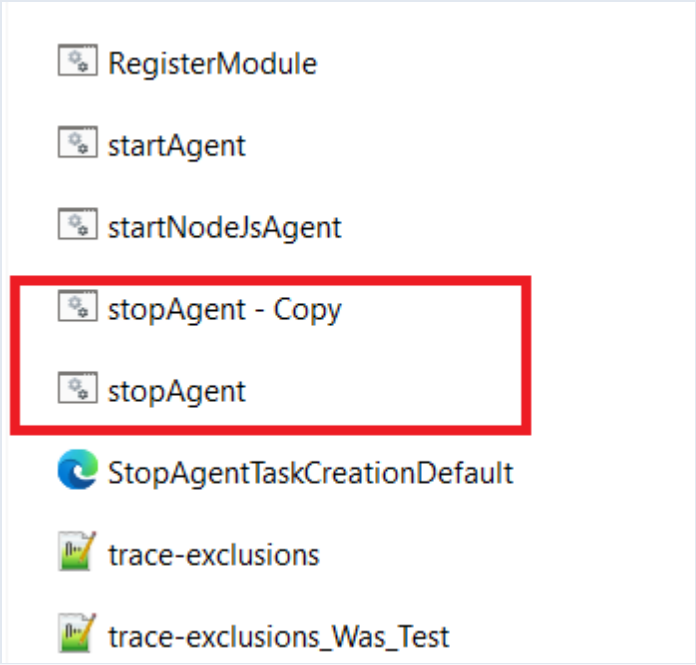
CONFIGURATION GUIDES › JAVA

# Restarting the SingleAgent

Applicare 9.2 · Updated September 13, 2024 · singleagent, java · **Pending technical review**

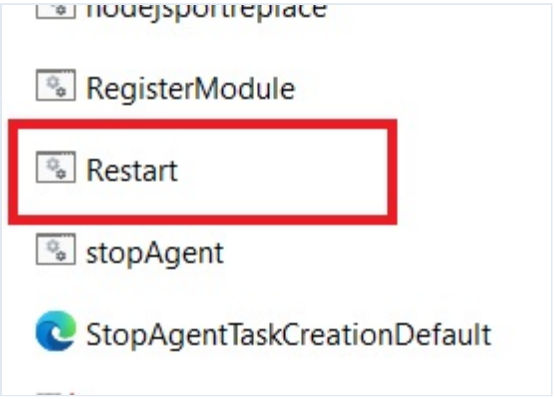
1. Navigate to the ApplicareSingleAgent home directory.

2. Copy and Paste the **StopAgent.bat** file within the same directory. This will create a file **stopAgent - Copy.bat**.




3. Rename the **stopAgent - Copy.bat** file to **Restart.bat** Open the file, replace its existing content with the provided content, **save** the changes.

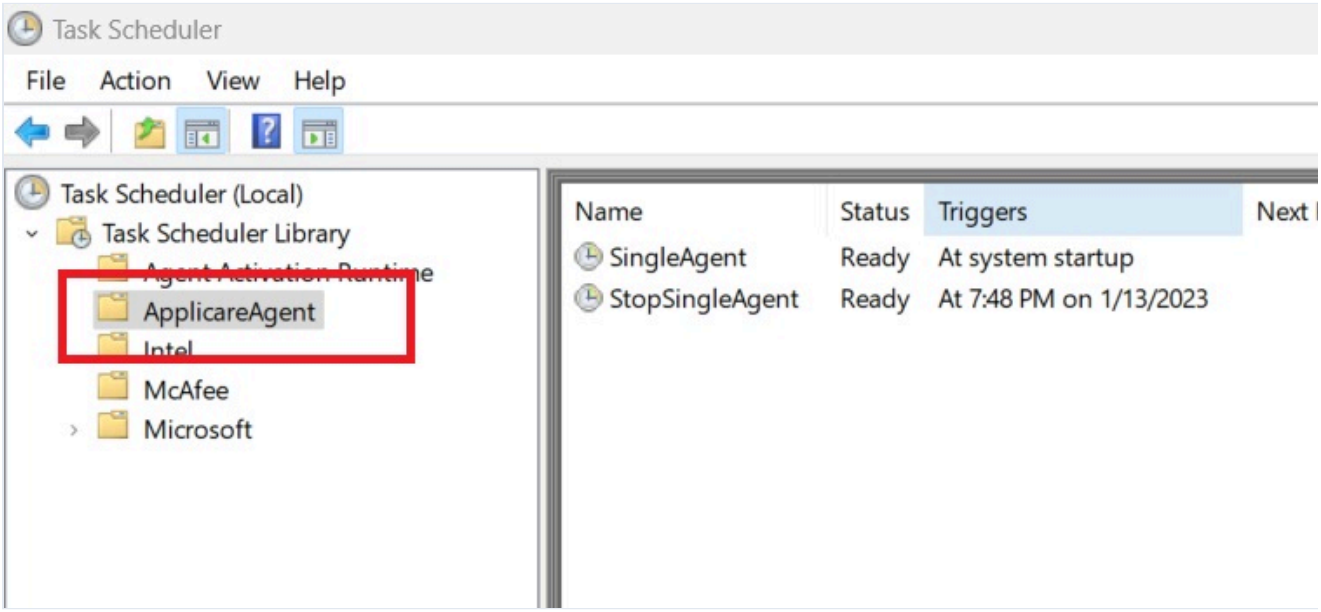
```bat
@echo off
schtasks /run /tn "\ApplicareAgent\StopSingleAgent"
timeout /t 10 /nobreak
schtasks /run /tn "\ApplicareAgent\SingleAgent"
```



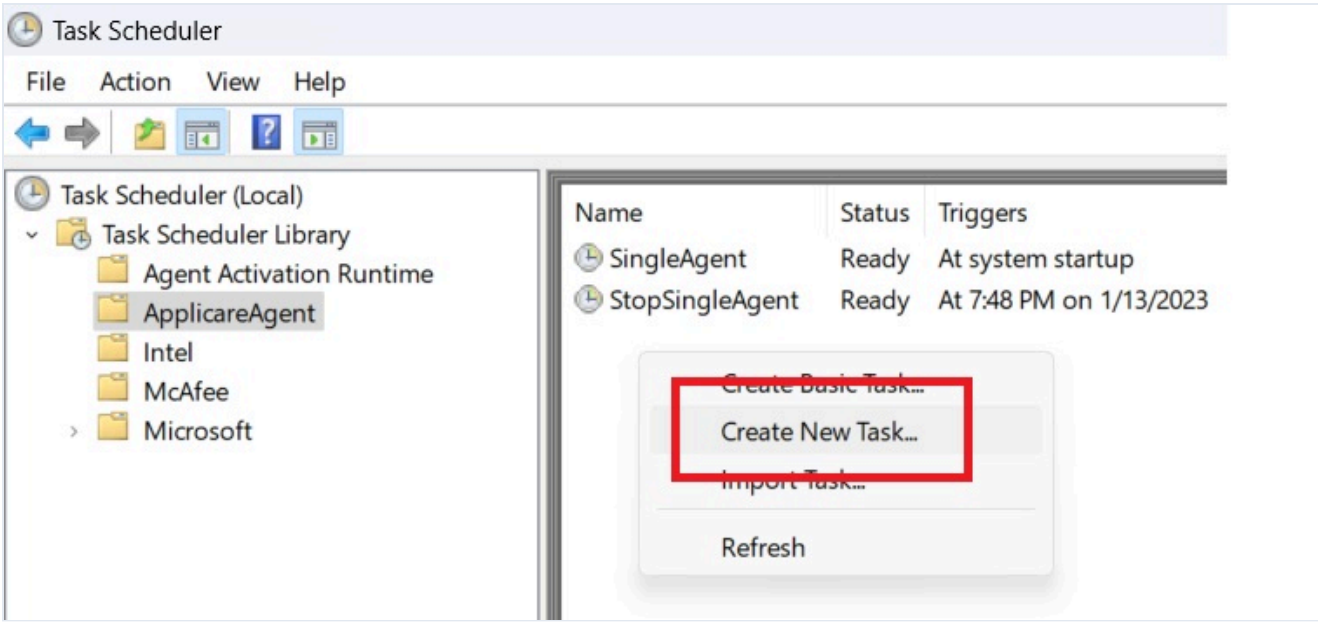
Restart.bat

```
@echo off
schtasks /run /tn "\ApplicareAgent\StopSingleAgent"
timeout /t 10 /nobreak
schtasks /run /tn "\ApplicareAgent\SingleAgent"
```

4. Open Task Scheduler in Administrator mode and choose the **ApplicareAgent** directory.




5. Right-click inside the Task Scheduler and select the **Create New Task** option.



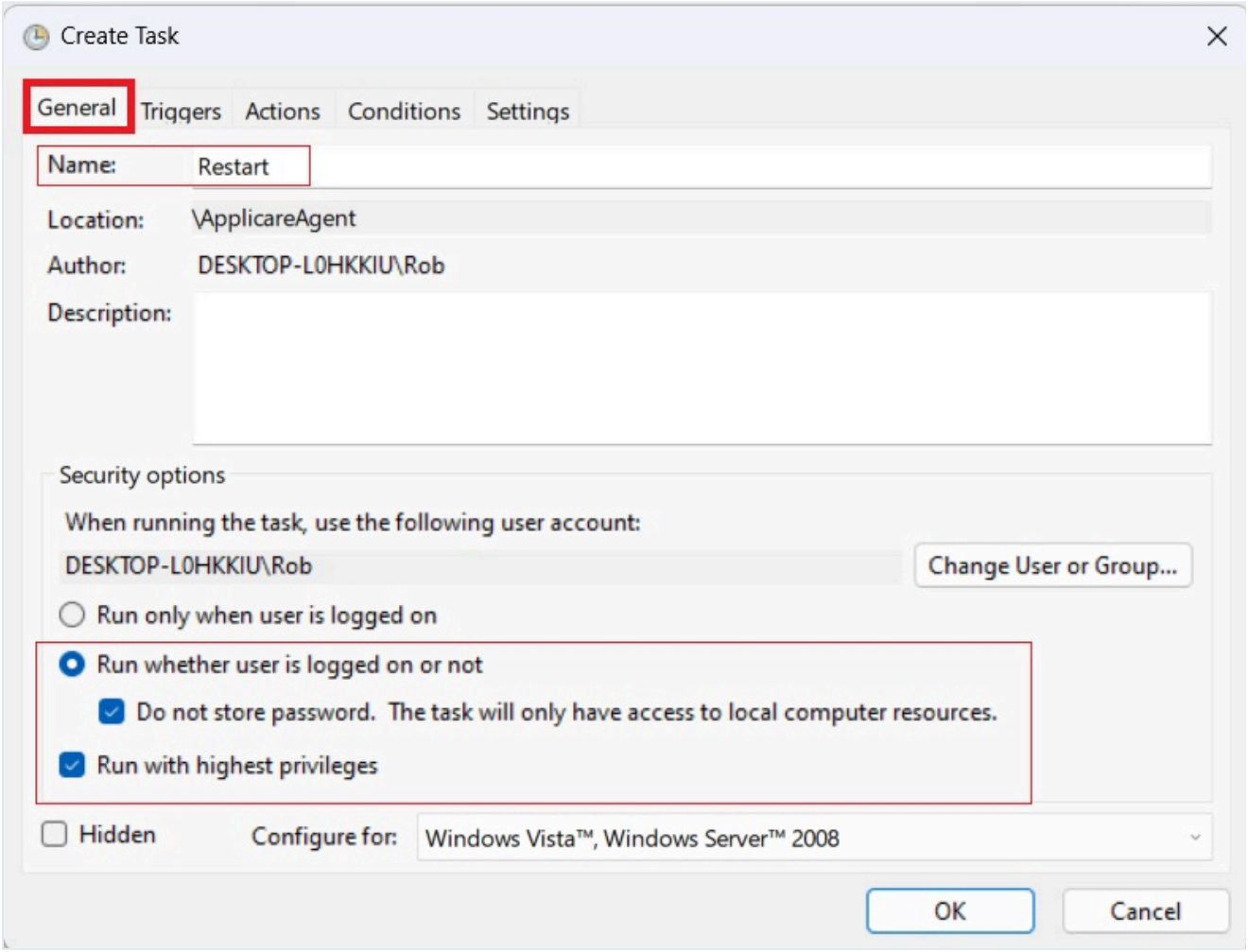

6. In the General tab:

a. Enter the name **Restart**.

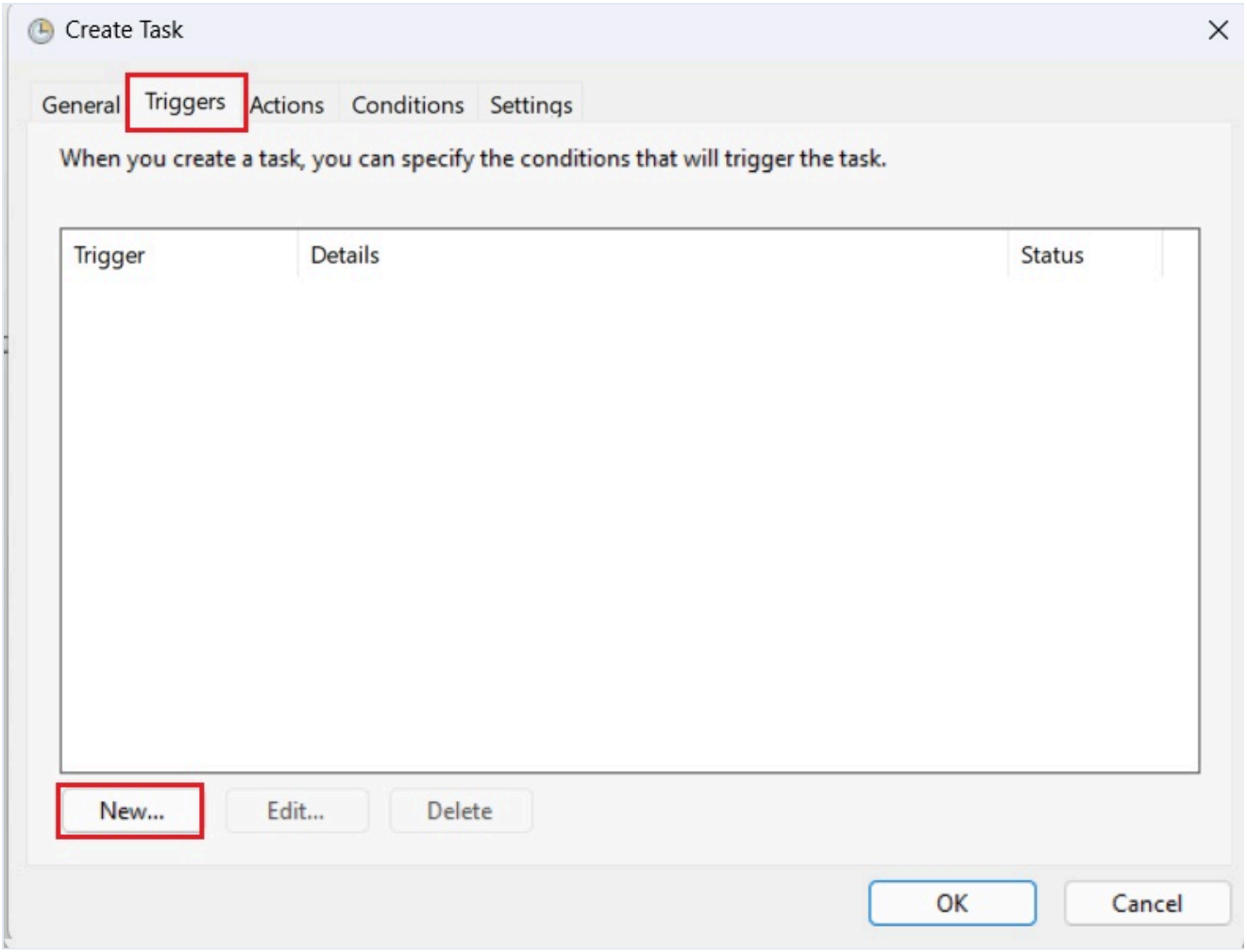
b. Choose **Run whether user is logged on or not**.

c. Select **Do not Store Password**.

d. Select **Run with highest privileges**.




7. Go to the **Triggers Tab** and click the **New** button.



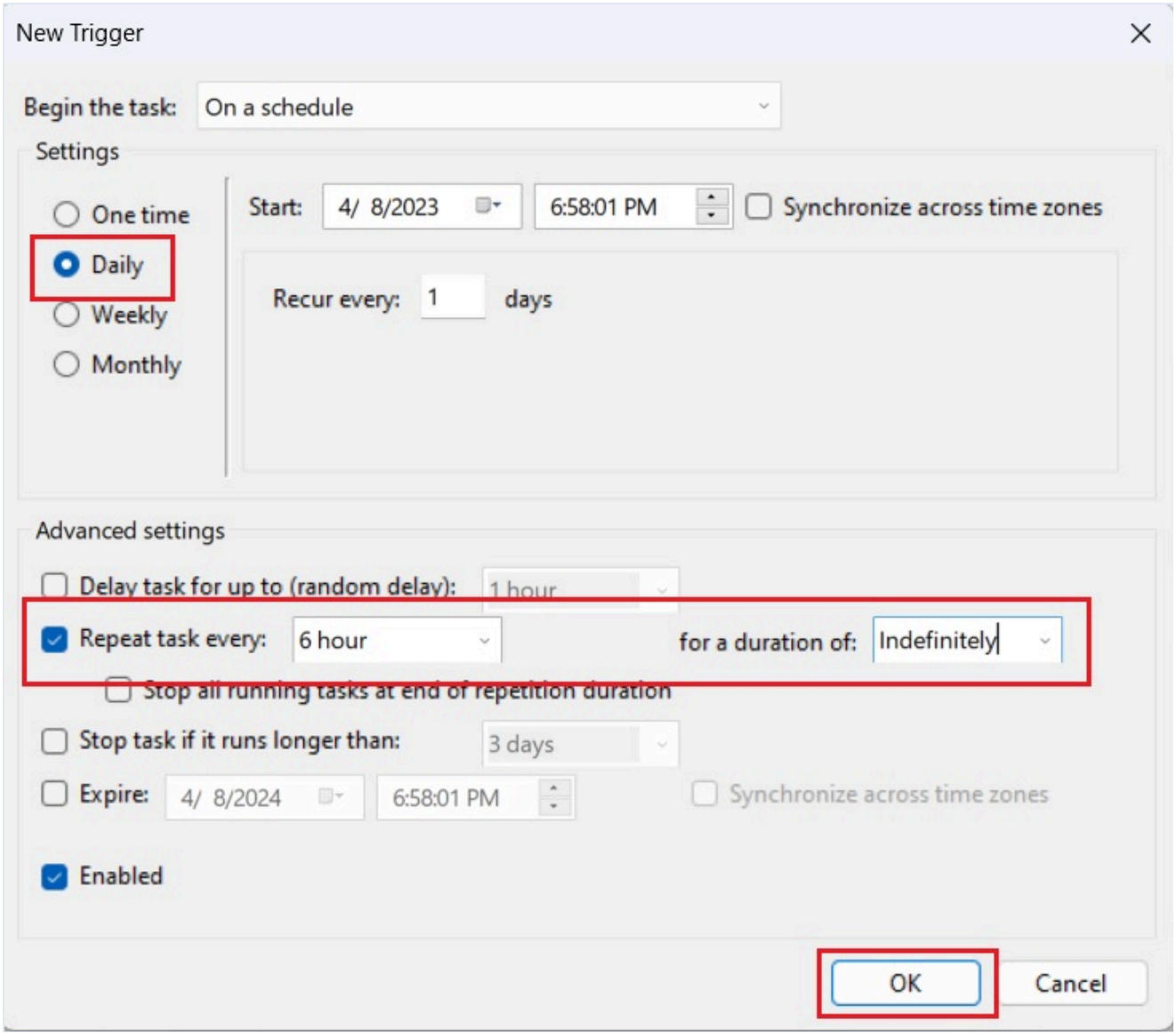

8. Set the below options.

a. Choose **Daily**.

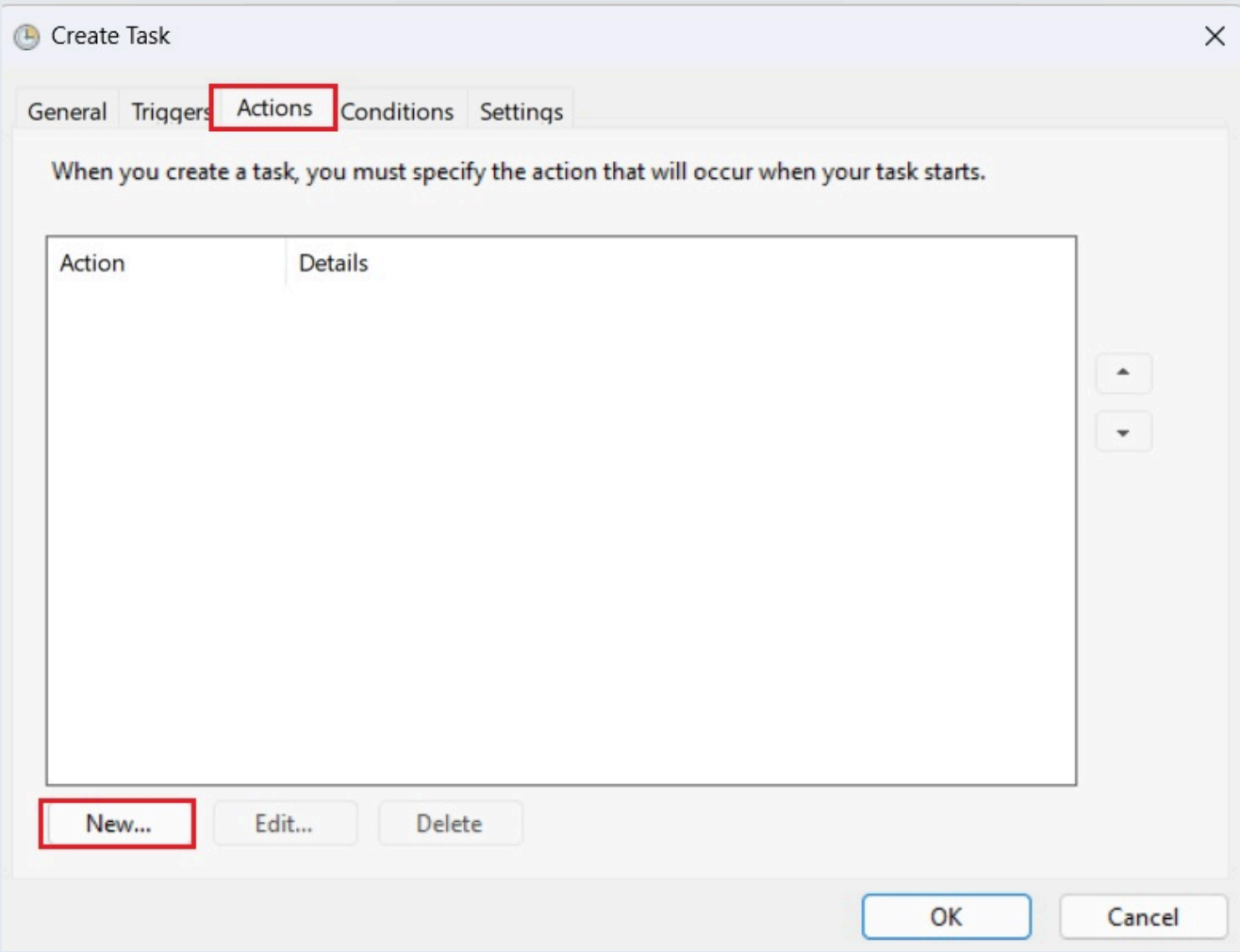
b. Select the **Repeat Task Every** option.

c. Set it to **6 hours** manually (this option may not be available in the dropdown).

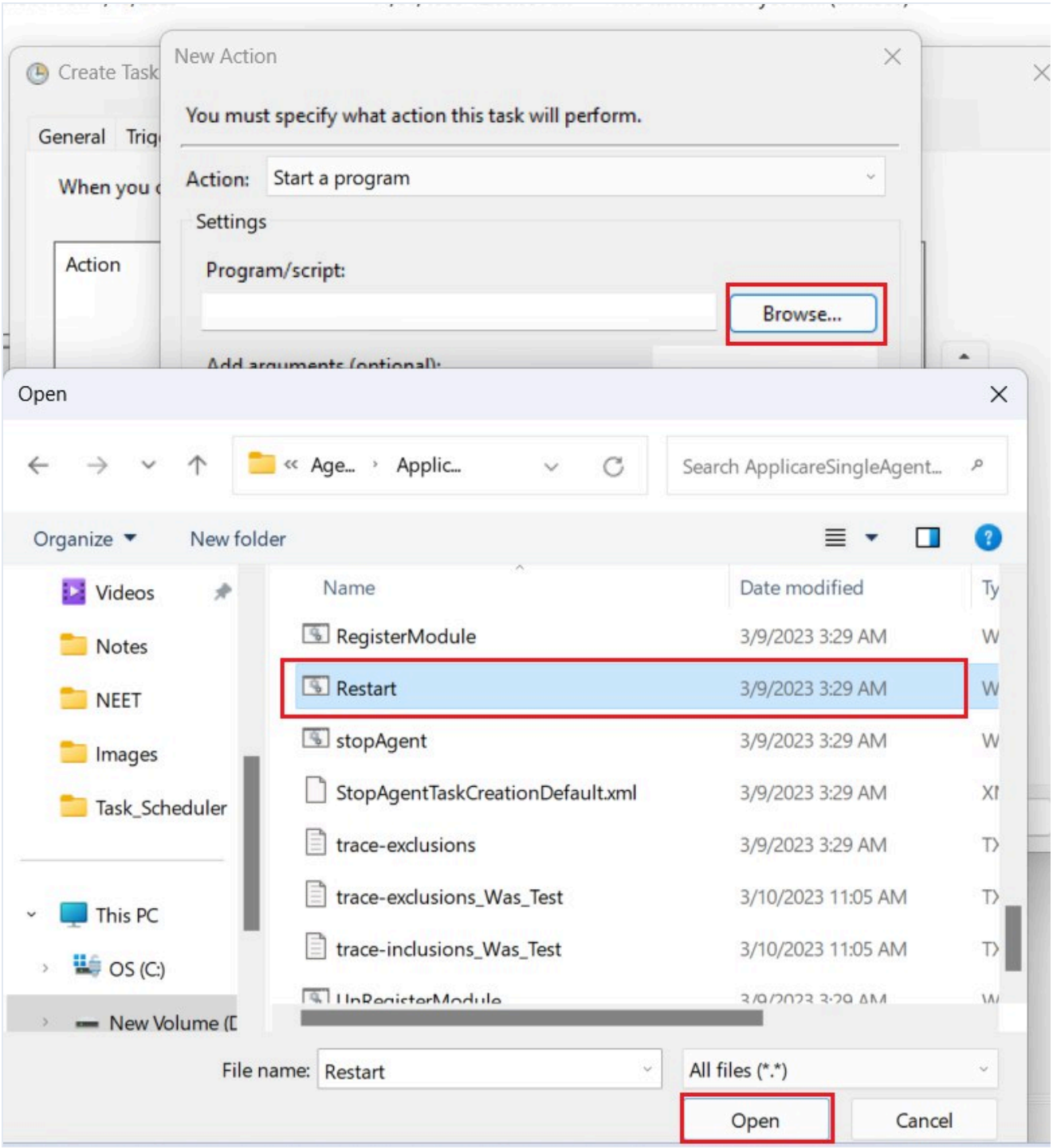
d. Set the duration to **Indefinitely** and click **OK**.



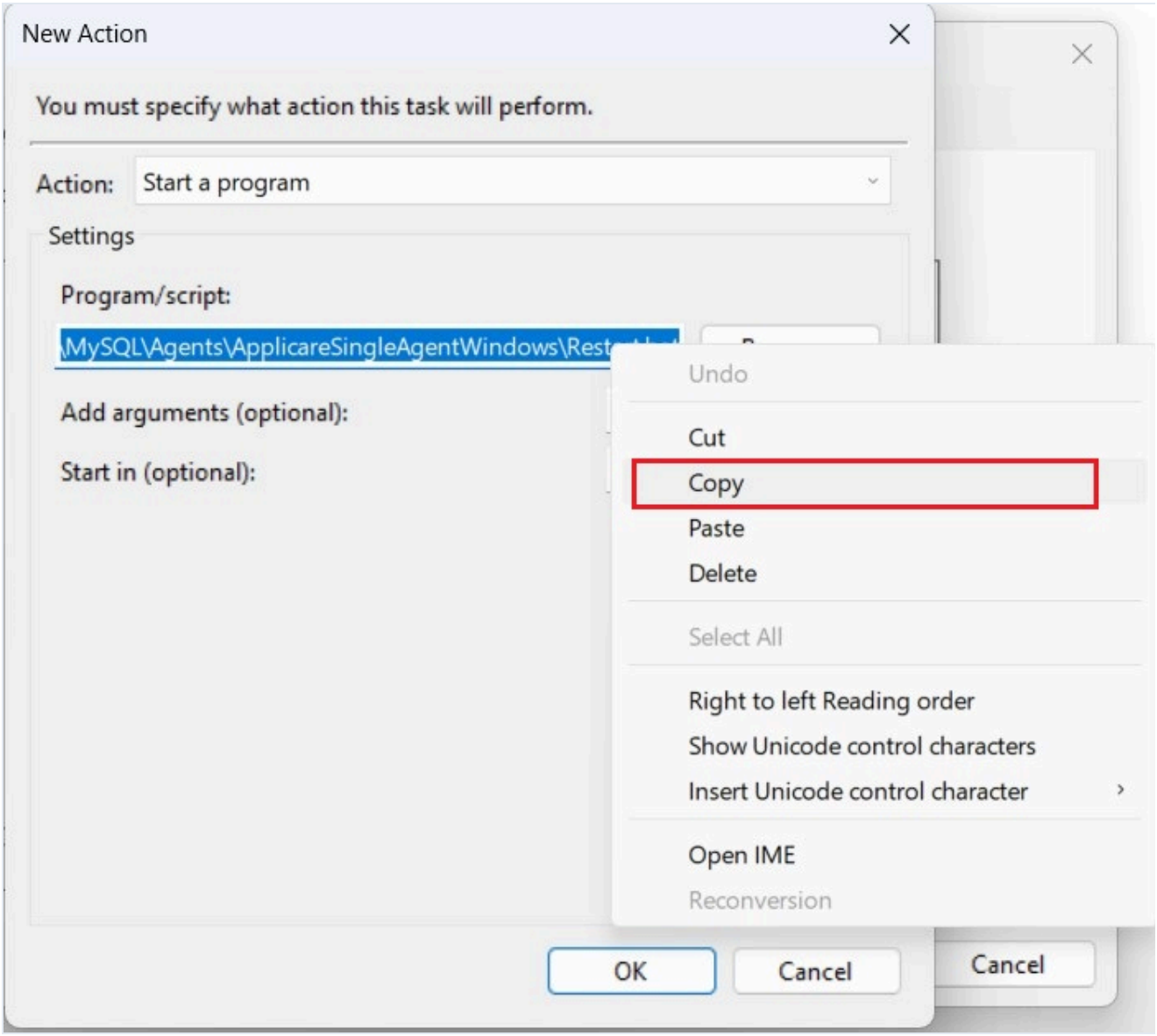

9. Go to the **Actions Tab** and click the **New** button.



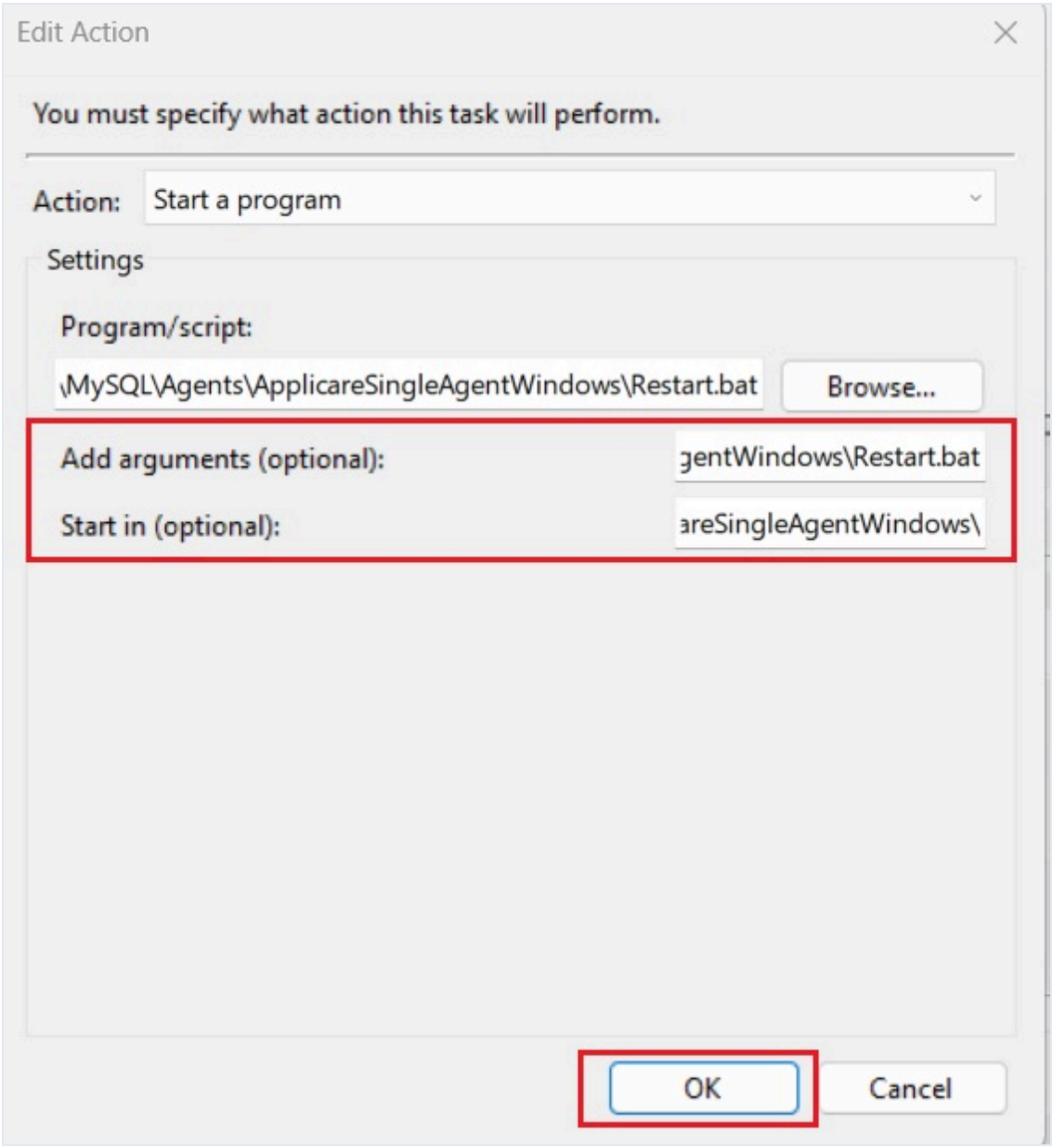

10. Click the **Browse** button, select the **Restart.bat** file, and then click the **Open**.



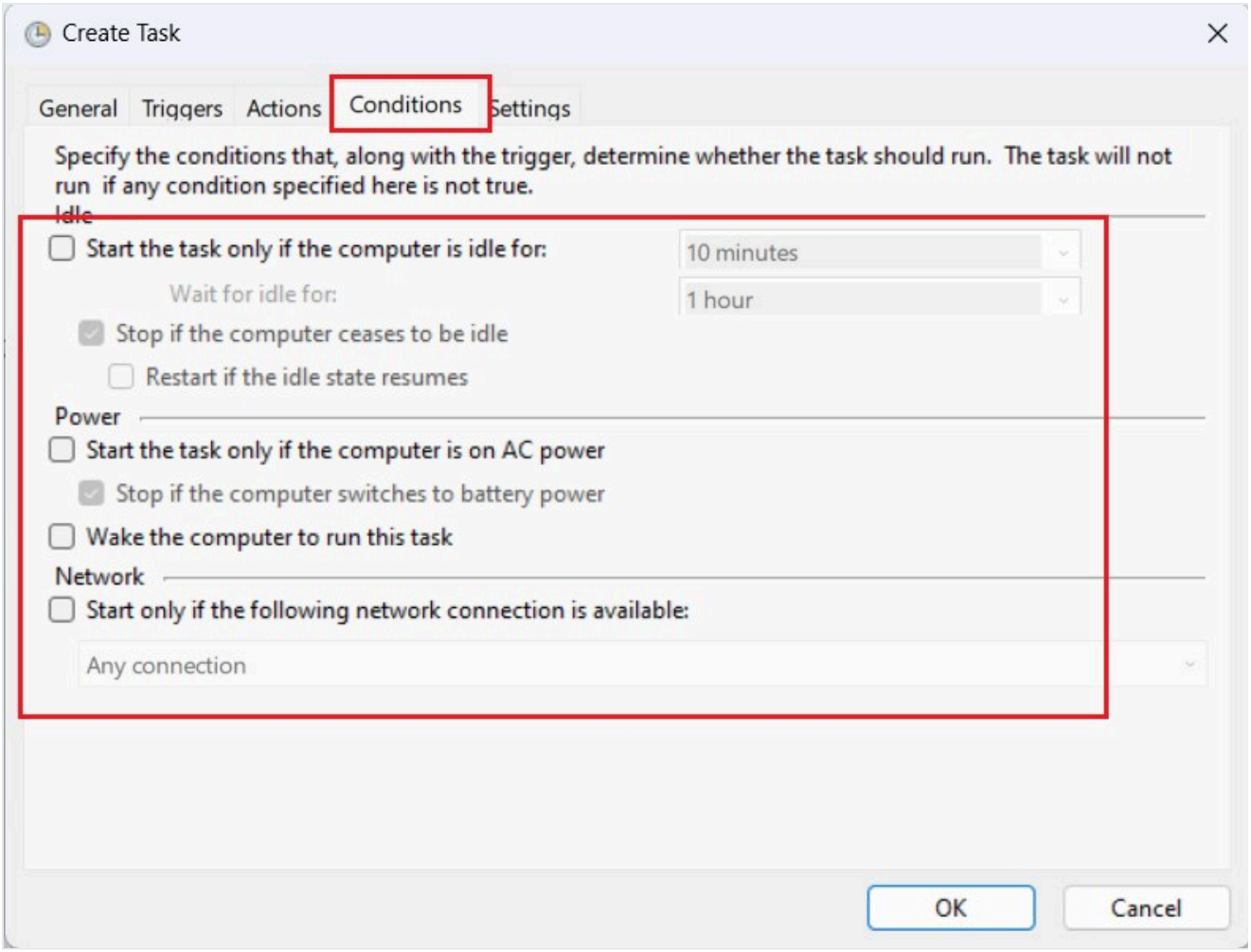

11. Copy the full **Program/script path and paste** it into both the **Add Arguments (optional)** and **start in (optional)** fields.




12. In the **Start in (optional)** field, remove the **Restart.bat** keyword, and then **OK**.




13. Go to the **Conditions Tab** and **uncheck** all the **checkboxes**.

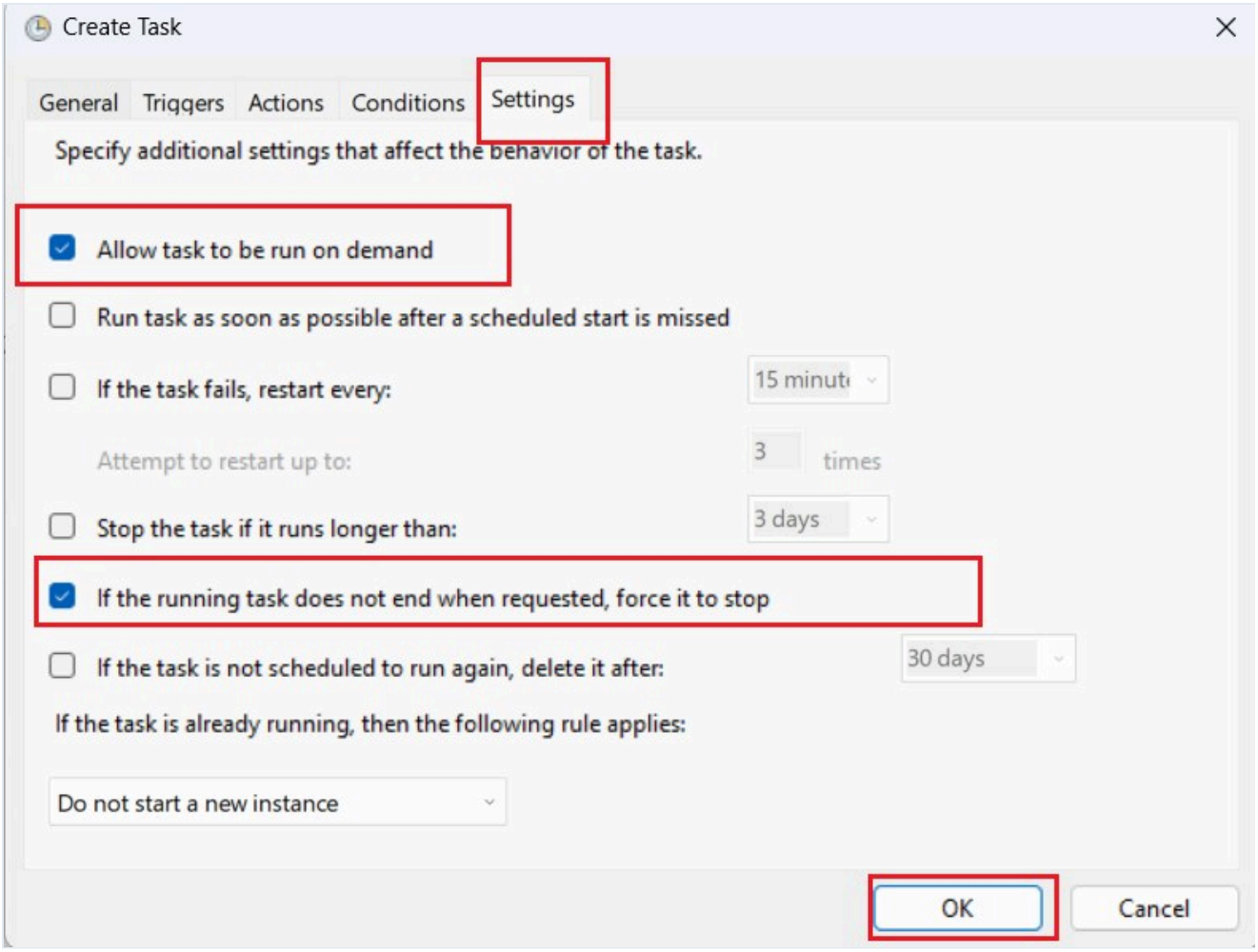



14. Go to the **Settings Tab** and check only following **two options:**

a. Allow task to be run on demand.

b. If the running task does not end when requested, force it to stop.

c. Click OK.




## Monitoring with Applicare

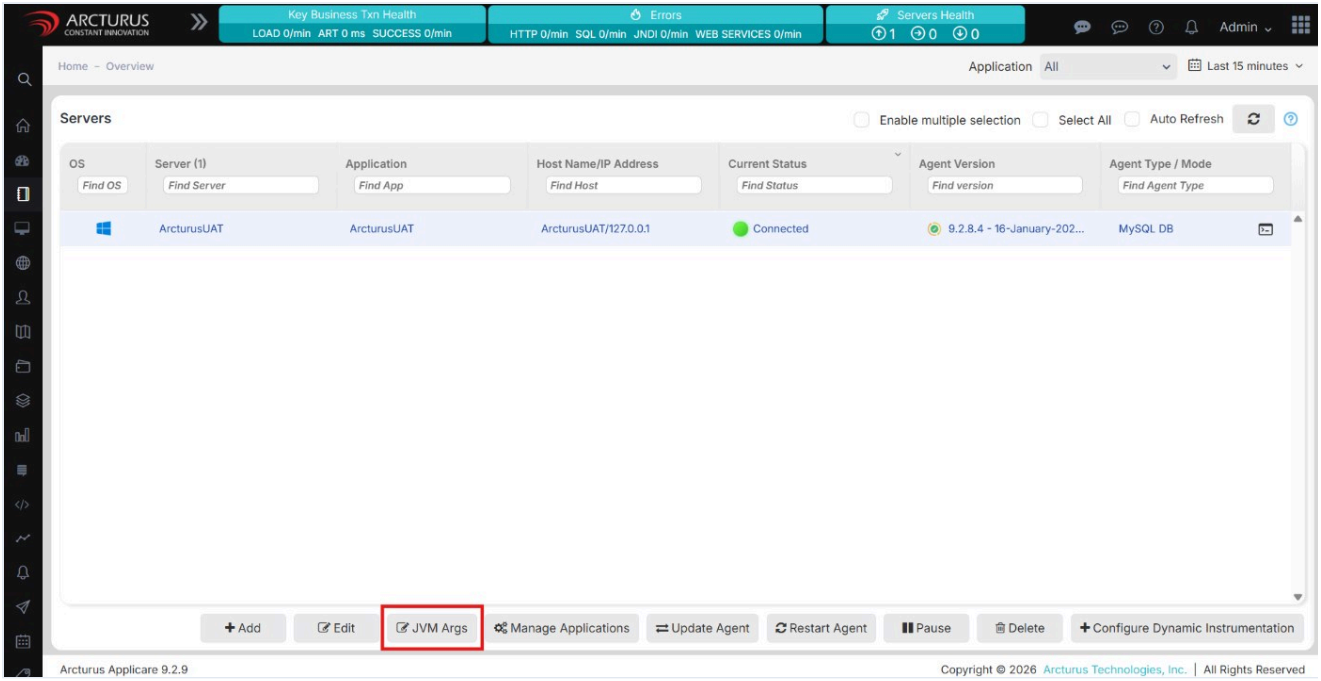
CONFIGURATION GUIDES › JAVA

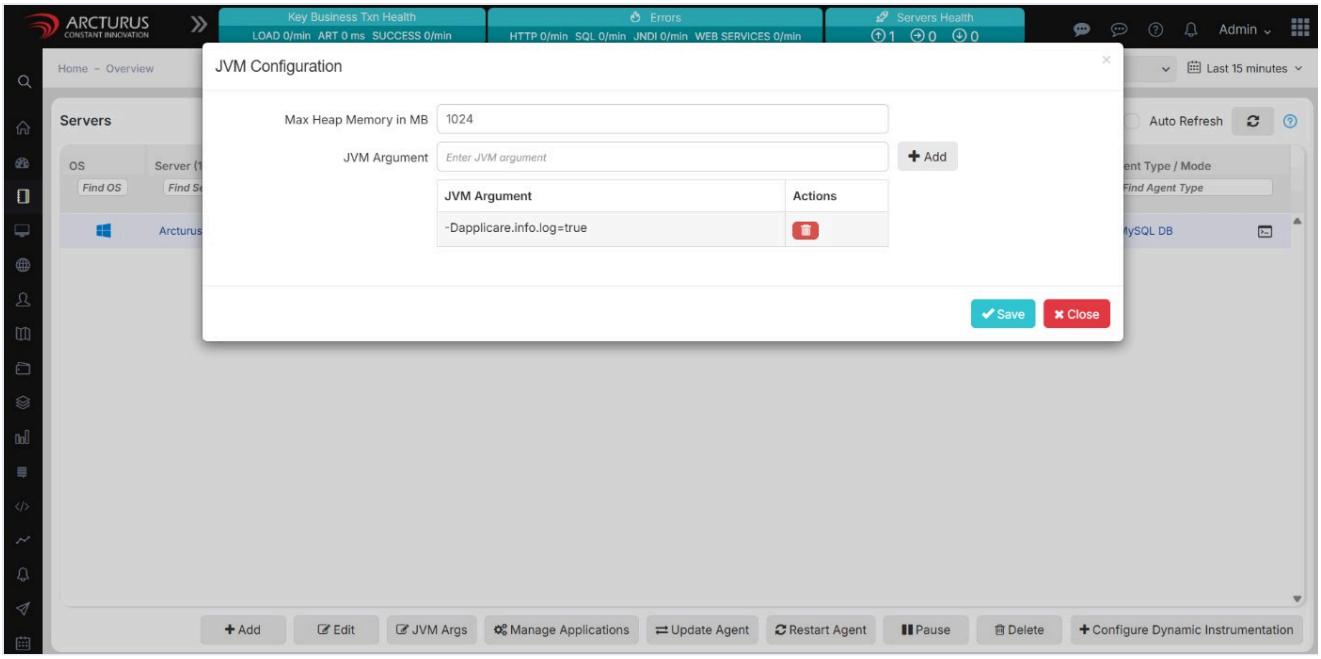
# Customize Agent heap memory and jvm arguments

Applicare 9.2 · Updated January 16, 2026 · java, singleagent · **Pending technical review**

Managing JVM configurations manually is time-consuming, requiring remote server access and direct editing of configuration files. Applicare simplifies this by providing a centralized UI to manage these settings. This eliminates the need for manual file intervention and ensures consistency across your environment.

1. Navigate to the **Overview** screen and select your server.
2. Click the **JVM Args** button to open the configuration popup.
3. Add, remove, or edit JVM arguments and heap memory as needed.
4. **Save** your changes.
5. **Wait two minutes** before restarting the Agent to allow the new configuration to sync.




ARCTURUS
CONSTANT INNOVATION
Key Business Txn Health
LOAD 0/min ART 0 ms SUCCESS 0/min
Errors
HTTP 0/min SQL 0/min JNDI 0/min WEB SERVICES 0/min
Servers Health
Admin
Home - Overview
Last 15 minutes
Servers
Auto Refresh
OS
Find OS
Arcturus
MySQL DB
JVM Configuration
Max Heap Memory in MB
1024
JVM Argument
Enter JVM argument
Add
JVM Argument
Actions
-Dapplicare.info.log=true
Save
Close
Add
Edit
JVM Args
Manage Applications
Update Agent
Restart Agent
Pause
Delete
Configure Dynamic Instrumentation

CONFIGURATION GUIDES › JAVA

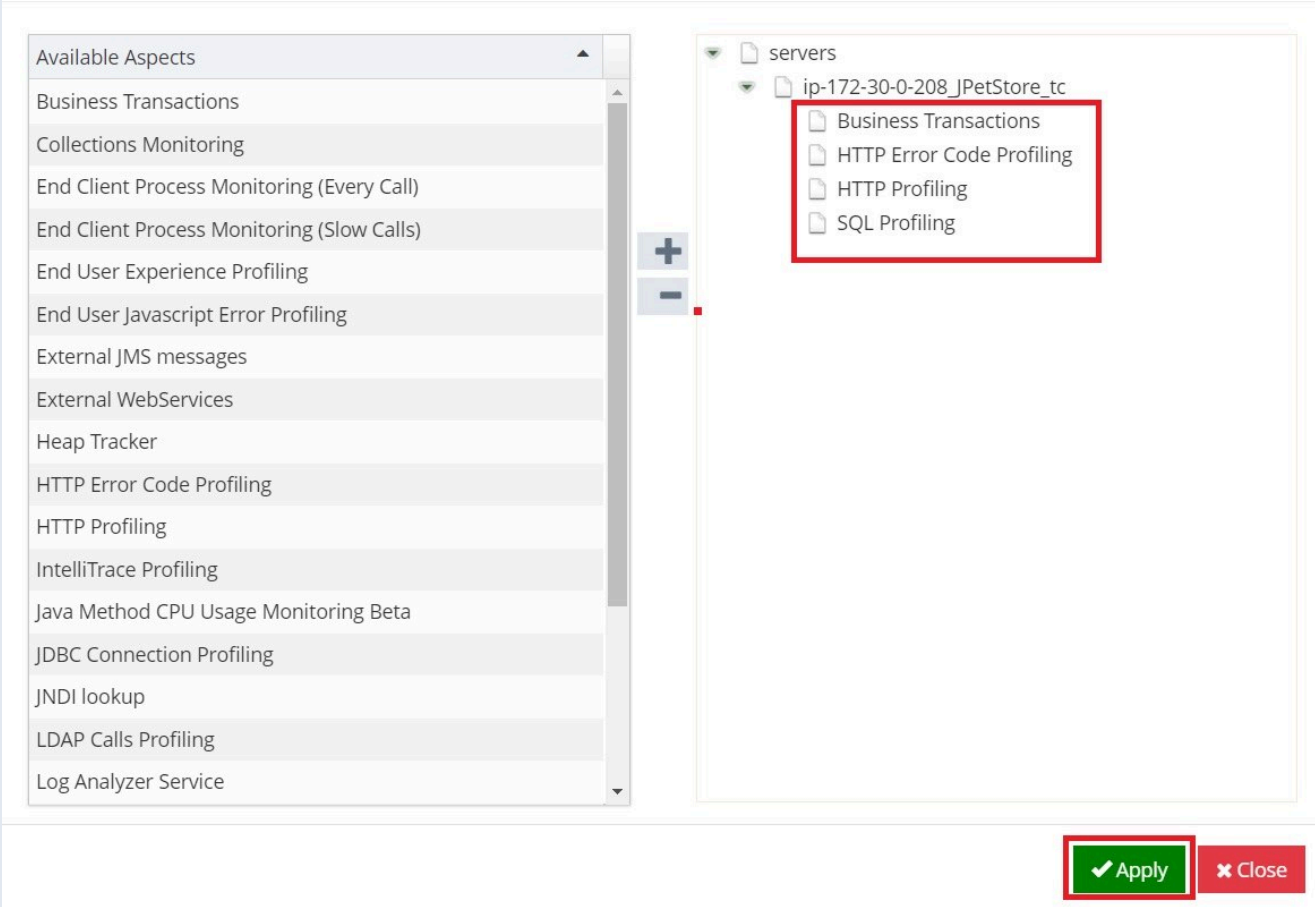
# Java Application Server Configuration Settings

Applicare 9.2 · Updated September 13, 2024 · java, singleagent · **Pending technical review**

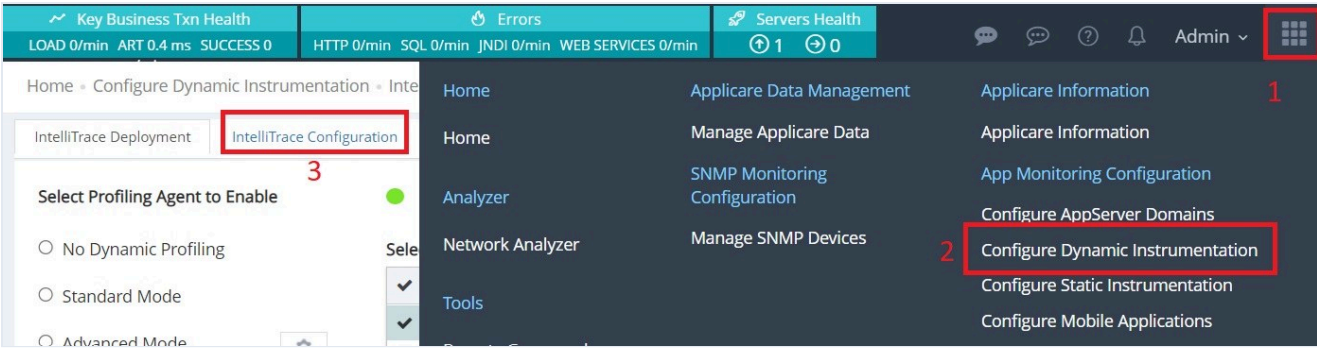
1. Navigate to the **Overview** menu.

2. Choose the **server** from the grid and then click the **Configure Dynamic Instrumentation** button.

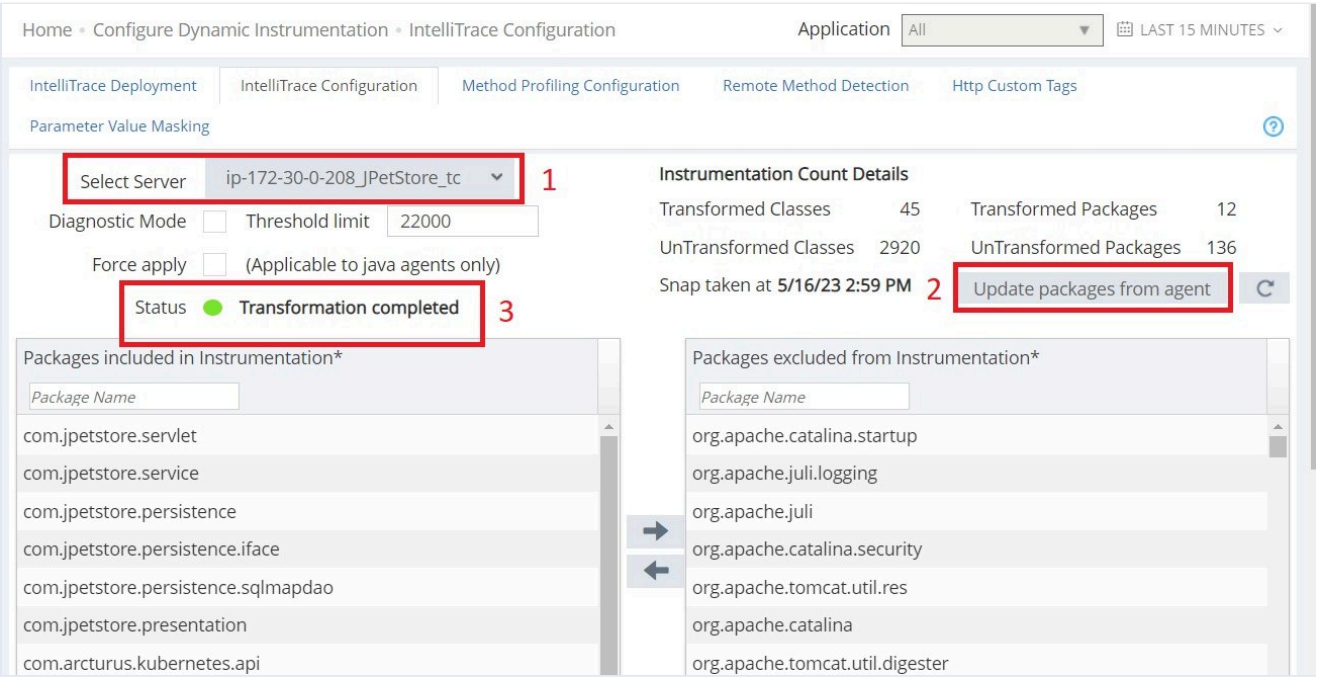
3. On the right hand-side, select only the **Business Transactions, HTTP Error Code Profiling, HTTP Profiling** and **SQL Profiling** aspects and then click the **Apply** button.



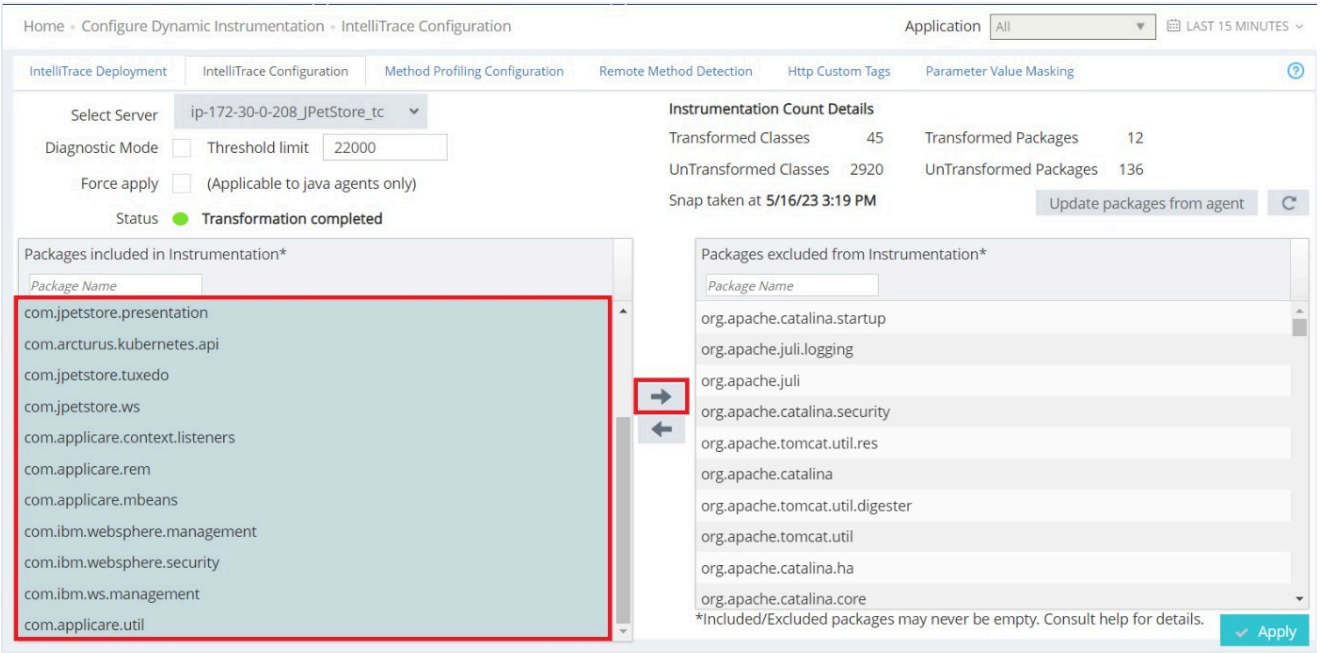

4. In the right-hand side menu, go to **Configure Dynamic Instrumentation** and select the **IntelliTrace Configuration** tab.



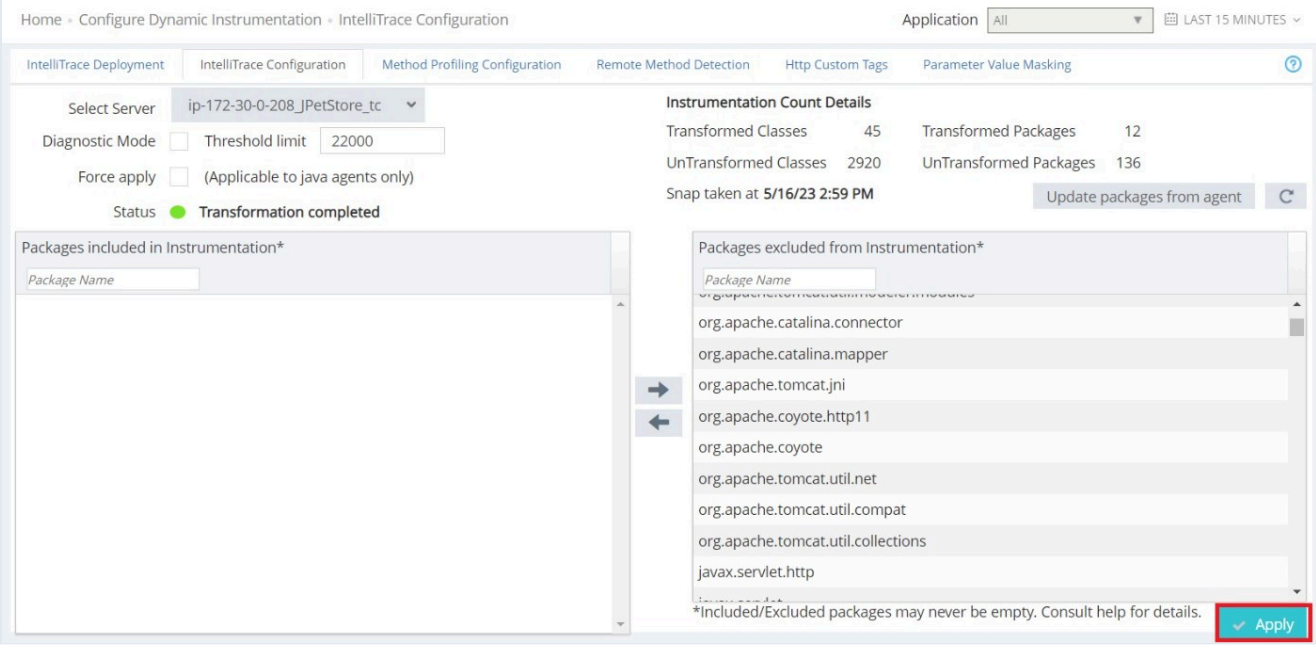
5. Select the **Server** from the server dropdown menu and click the **Update Packages from Agent** button. Then, wait for 2 minutes. Once the transformation is complete, the status field will display **Transformation completed** message. If the message "Transformation in progress" is displayed, please check again after 10 minutes.




6. After the **Transformation completed** message appears, select all the packages on the left hand side and move them to the right hand side.




7. Click the **Apply** button to proceed.




8. **Restart the server** after waiting for two minutes.

Monitoring with Applicare

CONFIGURATION GUIDES › JAVA

# Include the server name and JVM arguments in the Gradle Jib build configuration.

Applicare 9.2 · Updated September 13, 2024 · java, singleagent · **Pending technical review**

1. Open the **Gradle build file** and append the container block at the end of the **Jib** configuration section.

**Syntax:**

```
TEXT
container {
jvmFlags = ['ARG1=Value','ARG2=Value']
}
```

**e.g.**

container { jvmFlags = ['-Dserver.name=tomcat10','-Dhost.name=tomcat'] }




**Monitoring with Applicare**

CONFIGURATION GUIDES › JAVA

# Install Applicare agent in Java app

Applicare 9.2 · Updated August 20, 2024 · java, singleagent · **Pending technical review**

a.) Add the following to your service's JVM options and replace the bold values with your specific settings if you're starting your server as a service..

- -javaagent:**<ApplicareAgentHomeDir>**\applicare-aspects.jar=verbosity=0,logfile=false
- -Darcturus_home=**<ApplicareAgentHomeDir>**
- -Djava.library.path=**<ApplicareAgentHomeDir>**\bin
- -Xverify:none

b.) Ensure the JVM is configured to allocate at least 256MB for PermGen by adding **-XX:MaxPermSize=256m** to the startup arguments. The server may fail to start with the Applicare agent if the PermGen size is insufficient.

c.) Start the server.

CONFIGURATION GUIDES › JAVA

# Installing Applicare SingleAgent using Wrapper

Applicare 9.2 · Updated September 13, 2024 · java, singleagent · **Pending technical review**

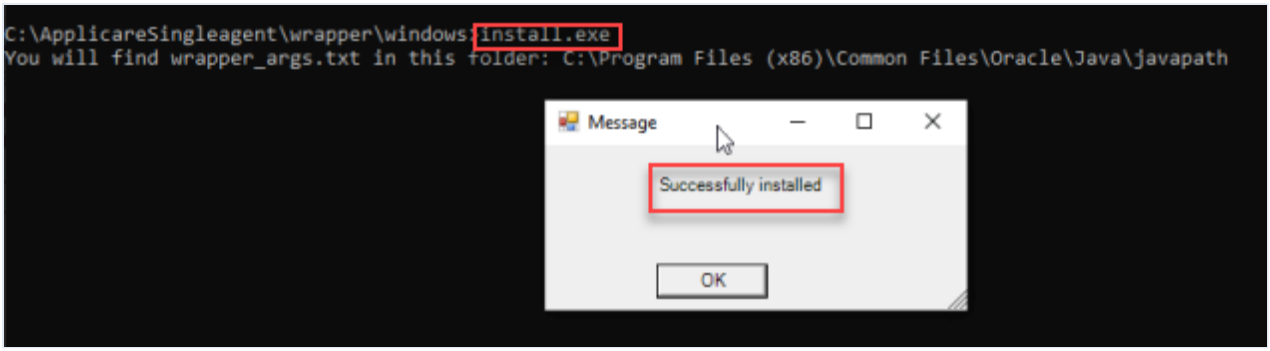
**Step 1:** Log in to **Applicare console,** navigate to **Download Agents** screen and download **SingleAgentWindows.** Then, Copy the **ApplicareSingleAgentWindows.zip** file to the machine where the agent will be deployed.

**Step 2:** Extract the **ApplicareSingleAgentWindows.zip** file into the **ApplicareSingleAgentWindows** directory.

**Skip steps 1 and 2 if have already downloaded and extracted the SingleAgent.**

**Step 3:** Navigate to the "**ApplicareSingleAgent/wrapper/Windows**" directory and run **install.exe** files as an administrator.

If you need to modify or add any additional arguments, make sure to include wrapper_args_default.txt before installing the wrapper.




If you encounter Java-related issues a problem while installing the wrapper, refer here.

**Step 4:** Start any Java app server.

**Step 5:** The agent will be automatically integrated with the Java app server and will begin sending data to Applicare controller. Log in to **Applicare Console** and navigate to the Overview screen to view the agent.

**Monitoring with Applicare**

CONFIGURATION GUIDES › JAVA

# Install the Applicare agent using Wrapper on a Linux system

Applicare 9.2 · Updated August 23, 2024 · java, singleagent, linux · **Pending technical review**

**Step 1:** Log in to **Applicare console,** navigate to **Download Agents** screen and download **SingleAgentLinux.** Copy **ApplicareSingleAgentLinux.zip** file to the machine where agent will be deployed.

**Step 2:** Extract the **ApplicareSingleAgentLinux.zip** file to **ApplicareSingleAgentLinux** directory.

**Skip steps 1 and 2 if you have already downloaded and extracted the SingleAgent.**

**Step 3:** Navigate to "**ApplicareSingleAgent/wrapper/Linux**" directory and start **install.sh** file.




To change or add any additional arguments, include them in the wrapper_args.txt after installing the wrapper.

**Note:** Have a problem with Java when installing the wrapper, Refer here.

**Step 4:** Start any java app server.

**Step 5:** The agent will be automatically registered with the java app server and will begin reporting data to the Applicare controller. Log in to **Applicare Console** and navigate to Overview screen to view the agent.

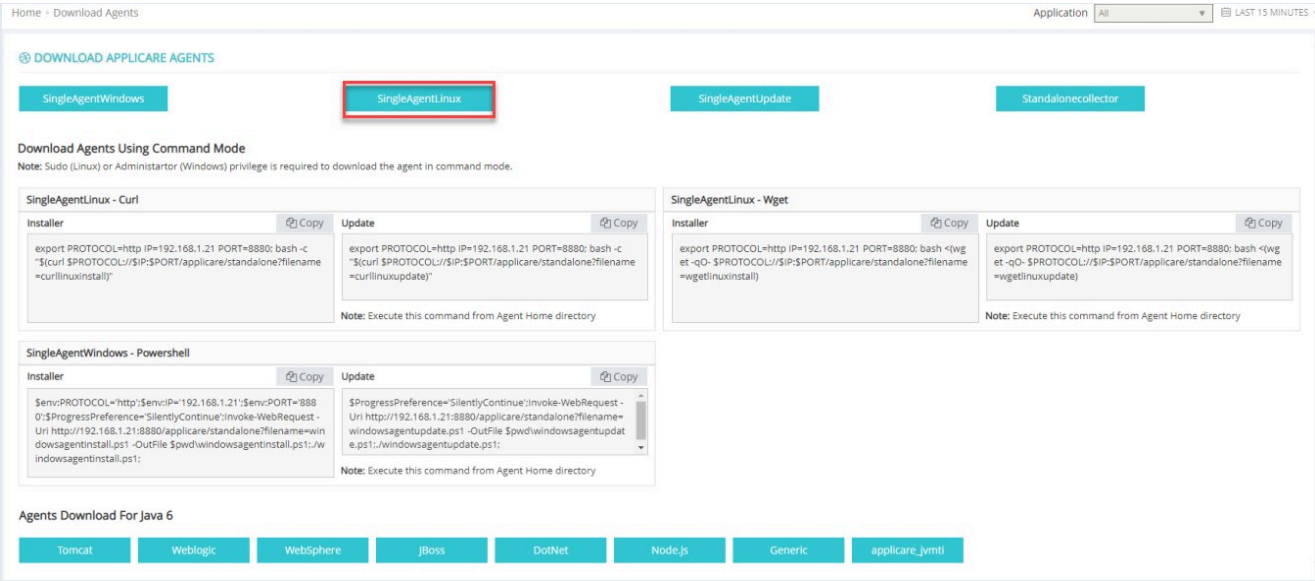
CONFIGURATION GUIDES › DOCKER

# Install SingleAgent in a Docker Container

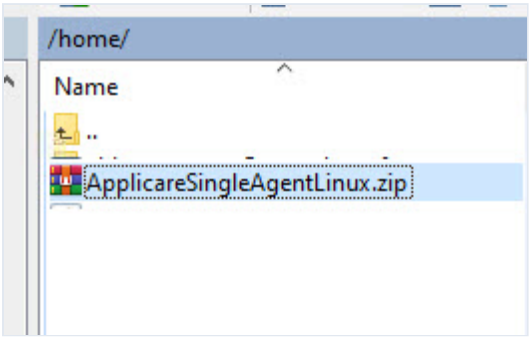
Applicare 9.2 · Updated September 13, 2024 · docker, singleagent · **Pending technical review**

Step 1, 2 and 3 are necessary only if the **ApplicareSingleAgentLinux** directory is not present on the Docker-installed machine.

**Step 1:** Log in to Applicare console, and navigate to the "**Download Agents**" menu, and download the **SingleAgentLinux** package.




**Step 2:** Transfer the **ApplicareSingleAgentLinux.zip** file to the Docker-installed machine.




**Step 3:** Navigate to the location where you copied the zip file, create a directory named **ApplicareSingleAgentLinux** in that location, and extract the zip file into that directory.

```bash
mkdir ApplicareSingleAgentLinux
unzip ApplicareSingleAgentLinux.zip –d ApplicareSingleAgentLinux
```

```
[root@L9-RHEL8 home]# mkdir ApplicareSingleAgentLinux
[root@L9-RHEL8 home]# unzip ApplicareSingleAgentLinux.zip -d ApplicareSingleAgentLinux
Archive:  ApplicareSingleAgentLinux.zip
 extracting: ApplicareSingleAgentLinux/agent/CAgent/agent.lib
 extracting: ApplicareSingleAgentLinux/agent/CAgent/agent.ilk
 extracting: ApplicareSingleAgentLinux/agent/CAgent/agent.exp
 extracting: ApplicareSingleAgentLinux/agent/CAgent/agent.dll
 extracting: ApplicareSingleAgentLinux/agent/CAgent/Assem.asm
```

**Step 4:** Access inside the Docker container.

```
BASH
docker container exec –it CONTAINER ID bash
```

**e.g.** docker container exec -it a0eb9355dac0 bash

```
docker container exec -it a0eb9355dac0 bash
root@a0eb9355dac0:/code#
```

**Step 5:** Note the docker path and **exit** from the container. Here the docker path is **a0eb9355dac0:/code**

```
TEXT
exit
```

```
root@a0eb9355dac0:/code# exit
exit
```

**Step 6:** Copy the **ApplicareSingleAgentLinux** directory inside Docker container

```
BASH
docker cp sourcePath/ApplicareSingleAgentLinux dockerContainerPath/ApplicareSingleAgentLinux
```

**e.g.** docker cp **/home**/ApplicareSingleAgentLinux **a0eb9355dac0:/code**/ApplicareSingleAgentLinux

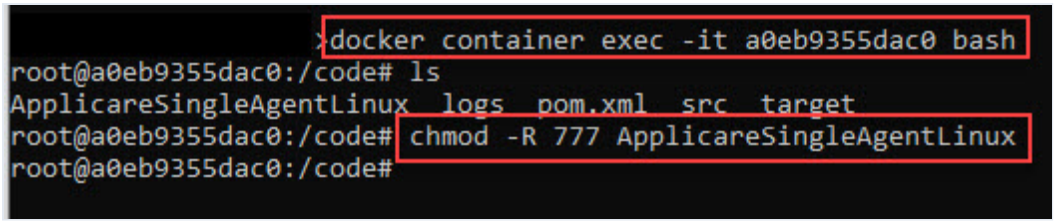
```
>docker cp /home/ApplicareSingleAgentLinux a0eb9355dac0:/code/ApplicareSingleAgentLinux
```

**Step 7:** Enter the Docker container and set read, write, and executable permissions for the **ApplicareSingleAgentLinux** directory.

```
BASH
docker container exec –it CONTAINER ID bash
```

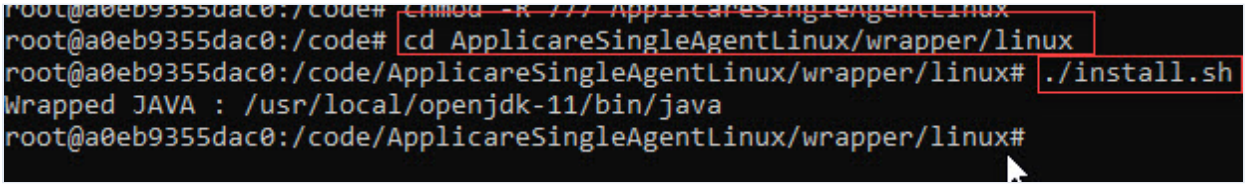
**e.g.** Docker container exec -it a0eb9355dac0 bash

```
BASH
chmod –R 777 ApplicareSingleAgentLinux
```



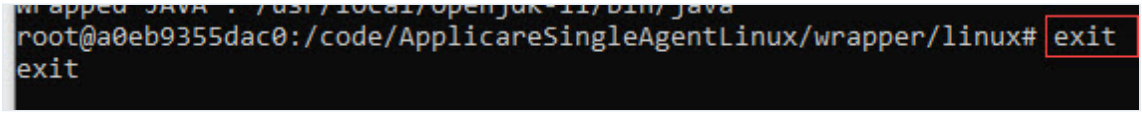

**Step 8:** Navigate to the **ApplicareSingleAgentLinux/wrapper/linux** directory and run **./install.sh** to install the wrapper.

```bash
cd ApplicareSingleAgentLinux/wrapper/linux
./install.sh
```




**Step 9:** Exit the container.

```text
exit
```



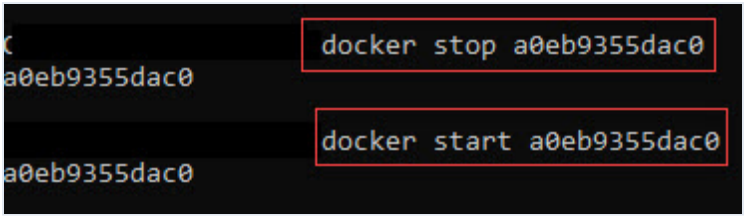

**Step 10:** Stop and then restart the container.

```bash
docker stop CONTAINER ID
docker start CONTAINER ID
```

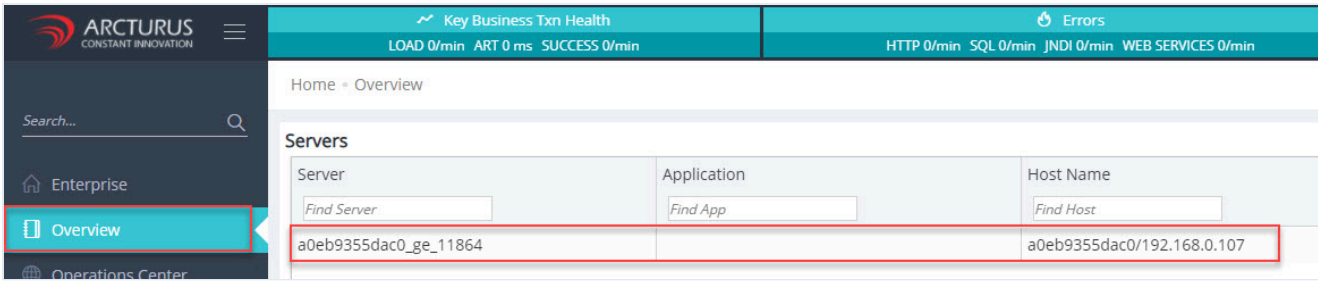
**e.g.**

docker stop a0eb9355dac0

docker start a0eb9355dac0




**Step 11:** Log in to Applicare console and navigate to the **Overview** menu to view the newly added agent.




# Docs Home

## Monitoring with Applicare

CONFIGURATION GUIDES › DOCKER

# Install Applicare SingleAgent in Docker container using script

Applicare 9.2 · Updated August 21, 2024 · docker, singleagent, linux · **Pending technical review**

## Manual Install:

Each time you build the Docker image, you will need to follow these manual steps.

- **Manual Install Steps**

**Auto Installation:**

The agent will be pre-built into the Docker image, so it will be automatically installed whenever the Docker container starts.

- **RedHat Rhel**
- **CentOS**
- **DebianOS**
- **Ubuntu**
- **Alpine**

CONFIGURATION GUIDES › DOCKER

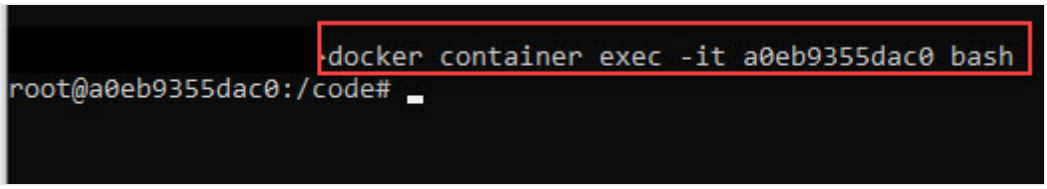
# Install ApplicareSingleAgent in a Docker Container

Applicare 9.2 · Updated August 22, 2024 · docker, singleagent · **Pending technical review**

## Each time you build the Docker image, follow these steps.

**Step 1:** Enter the Docker container.

```bash
docker container exec –it CONTAINER ID bash
```




**Step 2: Create a directory named ApplicareSingleAgent**

**Step 3:** Navigate to the **ApplicareSingleAgent** directory.

**Step 4:** Run the following command to download the agent

```bash
curl CONTROLLER_PROTOCOL://CONTROLLER_IP:CONTROLLER_PORT/applicare/standalone?
filename=ApplicareSingleAgentLinux.zip>ApplicareSingleAgentLinux.zip
```

**Replace the below values in the above script**

**CONTROLLER_PROTOCOL ->** http (or) https

**CONTROLLER_IP ->** Applicare Controller IP

**CONTROLLER_PORT ->** Applicare Controller Port

**e.g.**

```bash
curl http://127.0.01:8880/applicare/standalone?filename=ApplicareSingleAgentLinux.zip
>ApplicareSingleAgentLinux.zip
```

**Note:** If the curl command is unavailable, You will need to manually download the ApplicareSingleAgent.

**Step 5:** Extract the **ApplicareSingleAgent** zip file to that directory.

```text
unzip ApplicareSingleAgent.zip
```

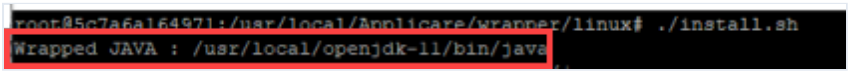
**Step 6:** Give read, write and executable permission for the **ApplicareSingleAgent** directory.

```bash
chmod –R 777 ApplicareSingleAgent installed directory

chmod +x ApplicareSingleAgent installed directory
```

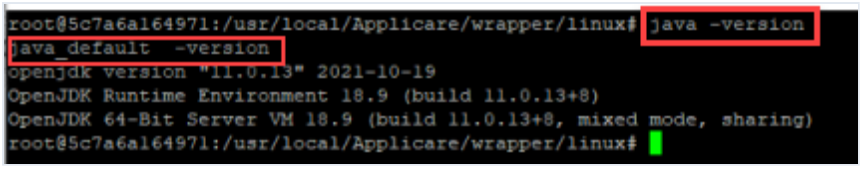
**Step 7:** Navigate to the **ApplicareSingleAgent installed directory/wrapper/linux** directory and execute the command to install the wrapper.

```bash
./install.sh
```



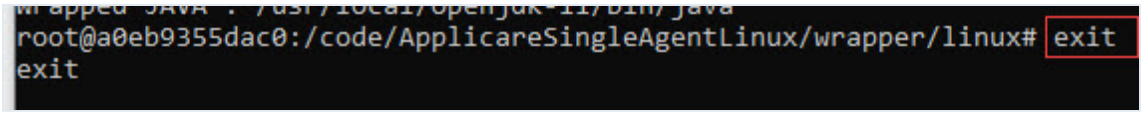

**Step 8:** Run the following command to verify that the Wrapper is installed.

```bash
java –version
```




**Step 9:** Exit the container

```text
exit
```




**Step 10:** Restart the container

```bash
docker restart  container ID
```

CONFIGURATION GUIDES › DOCKER

# Deploy SingleAgent in a Docker Container

Applicare 9.2 · Updated September 13, 2024 · docker, singleagent · **Pending technical review**

**Step 1:** Add the following packages to include the **apk** command if the Docker container is running on **Alpine OS.**

curl, vim, unzip, bash, wget

```bash
Example:

RUN apk add --no-cache \
openjdk8-jre \
wkhtmltopdf \
aws-cli \
busybox-extras \
curl \
vim \
wget \
bash \
unzip \
tzdata && cp /usr/share/zoneinfo/Asia/Kolkata /etc/localtime && echo 'Asia/Kolkata' >
/etc/timezone
```

**Step 2: Create a file named startAgent.sh** with the following content in the directory containing the **Dockerfile**.

```bash
#!/bin/sh

SERVER_NAME=`hostname`_sa
export SERVER_NAME

ARCTURUS_HOME=/usr/local/Applicare
export ARCTURUS_HOME

JAVA_HOME_PATH=$JAVA_HOME

INBUILD_JAVA_PATH=$ARCTURUS_HOME/jre
export INBUILD_JAVA_PATH

if [[ $(uname -s) == "Darwin" ]]; then
JAVA_HOME_PATH="$ARCTURUS_HOME/jre/mac/zulu-8_jre/Contents/Home"
else
JAVA_HOME_PATH="$ARCTURUS_HOME/jre/linux/jre"
fi

JAVA_HOME_PATH="/usr/lib/jvm/java-1.8-openjdk/jre"
export JAVA_HOME_PATH

JAVA_OPTS="-noverify -Xmx1024m -Dserver.name=$SERVER_NAME -
javaagent:$ARCTURUS_HOME/applicare-db-aspects.jar=verbosity=0,logfile=false,norestart-
intellitrace=false -Darcturus_home=$ARCTURUS_HOME -XX:HeapDumpPath=/dev/null -
Djava.library.path=.:$ARCTURUS_HOME/bin -Dapplicare.standalone=true"
export JAVA_OPTS

EXECUTABLE_NAME=/usr/local/Applicare/AgentStartHelper.jar
export EXECUTABLE_NAME

# Run the JAR file
/usr/lib/jvm/java-1.8-openjdk/jre/bin/java -jar $JAVA_OPTS $EXECUTABLE_NAME
```

**Step 3: Add the following line in the Dockerfile** immediately after the **package** installation commands.

```
TEXT
# Create working directory for Applicare
RUN mkdir -p /usr/local/Applicare

# Download and unzip Applicare
RUN curl CONTROLLER_PROTOCOL://CONTROLLER_IP:CONTROLLER_PORT/applicare/standalone?
filename=ApplicareSingleAgentLinux.zip -o /usr/local/Applicare/ApplicareSingleAgentLinux.zip
RUN unzip /usr/local/Applicare/ApplicareSingleAgentLinux.zip -d /usr/local/Applicare

# Clean up
RUN rm -fv /usr/local/Applicare/ApplicareSingleAgentLinux.zip
RUN rm -fv /usr/local/Applicare/agentscripts/startAgent.sh

# Copy the start script
COPY startAgent.sh /usr/local/Applicare/agentscripts/startAgent.sh
RUN chmod -R 777 /usr/local/Applicare
```

**Replace the below values in the above command**

**CONTROLLER_PROTOCOL ->** http (or) https

**CONTROLLER_IP ->** Applicare Controller IP

**CONTROLLER_PORT ->** Applicare Controller Port

**Step 4:** Comment out the existing **CMD** line in the **Dockerfile** and replace it with the following CMD line.

```
TEXT
CMD ["/bin/sh", "-c", "nohup /usr/local/Applicare/agentscripts/startAgent.sh & java -jar
/usr/local/rest-TestApplication.jar"]
```

After starting the agent using the provided CMD command, it will operate similarly to running a Java application. If you need to run a different application, you can remove the current command and replace it with the appropriate command to start your desired application.

**Step 5: Add and execute the following command before starting the container.**

--hostname <**Server_Name**>

```
BASH
e.g.
docker run -dit -p 8086:8080 --name restapi --hostname dev c9700fdfc2f5
```

The hostname you specify will be displayed on the overview screen in Applicare.

You can use Applicare to assist with your Monitoring needs.

Monitoring with Applicare

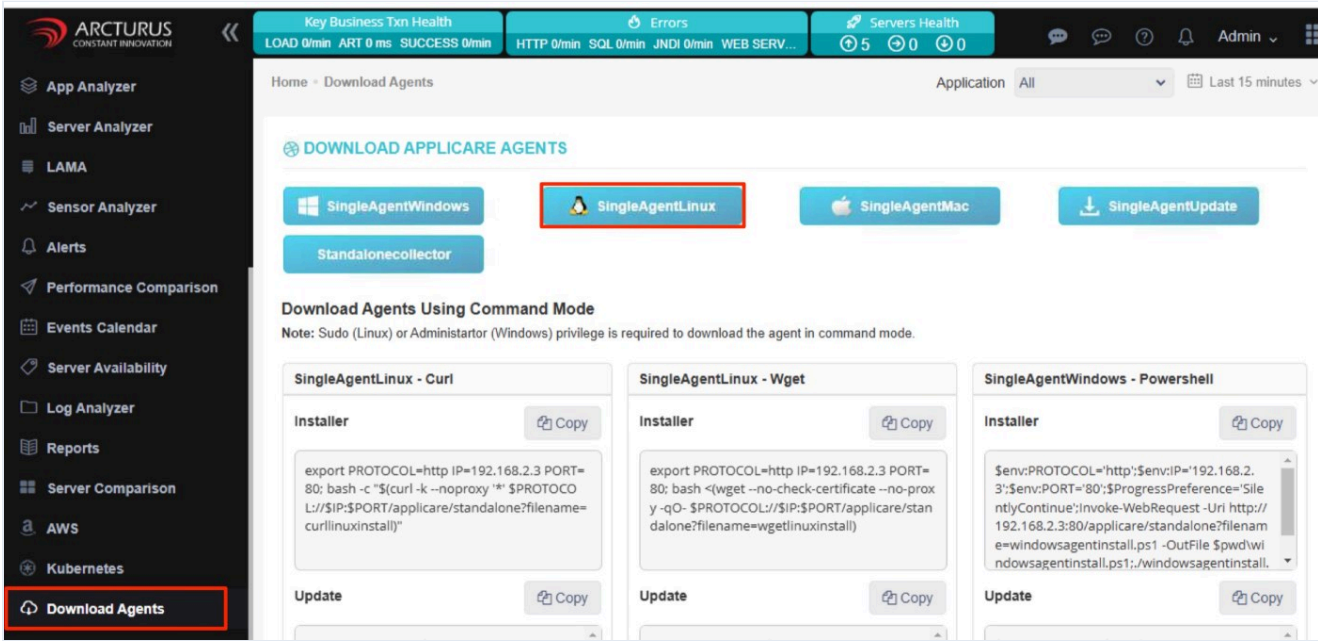
CONFIGURATION GUIDES › DOCKER

# Agent configuration in docker container

Applicare 9.2 · Updated February 7, 2025 · docker, singleagent · **Pending technical review**

**Note: We can easily download our agent directly into the container, but some containers don't have commands like curl or wget and unzip, so we have to download our agent manually and mount the volume to the container.**

Step 1: **Login to** Applicare console**. Go to the** Download Agent **screen in the left-side menu, Download the** SingleAgentLinux **agent and extract it into the designated directory** ApplicareSingleAgentLinux **in local machine.**




**Step 2:** We need to delete the container in which you want to deploy the agent and then run the following command when you recreate the container.

```text
-v ApplicareSingleAgentLinuxDirectory:/usr/local/ApplicareSingleAgentLinux
--hostname The name which we need to add the agent in Applicare
```

**Example:**

```bash
docker run -dit -p 8080 --name tomcat-petstore -v
/root/ApplicareSingleAgentLinux:/usr/local/ApplicareSingleAgentLinux --hostname petstore
tomcat
```

**Step 3:** Once the container starts, execute the following command to start the agent.

```bash
docker exec –d <container_name> nohup
/usr/local/ApplicareSingleAgentLinux/agentscripts/startAgent.sh>/dev/null 2>&1 &
```

**Step 4:** After a while, confirm that the new agent has been added to the **Overview** screen in the **Applicare console**.

CONFIGURATION GUIDES › DOCKER

# Install Applicare SingleAgent in a Java Jar Application Docker Container

Applicare 9.2 · Updated December 22, 2025 · docker, singleagent · **Pending technical review**

To install ApplicareSingleAgent in Java Jar application docker container, add the below script based on the OS after the **"FROM"** command to the dockerfile.

**Debian/Ubuntu**

# Applicare Agent configuration RUN apt-get update \ && apt-get install -y curl unzip \ && rm -rf /var/lib/apt/lists/* RUN mkdir /usr/local/ApplicareSingleAgentLinux WORKDIR /usr/local/ApplicareSingleAgentLinux RUN curl **CONTROLLER_PROTOCOL**://**CONTROLLER_IP**:**CONTROLLER_PORT**/applicare/standalone?filename=ApplicareSingleAgentLinux >ApplicareSingleAgentLinux.zip RUN unzip ApplicareSingleAgentLinux.zip RUN ["rm", "-frv", "/usr/local/ApplicareSingleAgentLinux/ApplicareSingleAgentLinux.zip"] RUN chmod -R 755 /usr/local/ApplicareSingleAgentLinux ENV JAVA_OPTS="-noverify -Dserver.name=**SERVER_NAME** -javaagent:/usr/local/ApplicareSingleAgentLinux/applicare-aspects.jar=verbosity=0,logfile=false,norestart-intellitrace=false -Darcturus_home=/usr/local/ApplicareSingleAgentLinux -Djava.library.path=.;/usr/local/ApplicareSingleAgentLinux/bin -Dlogback.configurationFile=/usr/local/ApplicareSingleAgentLinux/logback/logback.xml"

**Replace the following values in the above script**

**CONTROLLER_PROTOCOL ->** http (or) https

**CONTROLLER_IP ->** Applicare Controller IP

**CONTROLLER_PORT ->** Applicare Controller Port

**SERVER_NAME** -> Add custom server name

**Modify the ENTRYPOINT or CMD line in the Dockerfile**

**Original Entrypoint:** ENTRYPOINT ["java", "-jar", "rest-service.jar"]

**Updated Entrypoint:** ENTRYPOINT ["sh", "-c", "exec java $JAVA_OPTS -jar rest-service.jar"]

**Example:**

```
TEXT
# Java 8 lightweight runtime
FROM eclipse-temurin:8-jre

# Applicare Agent configuration
RUN apt-get update \
&& apt-get install -y curl unzip \
&& rm -rf /var/lib/apt/lists/*
RUN mkdir /usr/local/ApplicareSingleAgentLinux
WORKDIR /usr/local/ApplicareSingleAgentLinux
RUN curl http://192.168.0.2:8880/applicare/standalone?filename=ApplicareSingleAgentLinux
>ApplicareSingleAgentLinux.zip
RUN unzip ApplicareSingleAgentLinux.zip
RUN ["rm", "-frv", "/usr/local/ApplicareSingleAgentLinux/ApplicareSingleAgentLinux.zip"]
RUN chmod -R 755 /usr/local/ApplicareSingleAgentLinux
ENV JAVA_OPTS="-noverify -Dserver.name=rest-api -
javaagent:/usr/local/ApplicareSingleAgentLinux/applicare-
aspects.jar=verbosity=0,logfile=false,norestart-intellitrace=false -
Darcturus_home=/usr/local/ApplicareSingleAgentLinux -
Djava.library.path=.;/usr/local/ApplicareSingleAgentLinux/bin -
Dlogback.configurationFile=/usr/local/ApplicareSingleAgentLinux/logback/logback.xml"

# Set working directory
WORKDIR /app
# Copy the JAR
COPY rest-service-0.0.1-SNAPSHOT.jar rest-service-0.0.1-SNAPSHOT.jar
# Expose application port
EXPOSE 8080

# Run the application
ENTRYPOINT ["sh", "-c", "exec java $JAVA_OPTS -jar rest-service-0.0.1-SNAPSHOT.jar"]
```

**RHEL/CentOS**

# Applicare Agent configuration RUN yum install -y curl unzip \ && yum clean all RUN mkdir /usr/local/ApplicareSingleAgentLinux WORKDIR /usr/local/ApplicareSingleAgentLinux RUN curl **CONTROLLER_PROTOCOL**://**CONTROLLER_IP**:**CONTROLLER_PORT**/applicare/standalone?filename=ApplicareSingleAgentLinux >ApplicareSingleAgentLinux.zip RUN unzip ApplicareSingleAgentLinux.zip RUN ["rm", "-frv", "/usr/local/ApplicareSingleAgentLinux/ApplicareSingleAgentLinux.zip"] RUN chmod -R 755 /usr/local/ApplicareSingleAgentLinux ENV JAVA_OPTS="-noverify -Dserver.name=**SERVER_NAME** -javaagent:/usr/local/ApplicareSingleAgentLinux/applicare-aspects.jar=verbosity=0,logfile=false,norestart-intellitrace=false -Darcturus_home=/usr/local/ApplicareSingleAgentLinux -Djava.library.path=.;/usr/local/ApplicareSingleAgentLinux/bin -Dlogback.configurationFile=/usr/local/ApplicareSingleAgentLinux/logback/logback.xml"

**Replace the following values in the above script**

**CONTROLLER_PROTOCOL ->** http (or) https

**CONTROLLER_IP ->** Applicare Controller IP

**CONTROLLER_PORT ->** Applicare Controller Port

**SERVER_NAME** -> Add custom server name

**Modify the ENTRYPOINT or CMD line in the Dockerfile**

**Original Entrypoint:** ENTRYPOINT ["java", "-jar", "rest-service.jar"]

**Updated Entrypoint:** ENTRYPOINT ["sh", "-c", "exec java $JAVA_OPTS -jar rest-service.jar"]

**Example:**

```
TEXT

#  Red Hat UBI
FROM registry.access.redhat.com/ubi8/openjdk-8-runtime
# Applicare Agent configuration
RUN yum install -y curl unzip \
&& yum clean all
RUN mkdir -p /usr/local/ApplicareSingleAgentLinux
WORKDIR /usr/local/ApplicareSingleAgentLinux
RUN curl "http://192.168.0.2:8880/applicare/standalone?filename=ApplicareSingleAgentLinux" \
   -o ApplicareSingleAgentLinux.zip
RUN unzip ApplicareSingleAgentLinux.zip \
&& rm -f ApplicareSingleAgentLinux.zip \
&& chmod -R 755 /usr/local/ApplicareSingleAgentLinux
ENV JAVA_OPTS="-noverify -Dserver.name=rest-api \
-javaagent:/usr/local/ApplicareSingleAgentLinux/applicare-
aspects.jar=verbosity=0,logfile=false,norestart-intellitrace=false \
-Darcturus_home=/usr/local/ApplicareSingleAgentLinux \
-Djava.library.path=.;/usr/local/ApplicareSingleAgentLinux/bin \
-Dlogback.configurationFile=/usr/local/ApplicareSingleAgentLinux/logback/logback.xml"

WORKDIR /app
COPY rest-service-0.0.1-SNAPSHOT.jar rest-service-0.0.1-SNAPSHOT.jar
EXPOSE 8080
ENTRYPOINT ["sh", "-c", "exec java $JAVA_OPTS -jar rest-service-0.0.1-SNAPSHOT.jar"]
```

CONFIGURATION GUIDES › DOCKER

# .NET in Docker Image

Applicare 9.2 · Updated August 23, 2024 · docker, singleagent · **Pending technical review**

# Use the official Windows Server Core image FROM mcr.microsoft.com/dotnet/aspnet:7.0-windowsservercore-ltsc2019 AS base LABEL author="Cerasela Constantin"

EXPOSE 80 EXPOSE 443

# create Applicare singleagent directory RUN mkdir -p C:\app\ApplicareSingleAgentWindows

# set environment variable in container ENV CORECLR_ENABLE_PROFILING 1 ENV CORECLR_PROFILER {AD0AB006-9F79-43F1-B5CF-26768A70E789} ENV CORECLR_PROFILER_PATH "C:\app\Arcturus.Applicare.DotNetAgent.Profiler.dll" ENV eum.beacon **<Applicare_controller_protocol>:<controller_IP>:<controller_port>**:<controller_port>/applicare/eum/beacon ENV arceum.js **<Applicare_controller_protocol>:<controller_IP>:<controller_port>**: <controller_port>/applicare/eum/beacon/arc-eum.js ENV applicare.address **<Applicare_controller_protocol>:<controller_IP>:<controller_port>** ENV applicare.agent.name **<Server_Name>_sa** ENV DotnetAgent.httpProfilingState Enabled ENV DotnetAgent.sqlProfilingState Enabled

# Download ApplicareSingleAgent and extract the contents of the zip file RUN curl -k --noproxy '*' **<Applicare_controller_protocol>:<controller_IP>:<controller_port>**/standalone?userId=0"&"filename=ApplicareSingleAgentWindows >C:/app/ApplicareSingleAgentWindows/ApplicareSingleAgentWindows.zip RUN powershell -Command Expand-Archive -Path C:/app/ApplicareSingleAgentWindows/ApplicareSingleAgentWindows.zip -DestinationPath C:/app/ApplicareSingleAgentWindows -Force

RUN curl -L https://s3.amazonaws.com/ARC_PUBLIC/DotNet.zip -o C:/app/DotNet.zip RUN powershell -Command Expand-Archive -Path C:/app/DotNet.zip -DestinationPath C:/app -Force RUN powershell -Command Expand-Archive Remove-Item -Path C:/app/DotNet.zip -Force

# Enable the .Net 3.5 framework feature in container SHELL ["powershell", "-ExecutionPolicy", "Bypass"] RUN powershell -ExecutionPolicy Bypass -Command { Invoke-WebRequest -Uri https://dotnetbinaries.blob.core.windows.net/dockerassets/microsoft-windows-netfx3-1809.zip -OutFile C:/microsoft-windows-netfx3.zip } RUN powershell -Command Expand-Archive -Path C:/microsoft-windows-netfx3.zip -DestinationPath C:/packages RUN powershell -Command Expand-Archive Remove-Item -Path C:/microsoft-windows-netfx3.zip -Force RUN Install-WindowsFeature -Name NET-Framework-Features -Source C:/packages -Verbose

# Copy the Dotnet Application to container. WORKDIR /app COPY /net7.0/* ./

# Start the Dotnet Agent, SingleAgent and Dotnet application. ENTRYPOINT ["cmd", "/C", "start", "/B", "Arcturus.Applicare.DotNetAgent.Console.exe", "&&", "cmd", "/C", "start", "/B", "C:/app/ApplicareSingleAgentWindows/startAgent.bat", "&&", ".net", "<**Application_name**>.dll"]

**Replace the below values in the above script**

**Applicare_controller_protocol** -> http (or) https

**controller_IP** -> Applicare Controller IP

**controller_port** -> Applicare Controller Port

**Application_name ->** Name the file for the .NET application

## Docker

If you are running the .NET image in a Docker container, Add and execute the following command before starting the container.

```text
--hostname <Server_Name>
```

**Server_Name** = Give the same name here as already given in dotnet dockerfile.

## Kubernetes

If running the .NET image on a Kubernetes pod, Add the following command to the YAML file, placing it next to the container 'spec' line.

```yaml
apiVersion: v1
kind: Pod
metadata:
  name: my-pod
spec:
  hostname: <Server_Name>
  containers:
    - name: Dotnet
      image: Nop
```

**(OR)**

```yaml
apiVersion: v1
kind: Pod
metadata:
  name: my-pod
spec:
  env:
   - name: hostname
     value: <Server_Name>
  containers:
    - name: Dotnet
      image: Nop
```

**Server_Name** = Use the same name here as already given in .NET Dockerfile.

CONFIGURATION GUIDES › DOCKER

# Applicare deployed in a Docker container with Derby database

Applicare 9.2 · Updated February 4, 2025 · docker, singleagent · **Pending technical review**

Pre Requisite: Make sure docker is installed before following the below steps.

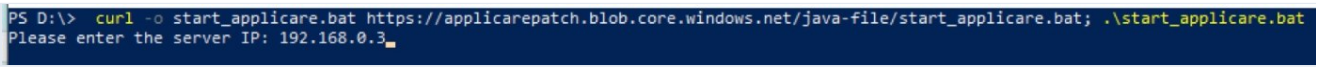
## Windows:

**Step 1:** Launch PowerShell as an Administrator and execute the following command.

```bat
 curl –o start_applicare.bat https://applicarepatch.blob.core.windows.net/java-file/start_applicare.bat; .\start_applicare.bat
```

**Step 2:** Then enter the **server IP** when prompted.

**server IP ->** The IP of the machine where docker is running.




**Step 3: After few minutes you can access the Applicare console in the browser.**

```text
http://<server IP>:8880/applicare
```

**server IP ->**The IP of the machine where docker is running.

**Linux:**

**Step 1:** Download the file "**start_applicare_linux.sh**" using either **curl** or **wget**, depending on your preference.

**Curl**:

```bash
curl –o start_applicare_linux.sh https://applicarepatch.blob.core.windows.net/java-file/start_applicare_linux.sh
```

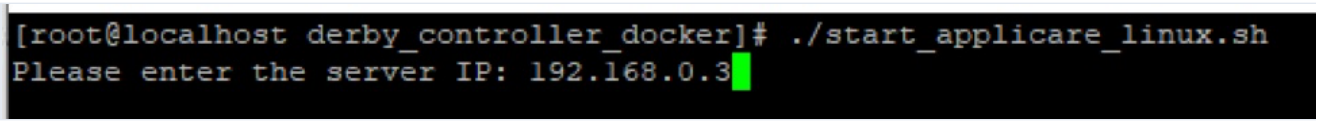
**Or**

**Wget**:

```bash
wget https://applicarepatch.blob.core.windows.net/java-file/start_applicare_linux.sh
```

**Step 2:** After download the file give the execute permission for that file. Then run the file in putty season, then enter the **server IP** when prompted.

**server IP ->** The IP of the machine where docker is running.




**Step 3: After few minutes can access the console in the browser.**

```
TEXT
http://<server IP>:8880/applicare
```

**server IP ->**The IP of the machine where docker is running.

## Mac:

**Step 1:** Download the file "**start_applicare_mac.sh**" using either **curl** or **wget**, depending on your preference.

**Curl**:

```
BASH
curl -o start_applicare_mac.sh
https://applicare.blob.core.windows.net/docker/start_applicare_mac.sh
```

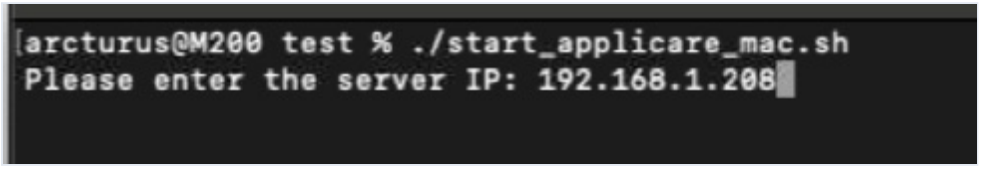
**Or**

**Wget**:

```
BASH
wget https://applicare.blob.core.windows.net/docker/start_applicare_mac.sh
```

**Step 2:** After download the file give the execute permission for that file. Then run the file in terminal window, Then enter the **server IP** when prompted.

**server IP ->** The IP of the machine where docker is running.




**Step 3: After few minutes can access the console in the browser.**

```
TEXT
http://<server IP>:8880/applicare
```

**server IP ->**The IP of the machine where docker is running.

CONFIGURATION GUIDES › DOCKER

# Install Applicare SingleAgent on Ubuntu

Applicare 9.2 · Updated October 16, 2024 · docker, singleagent, linux · **Pending technical review**

**Step 1:** Insert the following scripts after the "FROM" command in the Dockerfile.

RUN apt-get update && \ apt-get install -y unzip net-tools RUN mkdir /usr/local/Applicare WORKDIR /usr/local/Applicare RUN curl **CONTROLLER_PROTOCOL**://**CONTROLLER_IP**:**CONTROLLER_PORT**/applicare/standalone?filename=ApplicareSingleAgentLinux.zip >ApplicareSingleAgentLinux.zip RUN unzip ApplicareSingleAgentLinux.zip RUN ["rm", "-frv", "/usr/local/Applicare/ApplicareSingleAgentLinux.zip"] WORKDIR /usr/local/Applicare WORKDIR /usr/local/Applicare/wrapper/linux RUN chmod +x install.sh RUN chmod -R 777 /usr/local/Applicare RUN ["/usr/local/Applicare/wrapper/linux/install.sh"]

**Update the values in the script above as Indicated**

**CONTROLLER_PROTOCOL ->** http (or) https

**CONTROLLER_IP ->** Applicare Controller IP

**CONTROLLER_PORT ->** Applicare Controller Port

**Example:**

```bash
FROM tomcat:8
RUN  apt-get update && \
     apt-get install -y unzip
RUN mkdir /usr/local/Applicare
WORKDIR /usr/local/Applicare
RUN curl http://127.0.0.1:8880/applicare/standalone?filename=ApplicareSingleAgentLinux.zip
>ApplicareSingleAgentLinux.zip
RUN unzip ApplicareSingleAgentLinux.zip
RUN ["rm", "-frv", "/usr/local/Applicare/ApplicareSingleAgentLinux.zip"]
WORKDIR /usr/local/Applicare
WORKDIR /usr/local/Applicare/wrapper/linux
RUN chmod +x install.sh
RUN ["/usr/local/Applicare/wrapper/linux/install.sh"]
```

**Step 2:** Specify the server name when creating the Docker container.

When creating the Docker container, set the server name in the environment variable with -esname = server name, then start the container. Replace Servername with the desired name for the Applicare agent, ensuring it is unique across different containers.

**e.g.**

-e sname=tomcatcontainer

BASH

```
docker container run –it –d –p 8065:8080 ––name container1 –e sname=tomcatcontainer 1a2
```

CONFIGURATION GUIDES › DOCKER

# Install Applicare SingleAgent on Alpine Linux

Applicare 9.2 · Updated October 16, 2024 · docker, singleagent, linux · **Pending technical review**

**Step 1:** Add the following scripts immediately after the FROM command in the Dockerfile.

RUN apk update && apk add --no-cache curl vim wget bash unzip util-linux eudev-libs net-tools RUN mkdir /usr/local/Applicare WORKDIR /usr/local/Applicare RUN curl **CONTROLLER_PROTOCOL**://**CONTROLLER_IP**:**CONTROLLER_PORT**/applicare/standalone?filename=ApplicareSingleAgentLinux.zip >ApplicareSingleAgentLinux.zip RUN unzip ApplicareSingleAgentLinux.zip RUN ["rm", "-frv", "/usr/local/Applicare/ApplicareSingleAgentLinux.zip"] WORKDIR /usr/local/Applicare WORKDIR /usr/local/Applicare/wrapper/linux RUN chmod +x install.sh RUN chmod -R 777 /usr/local/Applicare RUN ["/usr/local/Applicare/wrapper/linux/install.sh"]

**Replace the below values in the above script**

**CONTROLLER_PROTOCOL ->** http (or) https

**CONTROLLER_IP ->** Applicare Controller IP

**CONTROLLER_PORT ->** Applicare Controller Port

**e.g.**

```
TEXT
FROM eclipse-temurin:17-jre-alpine
RUN apk update && apk add --no-cache curl vim wget bash unzip util-linux
RUN mkdir /usr/local/Applicare
WORKDIR /usr/local/Applicare
RUN curl http://127.0.0.1:8880/applicare/standalone?filename=ApplicareSingleAgentLinux.zip
>ApplicareSingleAgentLinux.zip
RUN unzip ApplicareSingleAgentLinux.zip
RUN ["rm", "-frv", "/usr/local/Applicare/ApplicareSingleAgentLinux.zip"]
WORKDIR /usr/local/Applicare
WORKDIR /usr/local/Applicare/wrapper/linux
RUN chmod +x install.sh
RUN ["/usr/local/Applicare/wrapper/linux/install.sh"]
```

**Step 2:** Specify the server name when creating the Docker container.

While creating the docker container add the server name to the environment variable using **-e sname=<SERVERNAME>** and start the container. Replace **<SERVERNAME>** with the name which we need to add the agent in Applicare. The **<SERVERNAME>** should be **unique for different containers.**

**e.g.**

-e sname=tomcatcontainer

BASH

```
docker container run –it –d –p 8065:8080 ––name container1 –e sname=tomcatcontainer
19f36bd86c9c
```

CONFIGURATION GUIDES › DOCKER

# Install Applicare SingleAgent on CentOS

Applicare 9.2 · Updated October 16, 2024 · docker, singleagent, linux · **Pending technical review**

**Step 1:** Insert the following scripts immediately after the FROM command in the Dockerfile.

RUN apt-get update && \ apt-get install -y unzip net-tools RUN mkdir /usr/local/Applicare WORKDIR /usr/local/Applicare RUN curl **CONTROLLER_PROTOCOL**://**CONTROLLER_IP**:**CONTROLLER_PORT**/applicare/standalone?filename=ApplicareSingleAgentLinux.zip >ApplicareSingleAgentLinux.zip RUN unzip ApplicareSingleAgentLinux.zip RUN ["rm", "-frv", "/usr/local/Applicare/ApplicareSingleAgentLinux.zip"] WORKDIR /usr/local/Applicare WORKDIR /usr/local/Applicare/wrapper/linux RUN chmod +x install.sh RUN chmod -R 777 /usr/local/Applicare RUN ["/usr/local/Applicare/wrapper/linux/install.sh"]

**Replace the below values in the above script**

**CONTROLLER_PROTOCOL ->** http (or) https

**CONTROLLER_IP ->** Applicare Controller IP

**CONTROLLER_PORT ->** Applicare Controller Port

**e.g.**

```bash
FROM tomcat:8
RUN apt-get update && \
    apt-get install -y unzip
RUN mkdir /usr/local/Applicare
WORKDIR /usr/local/Applicare
RUN curl http://127.0.0.1:8880/applicare/standalone?filename=ApplicareSingleAgentLinux.zip
>ApplicareSingleAgentLinux.zip
RUN unzip ApplicareSingleAgentLinux.zip
RUN ["rm", "-frv", "/usr/local/Applicare/ApplicareSingleAgentLinux.zip"]
WORKDIR /usr/local/Applicare
WORKDIR /usr/local/Applicare/wrapper/linux
RUN chmod +x install.sh
RUN ["/usr/local/Applicare/wrapper/linux/install.sh"]
```

**Step 2:** Specify the server name when creating the Docker container.

While creating the docker container add the server name to the environment variable using **-e sname=<SERVERNAME>** and start the container. Replace **<SERVERNAME>** with the name which we need to add the agent in Applicare. The **<SERVERNAME>** should be **unique for different containers.**

**e.g.** -e sname=tomcatcontainer

BASH

```
docker container run –it –d –p 8065:8080 ––name container1 –e sname=tomcatcontainer
1a28b359235a
```

CONFIGURATION GUIDES › DOCKER

# Install Applicare SingleAgent in DebianOS

Applicare 9.2 · Updated October 16, 2024 · docker, singleagent, linux · **Pending technical review**

**Step 1:** Insert the following scripts immediately after the FROM command in the Dockerfile.

RUN yum update && \ yum -y install wget unzip net-toolsRUN mkdir /usr/local/Applicare WORKDIR /usr/local/Applicare RUN curl **CONTROLLER_PROTOCOL**://**CONTROLLER_IP**:**CONTROLLER_PORT**/applicare/standalone?filename=ApplicareSingleAgentLinux.zip >ApplicareSingleAgentLinux.zip RUN unzip ApplicareSingleAgentLinux.zip RUN ["rm", "-frv", "/usr/local/Applicare/ApplicareSingleAgentLinux.zip"] WORKDIR /usr/local/Applicare WORKDIR /usr/local/Applicare/wrapper/linux RUN chmod +x install.sh RUN chmod -R 777 /usr/local/Applicare RUN ["/usr/local/Applicare/wrapper/linux/install.sh"]

**Replace the below values in the above script**

**CONTROLLER_PROTOCOL ->** http (or) https

**CONTROLLER_IP ->** Applicare Controller IP

**CONTROLLER_PORT ->** Applicare Controller Port

**Example:**

```bash
FROM tomcat:8
RUN yum update && \
    yum –y install wget unzip
RUN mkdir /usr/local/Applicare
WORKDIR /usr/local/Applicare
RUN curl http://127.0.0.1:8880/applicare/standalone?filename=ApplicareSingleAgentLinux.zip
>ApplicareSingleAgentLinux.zip
RUN unzip ApplicareSingleAgentLinux.zip
RUN ["rm", "–frv", "/usr/local/Applicare/ApplicareSingleAgentLinux.zip"]
WORKDIR /usr/local/Applicare
WORKDIR /usr/local/Applicare/wrapper/linux
RUN chmod +x install.sh
RUN ["/usr/local/Applicare/wrapper/linux/install.sh"]
```

## Step 2: Add server name while creating a Docker container.

When creating the Docker container, set the server name as an environment variable using **-e sname= <SERVERNAME> and start the container. Replace <SERVERNAME> with the name you want to assign to the agent in Applicare.** The **<SERVERNAME>** should be unique for each container.

**e.g.**

-e sname=tomcatcontainer

BASH

```
docker container run –it –d –p 8065:8080 ––name container1 –e sname=tomcatcontainer
1a28b359235a
```

CONFIGURATION GUIDES › DOCKER

# Install Applicare SingleAgent in a RedHat Enterprise Linux (RHEL) Docker Image

Applicare 9.2 · Updated October 16, 2024 · docker, singleagent, linux · **Pending technical review**

**Step 1:** Add the following scripts after the command in the Dockerfile.

RUN dnf -y update RUN dnf -y install unzip RUN dnf -y install net-tools RUN mkdir /usr/local/Applicare WORKDIR /usr/local/Applicare RUN curl **CONTROLLER_PROTOCOL**://**CONTROLLER_IP**:**CONTROLLER_PORT**/applicare/standalone?filename=ApplicareSingleAgentLinux.zip >ApplicareSingleAgentLinux.zip RUN unzip ApplicareSingleAgentLinux.zip RUN ["rm", "-frv", "/usr/local/Applicare/ApplicareSingleAgentLinux.zip"] WORKDIR /usr/local/Applicare WORKDIR /usr/local/Applicare/wrapper/linux RUN chmod +x install.sh RUN chmod -R 777 /usr/local/Applicare RUN ["/usr/local/Applicare/wrapper/linux/install.sh"]

**Replace the below values in the above script**

**CONTROLLER_PROTOCOL ->** http (or) https

**CONTROLLER_IP ->** Applicare Controller IP

**CONTROLLER_PORT ->** Applicare Controller Port

**Example:**

```
TEXT
FROM tomcat:8
RUN dnf –y update
RUN dnf –y install unzip
RUN mkdir /usr/local/Applicare
WORKDIR /usr/local/Applicare
RUN curl http://127.0.0.1:8880/applicare/standalone?filename=ApplicareSingleAgentLinux.zip
>ApplicareSingleAgentLinux.zip
RUN unzip ApplicareSingleAgentLinux.zip
RUN ["rm", "–frv", "/usr/local/Applicare/ApplicareSingleAgentLinux.zip"]
WORKDIR /usr/local/Applicare
WORKDIR /usr/local/Applicare/wrapper/linux
RUN chmod +x install.sh
RUN ["/usr/local/Applicare/wrapper/linux/install.sh"]
```

**Step 2:** Specify the server name when creating the Docker container.

When creating the Docker container, set the server name as an environment variable using **-e sname= <SERVERNAME> then start the container. Replace <SERVERNAME> with the desired name to register the agent in Applicare**. Ensure that **<SERVERNAME> is unique for each container**.

**e.g.**

-e sname=tomcatcontainer

```bash
docker container run –it –d –p 8065:8080 ––name container1 –e sname=tomcatcontainer
1a28b359235a
```

CONFIGURATION GUIDES › DOCKER

# Configuring an agent within an Nginx container using a (docker-compose.yml) file

Applicare 9.2 · Updated February 27, 2025 · docker, nginx · **Pending technical review**

**Step 1:** Create a file called **custom_nginx.conf** with the content below.

```text
user nginx;
worker_processes auto;
pid /var/run/nginx.pid;

events {
     worker_connections 1024;
}

http {
    log_format main '$remote_addr - $remote_user $time_iso8601 [$request_time] "$request" '
                    '$status $body_bytes_sent || "$request_body" || "$http_referer" '
                    '"$http_user_agent" "$http_x_forwarded_for"';

   access_log /var/log/access.log main;
   access_log /dev/stdout main;

   include /etc/nginx/conf.d/*.conf;
}
```

**Step 2:** Add the following **location** block to the **server** block in the **nginx.conf** or **default.conf** file you are already using, which is loaded as a Volume mount into the nginx container.

```text
location /nginx-status {
stub_status on;
allow 127.0.0.1;
allow all;
}
```

```
server {
        listen 80;
        server_name _;
        root /srv;                  # Default root directory for the server
        disable_symlinks off;       # Allow symlinks

        location /nginx-status {
            stub_status on;
            allow 127.0.0.1;
            allow all;
        }

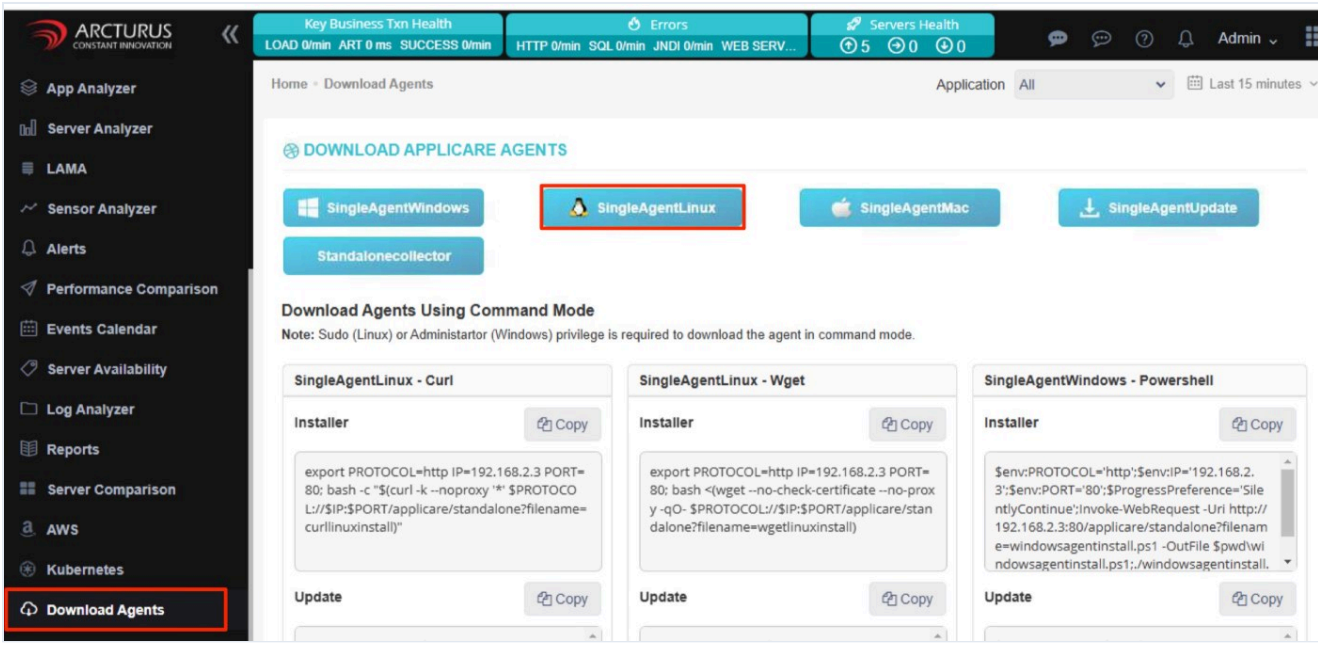
        location /petstore {
            retrun 301 http://192.168.4.48:8880;
        }
}
```

**Step 3:** If an **accesslog** line exists in the **nginx.conf** or **default.conf** file, comment it out.

**Step 4:** Download the file **agent_startup.sh** ***(sample file, available on the documentation site)*** from this link.

**Note: While our agent can be directly downloaded into the nginx container, some containers may lack essential commands like curl or wget and unzip, In such cases, the agent must be downloaded manually and mounted as a volume in the container.**

Step 5: Log in to Applicare console. Go to the Download Agent screen in the left-side menu, Download the SingleAgentLinux agent and extract it into the designated directory ApplicareSingleAgentLinux in host machine.



**Step 6:** In the '**agentscripts**' directory within the extracted **ApplicareSingleAgentLinux** folder, locate and edit the '**startAgent.sh**' file. Before the line containing '**JAVA_OPTS**', insert the following line and save the changes.

```bash
JAVA_HOME_PATH=/usr/bin/java
export JAVA_HOME_PATH
```

```
if [[ $(uname -s) == "Darwin" ]]; then
  JAVA_HOME_PATH="$ARCTURUS_HOME/jre/mac/zulu-8_jre/Contents/Home"
else
  JAVA_HOME_PATH="$ARCTURUS_HOME/jre/linux/jre"
fi
#export JAVA_HOME

JAVA_HOME_PATH=/usr/bin/java
export JAVA_HOME_PATH

JAVA_OPTS="-noverify -Xmx1024m -Dserver.name=$SERVER_NAME -javaagent:$
#JAVA_OPTS=" $JAVA_OPTS -Darcturus_info_pass=arcturus -Darcturus_debug
export JAVA_OPTS
```

**Step 7:** Add the following command in your existing **docker-compose.yml** file.

hostname: **The name which we need to add the agent in Applicare** entrypoint: ["sh", "-c"]

command: > 'apk add --no-cache openjdk8-jre && chmod +x /usr/local/agent_startup.sh && /usr/local/agent_startup.sh && nginx -g "daemon off;"'

**Add the following line to the Volume mount line in that yml file.**

- **where the agent_startup.sh file is located**/agent_deploy.sh:/usr/local/agent_startup.sh - **where the agent directory is located**/ApplicareSingleAgentLinux:/usr/local/ApplicareSingleAgentLinux - **where the custom_nginx.conf file is located**/custom_nginx.conf:/etc/nginx/nginx.conf

**Example:**

```bash
version: '3.8'

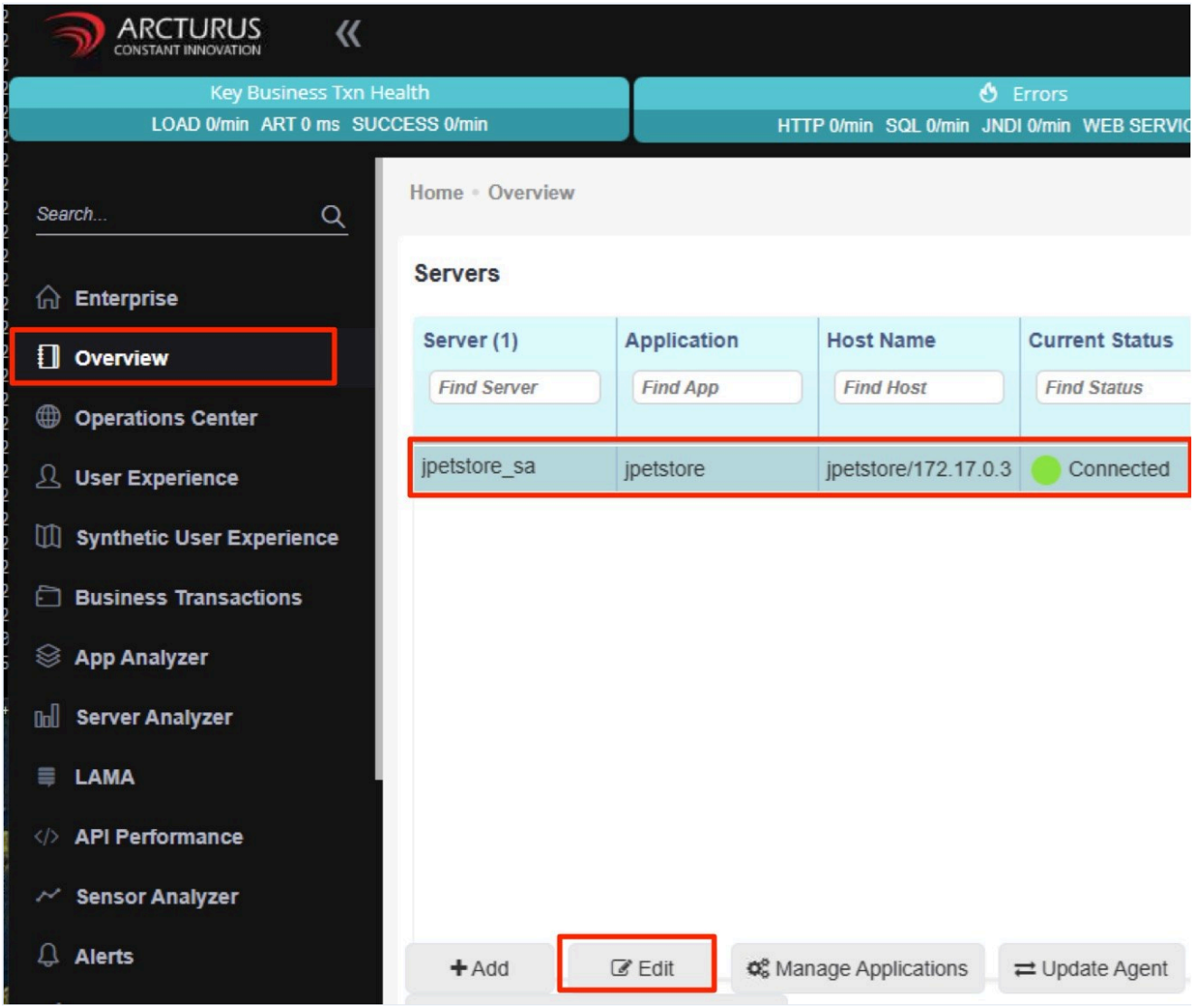
services:
nginx:
image: nginx:1.23-alpine
container_name: nginx-server
restart: always

hostname: nginx_agent
entrypoint: ["sh", "-c"]
command: >
      'apk add --no-cache openjdk8-jre &&
      chmod +x /usr/local/agent_startup.sh &&
      /usr/local/agent_startup.sh &&
      nginx -g "daemon off;"'

ports:
- "85:80"
- "443:443"

volumes:
- /usr/local/agent_startup.sh:/usr/local/agent_startup.sh
- /usr/local/ApplicareSingleAgentLinux:/usr/local/ApplicareSingleAgentLinux
- /usr/local/custom_nginx.conf:/etc/nginx/nginx.conf
```

**Step 8:** After the container starts, the agent is automatically added with the Applicare controller. To manage it, log in to the Applicare console and go to the Overview menu. Find the newly added agent, select it, and click **Edit** to configure as needed.




**Note: If the sub_status module is available, continue with Step 9. Otherwise, skip Step 9 and move directly to Step 10.**

**Step 9:** Enable the "**Add Nginx Configuration**" checkbox and add the below values.

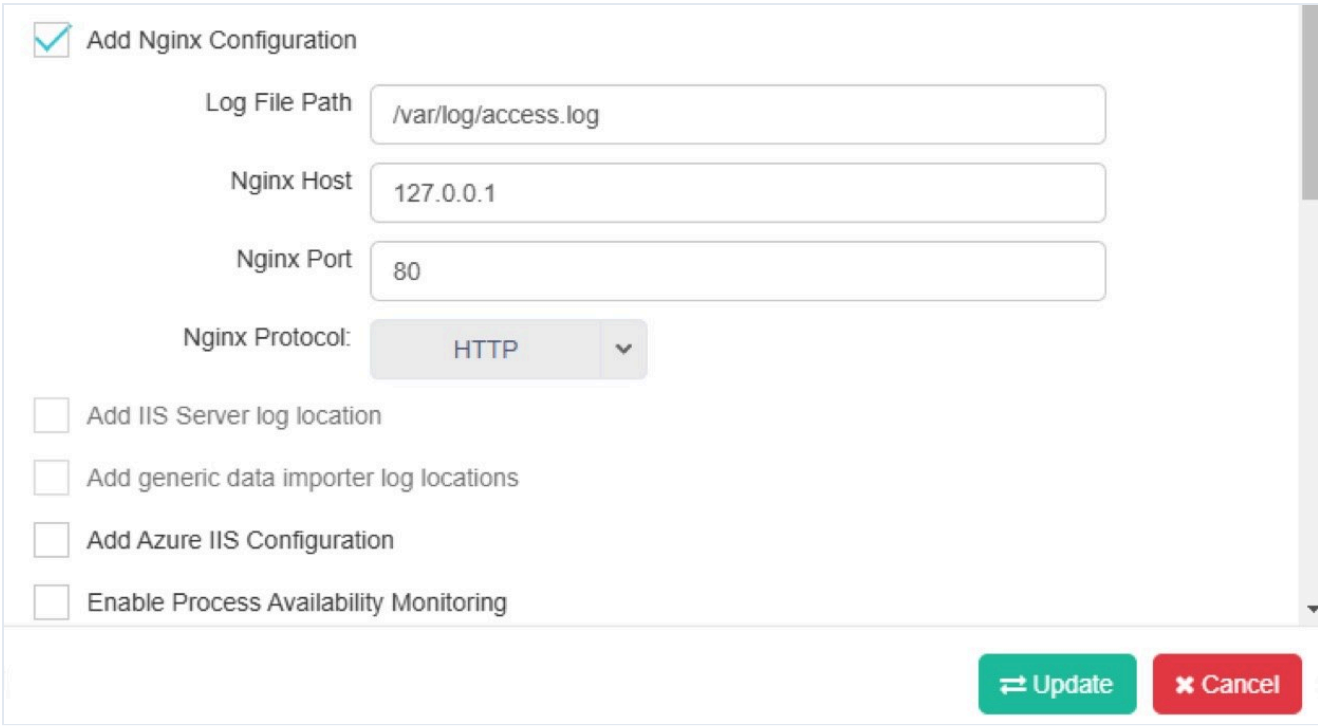
1. Log file path

2. Nginx Host

3. Nginx Port

4. Nginx Protocol

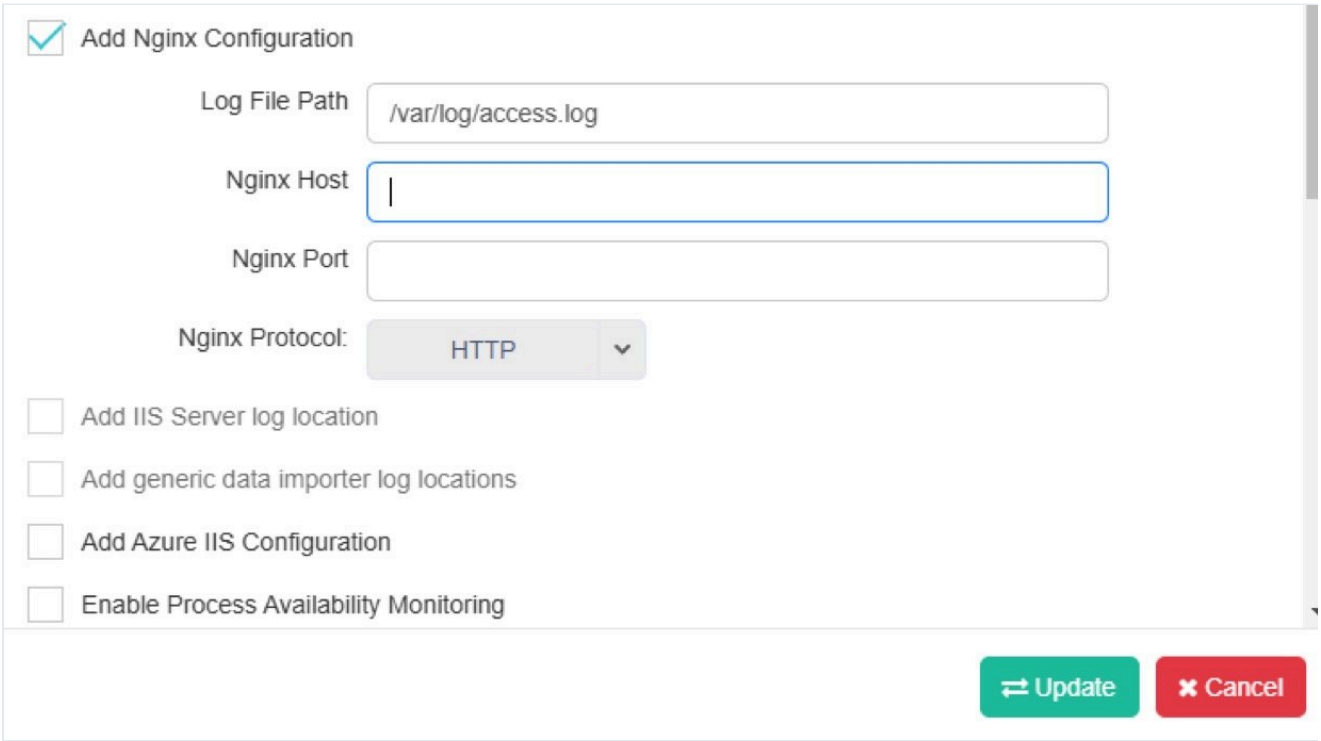
- Click the **update** button to save.




**Step 10:** Select the "**Add Nginx Configuration**" checkbox and add the below values.

1. Log file path

- Click the **update** button to save.



CONFIGURATION GUIDES › DOCKER

# Agent configuration in Nginx container

Applicare 9.2 · Updated September 16, 2025 · docker, nginx · **Pending technical review**

**If the nginx.conf file is not on the local machine, copy the file from the nginx container and save it on the local machine.**

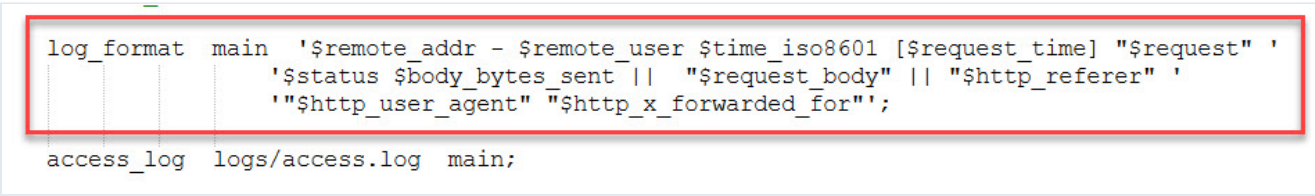
Run the following command to copy the nginx.conf file from nginx container to local machine, replacing <container_id> with your actual container ID or name

```bash
docker cp <container_id>:/etc/nginx/nginx.conf ./nginx.conf
```

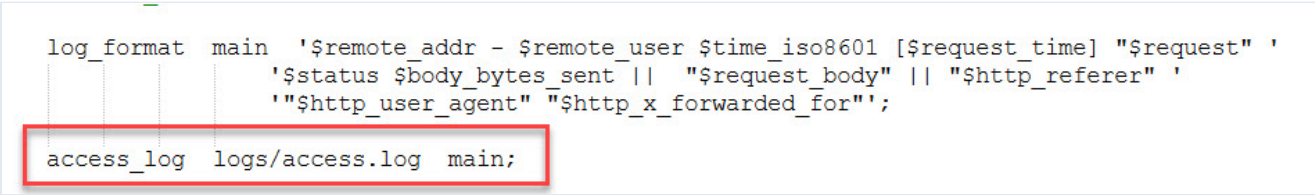
**Note:** The following changes need to be made to the nginx.conf file that is passed from the local machine to the nginx container.

**Step 1:** Edit the nginx.conf file and comment out the existing log format and replace it with the following log_format.

```text
log_format main '$remote_addr - $remote_user $time_iso8601 [$request_time] "$request" '
                        '$status $body_bytes_sent || "$request_body" || "$http_referer" '
                        '"$http_user_agent" "$http_x_forwarded_for"';
```




**Step 2:** If the access_log line is commented out, Please uncomment it.




**Note: If the sub_status module is available, proceed with Step 3 as outlined. However, if the module is not available, skip Step 3 and proceed directly to Step 4.**

**Step 3:** Insert the following lines within the **server** module.

location /nginx-status { stub_status on; allow 127.0.0.1; deny all; }

```
server {
    listen       82;
    server_name  localhost;

    #charset koi8-r;

    #access_log  logs/host.access.log  main;

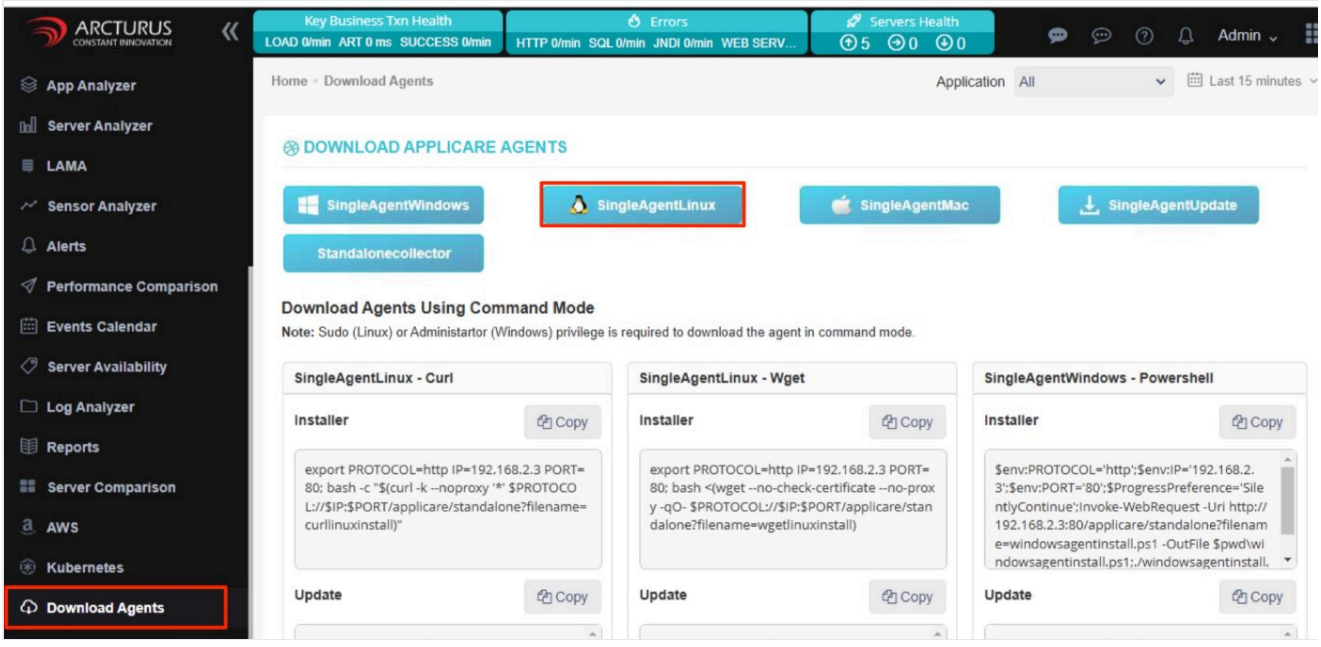
    location / {
        root   html;
        index  index.html index.htm;
    }

    location /nginx-status {
        stub_status on;
        allow 127.0.0.1;
        deny all;
    }
```

**Step 4:** Download the file **agent_deploy.sh** from this link.

**Note: We can easily download our agent directly into the nginx container, but some containers do not have commands like curl or wget and unzip, so we have to download our agent manually and mount the volume to the container.**

Step 5: Login to Applicare console. Go to the Download Agent screen in the left-side menu, Download the SingleAgentLinux agent and extract it into the designated directory ApplicareSingleAgentLinux in local machine.



**Step 6:** Add the following command along with the command that starts the container.

**Add the following command before the image name.**

```
TEXT
-v where the agent_deploy.sh file is located/agent_deploy.sh:/usr/local/agent_deploy.sh-v
ApplicareSingleAgentLinuxDirectory:/usr/local/ApplicareSingleAgentLinux--entrypoint sh --
hostname The name which we need to add the agent in Applicare
```

**Add the following command after the image name.**

```
TEXT
-c 'rm /var/log/nginx/access.log && touch /var/log/nginx/access.log && chown nginx:nginx
/var/log/nginx/access.log && chmod +x /usr/local/agent_deploy.sh &&
/usr/local/agent_deploy.sh && nginx -g "daemon off;"'
```

**Example:**

```
BASH
docker run -d --name nginx -v /home/nginx/nginx.conf:/etc/nginx/nginx.conf:ro -v
/var/run/docker.sock:/tmp/docker.sock:ro  -p 81:80  -v
/home/nginx/agent_deploy.sh:/usr/local/agent_deploy.sh -v
/root/ApplicareSingleAgentLinux:/usr/local/ApplicareSingleAgentLinux  --entrypoint sh --
hostname jpetstore nginx -c 'rm /var/log/nginx/access.log && touch /var/log/nginx/access.log
&& chown nginx:nginx /var/log/nginx/access.log && chmod +x /usr/local/agent_deploy.sh &&
/usr/local/agent_deploy.sh && nginx -g "daemon off;"'
```

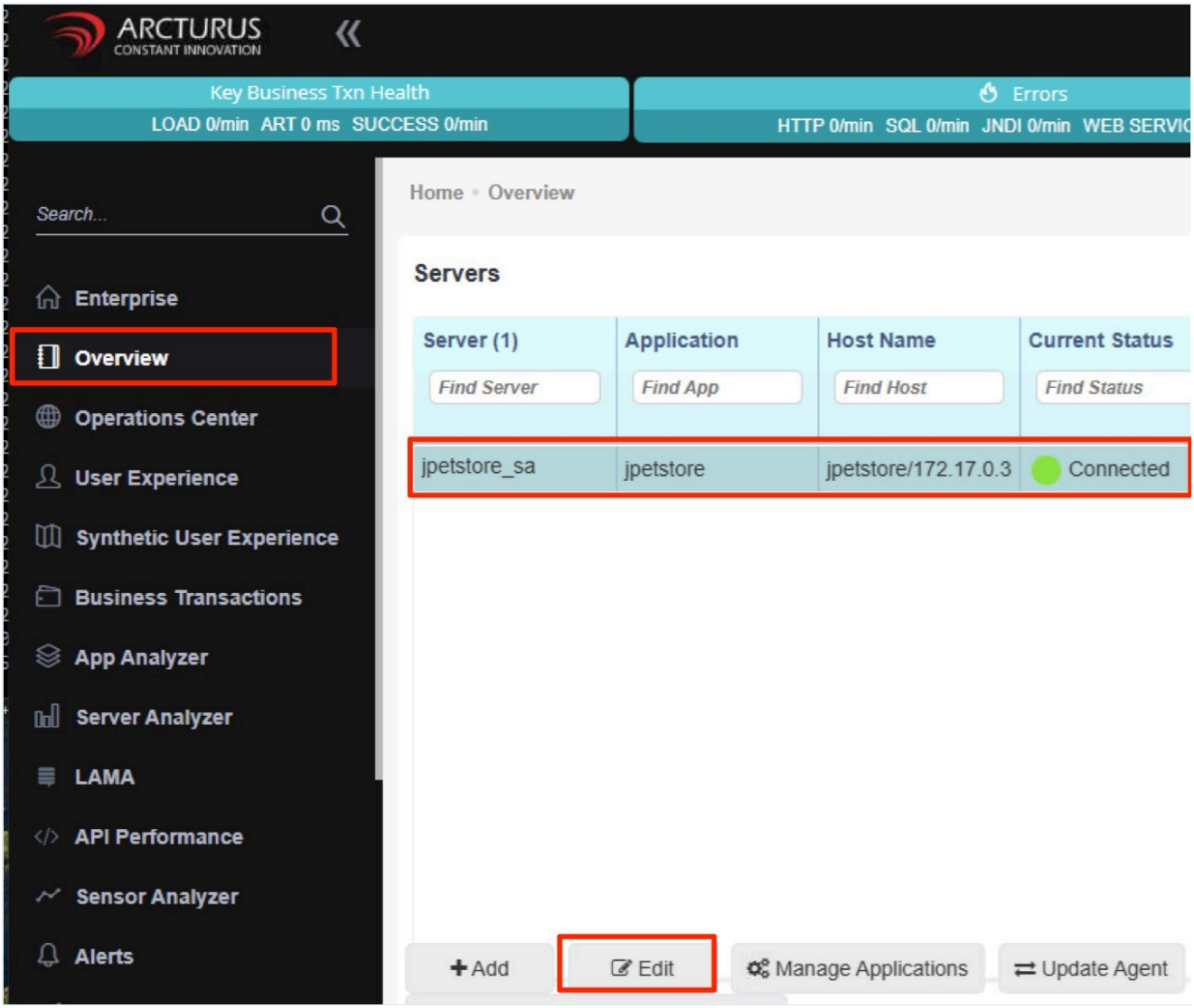
**Note:**

**rm /var/log/nginx/access.log**= Deletes the file or symbolic link at /var/log/nginx/access.log

**touch /var/log/nginx/access.log**= Creates a new, empty file at /var/log/nginx/access.log if it doesn't already exist.

**chown nginx:nginx /var/log/nginx/access.log**= Changes the ownership of /var/log/nginx/access.log to the nginx user and group.

**Step 7:** Once the container starts, the agent will be automatically added to the Applicare controller. To manage it, log in to the Applicare console and go to the Overview menu. Find the newly added agent, select it, and click **Edit** to configure as needed.




**Note: If the sub_status module is available, proceed with Step 8 as outlined. However, if the module is not available, skip Step 8 and proceed directly to Step 9.**

**Step 8:** Enable the "**Add Nginx Configuration**" checkbox and add the below values.

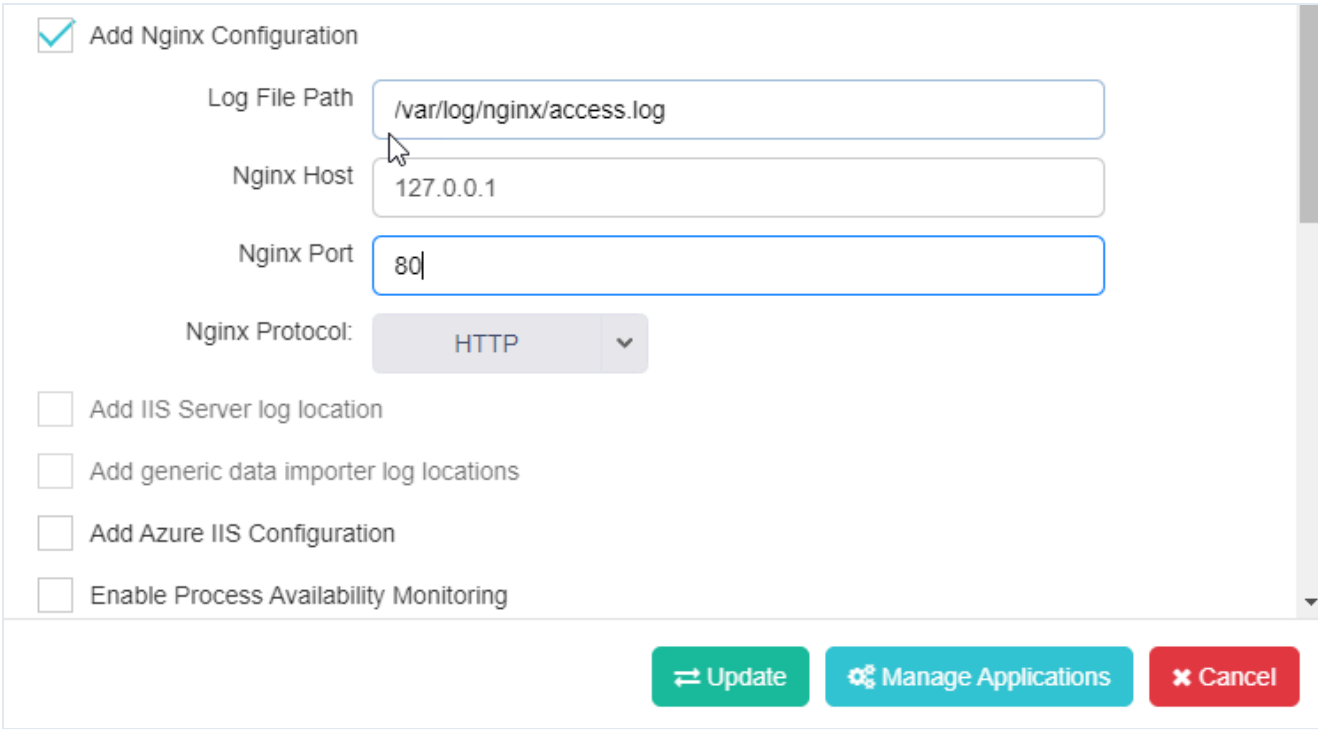
1. Log file path

2. Nginx Host

3. Nginx Port

4. Nginx Protocol

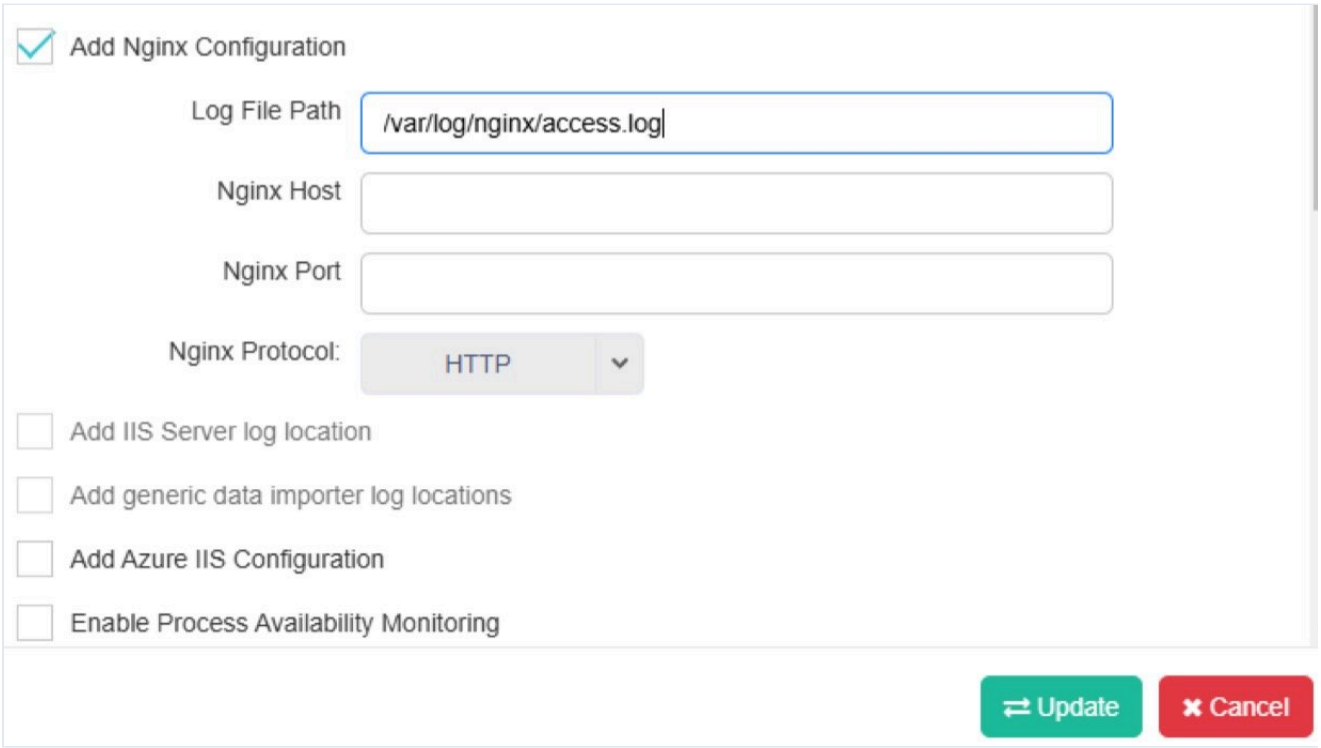
- Click the **update** button to save.




**Step 9:** Enable the "**Add Nginx Configuration**" checkbox and add the below values.

1. Log file path

- Click the **update** button to save.



CONFIGURATION GUIDES › DOCKER

# Deploy the agent in the Nginx-proxy container

Applicare 9.2 · Updated February 27, 2025 · docker, nginx · **Pending technical review**

**Note:** This step is only necessary when initially creating the container that deploys the agent. For subsequent operations, such as stopping and restarting the container, the steps below are not needed.

Step 1: Edit the default.conf file and comment out the existing log format and replace it with the following log_format.

```
TEXT
log_format main escape=default '$remote_addr – $remote_user $time_iso8601 [$request_time]
"$request" $status $body_bytes_sent "$http_referer" "$http_user_agent"
"$http_x_forwarded_for" "$upstream_addr" $host';
```

```
gzip_types text/plain text/css application/javascript application/json application/x-javascript text/xml application/xml application/xml+rss
#log_format vhost escape=default '$host $remote_addr - $remote_user [$time_local] "$request" $status $body_bytes_sent "$http_referer" "$http
log_format vhost escape=default '$remote_addr - $remote_user $time_iso8601 [$request_time] "$request" $status $body_bytes_sent "$http_refere
access_log off;
```

**Step 2:** If there is a line called **access_log off**, comment out that line and add it to the below condition in the next line.

```
TEXT
access_log /var/log/nginx/access.log main;
access_log /dev/stdout main;
```

```
    log_format vhost escape=default '$remote_addr - $remote_user $time_iso8601 [$request_time] "$request"
    #access_log off;
    access_log /var/log/nginx/access.log vhost;
    access_log /dev/stdout vhost;
        ssl_protocols TLSv1.2 TLSv1.3;
        ssl_ciphers 'ECDHE-ECDSA-AES128-GCM-SHA256:ECDHE-RSA-AES128-GCM-SHA256:ECDHE-ECDSA-AES256-GCM-SHA
        ssl_prefer_server_ciphers off;
    error_log /dev/stderr;
```

**Note: If the sub_status module is available, proceed with Step 3 as outlined. However, if the module is not available, skip Step 3 and proceed directly to Step 4.**

Step 3: Add the following lines into the http server module.

```
YAML
Syntax:
location /nginx-status {stub_status on;allow IPADDRESS;
deny all;}

Example:
location /nginx-status {stub_status on;allow 192.168.1.7;
allow  all;}
```

```
server {
    server_name _; # This is just an invalid value which will never trigger on a real hostname.
    server_tokens off;
    access_log /var/log/nginx/access.log vhost;
    access_log /dev/stdout vhost;
    http2 on;
    listen 80;
    listen 443 ssl;
    ssl_session_cache shared:SSL:50m;
    ssl_session_tickets off;
    # No default certificate found, so reject SSL handshake;
    ssl_reject_handshake on;
    location ^~ / {
        return 503;
    }
    location /nginx-status {
        stub_status on;
        allow 192.168.1.8;
        allow all;
        }
}
```

**Step 4:** Download the file **agent_deploy.sh** ***(sample file, available on the documentation site)*** from this link. Edit the file and change the **protocol**, **IP**, and **port** as shown below.

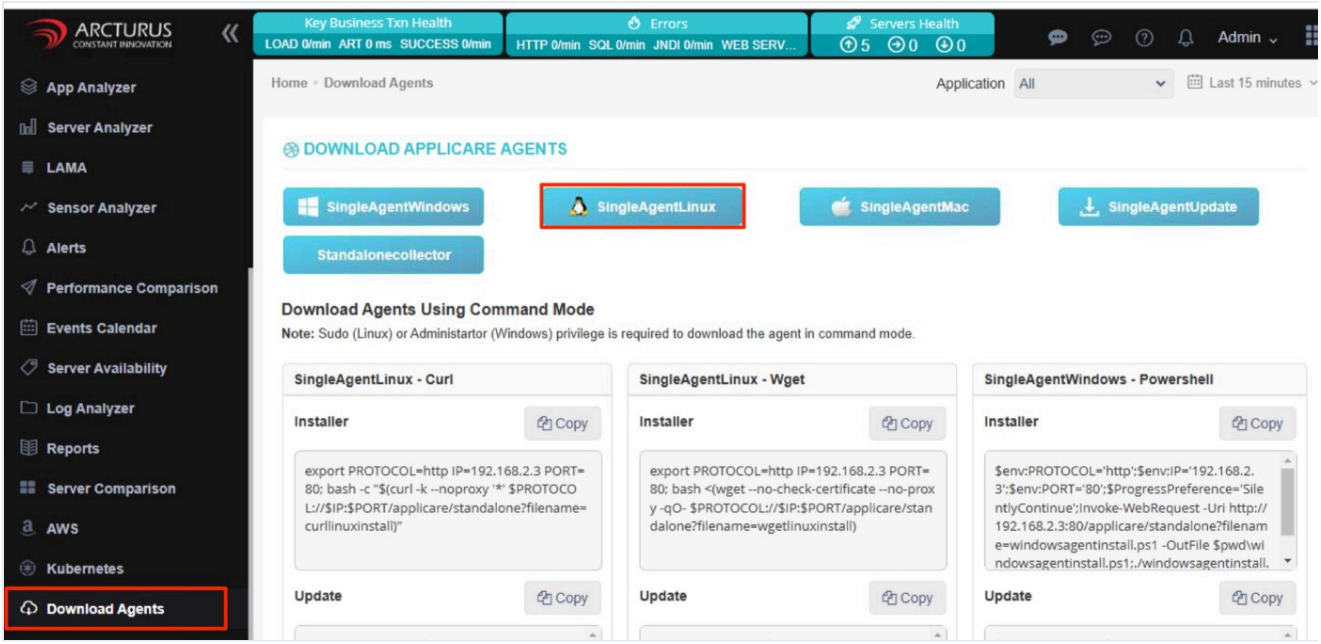
```
TEXT
PROTOCOL="<Applicare_protocol>"
IP="<Applicare_IP>"
PORT="<Applicare_port>"
```

**<Applicare_protocol>**= The protocol used by the Applicare controller is http or https.

**<**Applicare_IP>**= IP of the machine running Applicare controller**

<Applicare_port>= Applicare controller running port

**Step 5:** Access the **Applicare console**. Go to the **Download Agent** screen in the left-side menu, Download the **SingleAgentLinux** agent and extract it into the designated directory. **ApplicareSingleAgentLinux.**




**Step 6:** Add the following command along with the command that starts the container.

**Add the following command before the image name.**

```
TEXT
-v where the agent_deploy.sh file is located/agent_deploy.sh:/usr/local/agent_deploy.sh
-v ApplicareSingleAgentLinuxDirectory:/usr/local/ApplicareSingleAgentLinux
--entrypoint sh
--hostname The name which we need to add the agent in Applicare
```

**Add the following command after the image name.**

```
TEXT
-c 'rm /var/log/nginx/access.log && touch /var/log/nginx/access.log && openssl dhparam -out
/etc/nginx/dhparam/dhparam.pem 2048  && chown nginx:nginx /var/log/nginx/access.log && chmod
+x /usr/local/agent_deploy.sh && /usr/local/agent_deploy.sh && nginx -g "daemon off;"'
```

**Example:**

```
BASH
docker run -d --name nginx -v /home/nginx/nginx.conf:/etc/nginx/nginx.conf:ro -v
/var/run/docker.sock:/tmp/docker.sock:ro  -p 81:80 -p 443:443 -v
/home/nginx/agent_deploy.sh:/usr/local/agent_deploy.sh -v
/root/ApplicareSingleAgentLinux:/usr/local/ApplicareSingleAgentLinux  --entrypoint sh --
hostname jpetstore jwilder/nginx-proxy -c 'rm /var/log/nginx/access.log && touch
/var/log/nginx/access.log && openssl dhparam -out /etc/nginx/dhparam/dhparam.pem 2048 &&
chown nginx:nginx /var/log/nginx/access.log && chmod +x /usr/local/agent_deploy.sh &&
/usr/local/agent_deploy.sh && nginx -g "daemon off;"'
```

**Note:**

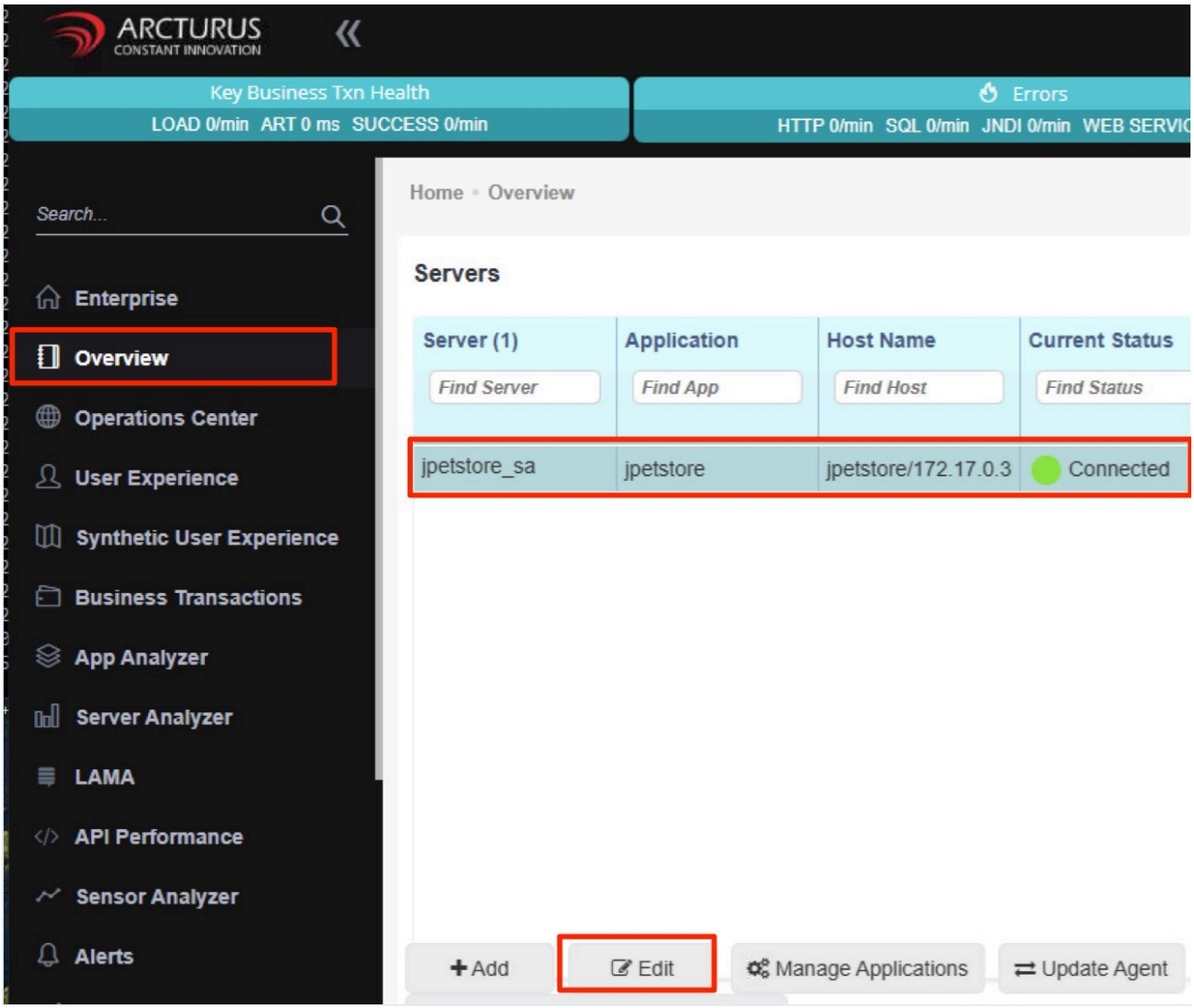
**rm /var/log/nginx/access.log**= Deletes the file or symbolic link at /var/log/nginx/access.log

**touch /var/log/nginx/access.log**= Creates a new, empty file at /var/log/nginx/access.log if it doesn't already exist.

**openssl dhparam -out /etc/nginx/dhparam/dhparam.pem 2048=** This command creates the DH parameters essential for SSL/TLS encryption, to enhancing secure communication and ensuring forward secrecy.

**chown nginx:nginx /var/log/nginx/access.log**= Changes the ownership of /var/log/nginx/access.log to the nginx user and group.

**Step 7:** Once the container starts, the agent will be automatically added to the Applicare controller. To manage it, log in to the Applicare console and go to the Overview menu. Find the newly added agent, select it, and click **Edit** to configure as needed.




**Note: If the sub_status module is available, proceed with Step 8 as outlined. However, if the module is not available, skip Step 8 and proceed directly to Step 9.**

**Step 8:** Enable the "**Add Nginx Configuration**" checkbox and add the below values.

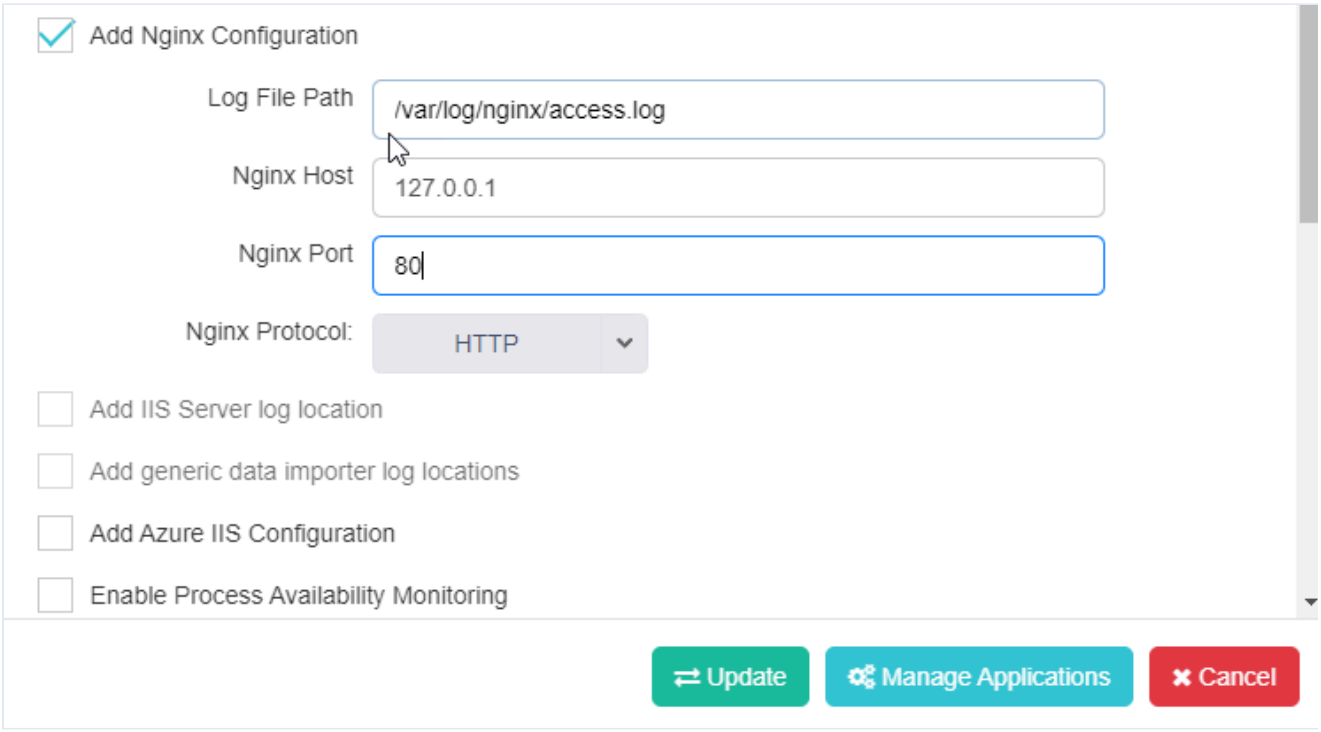
1. Log file path

2. Nginx Host

3. Nginx Port

4. Nginx Protocol

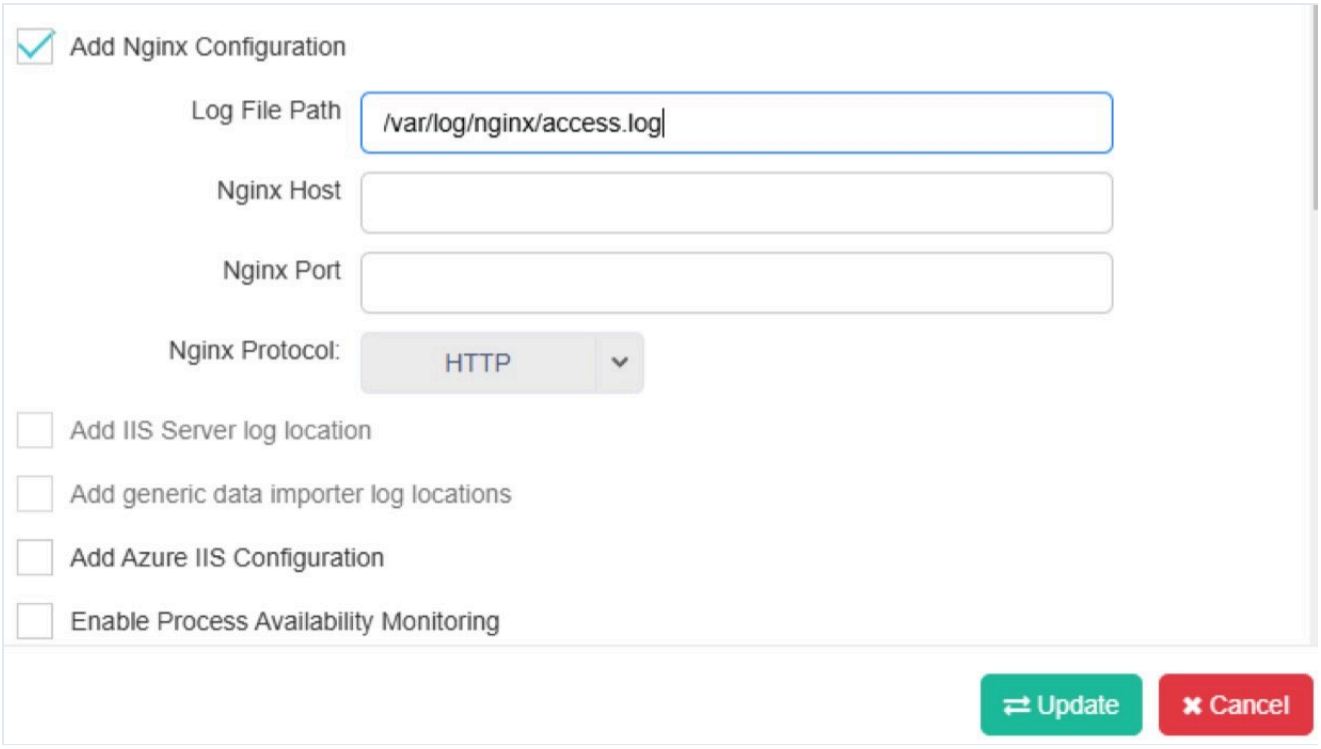
- Click the **update** button to save.




**Step 9:** Enable the "**Add Nginx Configuration**" checkbox and add the below values.

1. Log file path

- Click the **update** button to save.


Add Nginx Configuration
Log File Path
/var/log/nginx/access.log
Nginx Host
Nginx Port
Nginx Protocol:
HTTP
Add IIS Server log location
Add generic data importer log locations
Add Azure IIS Configuration
Enable Process Availability Monitoring
Update
Cancel

CONFIGURATION GUIDES › KUBERNETES

# .NET monitoring in Kubernetes

Applicare 9.2 · Updated July 18, 2025 · dotnet, kubernetes · **Pending technical review**

Before you begin .NET monitoring installation, ensure the **Applicare Collector** is already installed and actively running on your **Applicare Controller** machine. For detailed instructions on setting up the collector, please refer to our guide: Applicare Collector Configuration on Linux/Ubuntu

To install the operator in an existing cluster, install cert-manager, if it is not already installed.

```bash
kubectl apply -f https://github.com/cert-manager/cert-manager/releases/download/v1.18.2/cert-manager.yaml
```

Install Opentelemetry operator in your Kubernetes cluster.

```bash
kubectl apply -f https://github.com/open-telemetry/opentelemetry-operator/releases/latest/download/opentelemetry-operator.yaml
```

Create a file dotnet-instrumentation.yaml and add the below content and save it.

```yaml
apiVersion: v1
kind: Namespace
metadata:
  name: applicareotel-ns
  labels:
    name: applicareotel-ns

---

apiVersion: opentelemetry.io/v1alpha1
kind: Instrumentation
metadata:
  name: dotnet-instrumentation
  namespace: applicareotel-ns
spec:
  exporter:
    endpoint: http://<APPLICARE_CONTROLLER_IP>:4318
  propagators:
    - tracecontext
    - baggage
  dotnet:
    image: ghcr.io/open-telemetry/opentelemetry-operator/autoinstrumentation-dotnet:1.9.0
```

**Before deploying the above Instrumentation, ensure you replace the following placeholders:**

`<APPLICARE_CONTROLLER_IP>`: Replace this with the actual IP address or hostname of your Applicare controller instance

After creating the yaml file, execute the command below.

```bash
kubectl apply -f dotnet-instrumentation.yaml
```

Add the below annotation in your application and **redeploy the application**.

```text
instrumentation.opentelemetry.io/inject-dotnet: "applicareotel-ns/applicaredotnet-instrumentation"
```

```yaml
---
apiVersion: apps/v1
kind: Deployment
metadata:
  name: applicareapp
  namespace: applicare-ns
spec:
  replicas: 1
  selector:
    matchLabels:
      app: applicareapp
  template:
    metadata:
      labels:
        app: applicareapp
      annotations:
        instrumentation.opentelemetry.io/inject-dotnet: "applicareotel-ns/applicaredotnet-instrumentation"
    spec:
      containers:
        - name: webapplication1
          image: applicare910/applicareapp:dotnetcore
          ports:
            - containerPort: 8080
```

CONFIGURATION GUIDES › KUBERNETES

# Install OTel agent in Kubernetes cluster

Applicare 9.2 · Updated September 10, 2025 · kubernetes, opentelemetry · **Pending technical review**

**Step 1:** Install the OTel log agent on the Kubernetes cluster. Download the yaml file and replace **<Applicare_Ip>** on line **53** of the yaml file with the IP of the machine running the Applicare controller.

**If have Wget, execute the command below.**

```bash
sudo wget
https://applicare.blob.core.windows.net/demoapplication/applicare_log_collector.yaml
```

```text
**(OR)**
```

**If have Curl, execute the command below.**

```bash
sudo curl -O
https://applicare.blob.core.windows.net/demoapplication/applicare_log_collector.yaml
```

Then apply that yaml file to install collector in Kubernetes cluster.

```bash
kubectl apply -f applicare_log_collector.yaml
```

CONFIGURATION GUIDES › KUBERNETES

# Local Kubernetes Monitoring

Applicare 9.2 · Updated March 24, 2026 · kubernetes · **Pending technical review**

**Step 1:** Run **kubectl top nodes** in your Kubernetes environment. If you do not see the details as expected, proceed to **Step 2** if the information is displayed correctly, move on to **Step 3**.

```
C:\Windows\system32>kubectl top nodes
NAME       CPU(cores)   CPU%   MEMORY(bytes)   MEMORY%
minikube   181m         9%     1601Mi          41%
```

**Step 2:** Install the metrics server in your Kubernetes cluster. Execute the following command to deploy the metrics pod.

**kubectl apply -f https://github.com/kubernetes-sigs/metrics-server/releases/latest/download/components.yaml**

Check if the metrics server is running by executing the following command.

**kubectl get pods -n kube-system**

```
E:\kubernetes>kubectl get pods -n kube-system
NAME                               READY   STATUS    RESTARTS        AGE
coredns-6d4b75cb6d-l7n9m           1/1     Running   0               6d21h
etcd-minikube                      1/1     Running   0               6d21h
kube-apiserver-minikube            1/1     Running   0               6d21h
kube-controller-manager-minikube   1/1     Running   1 (6d21h ago)   6d21h
kube-proxy-kmsnd                   1/1     Running   0               6d21h
kube-scheduler-minikube            1/1     Running   0               6d21h
metrics-server-658867cdb7-m46jm    1/1     Running   0               6d21h
storage-provisioner                1/1     Running   3 (2d4h ago)    6d21h

E:\kubernetes>
```

## If the metrics server is running, proceed to step 3. If it is not running, follow the steps below

**1:** Edit the configuration file by running the following command.

```bash
kubectl edit deployments.apps -n kube-system metrics-server
```

**2:** Add the following lines under in the **spec: container: args:** in the configuration file and save your changes.

```text
- --kubelet-insecure-tls
```

```
    type: RollingUpdate
  template:
    metadata:
      creationTimestamp: null
      labels:
        k8s-app: metrics-server
    spec:
      containers:
      - args:
        - --cert-dir=/tmp
        - --secure-port=4443
        - --kubelet-preferred-address-types=InternalIP,ExternalIP,Hostname
        - --kubelet-use-node-status-port
        - --metric-resolution=15s
        - --kubelet-insecure-tls
        image: k8s.gcr.io/metrics-server/metrics-server:v0.6.1
        imagePullPolicy: IfNotPresent
        livenessProbe:
          failureThreshold: 3
          httpGet:
```

**3:** After a few minutes, run the command **kubectl get pods -n kube-system** to check if the metrics server is running. If it is, running skip the following step.

**4:** Edit the configuration file by running the command **kubectl edit deployments.apps -n kube-system metrics-server** update the lines under **spec: container: args:** and save your changes.

```
TEXT
- --kubelet-preferred-address-types=InternalIP
```

```
    type: RollingUpdate
  template:
    metadata:
      creationTimestamp: null
      labels:
        k8s-app: metrics-server
    spec:
      containers:
      - args:
        - --cert-dir=/tmp
        - --secure-port=4443
        - --kubelet-preferred-address-types=InternalIP
        - --kubelet-use-node-status-port
        - --metric-resolution=15s
        - --kubelet-insecure-tls
        image: k8s.gcr.io/metrics-server/metrics-server:v0.6.1
        imagePullPolicy: IfNotPresent
        livenessProbe:
          failureThreshold: 3
          httpGet:
```

**5:** To verify that the metrics API server is running, execute the following command and review the output:

**kubectl top nodes**

```
C:\Windows\system32>kubectl top nodes
NAME       CPU(cores)   CPU%   MEMORY(bytes)   MEMORY%
minikube   181m         9%     1601Mi          41%
```

SingleAgent should be deployed in the machine where Kubernetes cluster is running.

**Step 3:** Refer here to **install SingleAgent and start.**

Once the agent is started, it will automatically be added to the Applicare Console.

**Step 4.** Run the following command and record the **cluster server** details for configuration.

```bash
kubectl config view
```

```
C:\Users\Anand>kubectl config view
apiVersion: v1
clusters:
- cluster:
    certificate-authority-data: DATA+OMITTED
    server: https://kubernetes.docker.internal:6443
  name: docker-desktop
contexts:
- context:
    cluster: docker-desktop
    user: docker-desktop
  name: docker-desktop
current-context: docker-desktop
kind: Config
preferences: {}
users:
- name: docker-desktop
  user:
    client-certificate-data: REDACTED
    client-key-data: REDACTED
```

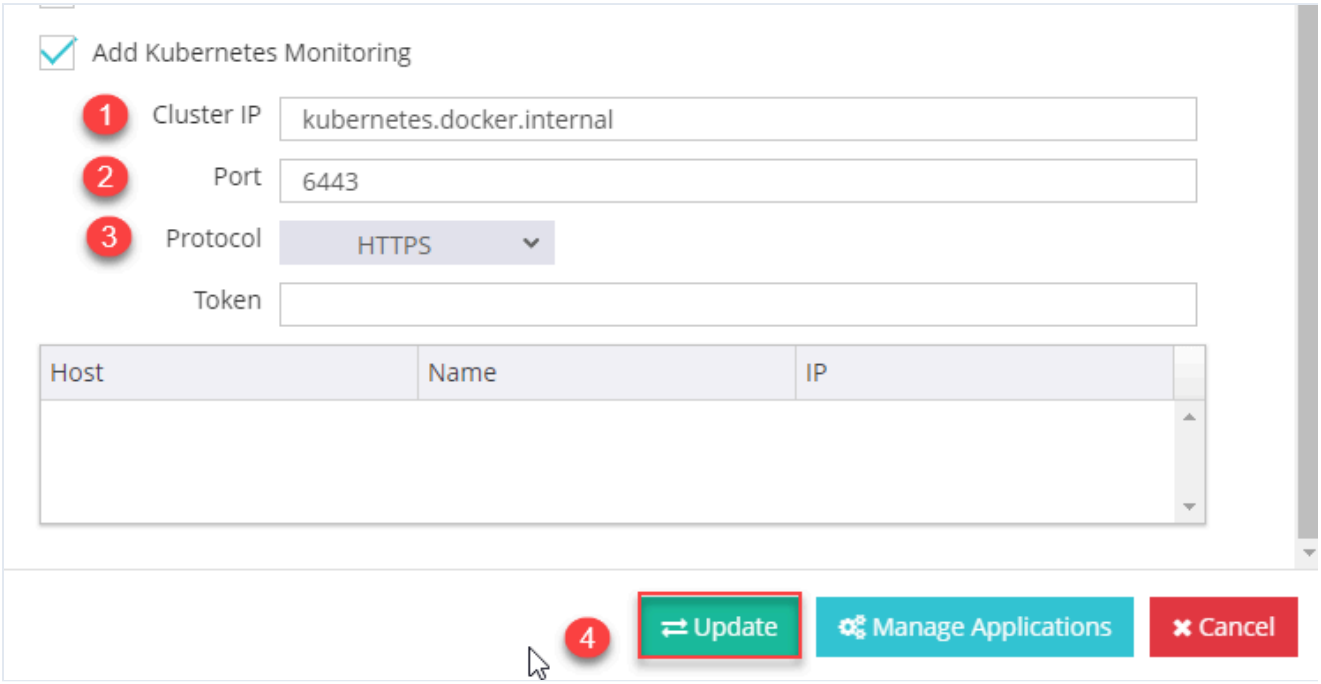
**Cluster IP :** kubernetes.docker.internal

**Port :** 6443

**Protocol :** https

**Step 5:** Log in to Applicare Console and navigate to the **Overview screen,** select the newly added server and click **Edit** button.

**Step 6: Enable** the **Add Kubernetes Monitoring checkbox** and enter the configuration details. Leave the **Token** field empty and click the **update** button.

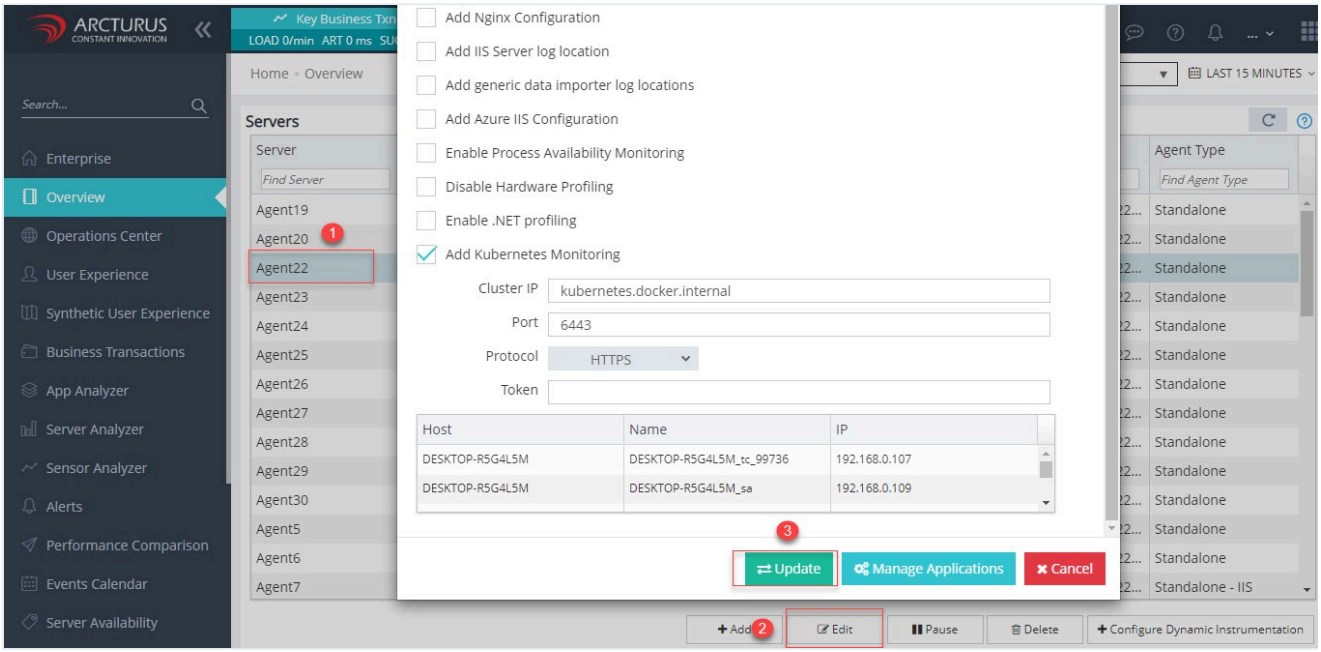



We can edit or delete the kubernetes configuration from both the **Overview** or **Kubernetes** menu.

## Overview Menu

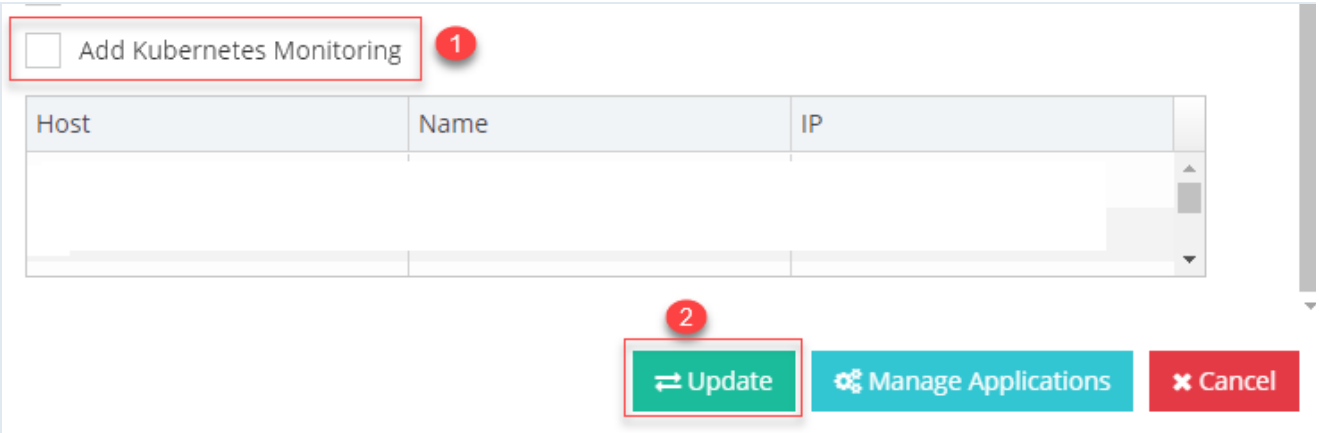
### Update

Select the **row** and click **Edit** button and update the details and click **Update** button.




## Delete

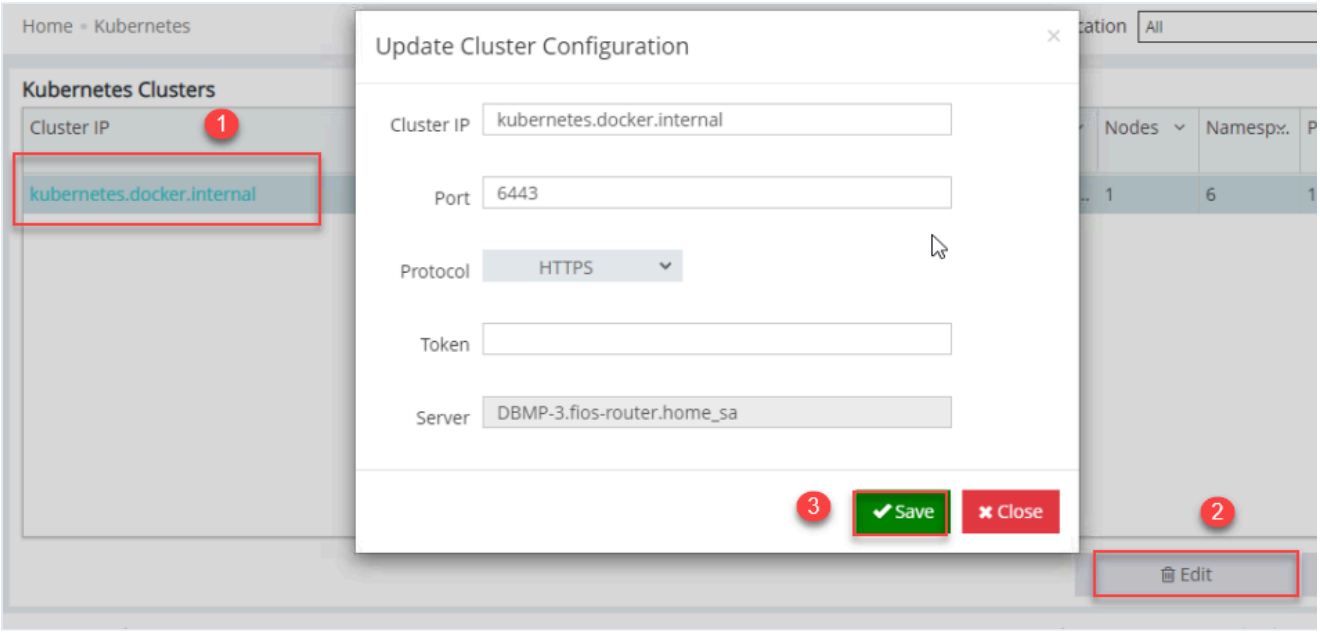
Select the **row** and click **Edit** button and uncheck the **Add the Kubernetes Monitoring** checkbox and click **Update** button.




## Kubernetes Menu

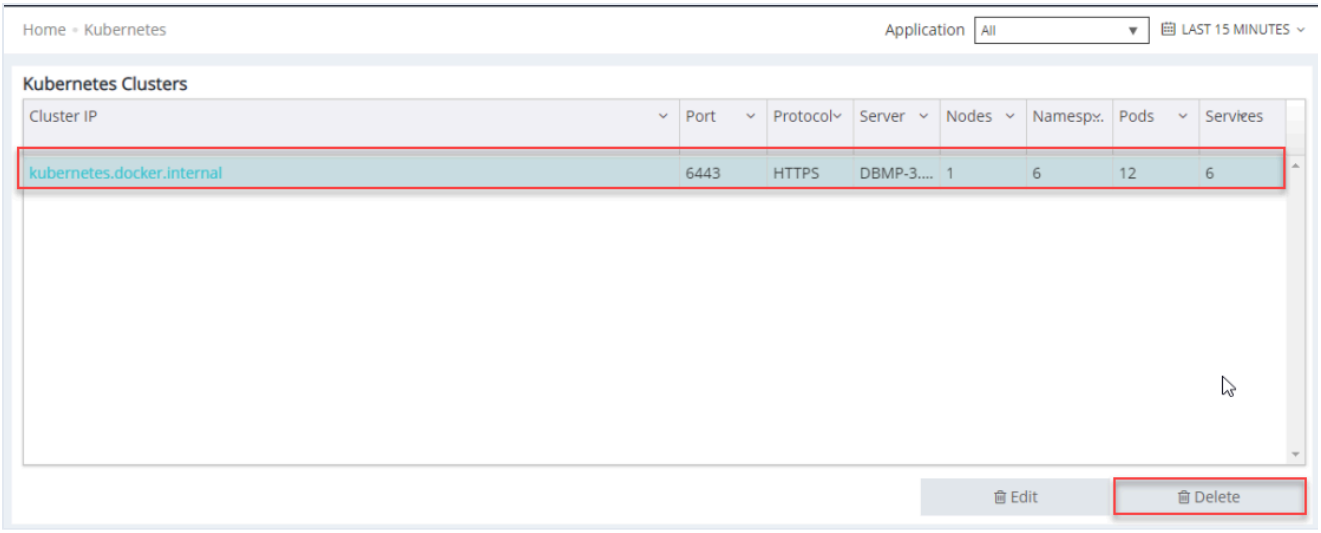
### Update

Select the **row** and click **Edit** button and update the details and click **Save** button.




### Delete

Select the **row** and click **Delete** button.


Home • Kubernetes
Application All
LAST 15 MINUTES
Kubernetes Clusters
Cluster IP
Port
Protocol
Server
Nodes
Namespx.
Pods
Services
kubernetes.docker.internal
6443
HTTPS
DBMP-3....
1
6
12
6
Edit
Delete

CONFIGURATION GUIDES › KUBERNETES

# Remote Kubernetes Monitoring

Applicare 9.2 · Updated June 20, 2026 · kubernetes · **Pending technical review**

1. Create an **applicare-setup.yml** file with the below content:

YAML

```yaml
apiVersion: v1
kind: Namespace
metadata:
  name: applicare
---
apiVersion: v1
kind: ServiceAccount
metadata:
  name: applicare
  namespace: applicare
---
apiVersion: rbac.authorization.k8s.io/v1
kind: ClusterRole
metadata:
  name: applicareapi-cluster-role
rules:
  # Core inventory + storage objects
  - apiGroups: [""]
    resources:
      - nodes
      - namespaces
      - pods
      - services
      - events
      - endpoints
      - configmaps
      - persistentvolumeclaims
      - persistentvolumes
      - replicationcontrollers
    verbs: ["get", "list", "watch"]
  # Container log reads (fixes "Failed to get log details ... 403")
  - apiGroups: [""]
    resources:
      - pods/log
    verbs: ["get"]
  # Kubelet Summary API + cAdvisor via the API-server proxy:
  #   GET /api/v1/nodes/<node>/proxy/stats/summary     -> pod disk (ephemeral + PVC) and
network
  #   GET /api/v1/nodes/<node>/proxy/metrics/cadvisor  -> CPU throttling
  # nodes/proxy is a distinct RBAC subresource; granting "nodes" above does NOT cover it.
  - apiGroups: [""]
    resources:
      - nodes/proxy
      - nodes/stats
```

```
      - nodes/metrics
    verbs: ["get"]
  # Resource quotas per namespace (near-limit alerting)
  - apiGroups: [""]
    resources:
      - resourcequotas
      - limitranges
    verbs: ["get", "list", "watch"]
  # Events via the newer events.k8s.io API group
  - apiGroups: ["events.k8s.io"]
    resources:
      - events
    verbs: ["get", "list", "watch"]
  # CPU / memory metrics (KubernetesNodesMetrics / ContainerMetrics jobs)
  - apiGroups: ["metrics.k8s.io"]
    resources:
      - nodes
      - pods
    verbs: ["get", "list"]
  # Workload objects (desired-vs-ready replica health)
  - apiGroups: ["apps"]
    resources:
      - deployments
      - replicasets
      - statefulsets
      - daemonsets
    verbs: ["get", "list", "watch"]
  # Batch workloads (Job / CronJob failure monitoring)
  - apiGroups: ["batch"]
    resources:
      - jobs
      - cronjobs
    verbs: ["get", "list", "watch"]
  # Ingress resources — topology Ingress→Service→Pod chain
  - apiGroups: ["networking.k8s.io"]
    resources:
      - ingresses
      - ingressclasses
    verbs: ["get", "list", "watch"]
---
apiVersion: rbac.authorization.k8s.io/v1
kind: ClusterRoleBinding
metadata:
  name: applicareapi-cluster-role-binding
subjects:
  - kind: ServiceAccount
```

```
    name: applicare
    namespace: applicare
roleRef:
  apiGroup: rbac.authorization.k8s.io
  kind: ClusterRole
  name: applicareapi-cluster-role
---
apiVersion: v1
kind: Secret
metadata:
  name: applicare-token
  namespace: applicare
  annotations:
    kubernetes.io/service-account.name: applicare
type: kubernetes.io/service-account-token
```

2. Execute the below command in the same directory where the file was created:

BASH
```
kubectl apply -f applicare-setup.yml
```

3. Execute **kubectl top nodes** in the kubernetes.

```
C:\Windows\system32>kubectl top nodes
NAME       CPU(cores)   CPU%   MEMORY(bytes)   MEMORY%
minikube   181m         9%     1601Mi          41%
```

- ***If you are not able to view the below details, then:*** Install metrics pod in Kubernetes. Execute the below command to install metrics pod:
  - **kubectl apply -f https://github.com/kubernetes-sigs/metrics-server/releases/latest/download/components.yaml**
- Check if the metrics server is running by executing the below command.
  - **kubectl get pods -n kube-system**

```
E:\kubernetes>kubectl get pods -n kube-system
NAME                               READY   STATUS    RESTARTS        AGE
coredns-6d4b75cb6d-l7n9m           1/1     Running   0               6d21h
etcd-minikube                      1/1     Running   0               6d21h
kube-apiserver-minikube            1/1     Running   0               6d21h
kube-controller-manager-minikube   1/1     Running   1 (6d21h ago)   6d21h
kube-proxy-kmsnd                   1/1     Running   0               6d21h
kube-scheduler-minikube            1/1     Running   0               6d21h
metrics-server-658867cdb7-m46jm    1/1     Running   0               6d21h
storage-provisioner                1/1     Running   3 (2d4h ago)    6d21h

E:\kubernetes>
```

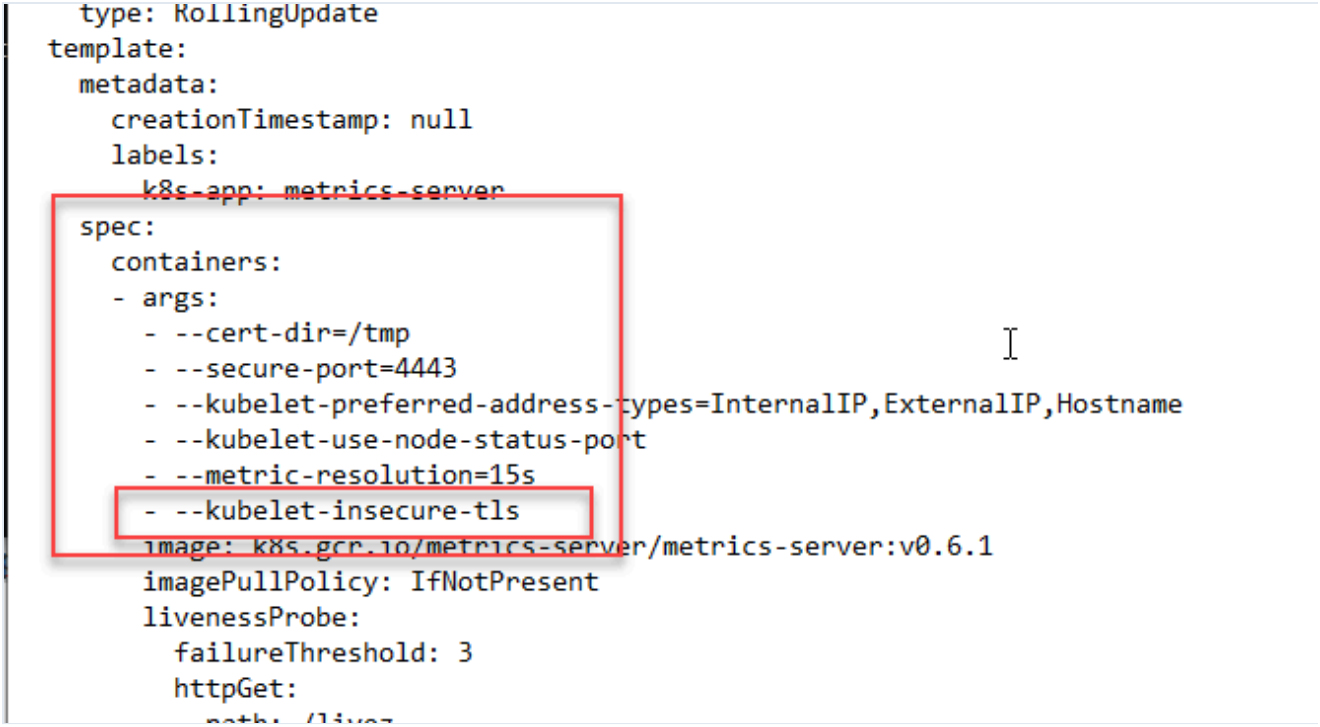
***If it is still not running, then follow the below steps***:

- **Step 1:** Edit the configuration file by executing the below command.

```bash
kubectl edit deployments.apps -n kube-system metrics-server
```

- **Step 2:** Add the below lines in the **spec: container: args:** and save the file.

```text
- --kubelet-insecure-tls
```




- **Step 3:** After a few minutes, execute the command **kubectl get pods -n kube-system** and check if the metrics server is running.
  - ***If it is not running, then***: Edit the configuration file by executing the command **kubectl edit deployments.apps -n kube-system metrics-server** modify the below lines in the **spec: container: args:** and save it.

```text
- --kubelet-preferred-address-types=InternalIP
```

```
    type: RollingUpdate
  template:
    metadata:
      creationTimestamp: null
      labels:
        k8s-app: metrics-server
    spec:
      containers:
      - args:
        - --cert-dir=/tmp
        - --secure-port=4443
        - --kubelet-preferred-address-types=InternalIP
        - --kubelet-use-node-status-port
        - --metric-resolution=15s
        - --kubelet-insecure-tls
        image: k8s.gcr.io/metrics-server/metrics-server:v0.6.1
        imagePullPolicy: IfNotPresent
        livenessProbe:
          failureThreshold: 3
          httpGet:
```

- **Step 4:** To verify the metrics API server is running, execute the below command and check **kubectl top nodes**.

```
C:\Windows\system32>kubectl top nodes
NAME       CPU(cores)   CPU%   MEMORY(bytes)   MEMORY%
minikube   181m         9%     1601Mi          41%
```

4. Refer here to **install SingleAgent and start.**

- Once we start the agent it will be added to Applicare Console.

5. Execute the below command one by one to get the **Cluster IP** and **Token**. Copy the **$APISERVER** and **$TOKEN** value for configuration.

**To get APISERVER and TOKEN in PowerShell:**

```
TEXT
$APISERVER = kubectl config view --minify -o jsonpath='{.clusters[0].cluster.server}'
Write-Host "APISERVER: $APISERVER"
$TOKEN = kubectl get secret applicare-token -n applicare -o jsonpath='{.data.token}' |
ForEach-Object {
[System.Text.Encoding]::UTF8.GetString([System.Convert]::FromBase64String($_)) }
Write-Host "TOKEN: $TOKEN"
```

**To get APISERVER and TOKEN in Bash**

```bash
APISERVER=$(kubectl config view --minify -o jsonpath='{.clusters[0].cluster.server}')
echo "APISERVER: $APISERVER"
TOKEN=$(kubectl get secret applicare-token -n applicare -o jsonpath='{.data.token}' | base64 --decode)
echo "TOKEN: $TOKEN"
```

6. Login into the Applicare console and go to the **Overview screen**. Select the newly added server and click the **Edit** button.

7. **Enable** the **Kubernetes Integration checkbox** and add the configuration details.

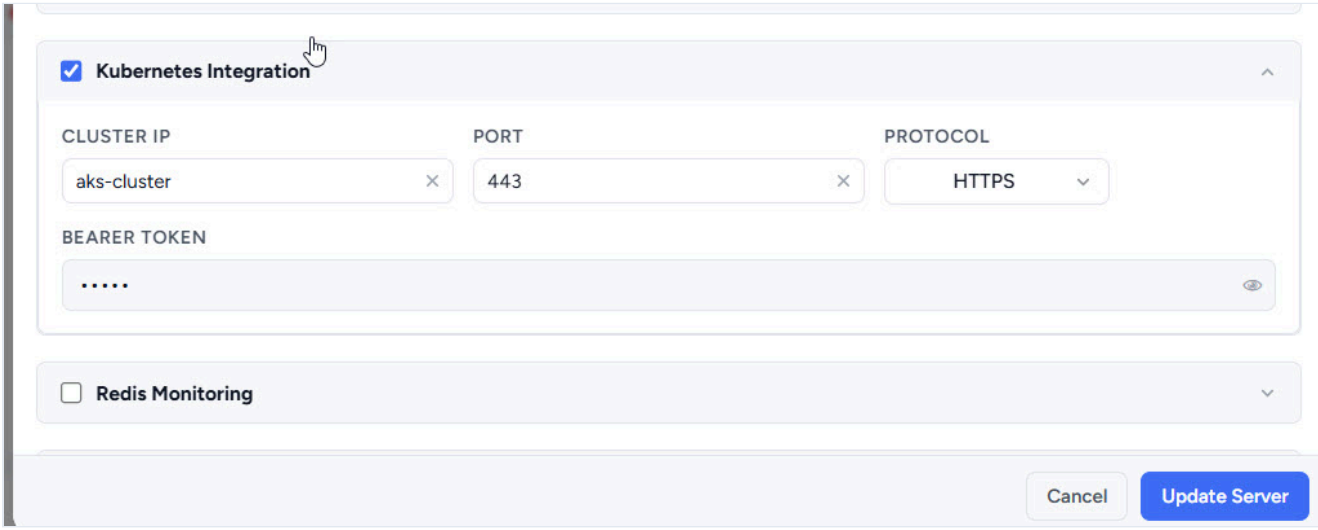
8. Remove the "**https://** (or) **http://"** and **port** in **APISERVER** value and Paste the remaining value in the **CLUSTER IP** field.

9. Copy the **TOKEN** value and paste it in the **BEARER TOKEN** field.

10. Enter the Kubernetes running port in the **PORT** field.

11. Select the Kubernetes protocol from the **PROTOCOL dropdown**. Protocol details will be available in the **APISERVER. "https:// (or) http://"**

12. Click the **Update Server** button.

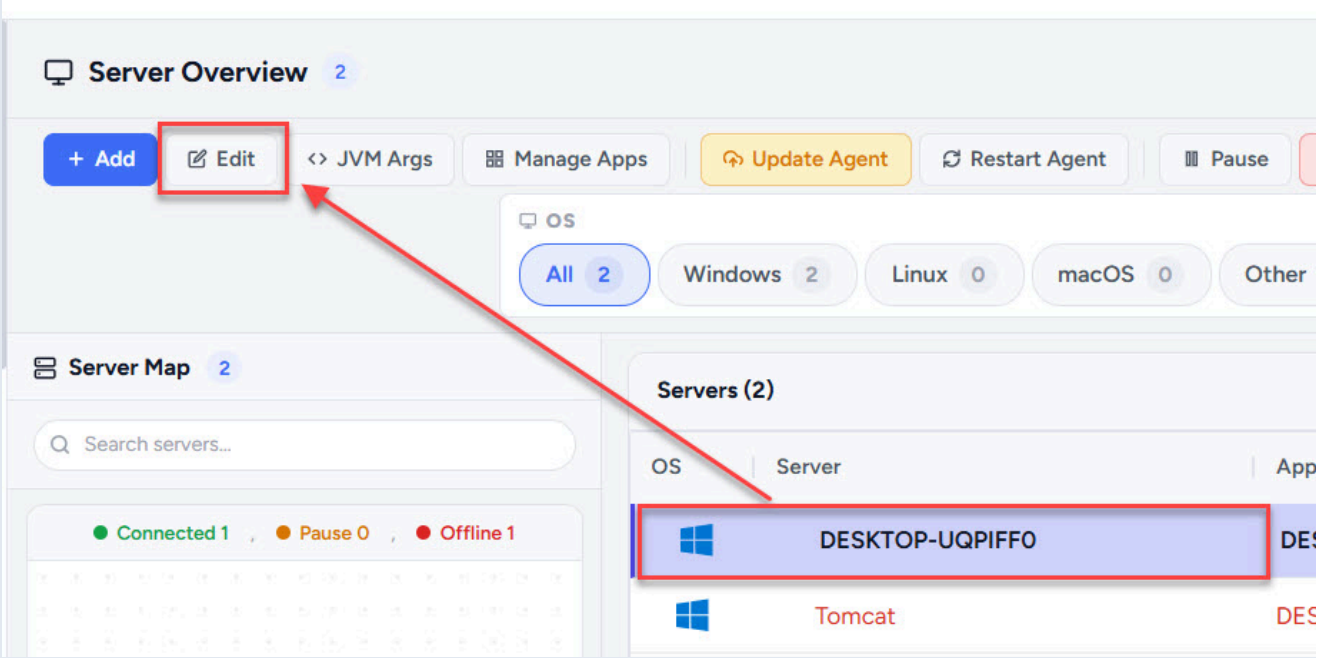



- **Note:** We can edit or delete the Kubernetes configuration from both the **Overview** or **Kubernetes** menu.

## Overview Menu

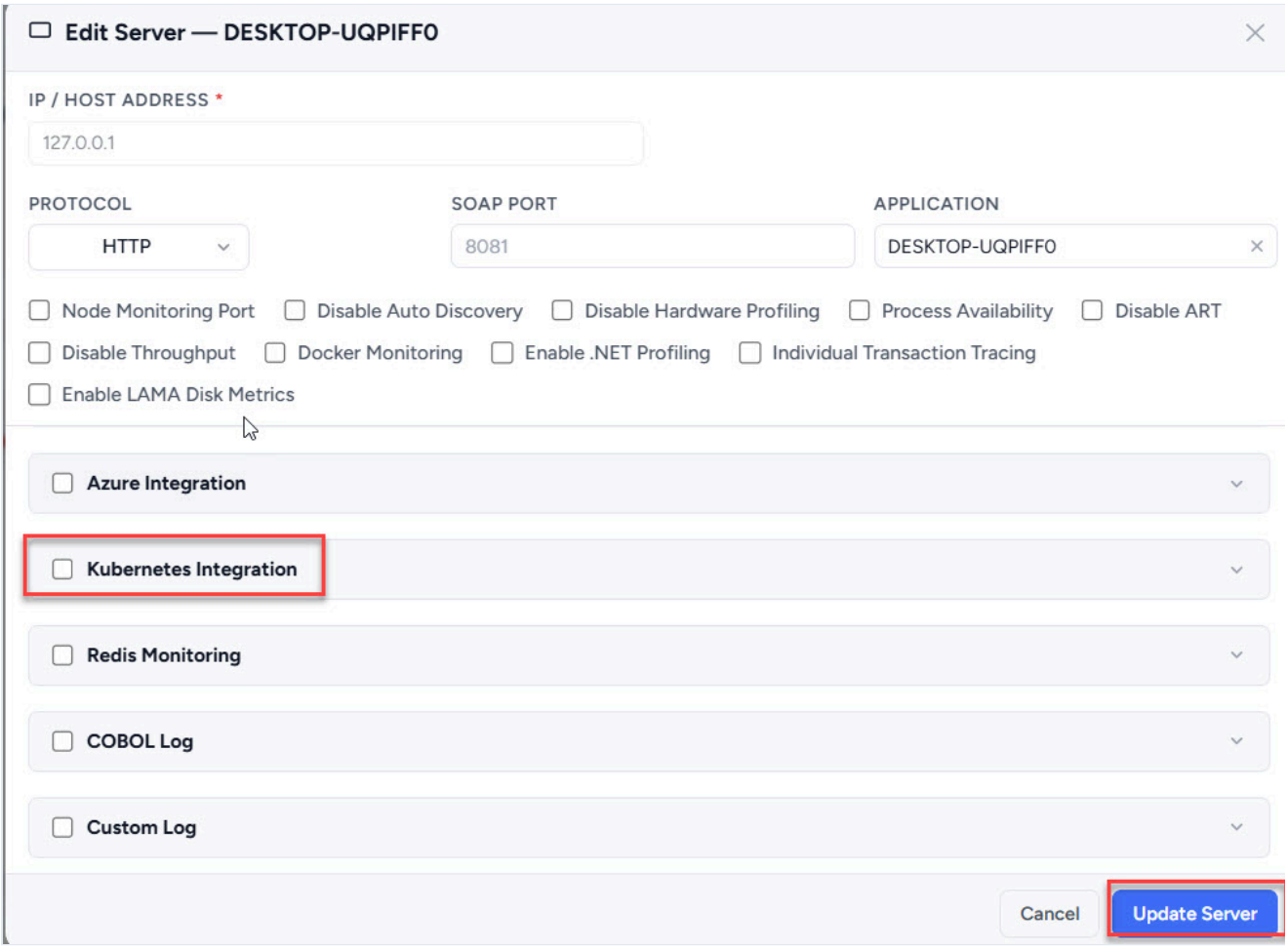
### Update

- Select the **row** and click the **Edit** button to update details and then click the **Update** button.




## Delete

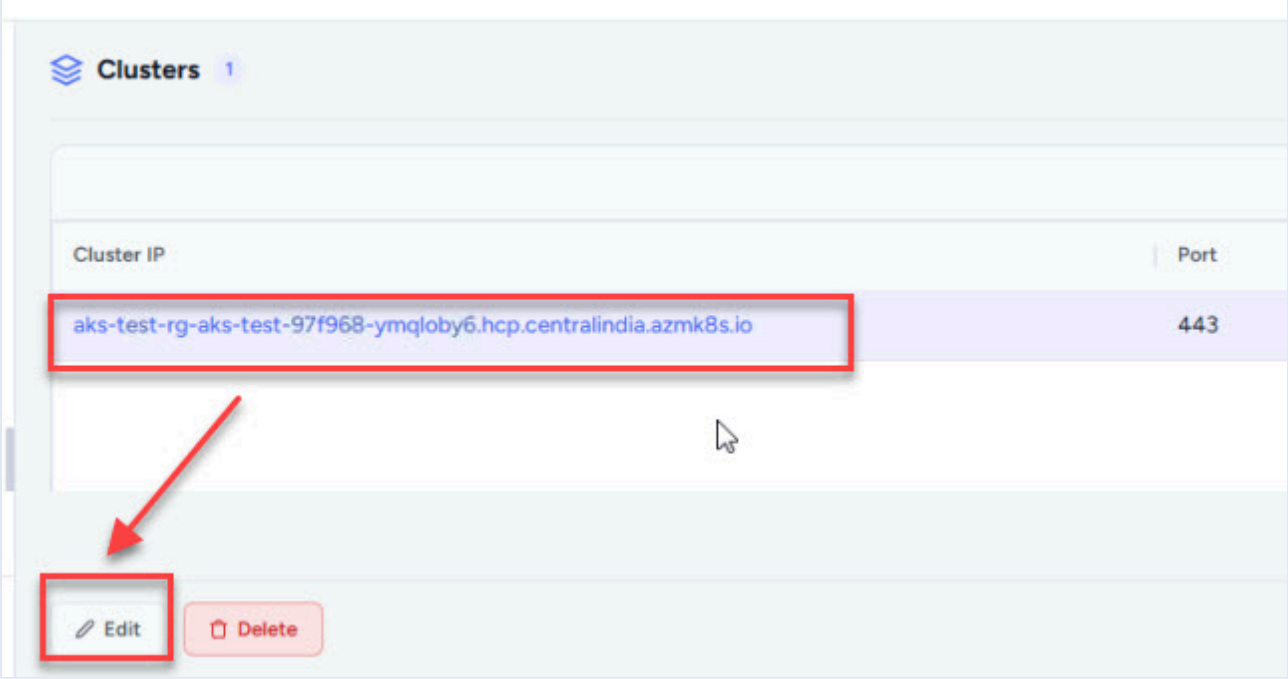
- Select the **row** and click the **Edit** button and **Uncheck** the **Add the Kubernetes Monitoring** checkbox. Then, click the **Update** button.



# Kubernetes Menu

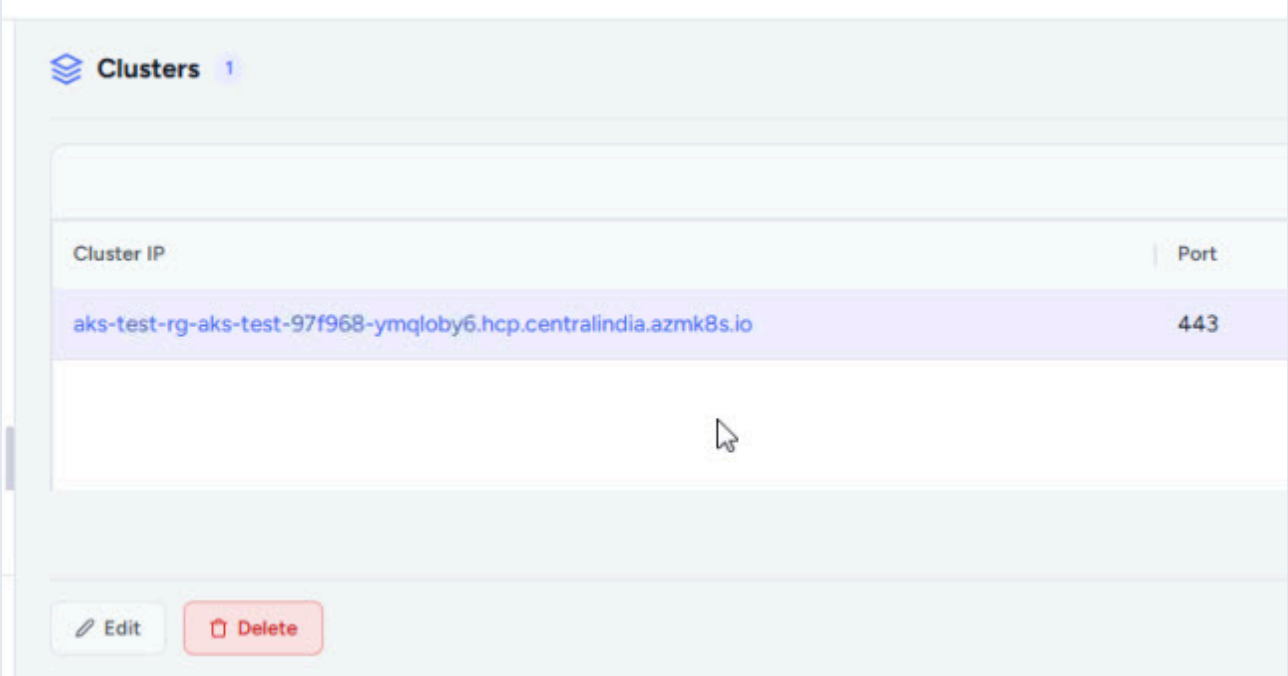
## Update

- Select the **row** and click the **Edit** button to update details. Then, click the **Save** button.




## Delete

- Select the **row** and click the **Delete** button.




**Note:** We can edit or delete the Kubernetes configuration from both the **Overview** or **Kubernetes** menu.

**Uninstall the Applicare Kubernetes monitor service account and secrets.**

```bash
kubectl delete namespace applicare
kubectl delete clusterrole applicareapi-cluster-role
kubectl delete clusterrolebinding applicareapi-cluster-role-binding
```

CONFIGURATION GUIDES › KUBERNETES

# Installing Applicare SingleAgent in Kubernetes Containers Using a Script

Applicare 9.2 · Updated August 21, 2024 · kubernetes, singleagent · **Pending technical review**

**Note:** Follow the steps in this to install the agent on the docker image.

Add the following line to the end of your YAML file during container creation.

```yaml
env:
- name: sname
value: <SERVERNAME>
```

Replace **<SERVERNAME>** with the desired name for container in Applicare. The **<SERVERNAME>** should be **unique for each containers.**

e.g.

```yaml
apiVersion: apps/v1
kind: Deployment
metadata:
namespace : tomcat-ns1
name: app-deployment-1
spec:
replicas: 1
selector:
matchLabels:
app: tomcat
template:
metadata:
labels:
app: tomcat
spec:
containers:
- name: tomcat-container1
image: petstore:latest
imagePullPolicy: Never
ports:
- containerPort: 8080
env:
- name: sname
value: petstore
```

## Assign a unique name to each Kubernetes container.

e.g.

YAML

```
apiVersion: apps/v1
kind: Deployment
metadata:
namespace : tomcat-ns1
name: app-deployment-1
spec:
replicas: 1
selector:
matchLabels:
app: tomcat
template:
metadata:
labels:
app: tomcat
spec:
containers:
- name: tomcat-container1
image: petstore:latest
imagePullPolicy: Never
ports:
- containerPort: 8080
env:
- name: sname
value: petstore1
---
apiVersion: apps/v1
kind: Deployment
metadata:
namespace : tomcat-ns1
name: app-deployment-2
spec:
replicas: 1
selector:
matchLabels:
app: tomcat
template:
metadata:
labels:
app: tomcat
spec:
containers:
- name: tomcat-container1
image: petstore:latest
imagePullPolicy: Never
```

```
ports:
- containerPort: 8080
env:
- name: sname
value: petstore2

---
apiVersion: v1
kind: Service
metadata:
namespace : tomcat-ns
name: tomcat-service-1
spec:
selector:
app: tomcat
ports:
- protocol: TCP
port: 81
targetPort: 8080
type: LoadBalancer
```

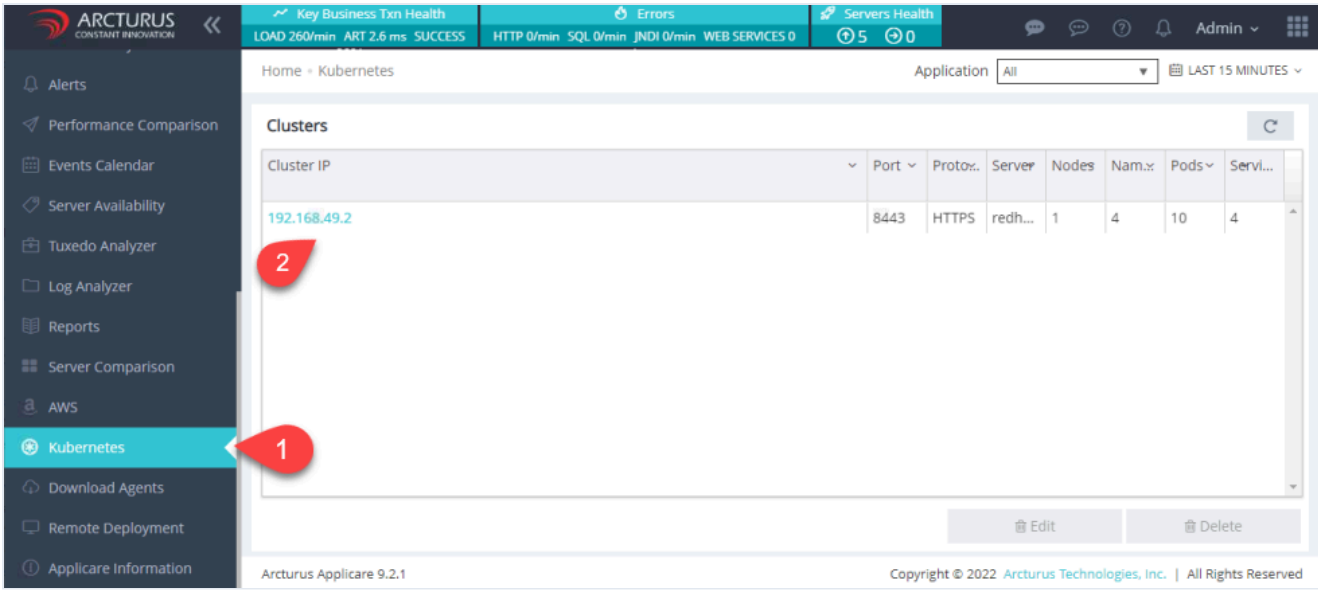
CONFIGURATION GUIDES › KUBERNETES

# Kubernetes Monitoring

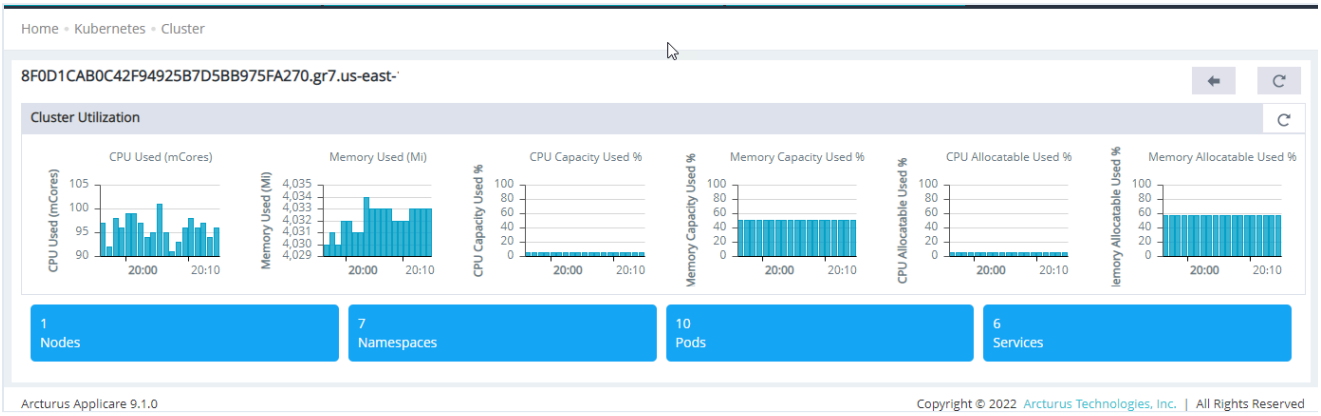
Applicare 9.2 · Updated June 11, 2026 · kubernetes · **Pending technical review**

## Agent less K8S monitoring for Kubernetes

1. Go to the **Kubernetes** menu in the left side menu, click the **Cluster IP** to view the details.




2. Here you get the **Kubernetes Cluster Details.**




- **CPU Used** -

  Total CPU utilization across all nodes in the cluster, measured in milicores.

- **Memory Used** -

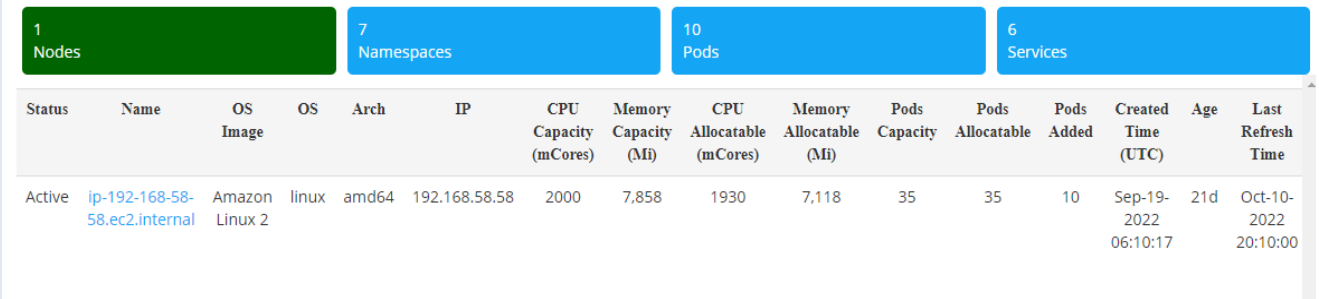
  Total memory utilization across all nodes in the cluster, measured in mebibytes (MiB).

  1. **CPU Capacity Used %** - Percentage of CPU utilized from its capacity value.
  2. **Memory Capacity Used %** - Percentage of memory utilized from its capacity value.

- **Allocatable** - It indicates the amount of resources on a Node that is available to be consumed by normal Pods.
- **Capacity -** Indicates the total amount of resources that a Node has
- **CPU Allocatable Used %** - Percentage of CPU utilized from its allocatable value.
- **Memory Allocatable Used %** - Percentage of memory utilized from its allocatable value.

3. Click the **Nodes, Namespaces, Pods and Services** to view the details.

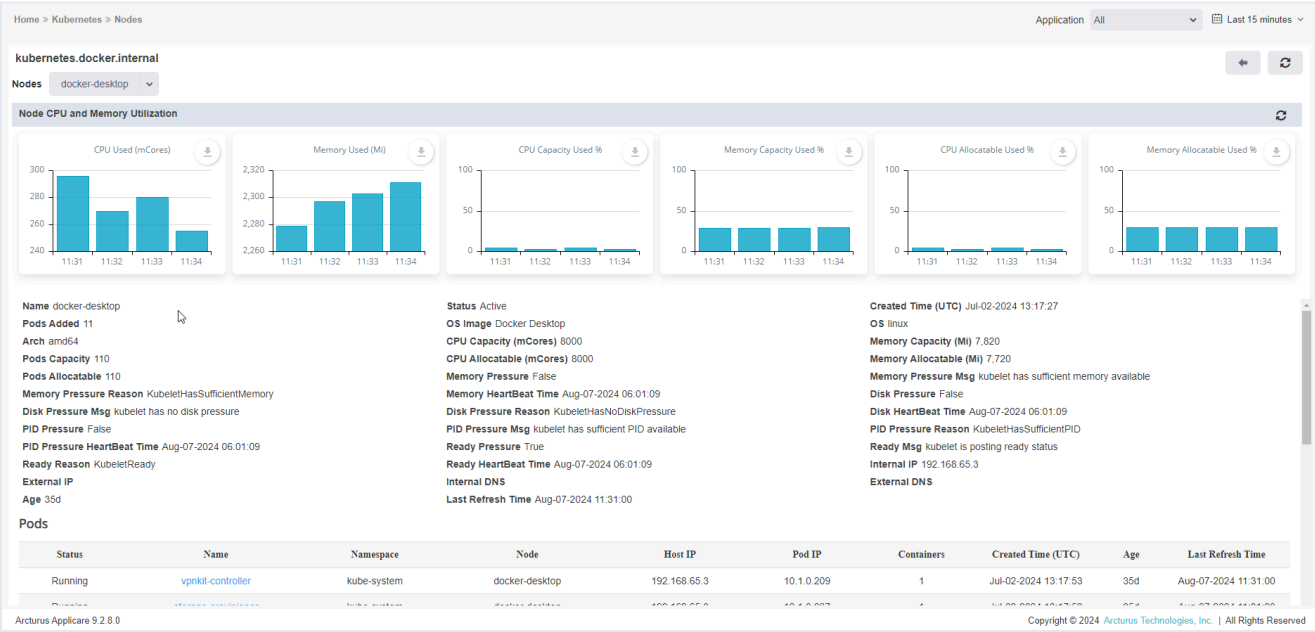
### Nodes



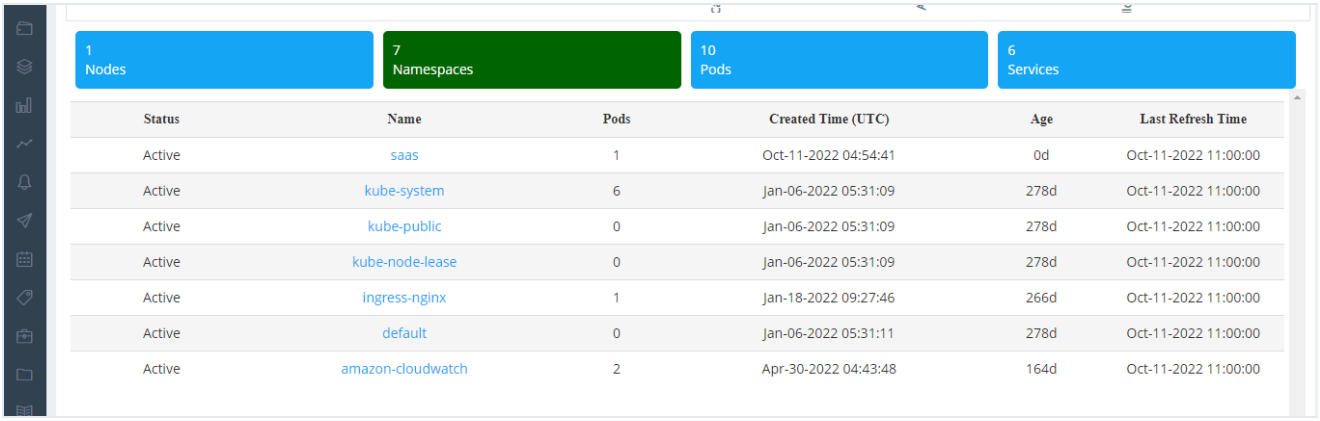

| Status | Name | OS Image | OS | Arch | IP | CPU Capacity (mCores) | Memory Capacity (Mi) | CPU Allocatable (mCores) | Memory Allocatable (Mi) | Pods Capacity | Pods Allocatable | Pods Added | Created Time (UTC) | Age | Last Refresh Time |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Active | ip-192-168-58-58.ec2.internal | Amazon Linux 2 | linux | amd64 | 192.168.58.58 | 2000 | 7,858 | 1930 | 7,118 | 35 | 35 | 10 | Sep-19-2022 06:10:17 | 21d | Oct-10-2022 20:10:00 |

4. Click the **Name** column to view the **node** details.

- **CPU Used** - Total CPU utilization for **individual node** in the cluster.
- **Memory Used** - Total memory utilization for **individual node** in the cluster.

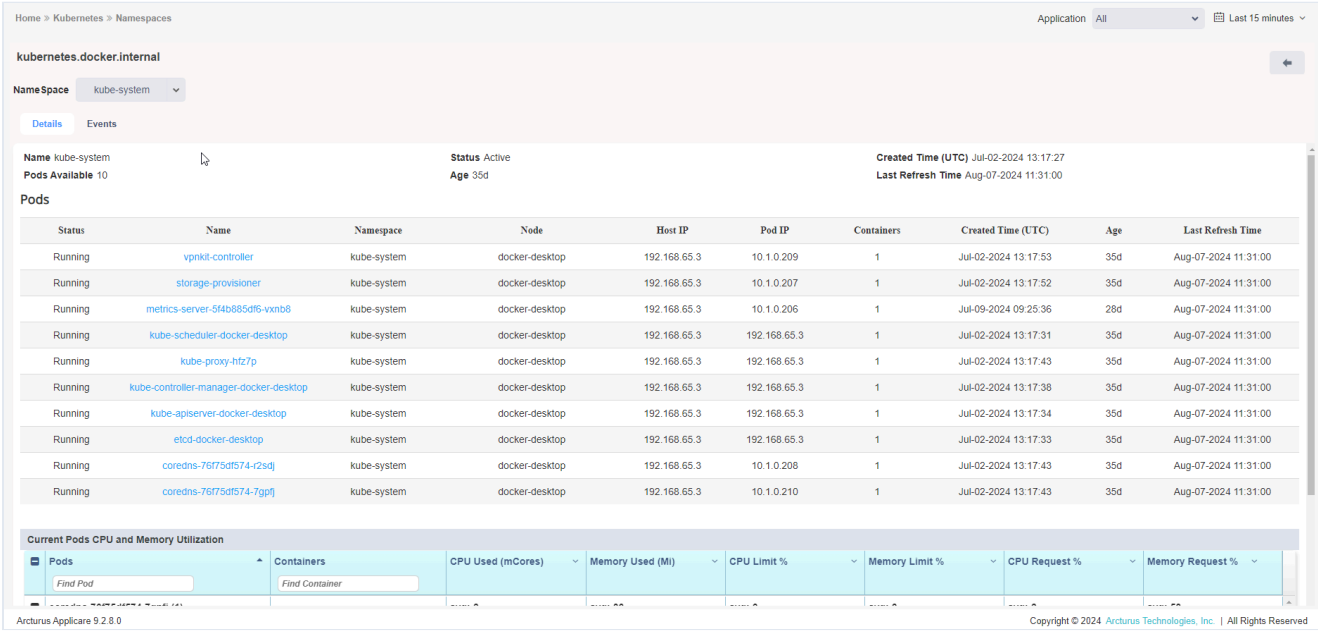



### Namespaces

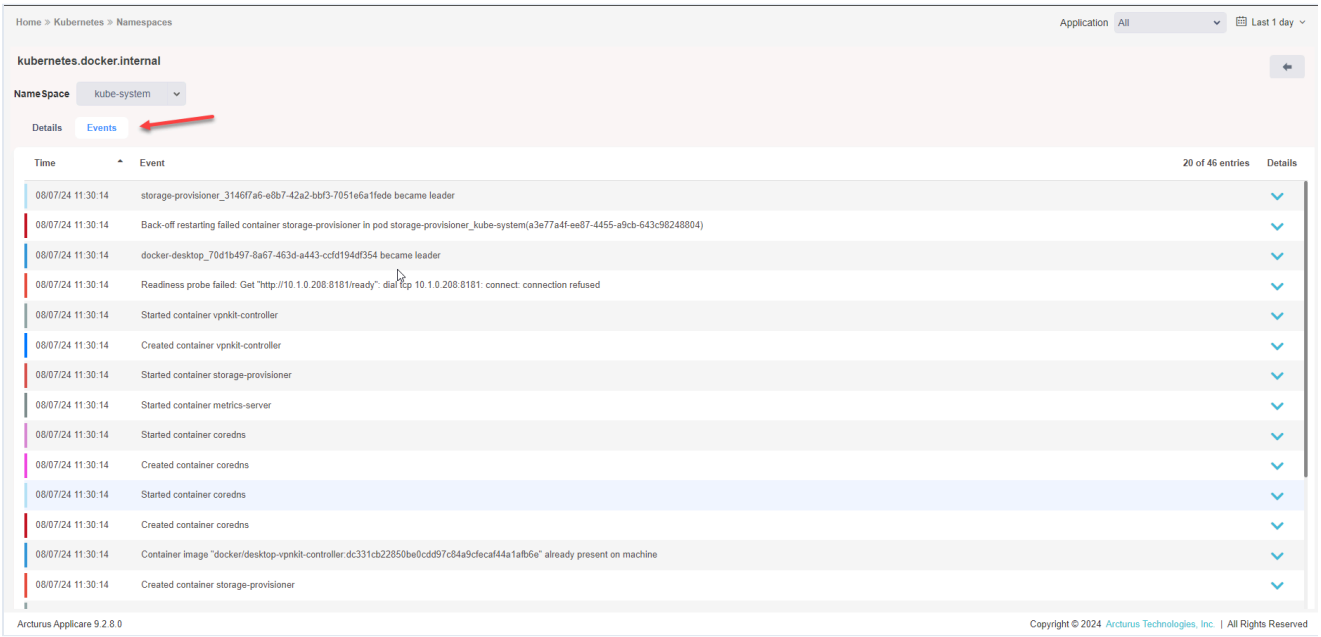



| Status | Name | Pods | Created Time (UTC) | Age | Last Refresh Time |
|---|---|---|---|---|---|
| Active | saas | 1 | Oct-11-2022 04:54:41 | 0d | Oct-11-2022 11:00:00 |
| Active | kube-system | 6 | Jan-06-2022 05:31:09 | 278d | Oct-11-2022 11:00:00 |
| Active | kube-public | 0 | Jan-06-2022 05:31:09 | 278d | Oct-11-2022 11:00:00 |
| Active | kube-node-lease | 0 | Jan-06-2022 05:31:09 | 278d | Oct-11-2022 11:00:00 |
| Active | ingress-nginx | 1 | Jan-18-2022 09:27:46 | 266d | Oct-11-2022 11:00:00 |
| Active | default | 0 | Jan-06-2022 05:31:11 | 278d | Oct-11-2022 11:00:00 |
| Active | amazon-cloudwatch | 2 | Apr-30-2022 04:43:48 | 164d | Oct-11-2022 11:00:00 |

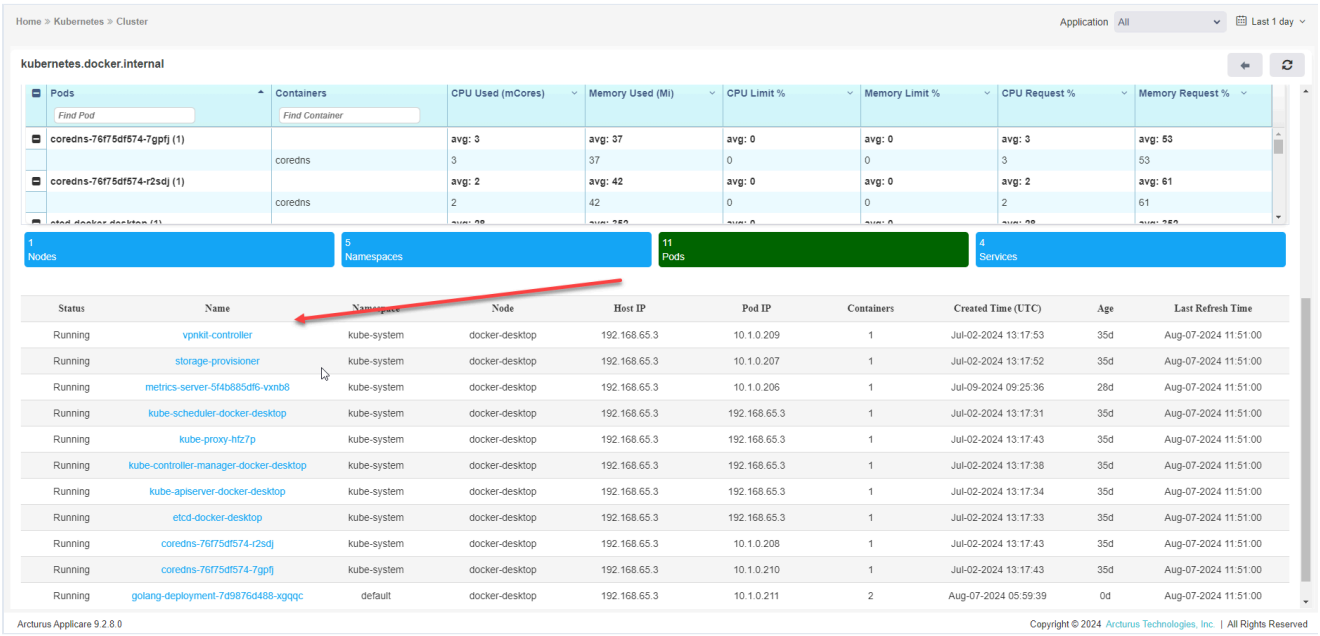
5. **Click** the **Name** column to view the **namespace** details.



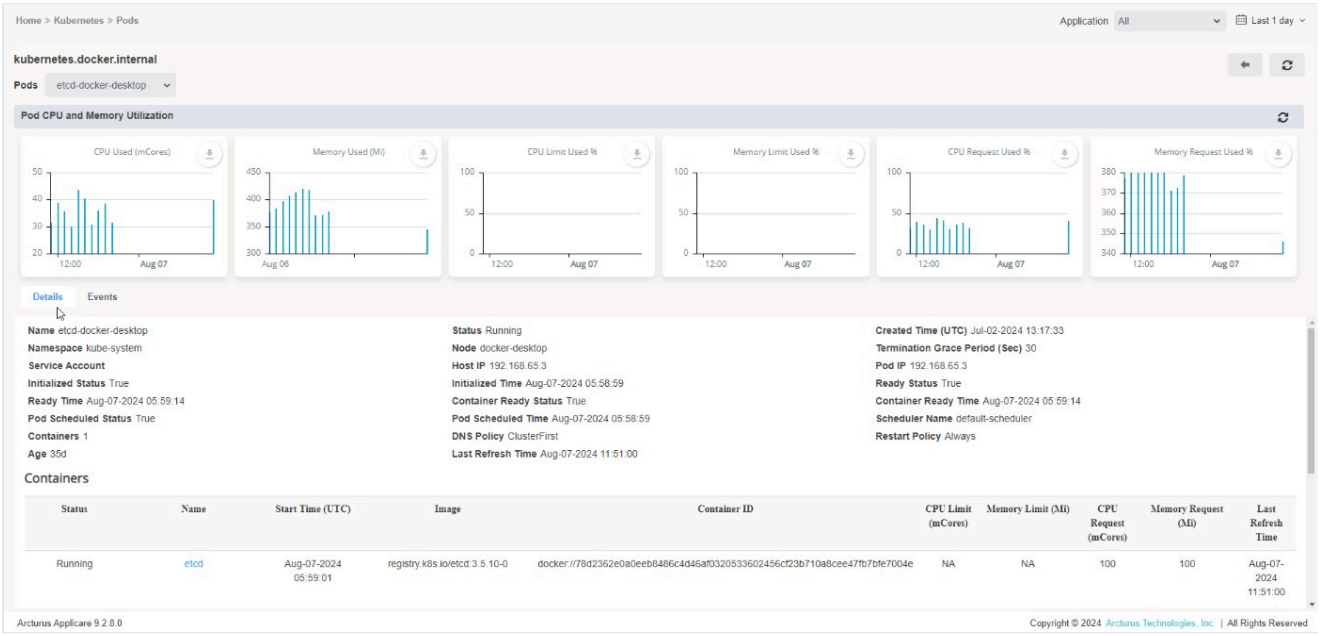

6. Click the **Events** tab to view the event details for the selected **namespace.**



## Pods



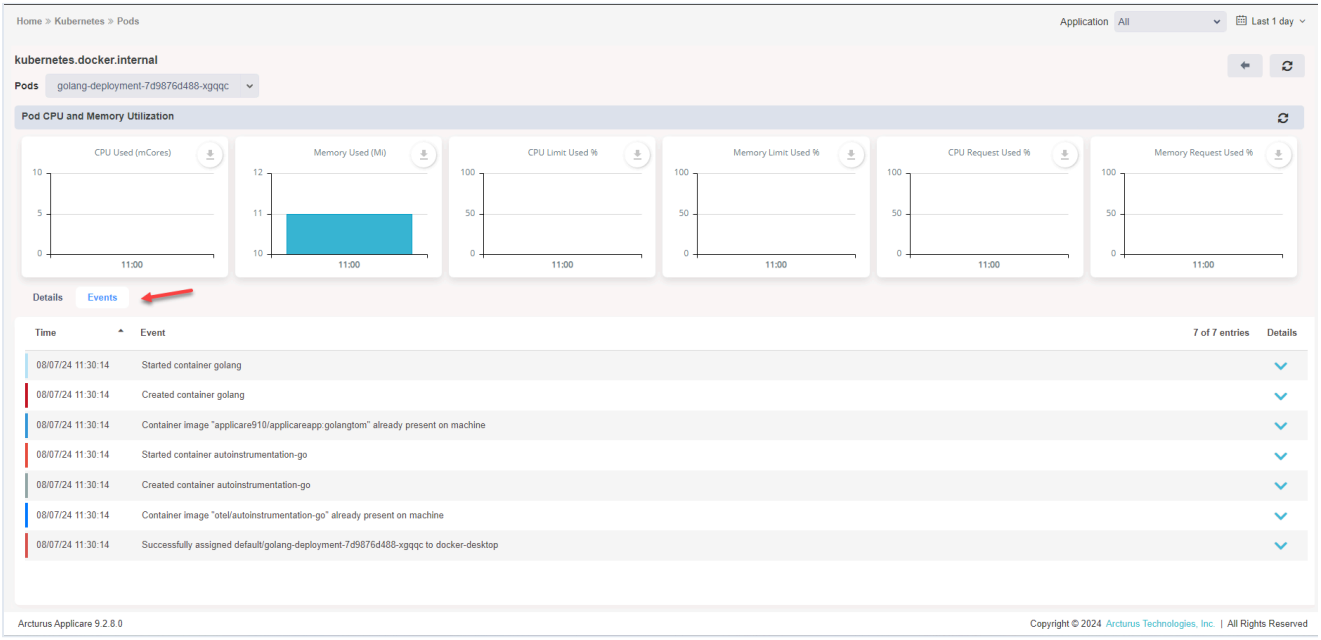

7. Click on the Pod in **Name** column to view the **pod** details.



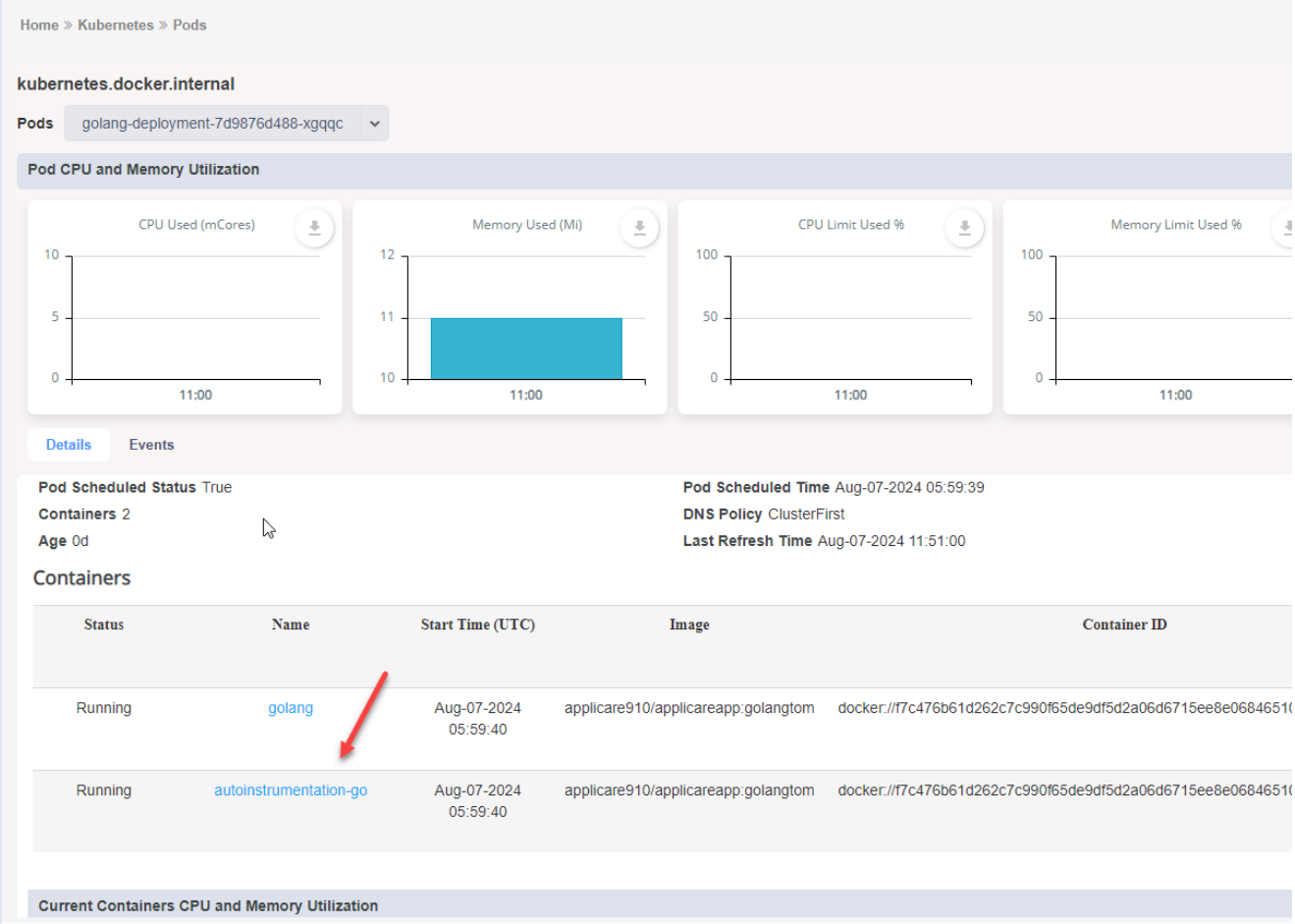

- **CPU Used** - Total CPU utilization of all the containers in the pods (**milicores**).
- **Memory Used** - Total memory utilization of all the containers in the pods (**mebibytes**).
- **CPULimit** - Defines a hard ceiling on how much CPU time that the container can use. During each scheduling interval (time slice), the Linux kernel checks to see if this limit is exceeded; if so, the kernel waits before allowing that cgroup to resume execution.
- **Memory Limit** - Defines a memory limit for that cgroup. If the container tries to allocate more memory than this limit, the Linux kernel out-of-memory subsystem activates and, typically, intervenes by stopping one of the processes in the container that tried to allocate memory. If that process is the container's PID 1, and the container is marked as restartable, Kubernetes restarts the container.

- **CPU request** - Typically defines a weighting. If several different containers (cgroups) want to run on a contended system, workloads with larger CPU requests are allocated more CPU time than workloads with small requests.
- **Memory request** - Mainly used during (Kubernetes) Pod scheduling.
- **CPU Limit Used %** - Percentage of CPU utilized from its cpu limit.
- **Memory Limit Used %** - Percentage of memory utilized from its memory limit.
- **CPU Request Used %** - Percentage of CPU utilized from its cpu request.
- **Memory Request Used %** - Percentage of memory utilized from its memory request.

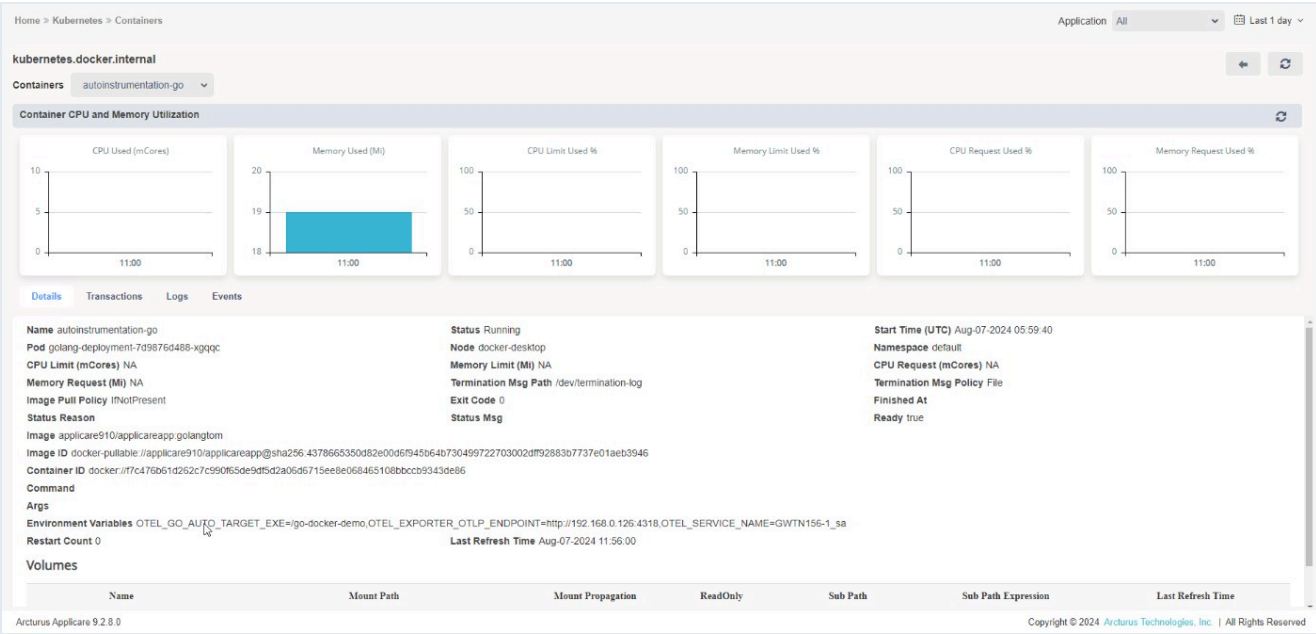
8. Click on the **Events** tab to view the **pod event details**.



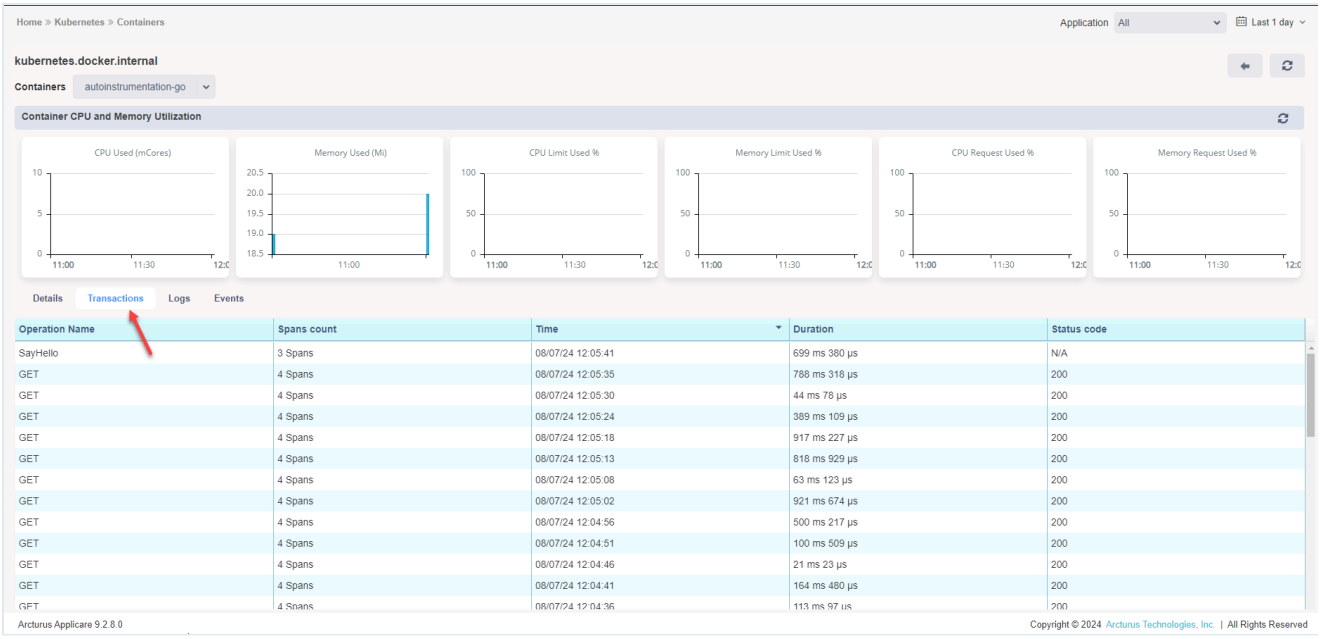

9. Click on the **Container** in the **Name** column to view the container **details**.



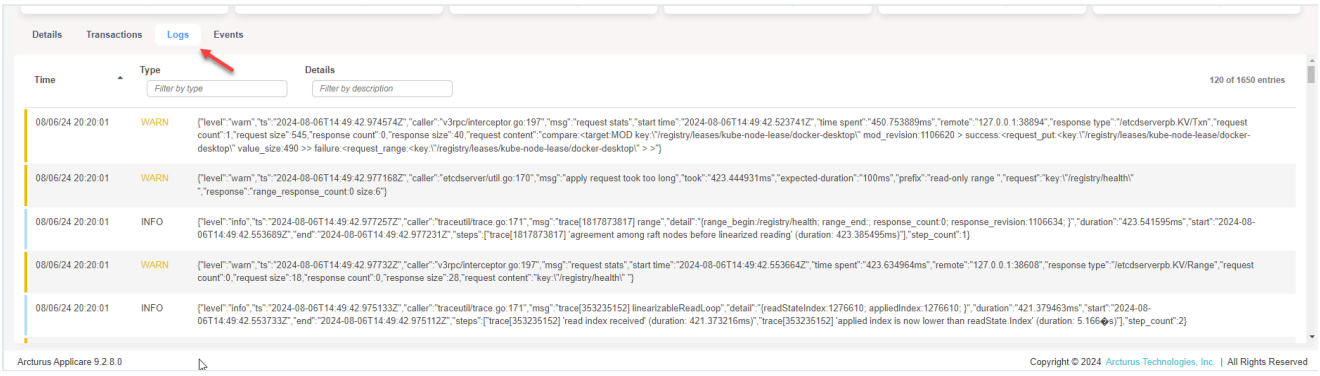

- **CPU Used** - Total CPU utilization for each **individual container** in the pod.
- **Memory Used** - Total memory utilization for each **individual container** in the pod.



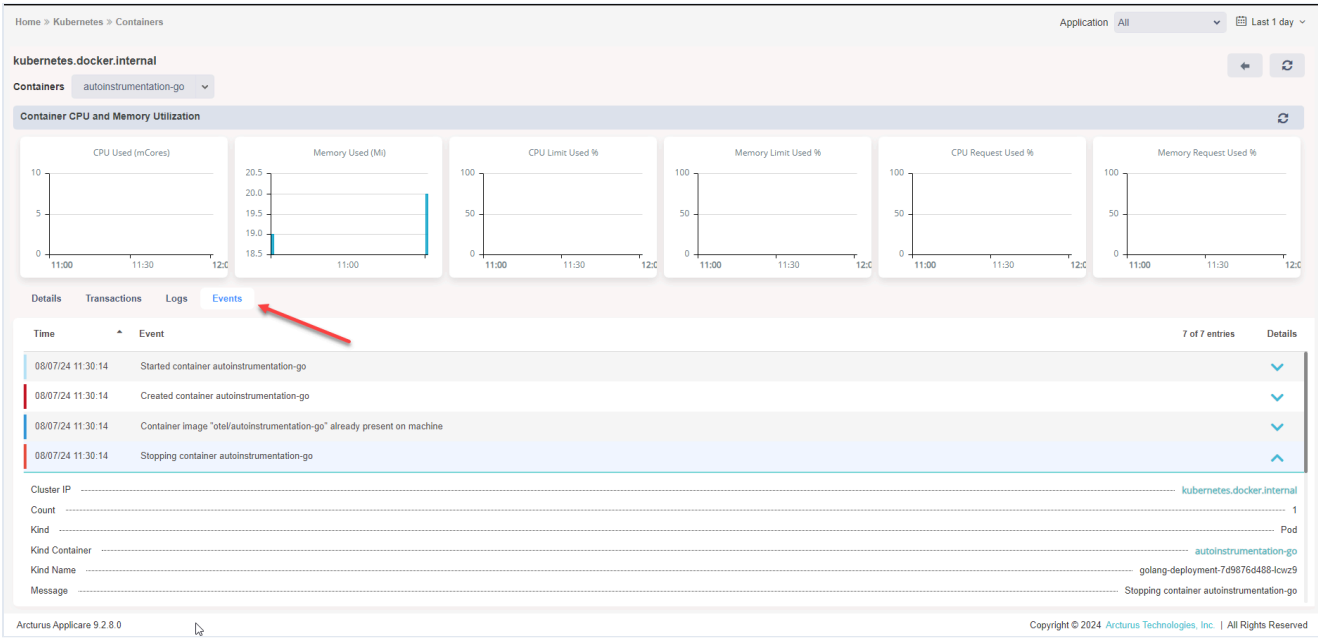

10. Click on the **Transactions** tab to view the Application transaction details.



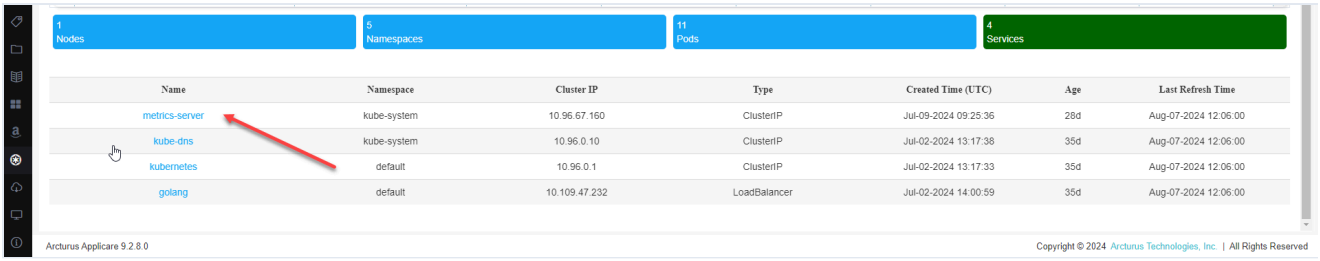

11. Click on the **Logs** tab to view the **Container** Log entries.



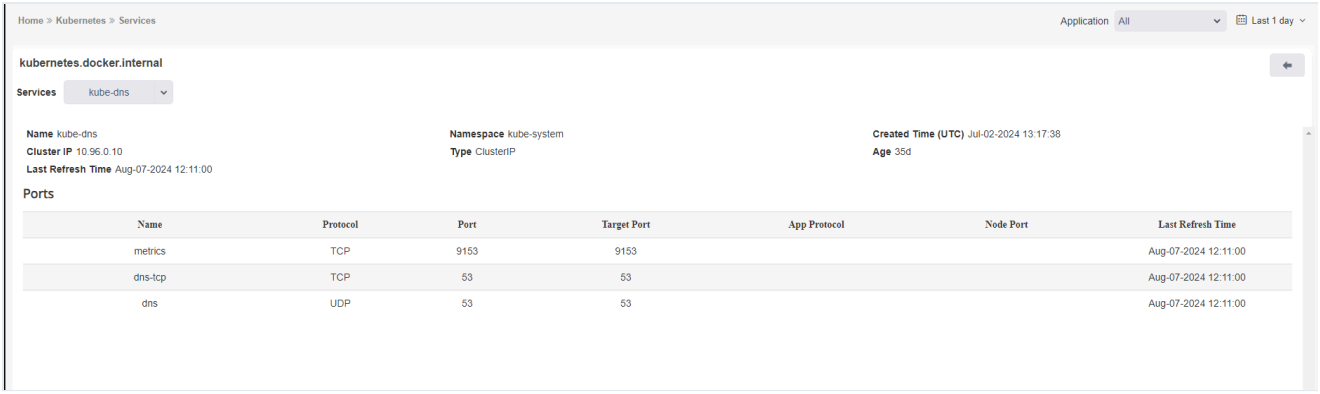

12. Click the **Events** tab to view the container event entries.




## Services




13. Click the **Name** column to view the details of the **service**.




## Configuration

* Configuring Local Kubernetes Monitoring

* Configuring Remote Kubernetes Monitoring

You can use Applicare to assist with your Monitoring needs.

Monitoring with Applicare

CONFIGURATION GUIDES › KUBERNETES

# Monitoring Nginx in a Kubernetes

Applicare 9.2 · Updated May 9, 2026 · kubernetes, nginx · **Pending technical review**

**Step 1:** Add the following line next to the **From** line in the **Dockerfile** that builds Nginx.

```bash
RUN apt-get update && \
apt-get install unzip -y && \
apt-get install curl -y && \
apt-get clean

RUN mkdir /usr/local/Applicare
WORKDIR /usr/local/Applicare
RUN curl $CONTROLLER_PROTOCOL://$CONTROLLER_IP:$CONTROLLER_PORT/applicare/standalone?
filename=ApplicareSingleAgentLinux >ApplicareSingleAgentLinux.zip
RUN unzip ApplicareSingleAgentLinux.zip
RUN ["rm", "-frv", "/usr/local/Applicare/ApplicareSingleAgentLinux.zip"]
COPY startAgent.sh /usr/local/Applicare/agentscripts/startAgent.sh
COPY start_nginx.sh /usr/local/Applicare/start_nginx.sh
RUN chmod -R 755 /usr/local/Applicare
WORKDIR /usr/local/Applicare
CMD ["./start_nginx.sh"]
```

**Replace the below values in the above command**

**CONTROLLER_PROTOCOL ->** http (or) https

**CONTROLLER_IP ->** Applicare Controller IP

**CONTROLLER_PORT ->** Applicare Controller Port

**Step 2:** Create a file named **start_nginx.sh** with the following content:

```bash
#!/bin/bash# Start Nginx in the backgroundnginx -g "daemon off;" &# Start our
Agent/usr/local/Applicare/startAgent.sh
```

**Step 3:** Create a file named **startAgent.sh** with the content below.

BASH

```
#!/bin/sh
SERVER_NAME=`hostname`_sa

export SERVER_NAME

if [ -z "$ARCTURUS_HOME" ]; then

ARCTURUS_HOME="/usr/local/Applicare"

fi

export ARCTURUS_HOME

JAVA_HOME_PATH=$JAVA_HOME

INBUILD_JAVA_PATH=$ARCTURUS_HOME/jre

export INBUILD_JAVA_PATH

if [[ $(uname -s) == "Darwin" ]]; then

  JAVA_HOME_PATH="$ARCTURUS_HOME/jre/mac/zulu-8_jre/Contents/Home"

else

  JAVA_HOME_PATH="$ARCTURUS_HOME/jre/linux/jre"

fi

#export JAVA_HOME

export JAVA_HOME_PATH

JAVA_OPTS="-noverify -Xmx1024m -Dserver.name=$SERVER_NAME -
javaagent:$ARCTURUS_HOME/applicare-db-aspects.jar=verbosity=0,logfile=false,norestart-
intellitrace=false -Darcturus_home=$ARCTURUS_HOME -XX:HeapDumpPath=/dev/null -
Djava.library.path=.:$ARCTURUS_HOME/bin -Dapplicare.standalone=true"

export JAVA_OPTS

EXECUTABLE_NAME=$ARCTURUS_HOME/AgentStartHelper.jar

export EXECUTABLE_NAME
```

```
if [ -d "$JAVA_HOME_PATH/bin" ] ; then

 "$JAVA_HOME_PATH/bin"/java -jar $JAVA_OPTS $EXECUTABLE_NAME

else

 java -jar $JAVA_OPTS $EXECUTABLE_NAME

fi
```

**Step 4:** In the `nginx.conf` file, make the following changes:

a.) Comment out the existing `log_format` directive and add the new `log_format` as shown below.

```
TEXT
log_format  main  '$remote_addr - $remote_user $time_iso8601 [$request_time] "$request" '
'$status $body_bytes_sent "$http_referer" '                    '"$http_user_agent"
"$http_x_forwarded_for"';
```

```
http {
    #log_format  main  '$remote_addr - $remote_user [$time_local] "$request" '
    #                  '$status $body_bytes_sent "$http_referer" '
    #                  '"$http_user_agent" "$http_x_forwarded_for"';

    log_format  main  '$remote_addr - $remote_user $time_iso8601 [$request_time] "$request" '
                      '$status $body_bytes_sent "$http_referer" '
                      '"$http_user_agent" "$http_x_forwarded_for"';

    access_log  /var/log/nginx/access.log  main;

    sendfile            on;
    tcp_nopush          on;
    tcp_nodelay         on;
    keepalive_timeout   65;
    types_hash_max_size 2048;
```

**b.)** Uncomment the **access_log** line if it is already commented.

```
    #log_format  main  '$remote_addr - $remote_user [$time_local] "$request" '
    #                  '$status $body_bytes_sent "$http_referer" '
    #                  '"$http_user_agent" "$http_x_forwarded_for"';

    log_format  main  '$remote_addr - $remote_user $time_iso8601 [$request_time] "$request" '
                      '$status $body_bytes_sent "$http_referer" '
                      '"$http_user_agent" "$http_x_forwarded_for"';

    access_log  logs/access.log  main;
```

**c.)** Add the below lines inside the **server** module

```
TEXT
location /nginx-status {stub_status on;allow 127.0.0.1;}
```

```
server {
    listen       80;
    #listen       [::]:83;
    listen       127.0.0.1:80;

    server_name  _;
    root         /usr/share/nginx/html;

    # Load configuration files for the default server block.
    include /etc/nginx/default.d/*.conf;

    error_page 404 /404.html;
    location = /404.html {
    }

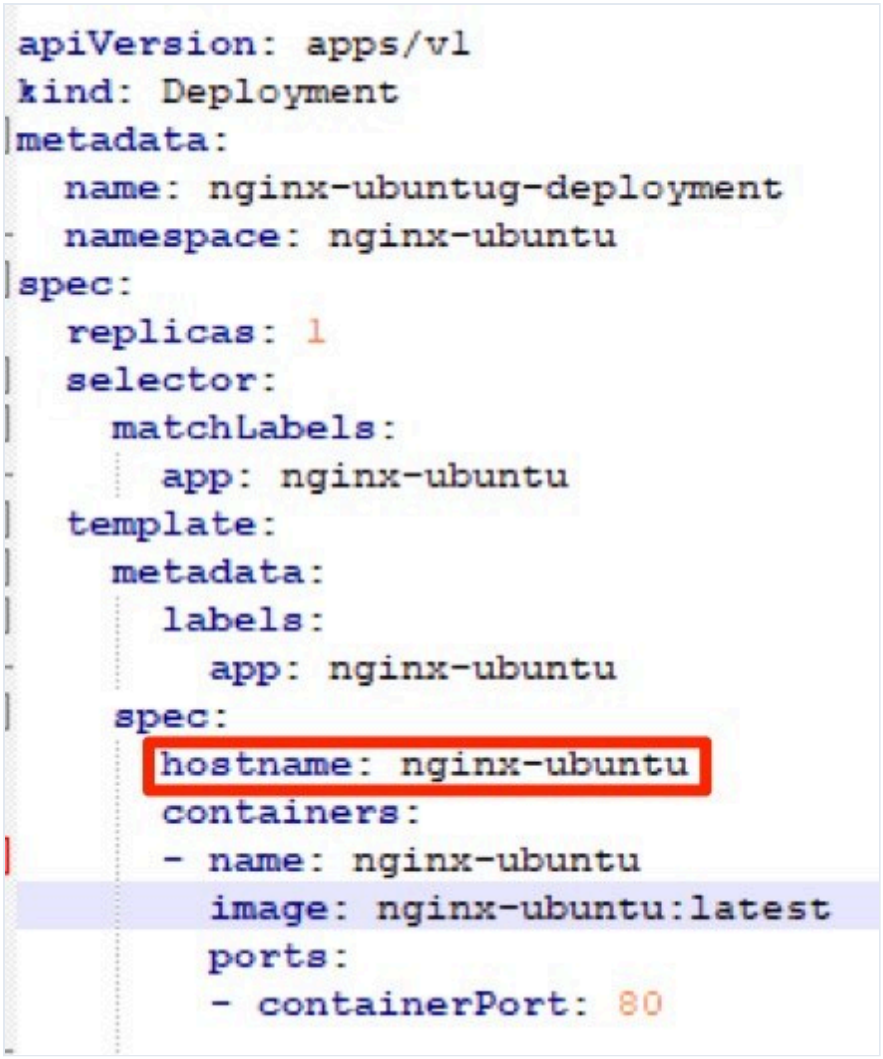
    error_page 500 502 503 504 /50x.html;
    location = /50x.html {
    }

    location /nginx-status {
    stub_status on;
    allow 127.0.0.1;
    }
}
```

**Step 5: Add the following line to the container specification in the YAML file that starts Nginx on Kubernetes.**

```
TEXT
hostname: <hostname>
```

Replace **<hostname>** with the name which we need to add the agent in Applicare.



```
apiVersion: apps/v1
kind: Deployment
metadata:
  name: nginx-ubuntug-deployment
  namespace: nginx-ubuntu
spec:
  replicas: 1
  selector:
    matchLabels:
      app: nginx-ubuntu
  template:
    metadata:
      labels:
        app: nginx-ubuntu
    spec:
      hostname: nginx-ubuntu
      containers:
      - name: nginx-ubuntu
        image: nginx-ubuntu:latest
        ports:
        - containerPort: 80
```

**Step 6:** Log in to the Applicare console, go to the **Overview** menu, select the newly added agent, and click the **Edit** button.

**Step 7:** Enable the "**Add Nginx Configuration**" checkbox and add the below value.

1. Log file path - <**access log file location**>

2. Nginx Host - 127.0.0.1

3. Nginx Port - <**Nginx_Port**>

4. Nginx Protocol - http (or) https

Click the **update** button to save.

CONFIGURATION GUIDES › KUBERNETES

# Deploy Go auto instrumentation in Kubernetes

Applicare 9.2 · Updated April 1, 2025 · kubernetes, go, opentelemetry · **Pending technical review**

**Step 1:** Create an **autoinstrument.yaml** file with the following content.

```yaml
spec:
template:
spec:
shareProcessNamespace: true
containers:
- name: autoinstrumentation-go
image: otel/autoinstrumentation-go
imagePullPolicy: IfNotPresent
env:
- name: OTEL_GO_AUTO_TARGET_EXE
value: /<File_executable_path>
- name: OTEL_EXPORTER_OTLP_ENDPOINT
value: "http://<Applicare_ip>:<Applicare_collector_port>"
- name: OTEL_SERVICE_NAME
value: "<service_name>"
securityContext:
runAsUser: 0
privileged: true
```

It is important to change the following values in the above file.

**<File_executable_path>=** Directory for starting the Go application

**<Applicare_ip>= IP address of the machine running Applicare**

**<Applicare_collector_port>= Port of the machine running Applicare**

<Service_Name>= The name of the agent as shown in the Applicare console.

**Step 2: Go to the directory with the YAML file and run the command below**

```bash
kubectl patch deployment <deployment_name> --patch "$(cat autoinstrument.yaml )"
```

It is important to change the below values in the above command.

**<deployment_name>=** Go Application Deployment Name

**Step 3:** This will restart your pods in the Kubernetes deployment.

The following document outlines how to access Go application data in Applicare after configuration.

## Go application data in Kubernetes Monitoring

CONFIGURATION GUIDES › OPENTELEMETRY

# Applicare OTel Collector installation on Linux

Applicare 9.2 · Updated September 9, 2025 · opentelemetry, linux · **Pending technical review**

Applicare OTel Collector is only supported on Redhat, Ubuntu and Debian OS.

**Minimum required version**: RHEL ≥ 7.9, Ubuntu ≥ 18.04 and Debian ≥ 10

**Step 1:** Execute the command below inside the **applicare_otel_collector** directory in the **Applicare home directory**. (Create the **applicare_otel_collector\linux** directory if it does not exist)

## If have Wget, execute the command below.

```bash
sudo wget
https://applicare.blob.core.windows.net/demoapplication/applicare_otel_collector.zip
```

## (OR)

## If have Curl, execute the command below.

```bash
sudo curl -O
https://applicare.blob.core.windows.net/demoapplication/applicare_otel_collector.zip
```

**Step 2:** Install **unzip,** if not already installed.

```bash
sudo apt install unzip -y
```

**Step 3:** Execute below command to unzip the file.

```bash
sudo unzip applicare_otel_collector.zip
```

**Step 4:** Execute the below command to give the permission.

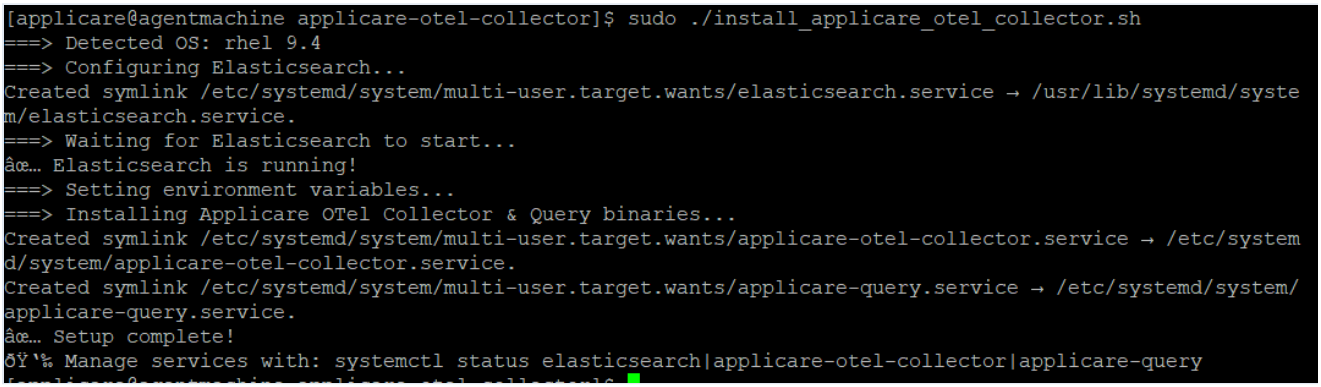
```bash
sudo chmod -R 750 *
```

**Step 5:** Execute the command below to install the collector.

```bash
sudo ./install_applicare_otel_collector.sh
```

**Step 6:** After executing the command, some packages will be installed, please wait for a few minutes.

After everything is done, a message like the one below will appear, meaning that Applicare collector is running.




The following port must be opened on the system where the ApplicareCollector is running.

**4318**

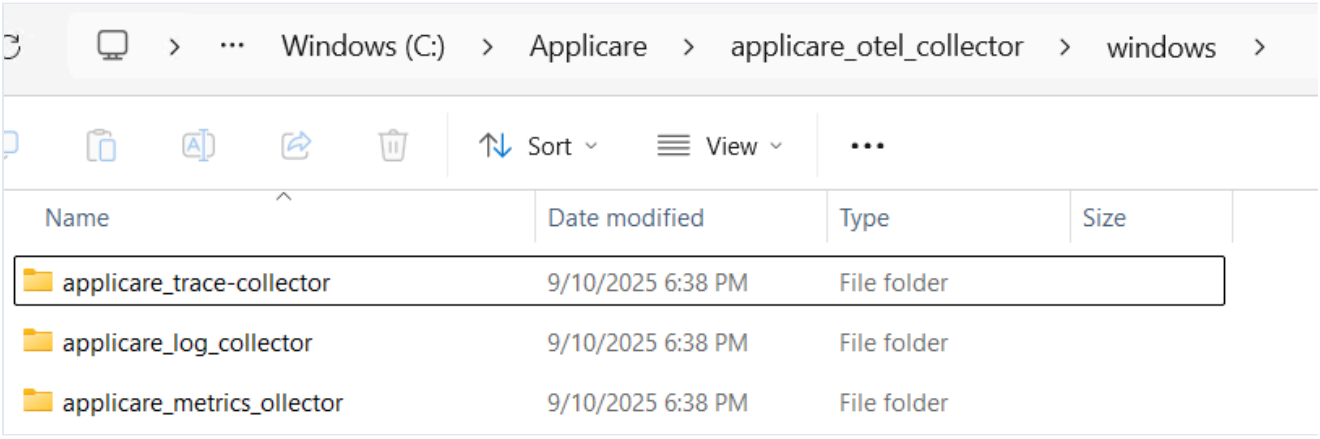
CONFIGURATION GUIDES › OPENTELEMETRY

# Applicare Metrics, Trace and Log Collector installation on Windows

Applicare 9.2 · Updated October 29, 2025 · opentelemetry, windows · **Pending technical review**

**Step 1:** Download **Applicare collector** from the link below and extract it to the directory named **applicare_otel_collector\windows** in the Applicare home directory.

```
TEXT
https://applicare.blob.core.windows.net/demoapplication/windows_collector.zip
```




**Step 2:** We can see three different directories.

## Metric collector installation:

If want to install **Metric Collector**, open the command prompt in **administrator** mode, go to the **applicare_metrics_collector** directory and execute the **create_metrics_collector_task.bat** file.

```
C:\Applicare\applicare_otel_collector\windows\applicare_metrics_collector>create_metrics_collector_task.bat
Creating task "\ApplicareCollector\start_metric_collector"...
SUCCESS: The scheduled task "\ApplicareCollector\start_metric_collector" has successfully been created.
SUCCESS: "\ApplicareCollector\start_metric_collector" created.
Starting metric collector...
Creating task "\ApplicareCollector\stop_metric_collector"...
SUCCESS: The scheduled task "\ApplicareCollector\stop_metric_collector" has successfully been created.
SUCCESS: "\ApplicareCollector\stop_metric_collector" created.

Task created successfully!:
```

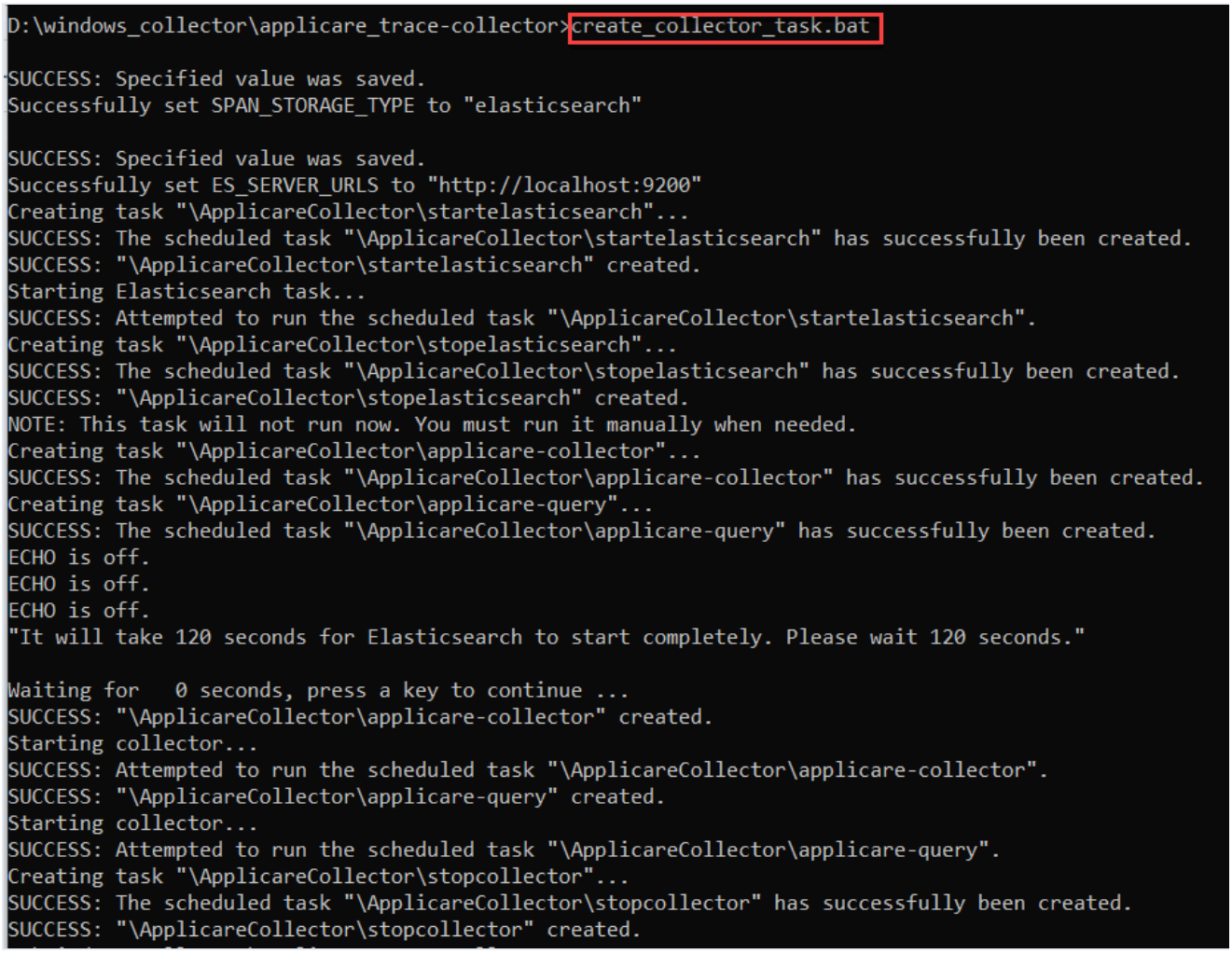
## The following port must be opened on the system.

**9090**

## Trace collector installation:

If want to install **Trace Collector**, open the command prompt in **administrator** mode, go to the **applicare_trace_collector** directory and execute the **create_collector_task.bat** file.

**After executing, it will take a minute for elasticsearch to run, so wait until then and do not close the command window.**

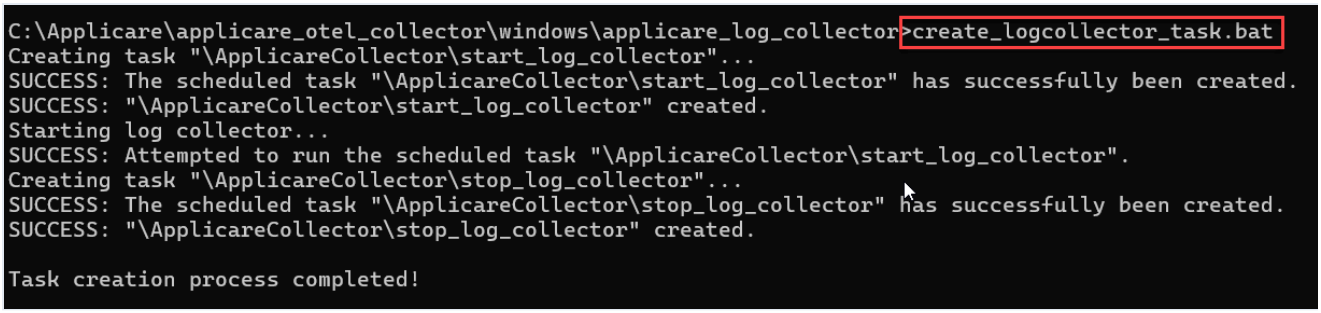



## The following port must be opened on the system.

**4318**

## Log collector installation:

If want to install **Log Collector**, open the command prompt in **administrator** mode, go to the **applicare_log_collector** directory and execute the **create_logcollector_task.bat** file.




## The following port must be opened on the system.

**3100**

CONFIGURATION GUIDES › OPENTELEMETRY

# Monitor Traces and Metrics in Containerized .NET Applications with Applicare and OpenTelemetry

Applicare 9.2 · Updated August 22, 2025 · opentelemetry, dotnet, docker · **Pending technical review**

To enable OpenTelemetry auto-instrumentation for your .NET application and send traces to Applicare, you will need to apply configuration changes in both your **Dockerfile** and your application's **YAML deployment script** (e.g., Kubernetes Deployment, Docker Compose file, or other container orchestration tool's configuration).

## Step 1: Modify your Dockerfile

Add the following lines to your application's Dockerfile. These commands will install necessary utilities, download the OpenTelemetry .NET auto-instrumentation setup script, and Applicare.NetTrace setup, execute it.

**Add the Diagnostic tools stage below before the FROM base AS final (or) FROM runtime AS final stage**

```text
# Diagnostic tools stage
FROM mcr.microsoft.com/dotnet/sdk:8.0 AS diagnostic-tools
RUN dotnet tool install --tool-path /dotnet-tools dotnet-counters \
&& dotnet tool install --tool-path /dotnet-tools dotnet-trace \
&& dotnet tool install --tool-path /dotnet-tools dotnet-dump
```

```
# See https://aka.ms/customizecontainer ...
FROM mcr.microsoft.com/dotnet/aspnet:8.0 AS base
USER $APP_UID
WORKDIR /app
EXPOSE 8080

FROM mcr.microsoft.com/dotnet/sdk:8.0 AS build
ARG BUILD_CONFIGURATION=Release
WORKDIR /src
COPY ["WebApplication1/WebApplication1.csproj", "WebApplication1/"]
RUN dotnet restore "./WebApplication1/WebApplication1.csproj"
COPY . .
WORKDIR "/src/WebApplication1"
RUN dotnet build "./WebApplication1.csproj" -c $BUILD_CONFIGURATION -o /app/build

FROM build AS publish
ARG BUILD_CONFIGURATION=Release
RUN dotnet publish "./WebApplication1.csproj" -c $BUILD_CONFIGURATION -o /app/publish /p:UseAppHost=false

#Diagnostic tools stage ✅ PLACE IT HERE
FROM mcr.microsoft.com/dotnet/sdk:8.0 AS diagnostic-tools
RUN dotnet tool install --tool-path /dotnet-tools dotnet-counters \
 && dotnet tool install --tool-path /dotnet-tools dotnet-trace \
 && dotnet tool install --tool-path /dotnet-tools dotnet-dump

FROM base AS final
WORKDIR /app
```

**Note:** The `apt-get` commands assume a Debian/Ubuntu-based base image (e.g., `mcr.microsoft.com/dotnet/aspnet:8.0-alpine` would use `apk add --no-cache` instead). Adjust package manager commands as per your base image.

**Below lines should be added inside final runtime stage, and specifically after FROM base AS final (or) FROM runtime AS final**

```
TEXT
ENV OTEL_AGENT_VERSION=1.9.0
ENV DOTNET_EnableDiagnostics=1
ENV OTEL_DOTNET_AUTO_HOME=/otel-dotnet-auto
ENV DOTNET_SHARED_STORE=$OTEL_DOTNET_AUTO_HOME/store
ENV
DOTNET_STARTUP_HOOKS=$OTEL_DOTNET_AUTO_HOME/net/OpenTelemetry.AutoInstrumentation.StartupHook
.dll
ENV DOTNET_ADDITIONAL_DEPS=$OTEL_DOTNET_AUTO_HOME/AdditionalDeps
```

```
#Diagnostic tools stage ✅ PLACE IT HERE
FROM mcr.microsoft.com/dotnet/sdk:8.0 AS diagnostic-tools
RUN dotnet tool install --tool-path /dotnet-tools dotnet-counters \
 && dotnet tool install --tool-path /dotnet-tools dotnet-trace \
 && dotnet tool install --tool-path /dotnet-tools dotnet-dump

FROM base AS final
WORKDIR /app

ENV OTEL_AGENT_VERSION=1.9.0
ENV DOTNET_EnableDiagnostics=1
ENV OTEL_DOTNET_AUTO_HOME=/otel-dotnet-auto
ENV DOTNET_SHARED_STORE=$OTEL_DOTNET_AUTO_HOME/store
ENV DOTNET_STARTUP_HOOKS=$OTEL_DOTNET_AUTO_HOME/net/OpenTelemetry.AutoInstrumentation.StartupHook.dll
ENV DOTNET_ADDITIONAL_DEPS=$OTEL_DOTNET_AUTO_HOME/AdditionalDeps
```

**a.) If "USER $APP_UID" already exists in the Dockerfile, add the following lines after the ENV stage.**

```
TEXT
USER root
RUN apt-get update && apt-get install -y unzip curl
ADD https://github.com/open-telemetry/opentelemetry-dotnet-
instrumentation/releases/download/v1.9.0/otel-dotnet-auto-install.sh /otel-install.sh
RUN chmod +x /otel-install.sh && \
   /otel-install.sh
RUN curl -L https://applicare.blob.core.windows.net/demoapplication/arc_dotnet.zip -o
arc_dotnet.zip \
&& unzip arc_dotnet.zip -d arc_dotnet \
&& rm arc_dotnet.zip
COPY --from=diagnostic-tools /dotnet-tools /dotnet-tools
ENV PATH="$PATH:/dotnet-tools"
ENV APPLICARE_URL=Protocol://ApplicareIP:ApplicarePort
USER $APP_UID
```

## (OR)

### b.) If "USER $APP_UID" not exists in the Dockerfile, add the following lines after the ENV stage.

```
TEXT
RUN apt-get update && apt-get install -y unzip curl ADD https://github.com/open-
telemetry/opentelemetry-dotnet-instrumentation/releases/download/v1.9.0/otel-dotnet-auto-
install.sh /otel-install.sh RUN chmod +x /otel-install.sh && \    /otel-install.sh

# Download and unzip arc_dotnet.zip
RUN curl -L https://applicare.blob.core.windows.net/demoapplication/arc_dotnet.zip -o
arc_dotnet.zip \
&& unzip arc_dotnet.zip -d arc_dotnet \
&& rm arc_dotnet.zip

# ✅ Copy diagnostic tools into runtime
COPY --from=diagnostic-tools /dotnet-tools /dotnet-tools

ENV PATH="$PATH:/dotnet-tools"
ENV APPLICARE_URL=Protocol://ApplicareIP:ApplicarePort # e.g. http://192.168.1.100:8880
```

```
ENV DOTNET_ADDITIONAL_DEPS=$OTEL_DOTNET_AUTO_HOME/AdditionalDeps
ENV OTEL_TRACES_EXPORTER=otlp
ENV OTEL_DOTNET_AUTO_LOGGING_ENABLED=true
ENV OTEL_DOTNET_AUTO_ENTITYFRAMEWORKCORE_SET_DBSTATEMENT_FOR_TEXT=true
ENV OTEL_DOTNET_AUTO_SQLCLIENT_SET_DBSTATEMENT_FOR_TEXT=true
ENV COMPlus_EnableDiagnostics=1
ENV DOTNET_EnableDiagnostics=1
ENV DOTNET_ROLL_FORWARD=LatestMajor

USER root

RUN apt-get update && \
    apt-get install -y curl unzip && \
    apt-get clean && \
    rm -rf /var/lib/apt/lists/*

ADD https://github.com/open-telemetry/opentelemetry-dotnet-instrumentation/releases/download/v1.9.0/otel-dotnet-auto-install.sh /otel-install.sh
RUN chmod +x /otel-install.sh && \
    /otel-install.sh

# Download and unzip arc_dotnet.zip
RUN curl -L https://applicare.blob.core.windows.net/demoapplication/arc_dotnet.zip -o arc_dotnet.zip \
 && unzip arc_dotnet.zip -d arc_dotnet \
 && rm arc_dotnet.zip

# ✅ Copy diagnostic tools into runtime
COPY --from=diagnostic-tools /dotnet-tools /dotnet-tools
ENV PATH="$PATH:/dotnet-tools"

ENV APPLICARE_URL=https://testenv.applicare.io:443
```

We need to add **ApplicareDotnetTrace.dll** to the Entrypoint and configure it to start.

```
TEXT
Before Update ENTRYPOINT in Dockerfile
ENTRYPOINT ["dotnet", WebApplication1.dll]

After Update ENTRYPOINT in Dockerfile
ENTRYPOINT sh -c "dotnet WebApplication1.dll & OTEL_DOTNET_AUTO_INSTRUMENTATION_ENABLED=false
dotnet ./arc_dotnet/ApplicareDotnetTrace.dll"
```

```
USER $APP_UID
COPY --from=publish /app/publish .

ENTRYPOINT sh -c "dotnet WebApplication1.dll & OTEL_DOTNET_AUTO_INSTRUMENTATION_ENABLED=false  dotnet ./arc_dotnet/ApplicareDotnetTrace.dll"
```

**Step 2**: Install Opentelemetry collector in your Kubernetes cluster. Download the yaml file and change **<Applicare_Ip>** in that yaml file.

**If have Wget, execute the command below.**

```
BASH
sudo wget
https://applicare.blob.core.windows.net/demoapplication/opentelemetry_collector.yaml
```

```
TEXT
                                                                **(OR)**
```

**If have Curl, execute the command below.**

```
BASH
sudo curl -O
https://applicare.blob.core.windows.net/demoapplication/opentelemetry_collector.yaml
```

Then apply that yaml file to install collector in Kubernetes cluster.

```
BASH
kubectl apply -f opentelemetry_collector.yaml
```

Step 3: Configure Environment Variables in your YAML Deployment

Add the following environment variables to the container definition section of your application's YAML deployment file (e.g., under `env:` in a Kubernetes `Deployment`'s container specification, or `environment:` in a Docker Compose `service`). These variables instruct the OpenTelemetry auto-instrumentation how to behave and where to send the telemetry data.

YAML

```
          env:
            - name: OTEL_DOTNET_AUTO_HOME
              value: "/otel-dotnet-auto"
            - name: DOTNET_SHARED_STORE
              value: "/otel-dotnet-auto/store"
            - name: DOTNET_STARTUP_HOOKS
              value: "/otel-dotnet-
auto/net/OpenTelemetry.AutoInstrumentation.StartupHook.dll"
            - name: DOTNET_ADDITIONAL_DEPS
              value: "/otel-dotnet-auto/AdditionalDeps"
            # Kubernetes Metadata (Critical Fix)
            - name: KUBE_POD_NAME
              valueFrom:
                fieldRef:
                  fieldPath: metadata.name
            - name: KUBE_NAMESPACE
              valueFrom:
                fieldRef:
                  fieldPath: metadata.namespace
            # Resource Attributes (Updated)
            - name: OTEL_RESOURCE_ATTRIBUTES
              value: "k8s.pod.name=$(KUBE_POD_NAME),k8s.namespace.name=$(KUBE_NAMESPACE)"
            # Metrics Configuration
            - name: OTEL_METRICS_EXPORTER
              value: "otlp"
            - name: OTEL_DOTNET_AUTO_METRICS_ENABLED
              value: "true"
            - name: OTEL_EXPORTER_OTLP_ENDPOINT
              value: "http://otel-collector.monitoring.svc.cluster.local:4318"
            - name: OTEL_DOTNET_AUTO_METRICS_INCLUDE_PROCESS_RUNTIME
              value: "true"
            - name: OTEL_DOTNET_AUTO_METRICS_SET_SPECIFIC
              value:
"Microsoft.AspNetCore.Hosting[0],Microsoft.AspNetCore.Http.Connections[0]"
            - name: OTEL_DOTNET_AUTO_METRICS_ADDITIONAL_SOURCES
              value: "*"
            # Tracing Configuration
            - name: OTEL_TRACES_EXPORTER
              value: "otlp"
            # Instrumentation
            - name: OTEL_DOTNET_AUTO_ASPNETCORE_INSTRUMENTATION_ENABLED
              value: "true"
            - name: OTEL_DOTNET_AUTO_PROCESS_ENABLED
              value: "true"
```

```
        - name: OTEL_DOTNET_AUTO_HTTPCLIENT_ENABLED
          value: "true"
        - name: OTEL_DOTNET_AUTO_RUNTIMEMETRICS_ENABLED
          value: "true"
        - name: OTEL_DOTNET_AUTO_ENTITYFRAMEWORKCORE_SET_DBSTATEMENT_FOR_TEXT
          value: "true"
        - name: OTEL_DOTNET_AUTO_SQLCLIENT_SET_DBSTATEMENT_FOR_TEXT
          value: "true"
```

**Sample YAML with the above changes.**

```
    app: applicareapp
  spec:
    containers:
      - name: webapplication1
        image: applicare910/applicareapp:dotnetcoregateway
        ports:
          - containerPort: 8080
        env:
          # OpenTelemetry Auto-Instrumentation
          - name: OTEL_DOTNET_AUTO_HOME
            value: "/otel-dotnet-auto"
          - name: DOTNET_SHARED_STORE
            value: "/otel-dotnet-auto/store"
          - name: DOTNET_STARTUP_HOOKS
            value: "/otel-dotnet-auto/net/OpenTelemetry.AutoInstrumentation.StartupHook.dll"
          - name: DOTNET_ADDITIONAL_DEPS
            value: "/otel-dotnet-auto/AdditionalDeps"
          # Kubernetes Metadata (Critical Fix)
          - name: KUBE_POD_NAME
            valueFrom:
              fieldRef:
                fieldPath: metadata.name
          - name: KUBE_NAMESPACE
            valueFrom:
              fieldRef:
                fieldPath: metadata.namespace
          # Resource Attributes (Updated)
          - name: OTEL_RESOURCE_ATTRIBUTES
            value: "k8s.pod.name=$(KUBE_POD_NAME),k8s.namespace.name=$(KUBE_NAMESPACE),k8s.deployment.name=$(KUBE_DEPLOYMENT_NAME)"
          # Metrics Configuration
          - name: OTEL_METRICS_EXPORTER
            value: "otlp"
          - name: OTEL_DOTNET_AUTO_METRICS_ENABLED
            value: "true"
          - name: OTEL_EXPORTER_OTLP_ENDPOINT
            value: "http://otel-collector.monitoring.svc.cluster.local:4318"
          - name: OTEL_DOTNET_AUTO_METRICS_INCLUDE_PROCESS_RUNTIME
            value: "true"
          - name: OTEL_DOTNET_AUTO_METRICS_SET_SPECIFIC
            value: "Microsoft.AspNetCore.Hosting[0],Microsoft.AspNetCore.Http.Connections[0]"
          - name: OTEL_DOTNET_AUTO_METRICS_ADDITIONAL_SOURCES
            value: "*"
          # Tracing Configuration
          - name: OTEL_TRACES_EXPORTER
            value: "otlp"
          # Instrumentation
          - name: OTEL_DOTNET_AUTO_ASPNETCORE_INSTRUMENTATION_ENABLED
            value: "true"
          - name: OTEL_DOTNET_AUTO_PROCESS_ENABLED
            value: "true"
          - name: OTEL_DOTNET_AUTO_HTTPCLIENT_ENABLED
            value: "true"
          - name: OTEL_DOTNET_AUTO_RUNTIMEMETRICS_ENABLED
            value: "true"
```

**Step 4:** On the machine running Applicare, download the shell script for below URL and give the executable permission for that shell script and execute the shell script.

**If have Wget, execute the command below.**

```bash
sudo wget
https://applicare.blob.core.windows.net/demoapplication/applicare_metric_collector_install.sh
```

```text
                                                                **(OR)**
```

**If have Curl, execute the command below.**

```bash
sudo curl -O
https://applicare.blob.core.windows.net/demoapplication/applicare_metric_collector_install.sh
```

The following port must be opened on the system where the Applicare controller is running.

**9090 and 4318**

CONFIGURATION GUIDES › INSTALL, START & UPDATE

# Applicare Installation for Linux

Applicare 9.2 · Updated July 17, 2025 · controller, linux · **Pending technical review**

## Prerequisites

### Essential System Requirements for Applicare Controller and Database

- Red Hat Linux 6.x or newer - RHEL 8 recommended

### System Requirements

- - **Disk Space:** 10 GB
  - **RAM:** 16 GB
  - **CPU:** Intel i7 4-core or equivalent, or higher

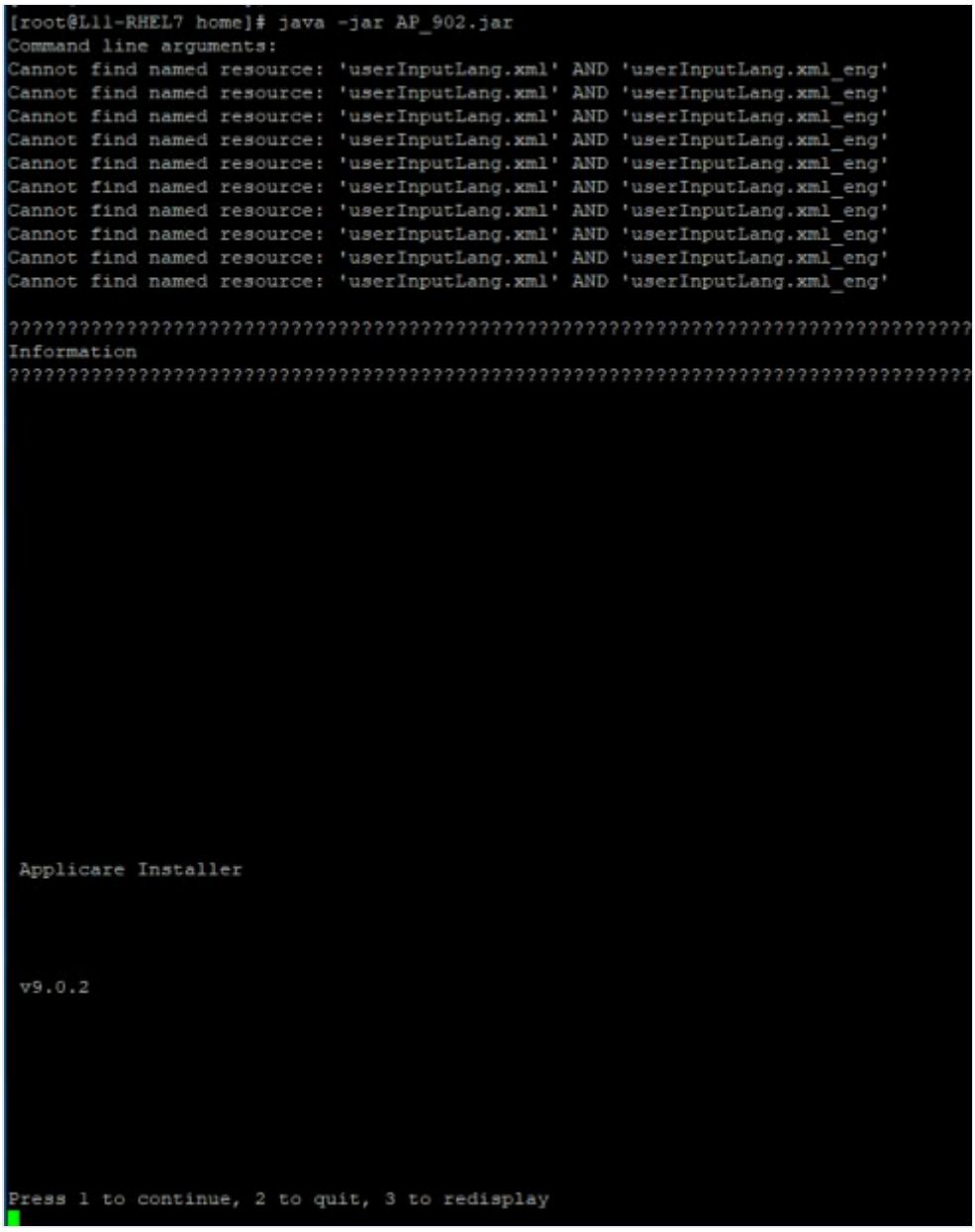
### Ports Requirements

- **VM Access:** Ensure the VM is accessible to all agents via its IP address.

### Additional products needed

- Java 1.8. java downloads.

## Installation



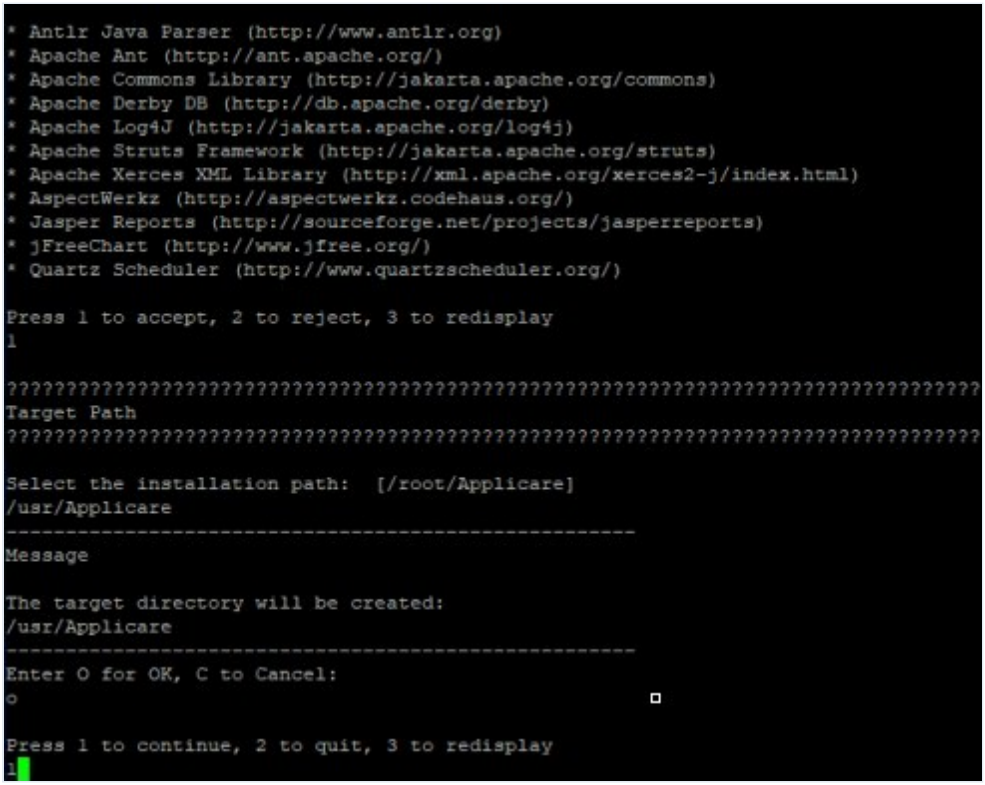

1. Copy the downloaded installer to the machine where Applicare will be installed.

- Open PuTTY and navigate to the directory containing the installer. Execute the command **java -jar AP_XXX.jar** to begin with installation process.
- Press '**1**' and 'Enter' to continue the installation.
- Next, read the license agreement. To accept it press '1' and then press 'Enter'.




2. Enter the directory to install Applicare and (APPLICARE_HOME) and press 'Enter'.

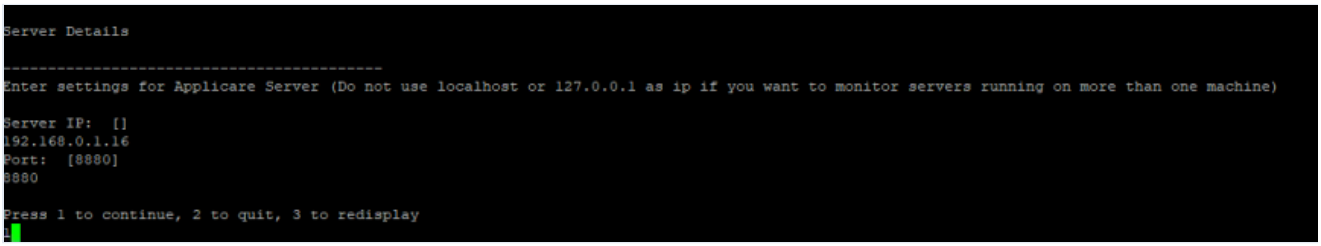
- Press **0** and then 'Enter' to create the target directory.
- Press **1** and 'Enter' to proceed with the installation.




3. Enter the **IP** address of the machine (the same machine that Applicare is being installed on to) and enter.

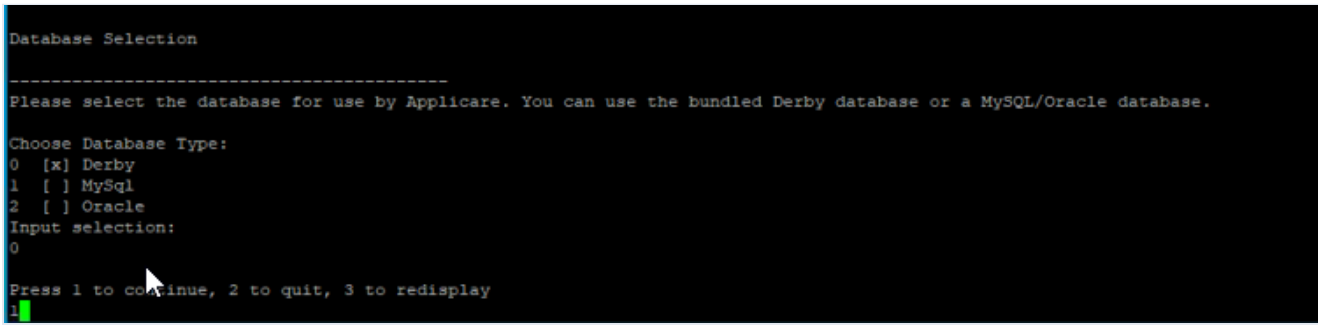
- Choose any **port** as you prefer and enter.

- Press **1** and then 'Enter' to continue installation.

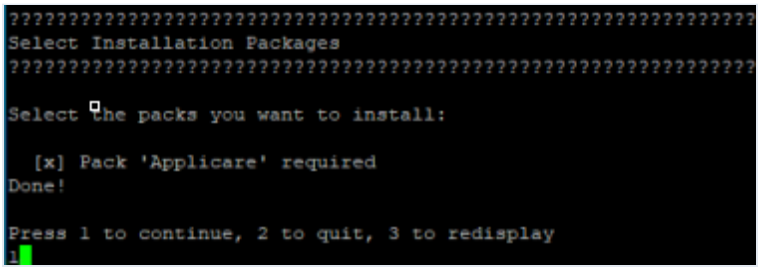



4. Select the database of your choice. Press '**1**' and then 'Enter' to proceed the installation.

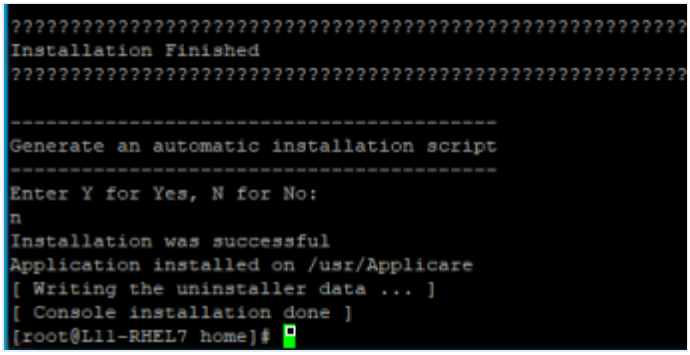
- For proof of concept (POC) purposes, we recommend using the Derby Database. For production environments or system with high workloads, we advise using MySQL or Oracle.




5. Review the installation packages on the screen, Press '**1**' and 'Enter' to proceed with the installation.




7. Installation is now completed. The automatic installation script screen will appear. Type N and press 'Enter'.




8. Grant executive permissions by running the following command from the parent directory of Applicare.

- (In the example above we installed Applicare in /usr/Applicare and hence run this command from /usr directory)

```bash
chmod -R 777 Applicare/*.
```

9. Applicare controller port (default port 8880) and 8983 must be opened to access the Applicare controller in a browser.

1. Installed on RHEL/CentOS/Fedora Os, use the following command to open the port.

```bash
sudo firewall-cmd --permanent --add-port=8880/tcp
sudo firewall-cmd --permanent --add-port=8983/tcp
sudo firewall-cmd --reload
```

2. Installed on Ubuntu/Debian Os, use the following command to open the port.

```bash
sudo ufw allow 8880/tcp
sudo ufw allow 8983/tcp
sudo ufw enable
```

**Note:**

To configure predictive analysis data, Refer here.

**Starting Applicare Controller**

**For Other Docs** - Click here

CONFIGURATION GUIDES › INSTALL, START & UPDATE

# Run the Applicare Controller as a service on Linux

Applicare 9.2 · Updated August 22, 2024 · controller, linux · **Pending technical review**

To **install** or **uninstall applicare.service, admin permissions** are required.

1. Navigate to the directory where the **Applicare Controller** is installed.

2. Run **./installControllerService.sh** to install **applicare.service.** This command will both install and start the service.

```
[root@L11-RHEL7 Applicare]# ./installControllerService.sh
Created symlink from /etc/systemd/system/multi-user.target.wants/applicare.servi
ce to /etc/systemd/system/applicare.service.
[root@L11-RHEL7 Applicare]#
```

1. To **view service status** execute the command **systemctl status applicare**

```
[root@L11-RHEL7 Applicare]# systemctl status applicare
● applicare.service - Applicare Controller
   Loaded: loaded (/etc/systemd/system/applicare.service; enabled; vendor preset
: disabled)
   Active: active (running) since Fri 2021-08-20 12:27:25 EDT; 2min 0s ago
 Main PID: 23486 (java)
   CGroup: /system.slice/applicare.service
           ├─23486 /usr/bin/java -Djava.util.logging.config.file=/home/rob/Ap...
           ├─23507 /usr/lib/jvm/java-1.8.0-openjdk-1.8.0.252.b09-2.el7_8.x86_...
           └─23592 /usr/lib/jvm/java-1.8.0-openjdk-1.8.0.252.b09-2.el7_8.x86_...
```

2. To **Stop service** execute the command **systemctl stop applicare**

```
[root@L11-RHEL7 Applicare]# systemctl stop applicare
```

3. To **Start service** execute the command **systemctl start applicare**

```
[root@L11-RHEL7 Applicare]# systemctl start applicare
[root@L11-RHEL7 Applicare]#
```

4. To **Uninstall service** execute **./uninstallControllerService.sh**

```
[root@L11-RHEL7 Applicare]# ./uninstallControllerService.sh
Removed symlink /etc/systemd/system/multi-user.target.wants/applicare.service.
[root@L11-RHEL7 Applicare]#
```

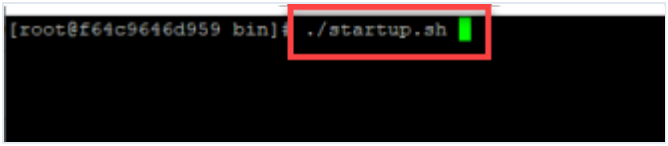
CONFIGURATION GUIDES › INSTALL, START & UPDATE

# Starting Applicare Controller on a Linux system

Applicare 9.2 · Updated August 22, 2024 · controller, linux · **Pending technical review**

### Method 1: Starting Controller via Command mode

Navigate to the **Applicare Controller** installation directory, then proceed to the **/server/bin** path and run **./startup.sh** to start the Applicare Controller.




### Method 2:Starting the Controller in Background Mode

Navigate to the **Applicare Controller** installation directory, then go to the path **/server/bin** path and execute the following command to start the Applicare Controller.

```text
nohup ./startup.sh &
```




### Method 3: Start Controller as a Service

Run Applicare controller as a service

CONFIGURATION GUIDES › INSTALL, START & UPDATE

# Applicare Installation for Windows

Applicare 9.2 · Updated December 3, 2024 · controller, windows · **Pending technical review**

## Prerequisites

### System Requirements for Applicare Controller and Database*

- Applicare controller and Agents must have Administrative rights
- Operating System: Windows 10 or later, or Windows Server 2012 or newer

*Note that these requirements may vary depending on the number of agents deployed and the volume of data being collected and below should be used as a starting point.*

### System Requirements

- **Disk Space:** 100 GB (mostly for storing data) or 1 TB or higher for production monitoring.
- **RAM:** 16 GB (small POC environment) or 48 GB or higher for production.
- **CPU:** Intel i7 6-core equivalent, or higher.

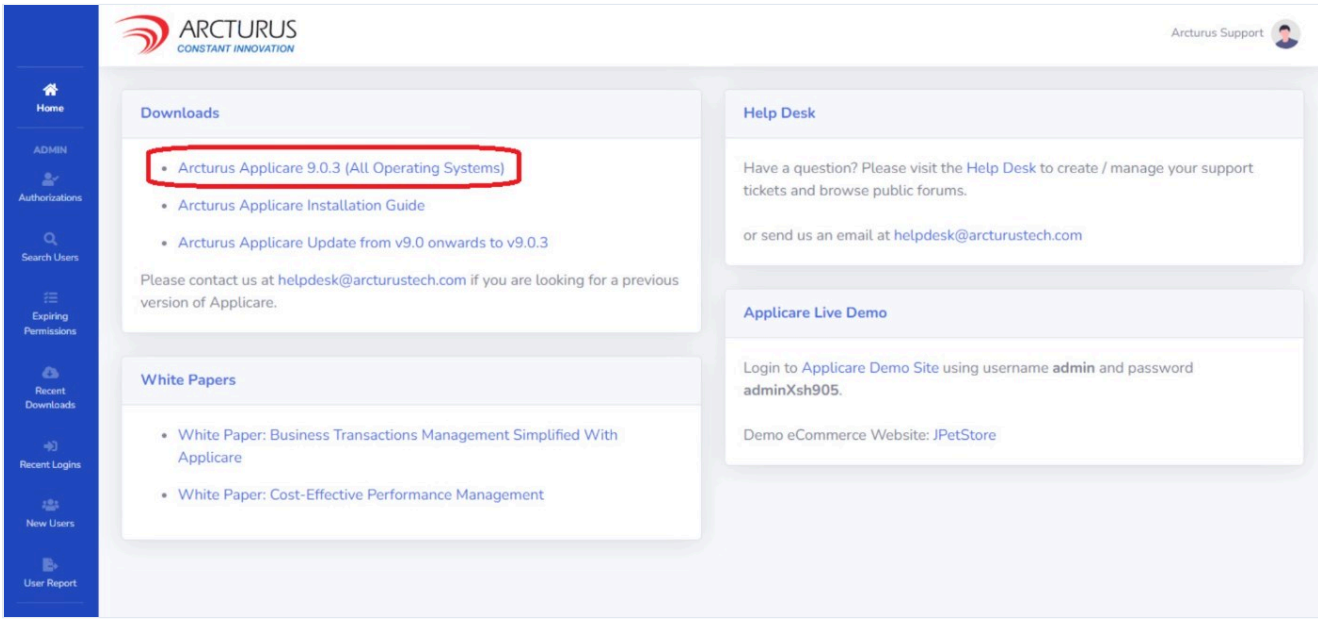
### Port Requirements

- The Agent must have access to Applicare Controller IP and port. (Default port 8880)
- The VM should be accessible to all agents via its IP address

### Additional Required Products

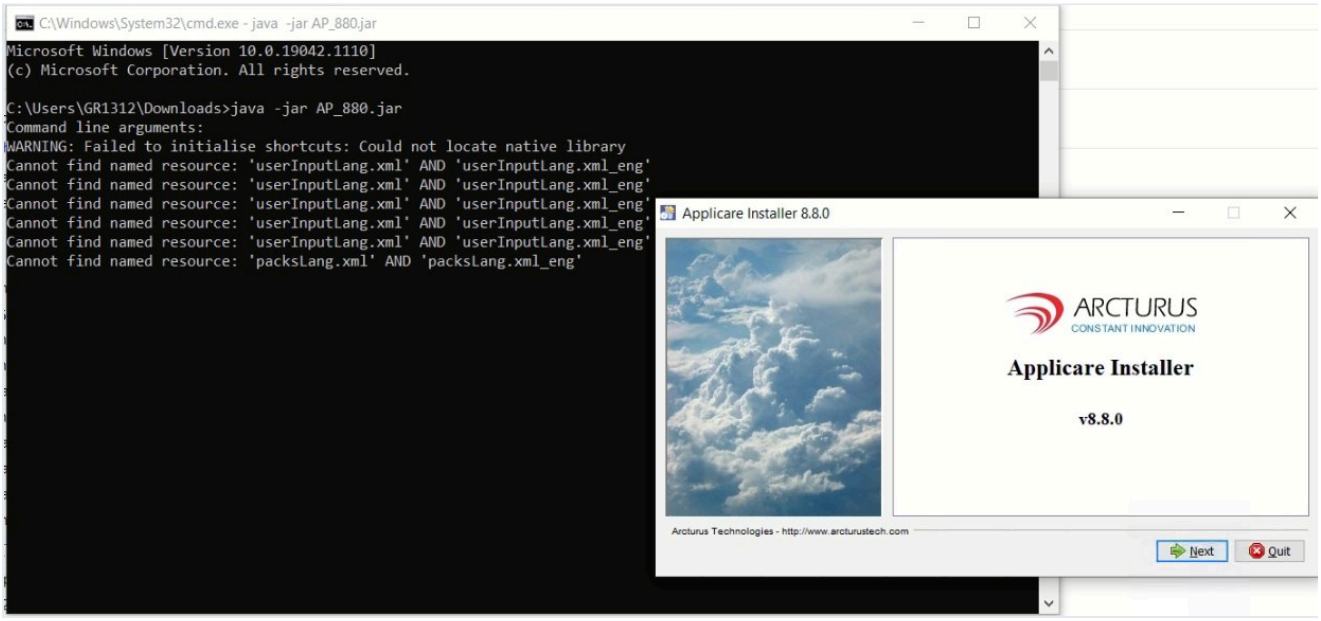
- Java 1.8. Java downloads
- MySQL is optional if you prefer using Derby as your database. If you choose MySQL, you can download and install it from MySQL's official site. To get the latest Applicare installer, please register and log in to our support site and download it from there.

## Installation



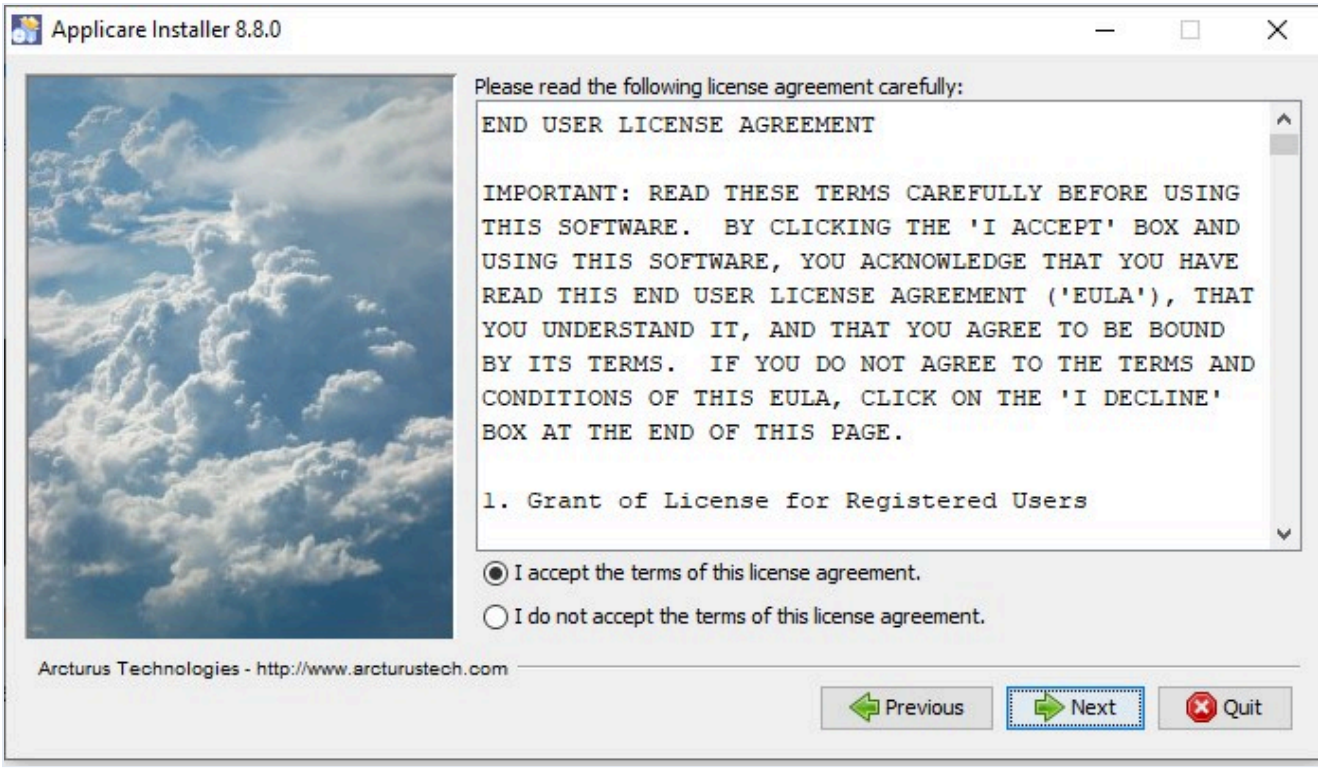

1. Transfer the downloaded installer to the machine where Applicare will be installed.

- Double-click the installer to begin the installation process.
- If double-clicking the installer doesn't work, open a command window, navigate to the directory where the installer is located and run the command. Execute the **java -jar AP_XXX.jar** command to start the installation.

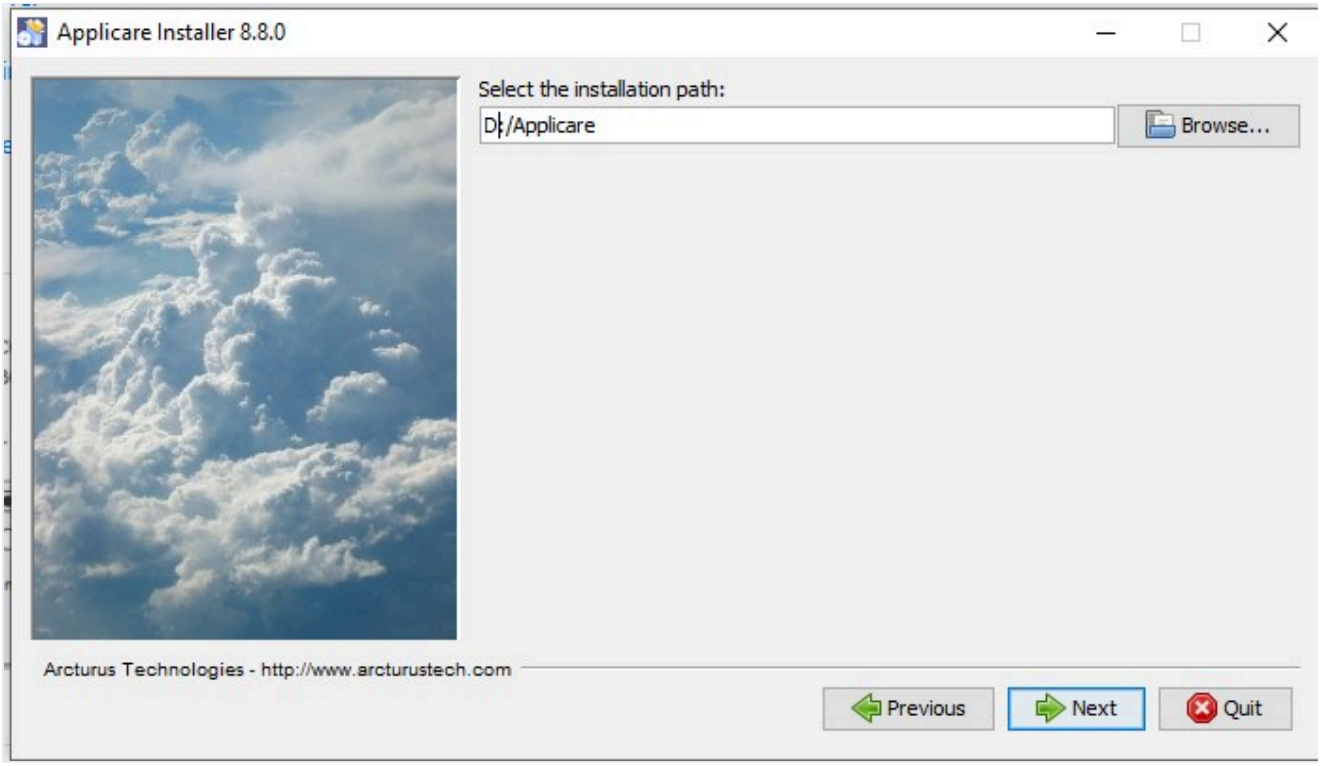



2. Click '**Next**' to proceed with the installation.

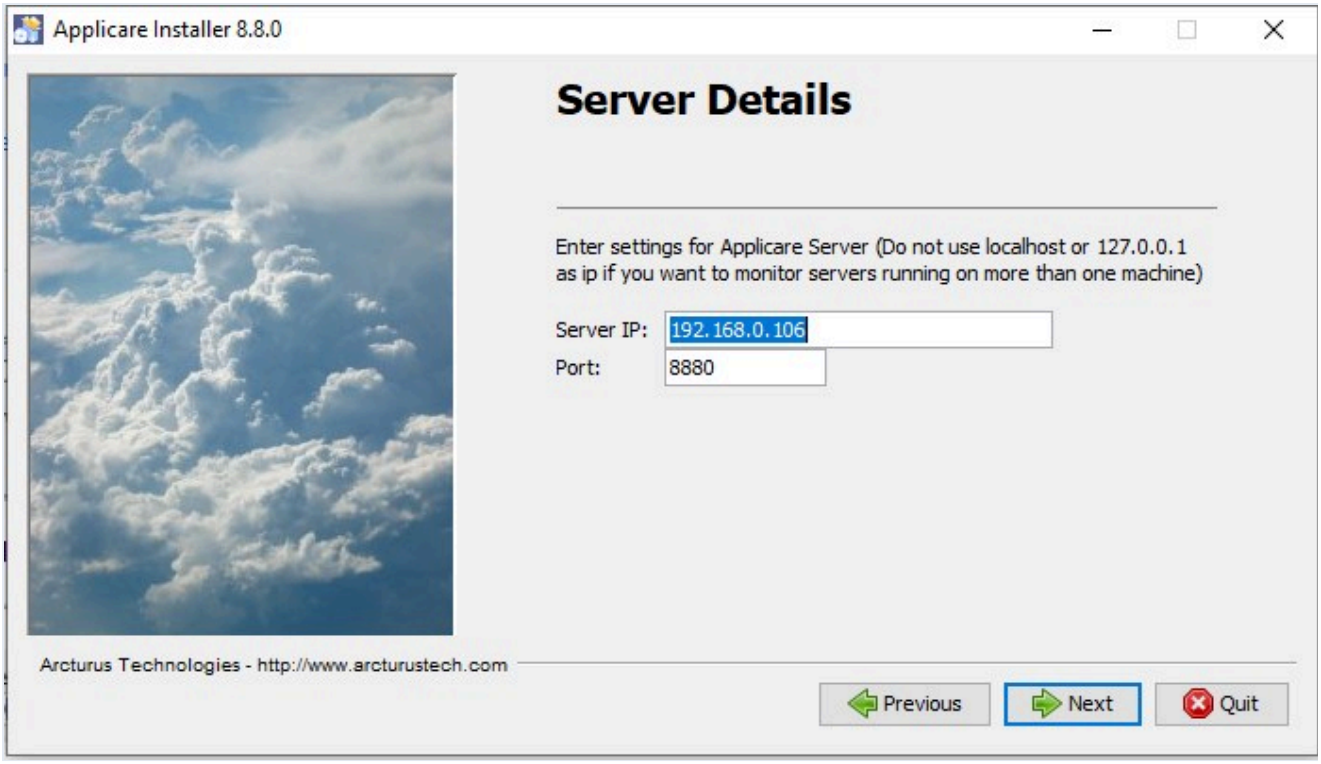
- Then, review and accept the license agreement, and click on **Next**.




3. Select the directory where you want to install Applicare (APPLICARE_HOME) and click **Next**.



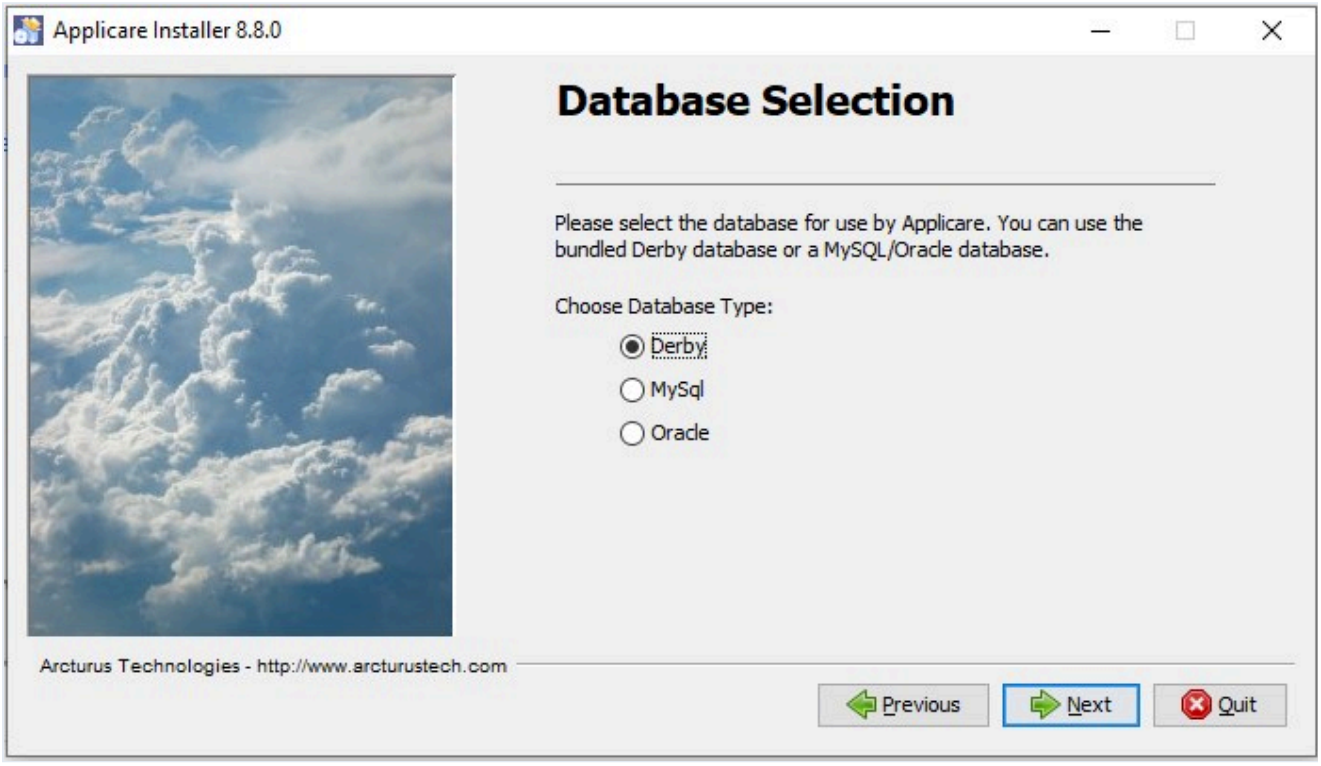

4. In the server details window, enter the IP address of the machine where Applicare is being installed and choose a preferred port.



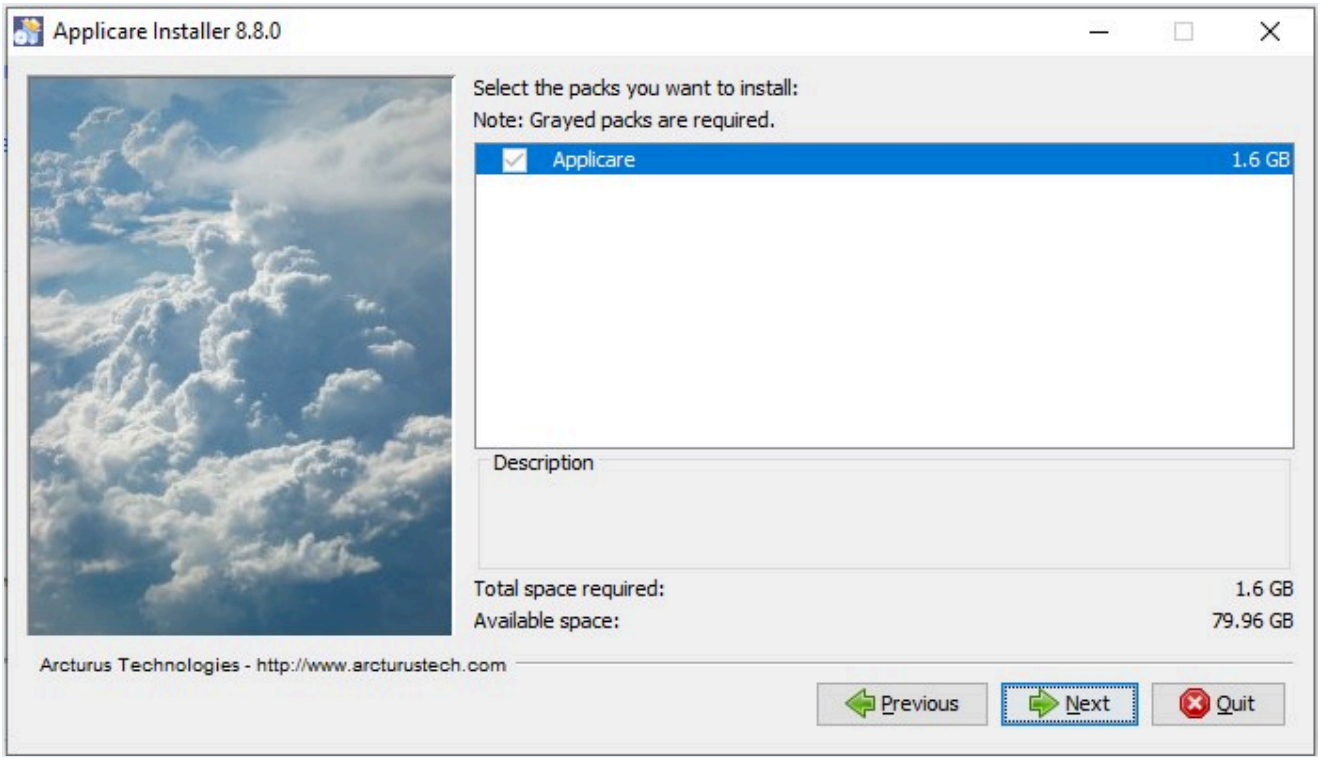

5. On the next screen, select your preferred database and click on Next.

- For proof of concept (POC) purposes, we recommend using the Derby database. For production environments or system with high load, we advise using MySQL or Oracle**.

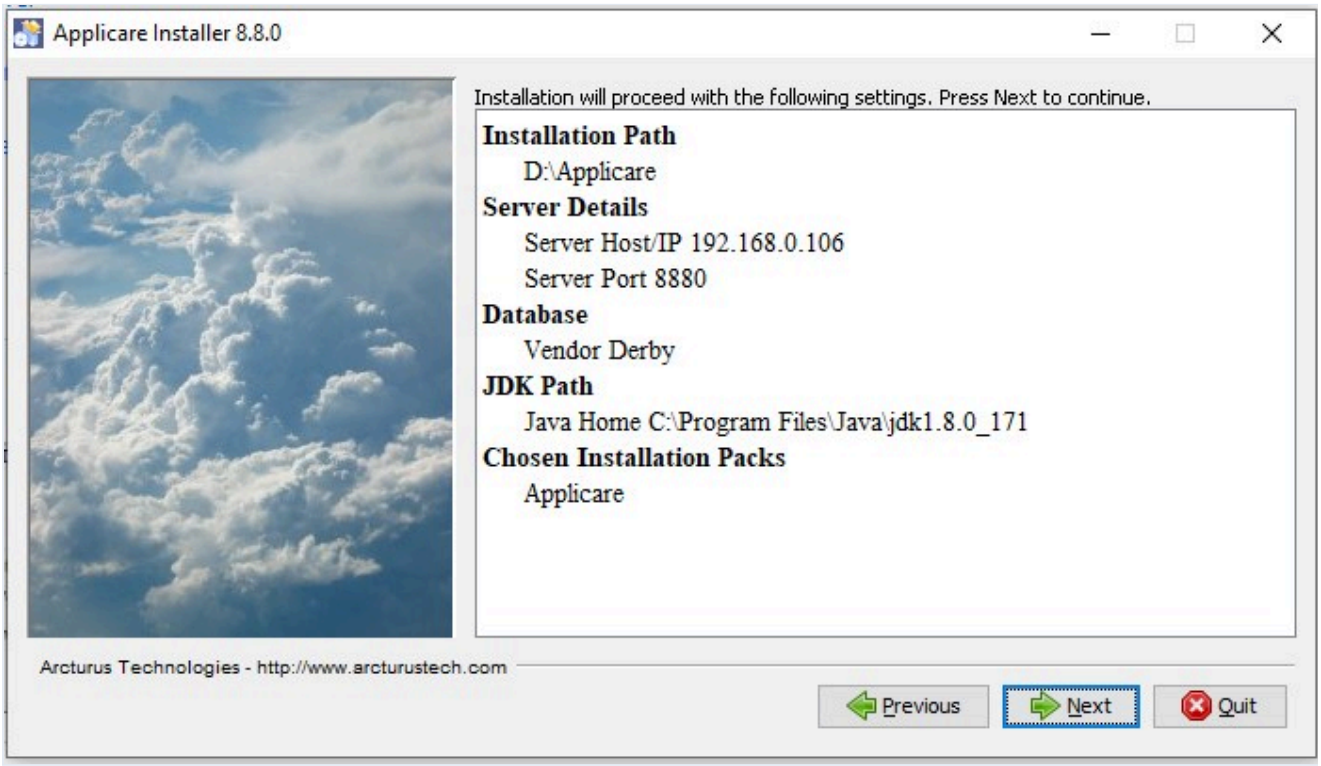
** In case of MySQL or Oracle as the database, you will need to create the schema for Applicare before proceeding past this step.

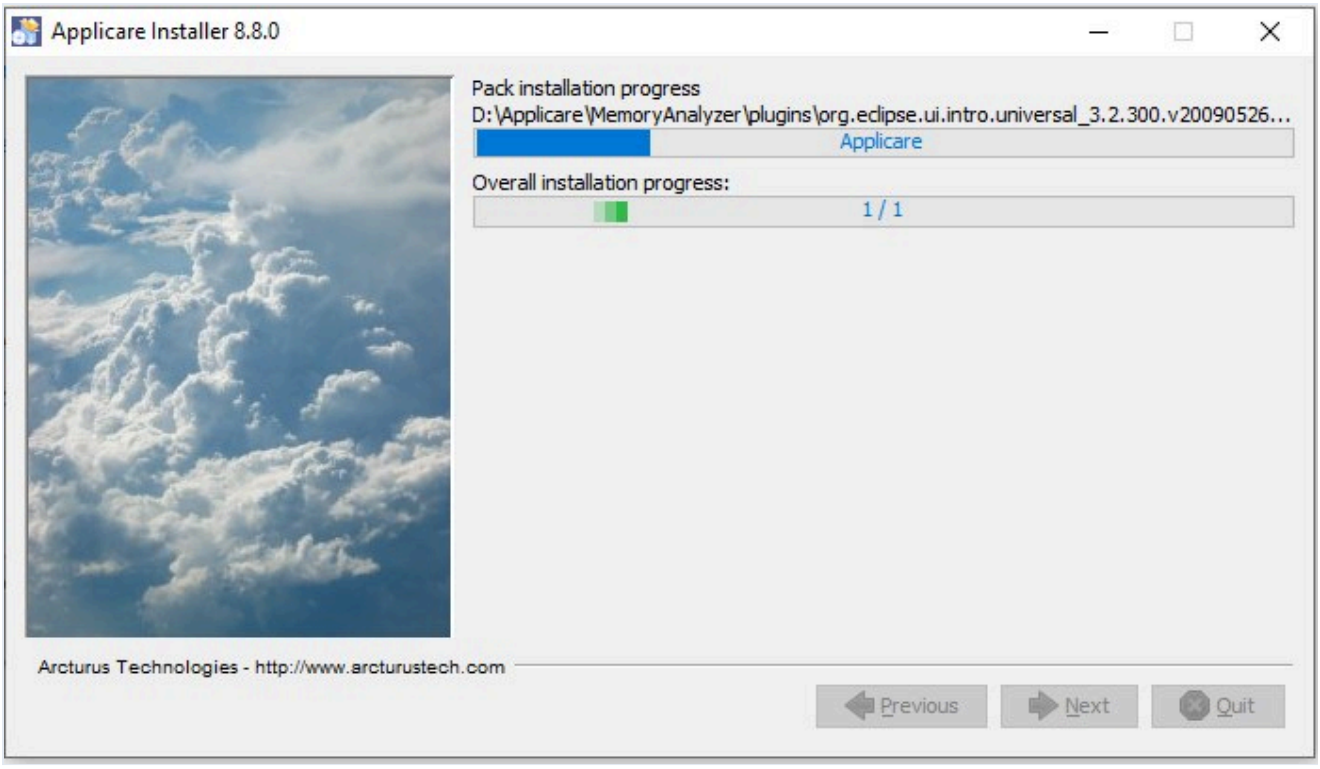



6. Choose the Applicare package and click on **Next**.




7. Review the settings and click on **Next**.






8. Click on the **Next** button once the package installation is completed.

- Then, click on **Done**.




## Starting Applicare Controller

**For other docs** - click here

**Configuring SQL Mode for MySQL in Applicare** - click here

CONFIGURATION GUIDES › INSTALL, START & UPDATE

# Update the Applicare Controller

Applicare 9.2 · Updated April 2, 2025 · controller · **Pending technical review**

## Please follow the steps below to update your Applicare installation

**Step 1:** To download the update.jar, log in with your Arcturus Support Login ID on the Arcturus Support site.

**Step 2:** For updating **Arcturus Applicare v9.0 onwards to v9.*** Click on provided link.




**Step 3:** After downloading the update.jar copy **update.jar** in the **<Applicare Installation Dir>/tmp/updates/** folder. If there is **update.jar.processed** file then delete that file.

**Step 4:** Stop any active Applicare processes if they are running.

**Step 5:** If the **Applicare controller is running on windows**, open the command prompt and cd into the directory **<Applicare Installation Dir>/scripts.** Then, execute **runupdate.bat**.

```text
                                                                OR
```

If the **Applicare controller is running on Linux**, go to the directory **<Applicare Installation Dir>/scripts** and execute **runupdate.sh**.

If Applicare controller is running on Linux, Grant full permissions to Applicare directory after completing the update.

**Step 6:** On windows, navigate to **<Applicare Installation Dir>/controllerscripts.** Open a **command prompt in administrator mode** at this location and execute the **createControllerTask.bat**.

**Step 7:** Start the Applicare controller.

## Follow the steps below to update the license file

**Step 1:** Download the license file and replace it in **<Applicare Installation Dir>** directory.

**Step 2:** Restart Applicare if it is running, replacing the license file.

**Monitoring with Applicare**

CONFIGURATION GUIDES › INSTALL, START & UPDATE

# Applicare Updates

Applicare 9.2 · Updated September 13, 2024 · controller · **Pending technical review**

To check for available updates and download update files, visit the Applicare Updates page located in the **Configuration** section.

Downloading updates requires an Arcturus support login ID with Applicare download access. You can create an ID or request download access by visiting the Arcturus Support Site.

## Downloading Updates

Enter your Arcturus support login ID and password, then click the **Check For Updates** button. The **Download** button will become enabled if a new version Applicare is available. Click the **Download** button to begin downloading the updates files, which will be saved in the Applicare/tmp/updates directory.

## Performing the Update

After the download is complete, follow the instructions provided in the Version Notes section to complete the update process.

**Monitoring with Applicare**

CONFIGURATION GUIDES › INSTALL, START & UPDATE

# Deploying the Applicare Service Pack

Applicare 9.2 · Updated September 13, 2024 · controller · **Pending technical review**

Service packs (patches) are minor incremental updates or bug fixes that provide incremental improvements.

**Step 1:** Create a **backup** of the **applicare.war** file.

**Step 2:** Stop Applicare server and delete the directory: **<Applicare-Home>/server/webapps/applicare**

Don't delete **<Applicare-Home>/server/webapps/applicare.war**, as this will prevent the service pack from working correctly.

**Step 3:** create the directory **<Applicare-Home>/sp** if it doesn't already exist. If there are any files in <Arcturus-Home>/sp, delete them.

**Step 4:** Extract the files from **patch.zip** and copy them to **<Applicare-Home>/sp**

**Step 5: Open command prompt in administrator mode** and go to the **<Applicare-Home>** path and run the patch using the following command.

**java -Darcturus_home=<PATH_TO_APPLICARE_HOME> -jar applicare-patch.jar**

**Example:** java -Darcturus_home=E:\Applicare -jar applicare-patch.jar

The **modification date** of the file **<Applicare-Home>/server/webapps/applicare.war** should be updated.

**Step 6:** Start the Applicare server.

**Monitoring with Applicare**

CONFIGURATION GUIDES › INSTALL, START & UPDATE

# Starting the Applicare Controller

Applicare 9.2 · Updated March 12, 2025 · controller · **Pending technical review**

### Method 1 - Start the Controller Using Command mode

Open the command prompt as an administrator. Navigate to **Applicare Controller** installation directory then to the path **/server/bin** and run **startup.bat** to start the Applicare Controller.

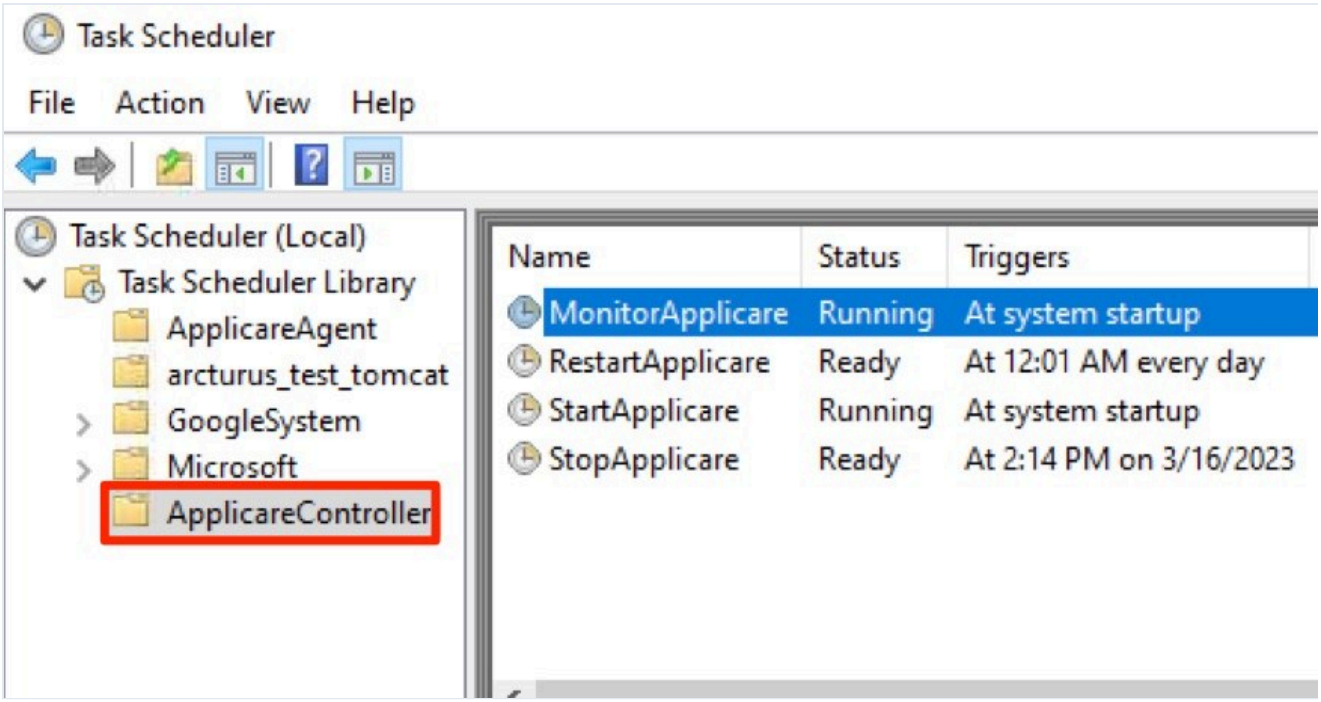



### Method 2 - Start the Controller Using Task Scheduler

a. Please open the command prompt as an administrator, navigate to the **Applicare Controller home directory\controllerscripts** directory and run **createControllerTask.bat**

```
D:\Applicare_9281_mysql\controllerscripts>createControllerTask.bat
        1 file(s) moved.
SUCCESS: The scheduled task "\ApplicareController\StartApplicare" has successfully been created.
SUCCESS: The parameters of scheduled task "\ApplicareController\StartApplicare" have been changed.
SUCCESS: Attempted to run the scheduled task "\ApplicareController\StartApplicare".
        1 file(s) moved.
SUCCESS: The scheduled task "\ApplicareController\StopApplicare" has successfully been created.
2025-03-12T00:01:01
        1 file(s) moved.
SUCCESS: The scheduled task "\ApplicareController\RestartApplicare" has successfully been created.
        1 file(s) moved.
SUCCESS: The scheduled task "\ApplicareController\MonitorApplicare" has successfully been created.
SUCCESS: The parameters of scheduled task "\ApplicareController\MonitorApplicare" have been changed.
SUCCESS: Attempted to run the scheduled task "\ApplicareController\MonitorApplicare".
```

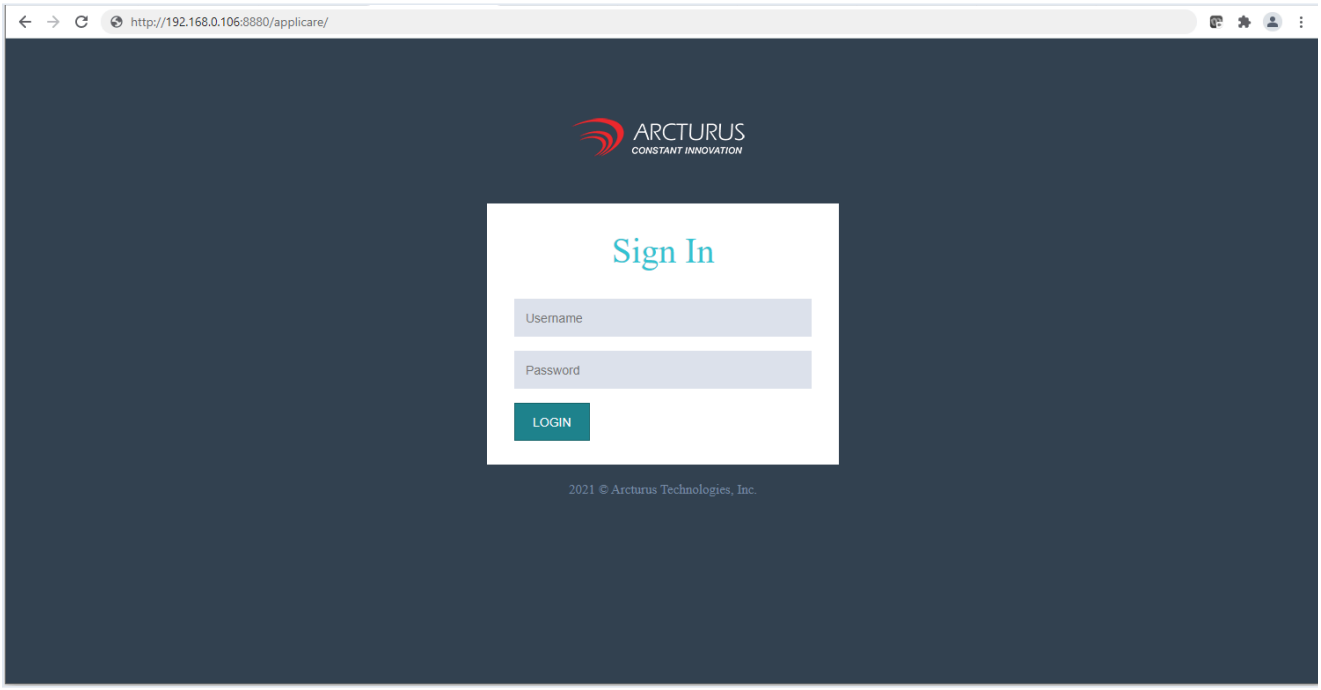
b. The controller will start automatically after executing the script. Open the task scheduler, expand the task scheduler library, and select the ApplicareController folder. Make sure that the task created in it is the same as the one for the controller start, stop, and restart.




Once the controller is running, you can browse the Applicare console using any browser with the IP address and port you chose during installation.

Applicare console URL : **http://<IP>:<PORT>/applicare**

e.g. If the controller IP is 192.168.0.106 and port is 8880 then the Applicare console URL would be: `http://192.168.0.106:8880/applicare`




The default username and password to logging into the Applicare dashboard are both "admin".

Next Steps - Installing SingleAgent

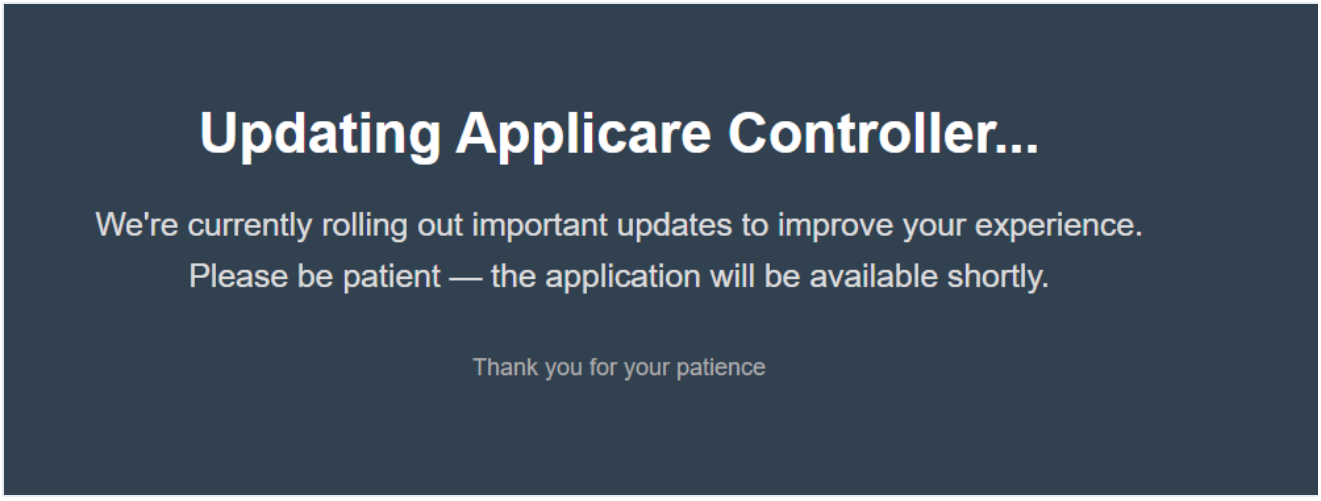
## Monitoring with Applicare

CONFIGURATION GUIDES › INSTALL, START & UPDATE

# Applicare Sentinel

Applicare 9.2 · Updated January 16, 2026 · controller · **Pending technical review**

A new custom error handling mechanism within Sentinel. This feature is designed to replace the standard blank white error page with a branded, user-friendly HTML interface during Controller update cycles, ensuring users are informed of the system's status during scheduled downtime.



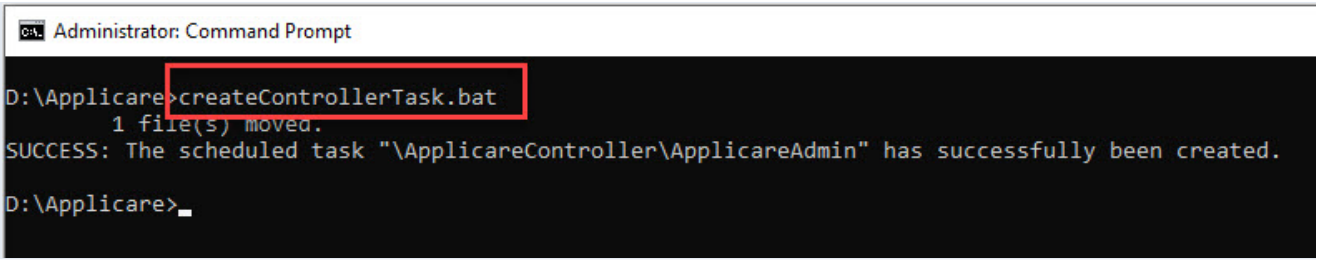
CONFIGURATION GUIDES › INSTALL, START & UPDATE

# Set up the Applicare Controller in Task Scheduler

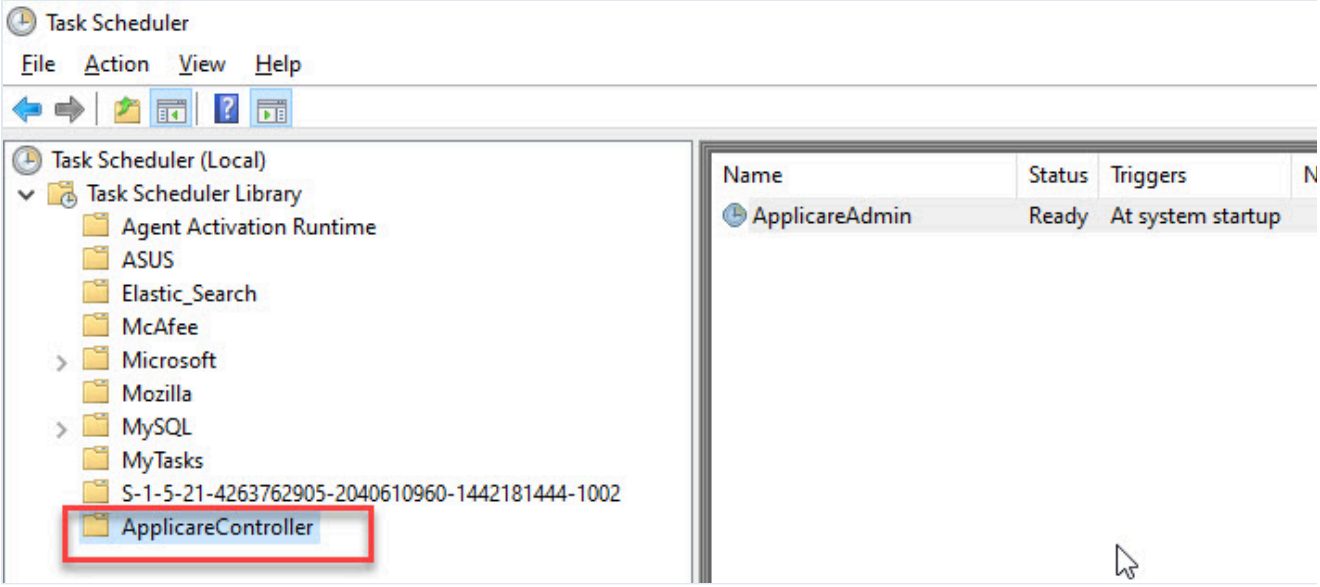
Applicare 9.2 · Updated September 13, 2024 · controller, windows, tasks · **Pending technical review**

Follow the steps for **installing ApplicareController**

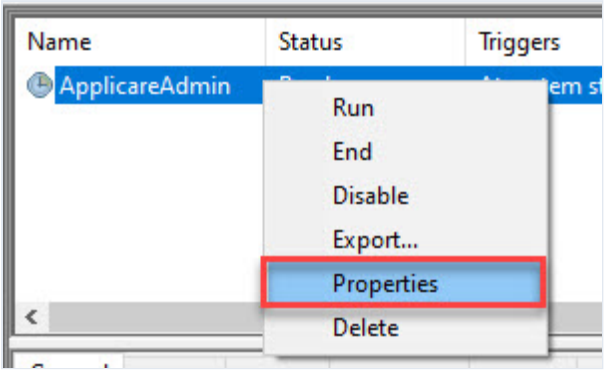
1. Launch the command prompt with administrator rights, go to the **directory** where Applicare controller is installed and run the **createControllerTask.bat** file.



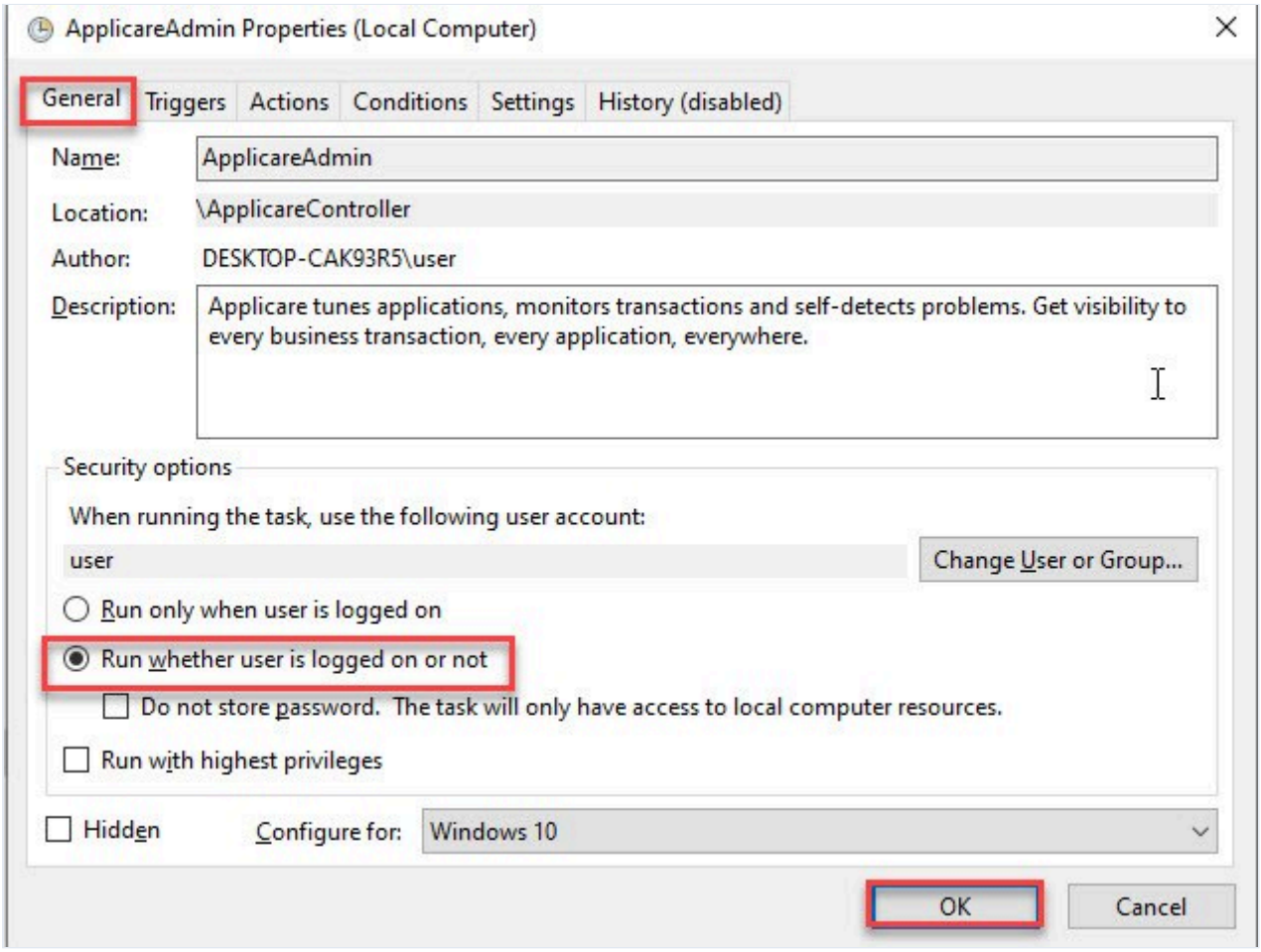

2. Open **Task Scheduler,** expand the **Task Scheduler Library,** and choose the **ApplicareController** folder.



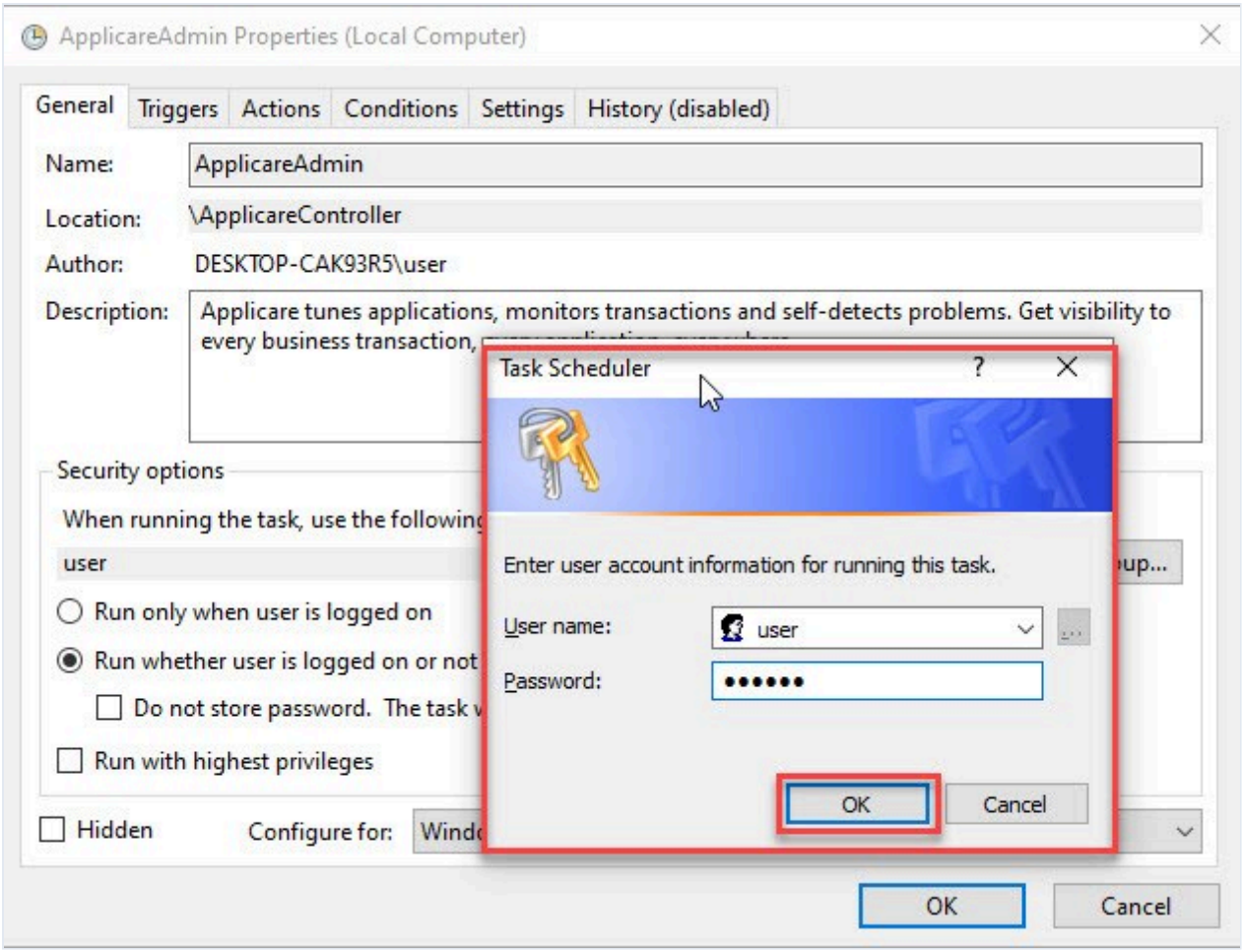

3. Right-click on the **ApplicareAdmin** task and choose **Properties**.



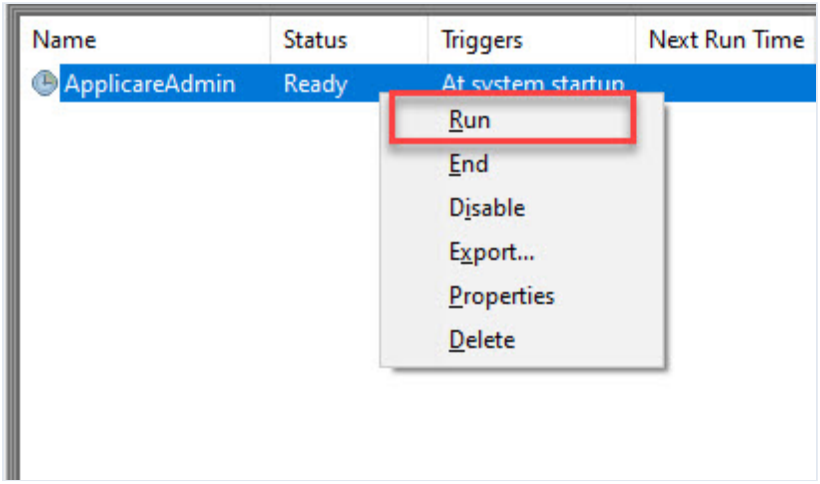
4. Enable **Run whether the user is logged on or not** option and click **OK**.

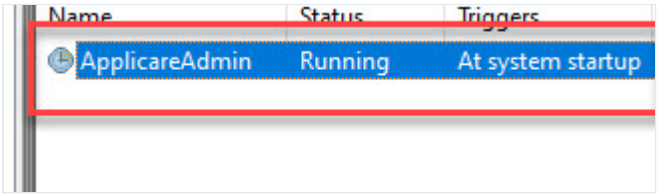



5. Provide the **username** and p**assword,** then click **OK**.




6. Right-click the **ApplicareAdmin** task and choose **Run**.



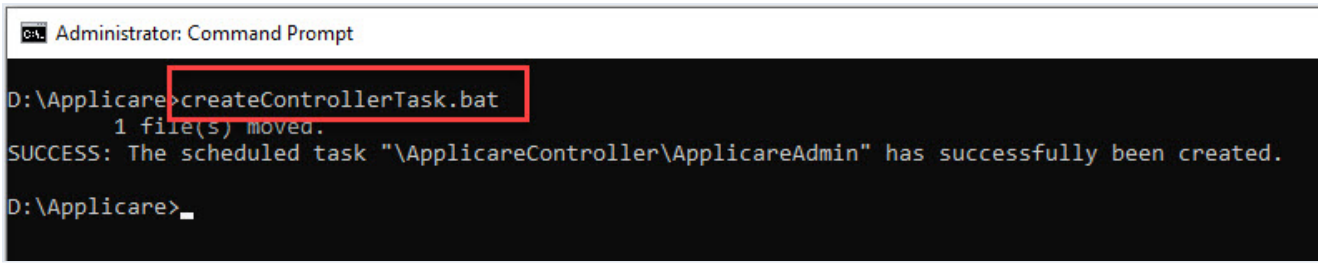

## Monitoring with Applicare

CONFIGURATION GUIDES › INSTALL, START & UPDATE

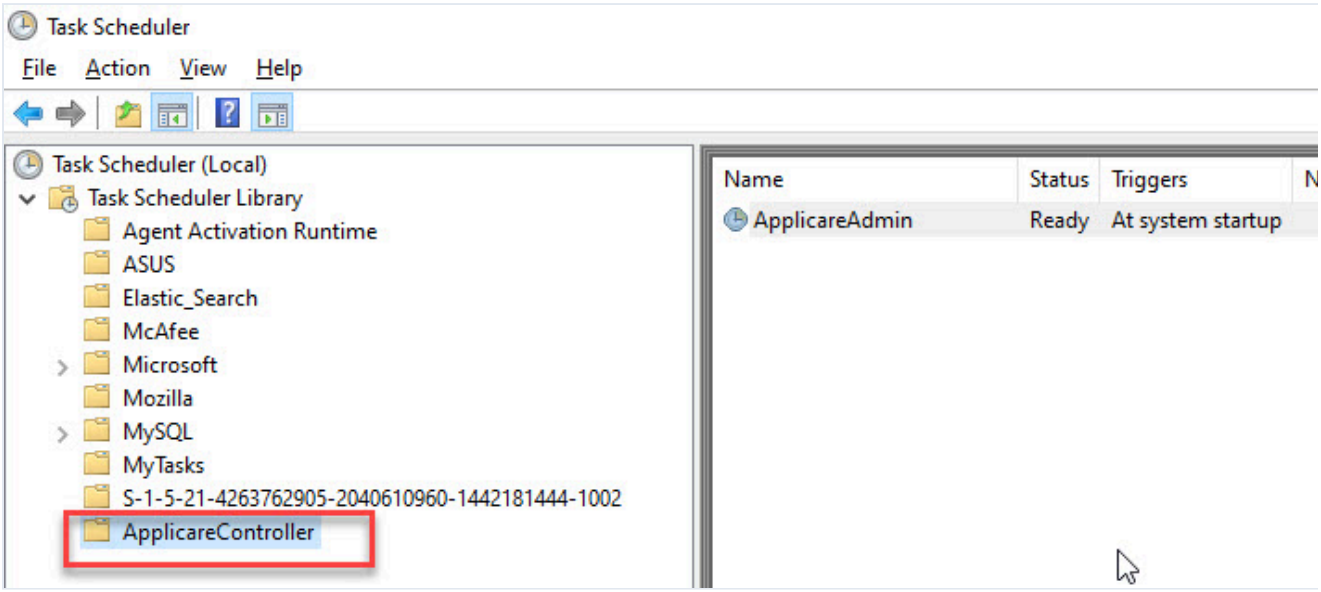
# Start the Controller in Task Scheduler

Applicare 9.2 · Updated September 13, 2024 · controller, windows, tasks · **Pending technical review**

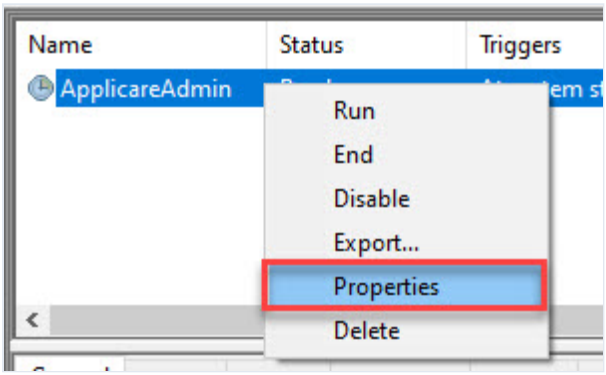
**Step 1:** Open the command prompt with administrator privileges, and navigate to the **Applicare controller** installation directory, and run the **createControllerTask.bat**. file.



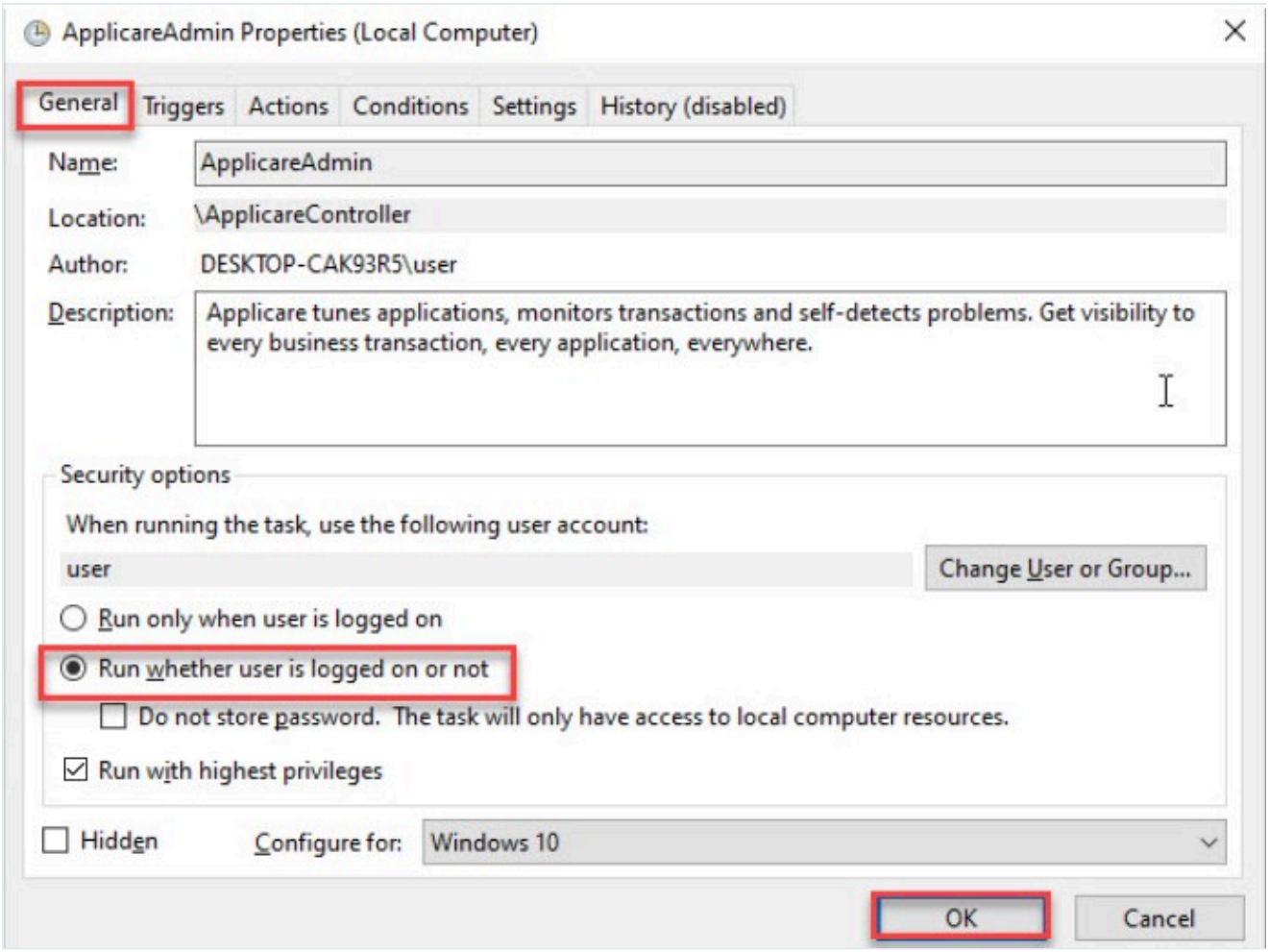

**Step 2:** Open Task Scheduler, expand the Task Scheduler Library, and select the ApplicareController folder.



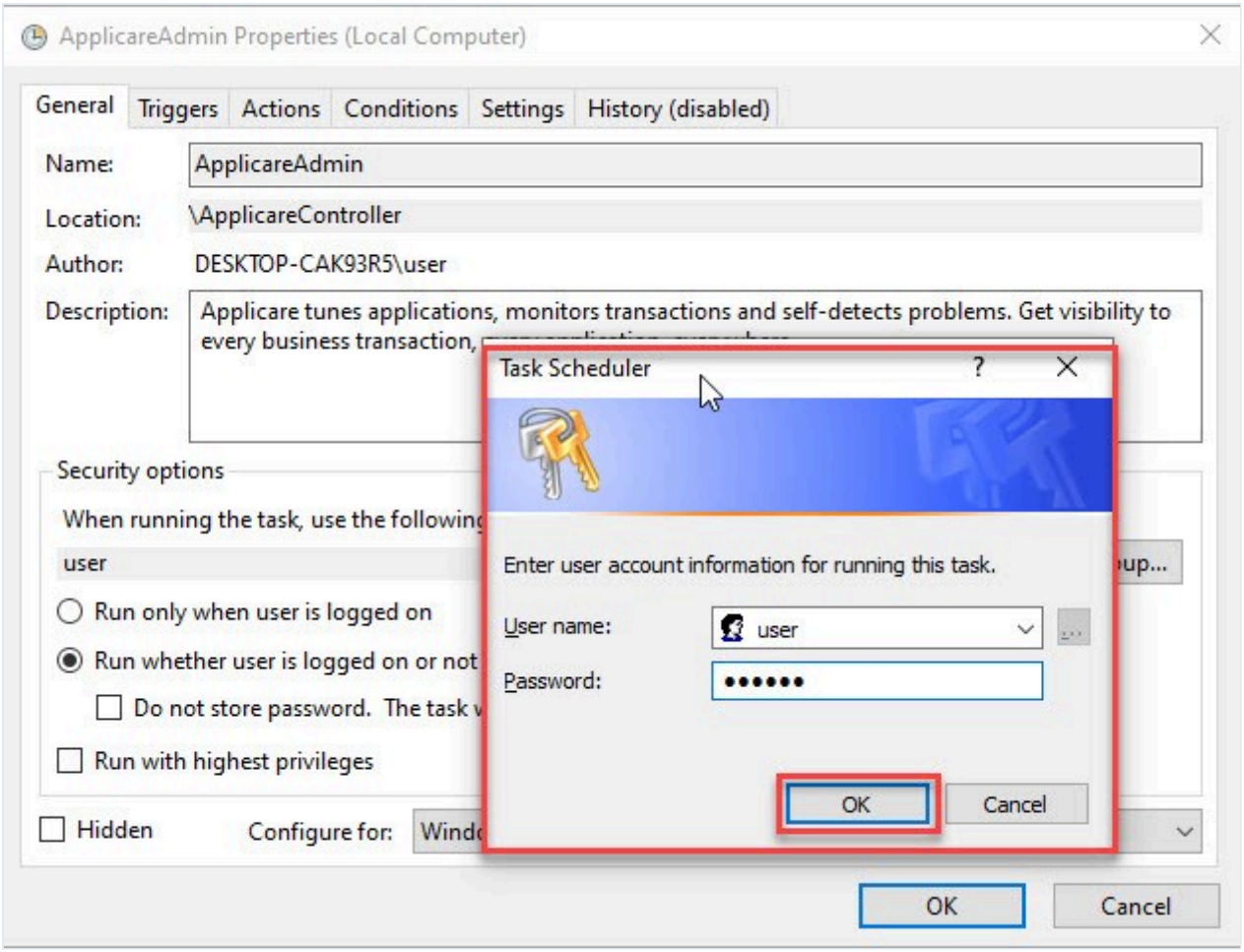

**Step 3:** Right-click the **ApplicareAdmin** task and choose **Properties**.




**Step 4:** Select the **Run whether user is logged on or not** option and click **OK**.

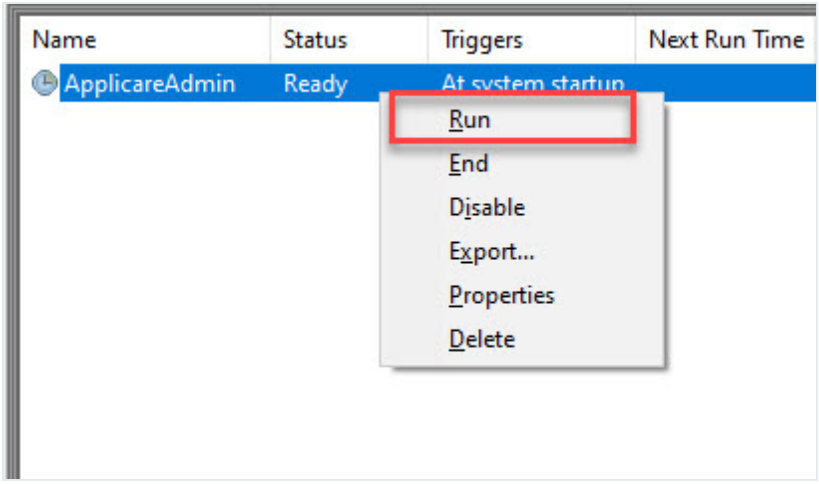



**Step 5:** Enter the **username** and **password,** then click **OK**.




If the **2147943712** error occurs while saving the password. **Refer here**

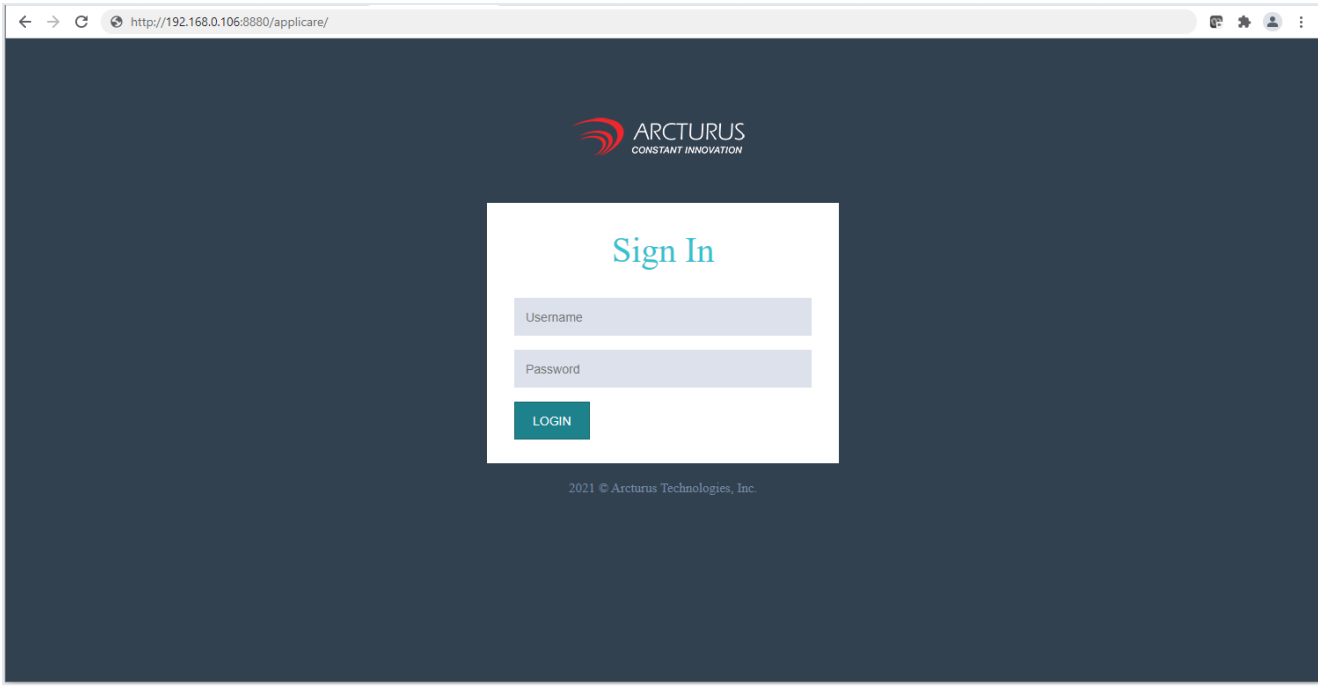
**Step 6:** Right Click the **ApplicareAdmin** task and select **Run**.




**Step 7:** After starting the controller, you can access the Applicare console using any browser by entering the IP address and port you specified during the installation.

URL for the Applicare Console : **http://<IP>:<PORT>/applicare**

For the above case Applicare console URL will be: `http://192.168.0.106:8880/applicare`




The default login credentials for the Applicare dashboard are both "admin" for the username and password.

Next Steps - Installing SingleAgent

**Monitoring with Applicare**

CONFIGURATION GUIDES › INSTALL, START & UPDATE

# Start the Controller in command-line mode

Applicare 9.2 · Updated September 13, 2024 · controller, windows, tasks · **Pending technical review**

**Step 1:** Open a command prompt with **administrator privileges.**

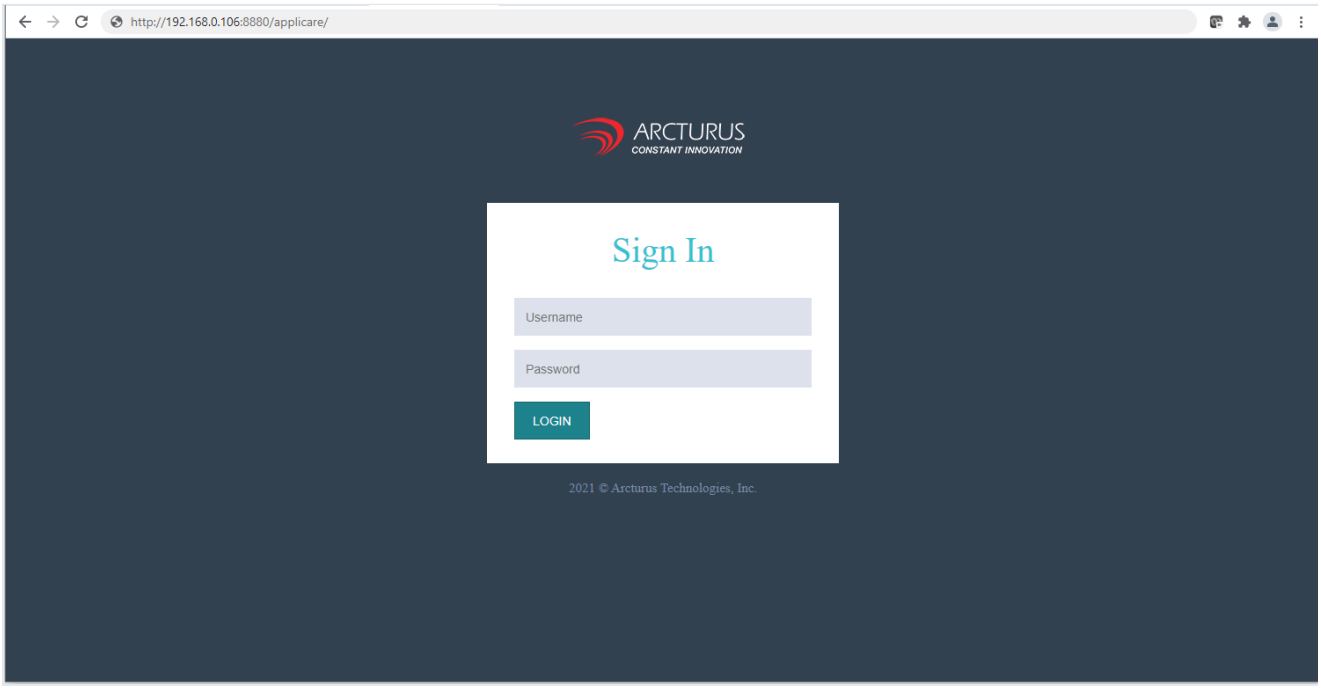
**Step 2:** Navigate to the directory where the **Applicare controller** is installed, then go to the **/server/bin** path and run **startup.bat** to start the Applicare controller.




**Step 3:** After the controller is started, you can access the Applicare console in any web browser using the IP address and port specified during installation.

Applicare console URL : **http://<IP>:<PORT>/applicare**

For the above case Applicare console URL would be: `http://192.168.0.106:8880/applicare`




The default username and password for logging into the Applicare dashboard are both "admin".

Next Steps - Installing SingleAgent

**Monitoring with Applicare**

CONFIGURATION GUIDES › INSTALL, START & UPDATE

# Update Agents

Applicare 9.2 · Updated August 23, 2024 · singleagent · **Pending technical review**

## Overview

You can update or restart the active agent in the Applicare controller remotely, without needing physical access to machine running the agent; instead, these tasks can be managed directly from the Applicare console.

- Agent **Auto Update** is only available for **Active** Agents.
- For **Windows,** the agent must be running as a **task scheduler, and the PowerShell version 5 and above.**
- For **Linux,** the agent must be running as a **systemctl service**.
- Agent **Auto Restart** is available only for **Active Standalone Agent.**

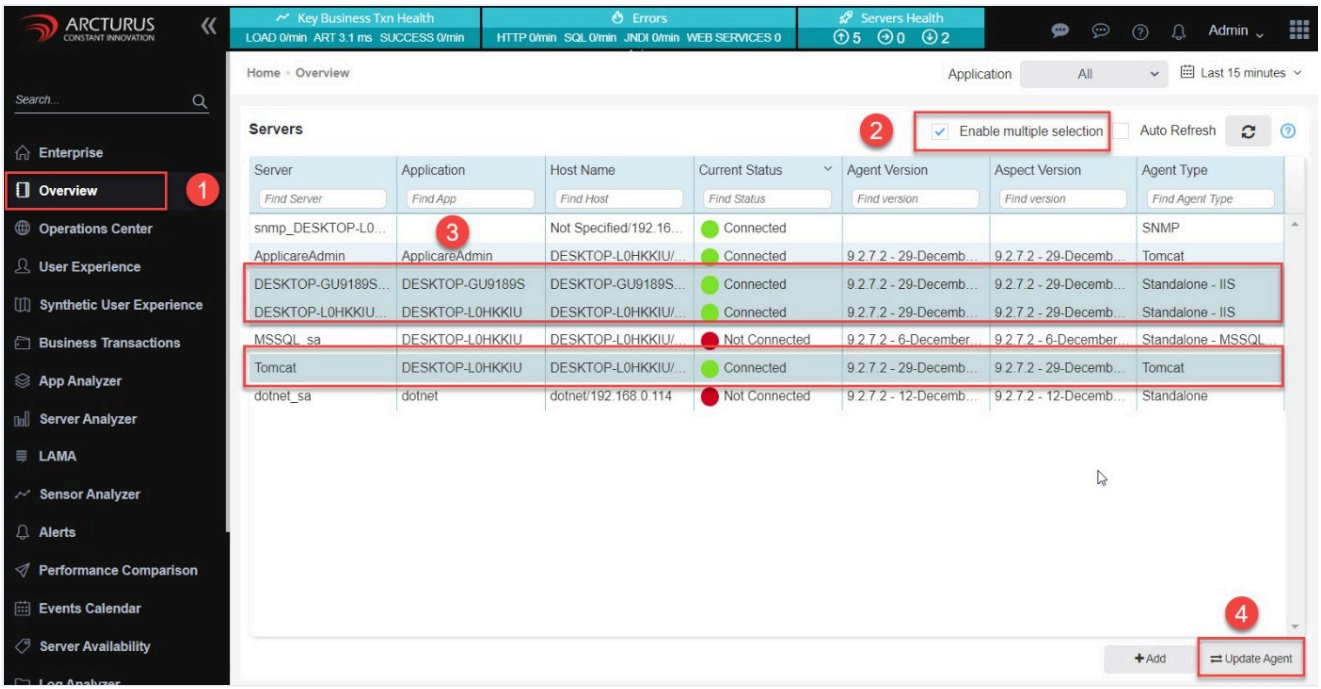
### Steps to Update and Restart Agents

**Step 1:** Navigate to the **Overview** menu.

**Step 2:** Check the **Enable multiple selection** checkbox to update multiple agents. If updating only one agent you can skip this step.

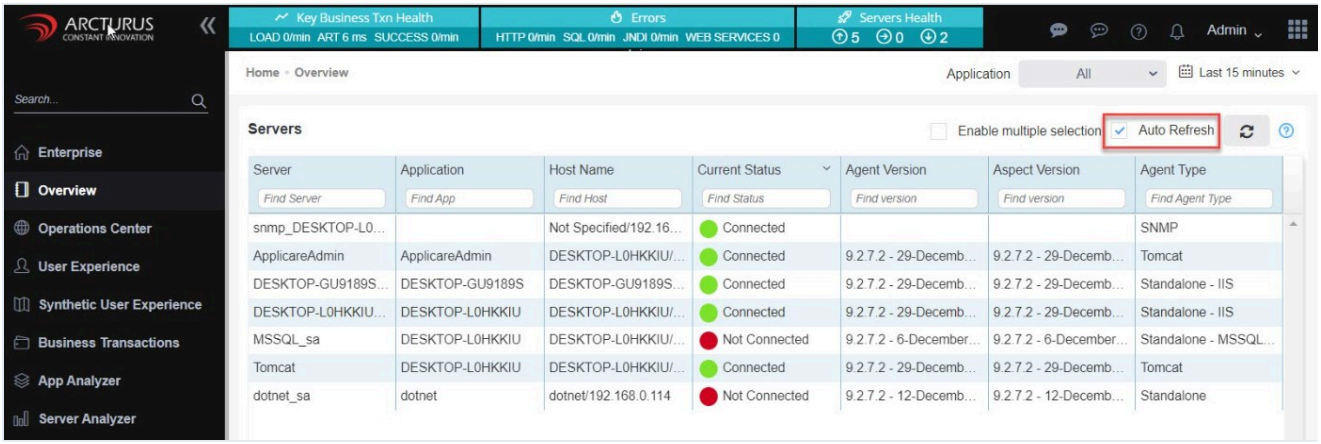
**Step 3:** Select the agents from the grid.

**Step 4:** Click the **Update Agent** button to update the agents.

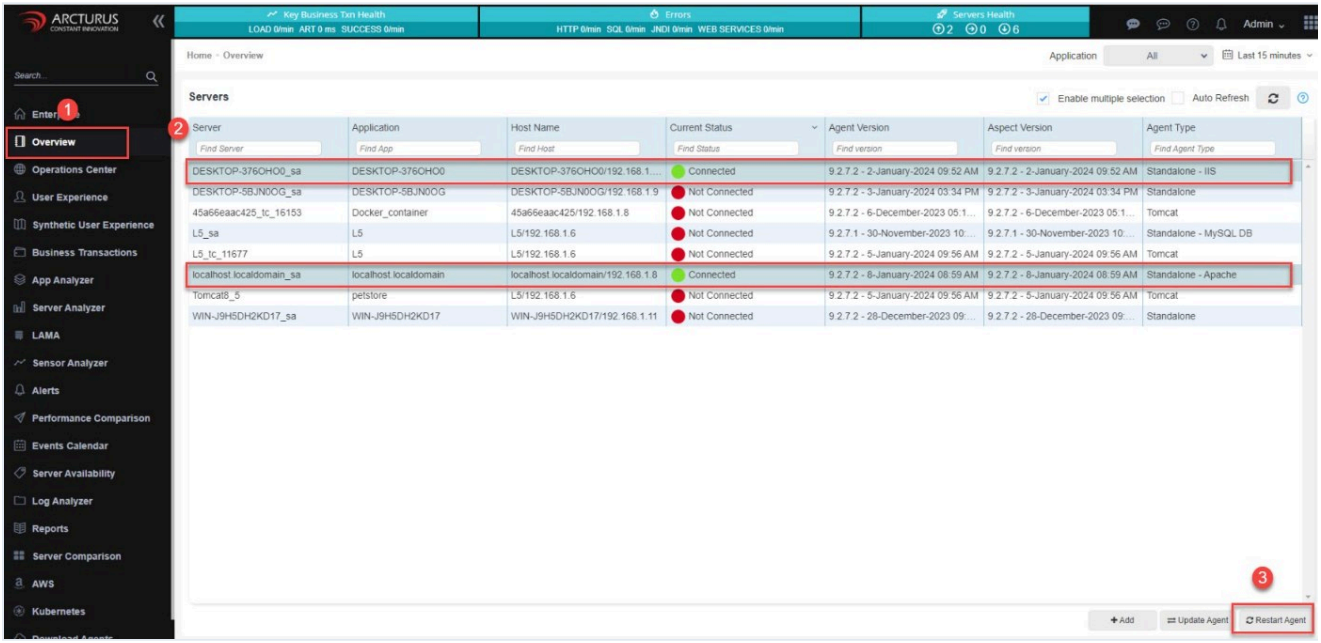



**Step 5:** The agent update process typically 1 or 2 minutes. After updating, the "Agent" and "Aspect" versions columns will reflect the changes SingleAgent for grid. For other server agents, you may need to manually restart the servers to see the updated versions. Check the **Auto Refresh** checkbox to view the

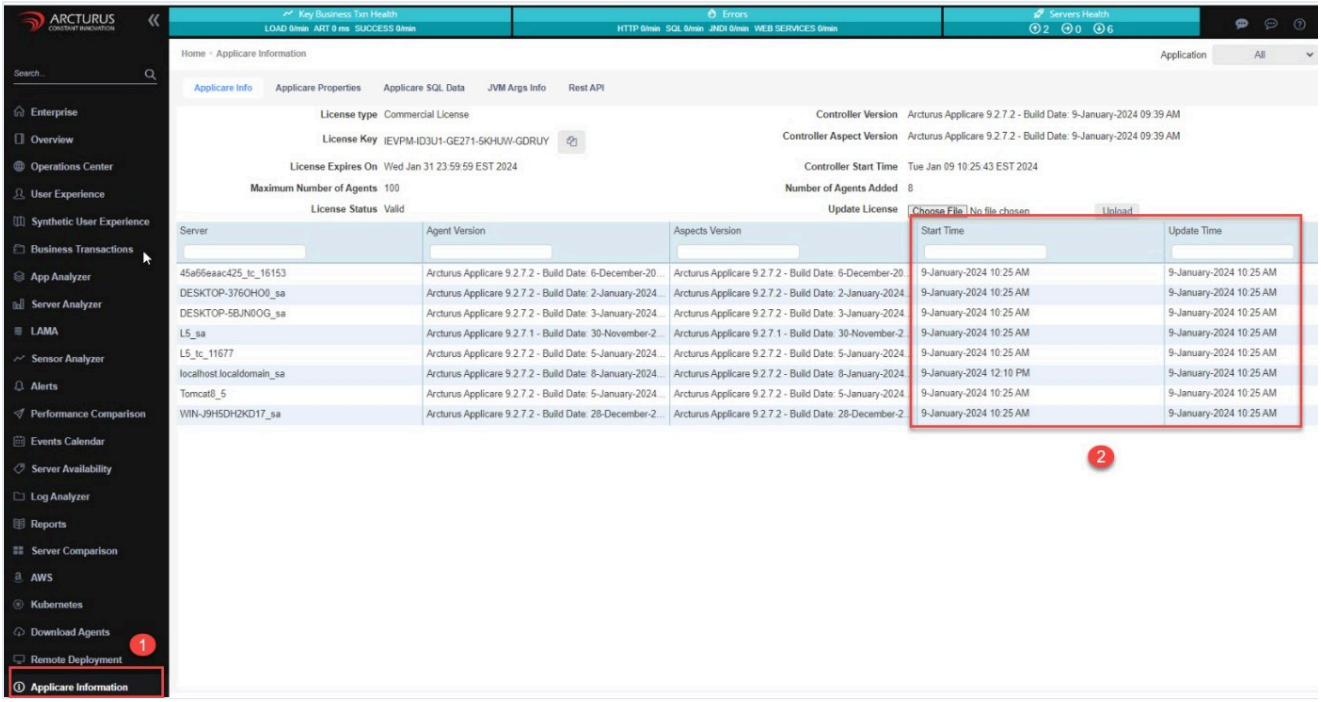
updated Agent and Aspect versions.




**Step 6:** To **Restart SingleAgent,** select the rows and click the **Restart Agent** button. The agents will restart within few minutes.




**Step 7:** To verify that the agent is updated and restarted, go to the **Applicare Information menu** and check the **Start Time** and **Update Time columns**.




**Configuration for Linux agents:**

To enable a specific user to execute `singleagent.service` commands without requiring a password, Adjust sudoers file as follows.

1. open the **sudoers** file with **visudo**

```bash
sudo visudo
```

2. Append the following lines to the end of the sudoers file

<USERNAME> ALL=(ALL:ALL) NOPASSWD: /bin/systemctl start singleagent.service, /bin/systemctl stop singleagent.service, /bin/systemctl restart singleagent.service, /bin/systemctl status singleagent.service

Replace **<USERNAME>** with the actual username.

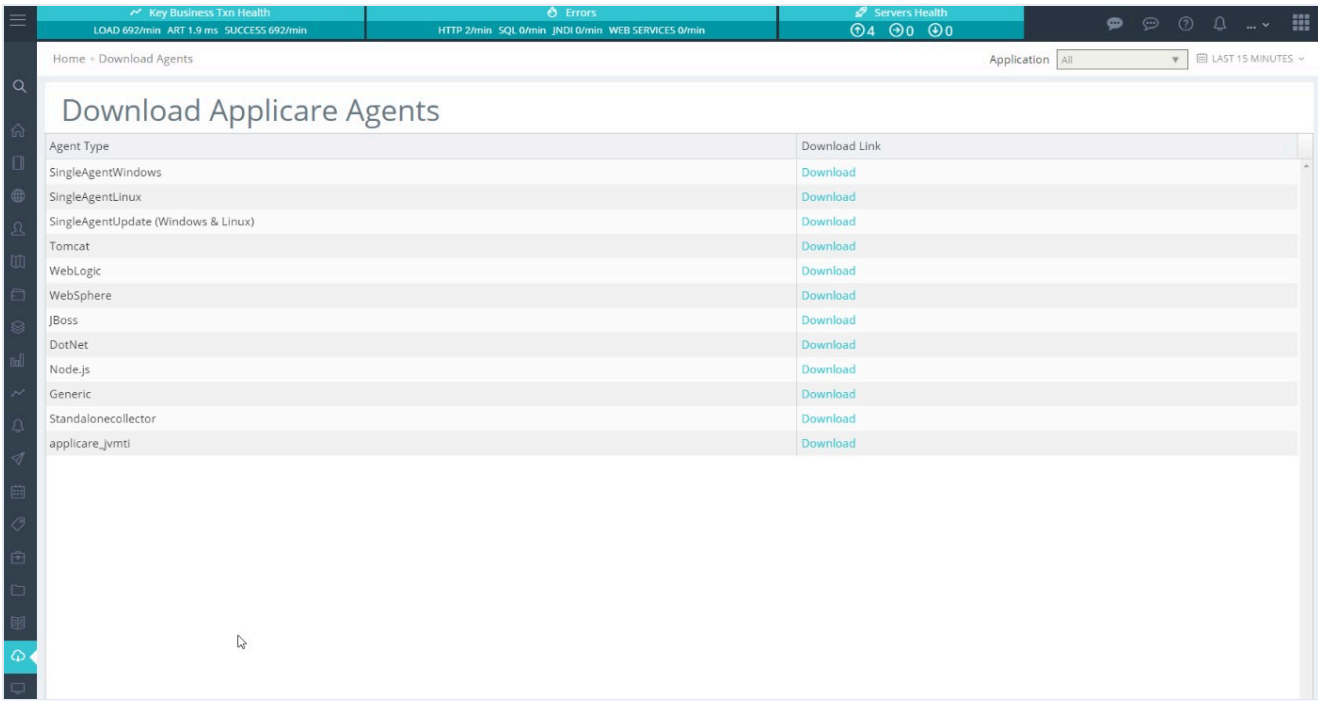
```text
applicare ALL=(ALL:ALL) NOPASSWD: /bin/systemctl start singleagent.service, /bin/systemctl stop singleagent.service, /bin/systemctl restart singleagent.service, /bin/systemctl status singleagent.service
```

CONFIGURATION GUIDES › INSTALL, START & UPDATE

# Downloading Applicare Agents

Applicare 9.2 · Updated September 13, 2024 · singleagent · **Pending technical review**

## Applicare Console




## Using Curl to Download SingleAgent

1. Navigate to the machine where you plan to deploy SingleAgent and run the command provided below. Replace the ControllerProtocol, ControllerIP, ControllerPort and ApplicareSingleAgentName details.

curl **ControllerProtocol**://**ControllerIP**:**ControllerPort**/applicare/standalone?filename=**ApplicareSingleAgentName**.zip >**ApplicareSingleAgentName**.zip

**ControllerProtocol** -> http (or) https **ControllerIP** -> Applicare Controller running IP **ControllerPort** -> Applicare Controller running port **ApplicareSingleAgentName** -> ApplicareSingleAgentWindows (or) ApplicareSingleAgentLinux (or) ApplicareSingleAgentUpdate

**Example:**

curl `http://127.0.0.1:8880/applicare/standalone?filename=ApplicareSingleAgentWindows.zip` >ApplicareSingleAgentWindows.zip curl `http://127.0.0.1:8880/applicare/standalone?filename=ApplicareSingleAgentLinux.zip` >ApplicareSingleAgentLinux.zip curl `http://127.0.0.1:8880/applicare/standalone?filename=ApplicareSingleAgentUpdate.zip` >Ap

**Monitoring with Applicare**

CONFIGURATION GUIDES › INSTALL, START & UPDATE

# Installing the SingleAgent on Windows

Applicare 9.2 · Updated February 6, 2025 · singleagent · **Pending technical review**

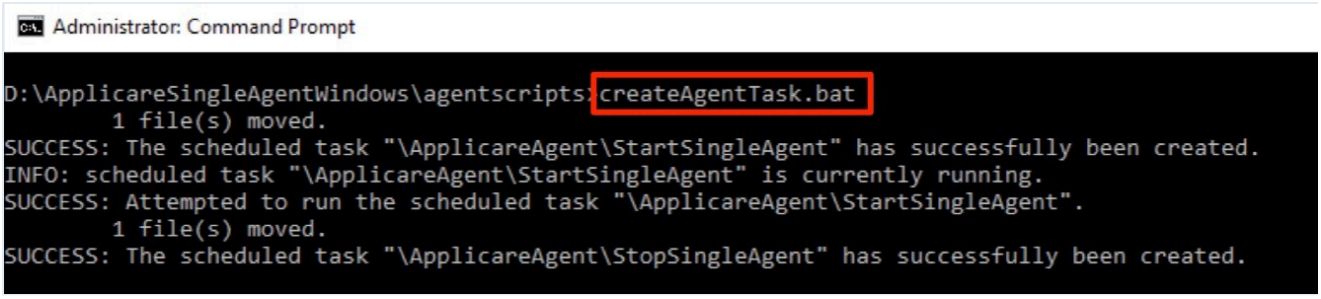
## Installation Steps for Windows

1. Login into **Applicare console** and navigate to the **Download Agents** screen.

2. Click the **SingleAgentWindows** button to download the agent. This will download the **ApplicareSingleAgentWindows.zip** file. Copy **ApplicareSingleAgentWindows.zip** file to the machine where the agent will be deployed.

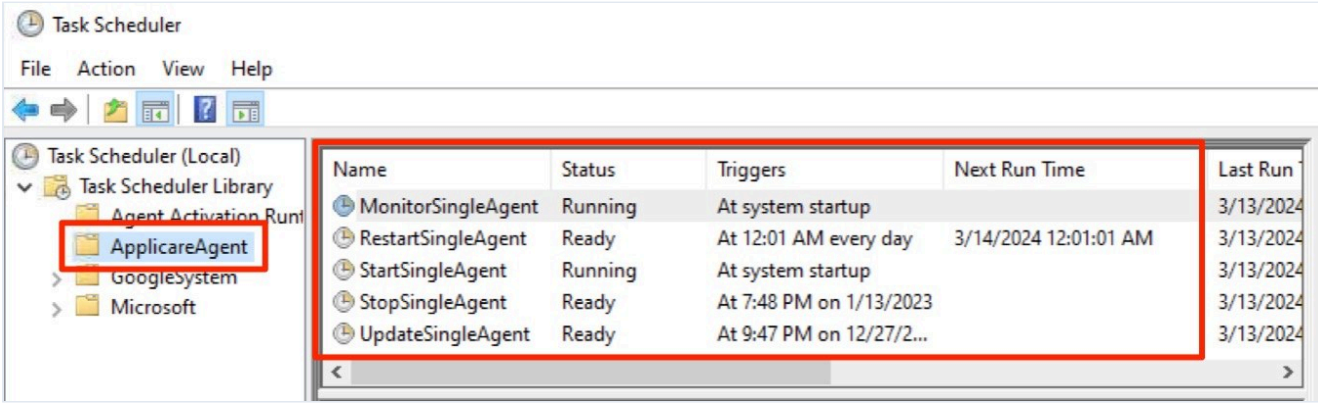
3. Extract the contents of **ApplicareSingleAgentWindows.zip** file into a directory named **ApplicareSingleAgentWindows**.

4. Open a command prompt in administrator mode, navigate to the **ApplicareSingleAgentWindows\agentscripts** directory and run the **createAgentTask.bat** file.




The SingleAgent will be installed as a task and will run by default. To view the task, open **Task Scheduler,** expand **Task Scheduler Library** and select the **ApplicareAgent** folder. You will see two tasks will be listed there.

- **SingleAgent -** Run this task to **start** the SingleAgent. After installation, the agent will run by default.
- **StopSingleAgent -** Run this task to **stop** the SingleAgent.




**For Other Docs** - Click here

CONFIGURATION GUIDES › INSTALL, START & UPDATE

# Manual Installation of Applicare SingleAgent on Linux

Applicare 9.2 · Updated December 17, 2024 · singleagent · **Pending technical review**

For a quick installation of SingleAgent, use the CURL or WGET commands from the Download Agents page. If CURL or WGET is not available, follow the instructions below.

1. Login into **Applicare console,** navigate to **Download Agents** screen and download **SingleAgentLinux.** Copy **ApplicareSingleAgentLinux.zip** file to the machine where the agent will be deployed.

2. Create a directory named "**ApplicareSingleAgent**" on the agent machine and extract the contents of **ApplicareSingleAgentLinux.zip** into that directory.

3. Set **chmod -R 755** permission to that **ApplicareSingleAgent** directory.

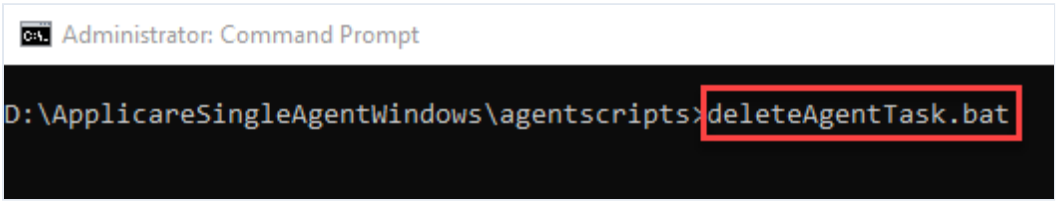
**Refer here to start SingleAgent.**

CONFIGURATION GUIDES › INSTALL, START & UPDATE

# Uninstalling an agent and scheduled task on Windows

Applicare 9.2 · Updated August 22, 2024 · singleagent · **Pending technical review**

**Step 1:** Open the Command Prompt in administrator mode, navigate to the `ApplicareSingleAgentWindows\agentscripts` directory, and execute the `deleteAgentTask.bat` file.




**Step 2:** After deleting the task, close the Command Prompt and delete the `ApplicareSingleAgent` directory.

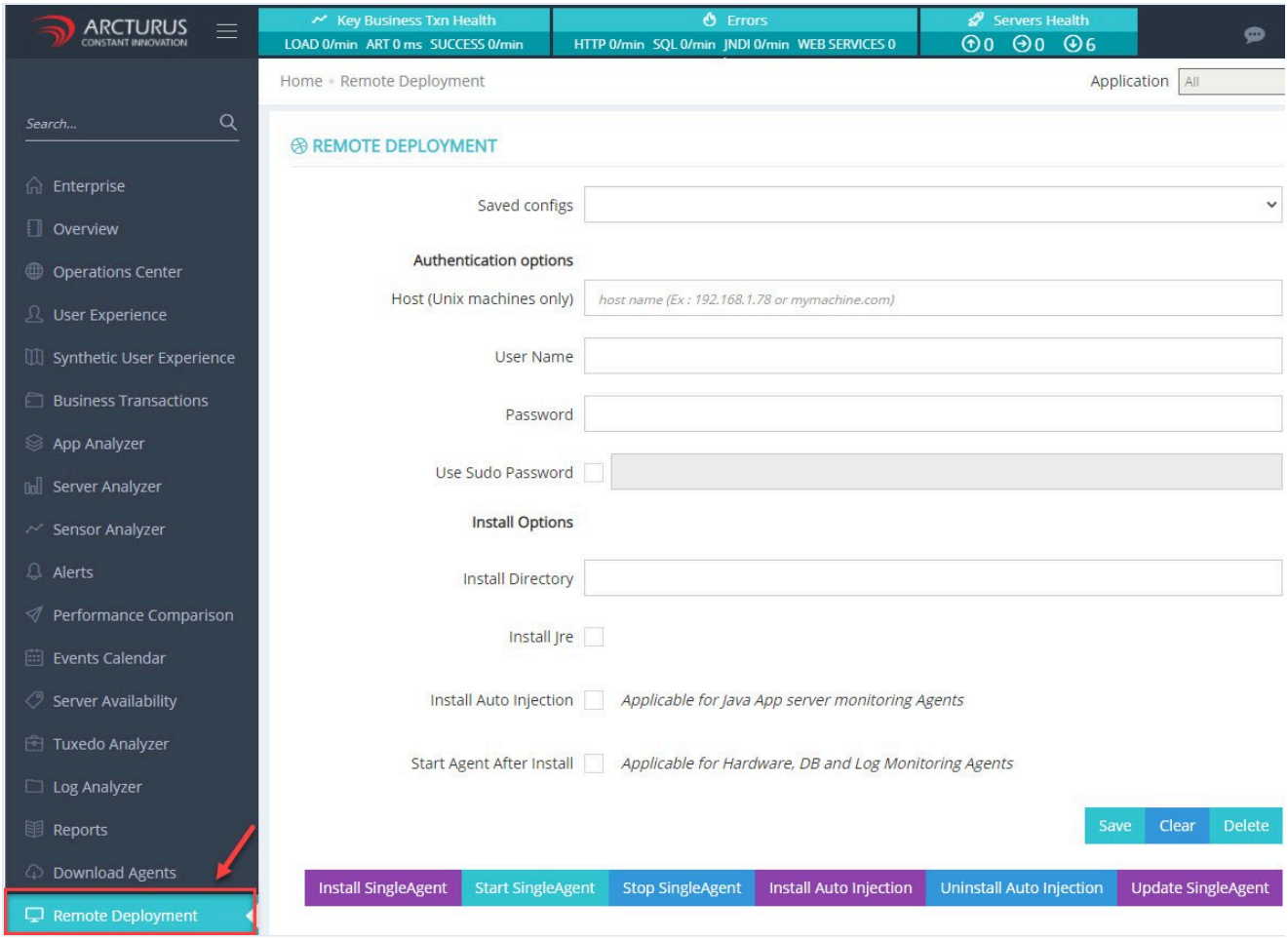
CONFIGURATION GUIDES › INSTALL, START & UPDATE

# Remote Deployment for Applicare

Applicare 9.2 · Updated September 13, 2024 · singleagent · **Pending technical review**

## Linux

1. Navigate to the **Remote Deployment** menu.



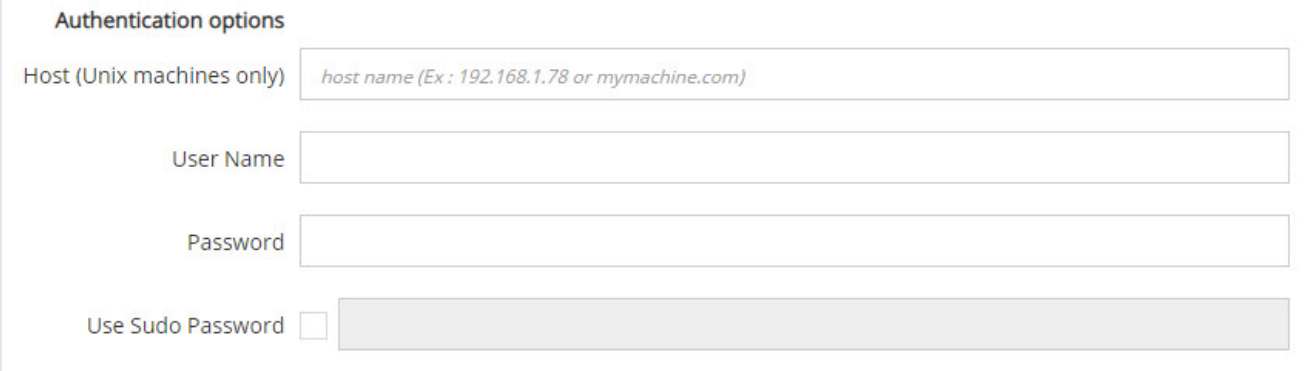

2. Provide the configuration details for the machine where the agent will be deployed:

**Host (Unix machines only)** - Enter the hostname or IP address of the machine.

**User Name** - Provide the user name for login.

**Password** - Enter the login user password.

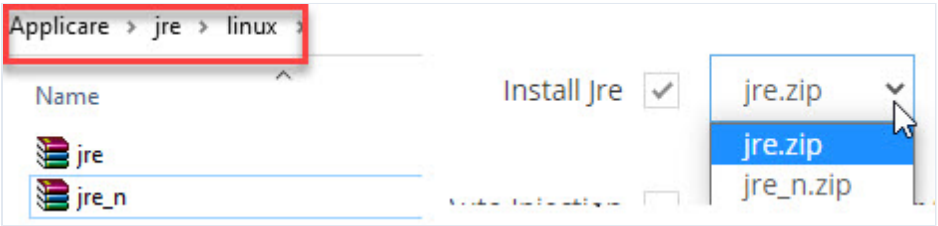
**Use Sudo Password** - Check this option if the login user requires elevated privileges through sudo to perform actions.




**Install directory** - Specify the location where the agent will be deployed.

**Install JRE** - Enable this option if the machine does not have the java installed. If this option is enabled agent will have its inbuilt JRE. Applicable for hardware, database and log monitoring agents.

Applicare Installer will have the JRE inbuilt by default in the location **<ApplicareInstallerDirectory/jre/linux>.** If we are going to use different JRE then zip the needed JRE folder and give a name to that new jre zip file and place it in the location **<ApplicareInstallerDirectory/jre/linux>.** So all the JRE's will be displayed in the JRE dropdown in the remote deployment screen. We can select the needed JRE and install the agent.




**To zip custom JRE**

Install the JRE based on the operating system and zip JRE directory.

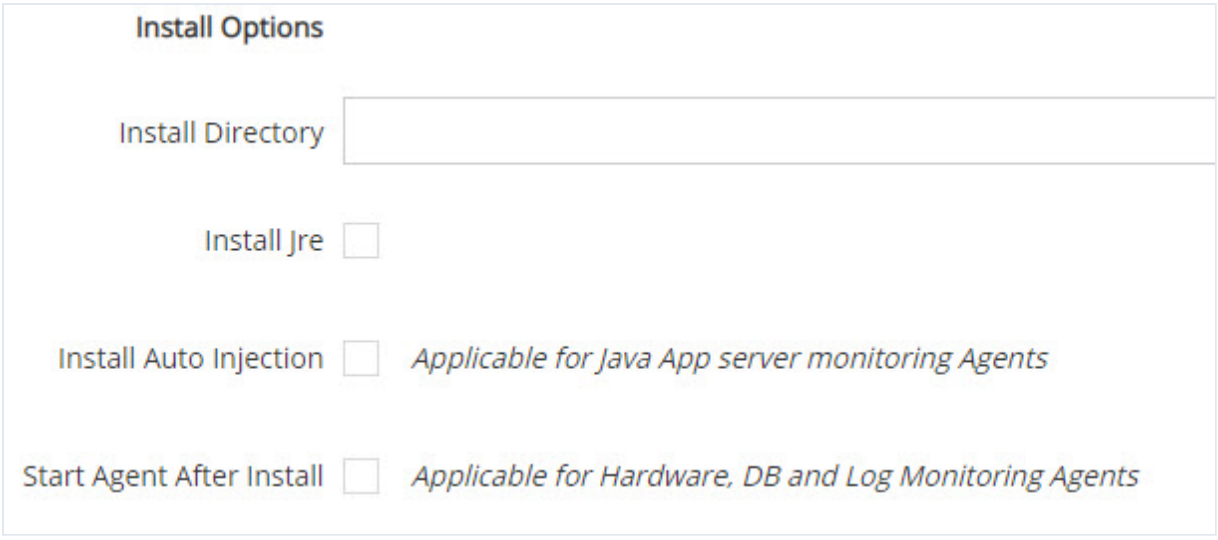
Command to zip JRE directory

```
TEXT
zip –r <zipname>.zip <zip_directory>
```

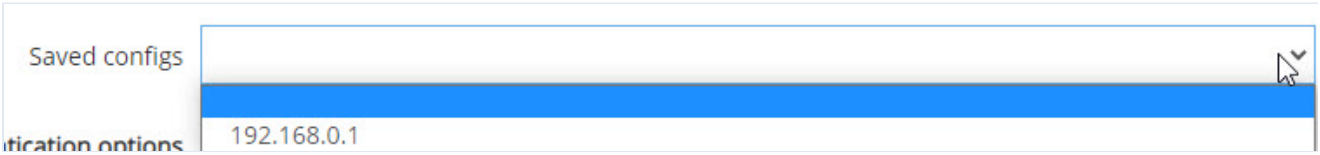
**e.g.** To zip **jre1.8 directory** which is available in the path **/dev/home** zip -r **jre18**.zip **/dev/home/jre1.8**

**Install Auto Injection** - Select this option to install the Applicare wrapper on the configured machine, which will automatically inject the SingleAgent startup scripts while starting the java app servers. Enable this if you plan to monitor Java app server agents.

**Start Agent After Install** - It will start the SingleAgent immediately after installing the agent. Enable this option if we are going to monitor hardware, database and log monitoring agents.




**Saved configs -** This dropdown will have all the saved configuration details.

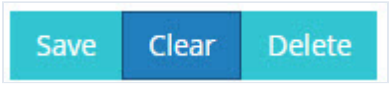



## Button Functionalities

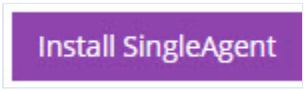
**Save -** It will save the machine configuration details.

**Clear -** It will clear the fields on the screen.

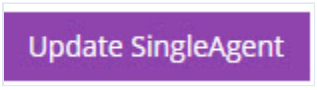
**Delete -** It will remove the previously saved configuration details.




**Install SingleAgent** - This will set up Install SingleAgent on the configured machine.



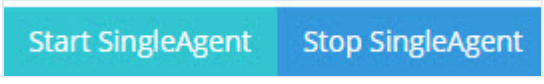

**Update SingleAgent** - This will update the SingleAgent on the configured machine.




**Applicable to hardware, database, and log monitoring agents:**

**Start SingleAgent** - It will Start SingleAgent on the configured machine.

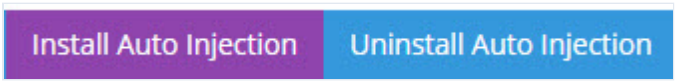
**Stop SingleAgent** - It will Stop SingleAgent on the configured machine.




**Applicable for Java app server agents**

**Install Auto Injection** - It will install the wrapper on the configured machine to auto inject the SingleAgent startup scripts while starting the Java app servers.

**Uninstall Auto Injection** - It will uninstall the wrapper in the configured machine.



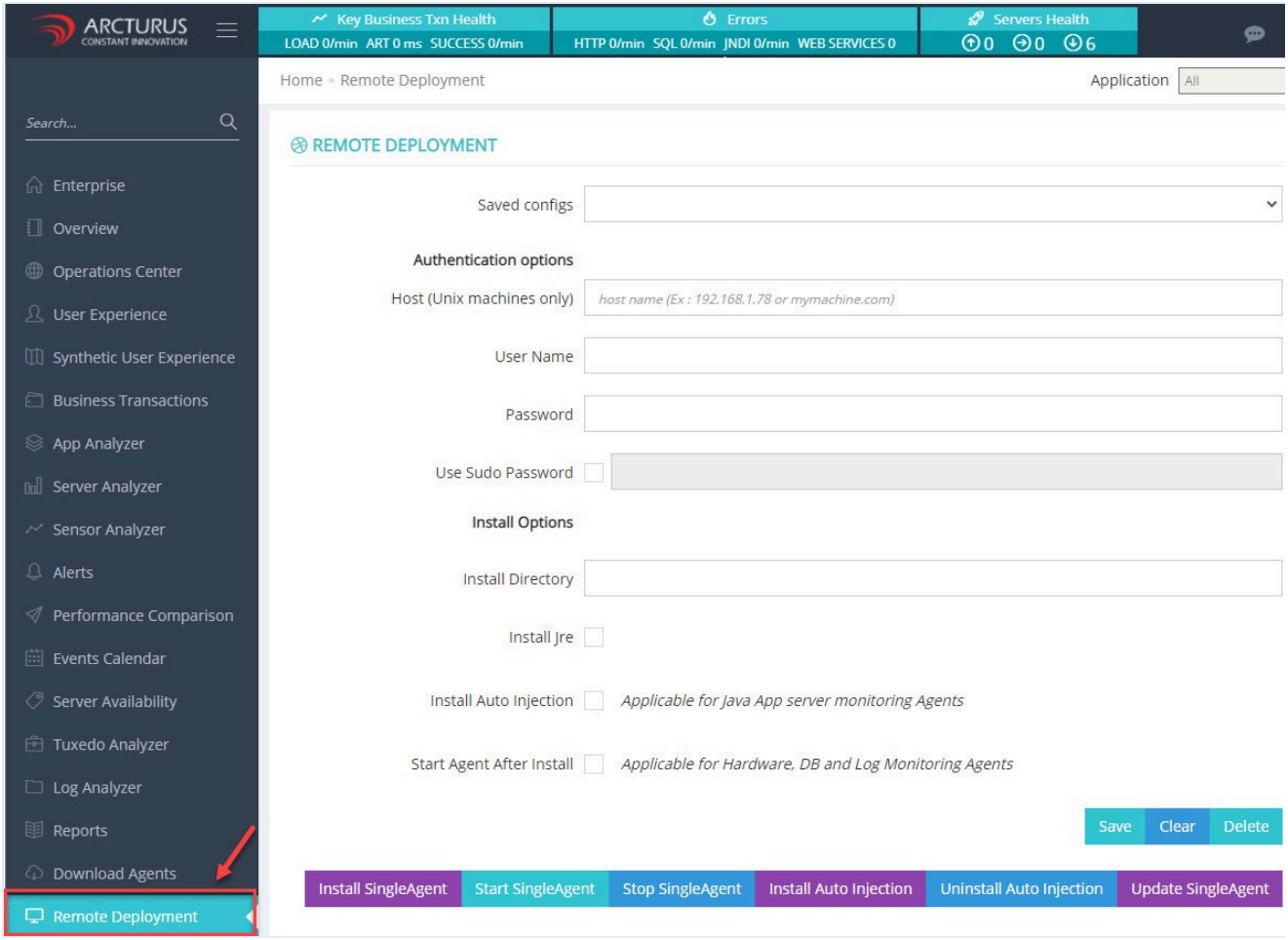

## Monitoring with Applicare

CONFIGURATION GUIDES › INSTALL, START & UPDATE

# Deploying the agent on Linux and Windows via the Remote Deployment feature

Applicare 9.2 · Updated September 13, 2024 · singleagent · **Pending technical review**

**Step 1:** Log in to Applicare controller and navigate to the **Remote Deployment** screen on left side menu.




**Step 2:** Enter the configuration details of the machine where the agent will be deployed.

**Host (Unix machines only)** - Enter the hostname or IP address of the machine.

**User Name** - Enter the login user name.

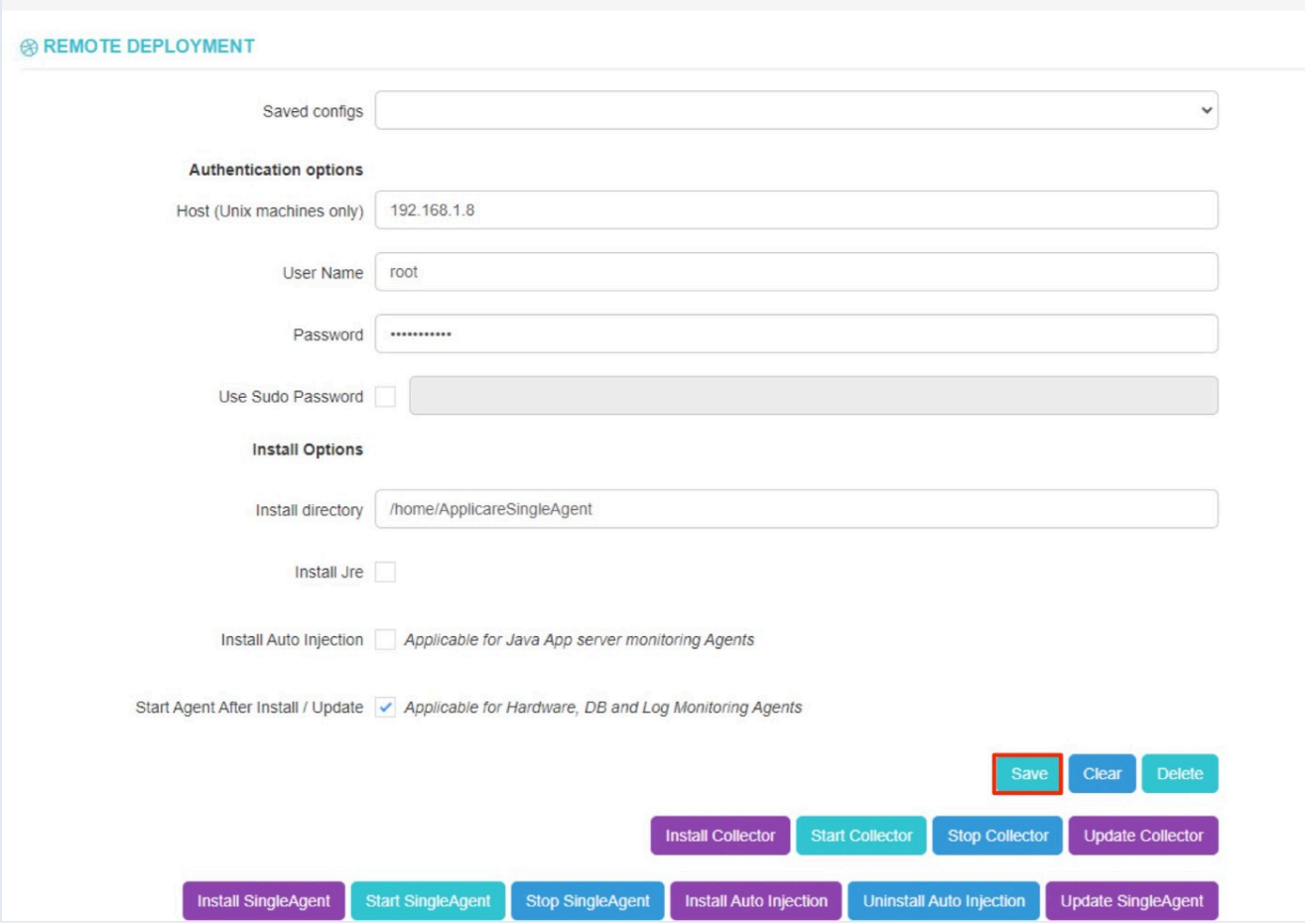
**Password** - Enter the login user password.

**Use Sudo Password** - Enable this option if the login user does not have root permission.

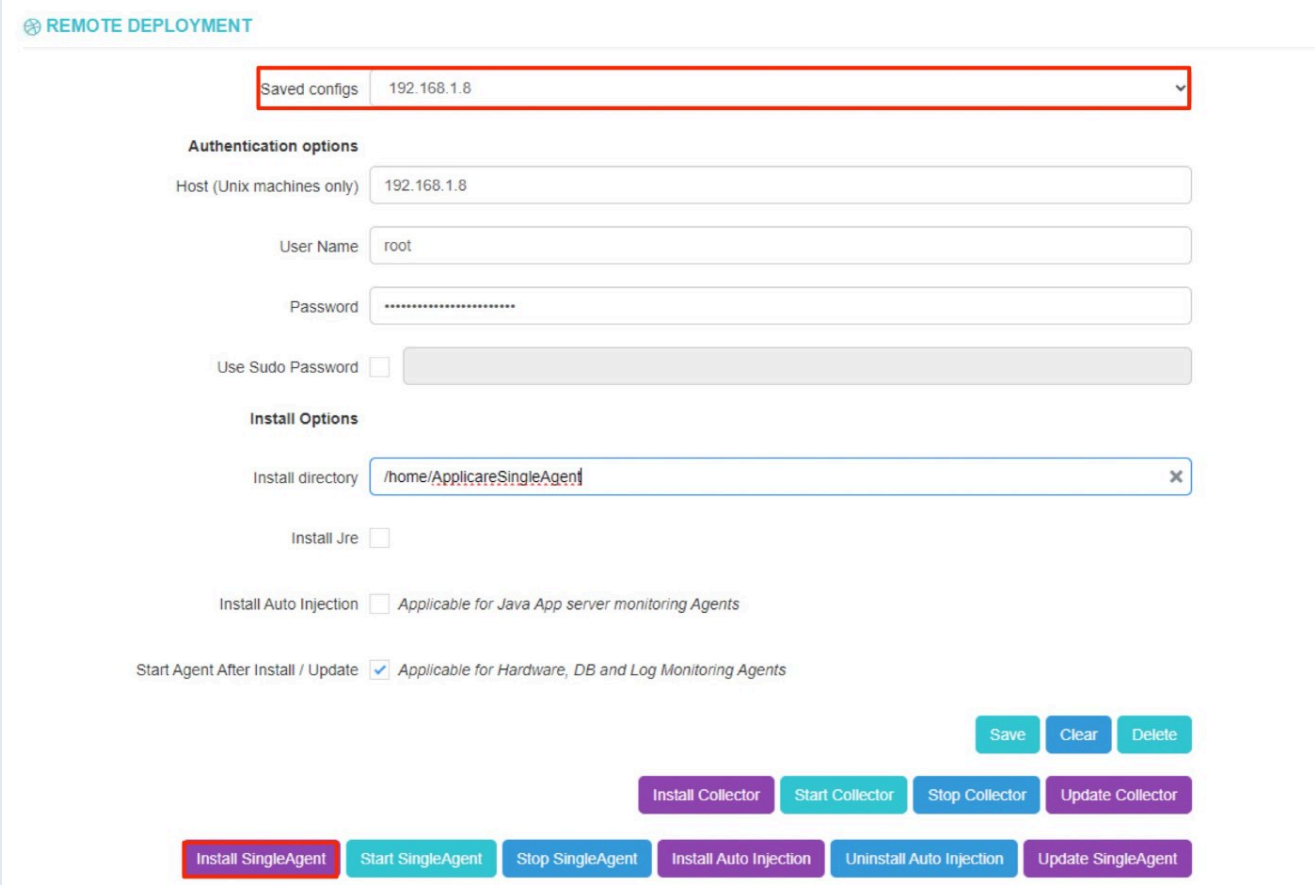
**Install directory** - Specify the location where the agent will be deployed.

**Start Agent After Install** - Enable this option to start the agent immediately after installation, particularly if you plan to monitor hardware, database and logs.

**Step 3:** After entering all the configuration details click the **save** button.




**Step 4:** Save the configuration, select the machine from the **saved config** dropdown. Then click on **Install SingleAgent** button.




## Follow these steps only if you need to update the agent.

**Step 1:** Go to the Remote Deployment screen from the left-side menu. **Step 2:** Select the machine where the agent is running from the **saved config** dropdown, and then click the **Update SingleAgent** button.

Monitoring with Applicare

CONFIGURATION GUIDES › INSTALL, START & UPDATE

# Standalone Agent for BTC Collector

Applicare 9.2 · Updated September 13, 2024 · singleagent · **Pending technical review**

## Steps to Configure the Standalone Agent as a BTC Collector

1. Install the Standalone Agent.

2. Add the JVM argument **-Dapplicare.btx.collector=true** to the Standalone Agent startup configuration. To prevent the automatic addition of the collector agent to the controller add the JVM argument **-Dapplicare.disable.autoadd=true** in the Standalone Agent startup.Then, start the Agent.

3. Log in to Applicare Console and navigate to the **"Applicare Advanced Options"** screen.

4. Enable **Push** option in the **Txn data persistence** setting.

5. Add the Standalone Agent URL in the **Txn Data Persistence URL.**

6. Restart **Applicare Controller and Agents**.

7. Add the **BTC Collector** as one of the **Agent in Applicare Controller.**

## Steps to enable the Queue Mechanism for BTC Collector

- By default, the queue mechanism is not be enabled in the BTC Collector.

1. Stop both the **BTC Collector** and **Agent**.

2. Add the following **JVM arguments** to enable the **queue mechanism:**

- Dapplicare.enable.intellitrace.queue=true // To enable intellitrace queue
- Dapplicare.enable.btm.queue=true // To enable BTM queue

3. Start the **BTC Collector** and the **Agent**.

**Custom Startup Arguments to Add in Collector**

To specify the number of threads, use the following argument:

- Dapplicare.intellitrace.queue.collector.threadcount=No.of.Threads // Intellitrace Data collector Thread count
- Dapplicare.btm.queue.collector.threadcount =No.of.Threads // BTM Data collector Thread count

**To set the thread sleep time,** Use the following argument

- Dapplicare.intellitrace.queue.collector.threadsleep=time // Intellitrace Data collector Thread sleep time in milliseconds
- Dapplicare.btm.queue.collector.threadsleep=time // BTM Data collector Thread sleep time in milliseconds

To enable logging of messages, use the following argument:

- Dapplicare.enable.queue.log=true

The Default thread-count is 1 for intellitrace and 1 for BTM with 1 second sleep time.

Docs home

Monitoring with Applicare

CONFIGURATION GUIDES › INSTALL, START & UPDATE

# Applicare Agent's Impact on Application Performance

Applicare 9.2 · Updated October 9, 2024 · singleagent · **Pending technical review**

The Applicare agent imposes very minimal overhead on application performance, with the impact being mostly negligible and almost undetectable. By default, Applicare only instruments user application packages and namespaces, ensuring efficient monitoring without compromising performance.

We advise against installing the Applicare agent on app/web servers if CPU or memory utilization is exceeds 95% in the machine.

Following are few load test results executed at our labs.

Without agent

| Label | # Samples | Average | Min | Max | Std. Dev. | Error % | Throughput | KB/sec | Avg. Bytes |
|---|---|---|---|---|---|---|---|---|---|
| petstore_item | 956 | 7 | 1 | 128 | 6.15 | 0.00% | 47.6/min | 3.42 | 4420.0 |
| category | 956 | 10 | 2 | 33 | 3.72 | 0.00% | 47.6/min | 3.28 | 4232.0 |
| product | 956 | 8 | 2 | 239 | 8.82 | 0.00% | 47.6/min | 3.42 | 4420.0 |
| Add-to-Cart | 955 | 11 | 2 | 587 | 20.34 | 0.00% | 47.6/min | 4.14 | 5348.8 |
| TOTAL | 3823 | 9 | 1 | 587 | 11.76 | 0.00% | 3.2/sec | 14.26 | 4605.0 |

With agent

| Label | # Samples | Average | Min | Max | Std. Dev. | Error % | Throughput | KB/sec | Avg. Bytes |
|---|---|---|---|---|---|---|---|---|---|
| petstore_item | 957 | 8 | 2 | 246 | 8.77 | 0.00% | 47.1/min | 3.39 | 4420.0 |
| category | 957 | 12 | 3 | 60 | 3.84 | 0.00% | 47.2/min | 3.25 | 4232.0 |
| product | 956 | 9 | 2 | 58 | 3.73 | 0.00% | 47.2/min | 3.39 | 4420.0 |
| Add-to-Cart | 956 | 12 | 2 | 202 | 7.79 | 0.00% | 47.2/min | 4.11 | 5348.8 |
| TOTAL | 3826 | 10 | 2 | 246 | 6.69 | 0.00% | 3.1/sec | 14.13 | 4605.1 |

Without agent

| Label | # Samples | Average | Min | Max | Std. Dev. | Error % | Throughput | KB/sec | Avg. Bytes |
|---|---|---|---|---|---|---|---|---|---|
| petstore_item | 52510 | 0 | 0 | 1883 | 9.50 | 0.00% | 175.4/sec | 757.21 | 4420.0 |
| category | 52510 | 1 | 1 | 137 | 1.14 | 0.00% | 175.4/sec | 725.01 | 4232.0 |
| product | 52510 | 1 | 0 | 67 | 0.85 | 0.00% | 175.4/sec | 757.22 | 4420.0 |
| Add-to-Cart | 52510 | 1 | 1 | 66 | 1.14 | 0.00% | 175.4/sec | 916.34 | 5348.8 |
| TOTAL | 210040 | 1 | 0 | 1883 | 4.85 | 0.00% | 701.7/sec | 3155.70 | 4605.2 |

With agent

| Label | # Samples | Average | Min | Max | Std. Dev. | Error % | Throughput | KB/sec | Avg. Bytes |
|---|---|---|---|---|---|---|---|---|---|
| petstore_item | 30938 | 1 | 1 | 49 | 0.97 | 0.00% | 113.5/sec | 490.12 | 4420.0 |
| category | 30937 | 2 | 2 | 764 | 4.45 | 0.00% | 113.5/sec | 469.28 | 4232.0 |
| product | 30937 | 1 | 1 | 374 | 3.15 | 0.00% | 113.5/sec | 490.13 | 4420.0 |
| Add-to-Cart | 30937 | 2 | 1 | 65 | 1.23 | 0.00% | 113.5/sec | 593.13 | 5348.8 |
| TOTAL | 123749 | 2 | 1 | 764 | 2.87 | 0.00% | 454.2/sec | 2042.57 | 4605.2 |

CONFIGURATION GUIDES › INSTALL, START & UPDATE

# Starting SingleAgent on Linux

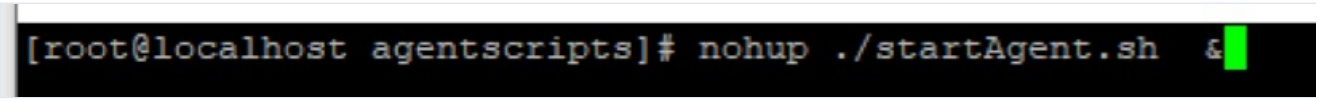
Applicare 9.2 · Updated February 5, 2025 · singleagent, linux · **Pending technical review**

We can start the SingleAgent in two ways

**Background mode**

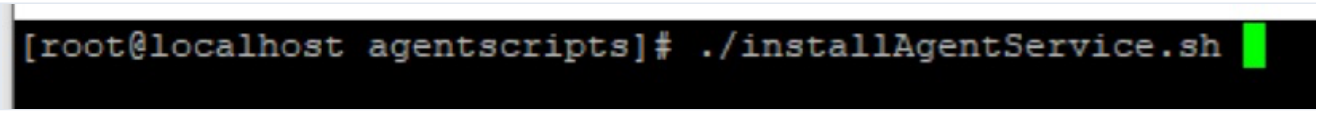
1. To enable **background mode**, Navigate to the directory where **ApplicareSingleAgent/agentscripts** and run following command.

```text
nohup ./startAgent.sh &
```

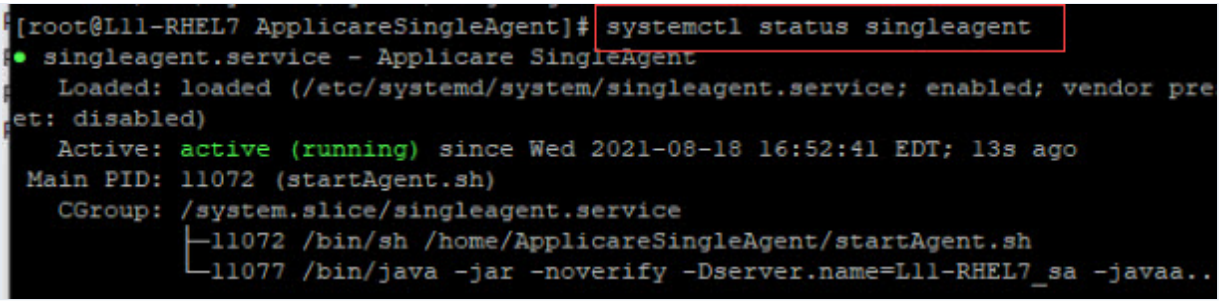



## Service Mode

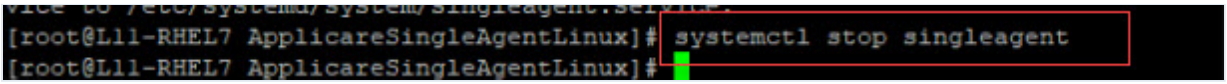
1. Administrative permission required to **install or uninstall singleagent.service**
2. Navigate to the directory where **ApplicareSingleAgent/agentscripts**.
3. Execute **./installAgentService.sh** to install **singleagent.service.** and start **singleagent.service.**



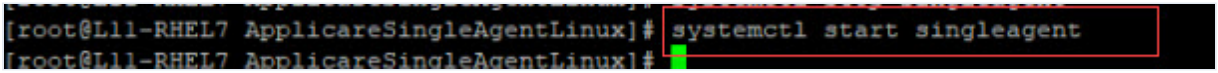

1. To check the status of service, use the command **systemctl status singleagent:**



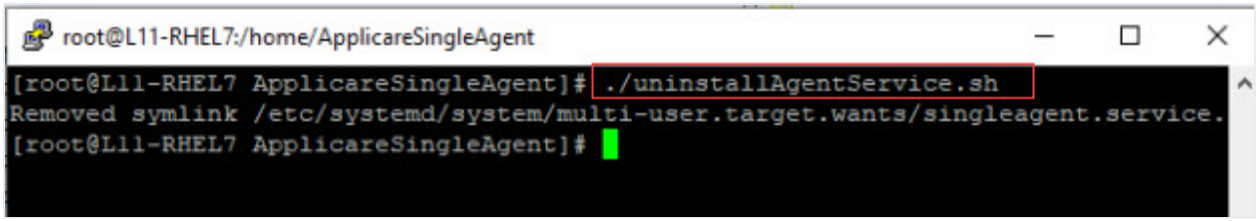

2. To **stop** the service, run the command **systemctl stop singleagent:**




3. To **Start** the service, execute the command **systemctl start singleagent:**




4. To **Uninstall** the service, execute **./uninstallAgentService.sh:**




Monitoring with Applicare

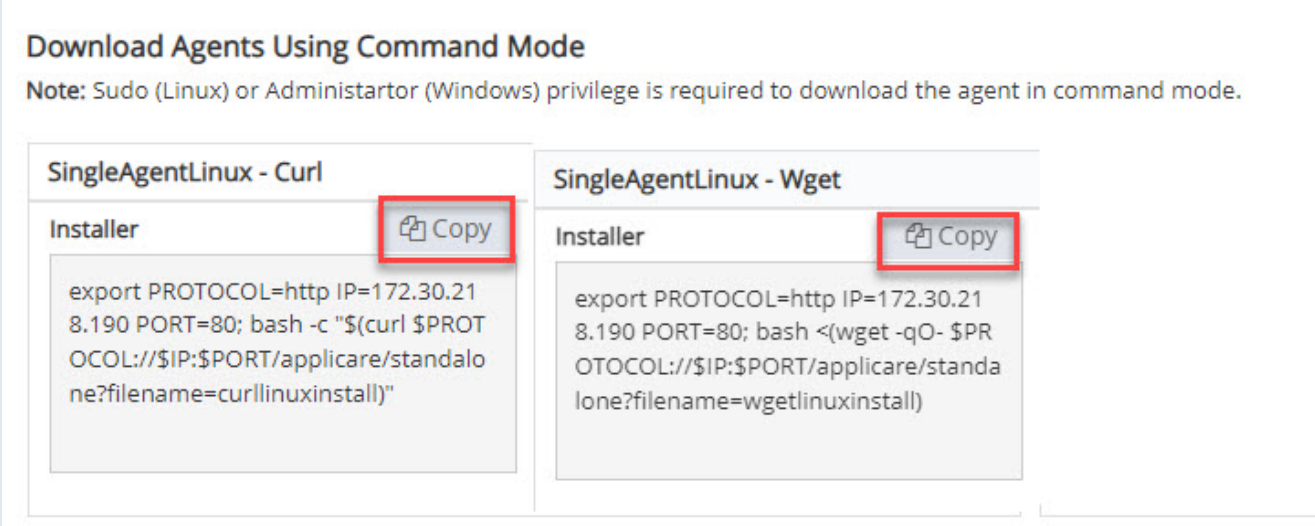
CONFIGURATION GUIDES › INSTALL, START & UPDATE

# SingleAgent Installation Using Command Mode for Linux

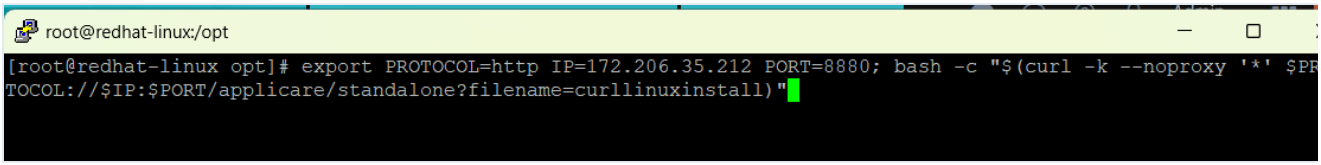
Applicare 9.2 · Updated January 27, 2026 · singleagent, linux · **Pending technical review**

1. Login into Applicare console and navigate to **Download Agents** screen.

2. On the target machine, use either **WGET** or **CURL** installer command, depending on which is available to deploy the agent.

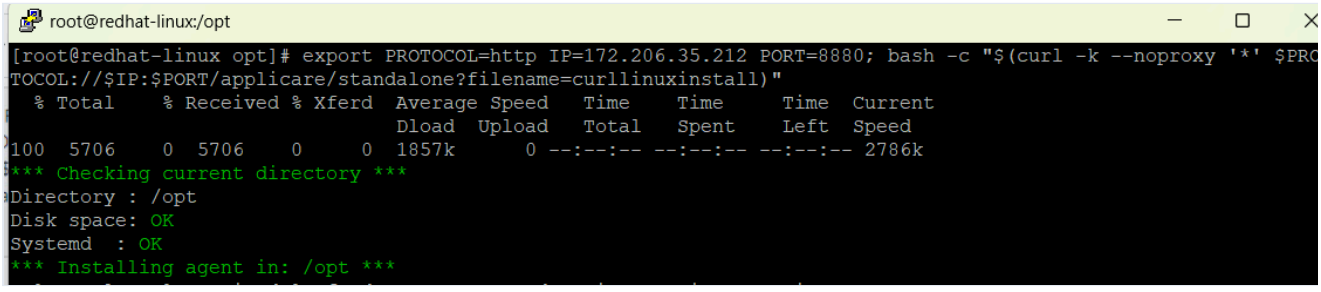


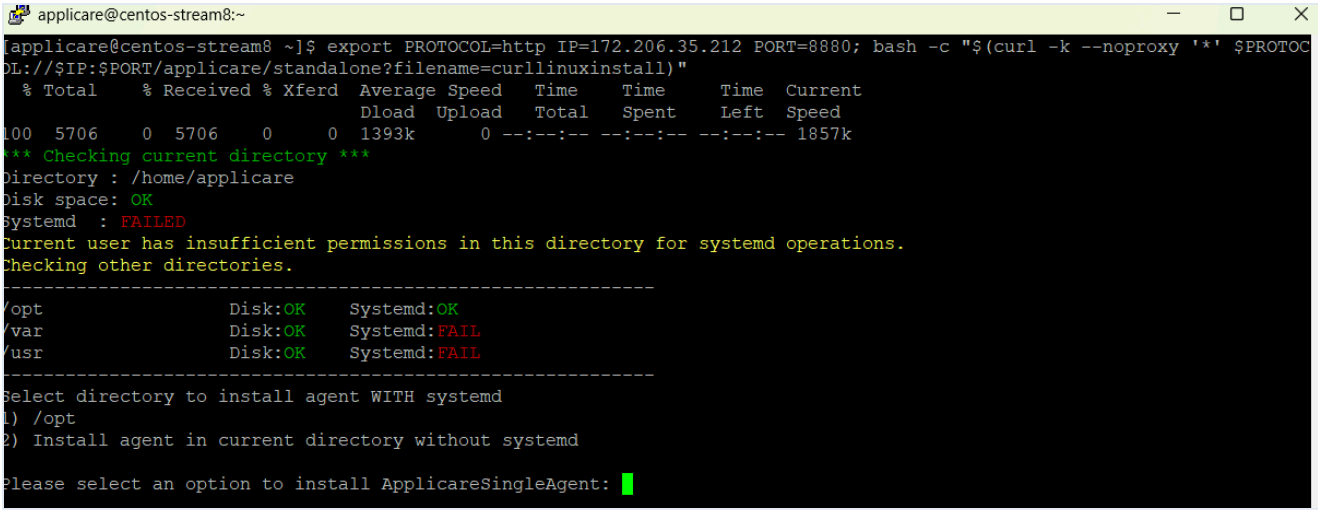

3. Paste the **copied** command into the terminal window and press **Enter** to begin the installation process.



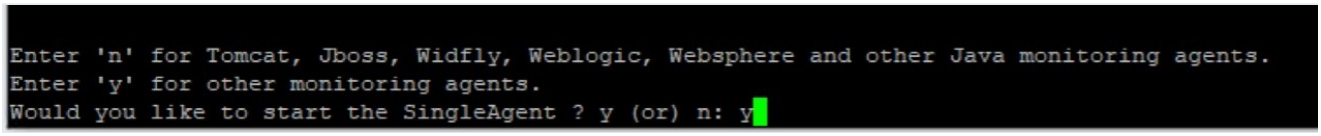

4. The script automatically validates the environment by checking for minimum of **disk space**, verifying directory write permissions, and confirming whether the current user has permission to perform **systemd** operations.

If all requirements are satisfied, the agent is installed in the current directory and configured to run as a **systemd service**. If systemd permissions or disk space are insufficient, the script displays a list of alternative directories (such as **/opt**, **/var**, or **/usr**) that meet the requirements. Select one of these options, or choose to proceed with installation in the current directory without systemd, in **nohup mode**.






5. To complete the setup, enter **“y”** to start the SingleAgent for standard monitoring, or enter **“n”** if you are monitoring Java-based applications such as **Tomcat, JBoss, WildFly, WebLogic, or WebSphere**.



CONFIGURATION GUIDES › INSTALL, START & UPDATE

# Starting SingleAgent on Windows

Applicare 9.2 · Updated September 13, 2024 · singleagent, windows · **Pending technical review**

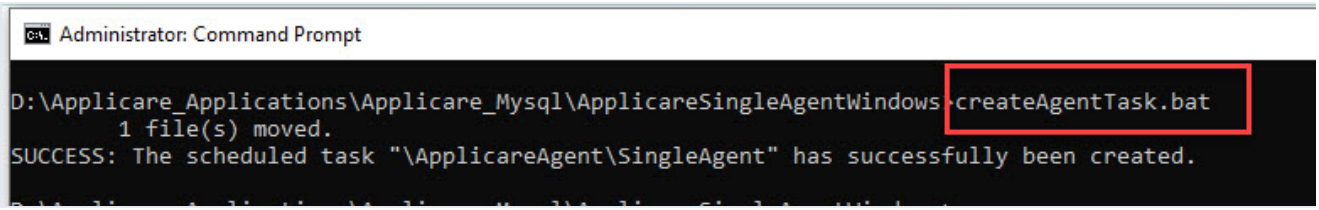
We can start SingleAgent using either of the following methods:

## Script Mode

1. Navigate to the **ApplicareSingleAgent** installation directory and execute the **startAgent.bat** file

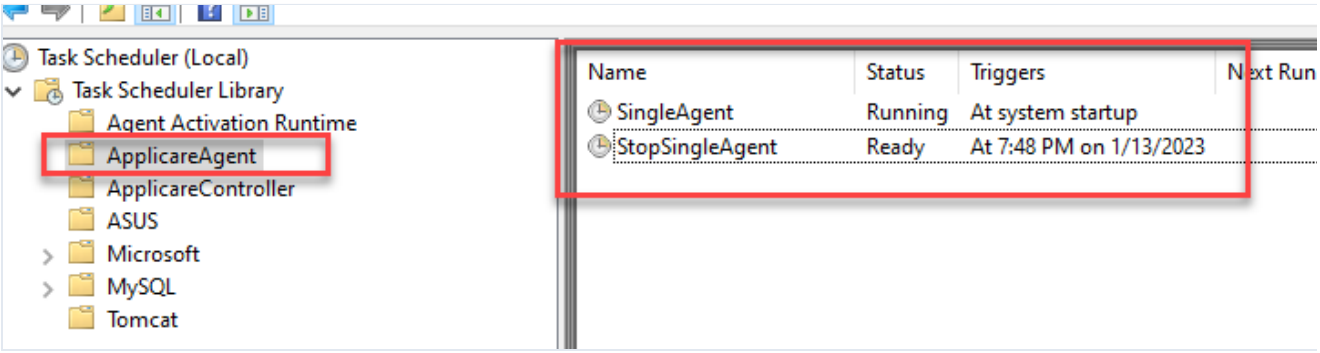
## Task Scheduler Mode

1. Open command prompt as an administrator mode, navigate to the **ApplicareSingleAgent** installation directory and run the **createAgentTask.bat** file.




2. SingleAgent will be set up as a scheduled task and will start automatically when the machine boots. To view the task, open **Task Scheduler**, expand the **Task Scheduler Library**, and select the **ApplicareAgent** folder. You will find two tasks listed there.

- **SingleAgent - Use this task to start SingleAgent. By default, it will be running after the agent installation.**
- **StopSingleAgent -** Execute this task to **stop the SingleAgent**.




Monitoring with Applicare

CONFIGURATION GUIDES › INSTALL, START & UPDATE

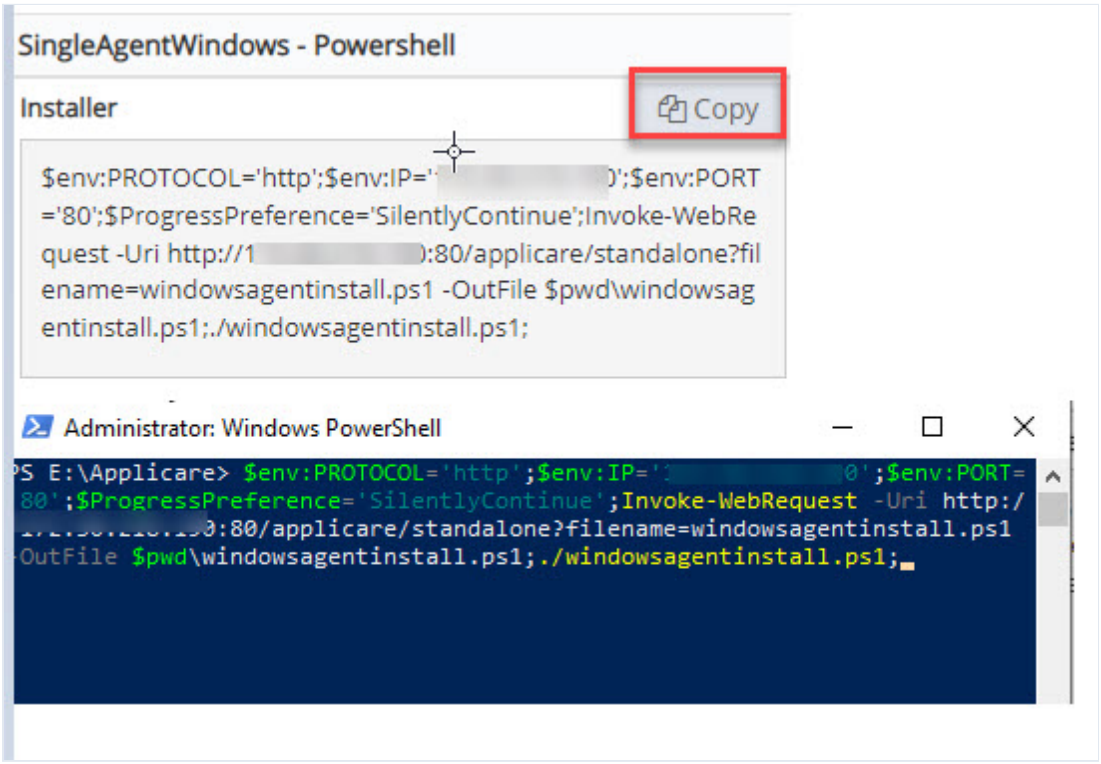
# Installing SingleAgent via Command Line on Windows

Applicare 9.2 · Updated February 6, 2025 · singleagent, windows · **Pending technical review**

1. Login in to **Applicare console** and navigate to the **Download Agents** screen.

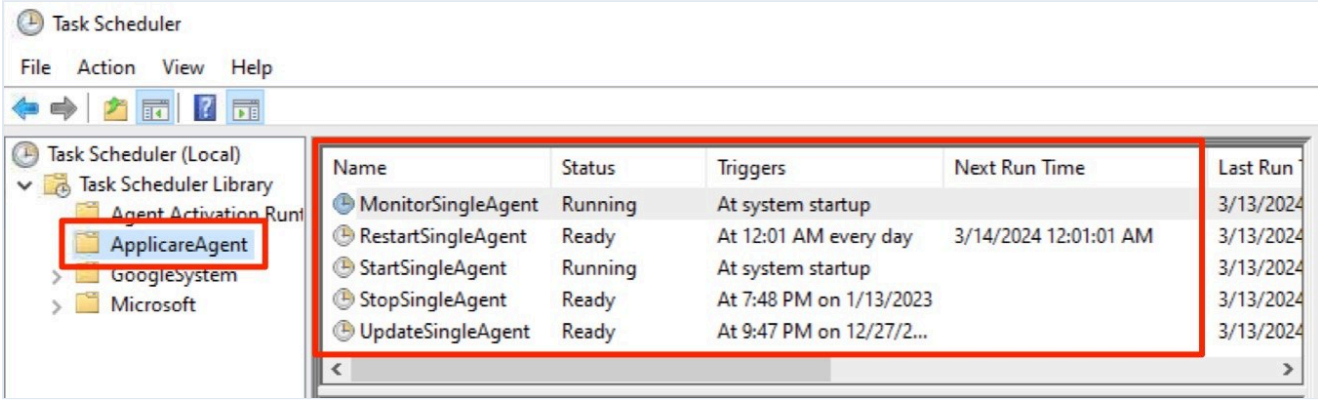
2. Copy the **SingleAgentWindows - Powershell Installer** command.

3. On the target machine where agent will be deployed. Open **PowerShell** in administrator mode, navigate to any one root directory, paste the copied command, press **Enter**.




4. Select option "1".

**SingleAgent** will be installed as a task and will start automatically. To view the task, open **Task Scheduler** and expand the **Task Scheduler Library,** and select the **ApplicareAgent** folder. You will see five task listed there.



- **SingleAgent -** Run this task to **start the SingleAgent**. After installation, the agent will automatically be in a running state.
- **StopSingleAgent -** Use this task to **stop the SingleAgent**.
- **RestartSingleAgent -** Execute this task to **restart the SingleAgent.**

CONFIGURATION GUIDES › INSTALL, START & UPDATE

# Deploying the agent on Windows using an Ansible script

Applicare 9.2 · Updated September 13, 2024 · singleagent, windows · **Pending technical review**

Ensure that Ansible is installed before proceeding with the steps below.

**If Ansible is not installed, follow the steps in this link - Installing Ansible on Windows via Ubuntu**

**Step 1:** On the machine where the agent will be deployed, open **PowerShell** in administrator mode and execute the below command one by one.

```text
Enable-PSRemoting -Force
reg query HKLM\SOFTWARE\Microsoft\Windows\CurrentVersion\Policies\System /v
LocalAccountTokenFilterPolicy
```

Open port **5985** on the Machine where the agent will be deployed.

**Step 2:** On the machine where **Ansible** is running, Create a file named **host.yml** with the content below.

```xml
[win]
<Machine_IP>

[win:vars]
ansible_user=<UserName>
ansible_password=<Password>
ansible_connection=winrm
ansible_winrm_transport=ntlm
ansible_winrm_scheme=http
ansible_winrm_server_cert_validation=ignore
ansible_shell_type=cmd
ansible_port=5985
ansible_winrm_read_timeout_sec=300
ansible_winrm_operation_timeout_sec=150
```

## Update the values in the file as specified below.

**<Machine_IP>** = The machine_IP that wants to deploy the agent

<**UserName>** = Machine Username (Ensure the account has administrative privileges on the Windows machine.)

**<Password>** = Machine Password

**Step 3:** On the machine where **Ansible** is running, Create a file named **Agent_deploy.yml** with the following content.

```
POWERSHELL
- name: Create Directory on Windows
  hosts: win
  gather_facts: no
  tasks:
    - name: Change to the specific directory
      win_shell: cd C:\
      args:
        chdir: C:\

    - name: Execute PowerShell command in the specific directory
      win_shell: |
        # Your PowerShell command here

$env:PROTOCOL='CONTROLLER_PROTOCOL';$env:IP='CONTROLLER_IP';$env:PORT='CONTROLLER_PORT';$Prog
ressPreference='SilentlyContinue';Invoke-WebRequest -Uri
CONTROLLER_PROTOCOL://CONTROLLER_IP:CONTROLLER_PORT/applicare/standalone?
filename=windowsagentinstall.ps1 -OutFile
$pwd\windowsagentinstall.ps1;./windowsagentinstall.ps1;
      args:
        chdir: C:\

    - name: Run the BAT file
      win_shell: |
        .\agentscripts\createAgentTask.bat
      args:
        chdir: C:\ApplicareSingleAgentWindows
      become: yes
      become_user: <UserName>
      become_method: runas

    - name: Start the MyScheduledTask task
      community.windows.win_scheduled_task:
        name: StartSingleAgent
        state: present
        folder: "\"ApplicareAgent\""
        actions:
          - path: C:\ApplicareSingleAgentWindows\StartAgent.bat  # Example action
            arguments: test.txt  # Optional arguments for the executable
```

**Change the below values in the above file.**

**CONTROLLER_PROTOCOL ->** http (or) https

**CONTROLLER_IP ->** Applicare Controller IP

**CONTROLLER_PORT ->** Applicare Controller Port

<**UserName**> = Machine Username (Ensure the account has administrative privileges on the Windows machine.)

**Step 3:** Navigate to the directory where the file was created and execute the below command.

```
TEXT
 ansible-playbook -i host.yml Agent_deploy.yml
```

## Follow these steps only if you are updating the agent.

**Step 1:** On the machine where **Ansible** is running, Create a file named **update_agent.yml** with the following content.

```
BAT
---

- name: Check Task Status on Task Scheduler
  hosts: win
  gather_facts: false
  tasks:

   - name: Run the BAT file
     win_shell: |
       .\agentupdate.bat
     args:
       chdir: C:\ApplicareSingleAgentWindows\agentscripts
     become: yes
     become_user: <UserName>
     become_method: runas
```

## Update the following values in the file.

<**UserName**> = Machine Username (Ensure the account has administrative privileges on the Windows machine.)

**Step 2:** Run the following command from the same directory where host.yml is located.

```
TEXT
ansible-playbook -i host.yml update_agent.yml
```

Monitoring with Applicare

CONFIGURATION GUIDES › INSTALL, START & UPDATE

# SingleAgent Remote deployment in Windows using Powershell

Applicare 9.2 · Updated December 31, 2024 · singleagent, windows · **Pending technical review**

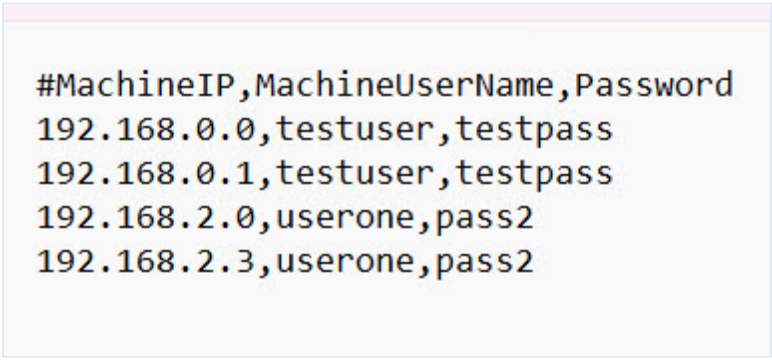
Applicare provides the capability to deploy agents remotely, ensuring a smooth and efficient setup process.

**Step 1: Download the machine_details.txt file** in the Host machine and **add the Machine IPs, Login Usernames and passwords.**

- Download the **machine_details.txt** from **here** and add the list of target machines with their IP addresses, login usernames and passwords.

**Example:**

```
TEXT
#MachineIP,MachineUserName,Password
192.168.0.0,testuser,testpass
192.168.0.1,testuser,testpass
192.168.2.0,userone,pass2
192.168.2.3,userone,pass2
```




**Step 2: Download the windows_agent_instalation_script.ps1 file** in the Host machine and **add Controller Protocol, IP, and Port.**

- Downlaod the **windows_agent_instalation_script.ps1** from **here** and configure the controller protocol, ip and port details in the script using the following variables.

**Template:**

```powershell
$env:PROTOCOL = 'Controller-protocol'
$env:IP = 'Controller-ip'
$env:PORT = 'Controller-port'
$ProgressPreference = 'SilentlyContinue'

# Download and execute the script
Invoke-WebRequest -Uri Controller-protocol://Controller-ip:Controller-
port/applicare/standalone?filename=windowsagentinstall.ps1 -OutFile
$pwd\windowsagentinstall.ps1
.\windowsagentinstall.ps1
```

**Example:**

```powershell
$env:PROTOCOL = 'http'
$env:IP = '192.168.0.154'
$env:PORT = '8880'
$ProgressPreference = 'SilentlyContinue'

# Download and execute the script
Invoke-WebRequest -Uri http://192.168.0.154:8880/applicare/standalone?
filename=windowsagentinstall.ps1 -OutFile $pwd\windowsagentinstall.ps1
.\windowsagentinstall.ps1
```




**Step 3: Enable the following PowerShell settings on both the host and remote machines to ensure proper communication and functionality**

**On the Host Machine:**

1. **Set Network Profile to Private**

   **Powershell**

   ```powershell
   Get-NetConnectionProfile | Set-NetConnectionProfile -NetworkCategory Private
   ```

***Explanation:*** Setting the network category to private allows trusted communication with other devices on the network and enables protocols like WinRM for remote management.

2. **Enable WinRM**

   **Powershell**

   ```
   TEXT
   winrm quickconfig -Force
   ```

   ***Explanation:*** WinRM (Windows Remote Management) is required for PowerShell remoting. This command ensures WinRM is enabled and ready to communicate with remote machines.

3. **Enable the ExecutionPolicy**

   **Powershell**

   ```
   POWERSHELL
   Set-ExecutionPolicy Unrestricted -Scope CurrentUser
   ```

   ***Explanation:*** PowerShell to execute scripts without any restrictions, but only for the current user.

**On the Remote Machine:**

1. **Set Network Profile to Private**

   **Powershell**

   ```
   POWERSHELL
   Get-NetConnectionProfile | Set-NetConnectionProfile -NetworkCategory Private
   ```

   ***Explanation:*** A private network category allows trusted communication with other devices in the network and enables protocols like WinRM for remote management.

2. **Enable PowerShell Remoting**

   **Powershell**

   ```
   TEXT
   Enable-PSRemoting -Force
   ```

   ***Explanation:*** This command configures the remote machine to accept PowerShell commands from the host.

3. **Allow Traffic on Port 5985** Ensure the firewall allows traffic on the **WinRM default port (5985) TCP.**

   ***Explanation:*** This opens the required port to enable communication via WinRM over HTTP.

4. **Machine IP, Login Username and Password** Ensure that the login user has **Administrator** privileges on the machine.

   ***Explanation:*** Administrator access is required to enable remote communication protocols, and execute scripts with elevated permissions.

**Step 4:** Open **PowerShell** in **Administrator mode** in the **Host machine** and navigate to the directory where the script is located and execute the following command

```powershell
.\windows_agent_instalation_script.ps1
```

**Note:** Ensure that both the **machine_details.txt** and **windows_agent_instalation_script.ps1** are located in the same directory before running the script.

CONFIGURATION GUIDES › INSTALL, START & UPDATE

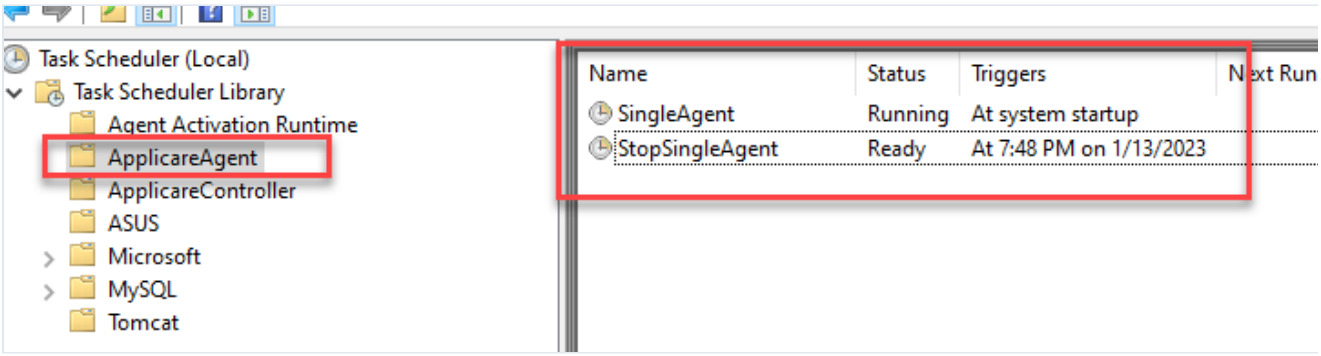
# Setting Up Automatic Start of Applicare Agent with Windows Task Scheduler

Applicare 9.2 · Updated September 13, 2024 · singleagent, windows, tasks · **Pending technical review**

To Applicare SingleAgent start task is automatically added to Windows Task Scheduler when downloaded using the **PowerShell command** from the **Agent Download** page. Alternatively, it can be manually added by running **createAgentTask.bat** in Applicare SingleAgent home directory.

1. Open **Task Scheduler,** expand the **Task Scheduler Library** and select the **ApplicareAgent** folder. You will find two task.

- **SingleAgent -** To start the SingleAgent
- **StopSingleAgent -** To stop the SingleAgent




**Monitoring with Applicare**

CONFIGURATION GUIDES › INSTALL, START & UPDATE

# Task creation to stop the SingleAgent

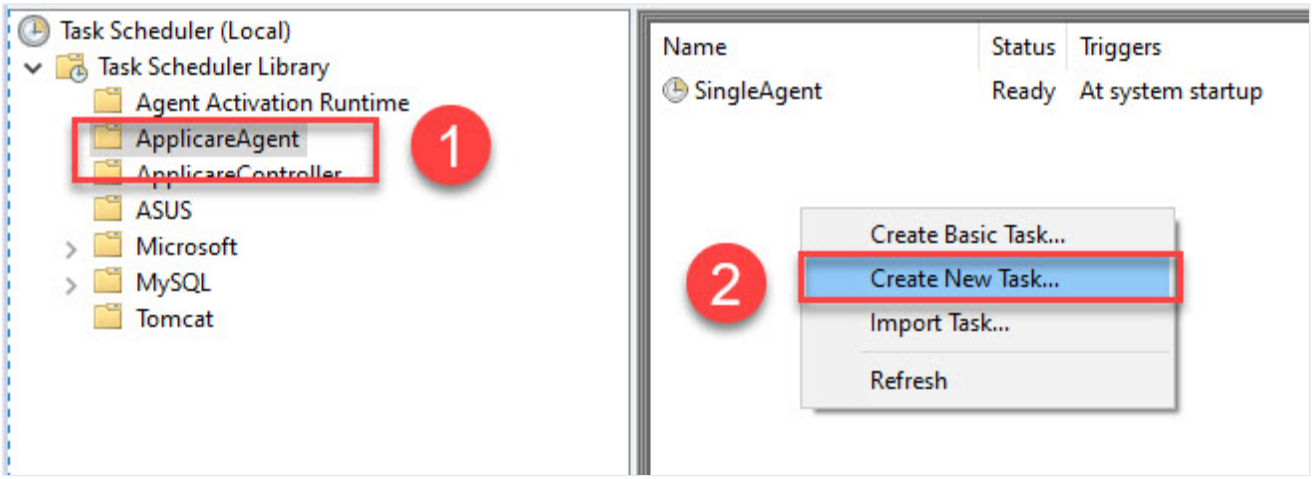
Applicare 9.2 · Updated September 13, 2024 · singleagent, windows, tasks · **Pending technical review**

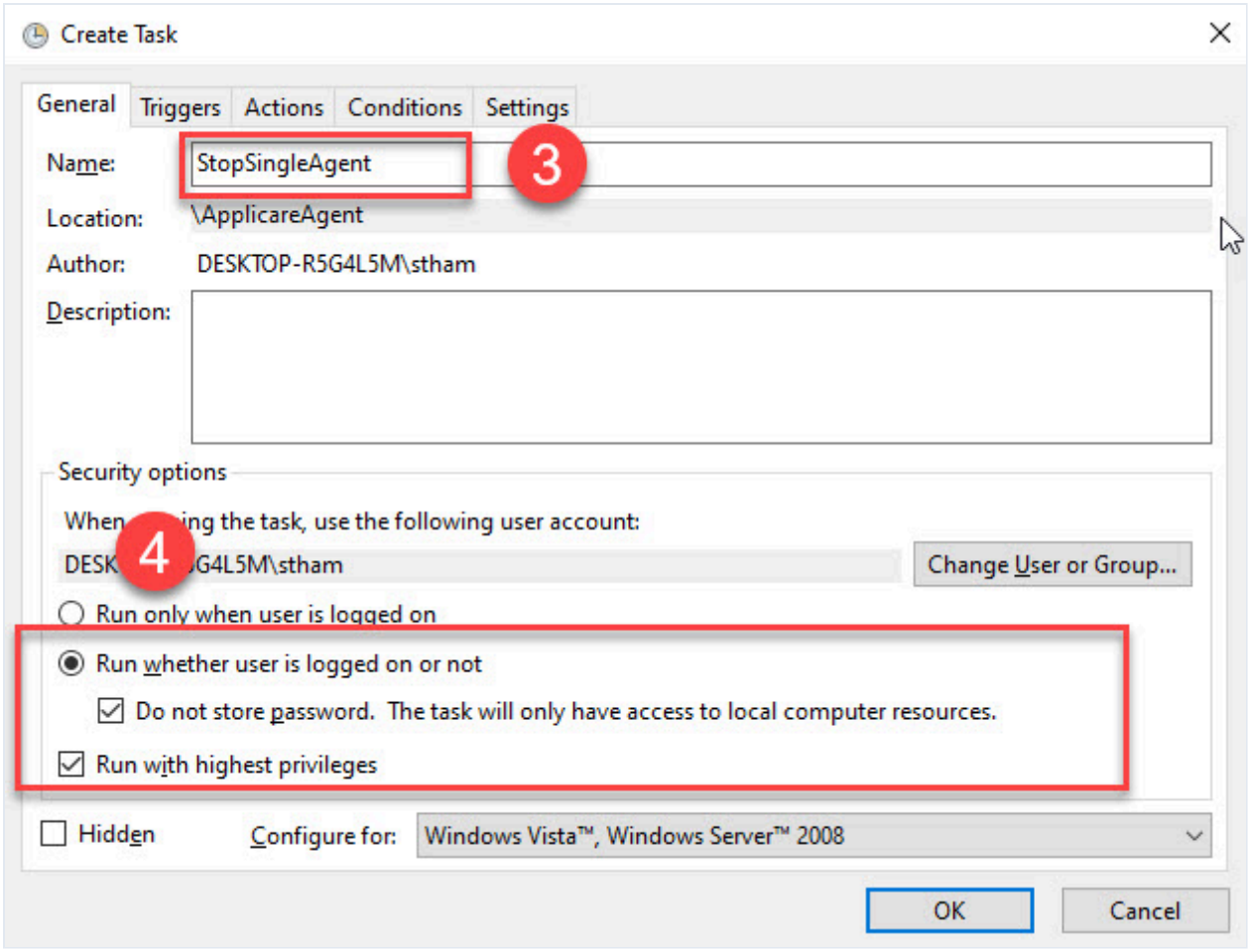
1. Navigate to **ApplicareSingleAgent** home directory and create a **stopAgent.bat** file with the following content. Save the file once created.

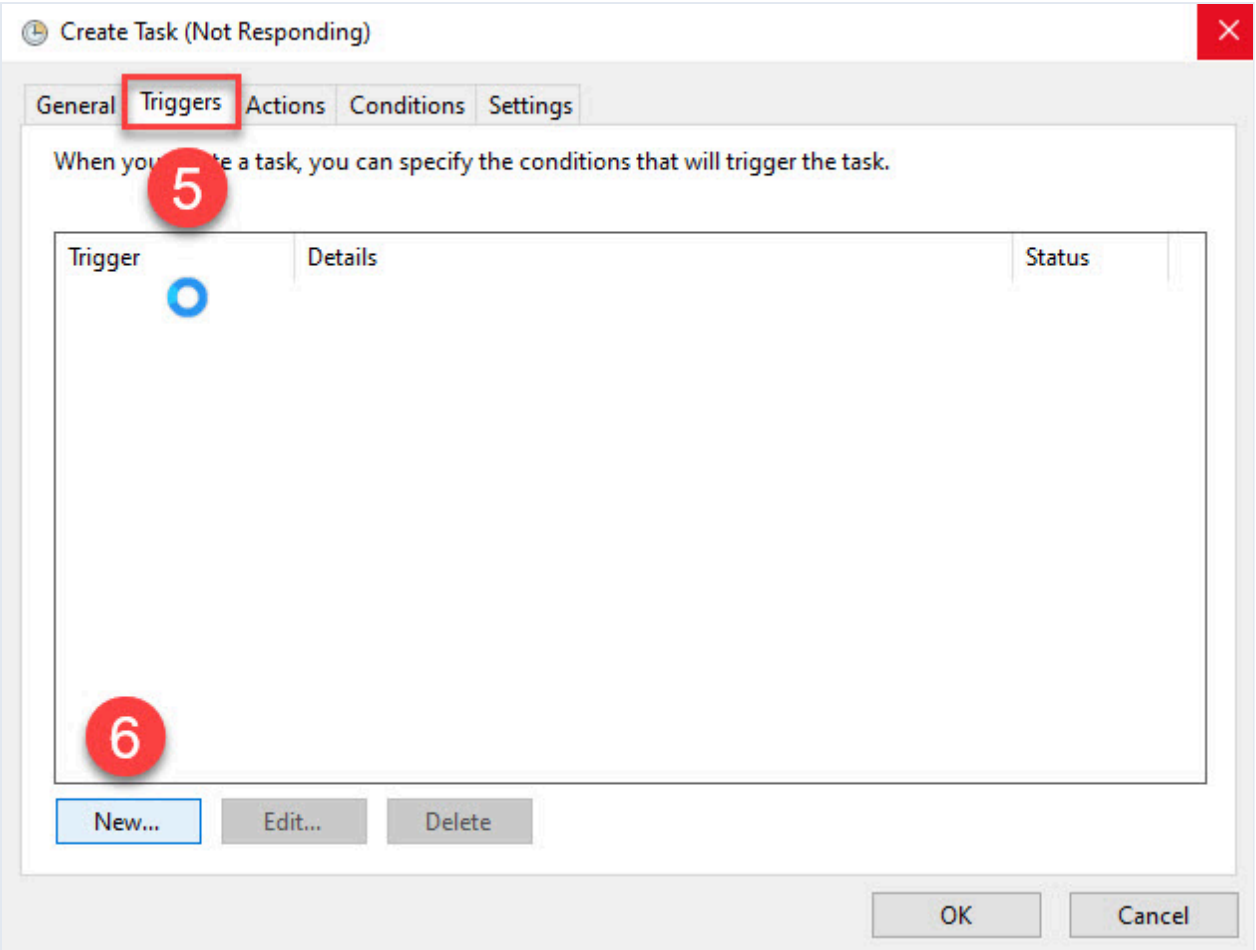
@echo off wmic process where "commandline like '%%applicare.standalone=true%%' and name='java.exe'" delete

```
@echo off
wmic process where "commandline like '%%applicare.standalone=true%%' and name='java.exe'" delete
```

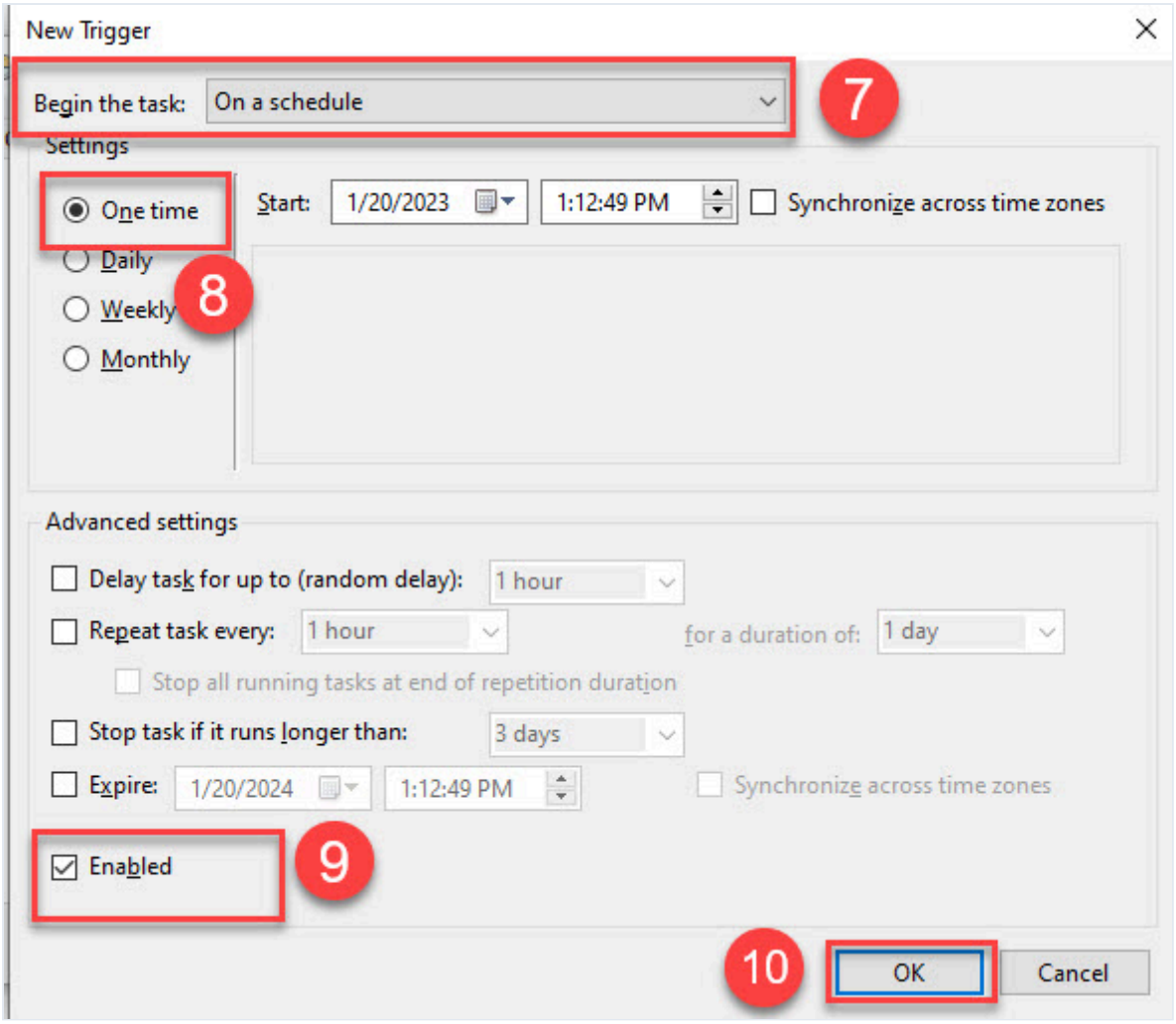
2. Open **Task Scheduler** and create the task as specified below.




Create Task
General
Triggers
Actions
Conditions
Settings
Name:
StopSingleAgent
3
Location:
\ApplicareAgent
Author:
DESKTOP-R5G4L5M\stham
Description:
Security options
When ing the task, use the following user account:
DESK G4L5M\stham
4
Change User or Group...
Run only when user is logged on
Run whether user is logged on or not
Do not store password. The task will only have access to local computer resources.
Run with highest privileges
Hidden
Configure for:
Windows Vista™, Windows Server™ 2008
OK
Cancel




**Do not alter the start time.**

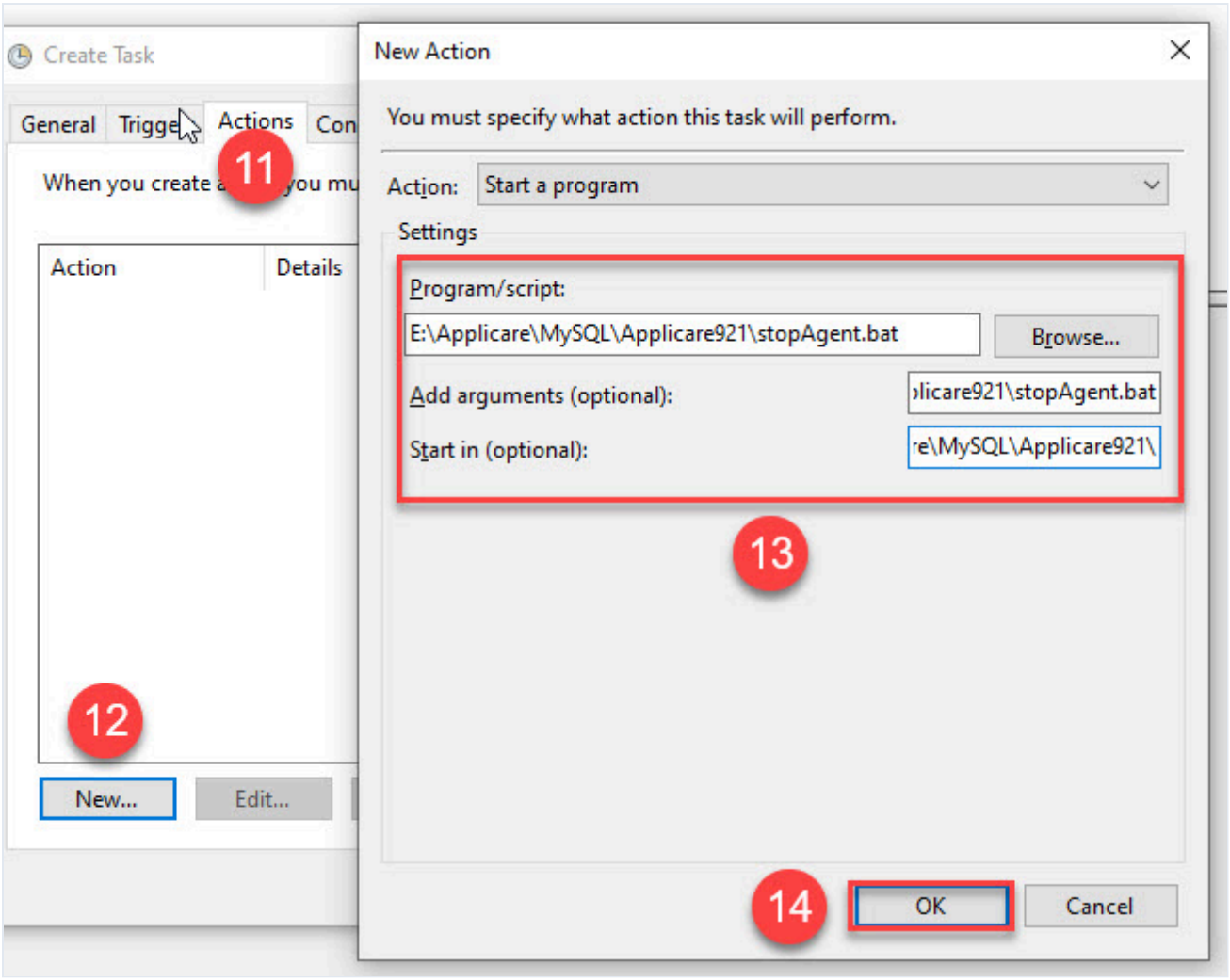


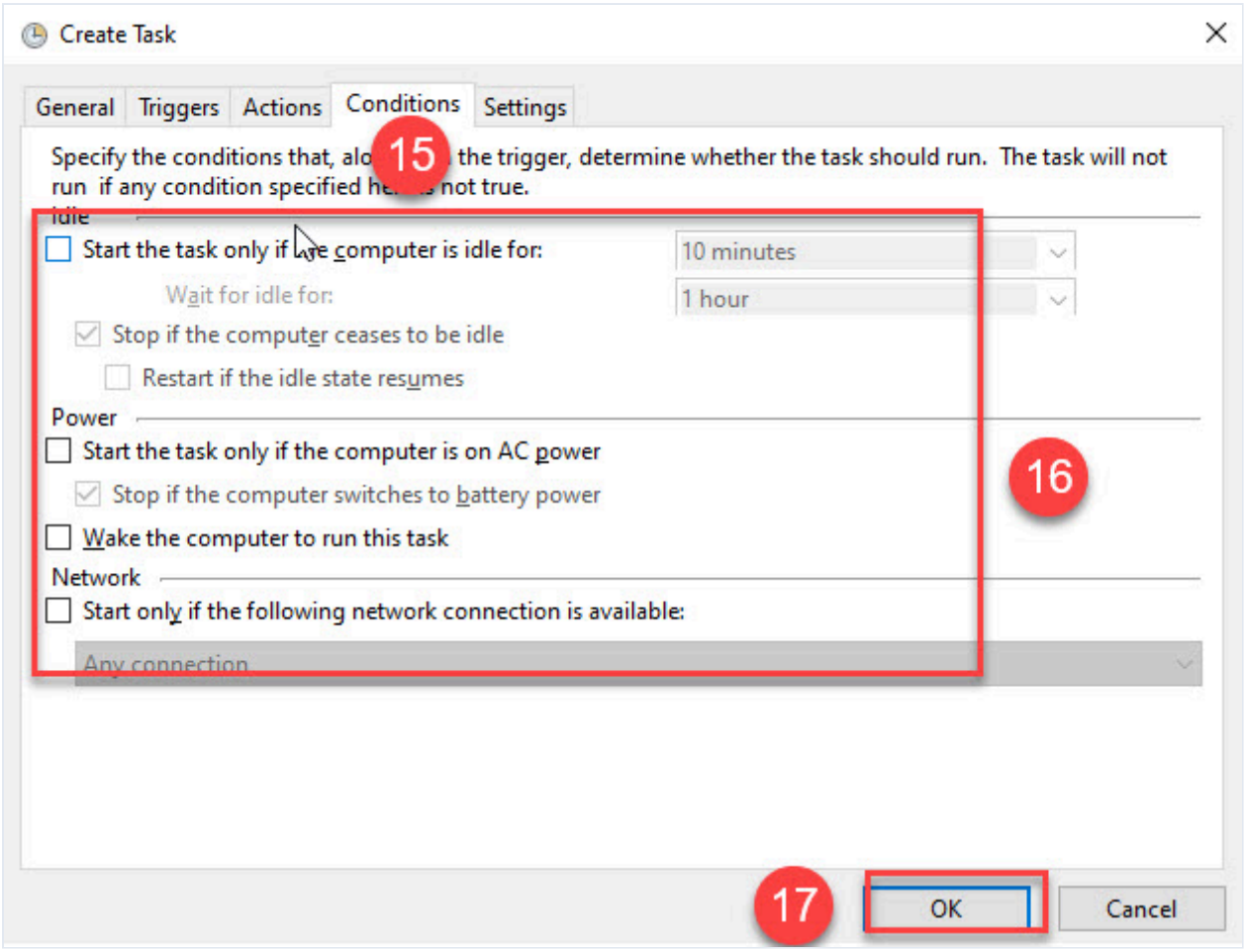

**Program/script:** AgentHomeDir\stopAgent.bat

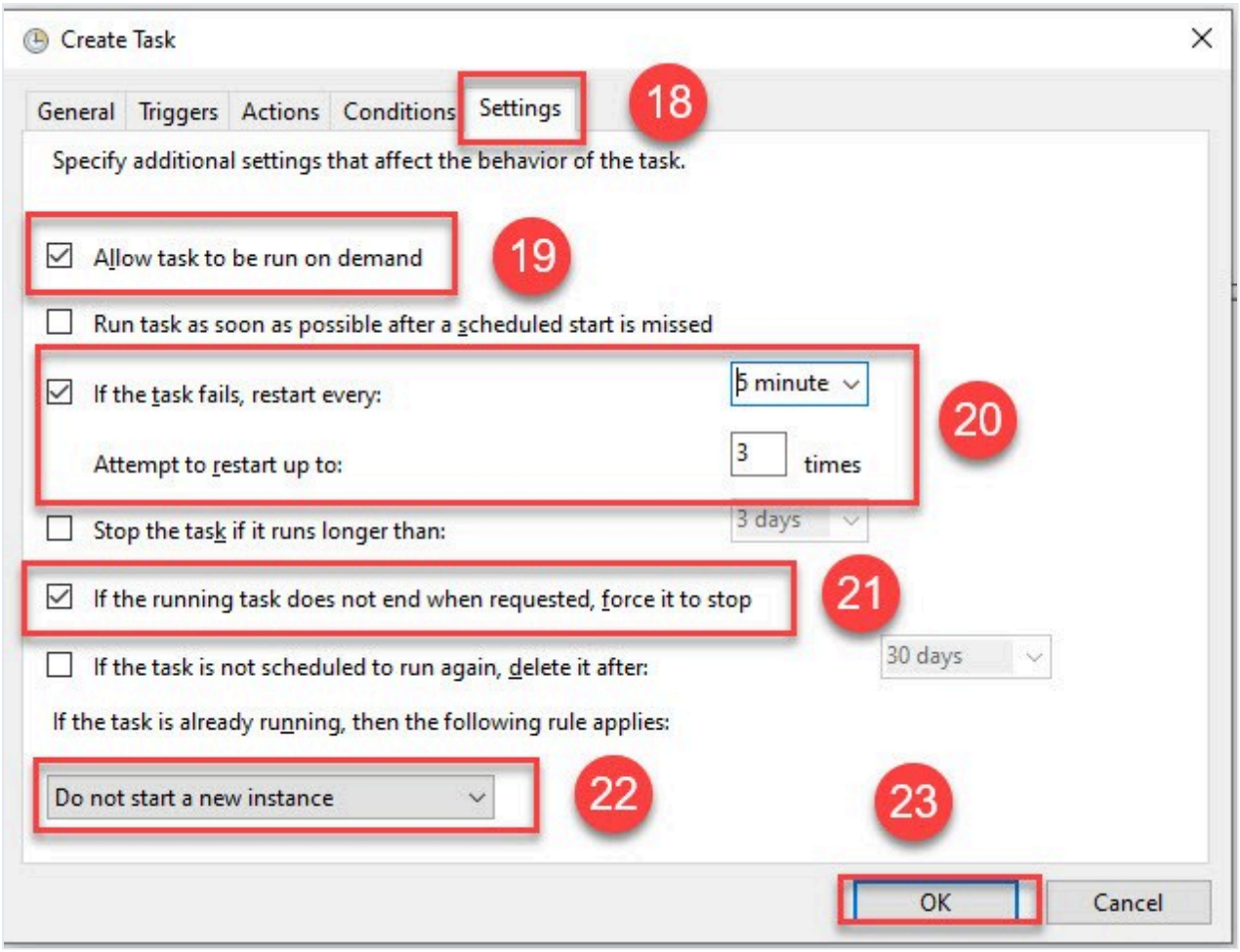
**Add arguments(optional):** AgentHomeDir\stopAgent.bat

**Start in (optional):** AgentHomeDir\

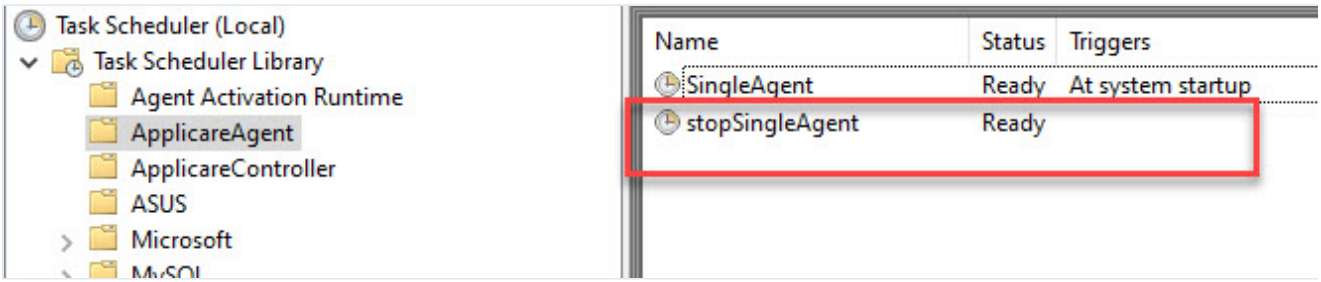
Replace **AgentHomeDir** with the correct path.


Create Task
General
Trigge
Actions
Con
11
When you create a
you mu
Action
Details
12
New...
Edit...
New Action
You must specify what action this task will perform.
Action:
Start a program
Settings
Program/script:
E:\Applicare\MySQL\Applicare921\stopAgent.bat
Browse...
Add arguments (optional):
licare921\stopAgent.bat
Start in (optional):
e\MySQL\Applicare921\
13
14
OK
Cancel


Create Task
General
Triggers
Actions
Conditions
Settings
15
Specify the conditions that, alo the trigger, determine whether the task should run. The task will not run if any condition specified he is not true.
Idle
Start the task only if the computer is idle for:
10 minutes
Wait for idle for:
1 hour
Stop if the computer ceases to be idle
Restart if the idle state resumes
Power
Start the task only if the computer is on AC power
Stop if the computer switches to battery power
Wake the computer to run this task
16
Network
Start only if the following network connection is available:
Any connection
17
OK
Cancel




The task will be generated.




Running this task it will terminate all the Java processes, and the **SingleAgent** task Status will be changed to Ready. Next, right-click the **SingleAgent** task and select **Run** to start the agent.

## Monitoring with Applicare

CONFIGURATION GUIDES › APPLICATION SERVERS

# Installing the Agent for Tomcat, JBoss, WebLogic, WebSphere, and Other Java-Based Monitoring

Applicare 9.2 · Updated September 13, 2024 · java, singleagent · **Pending technical review**

## Windows

1. Log in to **Applicare console** and navigate to the **Download Agents** screen.

2. Click the **SingleAgentWindows** button to download the agent. This will download the **ApplicareSingleAgentWindows.zip** file. Next, transfer the **ApplicareSingleAgentWindows.zip** file to the machine where the agent will be deployed.

3. Extract the **ApplicareSingleAgentWindows.zip** file into a directory named **ApplicareSingleAgentWindows**.

## Linux

1. Log in to the **Applicare console,** navigate to the **Download Agents** screen and download **SingleAgentLinux.** Then, transfer the **ApplicareSingleAgentLinux.zip** file to the machine where agent will be deployed.

2. Create a directory named "**ApplicareSingleAgent**" on the agent machine, then extract the **ApplicareSingleAgentLinux.zip** file into that directory.

3. Set **chmod -R 777** permission for the **ApplicareSingleAgent** directory.

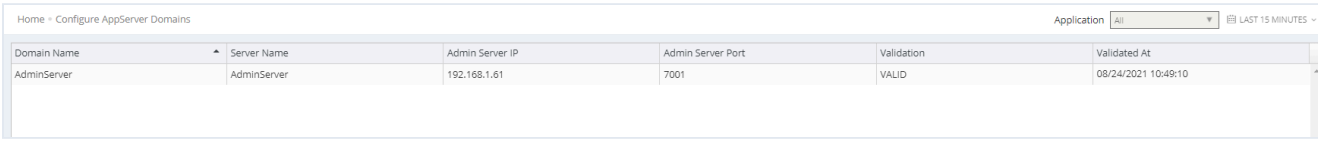
**Monitoring with Applicare**

CONFIGURATION GUIDES › APPLICATION SERVERS

# Domain Configuration

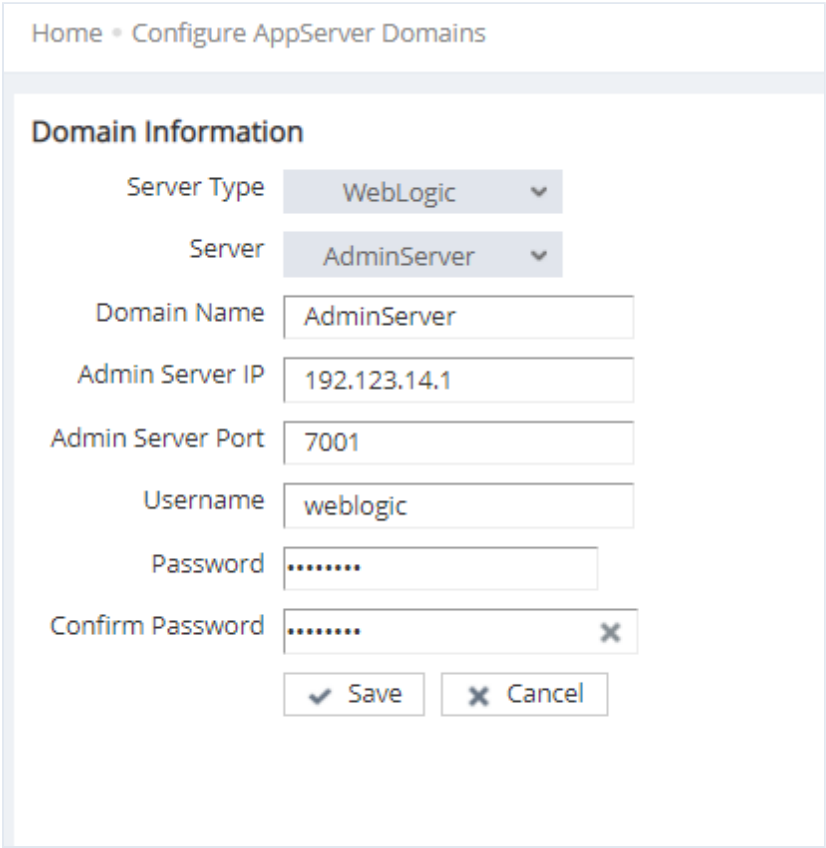
Applicare 9.2 · Updated September 13, 2024 · java, singleagent · **Pending technical review**

You need to save WebLogic domain information in Applicare before deploying the Applicare agent to WebLogic servers.




## Configuration

Click the "New" button to add a new domain. Enter the domain name and the Admin Server connection details for the domain.



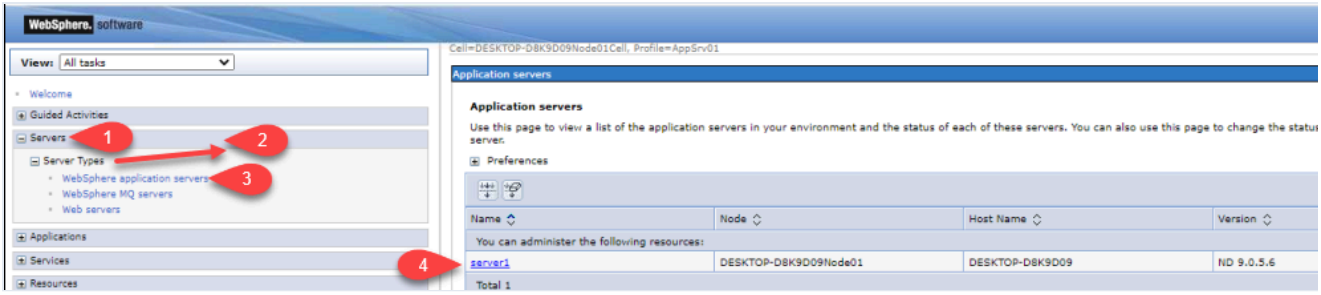

[Monitoring with Applicare]

CONFIGURATION GUIDES › APPLICATION SERVERS

# WebSphere Monitoring

Applicare 9.2 · Updated September 13, 2024 · java, singleagent · **Pending technical review**

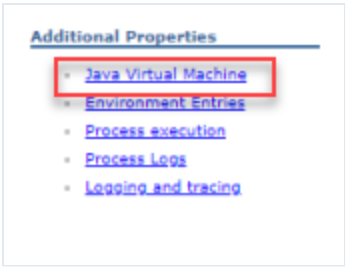
1. Install Applicare SingleAgent in the machine that **WebSphere** is running in.
2. Log in to the Websphere console and navigate **servers**> **server Types** > **Websphere application servers**, and then select the server.




3. Click on **Java and Process Management**> **Process definition** under the Server Infrastructure section.



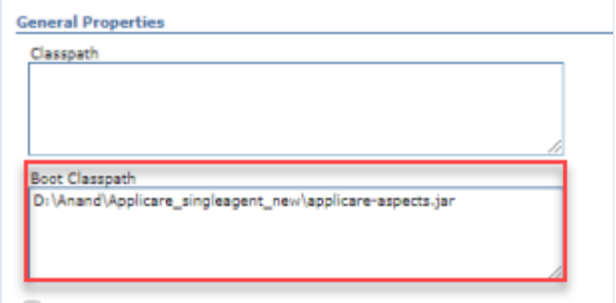

4. In the additional properties section, click on **Java Virtual Machine**.




5. Save the value in the **boot classpath** as shown below

```xml
<ApplicareSingleagent_homepath>\applicare-aspects.jar
```

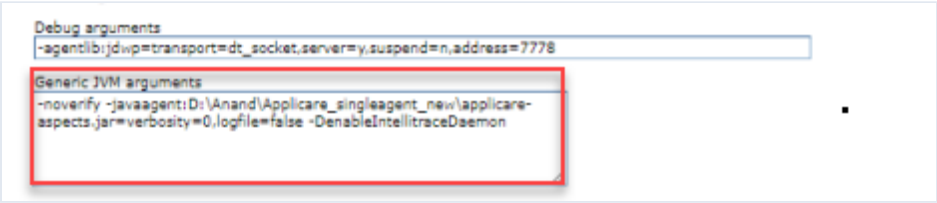
- **<ApplicareSingleagent_homepath>** - refers to the directory where the Applicare SingleAgent zip file extracted.



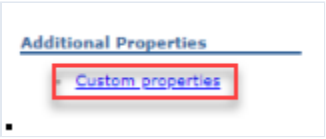

6. Save the value as shown below the **Generic JVM arguments.**

```
TEXT
-noverify -javaagent:<ApplicareSingleagent_homepath>\applicare-
aspects.jar=verbosity=0,logfile=false
```

- **Note: <ApplicareSingleagent_homepath>** - Applicare SingleAgent zip file extracted directory.




7. Next, add the following **custom properties** by clicking the Custom Properties link under Additional Properties heading on the same page.




| Name | Value | Description |
|---|---|---|
| **Arcturus_home** | <**ApplicareSingleagent_homepath**> | Absolute path to your **ApplicareSingleagent_homepath** directory |
| **java.awt.headless** | True | |
| **java.library.path** | <**ApplicareSingleagent_homepath**>**/bin** | The full path to your **ApplicareSingleagent_homepath** directory |
| **profile.name** | <**Profile Name**> | The profile name you used when configuring the profile in Applicare console |
| **server.name** | <**Server Name**> | Name of your WebSphere server |

8. Restart the **WebSphere server** to apply the changes.

## For Other Docs - Click here

**Monitoring with Applicare**

CONFIGURATION GUIDES › APPLICATION SERVERS

# Wildfly Monitoring

Applicare 9.2 · Updated August 22, 2024 · java, singleagent · **Pending technical review**

**Step 1:** Install Applicare SingleAgent in the machine where **Wildfly** is running. Follow the instructions for **installing Applicare SingleAgent**

**If Wildfly is started using the standalone.conf.bat file proceed to Step 2.**

**Step 2:** Navigate to <**Wildfly_home_path**>\bin Add the following line at the beginning of the **standalone.conf.bat** file.

```bat
set SERVER_NAME=ServerName
call <ApplicareSingleAgentHomePath>\scripts\setJBossAgentEnv.bat
```

```
15  rem Uncomment the following line to disable manipulation of JAVA_OPTS (JVM parameters)
16  rem set PRESERVE_JAVA_OPTS=true
17
18  call C:\Anand\ApplicareSingleagent_L8\scripts\setJBossAgentEnv.bat
19
```

Replace ServerName with the desired name for the agent. The name will be used when adding the agent to the controller.

Replace **ApplicareSingleAgentHomePath** with the actual path to your **ApplicareSingleAgent** home directory.

**Example:**

```
rem set PRESERVE_JAVA_OPTS=true

set SERVER_NAME=Petstore
call I:\Anand\ApplicareSingleAgentWindows\scripts\setJBossAgentEnv.bat

if not "x%JAVA_OPTS%" == "x" (
  echo "JAVA_OPTS already set in environment; overriding default settings with values: %JAVA_OPTS%"
  goto JAVA_OPTS_SET
)
```

Additional steps for install Applicare SingleAgent with Wrapper.

## For Other Docs - Click here

CONFIGURATION GUIDES › APPLICATION SERVERS

# Monitoring JBoss on Linux

Applicare 9.2 · Updated September 13, 2024 · java, singleagent · **Pending technical review**

**Step 1:** Install the Applicare SingleAgent on the machine running **JBoss**. Follow these steps: **installing Applicare SingleAgent**

**If Jboss is started using the standalone.conf.sh file proceed with Step 4.**

**Step 2:** Navigate to <**JBoss_home_path**>\bin and Add the following line at the beginning of the **standalone.conf.sh** file.

```bash
export SERVER_NAME=ServerName
. /<Applicare_agent_home_directory>/scripts/setJBossAgentEnv.sh
```

```
#
#PRESERVE_JAVA_OPTS=true

#
# Specify options to pass to the Java VM.
#
. /home/SingleAgent/scripts/setJBossAgentEnv.sh

if [ "x$JAVA_OPTS" = "x" ]; then
   JAVA_OPTS="-Xms1303m -Xmx1303m -XX:MetaspaceSize=96M -XX:MaxMetaspaceSize=256m -Djava.net.preferIPv4Stack=true"
   JAVA_OPTS="$JAVA_OPTS -Djboss.modules.system.pkgs=$JBOSS_MODULES_SYSTEM_PKGS -Djava.awt.headless=true"
else
   echo "JAVA_OPTS already set in environment; overriding default settings with values: $JAVA_OPTS"
fi
```

Replace ServerName with the desired name for the agent. The agent will be registered with the controller under this name.

Replace **Applicare_agent_home_directory** with the actual directory path of the **ApplicareSingleAgent**.

**e.g.**

```
export SERVER_NAME=petstore
. /home/ApplicareSingleAgent/scripts/setJBossAgentEnv.sh

if [ "x$JAVA_OPTS" = "x" ]; then
   JAVA_OPTS="-Xms1303m -Xmx1303m -XX:MetaspaceSize=96M -XX:MaxMetaspaceSize=256m -Djava.net.preferIPv4Stack=true"
   JAVA_OPTS="$JAVA_OPTS -Djboss.modules.system.pkgs=$JBOSS_MODULES_SYSTEM_PKGS -Djava.awt.headless=true"
else
```

Additional steps to install Applicare SingleAgent with Wrapper.

## Docs Home

**Monitoring with Applicare**

CONFIGURATION GUIDES › APPLICATION SERVERS

# Installing SingleAgent for AppServer on Linux

Applicare 9.2 · Updated August 12, 2024 · java, singleagent, linux · **Pending technical review**

1. Log in to **Applicare console,** and navigate to the **Download Agents** section.

2. Click the **SingleAgentLinux** button to download the agent. This will download the **ApplicareSingleAgentLinux.zip** file. Copy this file to the machine where the agent will be deployed.

3. Extract the contents of the **ApplicareSingleAgentLinux.zip** file into a directory named **ApplicareSingleAgentLinux**.

4. Grant **chmod -R 777** permission to the **ApplicareSingleAgentLinux** directory.

## For Other Docs - Click here

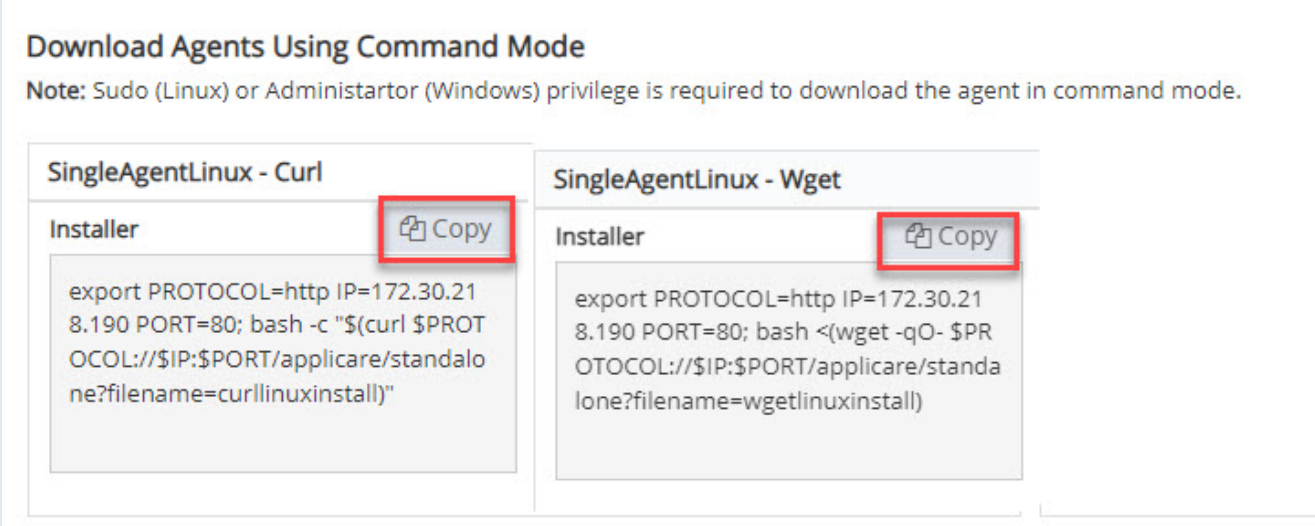
CONFIGURATION GUIDES › APPLICATION SERVERS

# SingleAgent Installation for Appserver using command Mode for Linux

Applicare 9.2 · Updated September 13, 2024 · java, singleagent, linux · **Pending technical review**

1. Log in to **Applicare console,** Navigate to **Download Agents** screen.

2. On the machine where the agent will be deployed. If **Wget** is installed, execute the **Wget Installer** command. If **Curl** is installed, Use the **Curl Installer** command instead.




**3.** Enter **n** to prevent the SingleAgent from starting Automatically.

**Monitoring with Applicare**

CONFIGURATION GUIDES › APPLICATION SERVERS

# Installing Applicare SingleAgent on WebLogic running on Linux

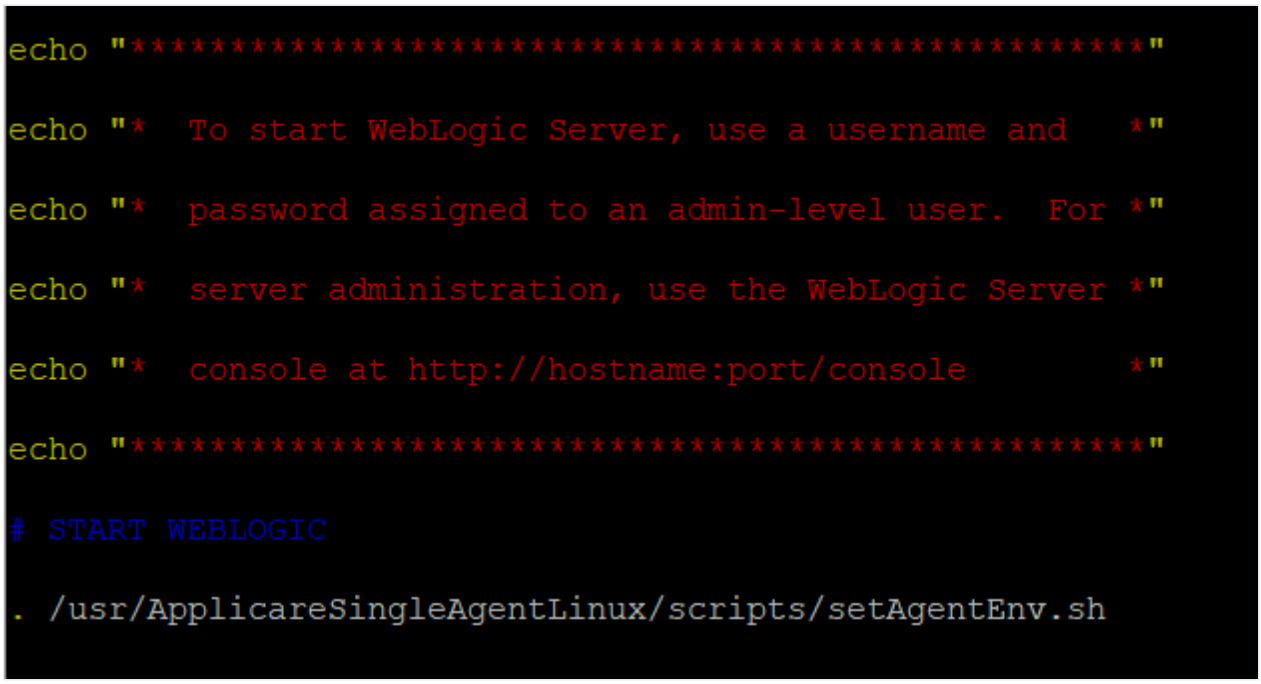
Applicare 9.2 · Updated March 23, 2026 · java, singleagent, linux · **Pending technical review**

1. Install Applicare SingleAgent in the machine where **Weblogic** is running.
2. Navigate to the <**weblogic_domain_path**>\bin directory and add the following line to the **startWebLogic.bat** file:

```text
. /<ApplicareSingleAgent_homepath>/scripts/setAgentEnv.sh
```

- **<ApplicareSingleagent_homepath>**

  - The directory where the Applicare SingleAgent zip file has been extracted.




3. Restart Weblogic

**For Other Docs** - Click here

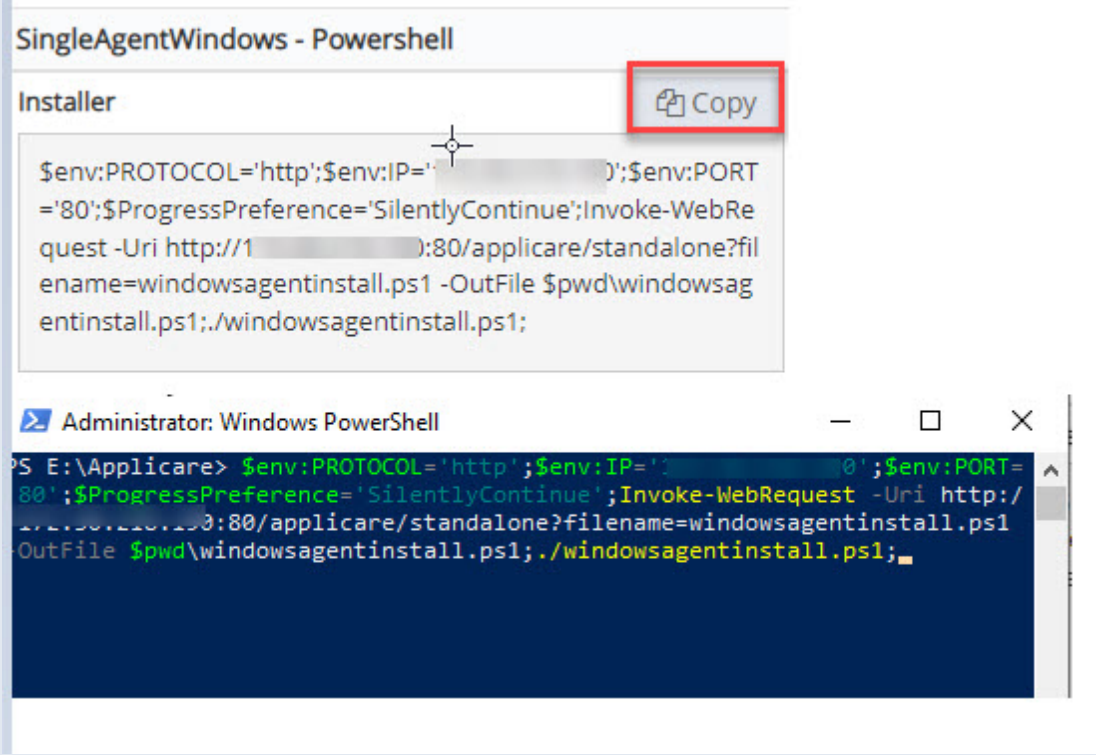
CONFIGURATION GUIDES › APPLICATION SERVERS

# Installing SingleAgent for Appserver on Windows using Command Line

Applicare 9.2 · Updated September 13, 2024 · java, singleagent, windows · **Pending technical review**

1. Log in to the **Applicare console** and navigate to the **Download Agents** screen.

2. On to the machine where the agent is to be deployed. Copy the **SingleAgentWindows - PowerShell Installer** command. Open **PowerShell** in administrator mode, navigate to any drive, and paste the copied command and press **Enter** button.




**3.** Select option **n** if you do not wish the start SingleAgent.

**Monitoring with Applicare**

CONFIGURATION GUIDES › APPLICATION SERVERS

# Deploying SingleAgent for WebLogic on Windows

Applicare 9.2 · Updated March 23, 2026 · java, singleagent, windows · **Pending technical review**

1. **Install Applicare SingleAgent** on the machine where **Weblogic** is running.
   - **If Weblogic is started using startWebLogic.bat file follow these step.**
2. Navigate to the <**weblogic_domain_path**>\bin directory **startWebLogic.bat** file.
   - Go to <**weblogic_domain_path**>\bin directory and add the following line to the **startWebLogic.bat** file.

```bat
call <ApplicareSingleAgent_homepath>\scripts\setAgentEnv.bat
```

- **<ApplicareSingleagent_homepath>** - The directory where the Applicare SingleAgent zip file has been extracted.

```
187 echo ************************************************
188
189 echo *  To start WebLogic Server, use a username and   *
190
191 echo *  password assigned to an admin-level user.  For *
192
193 echo *  server administration, use the WebLogic Server *
194
195 echo *  console at http:\\hostname:port\console        *
196
197 echo ************************************************
198
199 @REM START WEBLOGIC
200
201 call D:\ApplicareSingleAgentWindows\scripts\setAgentEnv.bat
202
203
```

3. Restart Weblogic

**Docs Home** - Click here

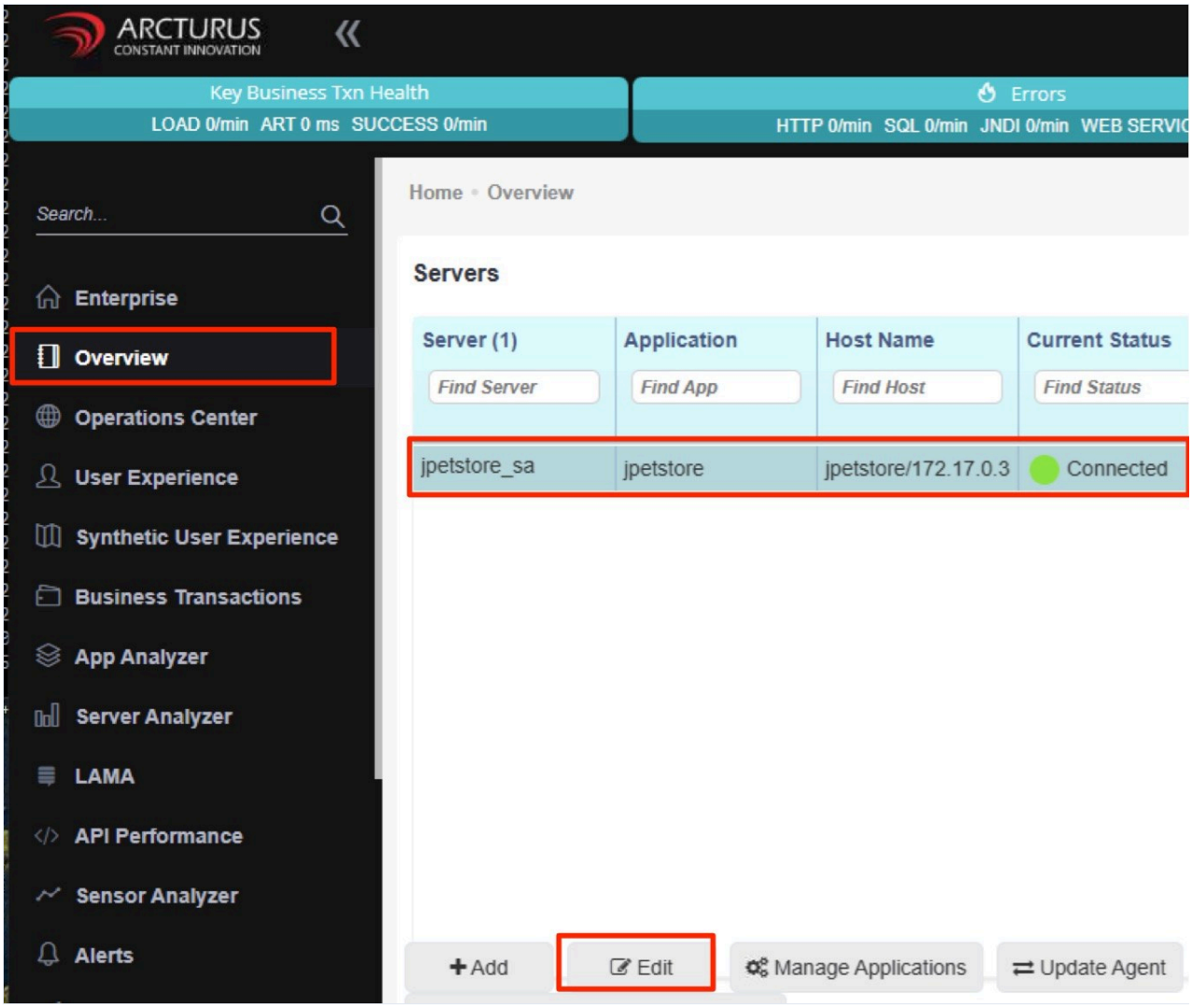
Monitoring with Applicare

CONFIGURATION GUIDES › WEB SERVERS

# Apache Monitoring on Linux

Applicare 9.2 · Updated February 28, 2025 · apache · **Pending technical review**

1. Follow the steps for **Installing Applicare SingleAgent.**
2. After starting the agent, it will automatically be registered with the Applicare controller. Log in to the **Applicare console** and navigate to the **Overview** menu.
3. After a few minutes, choose the newly added agent and click the **Edit** button.




4. Verify if the **Apache configuration** appears in the popup screen under the **Add Apache configuration.**

**If the Apache configuration is not visible in this popup screen, follow the steps provided in this link**

CONFIGURATION GUIDES › WEB SERVERS

# Apache server 2.4 Monitoring for Linux

Applicare 9.2 · Updated September 13, 2024 · apache · **Pending technical review**

**To installing Applicare SingleAgent, Follow these steps:**

Before proceeding with the configuration verify the following:

1. Identify the location of the default log configuration settings for the Apache server.

2. Confirm that all Apache server requests are being logged in the currently configured log file.

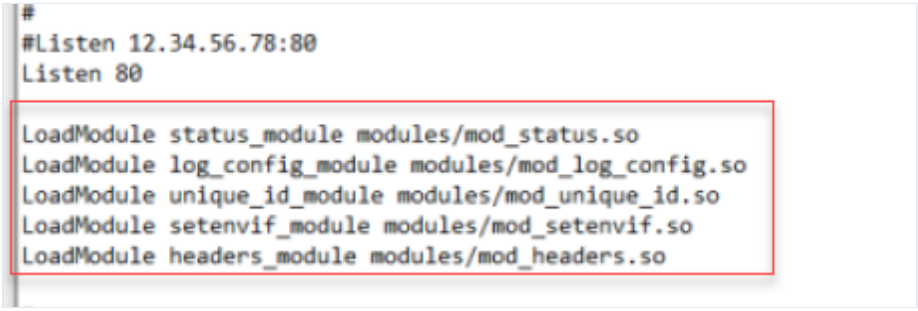
## Apache server Monitoring with Applicare

**Step 1:** Enable the server-status and custom log modules in Apache. Navigate to **Apache installation directory** and edit the **conf file**. (Default location: **/etc/httpd/conf** (or) **/etc/apache/conf**).

**Step 2:** Ensure the following modules are enabled in the **conf file**. If it is not enable it by removing '#' at the start of the line.

If any of these modules are not present in the Apache conf file by default. add them below manually below the 'Listen' line in the directive conf file.

```text
LoadModule status_module modules/mod_status.so
LoadModule log_config_module modules/mod_log_config.so
LoadModule unique_id_module modules/mod_unique_id.so
LoadModule setenvif_module modules/mod_setenvif.so
LoadModule headers_module modules/mod_headers.so
```




**Module Details:**

**mod_status.so**

**Provides server performance and status information.**

**mod_log_config.so**

**Configures and customizes Apache logging, allowing precise control over what information is logged, its format, and its destination.**

**mod_unique_id.so**

**Sets environment variables based on client request characteristics the server.**

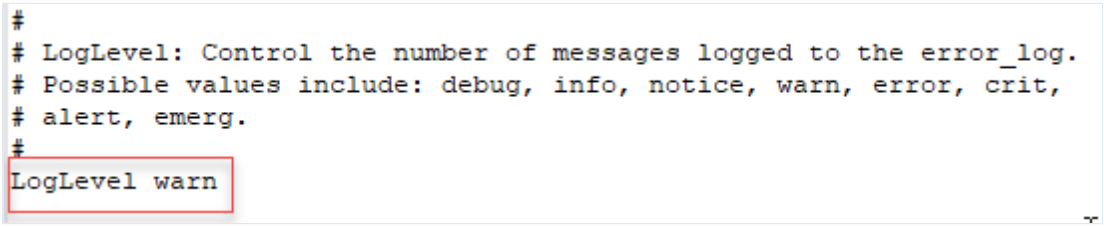
**mod_setenvif.so**

**It is used to set environment variables based on characteristics of the client request.**

**mod_headers.so**

**Adds custom headers to server responses.**

**Step 3:** Ensure that the **LogLevel** is set to **warn**. If the **LogLevel** is different, comment out the existing **LogLevel** line.




**Step 4:** Create a new log folder within the Apache home directory and set its permission to '777' using the command "**chmod -R 777"**.

**Step 5:** Append the following 5 lines to the end of the **log_config_module** section in the configuration file. Do not modify the existing **CustomLog** path within the **log_config_module**.

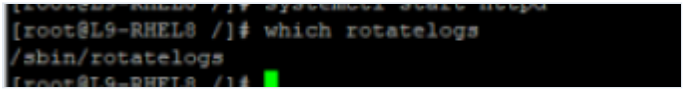
```
TEXT
SetEnvIfNoCase Request_URI "^/server-status/pingFromApplicare" dontlog
SetEnvIfNoCase Request_URI "^/applicare_agent/*" dontlog
SetEnvIf _ap_trace_id ^[a-zA-Z0-9].* HAVE_AP_ID
RequestHeader set _ap_trace_id "%{UNIQUE_ID}e" env=!HAVE_AP_ID
RequestHeader set _ap_apache_id "<Apache_servername>"
CustomLog "|<rotatelogs_path> -n 1440 <Apachelog_directory>/newlogfolder/apl_log 60" "%t %h
%s %B %D %U :%{_ap_trace_id}i" env=!dontlog
```

1. Replace the **<Apache_servername>** with a unique custom name (without space) and including double quotes and without angle brackets. You can choose any name in the **<Apache_servername>.** But it must be unique.

2. The "**_ap_trace_id**" is an environment variable added to each request. Its value will be a random id.

3. Replace "**<rotatelogs_path>** " (removing the angle brackets too) with the path where 'rotatelogs' is installed. On Linux, you can find this path using the following command.

```
TEXT
which rotatelogs (or) sudo which rotatelogs
```



4. Replace **<newlogfolder>**with the name of the folder you created within the Apache log directory (be sure remove the angle brackets).

```
<IfModule log_config_module>
    #
    # The following directives define some format nicknames for use with
    # a CustomLog directive (see below).
    #
    LogFormat "%h %l %u %t \"%r\" %>s %b \"%{Referer}i\" \"%{User-Agent}i\"" combined
    LogFormat "%h %l %u %t \"%r\" %>s %b" common

    <IfModule logio_module>
      # You need to enable mod_logio.c to use %I and %O
      LogFormat "%h %l %u %t \"%r\" %>s %b \"%{Referer}i\" \"%{User-Agent}i\" %I %O" combinedio
    </IfModule>

    #
    # The location and format of the access logfile (Common Logfile Format).
    # If you do not define any access logfiles within a <VirtualHost>
    # container, they will be logged here.  Contrariwise, if you *do*
    # define per-<VirtualHost> access logfiles, transactions will be
    # logged therein and *not* in this file.
    #
    #CustomLog "logs/access_log" common

    #
    # If you prefer a logfile with access, agent, and referer information
    # (Combined Logfile Format) you can use the following directive.
    #
    CustomLog "logs/access_log" combined

    SetEnvIfNoCase Request_URI "^/server-status/pingFromApplicare" dontlog
    SetEnvIf _ap_trace_id ^[a-zA-Z0-9].* HAVE_AP_ID
    RequestHeader set _ap_trace_id "%{UNIQUE_ID}e" env=!HAVE_AP_ID
    RequestHeader set _ap_apache_id "Apache"
    CustomLog "|/usr/sbin/rotatelogs -n 1440 /var/log/httpd/New_folder/apl_log 60" "%t %h %s %B %D %U :%{_ap_trace_id}i" env=!dontlog
</IfModule>
```

**Step 6:** Append the following modules to the end of the **conf** file.

```xml
<IfModule mod_status.c>
<Location /server-status>
ProxyPass !
SetHandler server-status
Require local
</Location>
</IfModule>
```

**Require local -** It will restrict the server status access only from the local machine.

**Step 7:** Verify the configuration for any Syntax errors. If the output shows **Syntax OK** the configuration is correct.

**For httpd**

```text
httpd -t
```

**For apachectl**

```
TEXT
apachectl –t
(or)
apachectl configtest
```

**For apache2ctl**

```
TEXT
apache2ctl –t
(or)
apache2ctl configtest
```

**Step 8:** If the configuration is successful, restart the **Apache server.**

After restarting, enter the following request in your browser's URL bar to display information about the Apache server.

**To check in browser:**

```
XML
<Apache_Protocol>://<Apache_IP>:<Apache_Port>/server-status?auto
Example: http://127.0.0.1:80/server-status?auto
```

**To check using curl:**

```
BASH
curl <Apache_Protocol>://<Apache_IP>:<Apache_Port>/server-status?auto
Example: curl http://127.0.0.1:80/server-status?auto
```

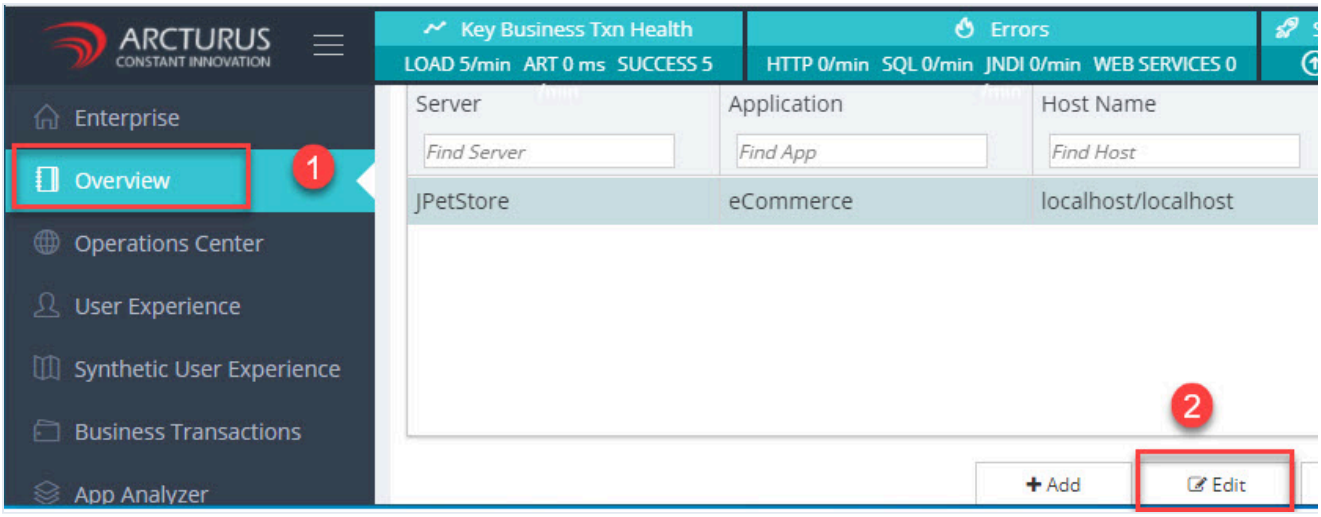
**<Apache_Protocol>://<Apache_IP>:<Apache_Port>/server-status?auto**

**<Apache_Protocol> -** http (or) https **<Apache_IP> -** Apache server running IP **<Apache_Port> -** Apache server running port

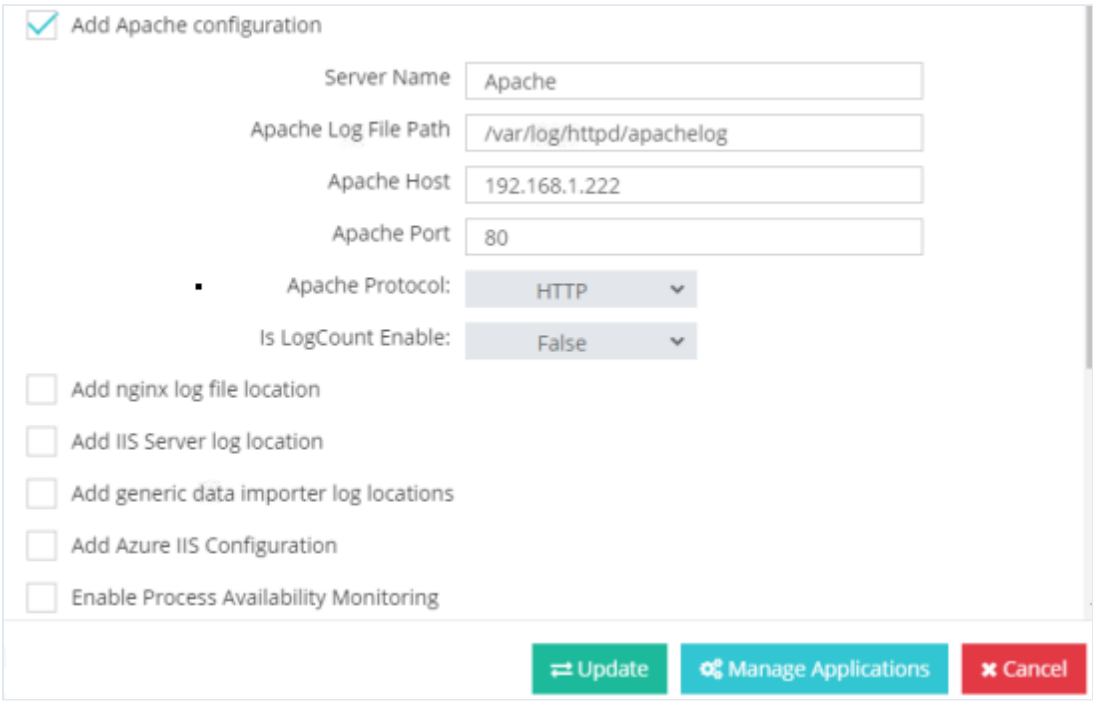
```
YAML
ServerMPM: event
Server Built: Jan 27 2021 07:22:47
CurrentTime: Monday, 28-Jun-2021 18:11:40 EDT
RestartTime: Monday, 28-Jun-2021 18:08:24 EDT
ParentServerConfigGeneration: 1
ParentServerMPMGeneration: 0
ServerUptimeSeconds: 195
ServerUptime: 3 minutes 15 seconds
```

**Step 9:** After starting the agent, it will be automatically registered with the Applicare controller. Log in to the **Applicare console** and navigate to the **Overview** menu.

**Step 10:** Locate the newly added agent and click the **Edit** button.




**Step 11:** Enable the "**Add Apache Configuration**" box and configure the setting as shown below. If the Apache is running in **https** select **HTTPS** in the **Apache Protocol dropdown**. Click the **update** button to save the change.




**Note:**

1. Other command to check the configuration and virtual hot details of apache server.

**httpd -S, apachectl -S, apache2ctl -S** and for version **httpd -V**

2. If the new log configuration does not take effect, verify if any custom configuration are included in the default configuration. Custom configuration may be included using the "**IncludeOptional**" directive.

3. To monitor only the error logs, append the following syntax to the end of the CustomLog.

```
TEXT
"expr=%{REQUEST_STATUS} > 200"
```

**e.g.**

CustomLog "logs/access.log" combined **"expr=%{REQUEST_STATUS} > 200"**

```
#
# If you prefer a logfile with access, agent, and referer information
# (Combined Logfile Format) you can use the following directive.
#

CustomLog "logs/access.log" combined "expr=%{REQUEST_STATUS} > 200"
```

4. **To capture only the specific request URL use this.** This will capture only the **/testrequest/order** requests.

SetEnvIfNoCase Request_URI "^/testrequest/order" log_this

CustomLog "logs/access.log" combined **env=log_this**

## Monitoring with Applicare

CONFIGURATION GUIDES › WEB SERVERS

# Apache server 2.4 Monitoring for windows

Applicare 9.2 · Updated August 22, 2024 · apache · **Pending technical review**

**Follow the steps for installing Applicare SingleAgent**

**Step 1:** To enable server-status and custom log modules in Apache by navigating to the Apache installed directory and editing the conf file.

**Step 2:** Ensure the following modules are enabled in the conf file. If they are not, enable them by removing '#' at the beginnings of the lines.

Some of the modules may not be present in the Apache conf file by default. In that cases, manually add the following modules below the Apache Listen line in the Apache conf file.

```text
#Listen 12.34.56.78:80
Listen 80

LoadModule status_module modules/mod_status.so
LoadModule log_config_module modules/mod_log_config.so
LoadModule unique_id_module modules/mod_unique_id.so
LoadModule setenvif_module modules/mod_setenvif.so
LoadModule headers_module modules/mod_headers.so
```

**Step 3:** Ensure the **LogLevel** is set to **warn**. If it is set to a **LogLevel** is different value, comment out existing **LogLevel** line.

```
#
# LogLevel: Control the number of messages logged to the error_log.
# Possible values include: debug, info, notice, warn, error, crit,
# alert, emerg.
#
LogLevel warn
```

**Step 4:** Create a new log folder within the Apache home directory.

**Step 5:** Append the following five lines to the end of the **log_config_module** and section in the **CustomLog** and leave the existing **log_config_module** path unchanged.

```
TEXT
SetEnvIfNoCase Request_URI "^/server-status/pingFromApplicare" dontlog
SetEnvIfNoCase Request_URI "^/applicare_agent/*" dontlog
SetEnvIf _ap_trace_id ^[a-zA-Z0-9].* HAVE_AP_ID
RequestHeader set _ap_trace_id "%{UNIQUE_ID}e" env=!HAVE_AP_ID
RequestHeader set _ap_apache_id "<Apache_servername>"
CustomLog "|<RotateLogPath> -n 1440 <ApacheInstalledDir>/newlogfolder/apl_log 60" "%t %h %s
%B %D %U :%{_ap_trace_id}i" env=!dontlog
```

1. Replace **<Apache_servername>** with a custom name (without spaces) and include double quotes **(Need to remove the angle brackets too)**. The name can be **<Apache_servername>**. But it must be unique.

2. Replace **<RotateLogPath>** with the path to your **rotatelogs.exe** file. **(and remove the angle brackets).** By default, it is located in the Apache installation directory **<ApacheInstalledDir>/bin/rotatelogs.exe**

3. Replace **"<ApacheInstalledDir>"** with the path to your Apache installation **(and remove the angle brackets).**

4. Replace **<newlogfolder>**with the name of the folder you created inside the Apache installation directory **(add remove the angle brackets too)**.

```
<IfModule log_config_module>
    #
    # The following directives define some format nicknames for use with
    # a CustomLog directive (see below).
    #
    LogFormat "%h %l %u %t \"%r\" %>s %b \"%{Referer}i\" \"%{User-Agent}i\"" combined
    LogFormat "%h %l %u %t \"%r\" %>s %b" common

    <IfModule logio_module>
      # You need to enable mod_logio.c to use %I and %O
      LogFormat "%h %l %u %t \"%r\" %>s %b \"%{Referer}i\" \"%{User-Agent}i\" %I %O" combinedio
    </IfModule>

    #
    # The location and format of the access logfile (Common Logfile Format).
    # If you do not define any access logfiles within a <VirtualHost>
    # container, they will be logged here.  Contrariwise, if you *do*
    # define per-<VirtualHost> access logfiles, transactions will be
    # logged therein and *not* in this file.
    #
    #CustomLog "logs/access.log" common

    #
    # If you prefer a logfile with access, agent, and referer information
    # (Combined Logfile Format) you can use the following directive.
    #

    CustomLog "logs/access.log" combined "expr=%{REQUEST_STATUS} > 200"
    #CustomLog "logs/access.log" combined

    SetEnvIfNoCase Request_URI "^/server-status/pingFromApplicare" dontlog
    SetEnvIf _ap_trace_id ^[a-zA-Z0-9].* HAVE_AP_ID
    RequestHeader set _ap_trace_id "%{UNIQUE_ID}e" env=!HAVE_AP_ID
    RequestHeader set _ap_apache_id "Apache"
    CustomLog "|E:/Apache/Apache24/bin/rotatelogs.exe -n 1440 E:/Apache/Apache24/newlogfolder/apl_log 86400" "%t %h %s %B %D %U :%{_ap_trace_id}i" env=!dontlog
</IfModule>
```

**Step 6:** Append the following modules to the end of the **conf** file.

```xml
<IfModule mod_status.c>
<Location /server-status>
ProxyPass !
SetHandler server-status
Require all granted
</Location>
</IfModule>
```

**Step 7:** Verify the configuration for syntax errors. If the output shows **Syntax OK,** the configuration is correct.

**For httpd**

```text
httpd -t
```

**Step 8:** Finally, **Restart Apache server**.

After restarting the Apache server, Enter the following URL in your browser. This will display information about the apache server.

**To check in browser:**

```xml
<Apache_Protocol>://<Apache_IP>:<Apache_Port>/server-status?auto
Example: http://127.0.0.1:80/server-status?auto
```

**To check using curl:**

```bash
curl <Apache_Protocol>://<Apache_IP>:<Apache_Port>/server-status?auto
Example: curl http://127.0.0.1:80/server-status?auto
```

**<Apache_Protocol>://<Apache_IP>:<Apache_Port>/server-status?auto**

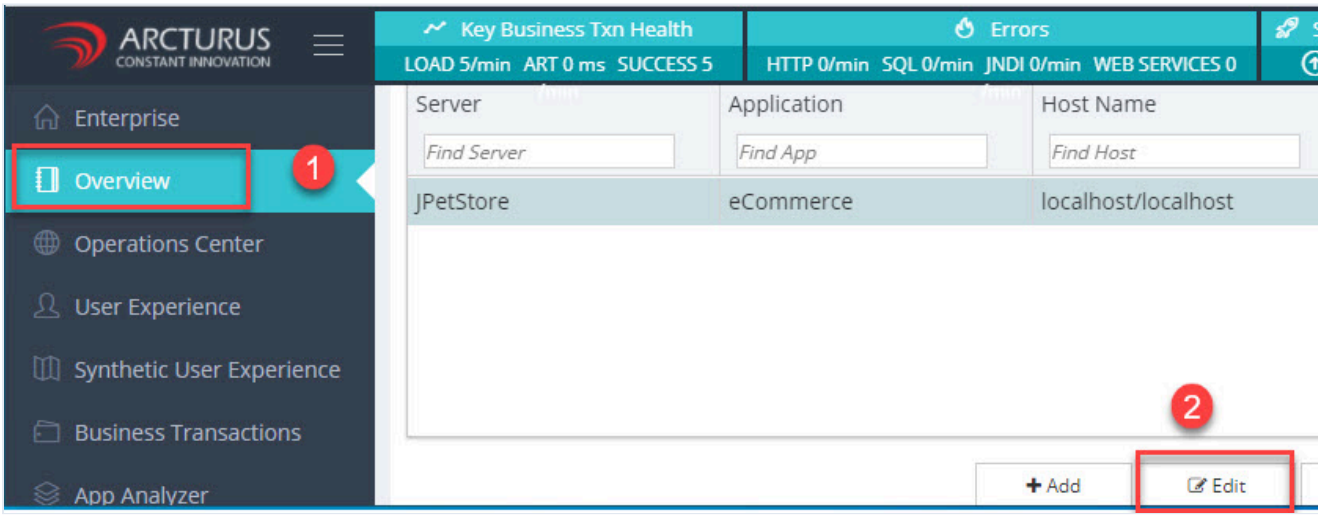
**<Apache_Protocol> -** http (or) https **<Apache_IP> -** Apache server running IP **<Apache_Port> -** Apache server running port

```yaml
ServerMPM: event
Server Built: Jan 27 2021 07:22:47
CurrentTime: Monday, 28-Jun-2021 18:11:40 EDT
RestartTime: Monday, 28-Jun-2021 18:08:24 EDT
ParentServerConfigGeneration: 1
ParentServerMPMGeneration: 0
ServerUptimeSeconds: 195
ServerUptime: 3 minutes 15 seconds
```

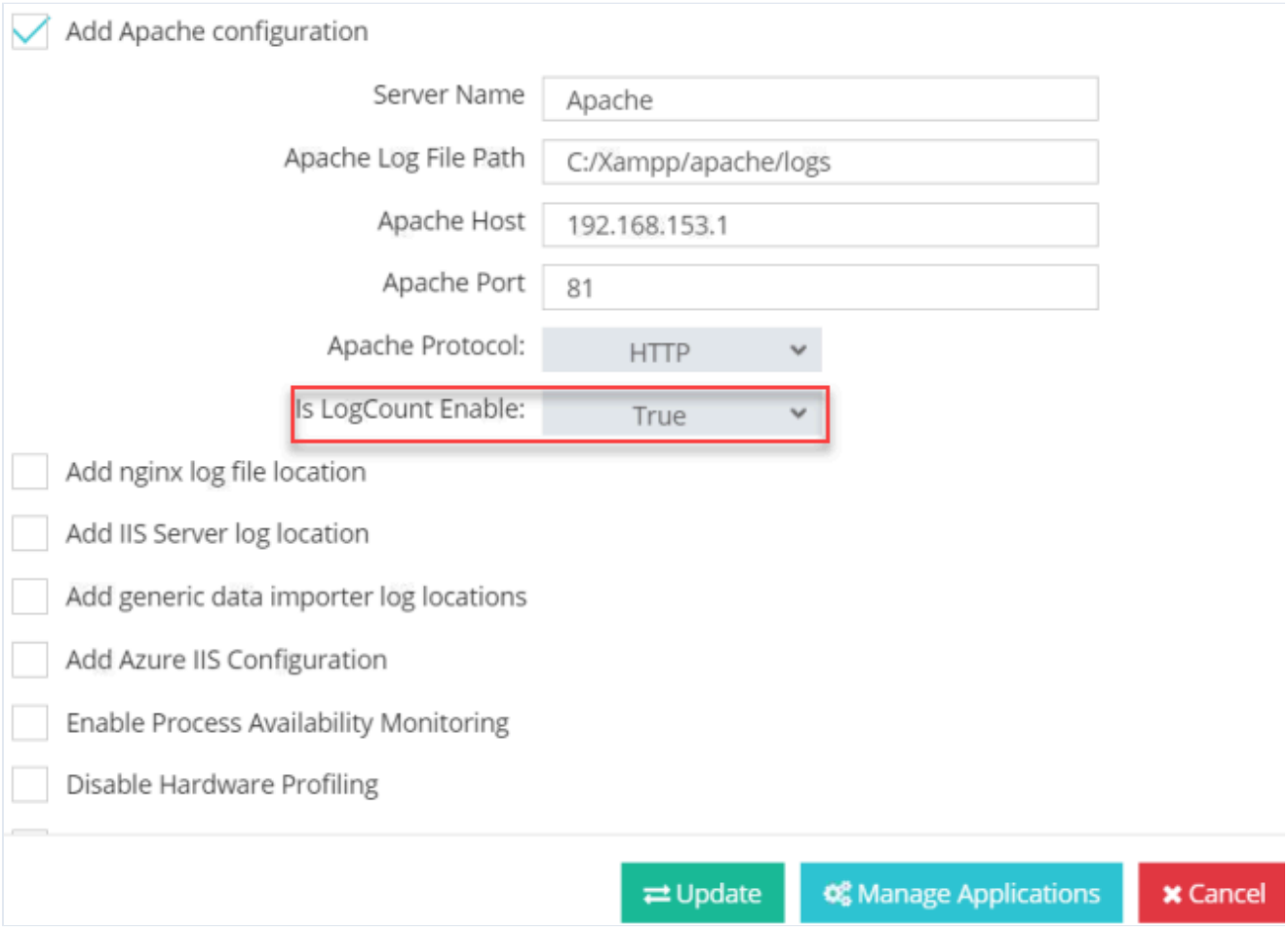
**Step 9:** Start the agent by executing the **startAgent.bat** in the **<Agent_Home_Directory>**.

**Step 10:** After the agent starts, It will be automatically added to the Applicare controller. Log in to the **Applicare console** and navigate to the **Overview** menu.

**Step 11:** Choose the newly added agent and click the **Edit** button.




**Step 12:** Check the "**Add Apache Configuration**" box and Set the configure the setting as shown as below. If the Apache is running over **HTTPS,** select **HTTPS** from the **Apache Protocol dropdown**. Click the **update** button to save the change.



1. Use the following command to check the configuration and virtual host details of Apache server.

**httpd -S** and for version **httpd -V**

2. If the new log configuration isn't taking effect, check whether a custom configuration is being referenced in the default configuration. Custom configuration may be included using the "**IncludeOptional**" keyword.

3. If the customer is wants to log only error logs to their existing log files. Add the following syntax to the end of their CustomLog configuration.

```
TEXT
"expr=%{REQUEST_STATUS} > 200"
```

**e.g.**

CustomLog "logs/access.log" combined **"expr=%{REQUEST_STATUS} > 200"**

```
#
# If you prefer a logfile with access, agent, and referer information
# (Combined Logfile Format) you can use the following directive.
#

CustomLog "logs/access.log" combined "expr=%{REQUEST_STATUS} > 200"
```

## Docs home

CONFIGURATION GUIDES › WEB SERVERS

# Monitoring Nginx

Applicare 9.2 · Updated May 9, 2026 · nginx · **Pending technical review**

**Step 1: Follow the steps for Installing Applicare SingleAgent**

## Nginx Configuration

**Step 2: Stop the Nginx server.**

**Step 3:** Navigate to the directory **<Nginx_Installed_Directory>/conf** and open the **nginx.conf** file for editing. On Linux, the default path is (**/etc/nginx**).

**Step 4:** Comment out the current format and insert the following **log_format**.

log_format main '$remote_addr - $remote_user $time_iso8601 [$request_time] "$request" ' '$status $body_bytes_sent || "$request_body" || "$http_referer" ' '"$http_user_agent" "$http_x_forwarded_for" ' '"$scheme://$host:$server_port"';

```
log_format  main  '$remote_addr - $remote_user $time_iso8601 [$request_time] "$request" '
                  '$status $body_bytes_sent ||  "$request_body" || "$http_referer" '
                  '"$http_user_agent" "$http_x_forwarded_for"';

access_log  logs/access.log  main;
```

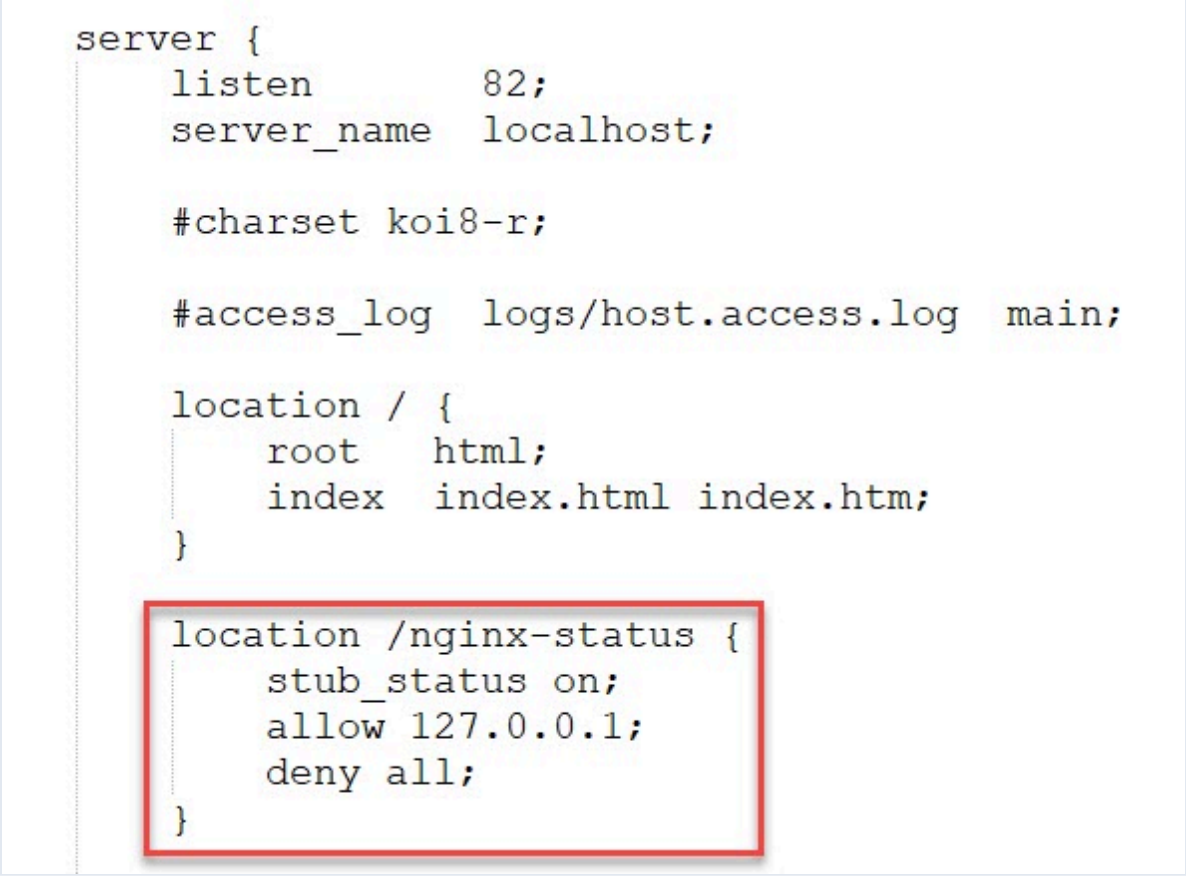
**Step 5:** If the **access_log** line is commented out, Please uncomment it.

```
log_format  main  '$remote_addr - $remote_user $time_iso8601 [$request_time] "$request" '
                  '$status $body_bytes_sent ||  "$request_body" || "$http_referer" '
                  '"$http_user_agent" "$http_x_forwarded_for"';

access_log  logs/access.log  main;
```

**Step 7:** Insert the following lines within the **server** module

location /nginx-status { stub_status on; allow 127.0.0.1; deny all; }



```
server {
    listen       82;
    server_name  localhost;

    #charset koi8-r;

    #access_log  logs/host.access.log  main;

    location / {
        root   html;
        index  index.html index.htm;
    }

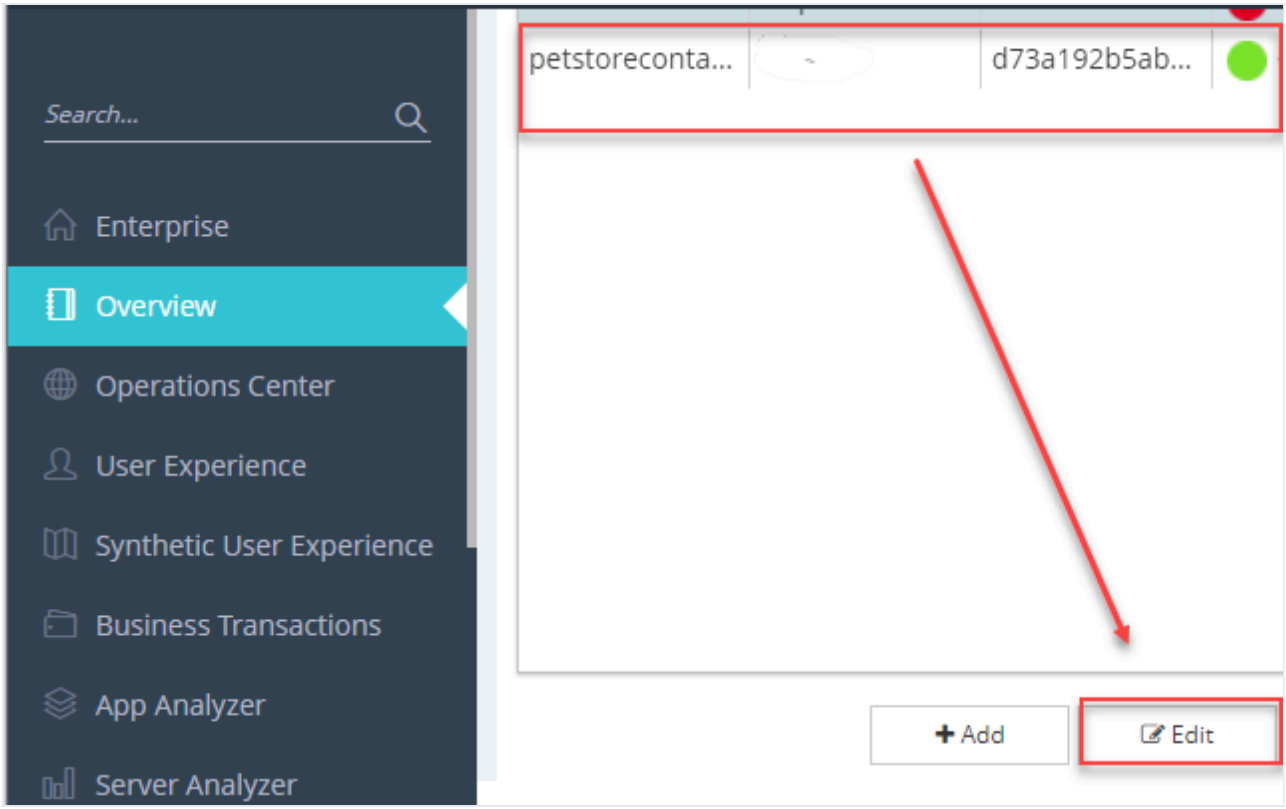
    location /nginx-status {
        stub_status on;
        allow 127.0.0.1;
        deny all;
    }
```

**Step 8: Start the Nginx server**.

## Integrating Nginx to Applicare

**Step 9:** Once the agent is started, It will be automatically registered with the Applicare controller. Log in to the **Applicare console** and go to the **Overview** menu.

**Step 10:** Select the newly added agent and click the **Edit** button.




**Step 11:** Enable the "**Add Nginx Configuration**" checkbox and add the below value.

1. Log file path

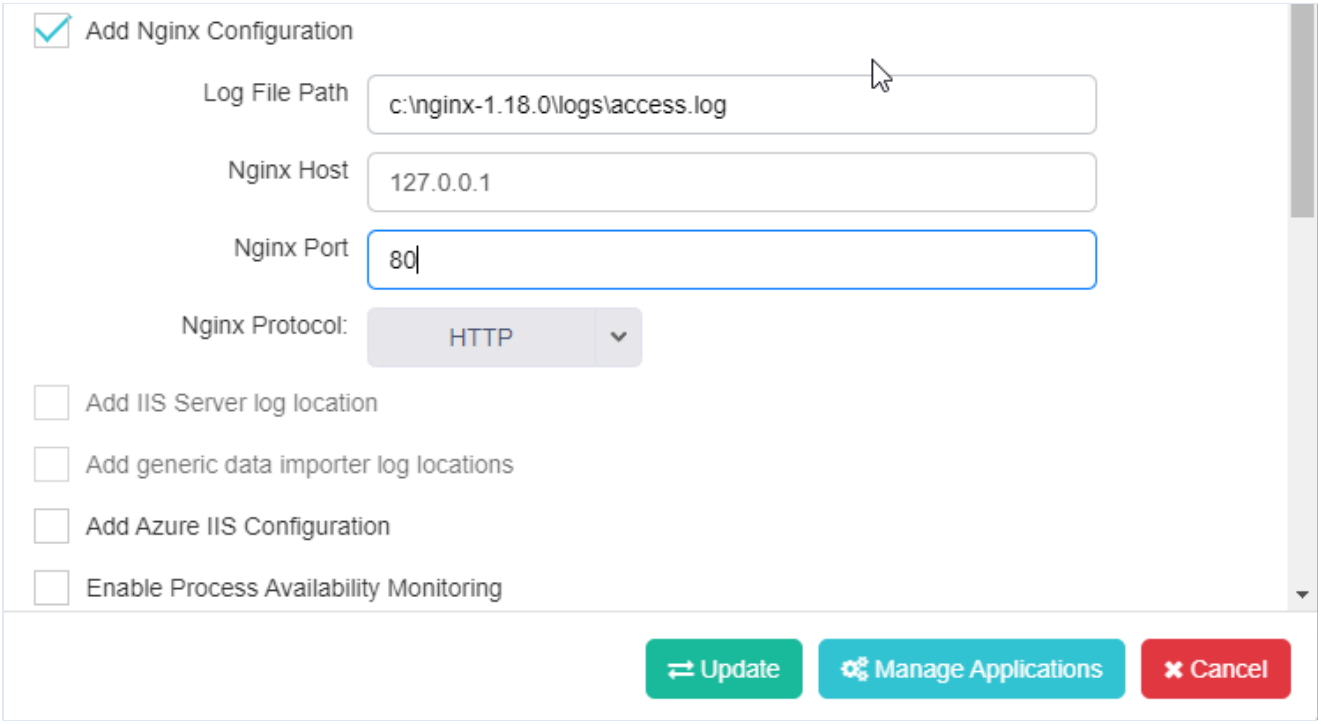
2. Nginx Host

3. Nginx Port

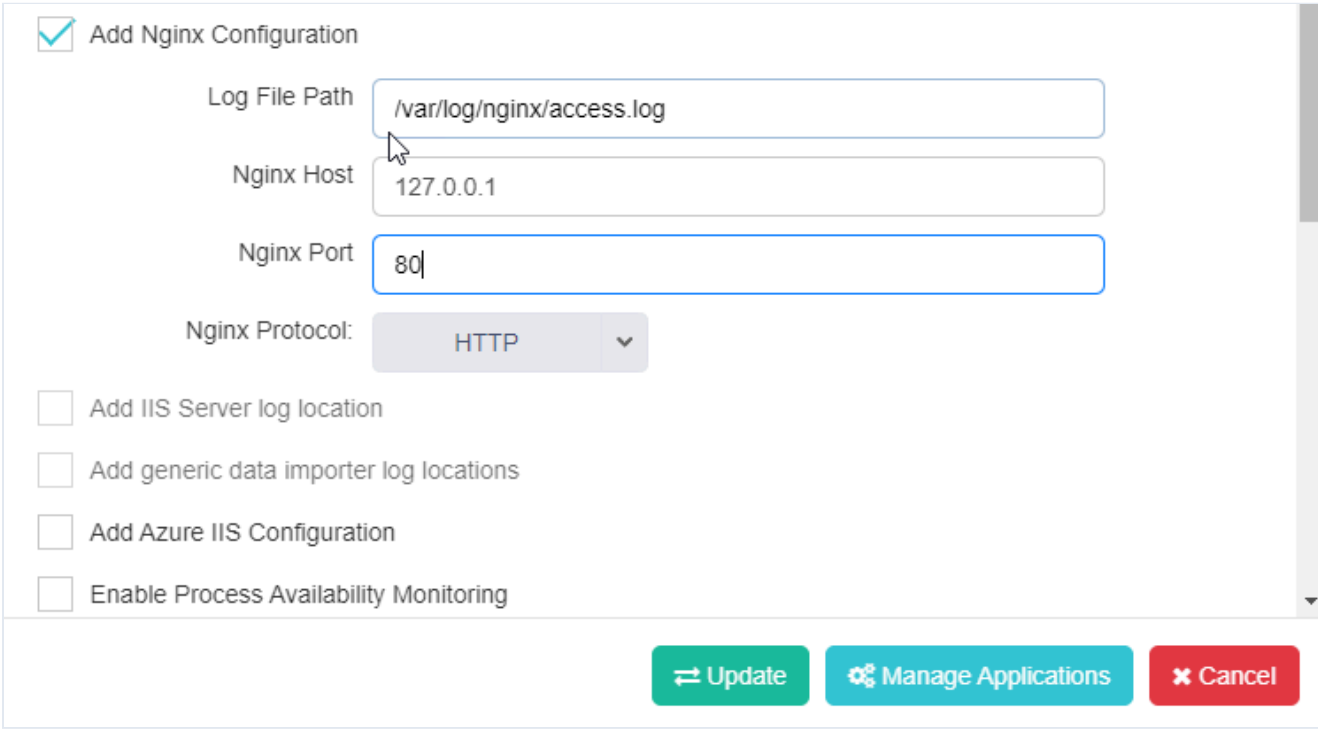
4. Nginx Protocol

Click the **update** button to save.

### Windows




### Linux



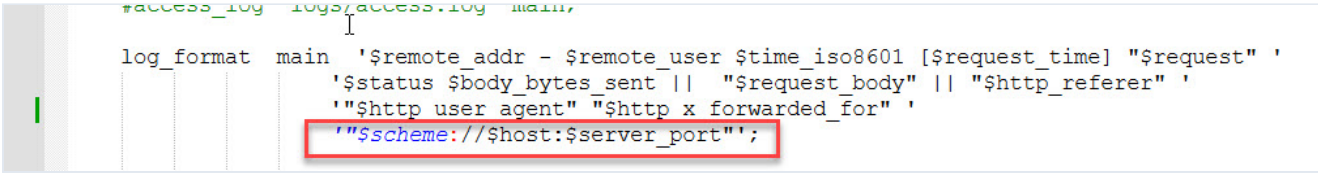

**Note:**

**1. Configuration to capture the base url and save and restart the NGINX.**

Remove the **semicolon** after the **"$http_x_forwarded_for"'** keyword and add the **'"$scheme://$host:$server_port"';** in the new line.

log_format main '$remote_addr - $remote_user $time_iso8601 [$request_time] "$request" ' '$status $body_bytes_sent || "$request_body" || "$http_referer" ' '"$http_user_agent" "$http_x_forwarded_for"'

```
TEXT
                '"$scheme://$host:$server\_port"';
```




**Docs Home**

CONFIGURATION GUIDES › WEB SERVERS

# Start Nginx using Task Scheduler

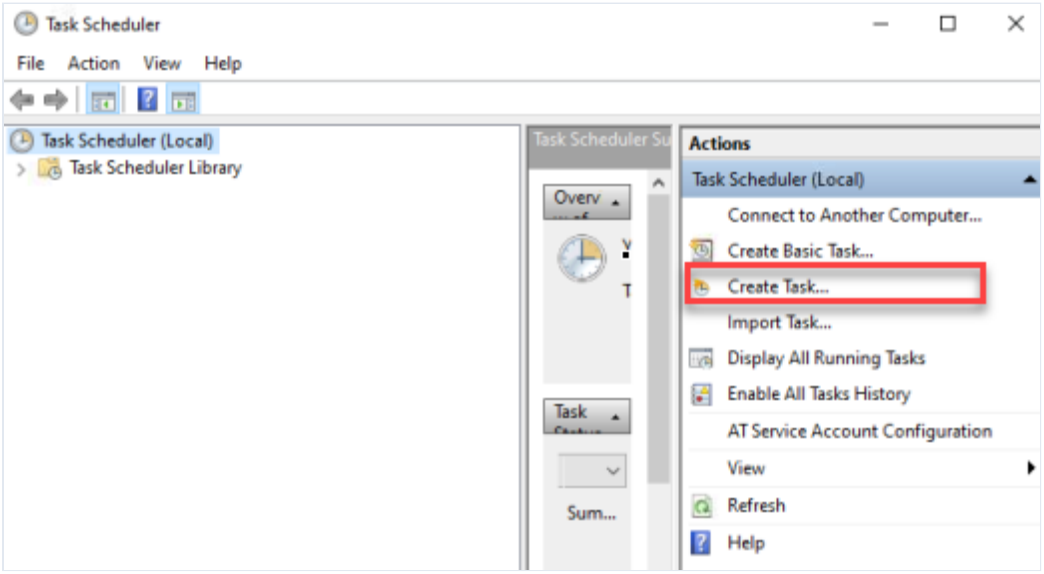
Applicare 9.2 · Updated September 13, 2024 · nginx · **Pending technical review**

Follow the steps below to start Nginx using Task Scheduler.

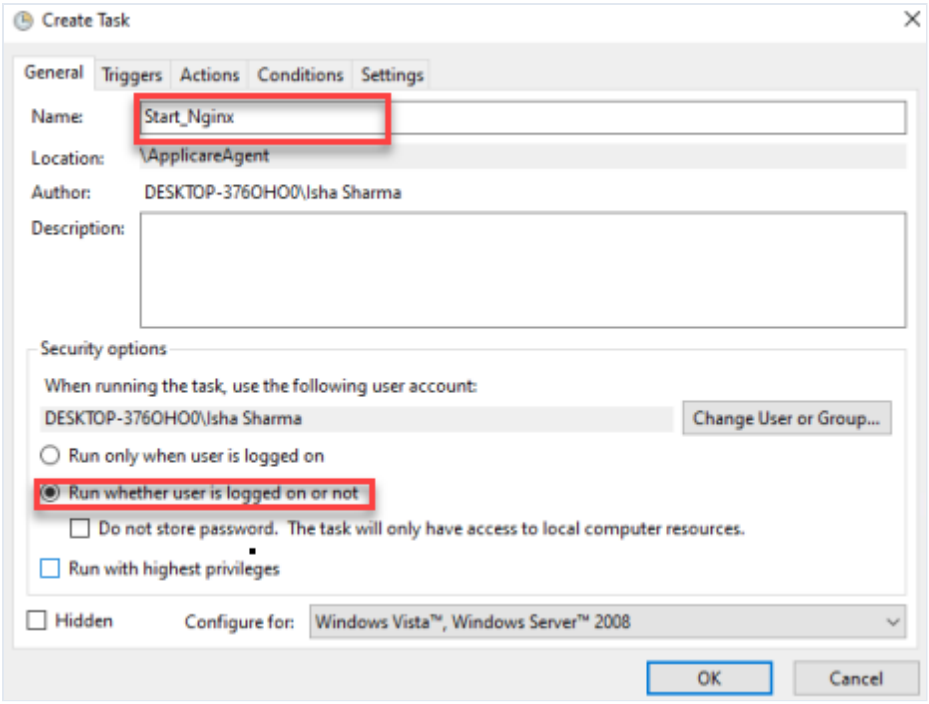
**Steps 1:** Create a **startn.bat** file with the following content in the folder where Nginx is extracted.

```text
start nginx.exe
```

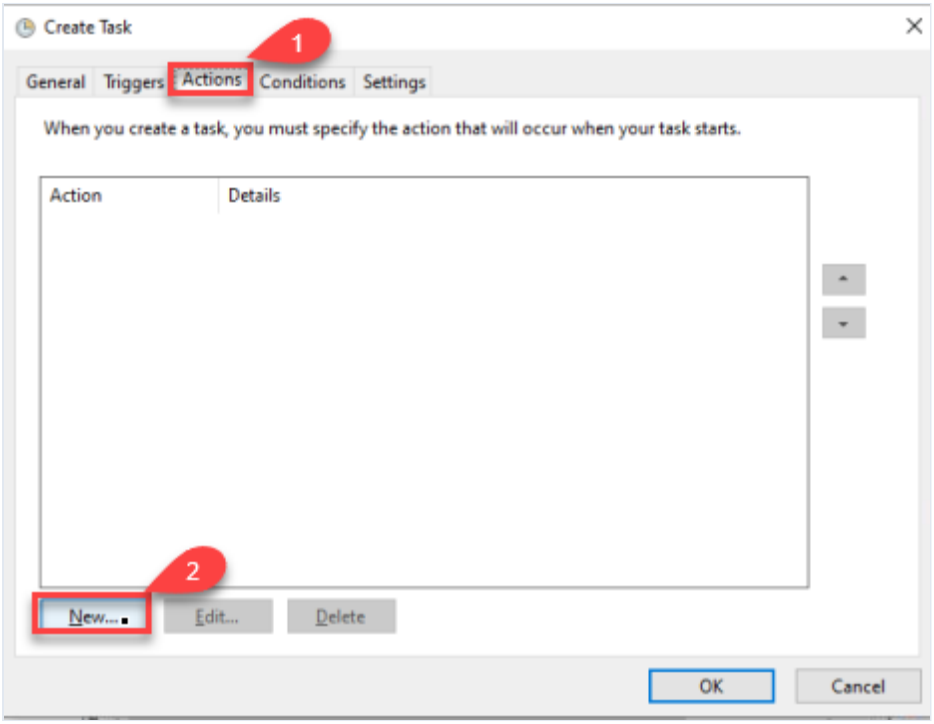
**Steps 2:** Open Task Scheduler and click **Create Task**.




**Steps 3:** Enter a name for the task and select the **Run whether the user is logged on or not**.



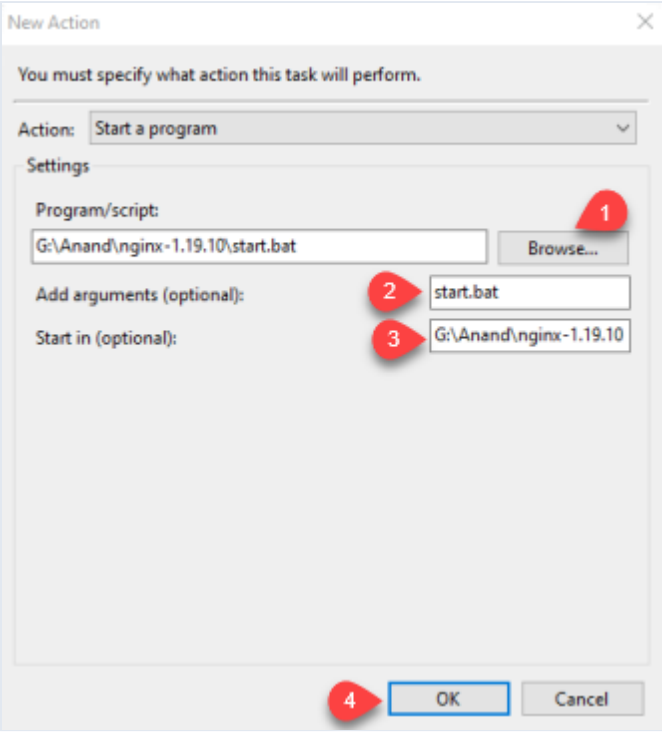

**Steps 4:** Go to the **Action** tab click the **New** button.




**Steps 5:** Click the Browse button to select the **startn.bat** file. Enter the values in the **Add arguments** and **start in** fields, then click **OK**.

**Add arguments:** startn.bat

**start in: <**Nginx_extracted_directory>




**Steps 6:** Finally, click **OK,** enter the **user credential** and save the task.

To stop Nginx, navigate to the directory where Nginx is extracted and execute the following command.

```
TEXT
nginx –s stop
```

## Monitoring with Applicare

CONFIGURATION GUIDES › WEB SERVERS

# Monitoring Applications Hosted on IIS with Applicare

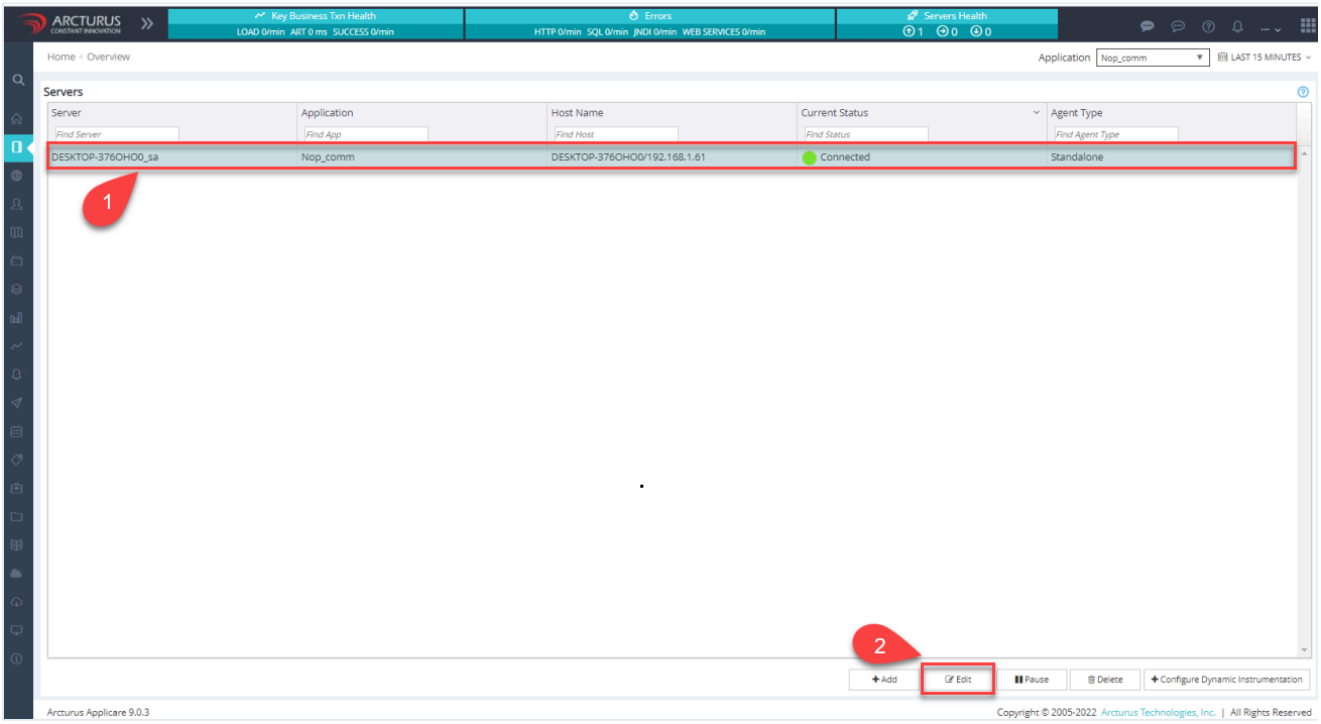
Applicare 9.2 · Updated September 13, 2024 · iis, windows · **Pending technical review**

1. Follow the steps for **Installing Applicare SingleAgent.**

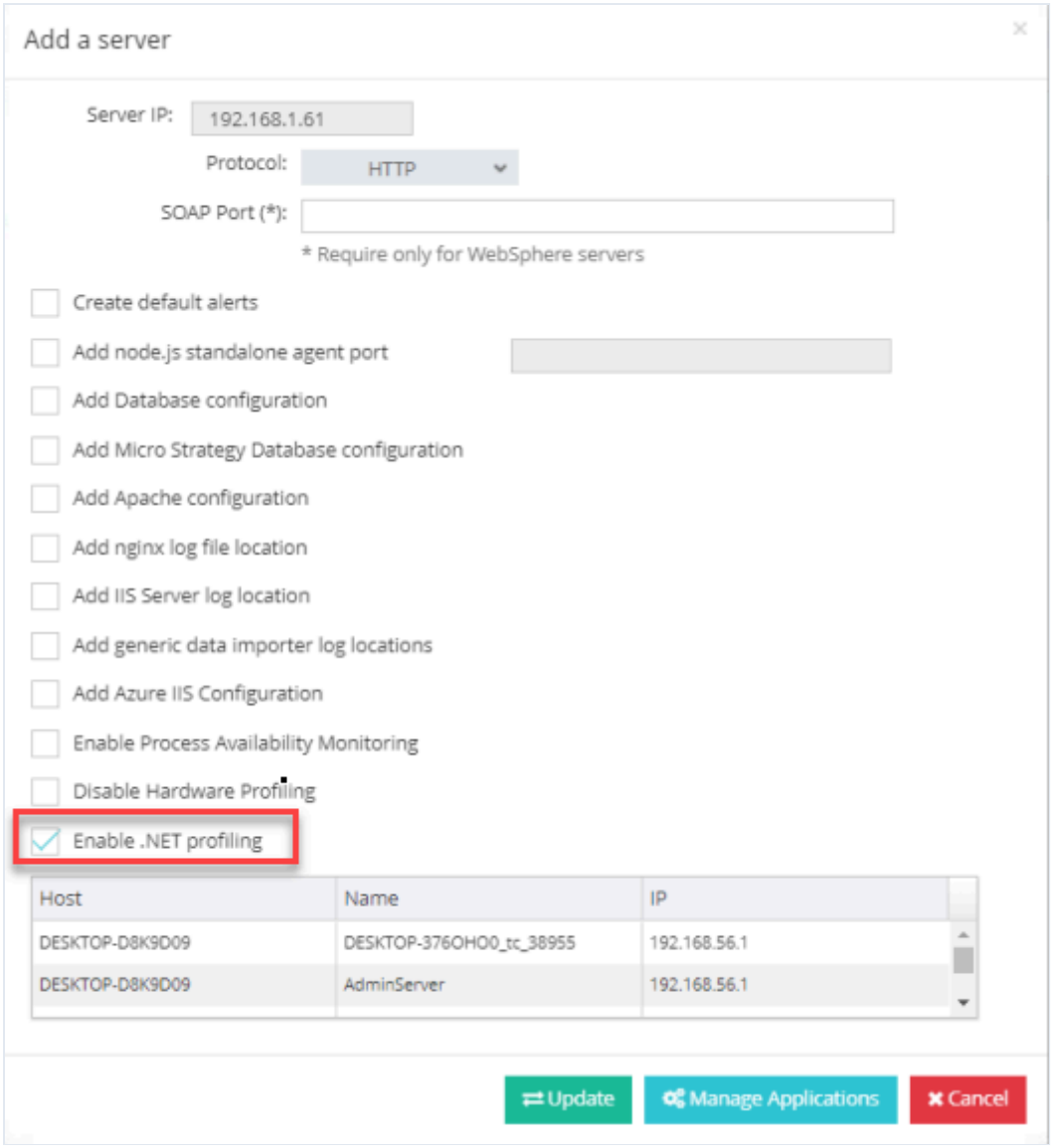
2. Navigate to the folder where the ApplicareSingleAgent.zip was extracted from and then run **startAgent.bat** in administrator mode.

3. Login to the Applicare controller, Navigate to the overview screen, and check if the agents appear. If needed, add the app name to that agent.

4. Click the agent and then the edit button.




5. Click the edit button to open the "Add Server" popup. In the popup, check the "Enable .NET Profiling" checkbox.




Monitoring with Applicare

CONFIGURATION GUIDES › DATABASES

# Automate Daily Backups of Settings Tables Records to an Archive Database

Applicare 9.2 · Updated February 12, 2026 · mysql · **Pending technical review**

**Step 1:** Before backing up the database, create the **applicarearchive** schema, execute the applicare-related sql's and ensure all tables are created.

**Step 2:** Connect to the database via **MySQL Workbench**, open a new SQL query tab, and execute the following command.

NOTE: Replace the <targetDB> placeholder with actual backup database name before running the query.

YAML

```
DELIMITER //
DROP PROCEDURE IF EXISTS applicarearchive.sp_MasterArchive_Settings //
CREATE PROCEDURE applicarearchive.sp_MasterArchive_Settings()
BEGIN
  DECLARE v_done INT DEFAULT FALSE;
  DECLARE v_table_name VARCHAR(255);
  DECLARE v_source_db VARCHAR(100) DEFAULT '<targetDB>';
  DECLARE v_backup_db VARCHAR(100) DEFAULT 'applicarearchive';
  DECLARE v_columns TEXT;

  -- Full Table List
  DECLARE table_cursor CURSOR FOR
      SELECT tname FROM (
          SELECT 'mg_dash_config' AS tname UNION SELECT 'mg_dash_exclude_api' UNION SELECT
'mg_dash_property' UNION
          SELECT 'server' UNION SELECT 'application' UNION SELECT 'settings' UNION SELECT
'user_settings' UNION
          SELECT 'configs_modified_time' UNION SELECT 'aop_config' UNION SELECT
'op_center_config' UNION
          SELECT 'eum_url' UNION SELECT 'monitor_config' UNION SELECT 'btm_txn_settings'
UNION
          SELECT 'business_transaction' UNION SELECT 'web_transaction' UNION SELECT
'java_transaction' UNION
          SELECT 'processes_to_monitor' UNION SELECT 'lamaconfig' UNION SELECT
'lamaconfig_apps' UNION
          SELECT 'lamaconfig_snmpapps' UNION SELECT 'lama_errors' UNION SELECT
'lama_holidays' UNION
          SELECT 'apiconfig' UNION SELECT 'api_threshold' UNION SELECT 'api_exclude_api'
UNION
          SELECT 'api_count_alert_config' UNION SELECT 'mbean_prop_identifier' UNION
          SELECT 'runtime_mbean_properties' UNION SELECT 'runtime_mbean_types' UNION
          SELECT 'mbean_prop_persisted' UNION SELECT 'alert_definitions' UNION SELECT
'reports_schedule' UNION
          SELECT 'reports_scheduler' UNION SELECT 'log_monitor' UNION SELECT 'log_alerts'
UNION
          SELECT 'log_file' UNION SELECT 'log_patterns' UNION SELECT 'login_stat' UNION
          SELECT 'user_actions' UNION SELECT 'user_applications' UNION SELECT 'user_roles'
UNION
          SELECT 'user_subscription' UNION SELECT 'users' UNION SELECT 'users_login_info'
UNION
          SELECT 'ldap_user' UNION SELECT 'ldap_user_applications' UNION SELECT
'ldap_user_role' UNION
          SELECT 'single_sign_user' UNION SELECT 'single_sign_user_applications' UNION
          SELECT 'single_sign_user_role' UNION SELECT 'server_availability_config' UNION
```

```
          SELECT 'server_details' UNION SELECT 'server_domain' UNION SELECT 'session_info'
UNION
          SELECT 'kubernetes_config' UNION SELECT 'aws_user'
      ) mapping;

  DECLARE CONTINUE HANDLER FOR NOT FOUND SET v_done = TRUE;
  -- Ensure Log table exists
  CREATE TABLE IF NOT EXISTS applicarearchive.archive_log (
      id INT AUTO_INCREMENT PRIMARY KEY,
      table_name VARCHAR(255),
      rows_moved INT,
      sync_time TIMESTAMP DEFAULT CURRENT_TIMESTAMP,
      status VARCHAR(255)
  );
  SET FOREIGN_KEY_CHECKS = 0;
  OPEN table_cursor;
  read_loop: LOOP
      FETCH table_cursor INTO v_table_name;
      IF v_done THEN LEAVE read_loop; END IF;
      -- RESET columns variable for each loop
      SET v_columns = NULL;
      -- FIND MATCHING COLUMNS (Using LOWER for maximum compatibility)
      SELECT GROUP_CONCAT(CONCAT('`', src.COLUMN_NAME, '`')) INTO v_columns
      FROM information_schema.columns src
      WHERE src.table_schema = v_source_db
        AND LOWER(src.table_name) = LOWER(v_table_name)
        AND src.COLUMN_NAME IN (
            SELECT COLUMN_NAME
            FROM information_schema.columns
            WHERE table_schema = v_backup_db
              AND LOWER(table_name) = LOWER(v_table_name)
        );
      IF v_columns IS NOT NULL AND v_columns != '' THEN
          -- 1. TRUNCATE archive
          SET @truncate_sql = CONCAT('TRUNCATE TABLE `', v_backup_db, '`.`', v_table_name,
'`');
          PREPARE t_stmt FROM @truncate_sql;
          EXECUTE t_stmt;
          DEALLOCATE PREPARE t_stmt;
          -- 2. INSERT fresh data
          SET @move_sql = CONCAT(
              'INSERT INTO `', v_backup_db, '`.`', v_table_name, '` (', v_columns, ') ',
              ' SELECT ', v_columns, ' FROM `', v_source_db, '`.`', v_table_name, '`'
          );
          PREPARE m_stmt FROM @move_sql;
          EXECUTE m_stmt;
```

```
            SET @rows_affected = ROW_COUNT();
            DEALLOCATE PREPARE m_stmt;
            INSERT INTO applicarearchive.archive_log (table_name, rows_moved, status)
            VALUES (v_table_name, @rows_affected, 'SUCCESS');
        ELSE
            -- DETAILED ERROR LOGGING
            INSERT INTO applicarearchive.archive_log (table_name, rows_moved, status)
            VALUES (v_table_name, 0, 'FAIL: Could not find matching table/columns in Archive');
        END IF;
    END LOOP;
    CLOSE table_cursor;
    SET FOREIGN_KEY_CHECKS = 1;
END //
DELIMITER ;
```

NOTE: The query above only backs up data from the settings tables, rather than the entire database.

**Step 3:** Run the query below to enable the MySQL Event Scheduler and schedule the **sp_BatchArchiveYesterday** procedure to run daily at 1:00 AM.

```
TEXT
SET GLOBAL event_scheduler = ON;
DELIMITER //
DROP EVENT IF EXISTS applicarearchive.setting_table_daily_archive_at_1am; //
CREATE EVENT applicarearchive.setting_table_daily_archive_at_1am
ON SCHEDULE EVERY 1 DAY
STARTS (CURRENT_DATE + INTERVAL 1 DAY + INTERVAL 1 HOUR)
DO
  BEGIN
    TRUNCATE TABLE applicarearchive.archive_log;
    CALL applicarearchive.sp_MasterArchive_Settings();
  END //

DELIMITER ;
```

To modify the scheduled time, first execute the query below to drop the existing event, then re-create it with your desired schedule.

```
TEXT
DROP EVENT IF EXISTS applicarearchivesettings.daily_archive_at_1am;
```

To change the time to 8:00 PM, We need to adjust the `INTERVAL` in the `STARTS` clause. Since MySQL uses a 24-hour format, 8:00 PM is 20 hours.

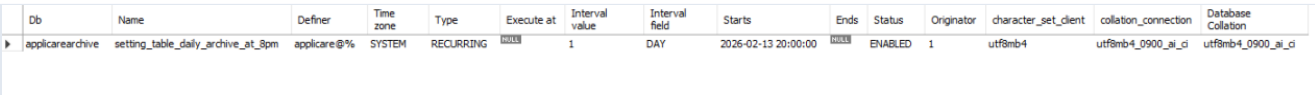
**E.g.**

```
TEXT
SET GLOBAL event_scheduler = ON;
DELIMITER //
DROP EVENT IF EXISTS applicarearchive.setting_table_daily_archive_at_8pm //
CREATE EVENT applicarearchive.setting_table_daily_archive_at_8pm
ON SCHEDULE EVERY 1 DAY
STARTS (CURRENT_DATE + INTERVAL 1 DAY + INTERVAL 20 HOUR)
DO
  BEGIN
    TRUNCATE TABLE applicarearchive.archive_log;
    CALL applicarearchive.sp_MasterArchive_Settings();
  END //

DELIMITER ;
```

**NOTE: Execute the below query to confirm the event is saved in the system.**

```
TEXT
SHOW EVENTS FROM applicarearchive;
```



| Db | Name | Definer | Time zone | Type | Execute at | Interval value | Interval field | Starts | Ends | Status | Originator | character_set_client | collation_connection | Database Collation |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| applicarearchive | setting_table_daily_archive_at_8pm | applicare@% | SYSTEM | RECURRING | NULL | 1 | DAY | 2026-02-13 20:00:00 | NULL | ENABLED | 1 | utf8mb4 | utf8mb4_0900_ai_ci | utf8mb4_0900_ai_ci |

**Step 4:** We need to create the `archive_log` table in your archive database. This table will record which table was processed, how many rows were moved, and exactly when it finished.

```
TEXT
CREATE TABLE IF NOT EXISTS applicarearchive.archive_log (
    id INT AUTO_INCREMENT PRIMARY KEY,
    table_name VARCHAR(255),
    rows_moved INT,
    finish_time TIMESTAMP DEFAULT CURRENT_TIMESTAMP,
    status VARCHAR(255)
);
```

## Explanation of the Columns:

- **id**: A unique number for every entry.
- **table_name**: Records the table name (and the column name used, e.g., `oshistory_detail [dt]`).
- **rows_moved**: The number of records successfully transferred for "Yesterday".
- **finish_time**: The exact date and time the backup for that specific table completed.

- **status:** The `status` column is your best friend. If a table fails because of a schema change (like a missing column in the archive), you will see "FAIL: Could not find matching table/columns" immediately.

**Step 5**: Execute query to see the results. It will show you the most recent backups at the top.

```
TEXT
SELECT * FROM applicarearchive.archive_log ORDER BY finish_time DESC;
```



| id | table_name | rows_moved | finish_time | status |
|---|---|---|---|---|
| 10 | lama_db_latency (via dt) | 0 | 2026-02-12 13:24:25 | NO NEW DATA |
| 18 | lama_networks_avg (via dt) | 0 | 2026-02-12 13:24:25 | NO NEW DATA |
| 17 | lama_network_metrics (via recorded) | 0 | 2026-02-12 13:24:25 | NO NEW DATA |
| 16 | lama_holidays (via dt) | 0 | 2026-02-12 13:24:25 | NO NEW DATA |
| 15 | lama_hardware_metrics (via recorded) | 0 | 2026-02-12 13:24:25 | NO NEW DATA |
| 14 | lama_errors (via excep_at) | 0 | 2026-02-12 13:24:25 | NO NEW DATA |
| 13 | lama_disk_details (via dt) | 0 | 2026-02-12 13:24:25 | NO NEW DATA |
| 12 | lama_db_status (via dt) | 0 | 2026-02-12 13:24:25 | NO NEW DATA |
| 11 | lama_db_queue (via dt) | 0 | 2026-02-12 13:24:25 | NO NEW DATA |
| 1 | intellitrace_errors (via excep_at) | 0 | 2026-02-12 13:24:25 | NO NEW DATA |
| 9 | lama_db_bandwidth (via dt) | 0 | 2026-02-12 13:24:25 | NO NEW DATA |
| 8 | lama_database_metrics (via recorded) | 0 | 2026-02-12 13:24:25 | NO NEW DATA |
| 7 | lama_application_metrics (via recorded) | 0 | 2026-02-12 13:24:25 | NO NEW DATA |
| 6 | int_profiling_hist (via from_time) | 0 | 2026-02-12 13:24:25 | NO NEW DATA |
| 5 | business_txn_avg (via dt) | 0 | 2026-02-12 13:24:25 | NO NEW DATA |
| 4 | monitor_data (via dt) | 0 | 2026-02-12 13:24:25 | NO NEW DATA |

archive_log 21 ×

CONFIGURATION GUIDES › DATABASES

# Automate Daily Batch Backups of few Tables Records to an Archive Database

Applicare 9.2 · Updated March 27, 2026 · mysql · **Pending technical review**

**Step 1:** Before backing up the database, create the **applicarearchive** schema, execute the applicare-related sql's and ensure all tables are created.

**Step 2:** Connect to the database via **MySQL Workbench**, open a new SQL query tab, and execute the following command.

NOTE: Replace the <targetDB> placeholder with actual backup database name before running the query.

YAML

```
DELIMITER //
DROP PROCEDURE IF EXISTS applicarearchive.sp_MasterArchive_Int_Profiling //
CREATE PROCEDURE applicarearchive.sp_MasterArchive_Int_Profiling()
BEGIN
   DECLARE v_done INT DEFAULT FALSE;
   DECLARE v_table_name VARCHAR(255);
   DECLARE v_id_col VARCHAR(100);
   DECLARE v_time_col VARCHAR(100);
   DECLARE v_source_db VARCHAR(100) DEFAULT '<targetDB>';
   DECLARE v_backup_db VARCHAR(100) DEFAULT 'applicarearchive';

   -- DATA MAP for selected tables only
   DECLARE table_cursor CURSOR FOR
       SELECT * FROM (
           SELECT 'intellitrace_errors' as t, 'id' as i, 'excep_at' as c UNION
           SELECT 'alert_queue', 'id', 'created_time' UNION
           SELECT 'int_profiling_hist', 'rl', 'from_time'
       ) mapping;

   DECLARE CONTINUE HANDLER FOR NOT FOUND SET v_done = TRUE;

   -- Ensure custom log table exists
   CREATE TABLE IF NOT EXISTS applicarearchive.archive_logcustom (
       id INT AUTO_INCREMENT PRIMARY KEY,
       table_name VARCHAR(255),
       rows_moved INT,
       sync_time TIMESTAMP DEFAULT CURRENT_TIMESTAMP,
       status VARCHAR(255)
   );

   -- Target exactly 31 days ago (30 days before yesterday)
   SET @start_val = CONCAT(CURDATE() - INTERVAL 38 DAY, ' 00:00:00');
   SET @end_val   = CONCAT(CURDATE() - INTERVAL 38 DAY, ' 23:59:59');

   OPEN table_cursor;
   read_loop: LOOP
       FETCH table_cursor INTO v_table_name, v_id_col, v_time_col;
       IF v_done THEN LEAVE read_loop; END IF;

       SET @rows_affected = 1;
       SET @total_moved = 0;

       -- Move data in batches of 10,000 to prevent lag/locking
       WHILE @rows_affected > 0 DO
```

```
            SET @move_sql = CONCAT(
                'INSERT INTO ', v_backup_db, '.', v_table_name,
                ' SELECT * FROM ', v_source_db, '.', v_table_name,
                ' WHERE ', v_time_col, ' BETWEEN ? AND ? ',
                ' AND ', v_id_col, ' NOT IN (SELECT ', v_id_col, ' FROM ', v_backup_db, '.',
v_table_name, ') ',
                ' LIMIT 10000'
            );
            PREPARE m_stmt FROM @move_sql;
            EXECUTE m_stmt USING @start_val, @end_val;
            SET @rows_affected = ROW_COUNT();
            SET @total_moved = @total_moved + GREATEST(0, @rows_affected);
            DEALLOCATE PREPARE m_stmt;
        END WHILE;

        -- Log result into custom log table
        INSERT INTO applicarearchive.archive_logcustom (table_name, rows_moved, status)
        VALUES (
            CONCAT(v_table_name, ' (via ', v_time_col, ')'),
            @total_moved,
            IF(@total_moved > 0, 'SUCCESS', 'NO NEW DATA')
        );
    END LOOP;
    CLOSE table_cursor;
END //
DELIMITER ;
```

NOTE: The query above only backs up data from the few tables, rather than the entire database.

**If you want to run the above stored procedure manually, execute the query below.**

```
TEXT
CALL applicarearchive.sp_MasterArchive_Int_Profiling();
```

**Step 3:** Run the query below to enable the MySQL Event Scheduler and schedule the **sp_BatchArchiveYesterday** procedure to run daily at 1:00 AM.

```
TEXT
SET GLOBAL event_scheduler = ON;
DELIMITER //
DROP EVENT IF EXISTS applicarearchive.daily_archive_at_1am //
CREATE EVENT applicarearchive.daily_archive_at_1am
ON SCHEDULE EVERY 1 DAY
STARTS (CURRENT_DATE + INTERVAL 1 DAY + INTERVAL 1 HOUR)
DO
  BEGIN
    TRUNCATE TABLE applicarearchive.archive_log;
    CALL applicarearchive.sp_MasterArchive_Final();
  END //

DELIMITER ;
```

To modify the scheduled time, first execute the query below to drop the existing event, then re-create it with your desired schedule.

```
TEXT
DROP EVENT IF EXISTS applicarearchive.daily_archive_at_1am;
```

To change the time to 8:00 PM, We need to adjust the `INTERVAL` in the `STARTS` clause. Since MySQL uses a 24-hour format, 8:00 PM is 20 hours.

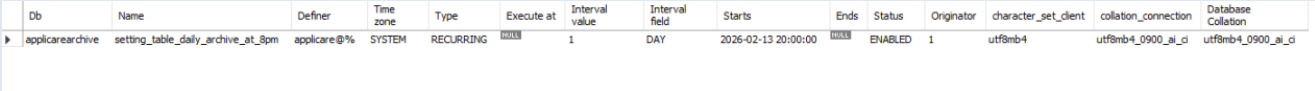
**e.g.**

```
TEXT
SET GLOBAL event_scheduler = ON;
DELIMITER //
DROP EVENT IF EXISTS applicarearchive.daily_archive_at_8pm //
CREATE EVENT applicarearchive.daily_archive_at_8pm
ON SCHEDULE EVERY 1 DAY
STARTS (CURRENT_DATE + INTERVAL 1 DAY + INTERVAL 20 HOUR)
DO
  BEGIN
    TRUNCATE TABLE applicarearchive.archive_log;
    CALL applicarearchive.sp_MasterArchive_Final();
  END //

DELIMITER ;
```

**NOTE: Execute the below query to confirm the event is saved in the system.**

```
TEXT
SHOW EVENTS FROM applicarearchive;
```



| Db | Name | Definer | Time zone | Type | Execute at | Interval value | Interval field | Starts | Ends | Status | Originator | character_set_client | collation_connection | Database Collation |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| applicarearchive | setting_table_daily_archive_at_8pm | applicare@% | SYSTEM | RECURRING | NULL | 1 | DAY | 2026-02-13 20:00:00 | NULL | ENABLED | 1 | utf8mb4 | utf8mb4_0900_ai_ci | utf8mb4_0900_ai_ci |

**Step 4:** We need to create the `archive_log` table in your archive database. This table will record which table was processed, how many rows were moved, and exactly when it finished.

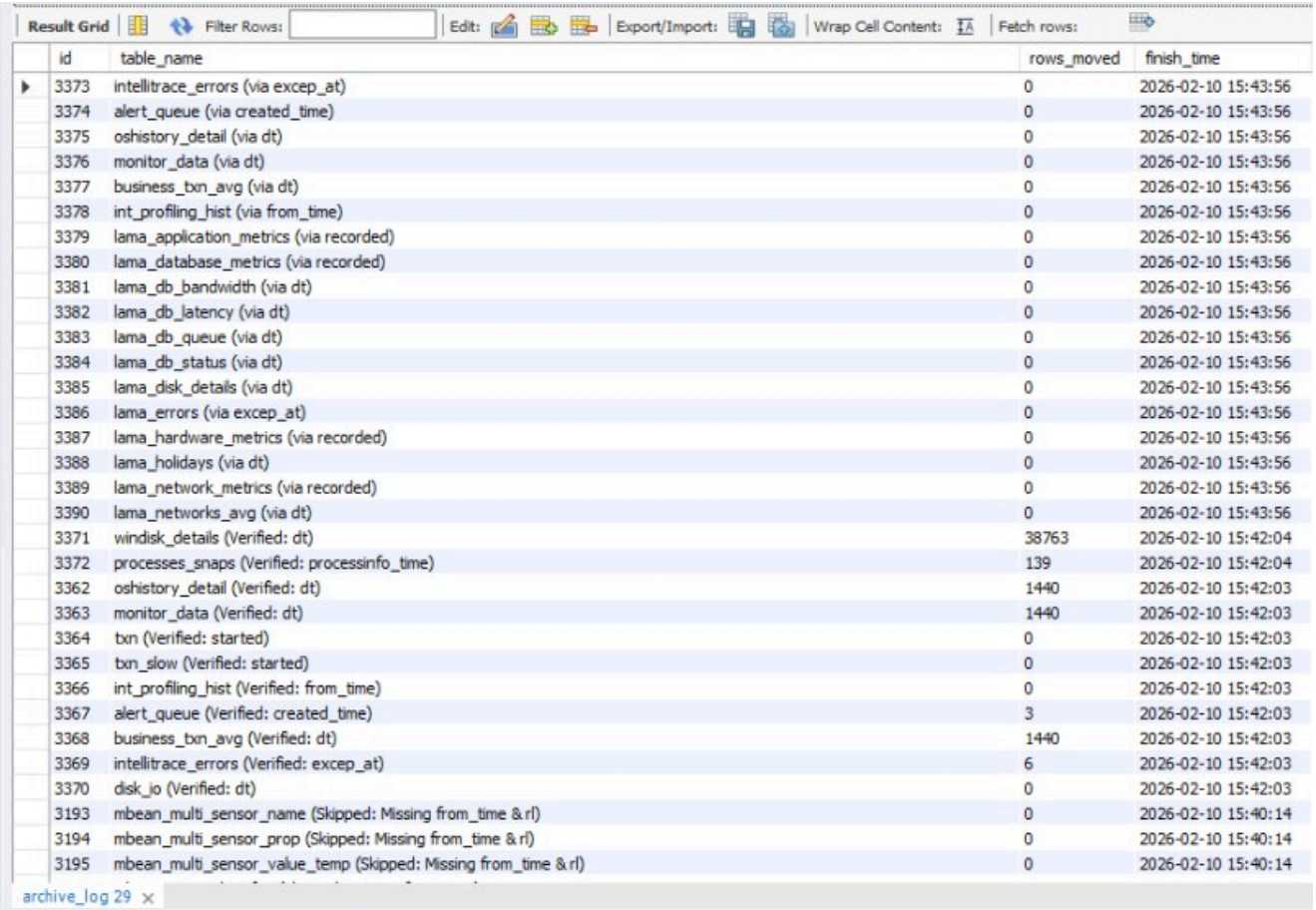
```
TEXT
CREATE TABLE IF NOT EXISTS applicarearchive.archive_logcustom (
    id INT AUTO_INCREMENT PRIMARY KEY,
    table_name VARCHAR(255),
    rows_moved INT,
    finish_time TIMESTAMP DEFAULT CURRENT_TIMESTAMP,
    status VARCHAR(255)
);
```

## Explanation of the Columns:

- **id**: A unique number for every entry.
- **table_name**: Records the table name (and the column name used, e.g., `oshistory_detail [dt]`).
- **rows_moved**: The number of records successfully transferred for "Yesterday".
- **finish_time**: The exact date and time the backup for that specific table completed.

**Step 5**: Execute query to see the results. It will show you the most recent backups at the top.

```
TEXT
SELECT * FROM applicarearchive.archive_log ORDER BY finish_time DESC;
```



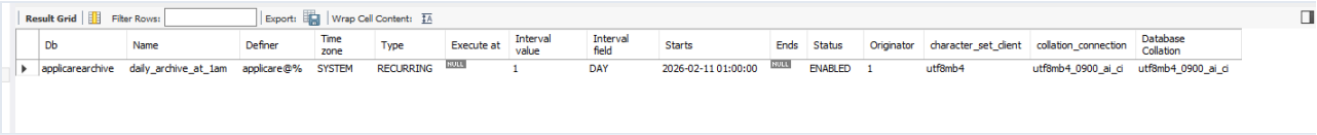
Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content: | Fetch rows:

| id | table_name | rows_moved | finish_time |
|---|---|---|---|
| 3373 | intellitrace_errors (via excep_at) | 0 | 2026-02-10 15:43:56 |
| 3374 | alert_queue (via created_time) | 0 | 2026-02-10 15:43:56 |
| 3375 | oshistory_detail (via dt) | 0 | 2026-02-10 15:43:56 |
| 3376 | monitor_data (via dt) | 0 | 2026-02-10 15:43:56 |
| 3377 | business_txn_avg (via dt) | 0 | 2026-02-10 15:43:56 |
| 3378 | int_profiling_hist (via from_time) | 0 | 2026-02-10 15:43:56 |
| 3379 | lama_application_metrics (via recorded) | 0 | 2026-02-10 15:43:56 |
| 3380 | lama_database_metrics (via recorded) | 0 | 2026-02-10 15:43:56 |
| 3381 | lama_db_bandwidth (via dt) | 0 | 2026-02-10 15:43:56 |
| 3382 | lama_db_latency (via dt) | 0 | 2026-02-10 15:43:56 |
| 3383 | lama_db_queue (via dt) | 0 | 2026-02-10 15:43:56 |
| 3384 | lama_db_status (via dt) | 0 | 2026-02-10 15:43:56 |
| 3385 | lama_disk_details (via dt) | 0 | 2026-02-10 15:43:56 |
| 3386 | lama_errors (via excep_at) | 0 | 2026-02-10 15:43:56 |
| 3387 | lama_hardware_metrics (via recorded) | 0 | 2026-02-10 15:43:56 |
| 3388 | lama_holidays (via dt) | 0 | 2026-02-10 15:43:56 |
| 3389 | lama_network_metrics (via recorded) | 0 | 2026-02-10 15:43:56 |
| 3390 | lama_networks_avg (via dt) | 0 | 2026-02-10 15:43:56 |
| 3371 | windisk_details (Verified: dt) | 38763 | 2026-02-10 15:42:04 |
| 3372 | processes_snaps (Verified: processinfo_time) | 139 | 2026-02-10 15:42:04 |
| 3362 | oshistory_detail (Verified: dt) | 1440 | 2026-02-10 15:42:03 |
| 3363 | monitor_data (Verified: dt) | 1440 | 2026-02-10 15:42:03 |
| 3364 | txn (Verified: started) | 0 | 2026-02-10 15:42:03 |
| 3365 | txn_slow (Verified: started) | 0 | 2026-02-10 15:42:03 |
| 3366 | int_profiling_hist (Verified: from_time) | 0 | 2026-02-10 15:42:03 |
| 3367 | alert_queue (Verified: created_time) | 3 | 2026-02-10 15:42:03 |
| 3368 | business_txn_avg (Verified: dt) | 1440 | 2026-02-10 15:42:03 |
| 3369 | intellitrace_errors (Verified: excep_at) | 6 | 2026-02-10 15:42:03 |
| 3370 | disk_io (Verified: dt) | 0 | 2026-02-10 15:42:03 |
| 3193 | mbean_multi_sensor_name (Skipped: Missing from_time &rl) | 0 | 2026-02-10 15:40:14 |
| 3194 | mbean_multi_sensor_prop (Skipped: Missing from_time &rl) | 0 | 2026-02-10 15:40:14 |
| 3195 | mbean_multi_sensor_value_temp (Skipped: Missing from_time &rl) | 0 | 2026-02-10 15:40:14 |

archive_log 29

**Step 6:** Use this query to list all active events within the **applicarearchive** schema.

```text
SHOW EVENTS FROM applicarearchive;
```



Result Grid | Filter Rows: | Export: | Wrap Cell Content:

| Db | Name | Definer | Time zone | Type | Execute at | Interval value | Interval field | Starts | Ends | Status | Originator | character_set_client | collation_connection | Database Collation |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| applicarearchive | daily_archive_at_1am | applicare@% | SYSTEM | RECURRING | NULL | 1 | DAY | 2026-02-11 01:00:00 | NULL | ENABLED | 1 | utf8mb4 | utf8mb4_0900_ai_ci | utf8mb4_0900_ai_ci |

CONFIGURATION GUIDES › DATABASES

# Automate Daily Batch Backups of Init profiling hist Table Records to an Archive Database

Applicare 9.2 · Updated February 10, 2026 · mysql · **Pending technical review**

**Step 1:** Before backing up the database, create the **applicarearchive** schema, execute the applicare-related sql's and ensure all tables are created.

**Step 2:** Connect to the database via **MySQL Workbench**, open a new SQL query tab, and execute the following command.

NOTE: Replace the <targetDB> placeholder with actual backup database name before running the query.

```text
DELIMITER //

CREATE PROCEDURE applicarearchive.sp_BatchArchiveYesterday()
BEGIN
   DECLARE rows_affected INT DEFAULT 1;

   SET @yesterday_start = CONCAT(CURDATE() - INTERVAL 1 DAY, ' 00:00:00');
   SET @yesterday_end   = CONCAT(CURDATE() - INTERVAL 1 DAY, ' 23:59:59');

   SET @sourcedb = '<targetDB>';
   SET @backupdb  = 'applicarearchive';
   WHILE rows_affected > 0 DO

       SET @sql_query = CONCAT(
           'INSERT INTO ', @backupdb, '.int_profiling_hist ',
           'SELECT * FROM ', @sourcedb, '.int_profiling_hist ',
           'WHERE from_time BETWEEN ? AND ? ',
           'AND rl NOT IN (SELECT rl FROM ', @backupdb, '.int_profiling_hist) ',
           'LIMIT 10000'
       );
       PREPARE stmt FROM @sql_query;
       EXECUTE stmt USING @yesterday_start, @yesterday_end;
       SET rows_affected = ROW_COUNT();
       DEALLOCATE PREPARE stmt;

   END WHILE;
END //
DELIMITER ;
```

NOTE: The query above only backs up data from the int_profiling_hist table, rather than the entire database

**Safe Data Duplication:** This query performs a "Safe Copy" that mirrors yesterday's data into the archive without removing or altering the original records

**Batch Load Management:** It processes records in chunks of 10,000 to maintain low CPU usage and prevent the database from locking up during the transfer.

**Automated Time Filtering:** The script automatically calculates the 24-hour range for "Yesterday," ensuring only the correct historical data is captured each time it runs.

**Duplicate Prevention:** It uses a unique identifier check ( `rl` ) to ensure that even if the script runs twice, it won't create double entries in the archive.

**Dynamic Table Routing:** Through the use of Prepared Statements, the script can dynamically target different databases without needing manual code changes.

**Step 3:** Run the query below to enable the MySQL Event Scheduler and schedule the **sp_BatchArchiveYesterday** procedure to run daily at 1:00 AM.

```
TEXT
SET GLOBAL event_scheduler = ON;
DROP EVENT IF EXISTS applicarearchive.daily_archive_at_1am;
CREATE EVENT applicarearchive.daily_archive_at_1am
ON SCHEDULE EVERY 1 DAY
STARTS (CURRENT_DATE + INTERVAL 1 DAY + INTERVAL 1 HOUR)
DO
 CALL applicarearchive.sp_BatchArchiveYesterday();
```

To modify the scheduled time, first execute the query below to drop the existing event, then re-create it with your desired schedule.

```
TEXT
DROP EVENT IF EXISTS applicarearchive.daily_archive_at_1am;
```

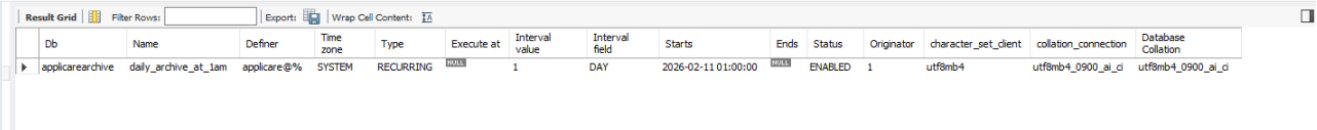
To change the time to 8:00 PM, We need to adjust the `INTERVAL` in the `STARTS` clause. Since MySQL uses a 24-hour format, 8:00 PM is 20 hours.

**e.g.**

```
TEXT
SET GLOBAL event_scheduler = ON;
CREATE EVENT applicarearchive.daily_archive_at_8pm
ON SCHEDULE EVERY 1 DAY
STARTS (CURRENT_DATE + INTERVAL 1 DAY + INTERVAL 20 HOUR)
DO
 CALL applicarearchive.sp_BatchArchiveYesterday();
```

**Step 4:** Use this query to list all active events within the **applicarearchive** schema.

```text
SHOW EVENTS FROM applicarearchive;
```



Result Grid | Filter Rows: | Export: | Wrap Cell Content:

| Db | Name | Definer | Time zone | Type | Execute at | Interval value | Interval field | Starts | Ends | Status | Originator | character_set_client | collation_connection | Database Collation |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| applicarearchive | daily_archive_at_1am | applicare@% | SYSTEM | RECURRING | NULL | 1 | DAY | 2026-02-11 01:00:00 | NULL | ENABLED | 1 | utf8mb4 | utf8mb4_0900_ai_ci | utf8mb4_0900_ai_ci |

CONFIGURATION GUIDES › DATABASES

# Applicare MySQL Database Backup (Windows)

Applicare 9.2 · Updated February 20, 2026 · mysql · **Pending technical review**

**Step 1:** Open command prompt in **administrator mode** on Windows machine. Navigate to the path bin directory where MySQL was installed.

**e.g.** cd C:\Program Files\MySQL\MySQL Server 8.0\bin

**Step 2:** Once in that directory, Please select either option a or b below..

a.) To export a complete applicare database, including both its structure and its data.

```
TEXT
mysqldump.exe –u <Username> –p <database_name> > <Backup_directory>\applicare.sql
```

**e.g.**

```
TEXT
mysqldump.exe –u root –p applicare > C:\Applicare_DB_Backup\applicare.sql
```

```
TEXT
                                                                **(OR)**
```

b.) To export only the data (the INSERT statements) without the CREATE TABLE structures, We need to use the **--no-create-info** argument with mysql backup command.

```
TEXT
mysqldump.exe  –u <username> –p ––no–create–info <destination_db_name>
<Backup_directory>\applicare.sql
```

**e.g.**

```
TEXT
mysqldump.exe  –u root –p ––no–create–info applicare > C:\Applicare_DB_Backup\applicare.sql
```

**Step 3:** After running the command, MySQL will prompt you for a **password**, Enter the password and wait few minutes for the process to complete.

After executing the command, verify that there is SQL file named applicare.sql in backup directory.

To import .sql backup file into another MySQL database, Use the standard mysql command.

**Step 4:** Before running the command, ensure the destination database already exists. If it doesn't, Create the database.

**Step 5:** Open command prompt in **administrator mode** on Windows machine. Navigate to the path bin directory where MySQL was installed.

**e.g.** cd C:\Program Files\MySQL\MySQL Server 8.0\bin

**Step 6:** Once in that directory, execute the following command.

```
TEXT
"C:\Program Files\MySQL\MySQL Server 8.0\bin\mysql.exe" -u [username] -p
[destination_database_name] < "C:\backups\applicare.sql"
```

**e.g.**

```
TEXT
"C:\Program Files\MySQL\MySQL Server 8.0\bin\mysql.exe" -u root -p applicarebackup <
"C:\applicaredb_backup\test_backup_processes\applicaredb.sql"
```

After running the command, MySQL will prompt you for a **password**, Enter the password and wait few minutes for the process to complete.

CONFIGURATION GUIDES › DATABASES

# Set up the Applicare schema in MySQL

Applicare 9.2 · Updated September 13, 2024 · mysql · **Pending technical review**

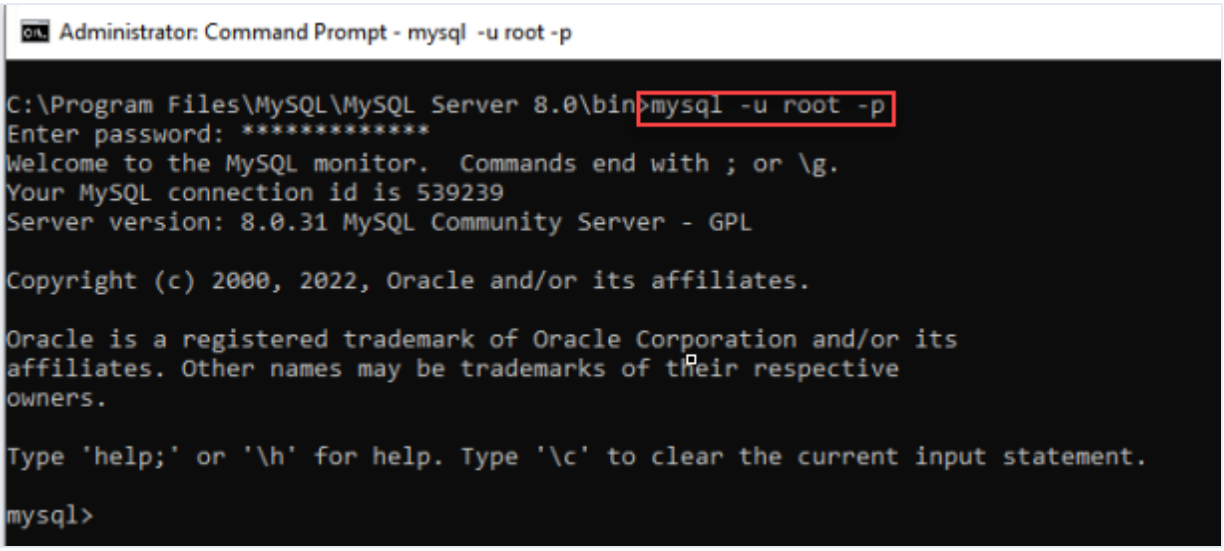
1. Open the command prompt as an administrator then navigate to **MySQL_install_directory/bin** path.

e.g. C:\Program Files\MySQL\MySQL Server 8.0\bin

2. After executing the command below, you will be prompted for a password, Once entered, you will be connected to the MySQL database.

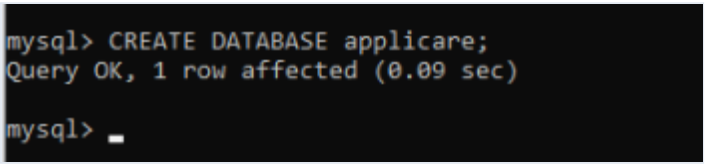
```
TEXT
mysql –u UserName –p
```

UserName - The username you specified during MySQL installation




3. Once connected to the MySQL database, execute the command below to create the schema.

```
TEXT
CREATE DATABASE applicare;
```




4. Executing the command below will display the created database.

```
TEXT
SHOW DATABASES;
```

**Monitoring with Applicare**

CONFIGURATION GUIDES › DATABASES

# MySQL 8 installer for windows

Applicare 9.2 · Updated September 13, 2024 · mysql · **Pending technical review**

**Step 1:** Download the MySQL 8 on below link and install it.

MySQL8

**Step 2:** After installing the MySQL, follow the steps in the below link to change the SQL mode configuration.

SQL_mode

**Step 3:** Follow the steps in link below to create Applicare schema.

create Applicare_schema

**Monitoring with Applicare**

CONFIGURATION GUIDES › DATABASES

# Installing MySQL on Linux

Applicare 9.2 · Updated August 22, 2024 · mysql · **Pending technical review**

## OS: RHEL 9

**Step 1:** Download and add the following **MySQL Yum repository** to install the latest version of MySQL.

```bash
wget https://repo.mysql.com/mysql80-community-release-el8-1.noarch.rpm
```

**Step 2:** After downloading the package for Linux platform, now install it using the following command.

```bash
yum localinstall mysql80-community-release-el8-1.noarch.rpm
```

**Step 3:** You can verify that the MySQL Yum repository has been successfully added by using the following command.

```bash
yum repolist enabled | grep "mysql.*-community.*"
```

**Step 4:** Install the latest version of **MySQL** (currently **8.0**) using the following command.

```bash
yum install mysql-community-server
```

**Step 5:** After successfully installing of MySQL, start and enable the MySQL server with the following commands.

```text
systemctl enable mysqld.service
```

```text
systemctl start mysqld.service
systemctl status mysqld.service
```

**Step 6:** The **MySQL_secure_installation** command helps secure your to MySQL installation by configuring essential settings, such as setting the root password, removing anonymous users and disabling remote root login, and among other tasks.

Use the following command to view the current password before running MySQL secure command.

```
TEXT
grep 'temporary password' /var/log/mysqld.log
```

Once you have the password, you can proceed to run the following command to secure your MySQL installation.

```
TEXT
mysql_secure_installation
```

Enter new Root password, which is your temporary password from a file `/var/log/mysqld.log`.

**Step 7:** Connect to the newly installed MySQL server by providing a username and password.

```
TEXT
mysql –uroot –p
```

**Step 8:** Once the connection is working, execute the **exit** command to exit the MySQL query window.

**Step 9:** To set SQL mode.- **Click here**

Uncomment the following line in my.cnf file to stop bin log file generation in MySQL.

```
TEXT
disable_log_bin
```

## Related articles

Applicare database backup from the Windows to Linux machine.

CONFIGURATION GUIDES › DATABASES

# Configuring SQL Mode for MySQL in Applicare

Applicare 9.2 · Updated October 9, 2024 · mysql · **Pending technical review**

## Windows

**1.** Open **Services** application and **stop the MySQL service**.

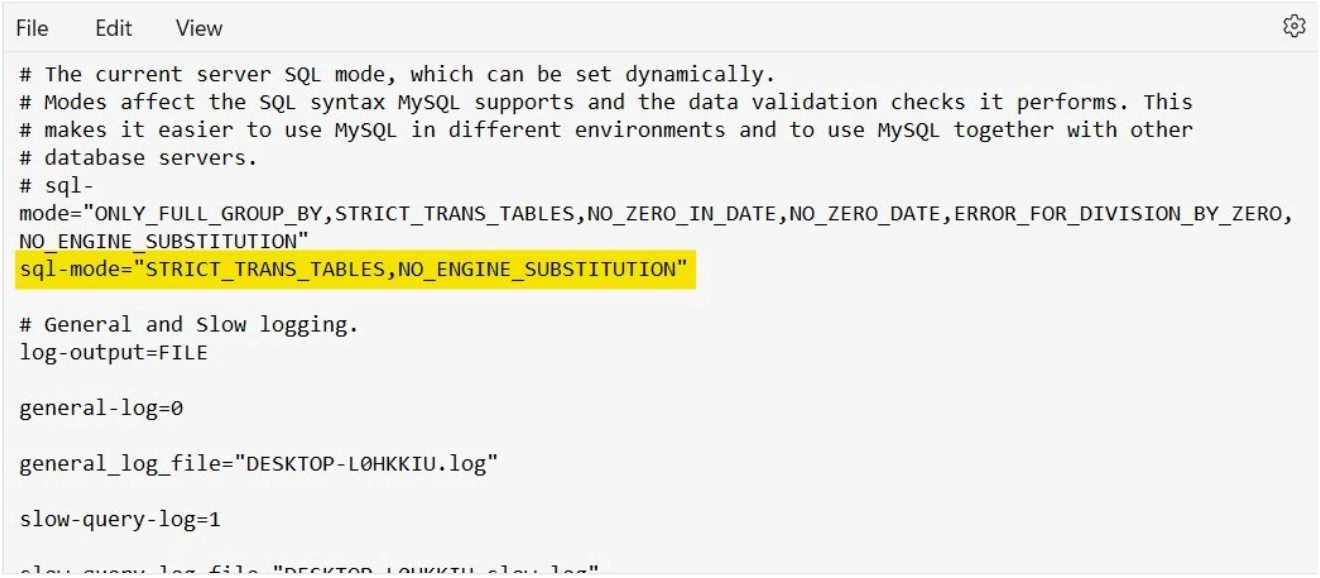
**2.** Navigate to the directory **C:\ProgramData\MySQL\MySQL Server <version>**.

**3.** Create a backup of the current **my.ini** file.

**4.** Launch notepad as an administrator, then go to **File -> Open** and select the **C:\ProgramData\MySQL\MySQL Server <version>\my.ini** file.

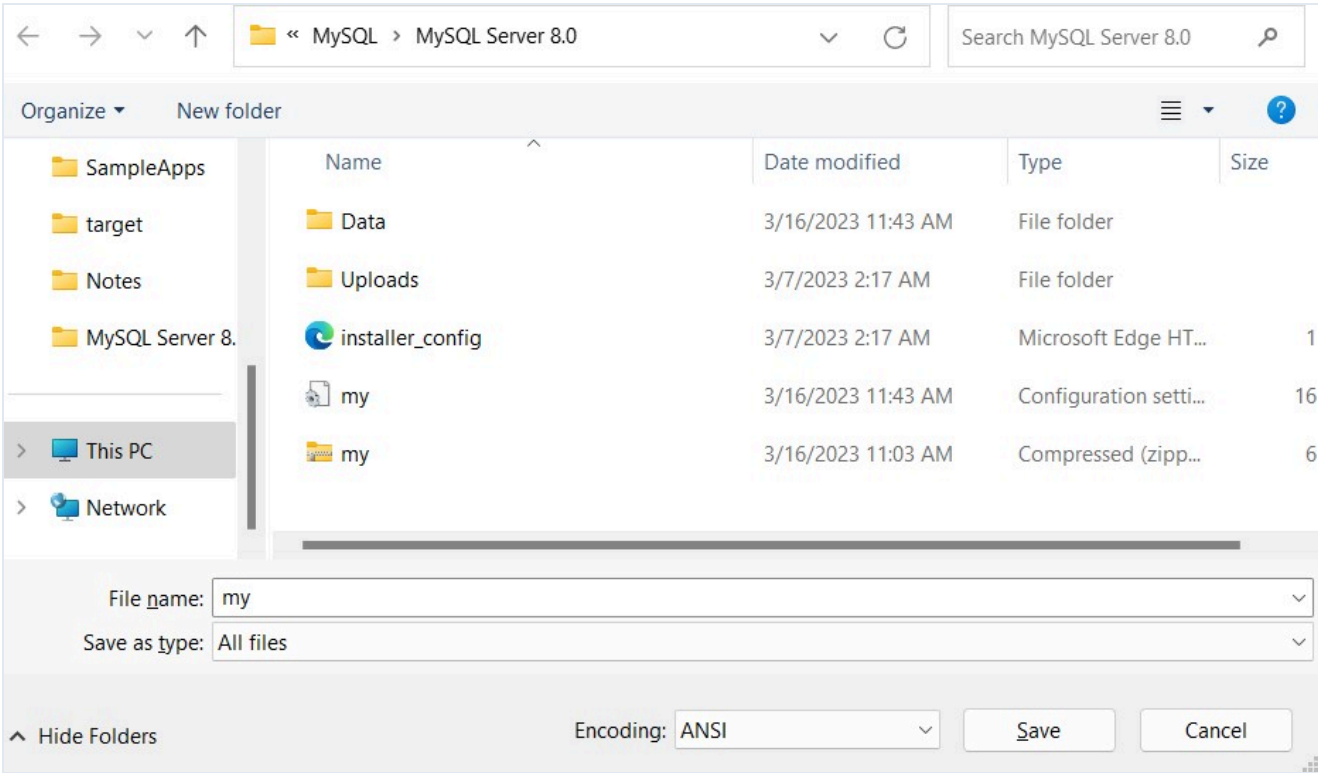
**5. Comment out** the **existing sql-mode line** and add the new **sql-mode line** as specified.

```text
sql-mode="STRICT_TRANS_TABLES,NO_ENGINE_SUBSTITUTION"
```




**6.** Go to **File -> Save as**

- Change **Save as type** to **All files.**
- Change **Encoding** to **ANSI**.
- Click **Save**.




**7.** Open the **Services** application and **start the MySQL service**.

## Linux

**1. Stop the MySQL service**.

**2.** Backup of the existing **my.cnf or my.ini** file.

**3.** Locate the MySQL configuration file: The file is typically named **my.cnf** or **my.ini** and can be found in the MySQL installation directory or the etc directory. Use the following command to search for the file.

```bash
sudo find / -name my.cnf
```

**4.** Open the MySQL configuration file: Once located, open it with a text editor.

**5.** Comment out the existing sql-mode line and add the following sql-mode line.

```text
sql-mode="STRICT_TRANS_TABLES,NO_ENGINE_SUBSTITUTION"
```

```
# The current server SQL mode, which can be set dynamically.
# Modes affect the SQL syntax MySQL supports and the data validation checks it performs. This
# makes it easier to use MySQL in different environments and to use MySQL together with other
# database servers.
# sql-
mode="ONLY_FULL_GROUP_BY,STRICT_TRANS_TABLES,NO_ZERO_IN_DATE,NO_ZERO_DATE,ERROR_FOR_DIVISION_BY_ZERO,
NO_ENGINE_SUBSTITUTION"
sql-mode="STRICT_TRANS_TABLES,NO_ENGINE_SUBSTITUTION"

# General and Slow logging.
log-output=FILE

general-log=0

general_log_file="DESKTOP-L0HKKIU.log"

slow-query-log=1
```

**6.** Save the changes to the configuration and **start** the MySQL services.

In production environments and when the expected data is huge, it is recommended to increase memory for mysql.

**key_buffer_size innodb_buffer_pool_size**

When a separate machine is dedicated to the MySql then we can set these values in the range as below.

| RAM size | `key_buffer_size` | `innodb_buffer_pool_size` |
|---|---|---|
| 16GB | 2GB | 12GB |
| 32GB | 4GB | 24GB |
| 64GB | 8GB | 48GB |

7. The user which we create should have all the privileges.

**Syntax:** GRANT ALL PRIVILEGES ON *.* TO '**username**'@'%' IDENTIFIED BY '**password**'; FLUSH PRIVILEGES;

**Example:** GRANT ALL PRIVILEGES ON *.* TO '**root**'@'%' IDENTIFIED BY '**testuserpass**'; FLUSH PRIVILEGES;

CONFIGURATION GUIDES › DATABASES

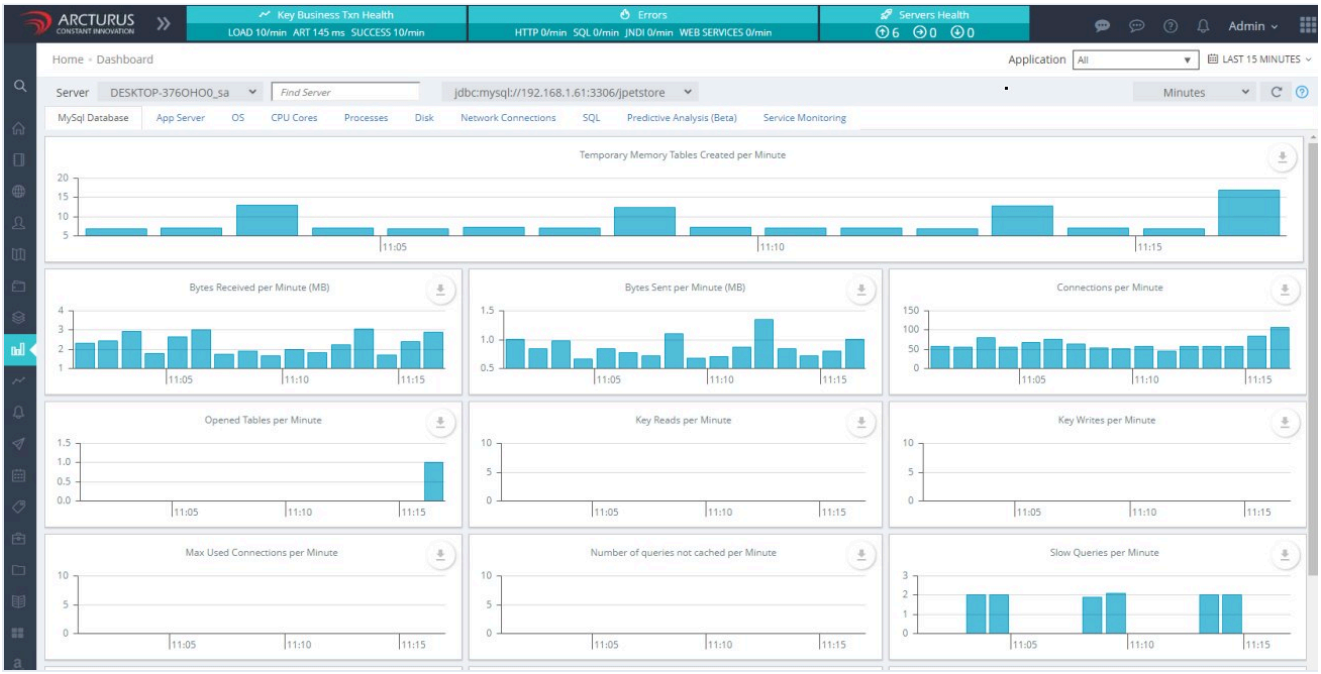
# MySQL Database Monitoring

Applicare 9.2 · Updated August 22, 2024 · mysql · **Pending technical review**

Login to Applicare controller and navigate to the **Server Analyzer** menu to view the details.

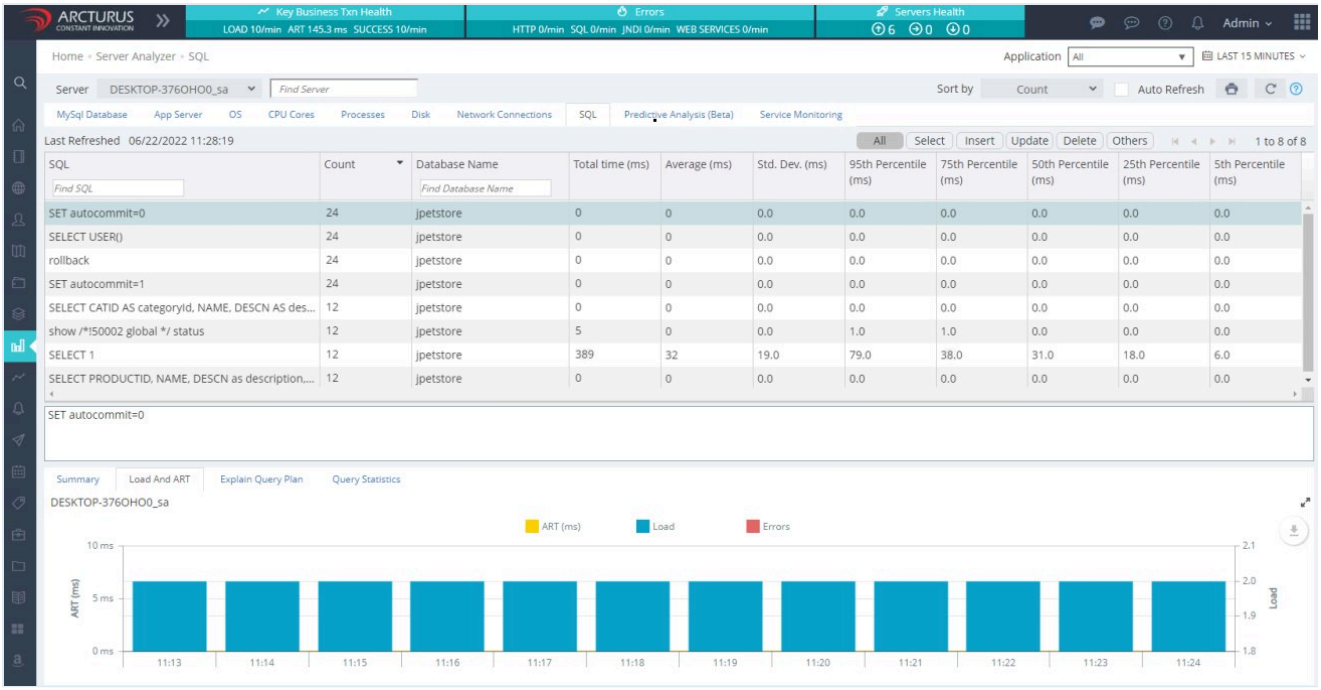
## Dashboard

Database performance metrics assist in monitoring and optimizing your database for business needs. These metrics are calculated for the entire server and are not limited to the specific database indicated in the JDBC URL.



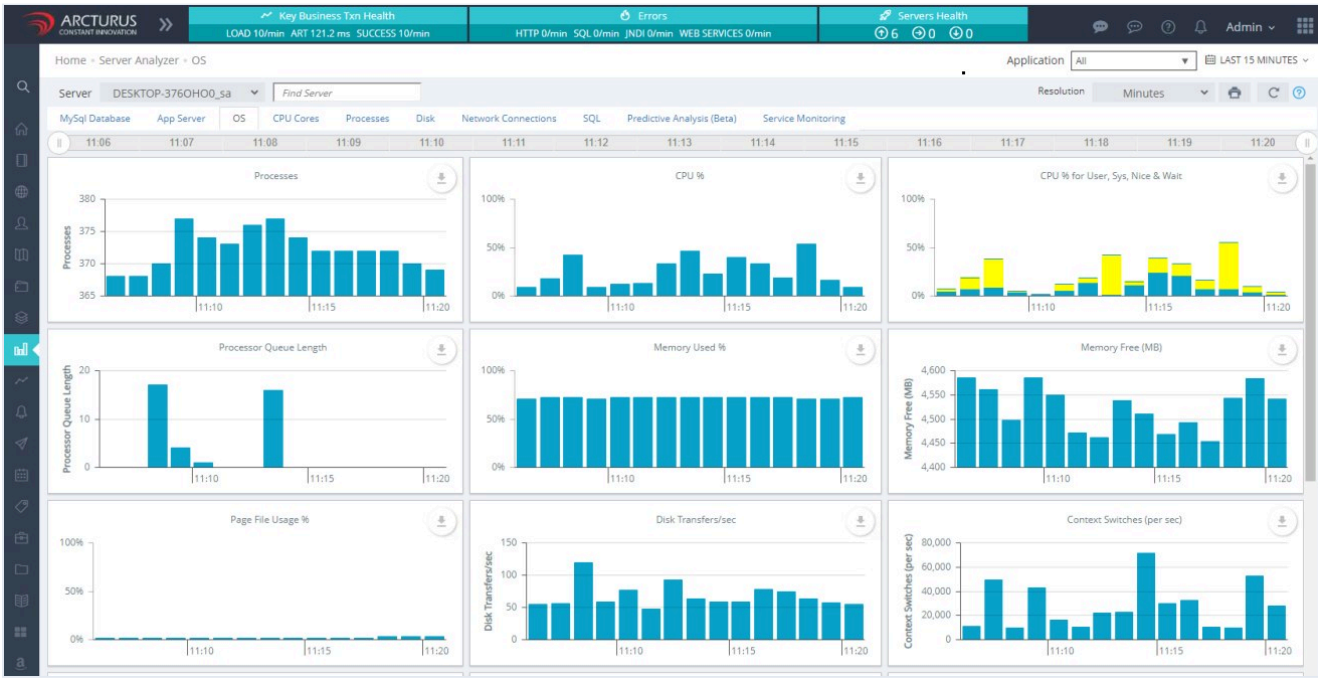

## SQL

SQL Statement Profiling shows the performance details of your database queries.It helps you identify which statement are slow, making it easier to diagnose and fix performance issues or SQL/s. You'll get detailed stats, including the database name, query count, average time and various percentile.



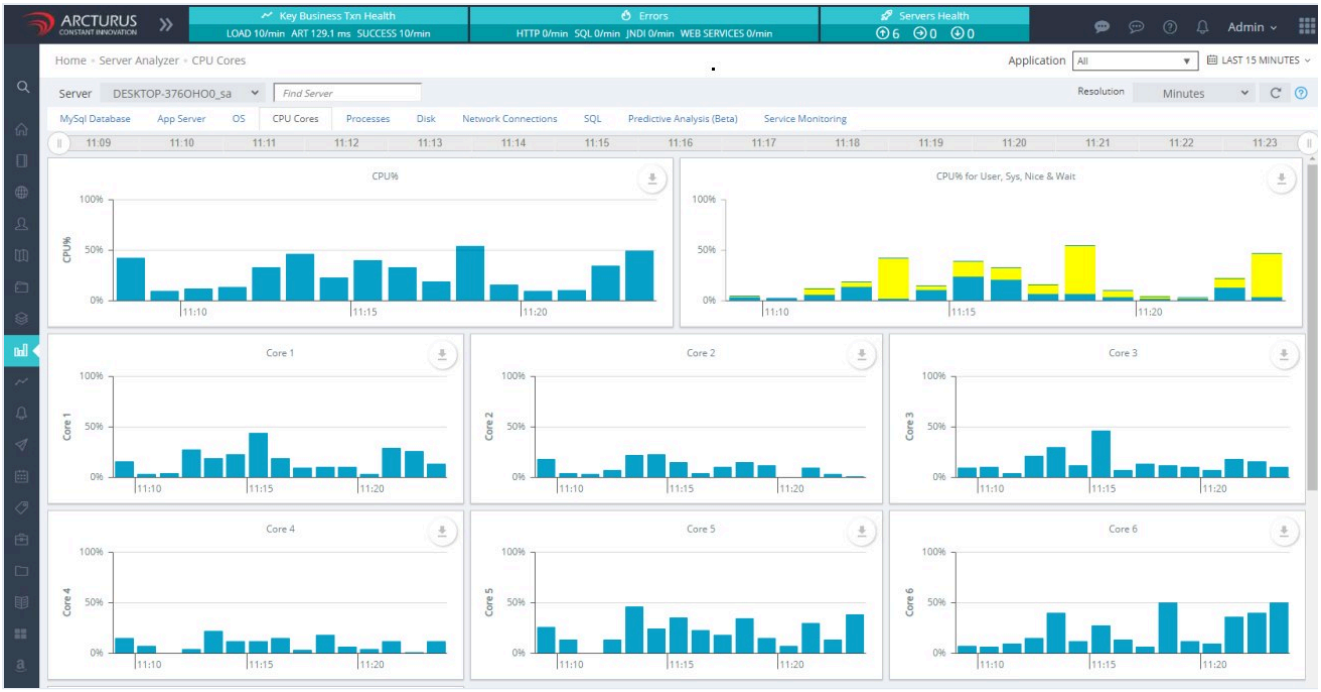

## OS

This view offers a quick and easy overview of your physical server's/VM's performance including metrics such as the number of processes, context switches, CPU Usage, memory, storage performance and etc.



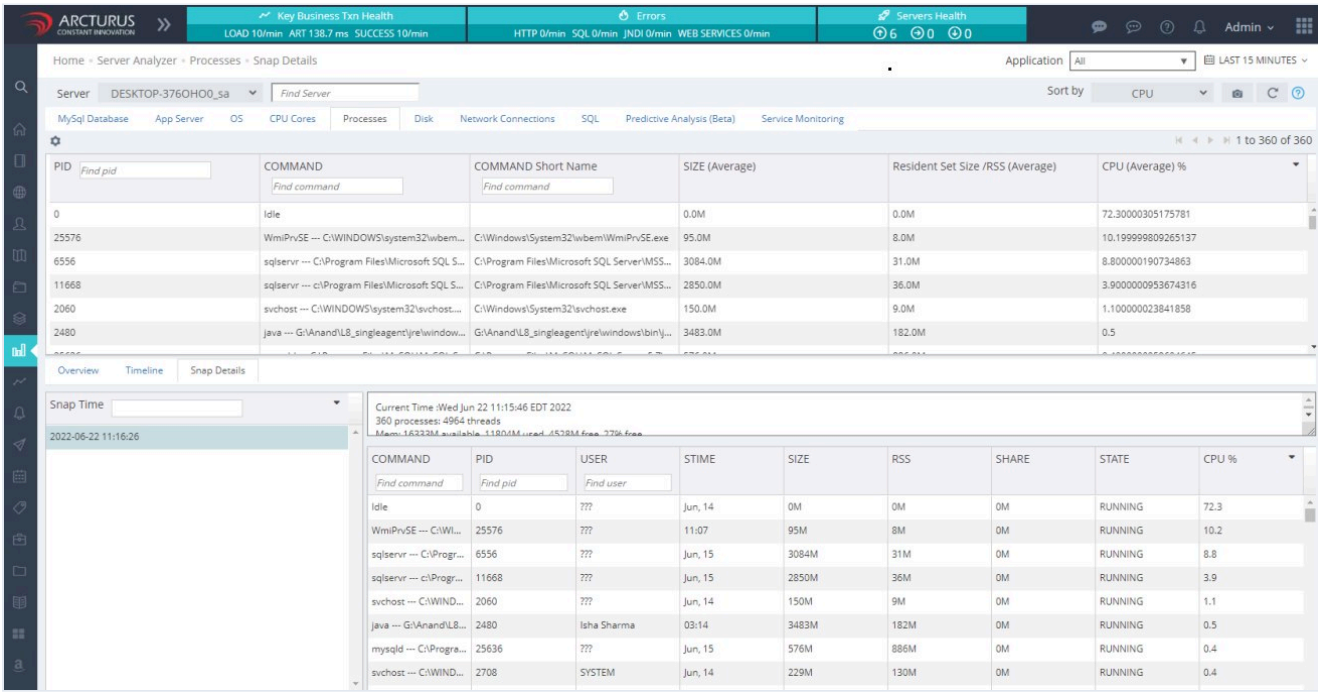

## CPU CORE Analyzer

This view offers an overview of the overall CPU performance along with detailed information for each individual CPU core.



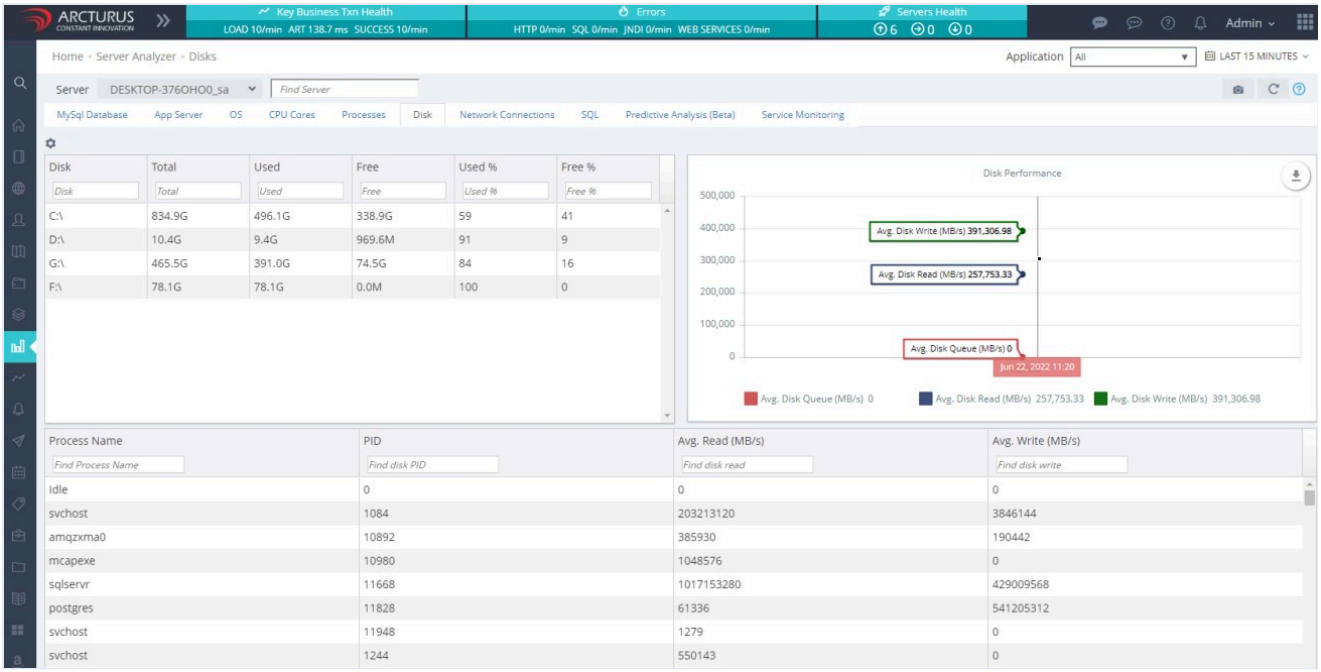

## Processes

This view presents organized performance stats for CPU, memory and running processes. It includes historical snapshots of processes at specific times, showing the resources they were consuming. By default, Applicare takes these snapshot in every 10 minutes, but you can adjust the interval as needed.



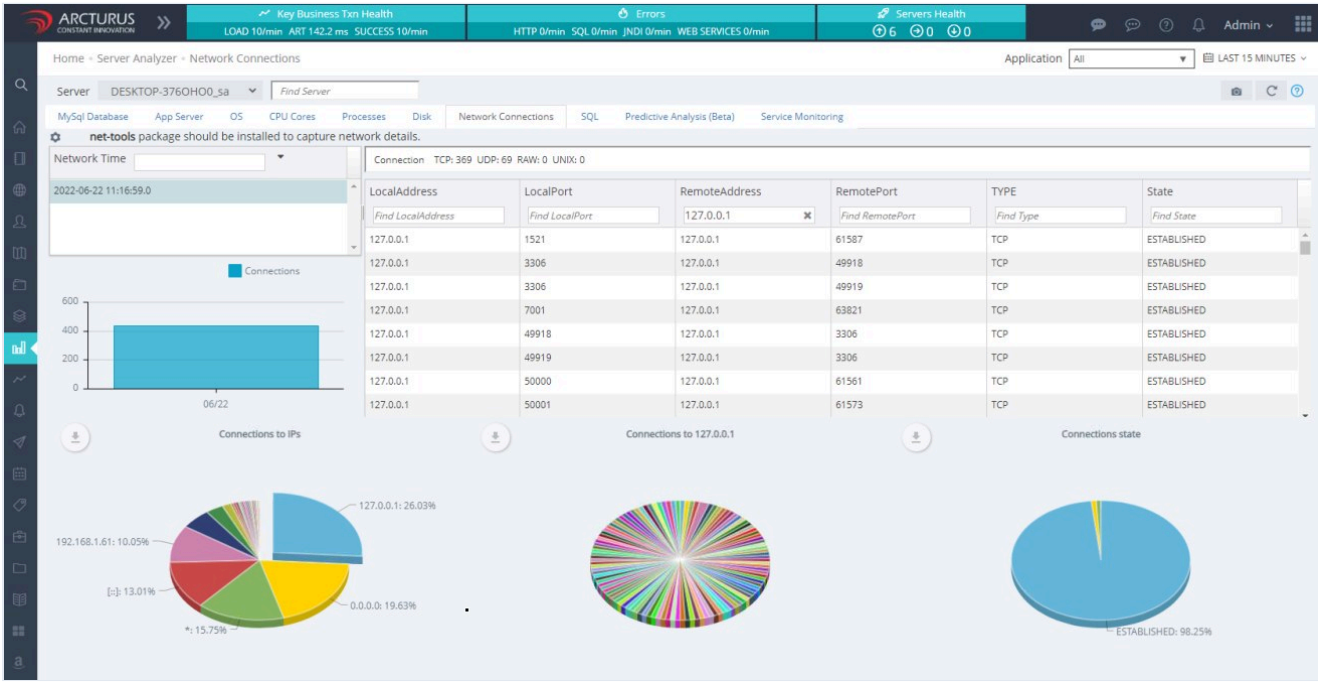

## Disk

This view shows the disk usage for each process, detailing how much disk space each one is accessing.



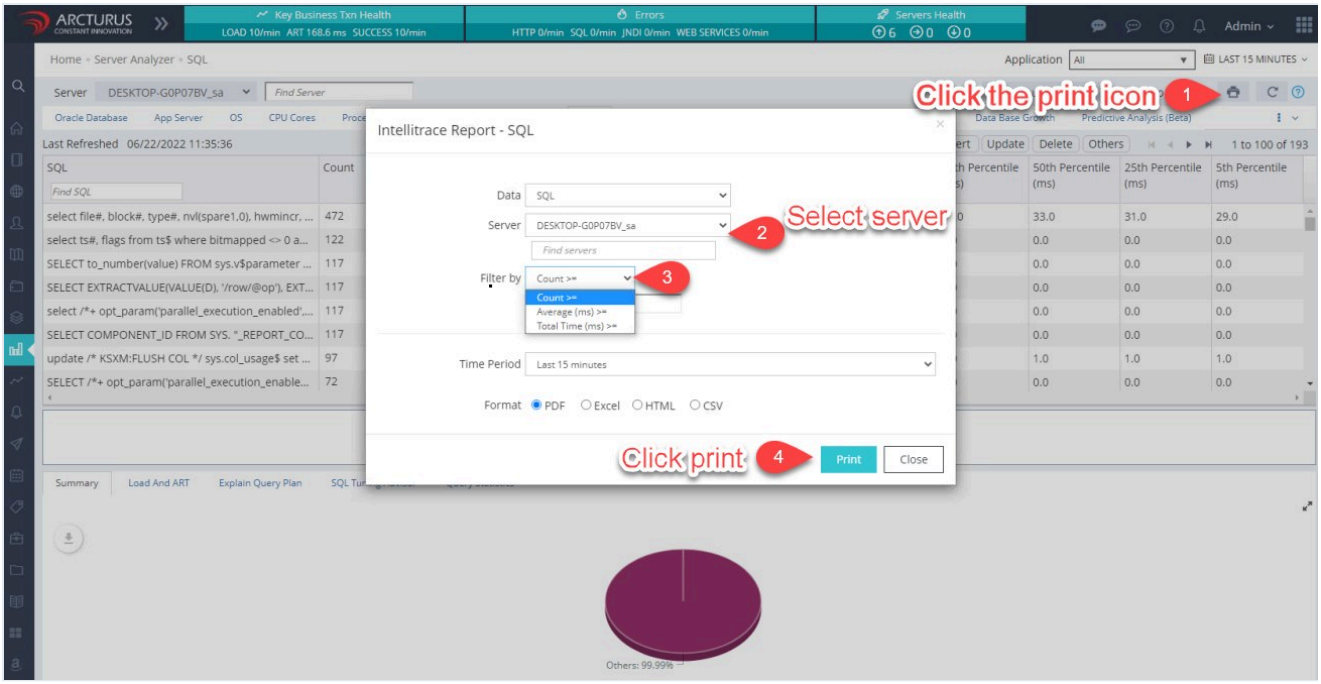

## Network Connections

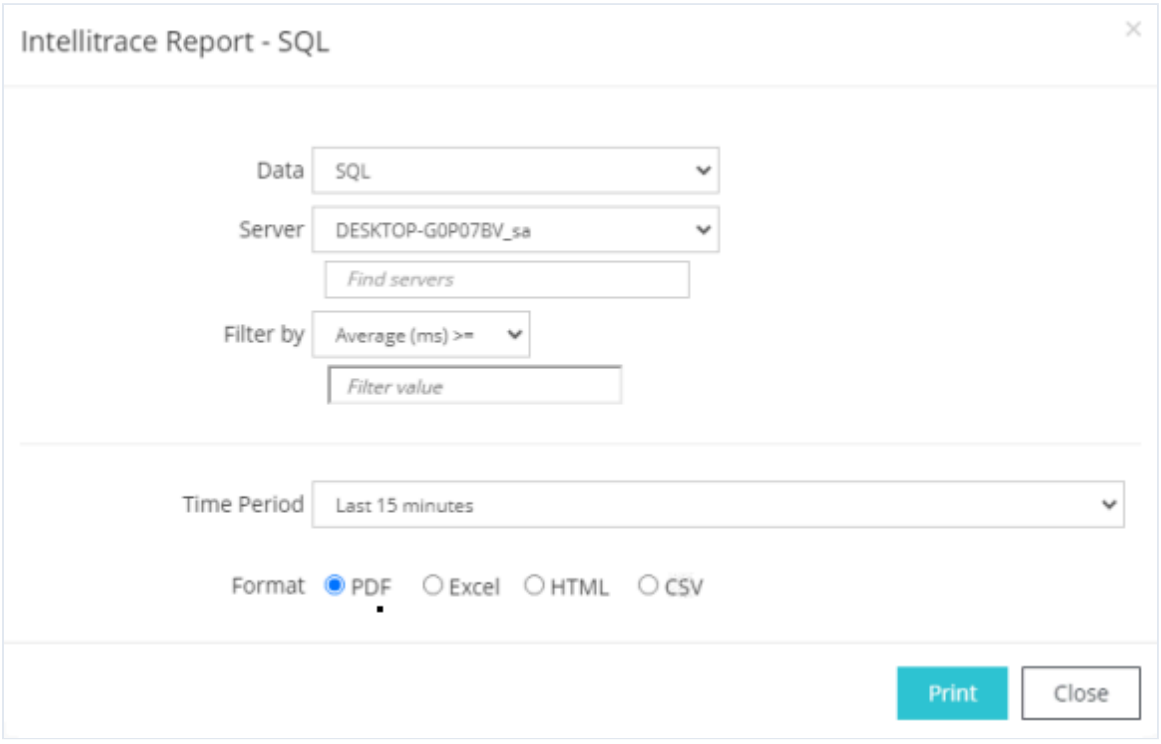
This view provides details on TCP, UDP, RAW, and UNIX connections.

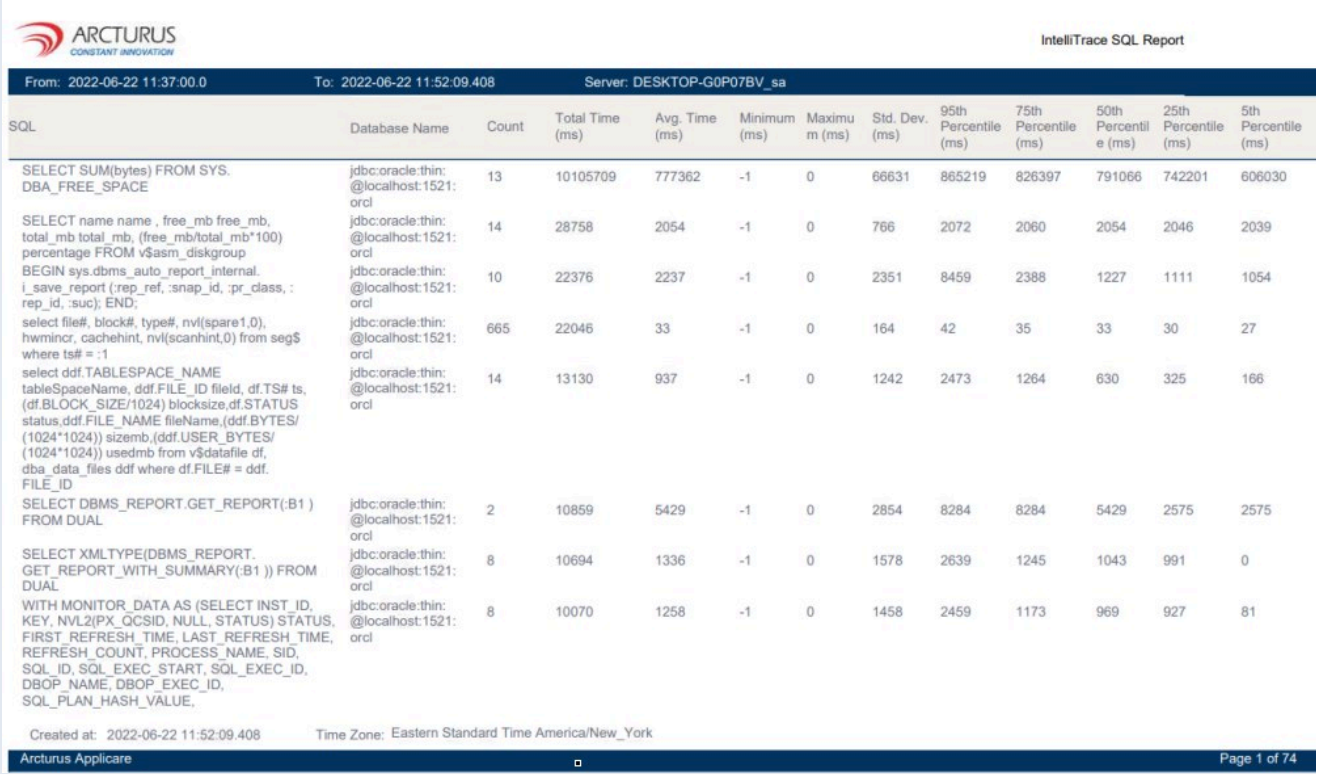



## SQL Report

To download a report of SQL statements, click the print icon on the SQL screen within the server Analyzer menu.


Click the print icon
1
Intellitrace Report - SQL
Data
SQL
Server
DESKTOP-G0P07BV_sa
Select server
2
Find servers
Filter by
Count >=
3
Count >=
Average (ms) >=
Total Time (ms) >=
Time Period
Last 15 minutes
Format
PDF
Excel
HTML
CSV
Click print
4
Print
Close


Intellitrace Report - SQL
Data
SQL
Server
DESKTOP-G0P07BV_sa
Find servers
Filter by
Average (ms) >=
Filter value
Time Period
Last 15 minutes
Format
PDF
Excel
HTML
CSV
Print
Close



ARCTURUS
CONSTANT INNOVATION

IntelliTrace SQL Report

From: 2022-06-22 11:37:00.0 To: 2022-06-22 11:52:09.408 Server: DESKTOP-G0P07BV_sa

| SQL | Database Name | Count | Total Time (ms) | Avg. Time (ms) | Minimum (ms) | Maximum (ms) | Std. Dev. (ms) | 95th Percentile (ms) | 75th Percentile (ms) | 50th Percentile (ms) | 25th Percentile (ms) | 5th Percentile (ms) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SELECT SUM(bytes) FROM SYS.DBA_FREE_SPACE | jdbc:oracle:thin:@localhost:1521:orcl | 13 | 10105709 | 777362 | -1 | 0 | 66631 | 865219 | 826397 | 791066 | 742201 | 606030 |
| SELECT name name , free_mb free_mb, total_mb total_mb, (free_mb/total_mb*100) percentage FROM v$asm_diskgroup | jdbc:oracle:thin:@localhost:1521:orcl | 14 | 28758 | 2054 | -1 | 0 | 766 | 2072 | 2060 | 2054 | 2046 | 2039 |
| BEGIN sys.dbms_auto_report_internal.i_save_report (:rep_ref, :snap_id, :pr_class, :rep_id, :suc); END; | jdbc:oracle:thin:@localhost:1521:orcl | 10 | 22376 | 2237 | -1 | 0 | 2351 | 8459 | 2388 | 1227 | 1111 | 1054 |
| select file#, block#, type#, nvl(spare1,0), hwmincr, cachehint, nvl(scanhint,0) from seg$ where ts# = :1 | jdbc:oracle:thin:@localhost:1521:orcl | 665 | 22046 | 33 | -1 | 0 | 164 | 42 | 35 | 33 | 30 | 27 |
| select ddf.TABLESPACE_NAME tableSpaceName, ddf.FILE_ID fileId, df.TS# ts, (df.BLOCK_SIZE/1024) blocksize,df.STATUS status,ddf.FILE_NAME fileName,(ddf.BYTES/(1024*1024)) sizemb,(ddf.USER_BYTES/(1024*1024)) usedmb from v$datafile df, dba_data_files ddf where df.FILE# = ddf.FILE_ID | jdbc:oracle:thin:@localhost:1521:orcl | 14 | 13130 | 937 | -1 | 0 | 1242 | 2473 | 1264 | 630 | 325 | 166 |
| SELECT DBMS_REPORT.GET_REPORT(:B1 ) FROM DUAL | jdbc:oracle:thin:@localhost:1521:orcl | 2 | 10859 | 5429 | -1 | 0 | 2854 | 8284 | 8284 | 5429 | 2575 | 2575 |
| SELECT XMLTYPE(DBMS_REPORT.GET_REPORT_WITH_SUMMARY(:B1 )) FROM DUAL | jdbc:oracle:thin:@localhost:1521:orcl | 8 | 10694 | 1336 | -1 | 0 | 1578 | 2639 | 1245 | 1043 | 991 | 0 |
| WITH MONITOR_DATA AS (SELECT INST_ID, KEY, NVL2(PX_QCSID, NULL, STATUS) STATUS, FIRST_REFRESH_TIME, LAST_REFRESH_TIME, REFRESH_COUNT, PROCESS_NAME, SID, SQL_ID, SQL_EXEC_START, SQL_EXEC_ID, DBOP_NAME, DBOP_EXEC_ID, SQL_PLAN_HASH_VALUE, | jdbc:oracle:thin:@localhost:1521:orcl | 8 | 10070 | 1258 | -1 | 0 | 1458 | 2459 | 1173 | 969 | 927 | 81 |

Created at: 2022-06-22 11:52:09.408 Time Zone: Eastern Standard Time America/New_York

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## Configuration

MySQL database monitoring configuration

CONFIGURATION GUIDES › DATABASES

# Increasing Memory for Derby

Applicare 9.2 · Updated September 13, 2024 · mysql · **Pending technical review**

By default, the Applicare Derby database is configured to run on a laptop and is suitable for testing with Applicare with One or two agents. If the Derby database is used for POCs or testing scenarios that involve a higher no. of agents and transactions, you should increase the amount of memory allocated to Derby.

**Step 1:** Stop the Derby database.

**Step 2:** Navigate to the directory listed below.

```xml
<Applicare_home_directory>\javadb\bin
```

## For Windows

Edit the **startNetworkServer.bat** file. Locate the two **-Xmx**, parameter within the file and update both values as needed.

```
if "%_JAVACMD%"=="" goto end

if "%_USE_CLASSPATH%"=="no" goto runNoClasspath
if not "%CLASSPATH%"=="" goto runWithClasspath

:runNoClasspath
"%_JAVACMD%" -Xmx2048m %DERBY_OPTS% -classpath "%LOCALCLASSPATH%" org.apache.derby.drda.NetworkServerControl start -h 0.0.0.0
goto end

:runWithClasspath
"%_JAVACMD%" -Xmx1000m %DERBY_OPTS% -classpath "%CLASSPATH%;%LOCALCLASSPATH%" org.apache.derby.drda.NetworkServerControl start
goto end
```

## For Linux

Edit the **startNetworkServer.sh** file. Find the **-Xmx** parameter within the file and adjust its value accordingly.

```
. $DERBY_HOME/bin/derby_common.sh

derby_exec_command="exec \"$JAVACMD\" -Xmx2048m $DERBY_OPTS -classpath
eval $derby_exec_command
```

**Monitoring with Applicare**

CONFIGURATION GUIDES › DATABASES

# Create a new user account and designate the relevant permissions

Applicare 9.2 · Updated April 16, 2026 · mysql · **Pending technical review**

**Syntax:**

```
TEXT
CREATE USER '<user>'@'%' IDENTIFIED BY '<password>';
GRANT SELECT, SHOW DATABASES, SHOW VIEW ON *.* TO '<user>'@'%';
GRANT EXECUTE ON xp_readerrorlog TO <user>;
```

Substitute **<new_user>** and **<password>** with the newly username and password you have just created.

**Example:I**f the newly created username is **appuser** and the password is **appuserpass**, use these details in place of **<new_user>** and **<passwords>**."

```
TEXT
CREATE USER 'appuser'@'%' IDENTIFIED BY 'appuserpass';
GRANT SELECT, SHOW DATABASES, SHOW VIEW, REPLICATION CLIENT, REPLICATION SLAVE ON *.* TO
'appuser'@'%';
GRANT EXECUTE ON xp_readerrorlog TO 'appuser';
```

CONFIGURATION GUIDES › DATABASES

# MSSQL manual Trace deletion

Applicare 9.2 · Updated November 5, 2024 · sql-server · **Pending technical review**

**Step 1:** Login into **MSSQL Server** with '**sa**' or **Applicare** user. The user should have **sysadmin** permission and create and modify permission for SQL traces in "**master**" database.

**Step 2:** Select "**master**" database and select "**New Query**" and execute the below command.

```text
Select * from sys.traces;
```

**Step 3: Delete Trace**

a. Stop the Agent from the task manager. b. Stop the trace if it is already running.

```text
sp_trace_setstatus @traceid , @status;
```

If it is a Applicare trace then in the path column it will have the Applicare Agent Home path and at last it will end with **SQLTraceProfiling.trc** and **SQLDeadlockTraceProfiling.trc**

**Trace details**

**id -** @traceID

**status -** @status

**Status Conditions**

0 - Stops the specified trace. 1 - Starts the specified trace. 2 - Closes the specified trace and deletes its definition from the server.

**Path -** Trace file created path

**Modifies the current state of the specified trace**

Replace the **@traceid** with correct **id** and **@status** with **status condition** and execute the above query

Let us consider **@traceid - 2**

**Stop and delete Trace entry from server**

```text
sp_trace_setstatus 2 , 0;
```

```text
sp_trace_setstatus 2 , 2
```

**Step 4:** Delete the trace files from the Agent Home directory.

CONFIGURATION GUIDES › DATABASES

# Monitoring for MSSQL Server Always On Availability Groups

Applicare 9.2 · Updated September 13, 2024 · sql-server · **Pending technical review**

Applicare SingleAgent is an effective tool for managing and monitoring your availability groups. It offers a comprehensive view of performance across your MS SQL Server, helping you identify and troubleshoot issues at the Windows Server Failover Cluster (WSFC) level, SQL Server instance level, and Replica level.

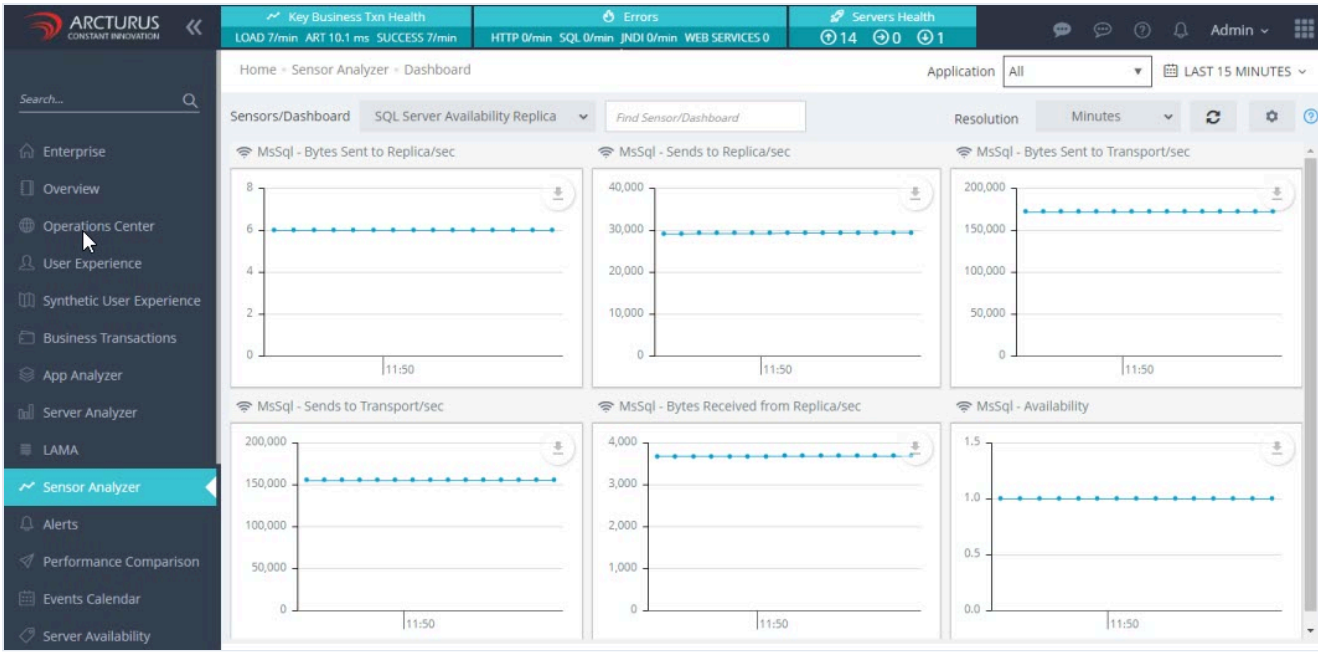
## Sensor Analyzer

Sensor Analyzer allows users to create and customize their own dashboards, enabling them to monitor the metrics that matter most to them..

- **Visualize data trends:** Charts enable you to swiftly recognize trends in your data, aiding in the detection of potential issues or opportunities.
- **Identify Anomalies:** Charts can highlight anomalies such as sudden spikes or drops, which is useful for troubleshooting.
- **Correlate Data:** Charts facilitate the correlation of data from various sources. Helping you understand the root cause of issues.

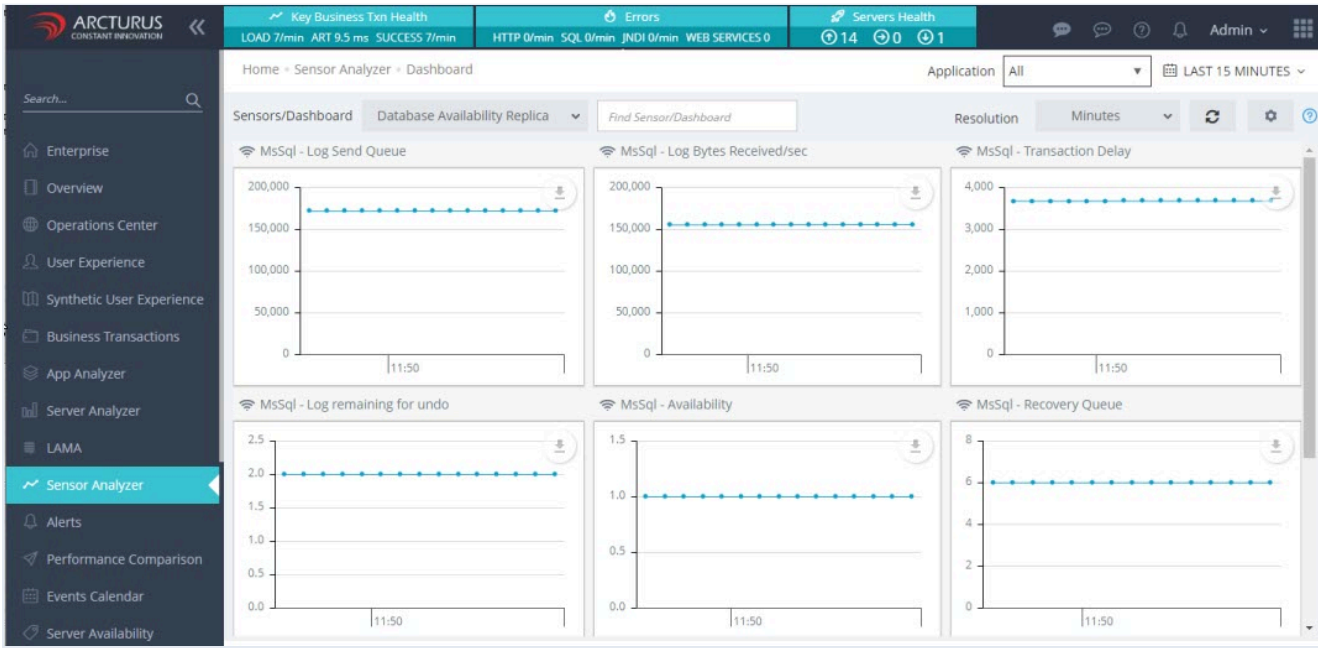
### Server Availability Replication

This feature monitors the availability replicas in Always On availability groups in SQL Server. It includes sensors for both the primary and the secondary replicas, with send/receive counters reflecting the status of each local replica.



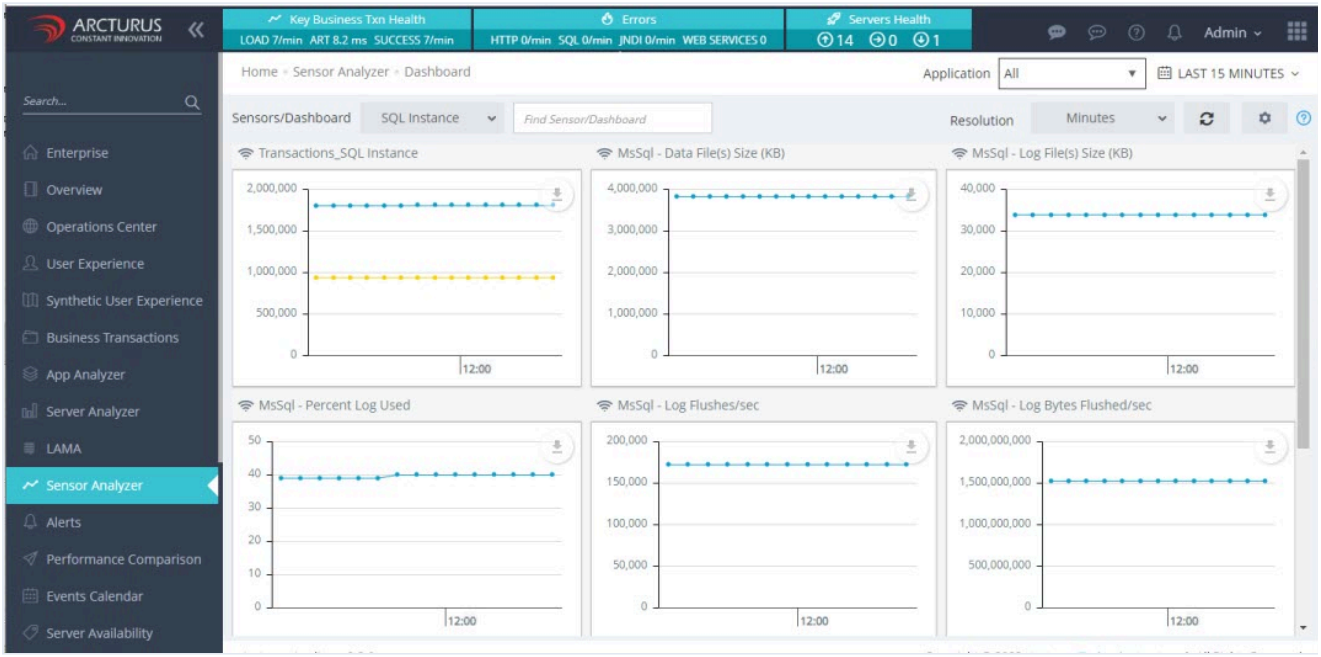
### Database Availability Replication

This feature provides details about the secondary databases of an Always On availability group in SQL Server.



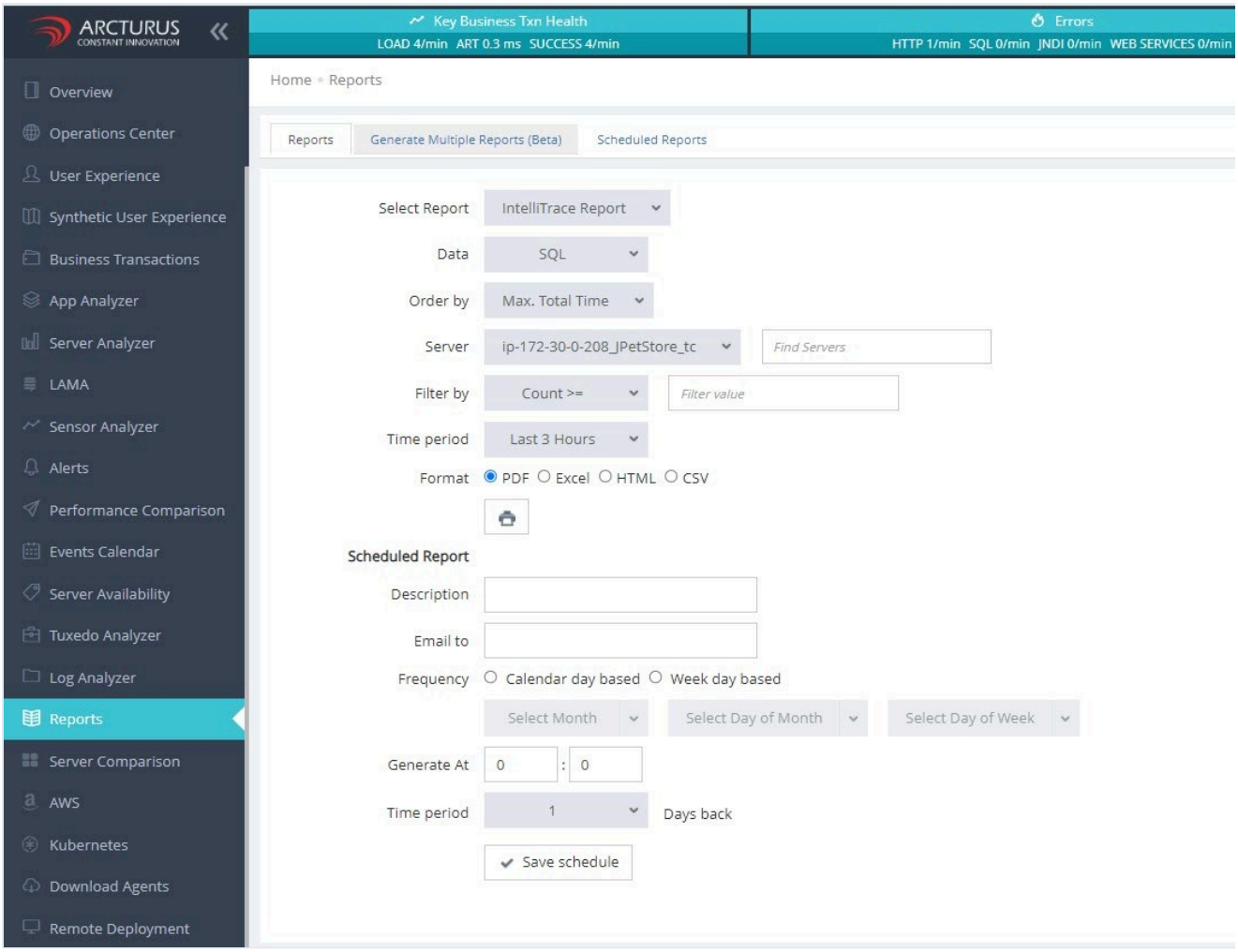

### SQL Server Instance

Monitor transactions and the transaction log to assess user activity within the database and the growth of the transaction log. The level of user activity impacts database performance and influence log size, locking, and replication.



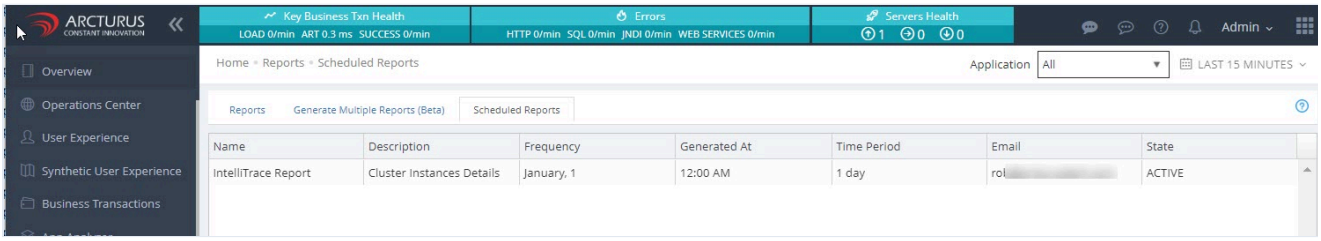

## Reports

Reports offer on-demand access to historical analysis data, enabling you to understand and optimize the performance of your MS SQL Server Always On availability groups.



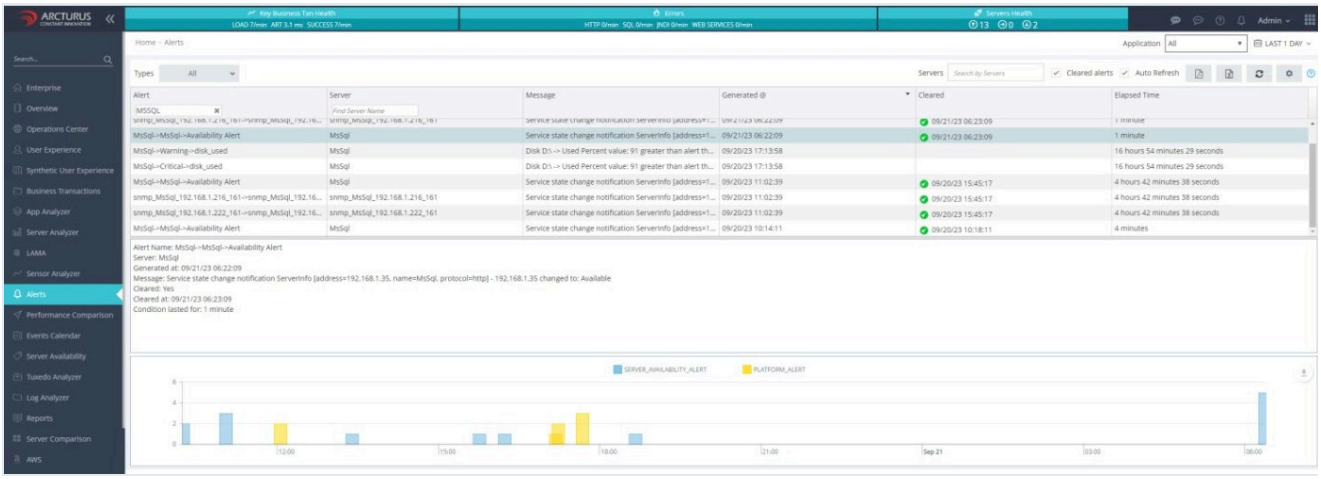

## Reports Scheduling

Auto report generation and delivery through scheduling can save time and effort, leading to enhanced performance and efficiency.




## Alerts

Alerts notify you of potential issues or opportunities, allowing you to take prompt corrective action reduce impact.



## Monitoring with Applicare

CONFIGURATION GUIDES › DATABASES

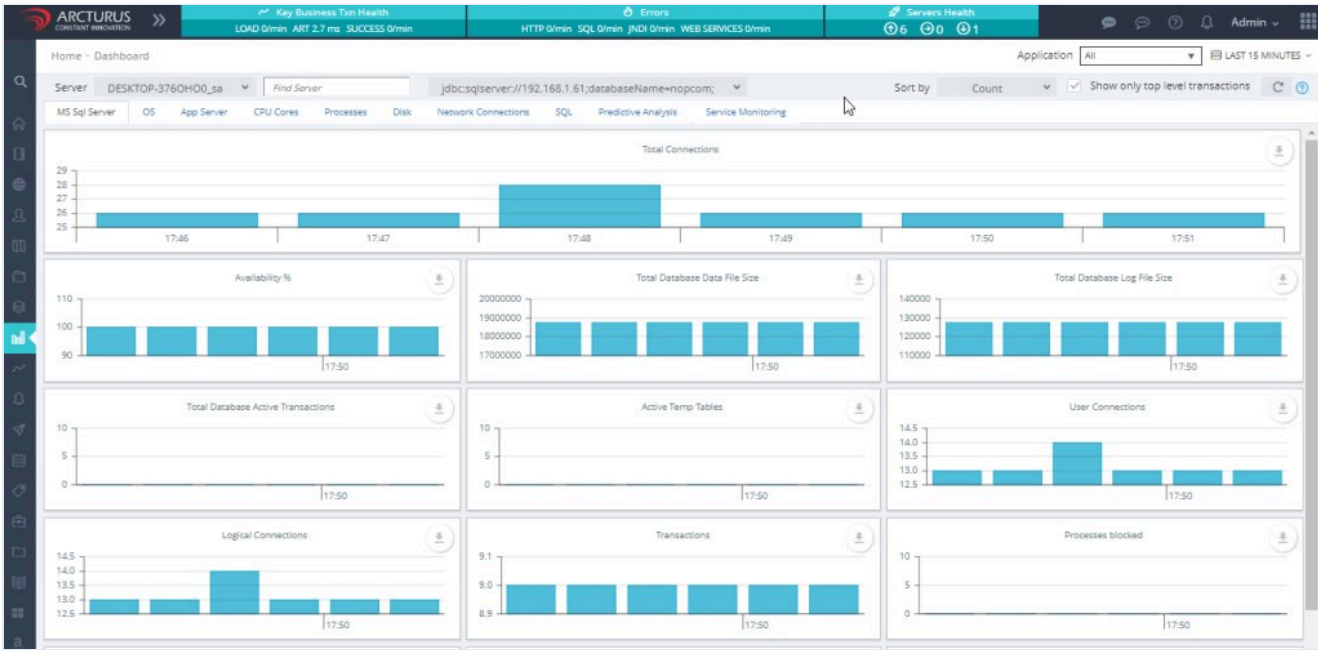
# Monitoring for MS SQL Server databases

Applicare 9.2 · Updated August 22, 2024 · sql-server · **Pending technical review**

Access the Applicare controller and navigate to the **Server Analyzer m**enu to view the details.

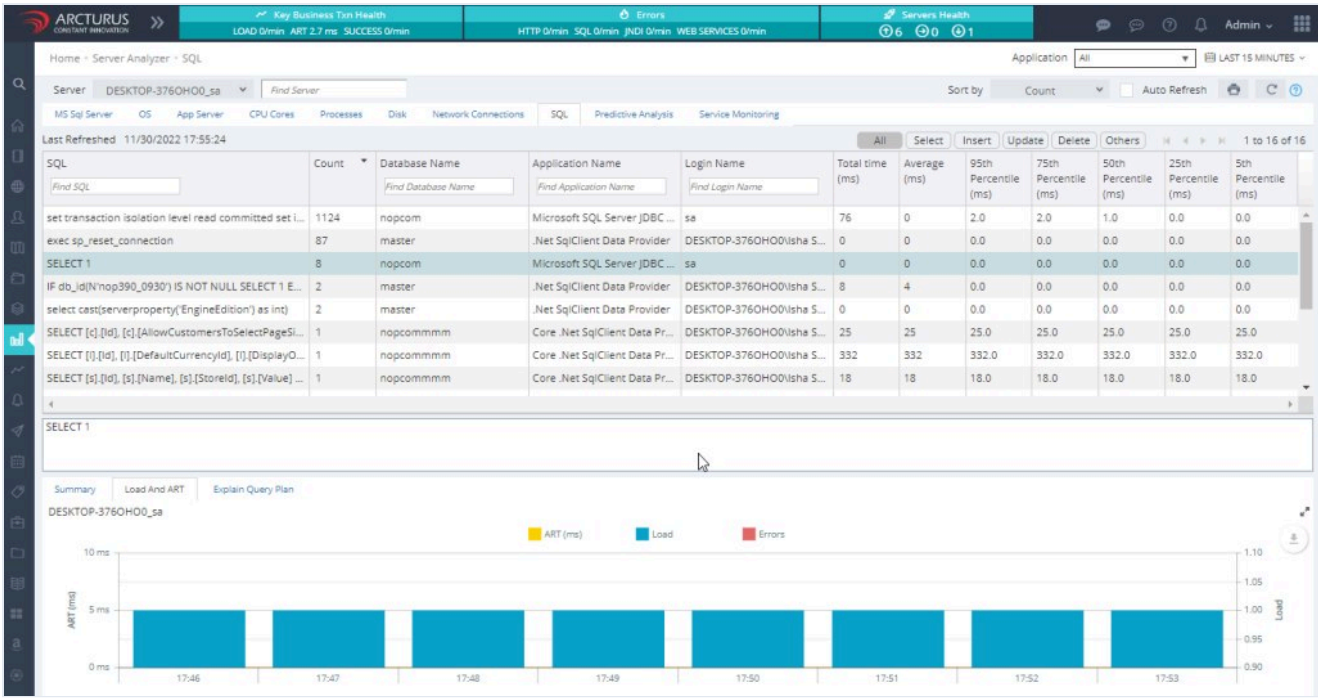
## Dashboard

Database performance metrics help you monitor and improve the performance of your database. They cover the whole server, not just the specific database mentioned in the JDBC URL.

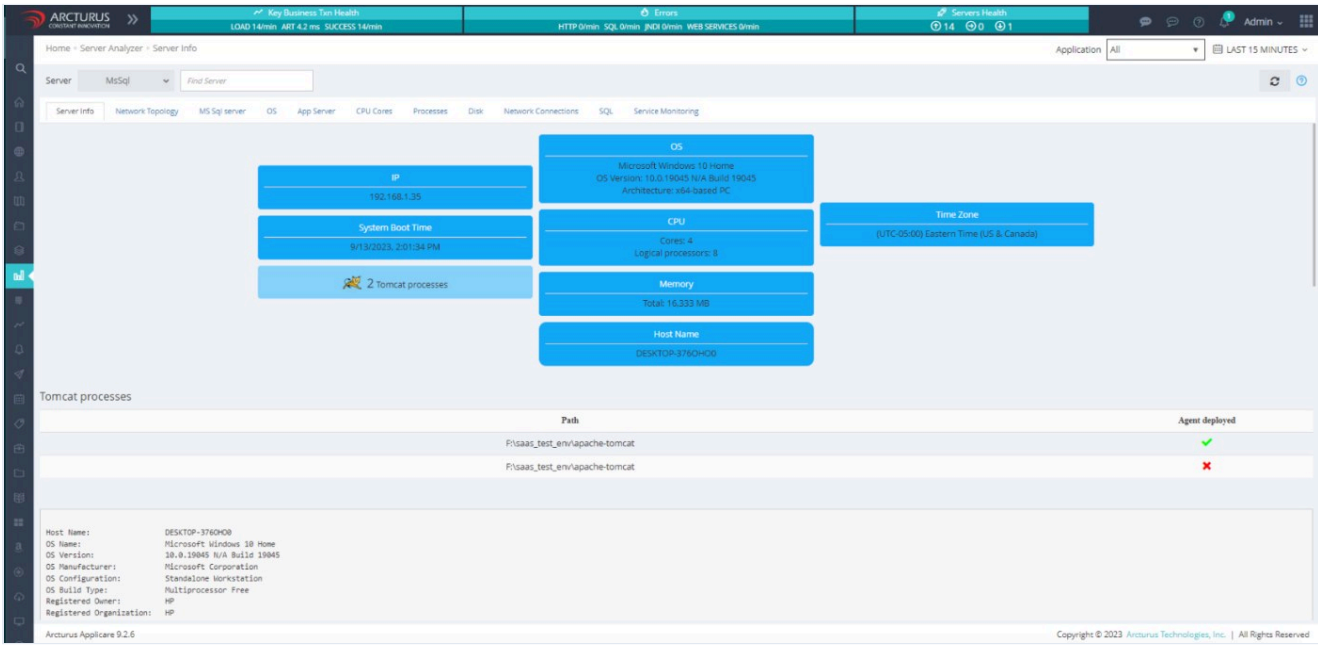



## SQL

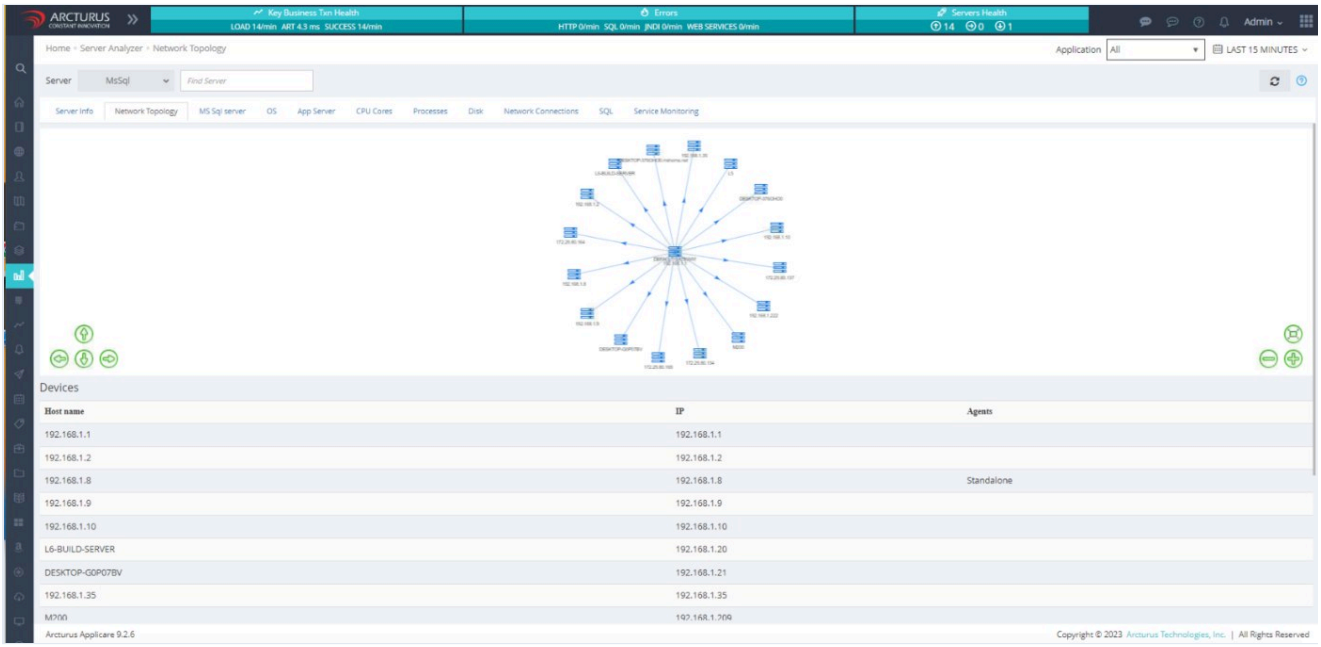
SQL Statement Profiling shows how well your database queries are performing. It helps you see which queries are slow and find out what's causing performance problems. You'll get details like the number of queries, their average time, and other useful stats.


ARCTURUS
Key Business Txn Health
LOAD 0/min ART 2.7 ms SUCCESS 0/min
Errors
HTTP 0/min SQL 0/min JNDI 0/min WEB SERVICES 0/min
Servers Health
Admin
Home · Server Analyzer · SQL
Application All
LAST 15 MINUTES
Server DESKTOP-376OHO0_sa
Find Server
Sort by Count
Auto Refresh
MS Sql Server OS App Server CPU Cores Processes Disk Network Connections SQL Predictive Analysis Service Monitoring
Last Refreshed 11/30/2022 17:55:24
All Select Insert Update Delete Others
1 to 16 of 16
SQL Count Database Name Application Name Login Name Total time (ms) Average (ms) 95th Percentile (ms) 75th Percentile (ms) 50th Percentile (ms) 25th Percentile (ms) 5th Percentile (ms)
set transaction isolation level read committed set i... 1124 nopcom Microsoft SQL Server JDBC ... sa 76 0 2.0 2.0 1.0 0.0 0.0
exec sp_reset_connection 87 master .Net SqlClient Data Provider DESKTOP-376OHO0\Isha S... 0 0 0.0 0.0 0.0 0.0 0.0
SELECT 1 8 nopcom Microsoft SQL Server JDBC ... sa 0 0 0.0 0.0 0.0 0.0 0.0
IF db_id(N'nop390_0930') IS NOT NULL SELECT 1 E... 2 master .Net SqlClient Data Provider DESKTOP-376OHO0\Isha S... 8 4 0.0 0.0 0.0 0.0 0.0
select cast(serverproperty('EngineEdition') as int) 2 master .Net SqlClient Data Provider DESKTOP-376OHO0\Isha S... 0 0 0.0 0.0 0.0 0.0 0.0
SELECT [c].[Id], [c].[AllowCustomersToSelectPageSi... 1 nopcommmm Core .Net SqlClient Data Pr... DESKTOP-376OHO0\Isha S... 25 25 25.0 25.0 25.0 25.0 25.0
SELECT [i].[Id], [i].[DefaultCurrencyId], [i].[DisplayO... 1 nopcommmm Core .Net SqlClient Data Pr... DESKTOP-376OHO0\Isha S... 332 332 332.0 332.0 332.0 332.0 332.0
SELECT [s].[Id], [s].[Name], [s].[StoreId], [s].[Value] ... 1 nopcommmm Core .Net SqlClient Data Pr... DESKTOP-376OHO0\Isha S... 18 18 18.0 18.0 18.0 18.0 18.0
SELECT 1
Summary Load And ART Explain Query Plan
DESKTOP-376OHO0_sa
ART (ms) Load Errors
10 ms
5 ms
0 ms
1.10
1.05
1.00
0.95
0.90
17:46 17:47 17:48 17:49 17:50 17:51 17:52 17:53

## Server Info

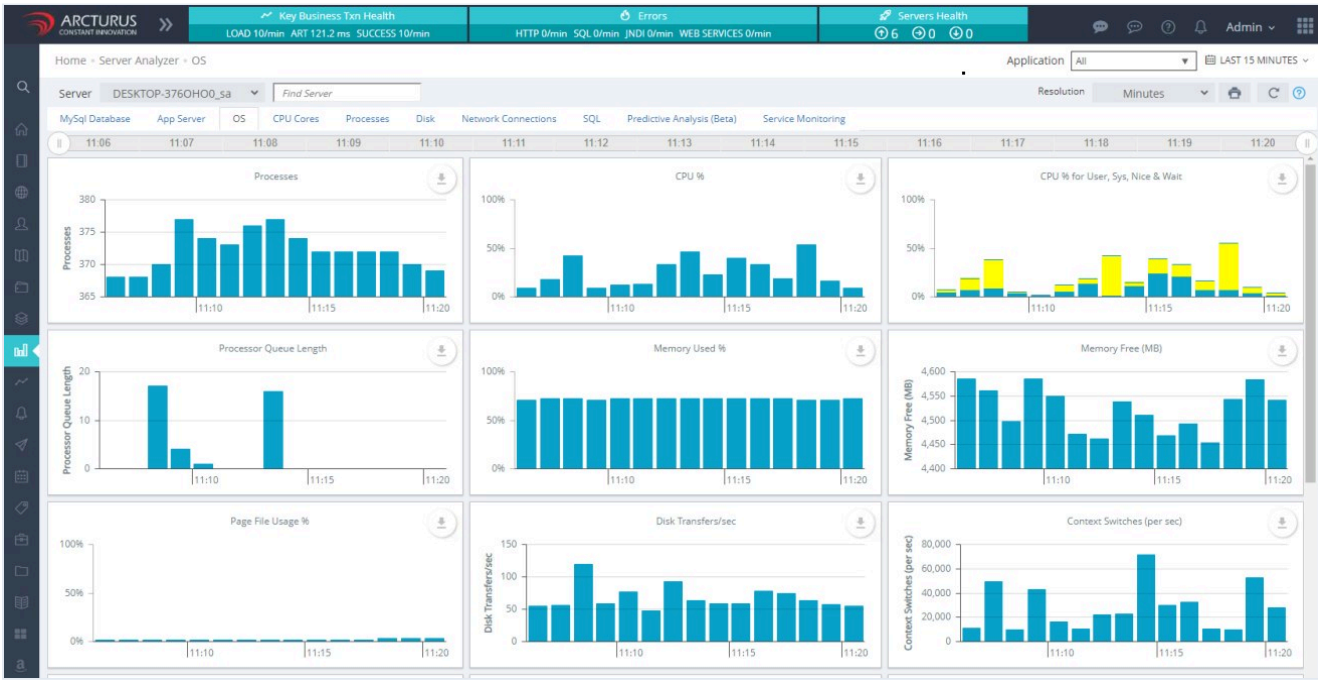

ARCTURUS
Key Business Txn Health
LOAD 14/min ART 4.2 ms SUCCESS 14/min
Errors
HTTP 0/min SQL 0/min JNDI 0/min WEB SERVICES 0/min
Servers Health
Admin
Home · Server Analyzer · Server Info
Application All
LAST 15 MINUTES
Server MsSql
Find Server
Server Info Network Topology MS Sql server OS App Server CPU Cores Processes Disk Network Connections SQL Service Monitoring
IP
192.168.1.35
OS
Microsoft Windows 10 Home
OS Version: 10.0.19045 N/A Build 19045
Architecture: x64-based PC
System Boot Time
9/13/2023, 2:01:34 PM
CPU
Cores: 4
Logical processors: 8
Time Zone
(UTC-05:00) Eastern Time (US & Canada)
2 Tomcat processes
Memory
Total: 16,333 MB
Host Name
DESKTOP-376OHO0
Tomcat processes
Path
Agent deployed
F:\saas_test_env\apache-tomcat
F:\saas_test_env\apache-tomcat
Host Name: DESKTOP-376OHO0
OS Name: Microsoft Windows 10 Home
OS Version: 10.0.19045 N/A Build 19045
OS Manufacturer: Microsoft Corporation
OS Configuration: Standalone Workstation
OS Build Type: Multiprocessor Free
Registered Owner: HP
Registered Organization: HP
Arcturus Applicare 9.2.6
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## Network Topology



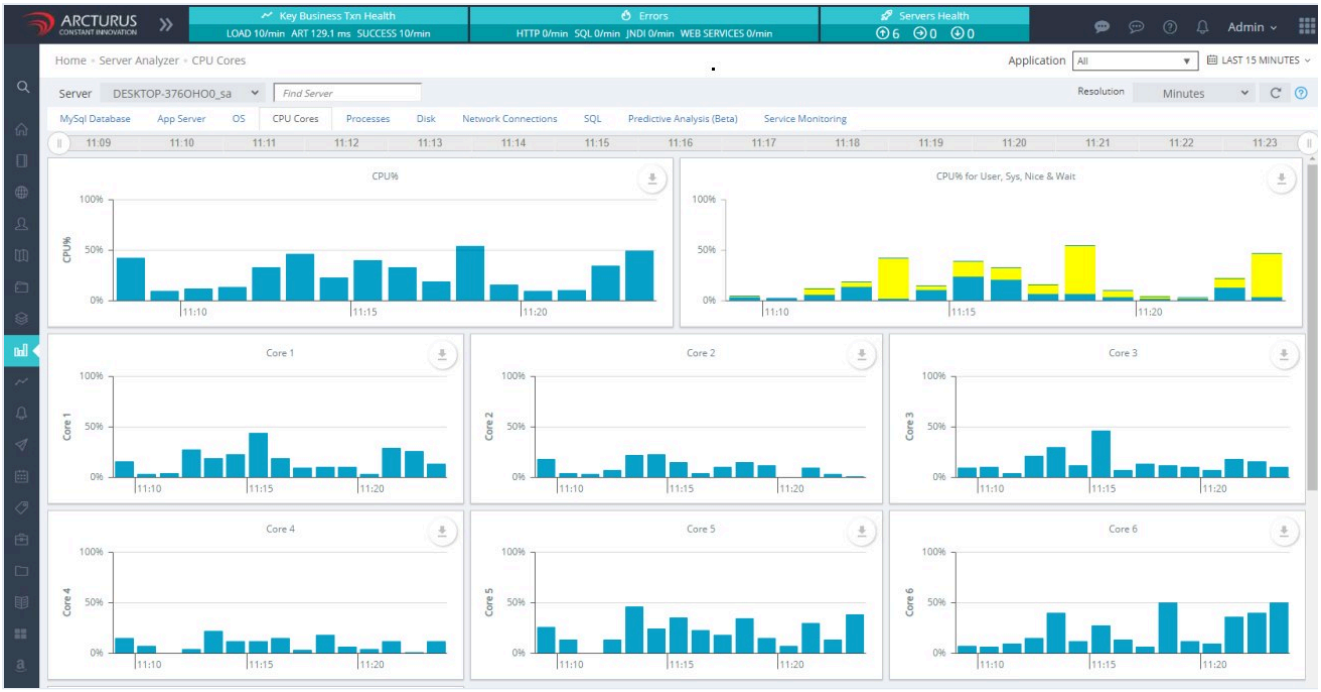

## OS

This view offers a quick and easy overview of your physical server's or VM's performance, including details on processes, context switches, CPU usage, memory, and storage performance..




## CPU CORE Analyzer

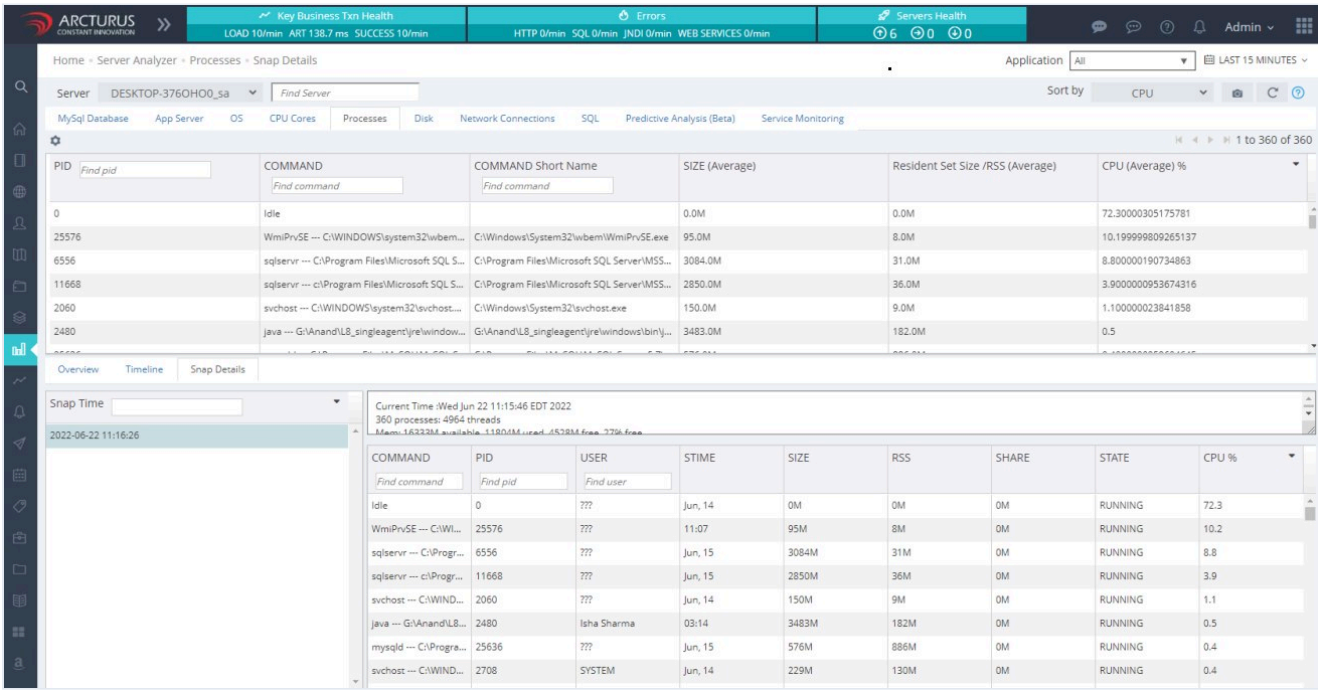
This view offers a comprehensive overview of the CPU including details information about each individual CPU core.




## Processes

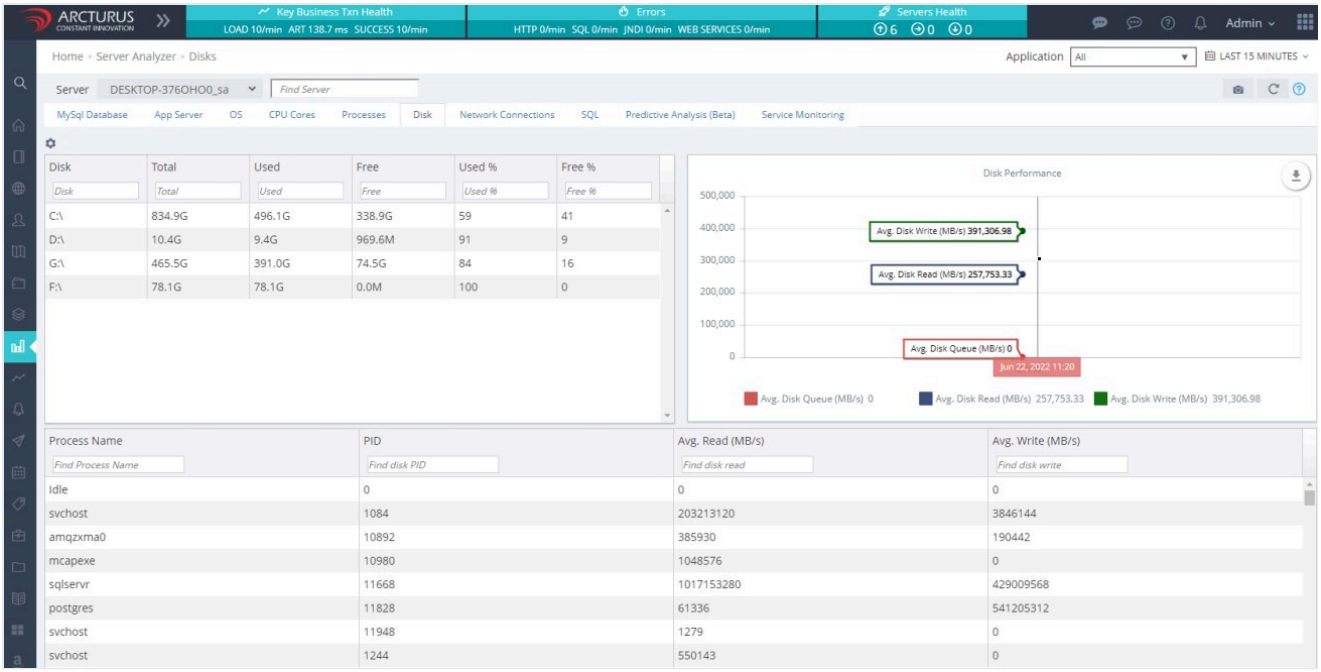
This view offers organized performance stats for the CPU, memory and running processes.

It includes historical snapshots of processes showing resource usage at various points in time. by default, Applicare takes a snapshot every 10 minutes but this interval can be adjusted according to your needs.



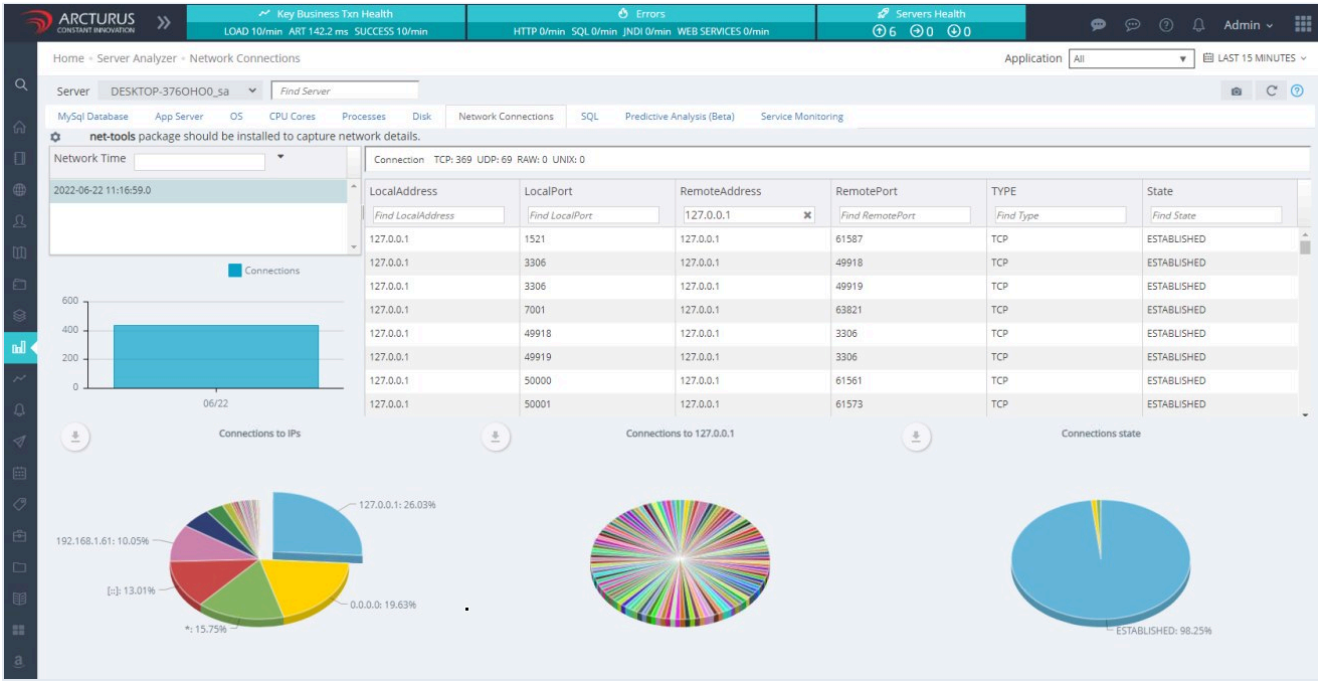

## Disk

This view provides the disk usage accessed by each and every process.



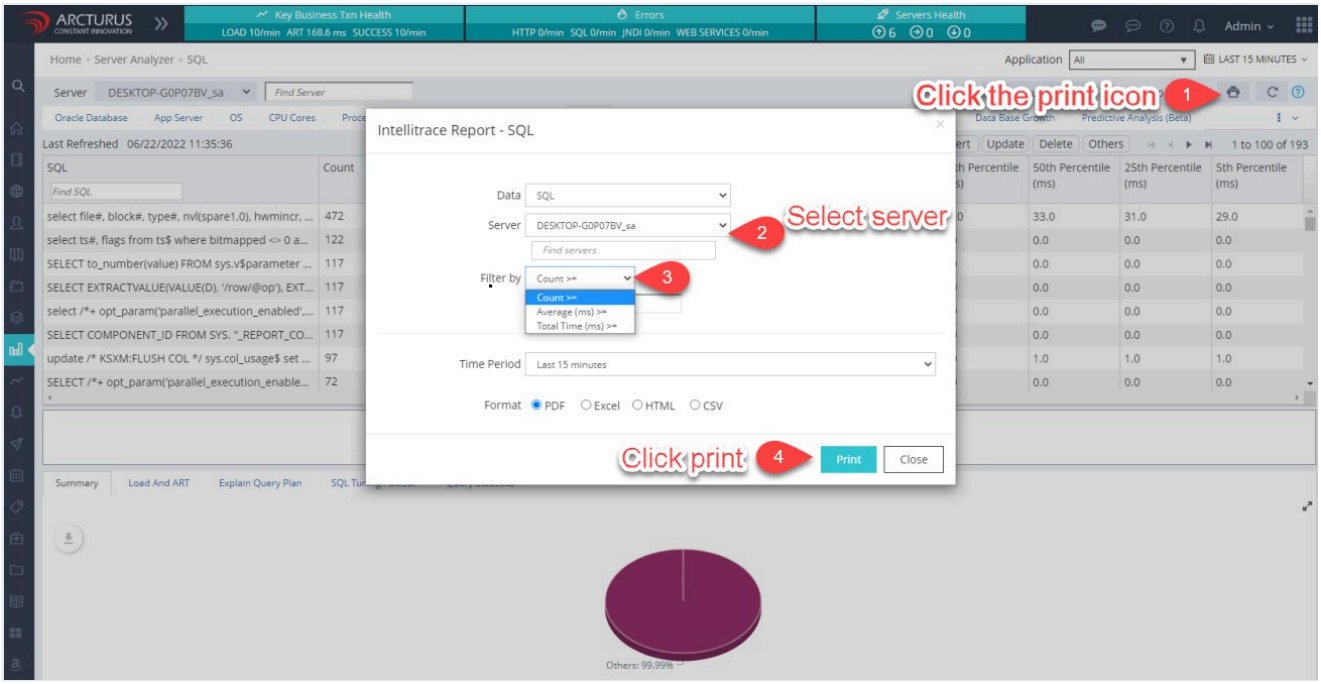

## Network Connections

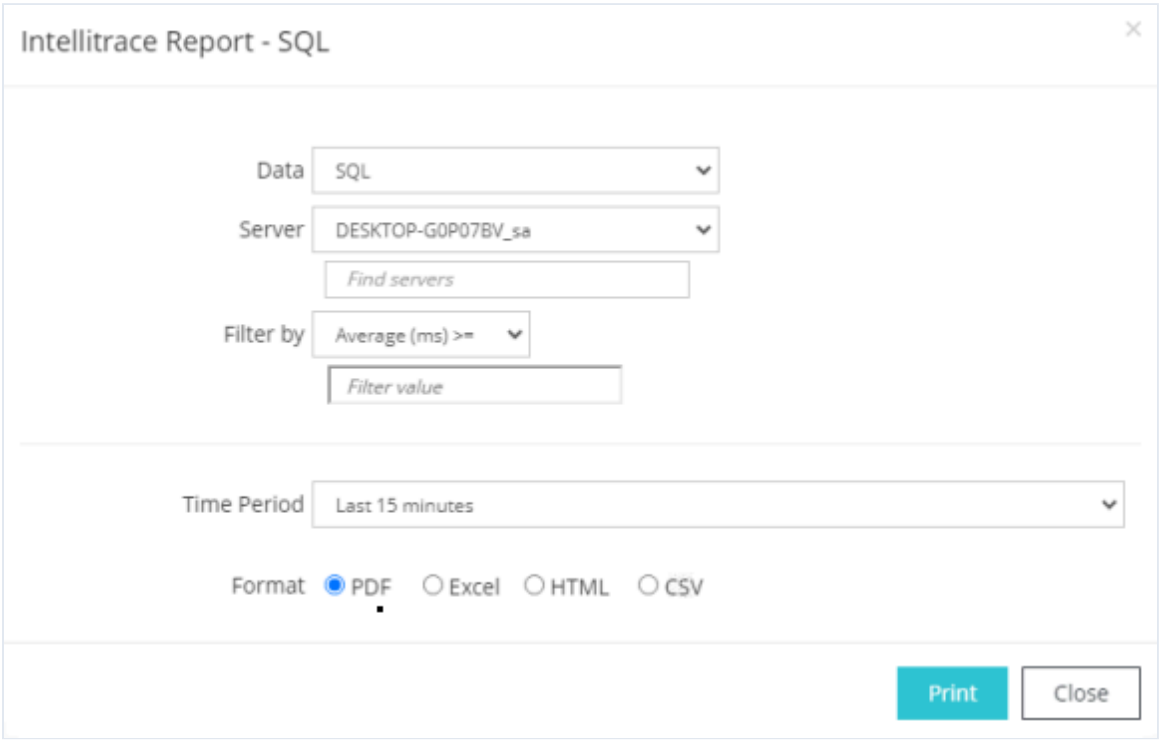
This view provides the TCP, UDP, RAW, and UNIX connection Details.




## SQL Report

The SQL statements can be downloaded as a report by clicking the print icon from the Server Analyzer menu SQL Screen.


Click the print icon
1
Intellitrace Report - SQL
Data
SQL
Server
DESKTOP-G0P07BV_sa
2
Select server
Find servers
Filter by
Count >=
3
Average (ms) >=
Total Time (ms) >=
Time Period
Last 15 minutes
Format
PDF
Excel
HTML
CSV
Click print
4
Print
Close


Intellitrace Report - SQL
Data
SQL
Server
DESKTOP-G0P07BV_sa
Find servers
Filter by
Average (ms) >=
Filter value
Time Period
Last 15 minutes
Format
PDF
Excel
HTML
CSV
Print
Close

| SQL | Database Name | Count | Total Time (ms) | Avg. Time (ms) | Minimum (ms) | Maximum (ms) | Std. Dev. (ms) | 95th Percentile (ms) | 75th Percentile (ms) | 50th Percentile (ms) | 25th Percentile (ms) | 5th Percentile (ms) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ORDER BY [alt].[Name] | | | | | | | | | | | | |
| SELECT [c].[Id], [c].[AllowCustomersToSelectPageSize], [c].[CategoryTemplateId], [c].[CreatedOnUtc], [c].[Deleted], [c].[Description], [c].[DisplayOrder], [c].[IncludeInTopMenu], [c].[LimitedToStores], [c].[MetaDescription], [c].[MetaKeywords], [c].[MetaTitle], [c].[Name], [c].[PageSize], [c].[PageSizeOptions], [c].[ParentCategoryId], [c].[PictureId], [c].[PriceRanges], [c].[Published], [c].[ShowOnHomepage], [c].[SubjectToAcl], [c].[UpdatedOnUtc] FROM [Category] AS [c] WHERE (([c].[Published] = 1) AND ([c].[Deleted] = 0)) AND ([c].[ShowOnHomepage] = 1) ORDER BY [c].[DisplayOrder], [c].[Id] | nopcommmm | 1 | 25 | 25 | 25 | 25 | 0 | 25 | 25 | 25 | 25 | 25 |
| SELECT [p].[Id], [p].[Name] FROM [ProductTag] AS [p] | nopcommmm | 1 | 25 | 25 | 25 | 25 | 0 | 25 | 25 | 25 | 25 | 25 |
| SELECT [s].[Id], [s].[Name], [s].[StoreId], [s].[Value] FROM [Setting] AS [s] ORDER BY [s].[Name], [s].[StoreId] | nopcommmm | 1 | 18 | 18 | 18 | 18 | 0 | 18 | 18 | 18 | 18 | 18 |
| SELECT COUNT(*) FROM [Manufacturer] AS [m] WHERE ([m].[Published] = 1) AND ([m].[Deleted] = 0) | nopcommmm | 1 | 17 | 17 | 17 | 17 | 0 | 17 | 17 | 17 | 17 | 17 |
| SELECT [sao].[Id], [sao].[ColorSquaresRgb], [sao].[DisplayOrder], [sao].[Name], [sao].[SpecificationAttributeId] FROM [SpecificationAttributeOption] AS [sao] WHERE [sao].[Id] IN (14, 15, 16) | nopcommmm | 1 | 17 | 17 | 17 | 17 | 0 | 17 | 17 | 17 | 17 | 17 |
| SELECT [p].[Id], [p].[AdditionalShippingCharge], [p].[AdminComment], [p].[AllowAddingOnlyExistingAttributeCombinations], [p].[AllowBackInStockSubscriptions], [p].[AllowCustomerReviews], [p].[AllowedQuantities], [p].[ApprovedRatingSum], [p].[ApprovedTotalReviews], [p].[AutomaticallyAddRequiredProducts], [p].[AvailableEndDateTimeUtc], [p].[AvailableForPreOrder], [p]. | nopcommmm | 1 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 |

Created at: 2022-11-30 18:04:46.818 Time Zone: Eastern Standard Time America/New_York

## MS SQL Server Always On Availability Groups Monitoring

## MS SQl Server database configuration

CONFIGURATION GUIDES › DATABASES

# Creating a new user for SQL Server authentication and grant the necessary permissions.

Applicare 9.2 · Updated September 9, 2024 · sql-server · **Pending technical review**

1. Grant the **db_datareader** role to all the databases, including the **master** database. 2. Grant the following permissions: **alter trace, view server state, view database state** and **alter any event session**.

**Syntax:**

```
TEXT
use master;
grant alter trace to <new_user>;
grant view server state to <new_user>;
grant view database state to <new_user>;
grant alter any event session to <new_user>;
```

Replace **<new_user>** with the username of the newly created user.

**e.g.** If the new user name is **appms,** use that in place of **<new user>**

```
TEXT
use master;
grant alter trace to appms;
grant view server state to appms;
grant view database state to appms;
grant alter any event session to appms;
```

CONFIGURATION GUIDES › DATABASES

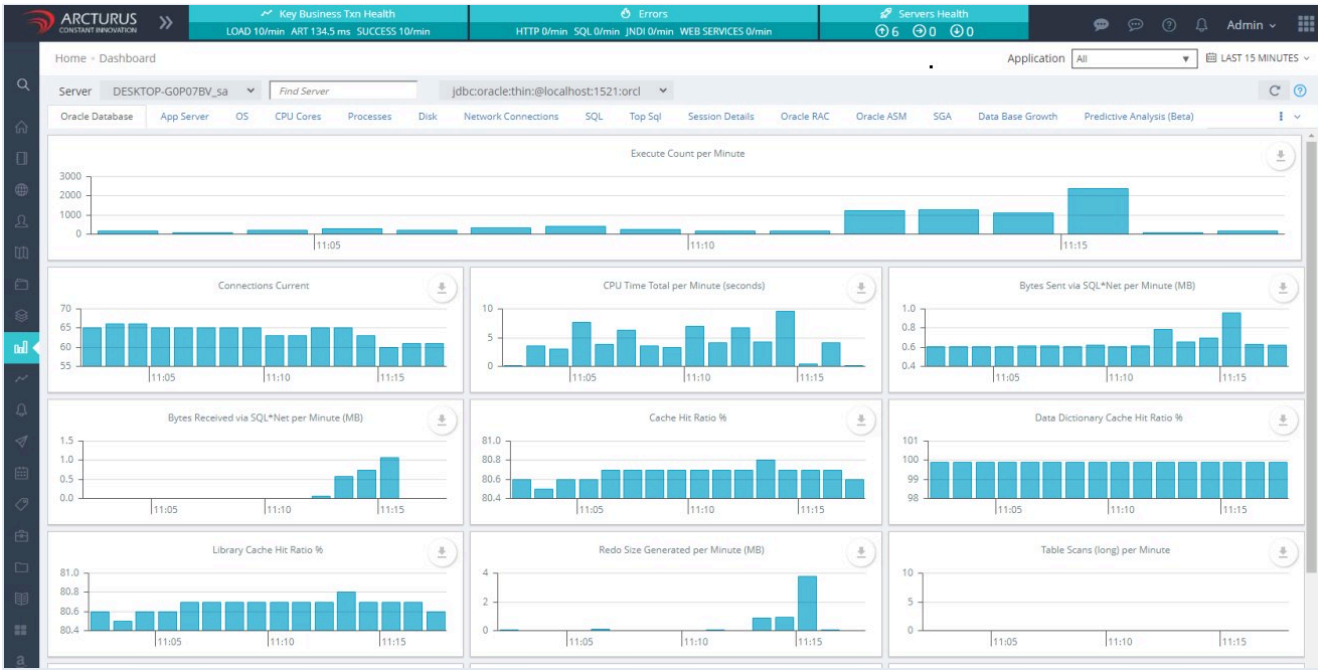
# Oracle Database Monitoring

Applicare 9.2 · Updated August 22, 2024 · oracle · **Pending technical review**

Log in to Applicare console and navigate to the **Server Analyzer** menu item on the left to view the details.

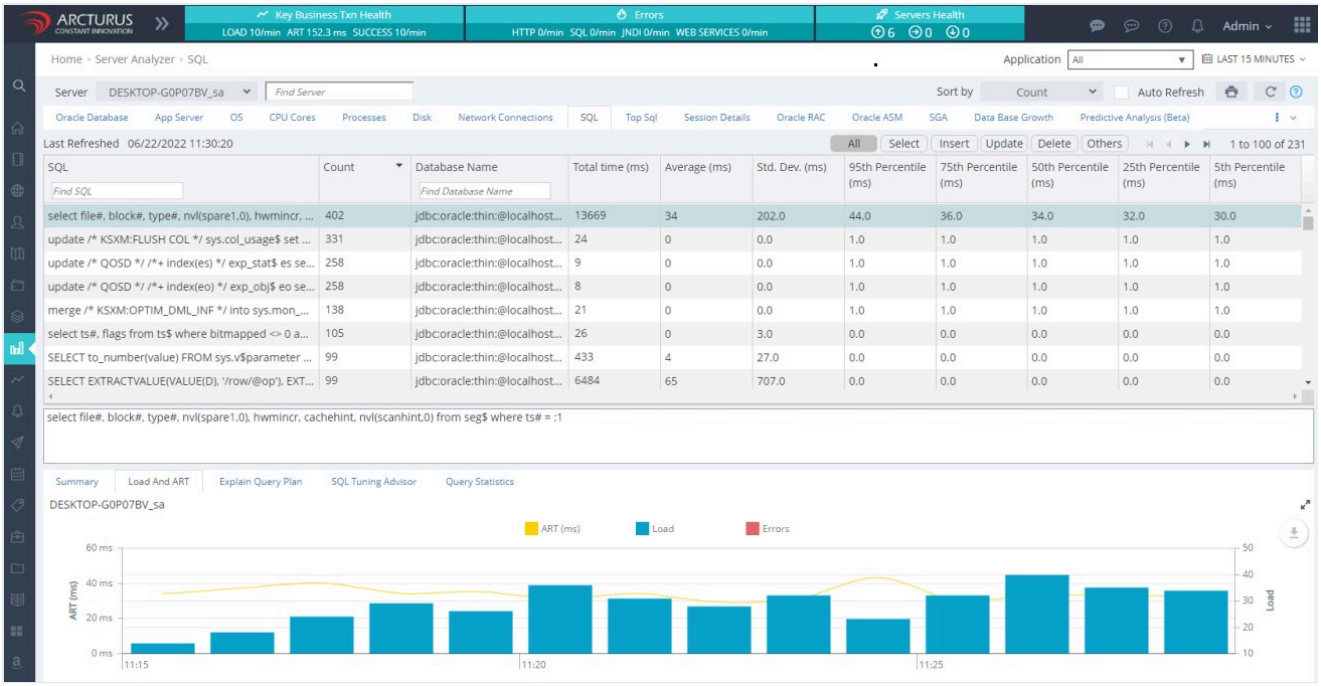
## Dashboard

Database performance metrics assist monitoring and optimizing your database's performance business. These metrics are calculated for the entire server, not just the database specified in the JDBC URL.



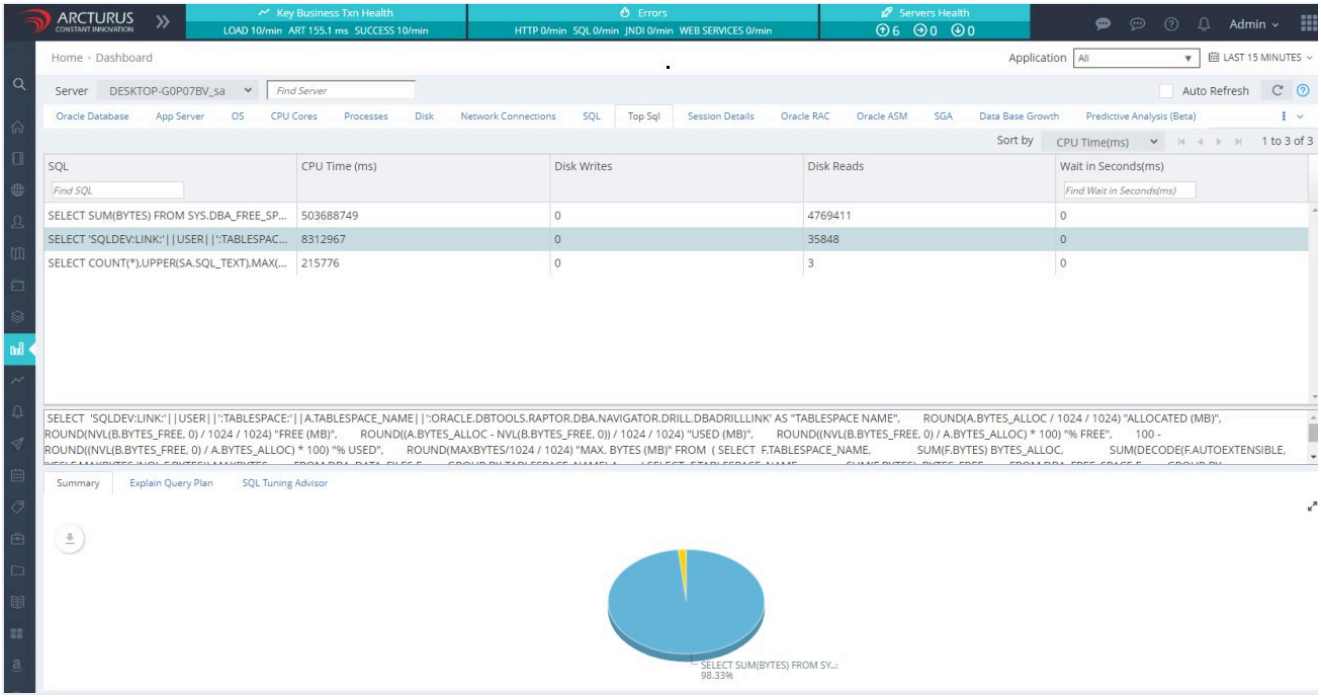

## SQL

SQL Statement Profiling offers performance statistics for database queries. Helping you identify which statements most time-consuming and diagnose performance issues swiftly. It also provides detailed stats including information of the database, query count, average execution time and various percentiles.



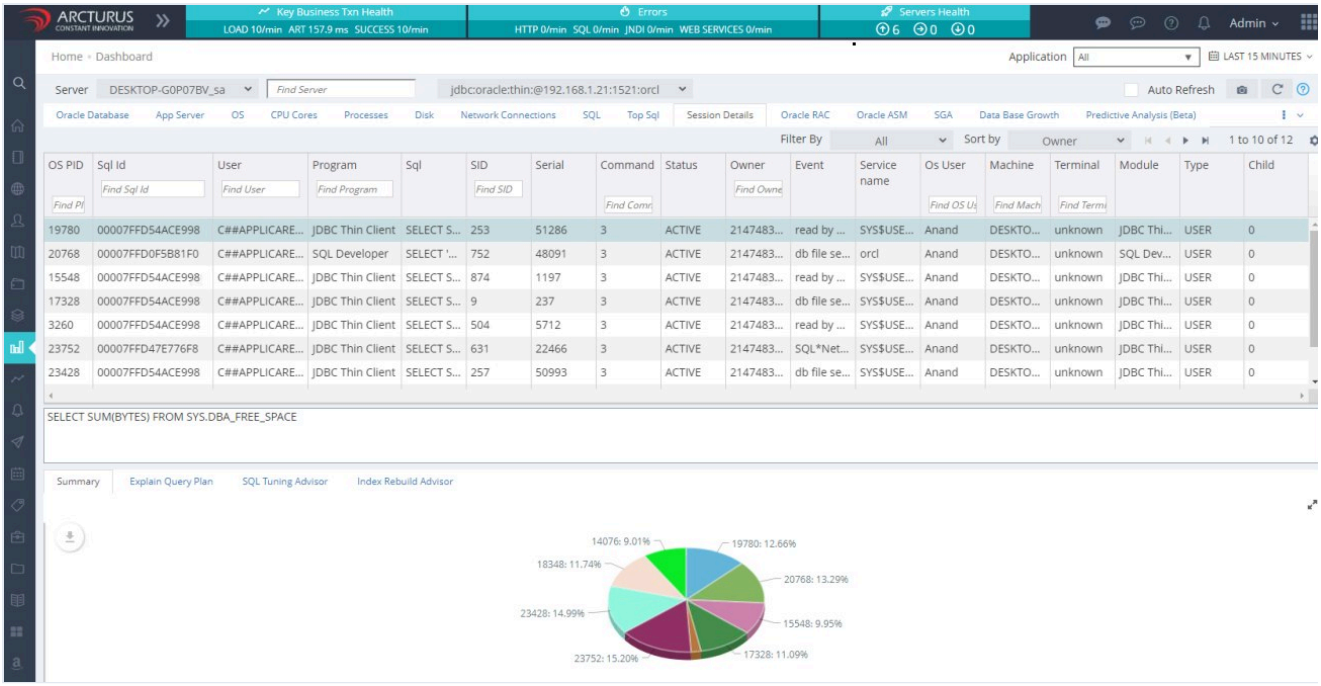

## Top SQL Details

This view shows the SQL statements that are executed most frequently and consume more system resources compared to others.



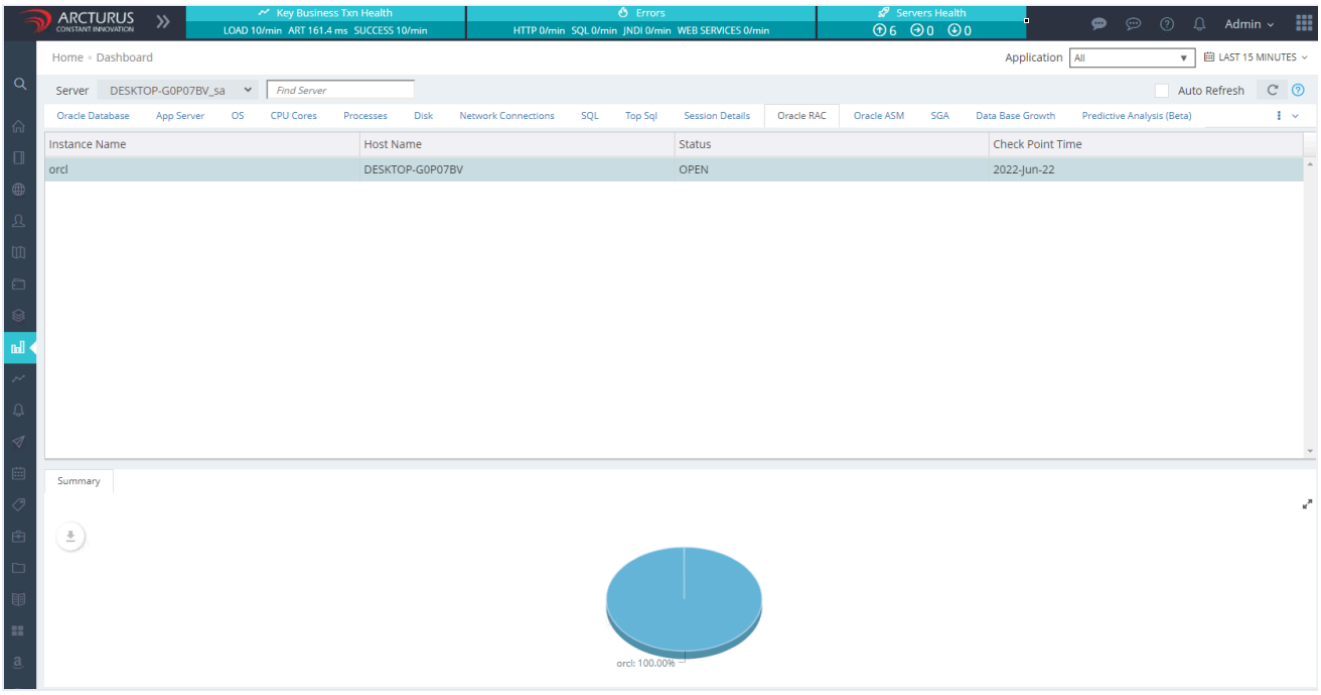

## Session Details

It provides details about the current user's session.



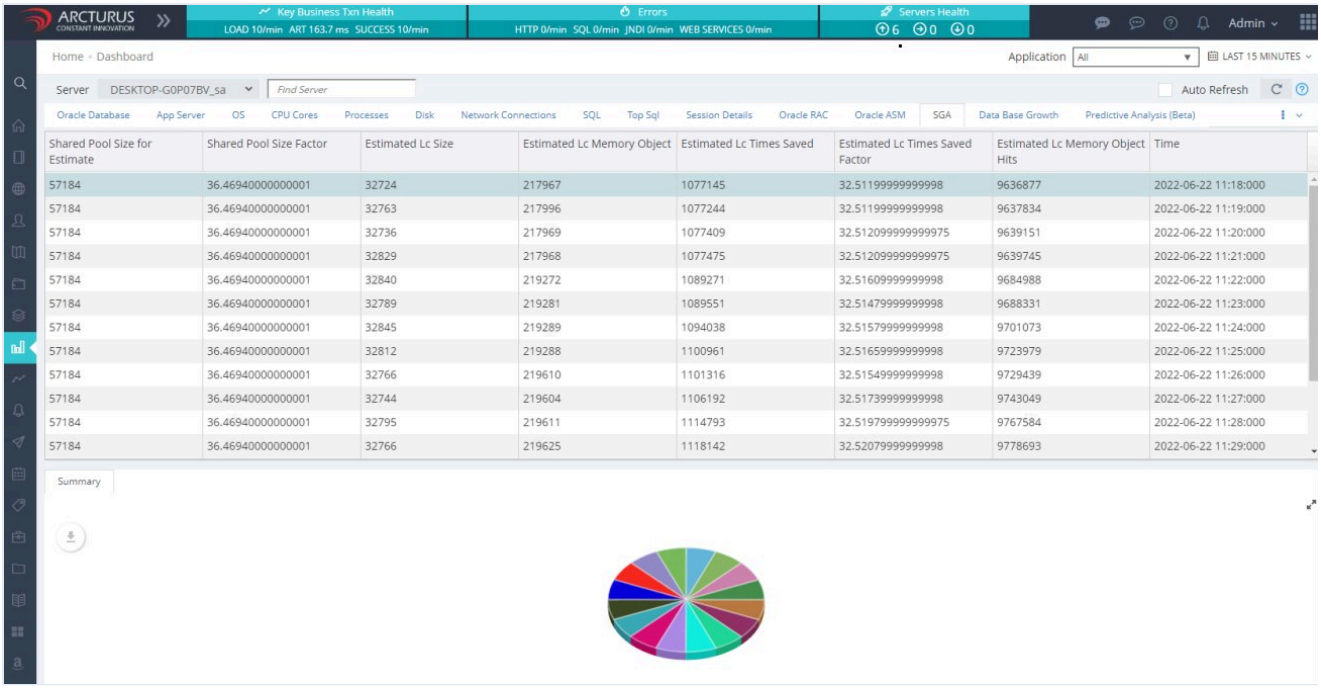

## RAC Details

Oracle Real Application Clusters (RAC) allow customers to run a single Oracle Database across multiple servers in order to maximize availability and enable horizontal scalability, while accessing shared storage.



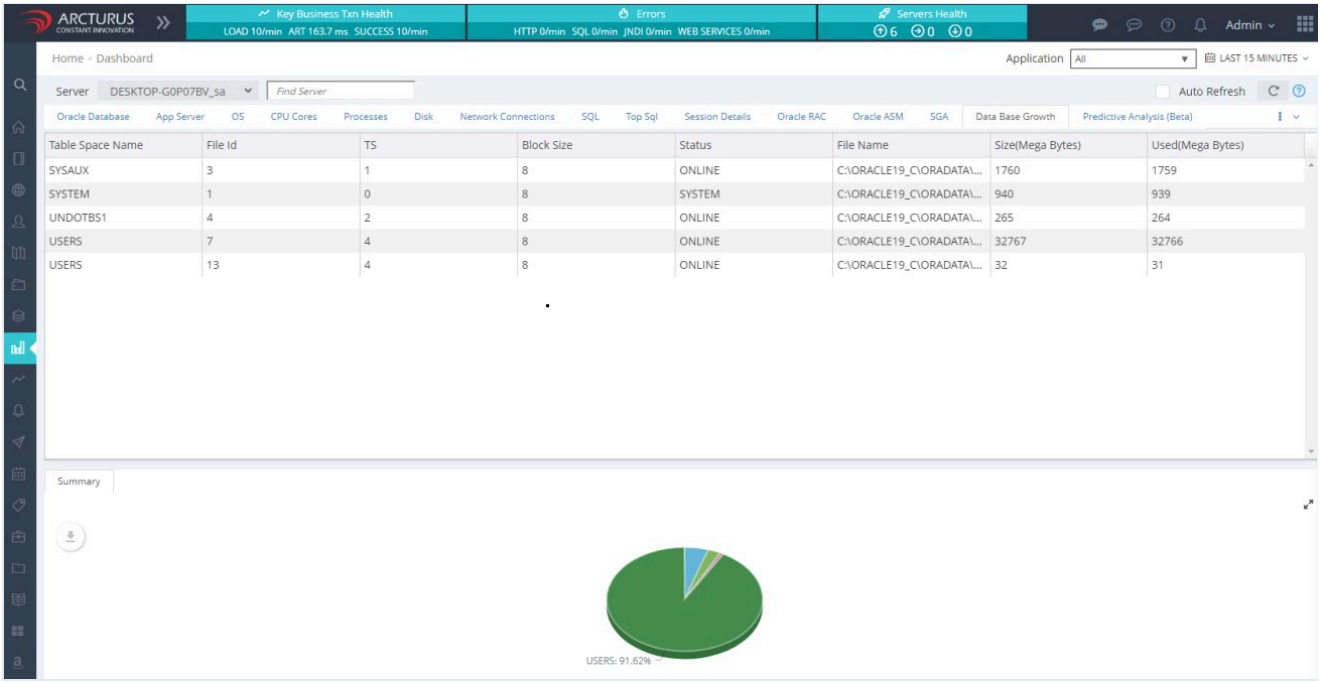

## SGA Details

The System Global Area (SGA) is a collection of shared memory structures, referred to as SGA components, that store data and control information.



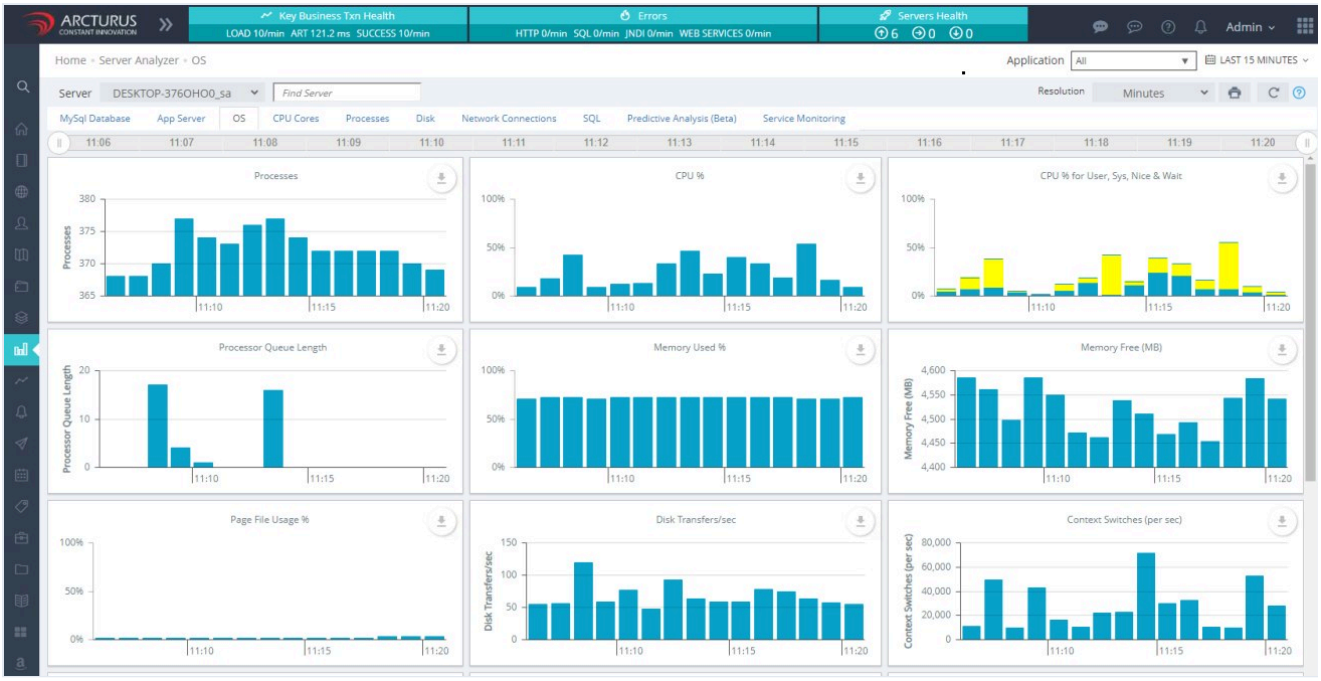

## Database Growth

It display the Database Growth details.



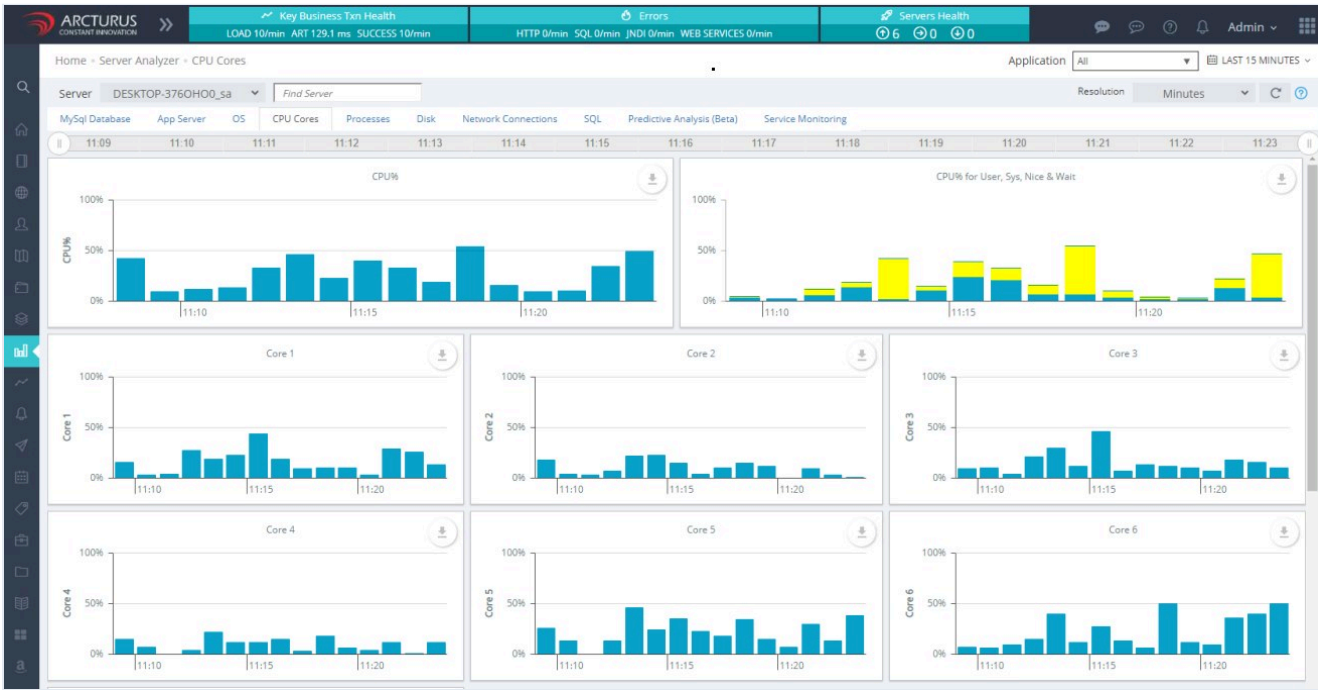

## OS

This view offers a quick and easy overview of your physical server's or VM's performance, including metrics such as the number of processes, context switches, CPU Usage, memory and storage performance, among others.



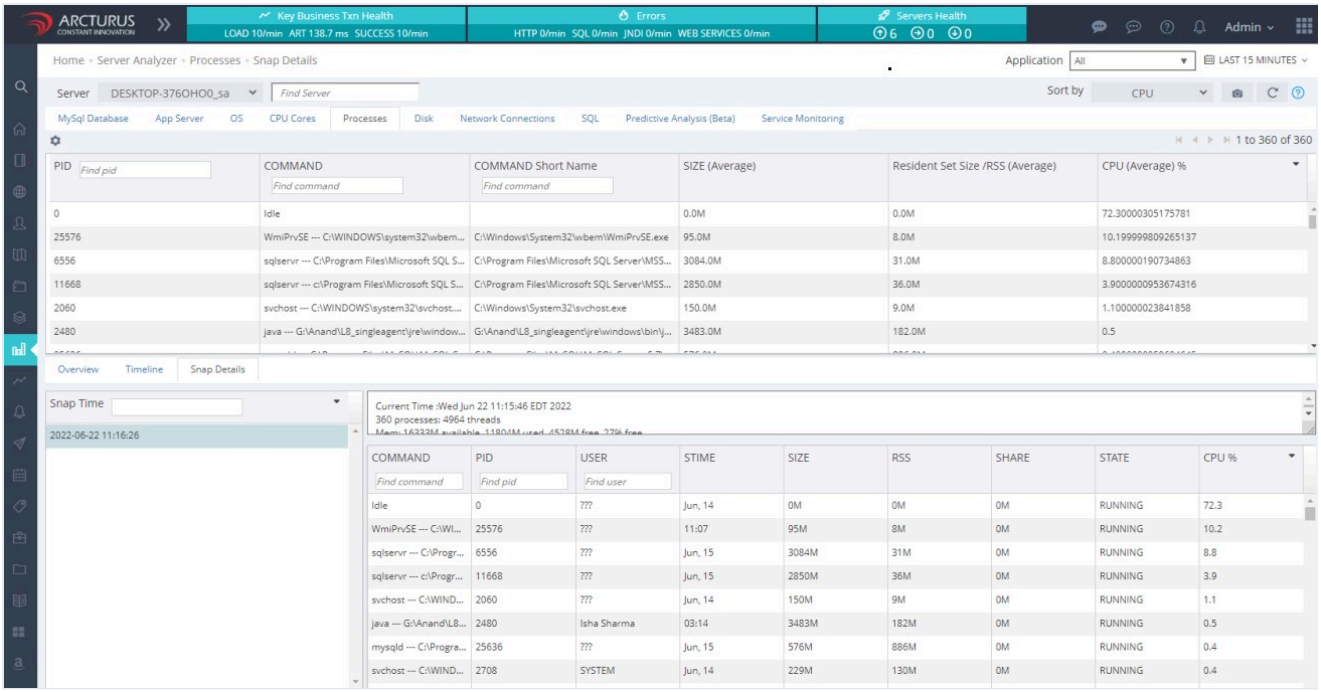

## CPU Core Analyzer

This view provides the overall CPU and it's individual CPU core details.



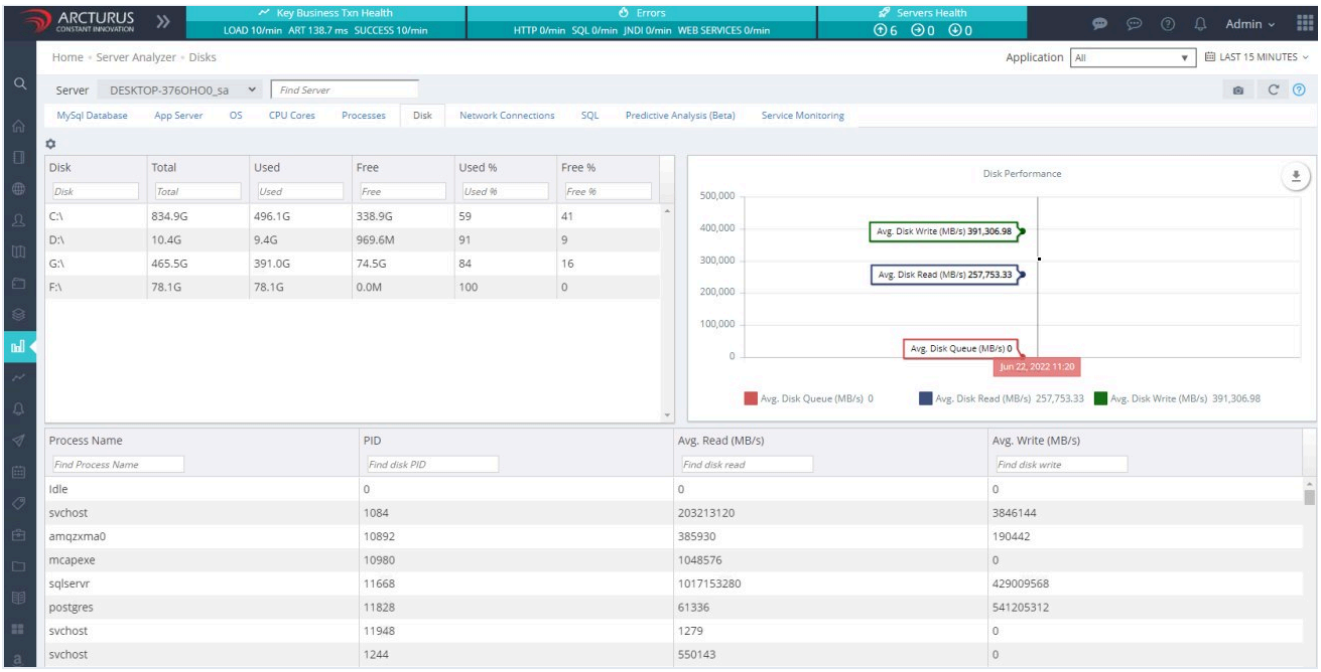

## Processes

This view offers performance stats for CPU, memory and running processes. It includes historical snapshots of various processes. showing their resource consumption at specific times. By default, Applicare takes a snapshot every 10 minutes, but this interval can be adjusted through configuration.



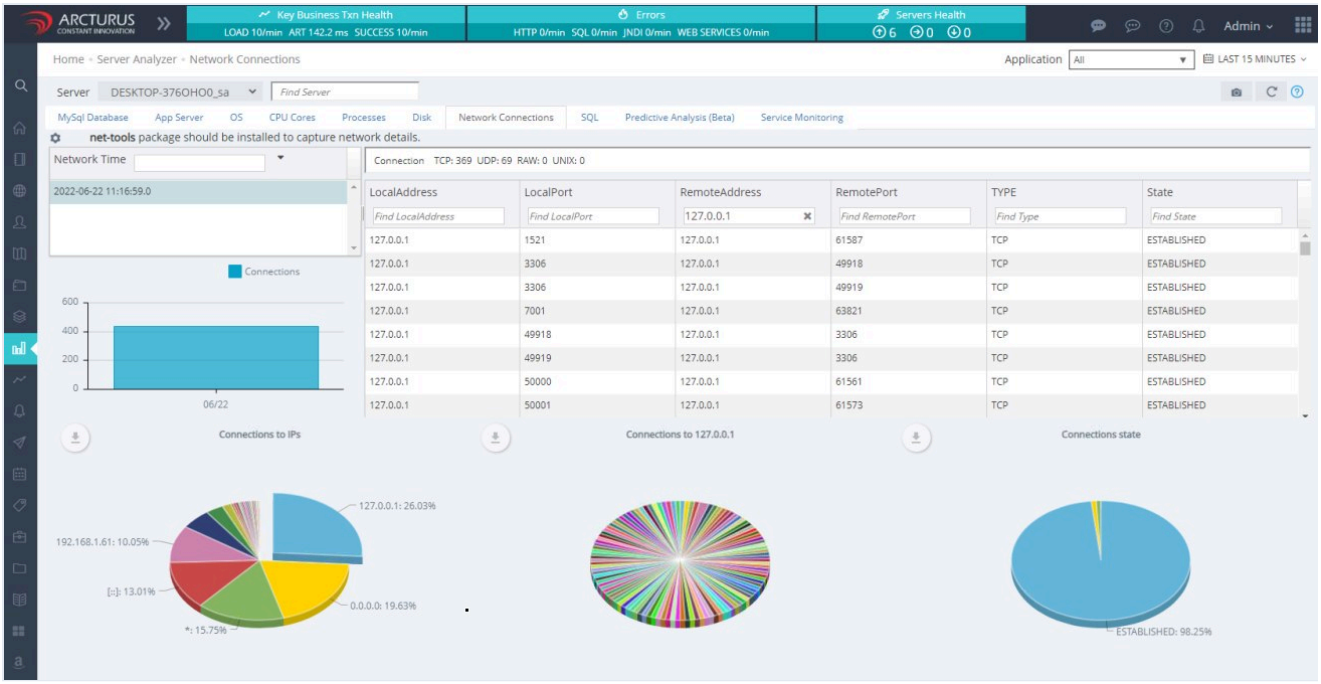

## Disk

This view shows the disk usage for each individual process.



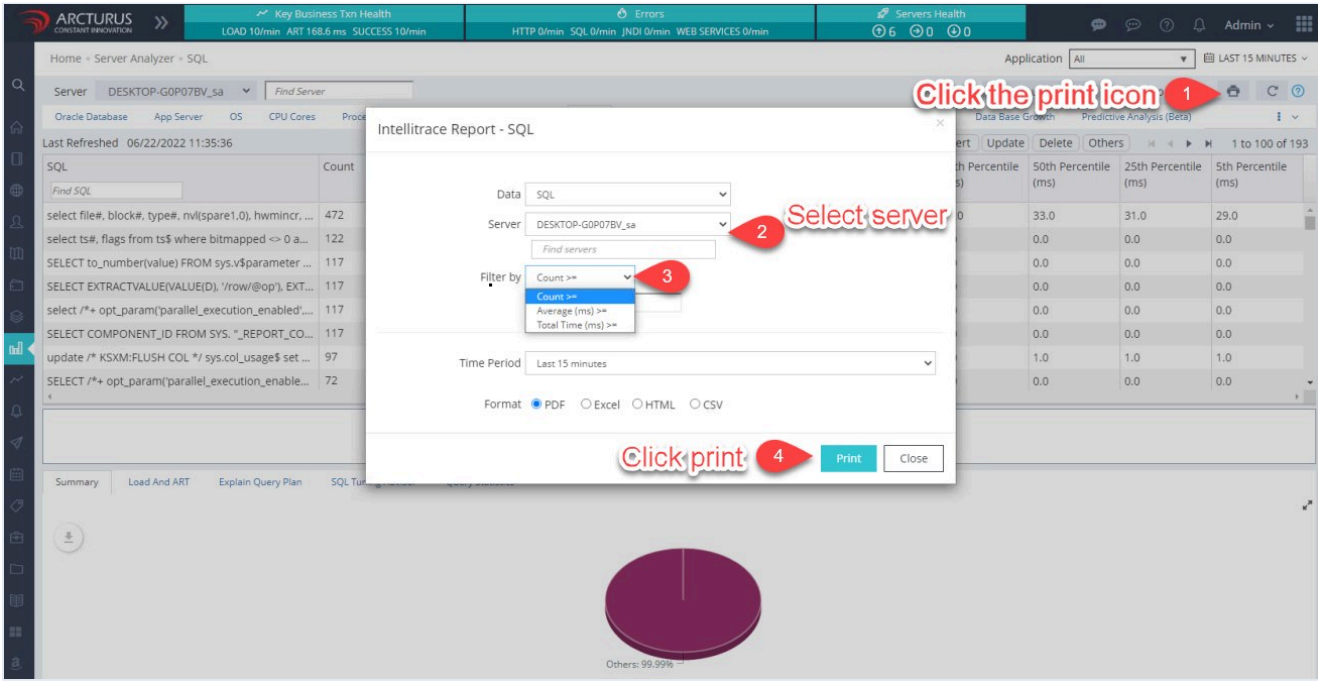

## Network Connections

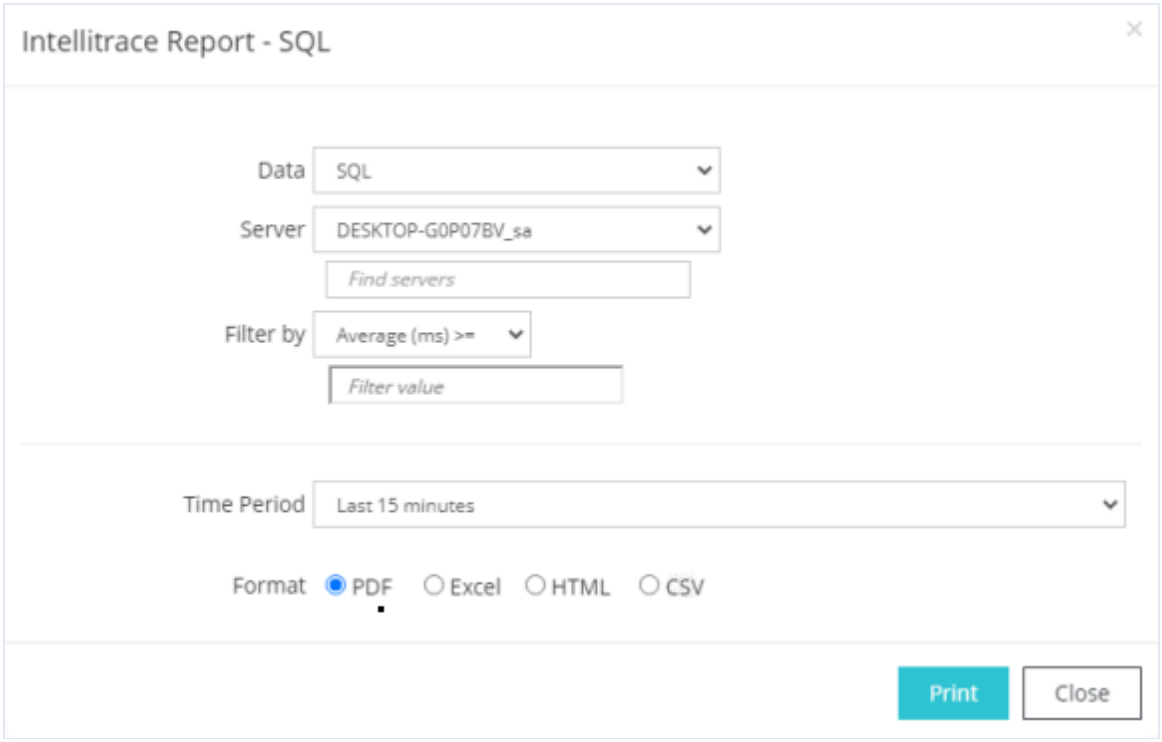
This view provides the TCP, UDP, RAW, and UNIX connection Details.




## SQL Report

You can download the SQL Statements as a report by clicking the print icon from the SQL Screen within the Server Analyzer menu.








ARCTURUS
CONSTANT INNOVATION

IntelliTrace SQL Report

From: 2022-06-22 11:37:00.0 To: 2022-06-22 11:52:09.408 Server: DESKTOP-G0P07BV_sa

| SQL | Database Name | Count | Total Time (ms) | Avg. Time (ms) | Minimum (ms) | Maximum (ms) | Std. Dev. (ms) | 95th Percentile (ms) | 75th Percentile (ms) | 50th Percentile (ms) | 25th Percentile (ms) | 5th Percentile (ms) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SELECT SUM(bytes) FROM SYS. DBA_FREE_SPACE | jdbc:oracle:thin: @localhost:1521: orcl | 13 | 10105709 | 777362 | -1 | 0 | 66631 | 865219 | 826397 | 791066 | 742201 | 606030 |
| SELECT name name , free_mb free_mb, total_mb total_mb, (free_mb/total_mb*100) percentage FROM v$asm_diskgroup | jdbc:oracle:thin: @localhost:1521: orcl | 14 | 28758 | 2054 | -1 | 0 | 766 | 2072 | 2060 | 2054 | 2046 | 2039 |
| BEGIN sys.dbms_auto_report_internal. i_save_report (:rep_ref, :snap_id, :pr_class, : rep_id, :suc); END; | jdbc:oracle:thin: @localhost:1521: orcl | 10 | 22376 | 2237 | -1 | 0 | 2351 | 8459 | 2388 | 1227 | 1111 | 1054 |
| select file#, block#, type#, nvl(spare1,0), hwmincr, cachehint, nvl(scanhint,0) from seg$ where ts# = :1 | jdbc:oracle:thin: @localhost:1521: orcl | 665 | 22046 | 33 | -1 | 0 | 164 | 42 | 35 | 33 | 30 | 27 |
| select ddf.TABLESPACE_NAME tableSpaceName, ddf.FILE_ID fileId, df.TS# ts, (df.BLOCK_SIZE/1024) blocksize,df.STATUS status,ddf.FILE_NAME fileName,(ddf.BYTES/ (1024*1024)) sizemb,(ddf.USER_BYTES/ (1024*1024)) usedmb from v$datafile df, dba_data_files ddf where df.FILE# = ddf. FILE_ID | jdbc:oracle:thin: @localhost:1521: orcl | 14 | 13130 | 937 | -1 | 0 | 1242 | 2473 | 1264 | 630 | 325 | 166 |
| SELECT DBMS_REPORT.GET_REPORT(:B1 ) FROM DUAL | jdbc:oracle:thin: @localhost:1521: orcl | 2 | 10859 | 5429 | -1 | 0 | 2854 | 8284 | 8284 | 5429 | 2575 | 2575 |
| SELECT XMLTYPE(DBMS_REPORT. GET_REPORT_WITH_SUMMARY(:B1 )) FROM DUAL | jdbc:oracle:thin: @localhost:1521: orcl | 8 | 10694 | 1336 | -1 | 0 | 1578 | 2639 | 1245 | 1043 | 991 | 0 |
| WITH MONITOR_DATA AS (SELECT INST_ID, KEY, NVL2(PX_QCSID, NULL, STATUS) STATUS, FIRST_REFRESH_TIME, LAST_REFRESH_TIME, REFRESH_COUNT, PROCESS_NAME, SID, SQL_ID, SQL_EXEC_START, SQL_EXEC_ID, DBOP_NAME, DBOP_EXEC_ID, SQL_PLAN_HASH_VALUE, | jdbc:oracle:thin: @localhost:1521: orcl | 8 | 10070 | 1258 | -1 | 0 | 1458 | 2459 | 1173 | 969 | 927 | 81 |

Created at: 2022-06-22 11:52:09.408 Time Zone: Eastern Standard Time America/New_York

Arcturus Applicare Page 1 of 74

## Configuration

Configuring Monitoring for Oracle Databases

CONFIGURATION GUIDES › DATABASES

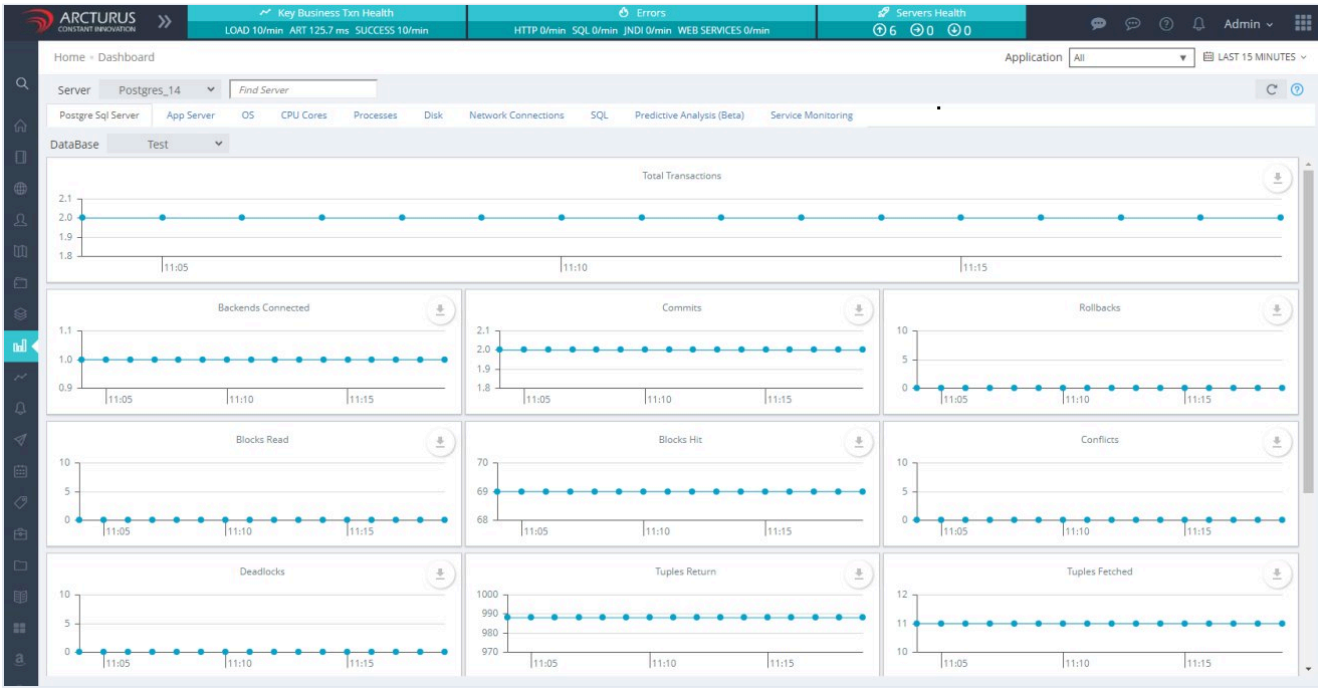
# PostgreSQL Database Monitoring

Applicare 9.2 · Updated September 13, 2024 · postgresql · **Pending technical review**

Log in to Applicare controller and navigate to the **Server Analyzer** menu to view the details.

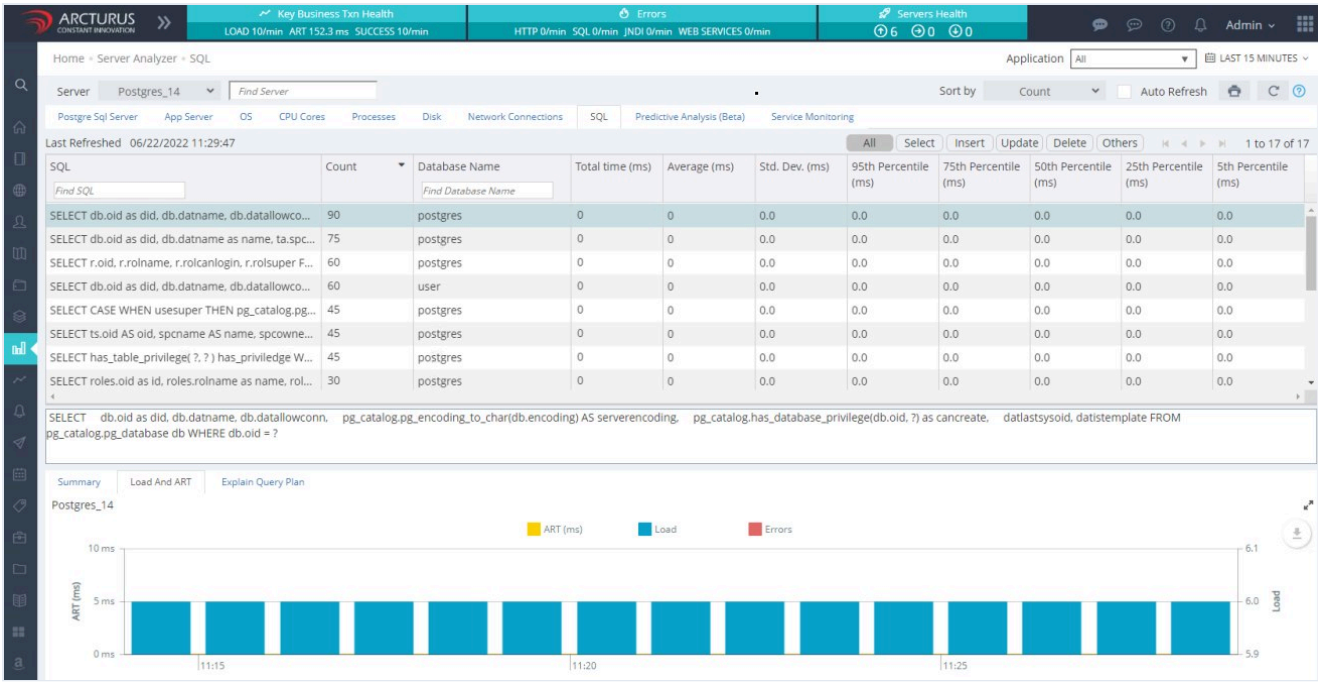
## Dashboard

Database performance metrics assist in monitoring and optimize your database's performance in your business. The metrics are calculated for the entire server, not limited to the database specified in the JDBC URL.



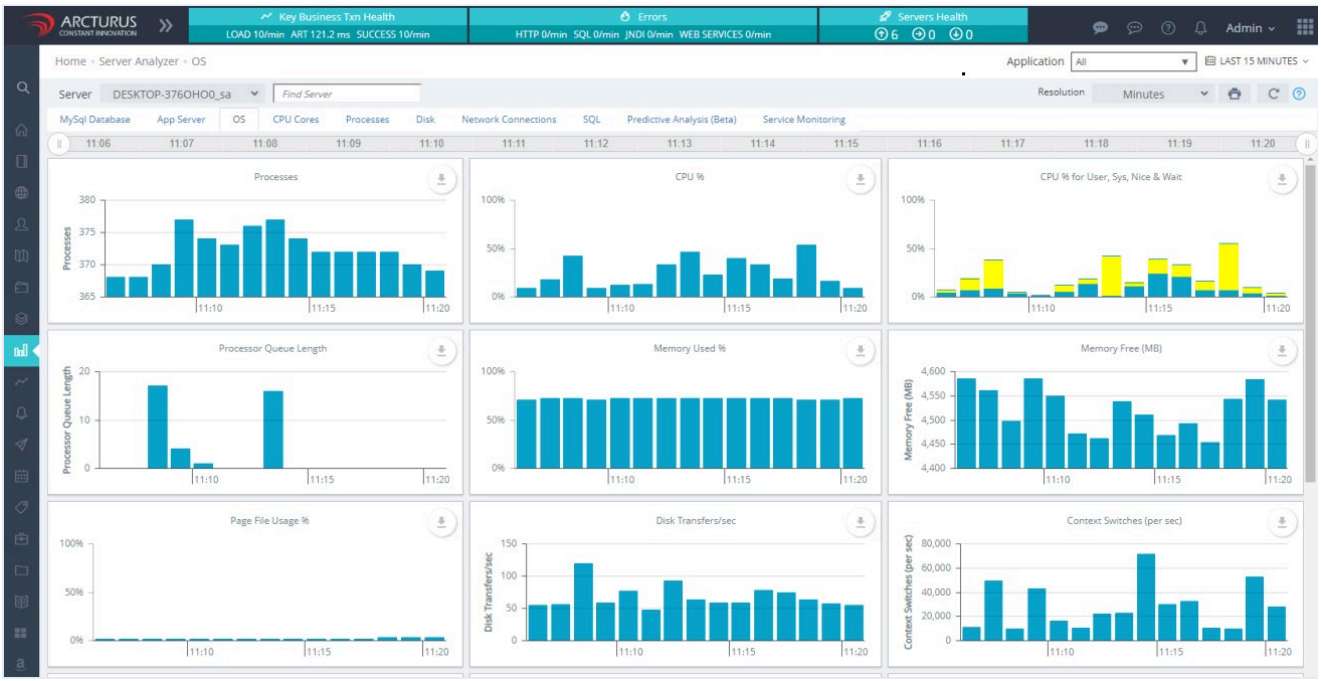

## SQL

**SQL Statement Profiling** provides the performance statistics of database queries. It helps you identify which statements are the most time and quickly diagnose performance issues SQL/s. Additionally, It provides detailed stats, including information on the database, query count, average execution time and various percentiles.



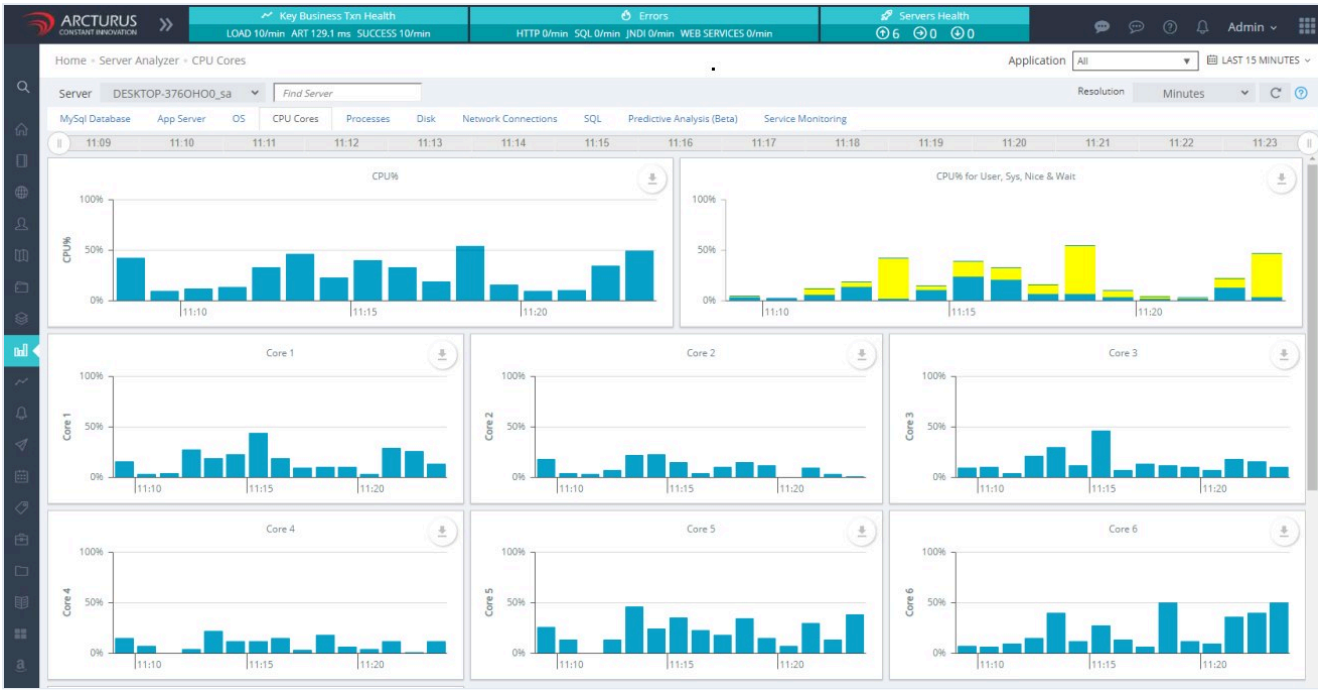

## OS

This view offers a quick and convenient overview of your physical server's/VM's performance including details on the number of processes, context switches, CPU Usage, memory, storage performance and more.



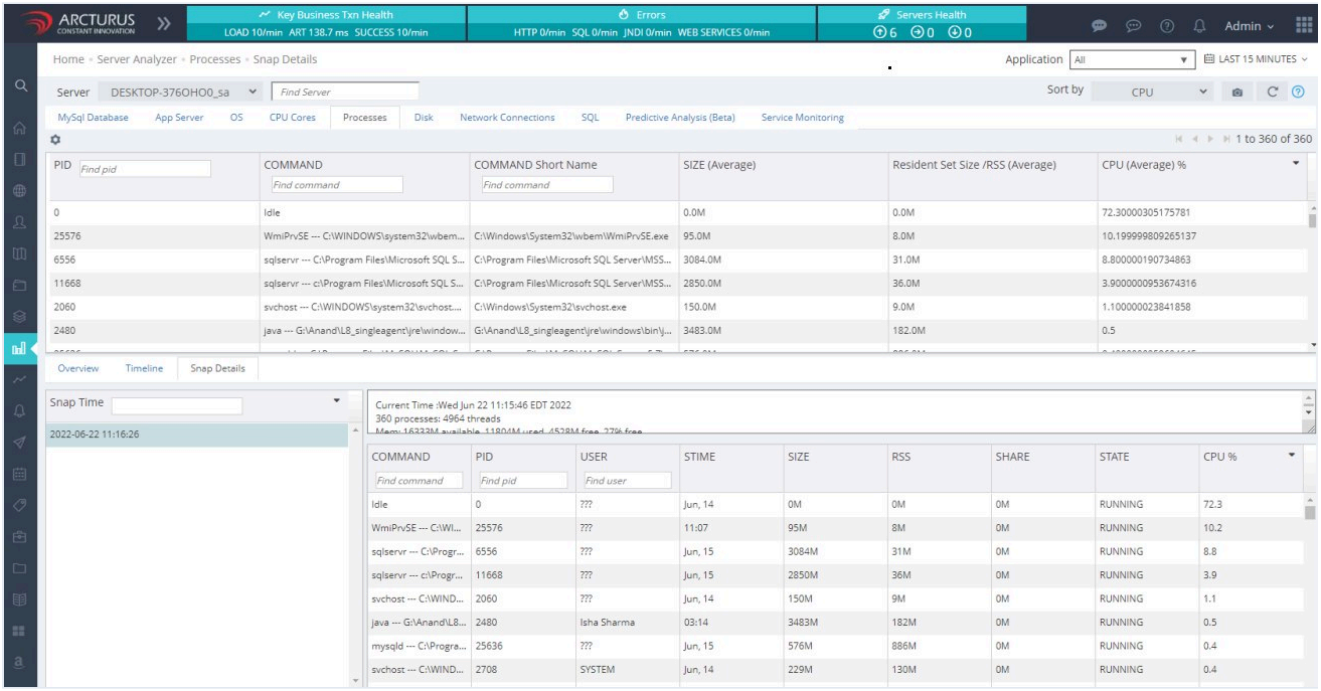

## CPU CORE Analyzer

This view presents an overview of the overall CPU as well as detailed information about each individual CPU core.



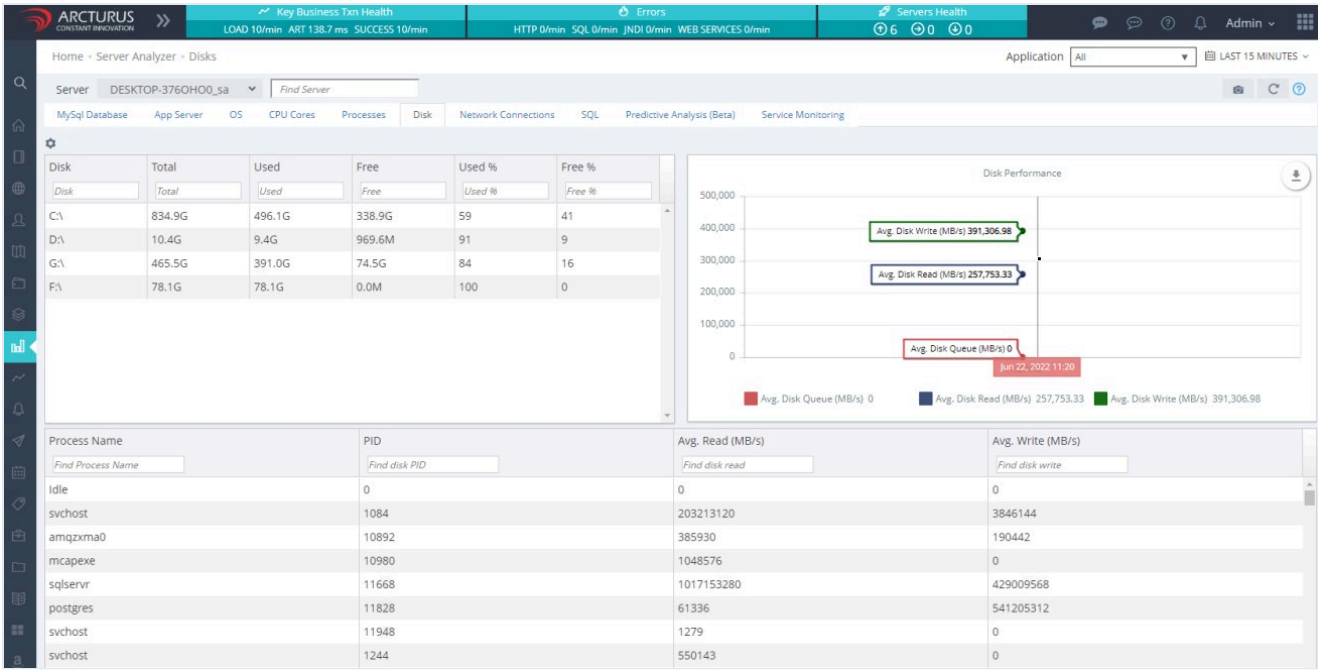

## Processes

This view offers organized performance stats for CPU, memory and running processes. It includes historical snapshots of various processes, showing their resources consumption at specific times. By default, Applicare captures these snapshots every 10 minutes but you can adjust by changing the interval as needed.



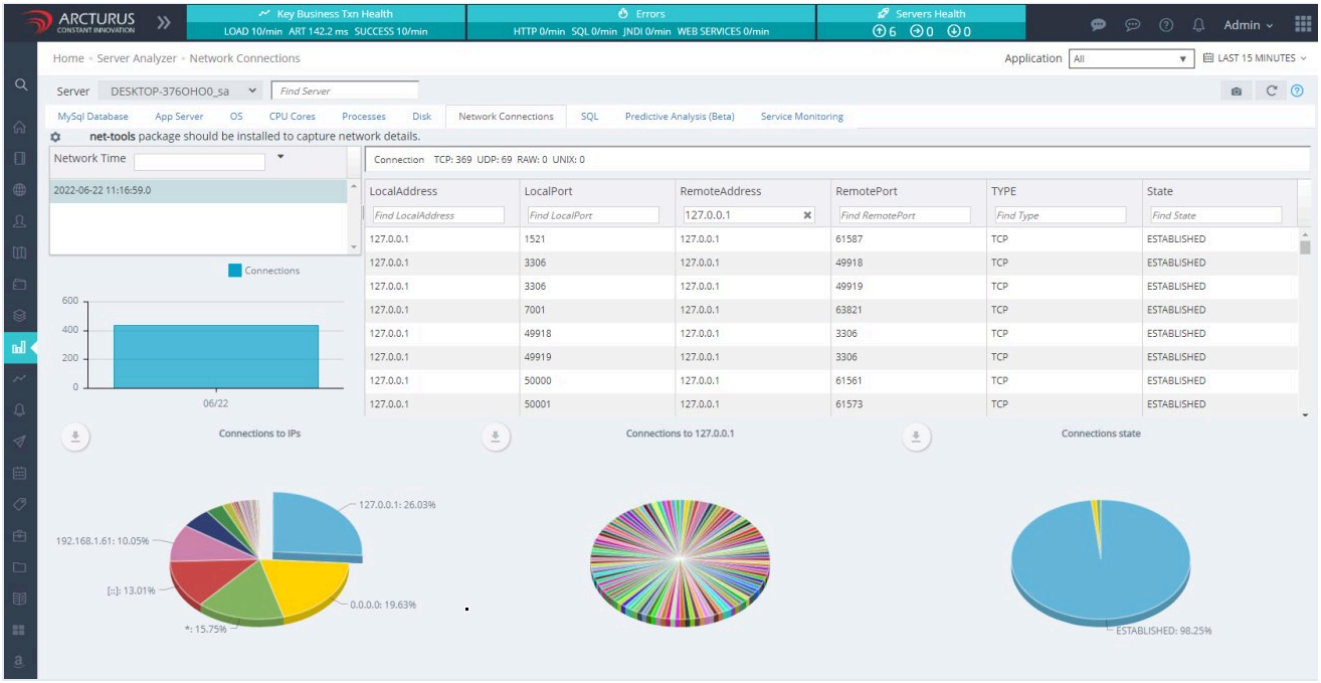

## Disk

This view displays the disk usage for each individual process.



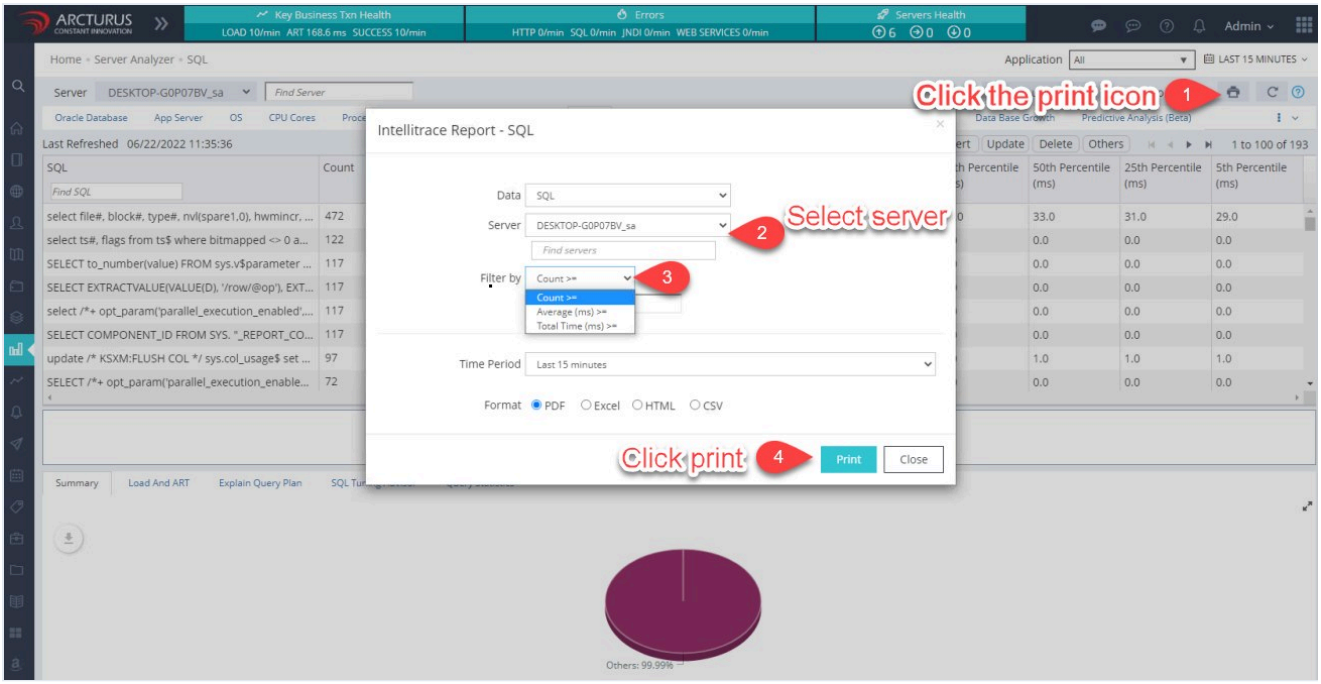

## Network Connections

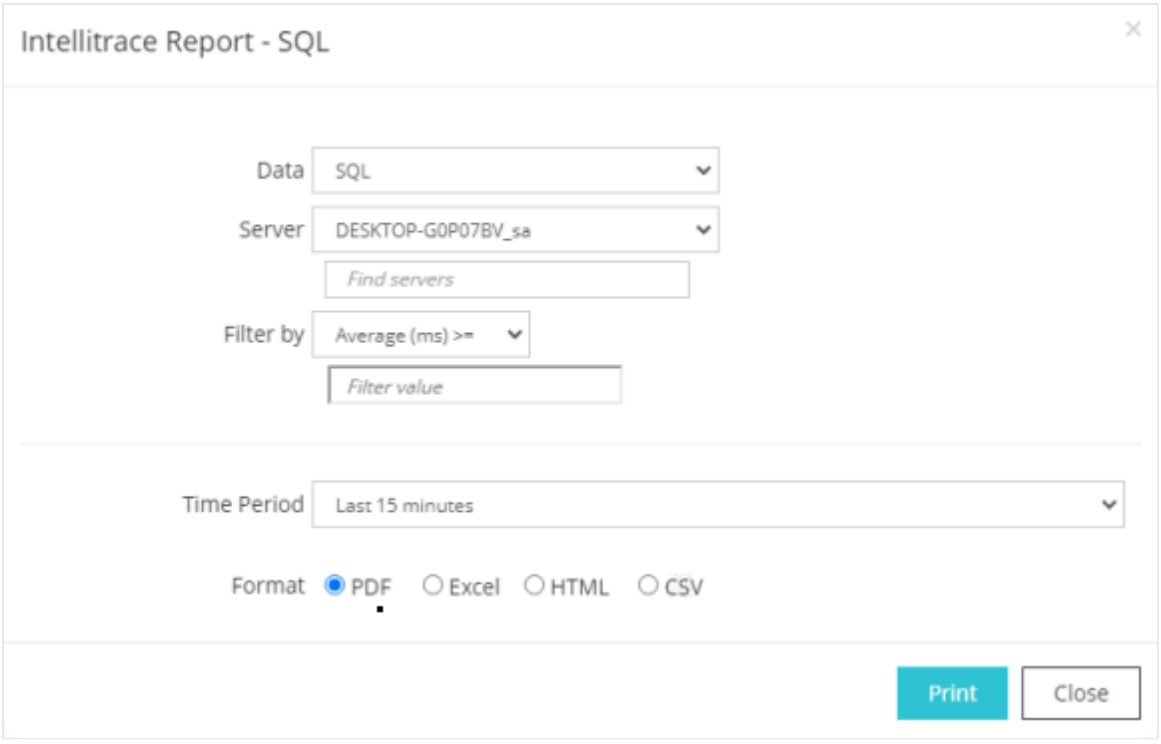
This view offers detailed information on TCP, UDP, RAW, and UNIX connection.

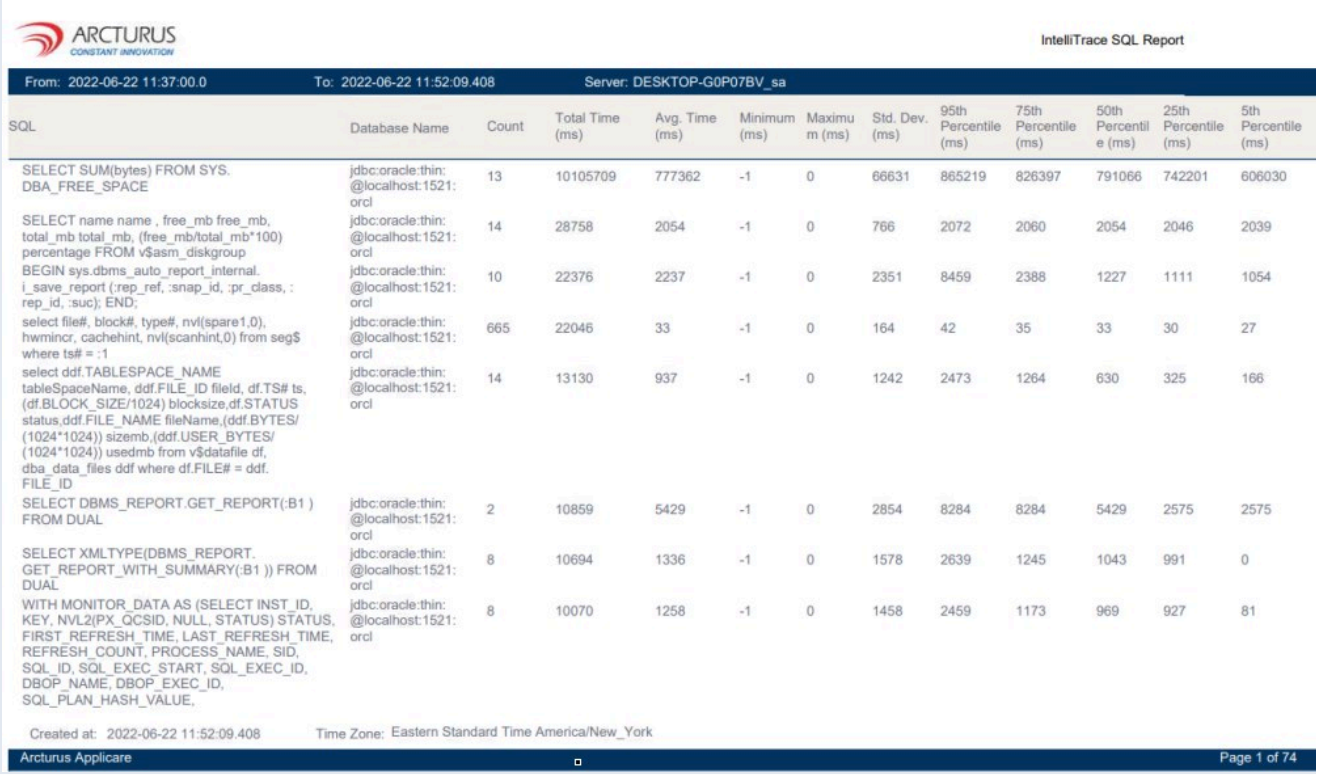



## SQL Report

You can download SQL statements as a report by clicking the print icon on the SQL Screen within the Server Analyzer menu.


Click the print icon
1
Intellitrace Report - SQL
Data
SQL
Server
DESKTOP-G0P07BV_sa
Select server
2
Find servers
Filter by
Count >=
3
Count >=
Average (ms) >=
Total Time (ms) >=
Time Period
Last 15 minutes
Format
PDF
Excel
HTML
CSV
Click print
4
Print
Close


Intellitrace Report - SQL
Data
SQL
Server
DESKTOP-G0P07BV_sa
Find servers
Filter by
Average (ms) >=
Filter value
Time Period
Last 15 minutes
Format
PDF
Excel
HTML
CSV
Print
Close



ARCTURUS
CONSTANT INNOVATION

IntelliTrace SQL Report

From: 2022-06-22 11:37:00.0 To: 2022-06-22 11:52:09.408 Server: DESKTOP-G0P07BV_sa

| SQL | Database Name | Count | Total Time (ms) | Avg. Time (ms) | Minimum (ms) | Maximum (ms) | Std. Dev. (ms) | 95th Percentile (ms) | 75th Percentile (ms) | 50th Percentile (ms) | 25th Percentile (ms) | 5th Percentile (ms) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SELECT SUM(bytes) FROM SYS.DBA_FREE_SPACE | jdbc:oracle:thin:@localhost:1521:orcl | 13 | 10105709 | 777362 | -1 | 0 | 66631 | 865219 | 826397 | 791066 | 742201 | 606030 |
| SELECT name name , free_mb free_mb, total_mb total_mb, (free_mb/total_mb*100) percentage FROM v$asm_diskgroup | jdbc:oracle:thin:@localhost:1521:orcl | 14 | 28758 | 2054 | -1 | 0 | 766 | 2072 | 2060 | 2054 | 2046 | 2039 |
| BEGIN sys.dbms_auto_report_internal.i_save_report (:rep_ref, :snap_id, :pr_class, :rep_id, :suc); END; | jdbc:oracle:thin:@localhost:1521:orcl | 10 | 22376 | 2237 | -1 | 0 | 2351 | 8459 | 2388 | 1227 | 1111 | 1054 |
| select file#, block#, type#, nvl(spare1,0), hwmincr, cachehint, nvl(scanhint,0) from seg$ where ts# = :1 | jdbc:oracle:thin:@localhost:1521:orcl | 665 | 22046 | 33 | -1 | 0 | 164 | 42 | 35 | 33 | 30 | 27 |
| select ddf.TABLESPACE_NAME tableSpaceName, ddf.FILE_ID fileId, df.TS# ts, (df.BLOCK_SIZE/1024) blocksize,df.STATUS status,ddf.FILE_NAME fileName,(ddf.BYTES/(1024*1024)) sizemb,(ddf.USER_BYTES/(1024*1024)) usedmb from v$datafile df, dba_data_files ddf where df.FILE# = ddf.FILE_ID | jdbc:oracle:thin:@localhost:1521:orcl | 14 | 13130 | 937 | -1 | 0 | 1242 | 2473 | 1264 | 630 | 325 | 166 |
| SELECT DBMS_REPORT.GET_REPORT(:B1 ) FROM DUAL | jdbc:oracle:thin:@localhost:1521:orcl | 2 | 10859 | 5429 | -1 | 0 | 2854 | 8284 | 8284 | 5429 | 2575 | 2575 |
| SELECT XMLTYPE(DBMS_REPORT.GET_REPORT_WITH_SUMMARY(:B1 )) FROM DUAL | jdbc:oracle:thin:@localhost:1521:orcl | 8 | 10694 | 1336 | -1 | 0 | 1578 | 2639 | 1245 | 1043 | 991 | 0 |
| WITH MONITOR_DATA AS (SELECT INST_ID, KEY, NVL2(PX_QCSID, NULL, STATUS) STATUS, FIRST_REFRESH_TIME, LAST_REFRESH_TIME, REFRESH_COUNT, PROCESS_NAME, SID, SQL_ID, SQL_EXEC_START, SQL_EXEC_ID, DBOP_NAME, DBOP_EXEC_ID, SQL_PLAN_HASH_VALUE, | jdbc:oracle:thin:@localhost:1521:orcl | 8 | 10070 | 1258 | -1 | 0 | 1458 | 2459 | 1173 | 969 | 927 | 81 |

Created at: 2022-06-22 11:52:09.408 Time Zone: Eastern Standard Time America/New_York

Arcturus Applicare Page 1 of 74

# Configuration

PostgreSQL Database Setup

**Monitoring with Applicare**

CONFIGURATION GUIDES › DATABASES

# MongoDB database monitoring

Applicare 9.2 · Updated September 23, 2025 · mongodb · **Pending technical review**

Create a new user with the **root** role for that new user.

**Syntax:**

use admin

db.createUser({ user: "**USERNAME**", pwd: "**PASSWORD**", roles: [ { role: "**root**", db: "admin" } ] })

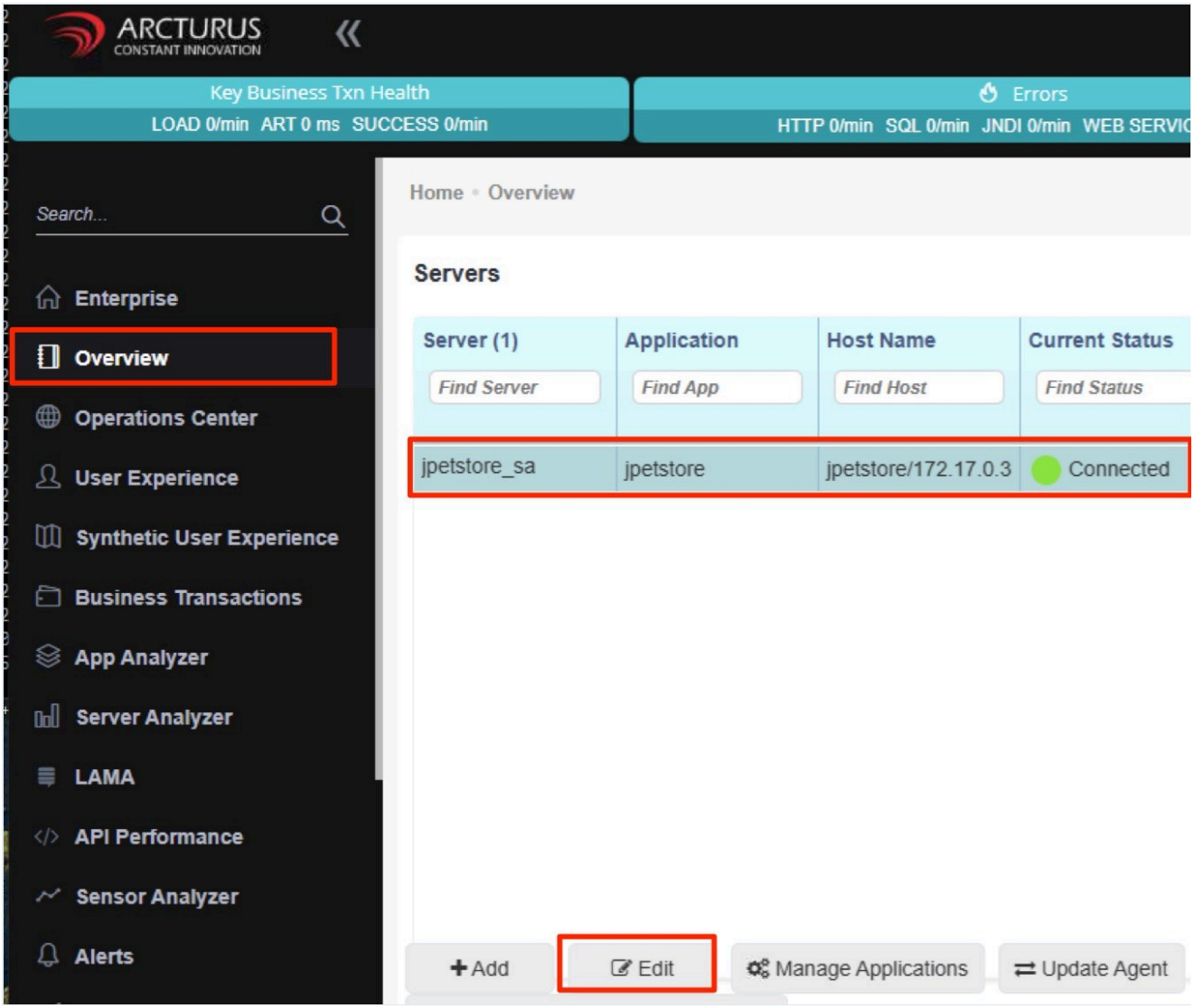
**Example:**

```yaml
use admin

db.createUser({
user: "applicare",
pwd: "applicare123",
roles: [ { role: "root", db: "admin" } ]
})
```

**Step 1:** Install Applicare SingleAgent in the machine where **MongoDB** is running by following the provided installation steps.

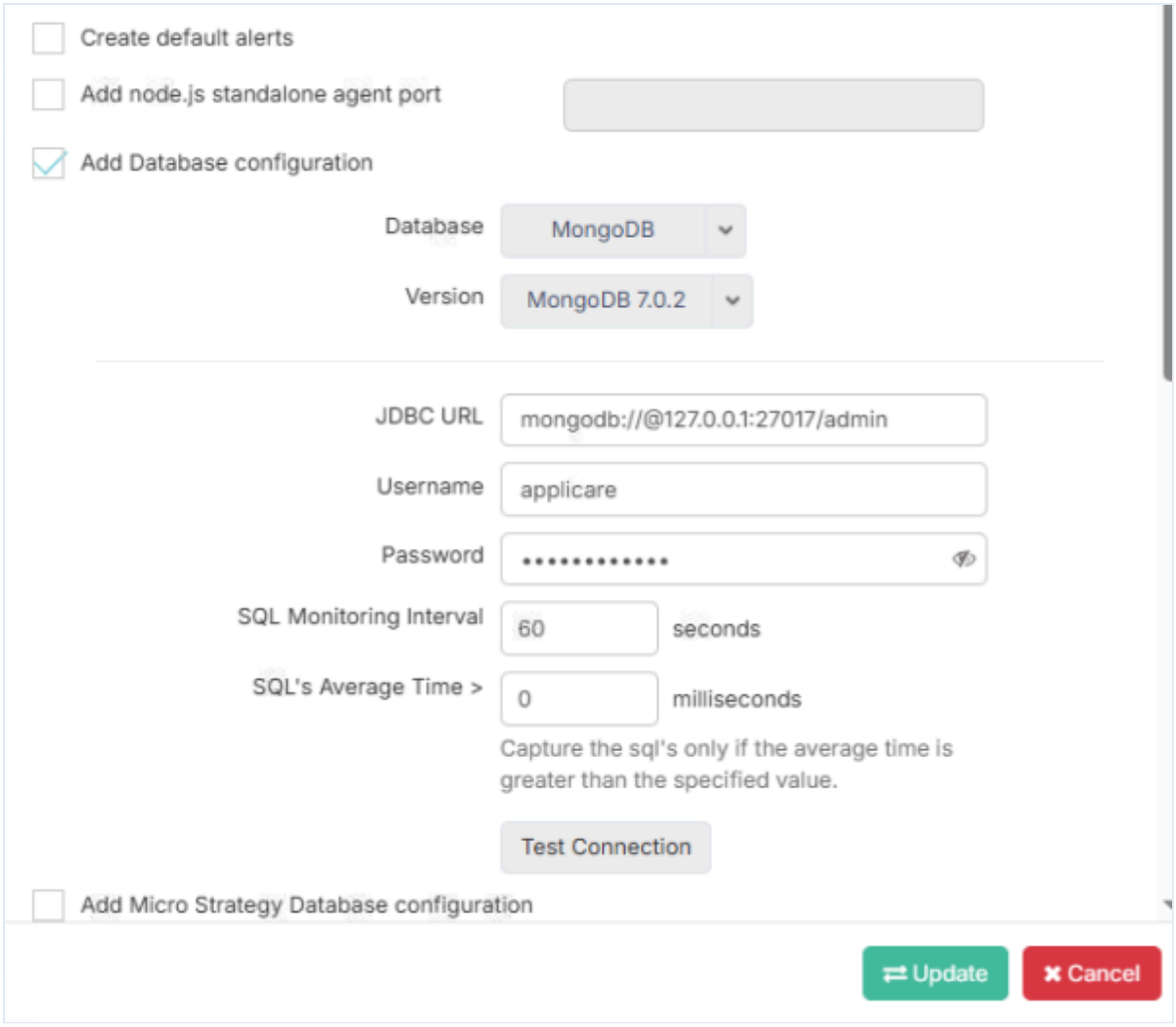
**Step 2:** Select the newly added agent and click the **Edit** button.




**Step 3:** Check the "**Add Database Configuration**" checkbox, choose "**MongoDB**" from the **Database** dropdown, and Select your MongoDB server version from the **Version** dropdown. If the version is not listed in the dropdown then select the most recent version available.

**Step 4:** Enter the **JDBC URL, Username** and **Password** then click the **update** button.

Checking the **Test Connection** option is not mandatory. This test verifies the connection from controller machine to the agent machine.

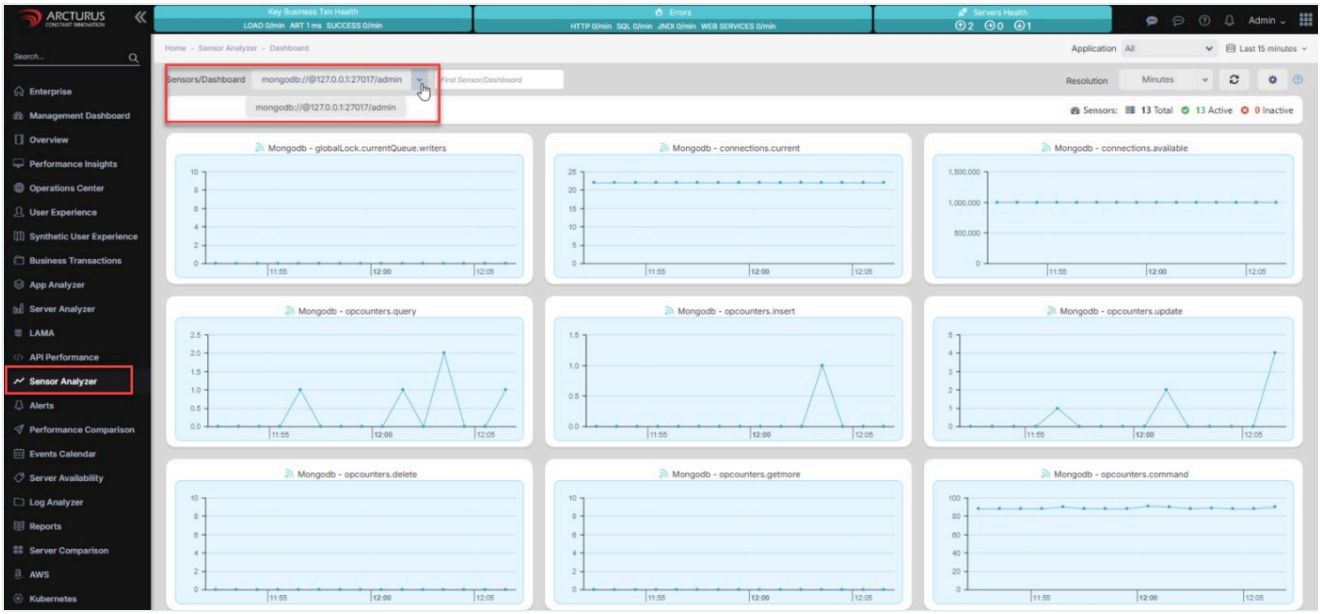



## Sample JDBC URL

**Syntax:** mongodb://@[ip]:[port]/[database]

**Eg:** mongodb://@127.0.0.1:27017/admin

**Step 4:** To verify the MongoDB data, go to the **Sensor Analyzer** screen in the left-hand menu and select MongoDB connection string in the **sensor dashboard drop down**.


ARCTURUS
Key Business Txn Health
LOAD 0/min ART 1 ms SUCCESS 0/min
Errors
HTTP 0/min SQL 0/min JNDI 0/min WEB SERVICES 0/min
Servers Health
2 0 1
Admin
Search...
Enterprise
Management Dashboard
Overview
Performance Insights
Operations Center
User Experience
Synthetic User Experience
Business Transactions
App Analyzer
Server Analyzer
LAMA
API Performance
Sensor Analyzer
Alerts
Performance Comparison
Events Calendar
Server Availability
Log Analyzer
Reports
Server Comparison
AWS
Kubernetes
Home - Sensor Analyzer - Dashboard
Application All
Last 15 minutes
Sensors/Dashboard
mongodb://@127.0.0.1:27017/admin
Find Sensor/Dashboard
Resolution
Minutes
Sensors: 13 Total 13 Active 0 Inactive
Mongodb - globalLock.currentQueue.writers
Mongodb - connections.current
Mongodb - connections.available
Mongodb - opcounters.query
Mongodb - opcounters.insert
Mongodb - opcounters.update
Mongodb - opcounters.delete
Mongodb - opcounters.getmore
Mongodb - opcounters.command

CONFIGURATION GUIDES › DATABASES

# Redis Monitoring

Applicare 9.2 · Updated December 24, 2025 · redis · **Pending technical review**

Create a new user account and designate the relevant permissions in Redis.

**Step 1:** Open the **redis.conf** file, Add the following line to the file to create a **read-only** user, and save it.

```
TEXT
user <readonly_user> on ><readonly_password> ~* +@read +info +slowlog
```

Substitute `<readonly_user>` and `<readonly_password>` with the newly username and password you have just created.

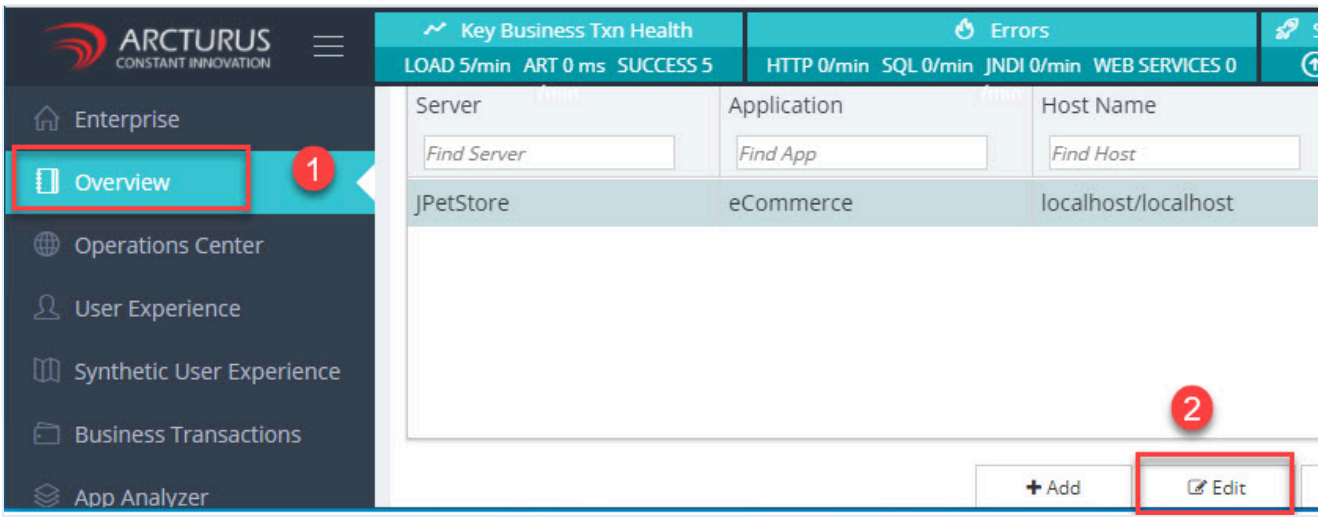
**Example:** If the newly created username is **appuser** and the password is **appuserpass**, use these details in place of `<readonly_user>` and `<readonly_password>`."

```
TEXT
user appuser on >appuserpass ~* +@read +info +slowlog
```

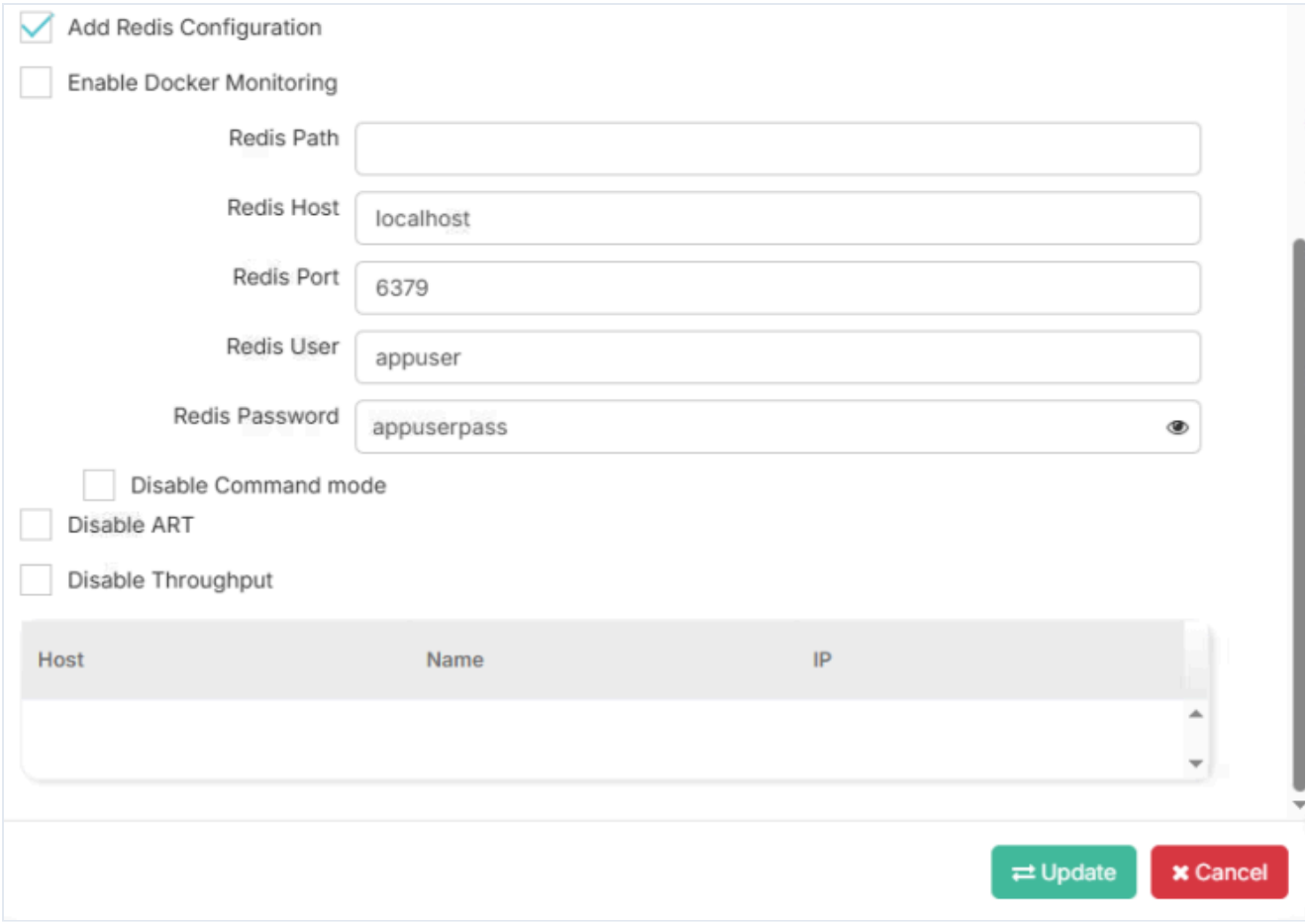
**Step 2:** Once the file is saved, **Restart Redis**.

**Step 3:** Install Applicare SingleAgent in the machine where **Redis database** is running by following the provided installation steps. Follow the steps for **Installing Applicare SingleAgent**

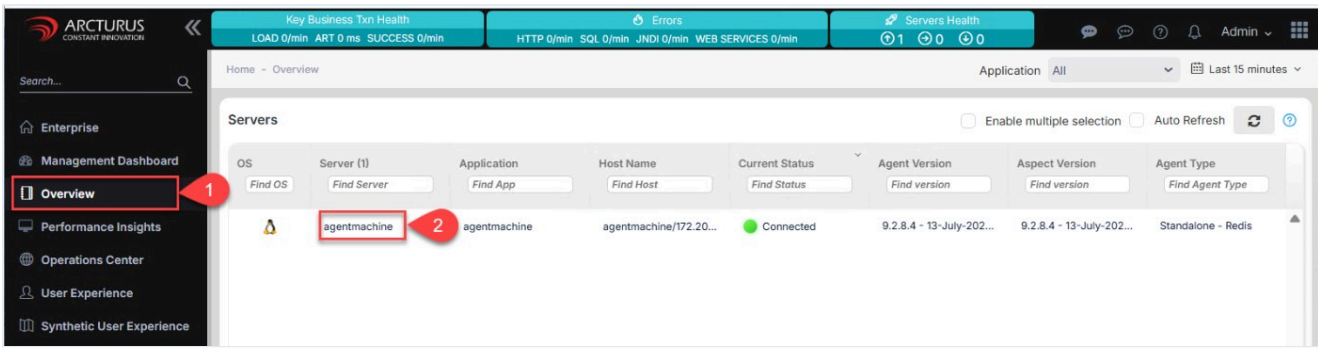
**Step 4:** Select the newly added agent and click the **Edit** button.

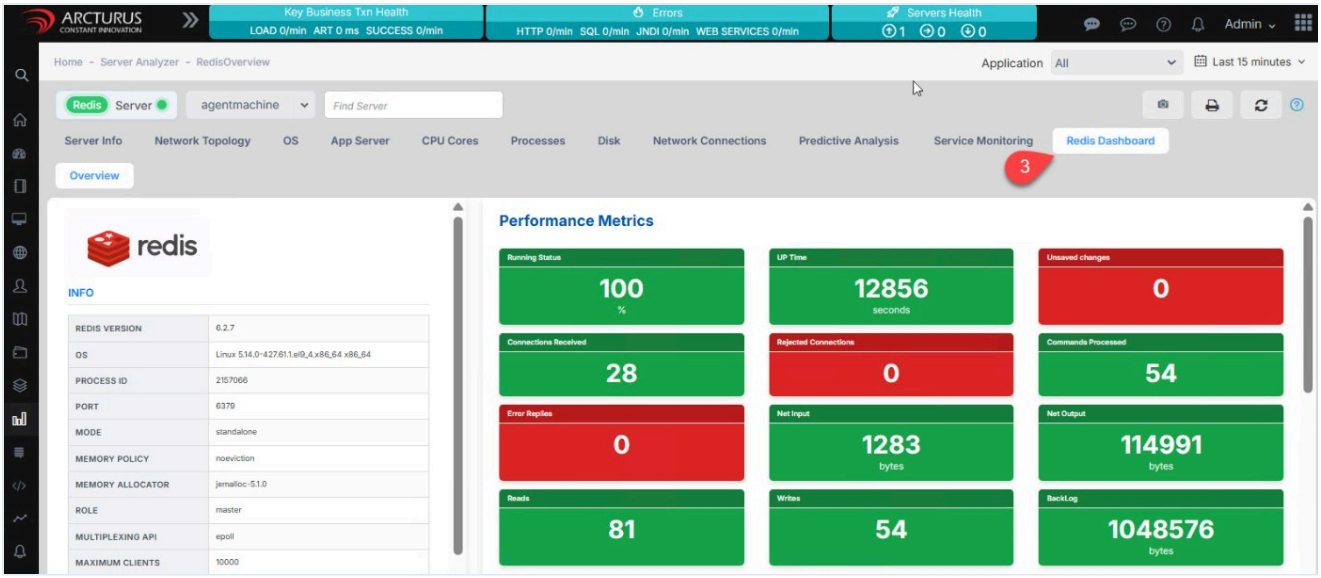


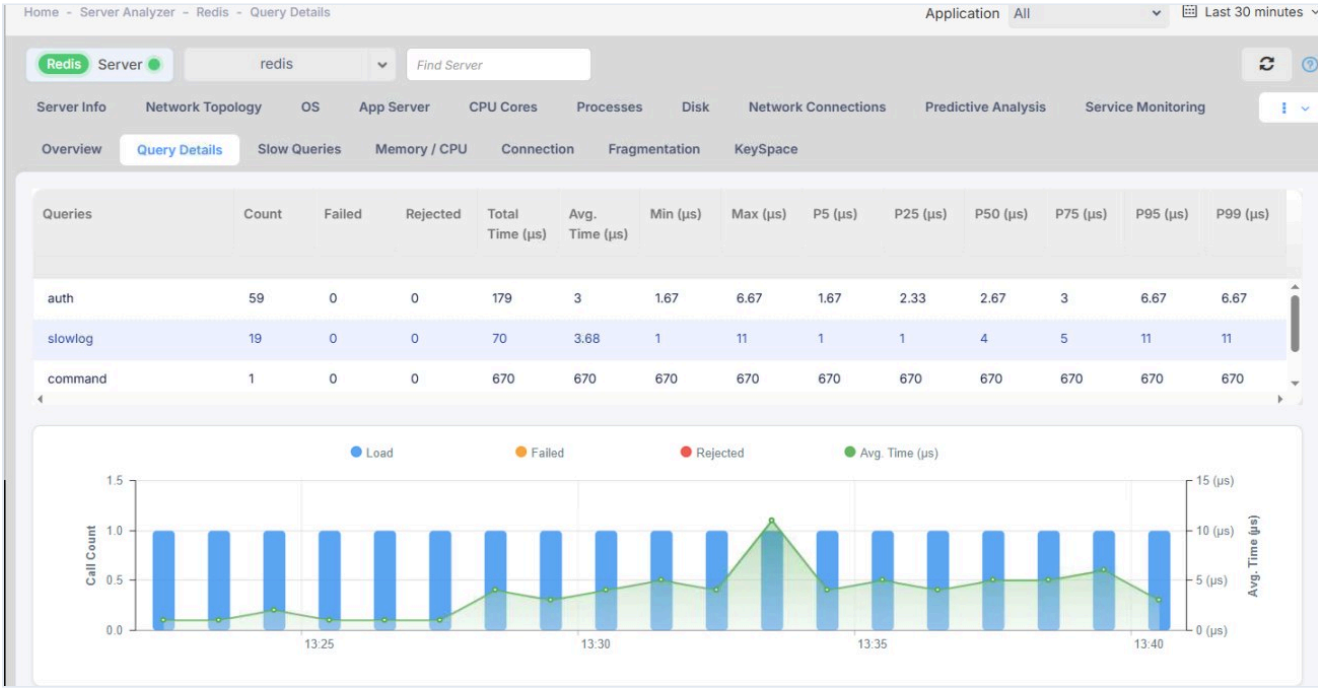

**Step 5:** Enable the **Add Redis configuration** checkbox. Then enter the **Host**, **Port**, **User** and **Password** then click the **update** button.




**Step 5:** After updating the configuration, to view the **Redis** data, click on the Redis configured server in the 'Server' column on the '**Overview**' screen. Then, select the '**Redis Dashboard**' tab.




ARCTURUS
Key Business Txn Health
LOAD 0/min ART 0 ms SUCCESS 0/min
Errors
HTTP 0/min SQL 0/min JNDI 0/min WEB SERVICES 0/min
Servers Health
Admin
Home - Server Analyzer - RedisOverview
Application All
Last 15 minutes
Redis Server
agentmachine
Find Server
Server Info
Network Topology
OS
App Server
CPU Cores
Processes
Disk
Network Connections
Predictive Analysis
Service Monitoring
Redis Dashboard
3
Overview
redis
INFO
REDIS VERSION 6.2.7
OS Linux 5.14.0-427.61.1.el9_4.x86_64 x86_64
PROCESS ID 2157066
PORT 6379
MODE standalone
MEMORY POLICY noeviction
MEMORY ALLOCATOR jemalloc-5.1.0
ROLE master
MULTIPLEXING API epoll
MAXIMUM CLIENTS 10000
Performance Metrics
Running Status 100 %
UP Time 12856 seconds
Unsaved changes 0
Connections Received 28
Rejected Connections 0
Commands Processed 54
Error Replies 0
Net Input 1283 bytes
Net Output 114991 bytes
Reads 81
Writes 54
BackLog 1048576 bytes


Home - Server Analyzer - Redis - Query Details
Application All
Last 30 minutes
Redis Server
redis
Find Server
Server Info
Network Topology
OS
App Server
CPU Cores
Processes
Disk
Network Connections
Predictive Analysis
Service Monitoring
Overview
Query Details
Slow Queries
Memory / CPU
Connection
Fragmentation
KeySpace
Queries Count Failed Rejected Total Time (µs) Avg. Time (µs) Min (µs) Max (µs) P5 (µs) P25 (µs) P50 (µs) P75 (µs) P95 (µs) P99 (µs)
auth 59 0 0 179 3 1.67 6.67 1.67 2.33 2.67 3 6.67 6.67
slowlog 19 0 0 70 3.68 1 11 1 1 4 5 11 11
command 1 0 0 670 670 670 670 670 670 670 670 670 670
Load
Failed
Rejected
Avg. Time (µs)
Call Count
Avg. Time (µs)
1.5
1.0
0.5
0.0
15 (µs)
10 (µs)
5 (µs)
0 (µs)
13:25
13:30
13:35
13:40

CONFIGURATION GUIDES › NODE.JS, PHP, GO & COBOL

# Node.JS Monitoring for Linux

Applicare 9.2 · Updated February 28, 2025 · nodejs · **Pending technical review**

## Prerequisites

To monitor Node.js Applications, You need to configure both Node.js and Single agent. Ensure that both are running on the same machine:

- Single Agent
- Node.js Agent

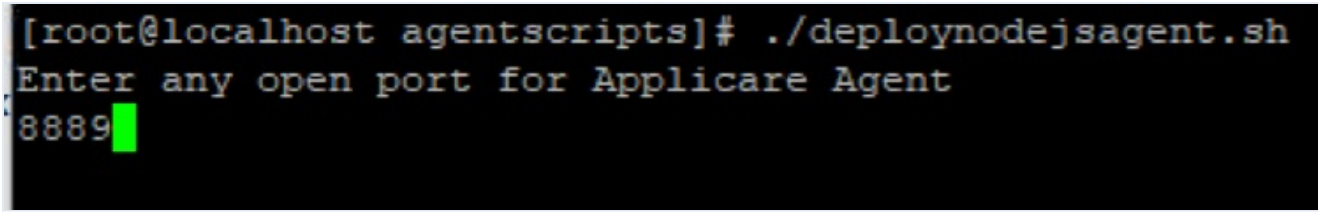
## Monitoring

1. Login into the **Applicare console,** go to the **Download Agents** screen, and download the **SingleAgentLinux** for Linux. Then, transfer the download file to the machine where the agent will be deployed.

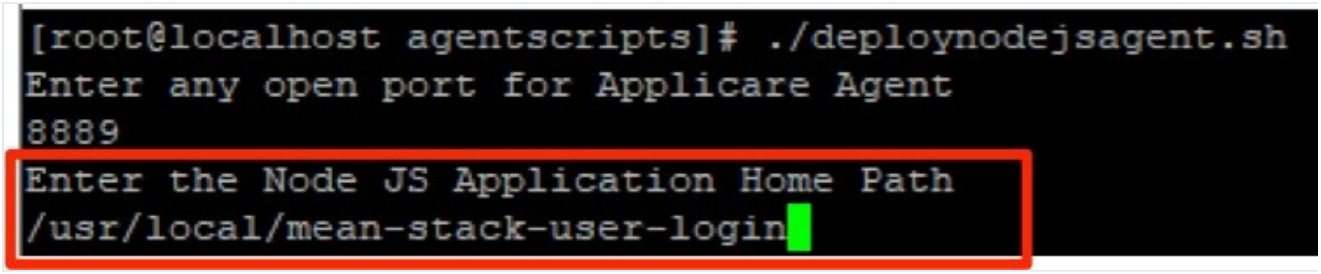
2. Extract the contents of the downloaded file and give the below permission for that extracted directory.

```bash
chmod -R 777 /usr/local/ApplicareSingleAgentLinux
```

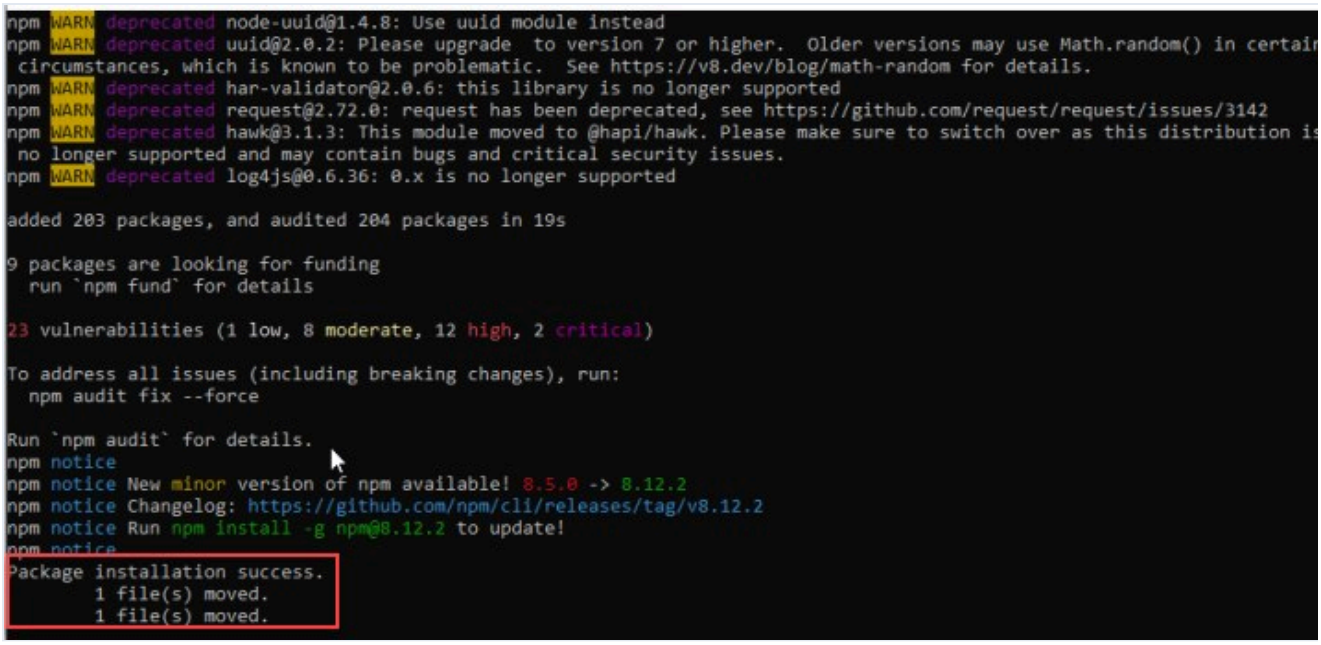
3a. Execute the **deploynodejsagent.sh** inside the **agentscritpts** extracted directory. After executing, the message "**Enter any open port for Applicare Agent**" will appear in the terminal window and enter any **open port** in it.




3b. Enter the **Node.js home path** where the application is running.




3c. Once the agent is **successfully installed,** You will see a message similar to the one shown below




4. Navigate to the Node.js application home directory and insert the following code at the beginning of the main file (usually called **server.js** or **app.js**).

```
TEXT
var applicareConfig = require('./agent.config.js');var applicare = require('applicare-agent')(applicareConfig);
```



```
require('rootpath')();

var applicareConfig = require('./agent.config.js');

var applicare = require('applicare-agent')(applicareConfig);

var express = require('express');
var app = express();
var session = require('express-session');
var bodyParser = require('body-parser');
var expressJwt = require('express-jwt');
```

5. Restart the **Node.js** server.

6. If **systemctl** is available on agent deployed Linux machine, execute **installNodeJsAgentService.sh** file in **agentscripts** directory.

```
TEXT
To start as a service: execute ./installNodeJsAgentService.sh
```

If systemctl is not there on agent deployed machine, To start in background mode execute below command in agentscripts directory on agent home directory.

```text
nohup ./startNodeJsAgent.sh &
```

CONFIGURATION GUIDES › NODE.JS, PHP, GO & COBOL

# Manual Instrumentation for Node.js (Docker image)

Applicare 9.2 · Updated April 1, 2025 · nodejs · **Pending technical review**

**Step 1: Download the** tracing.js *(sample file, available on the documentation site)* **file to the root directory.**

**Step 2:** Add the following **dependencies** to the **Dockerfile**.

```
TEXT
# Install dependencies
RUN npm install --save @opentelemetry/api
RUN npm install --save @opentelemetry/instrumentation
RUN npm install --save @opentelemetry/tracing
RUN npm install --save @opentelemetry/exporter-trace-otlp-http
RUN npm install --save @opentelemetry/resources
RUN npm install --save @opentelemetry/semantic-conventions
RUN npm install --save @opentelemetry/auto-instrumentations-node
RUN npm install --save @opentelemetry/sdk-node
RUN npm install --save @opentelemetry/exporter-jaeger
```

**Step 3:** Add the following **environment variable** line in Dockerfile.

```
TEXT
ENV SERVER_NAME=<Server_name>
ENV APPLICARE_ENDPOINT=http://<Applicare_IP>:14268/api/traces
```

**Change the value in that variable as below.**

**<Server_name>= The name of the agent shown in the Applicare console.**

**<Applicare_IP>= The IP address of the machine running the Applicare controller.**

**Step 4:** Comment the CMD line already in the **Dockerfile**. Add below **CMD** line.

```
TEXT
CMD ["node", "--require", "./tracing.js", "app.js (or) server.js (or) node.js"]
```

CONFIGURATION GUIDES › NODE.JS, PHP, GO & COBOL

# Node.JS Monitoring for Windows

Applicare 9.2 · Updated December 18, 2025 · nodejs, windows · **Pending technical review**

## Prerequisites

To monitor Node.js Applications, You need to configure both Node.js and Single agent. Ensure that both are running on the same machine:

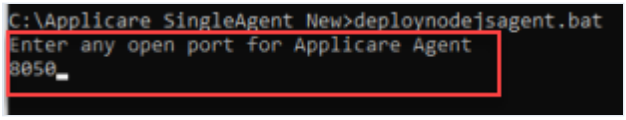
- Single Agent
- Node.js Agent

## Monitoring

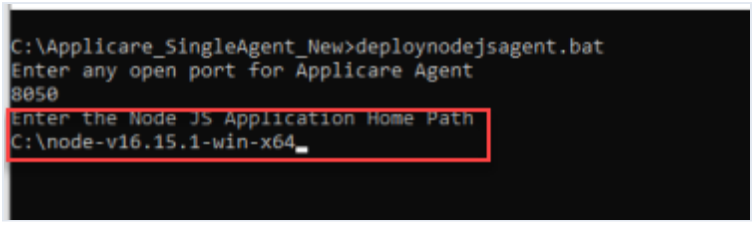
**1:** Install Applicare SingleAgent on the machine running **Tomcat** by following these steps

**installing Applicare SingleAgent**

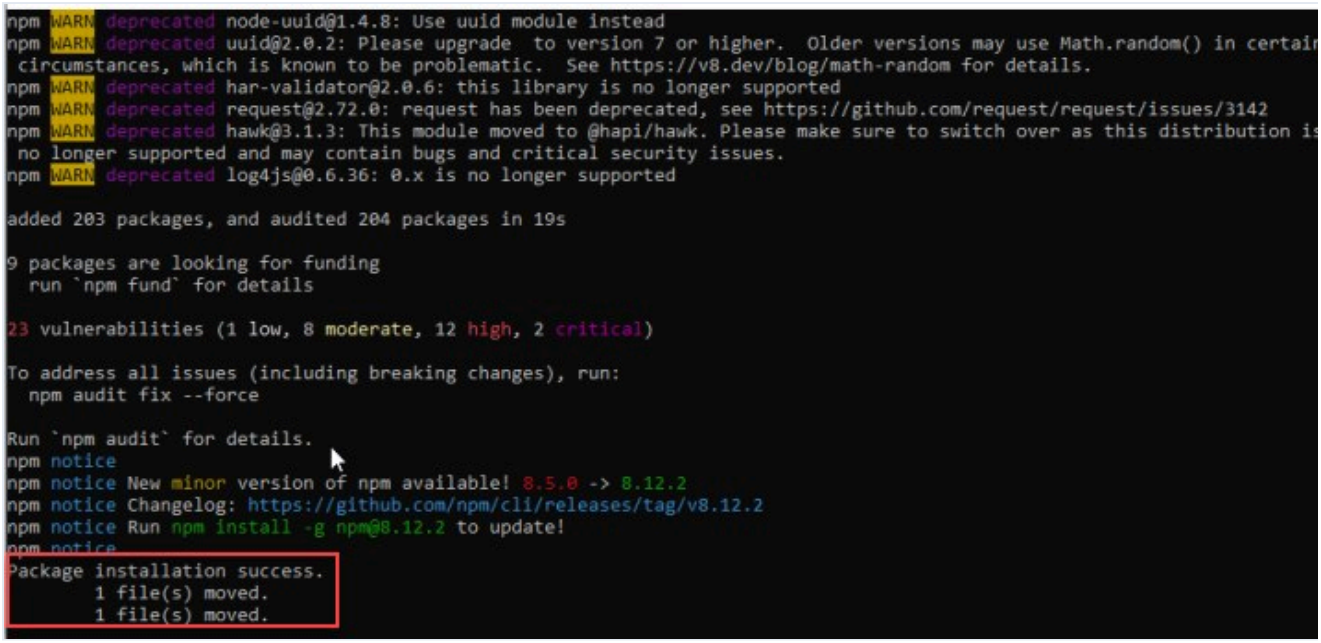
2 a. Run `deploynodejsagent.bat` with elevated (Administrator) privileges from the directory **agentscripts** inside Applicare SingleAgent installed folder. Once executing started , the message "**Enter any open port for Applicare Agent**" will appear in the command window and enter any **open port** in the machine.




b. Enter the **Node.js home path** where your nodejs application is running.




c. Once the agent is **successfully installed,** You will see a message similar to the one shown below.




3. **Zero code instrumentation** : Execute your nodejs application with "**-r ./agent-injector.js**" to inject Applicare SingleAgent in your application. For example if you start your application with a command "node wss_server.js", then you should invoke it as "`node -r ./agent-injector.js wss_server.js`"

   (OR)

**Manual instrumentation** : Navigate to the Node.js application home directory and insert the following code at the beginning of the main file (usually called **server.js** or **app.js**). Then, restart the **Node.js** server.

```
TEXT
var applicareConfig = require('./agent.config.js');
var applicare = require('applicare-agent')(applicareConfig);
```

4. Go to the **SingleAgent** home directory and execute the command based on the OS.

5.Open a command window in **administrator** mode, go to the Agent_home/agentscripts directory and execute the file below.

```
BAT
createNodejsAgentTask.bat
```

### For Other Docs - Click here

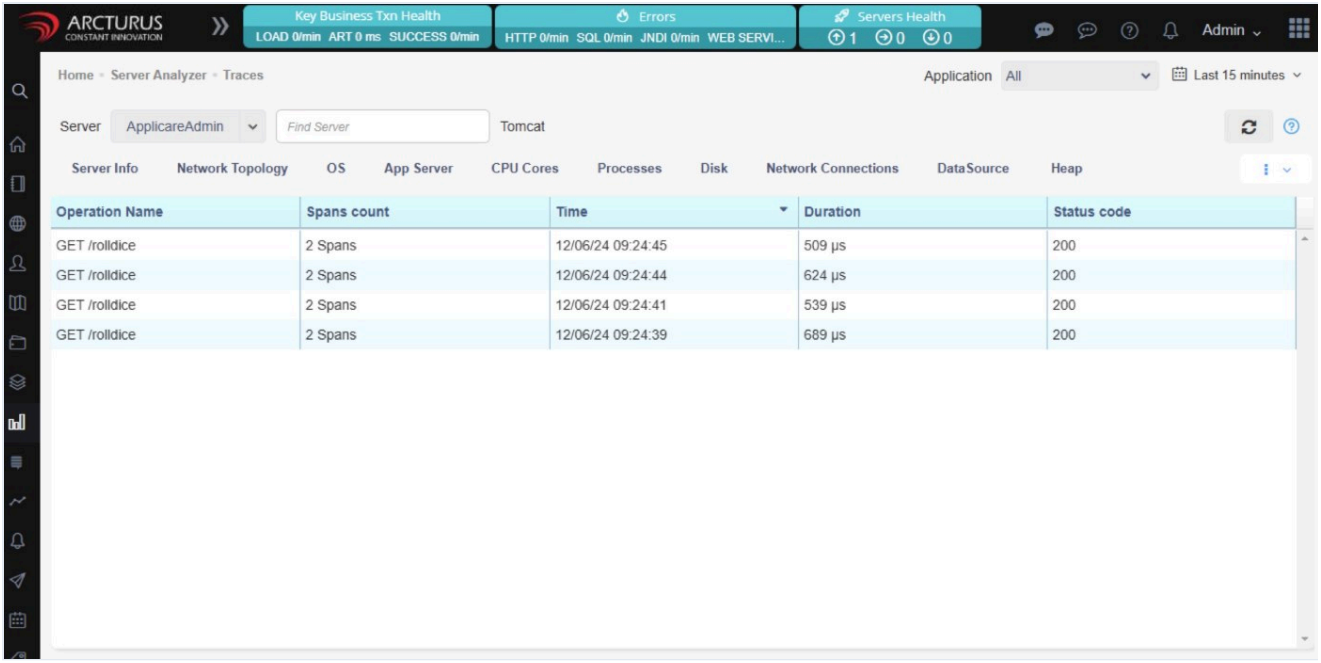
CONFIGURATION GUIDES › NODE.JS, PHP, GO & COBOL

# PHP Application Monitoring

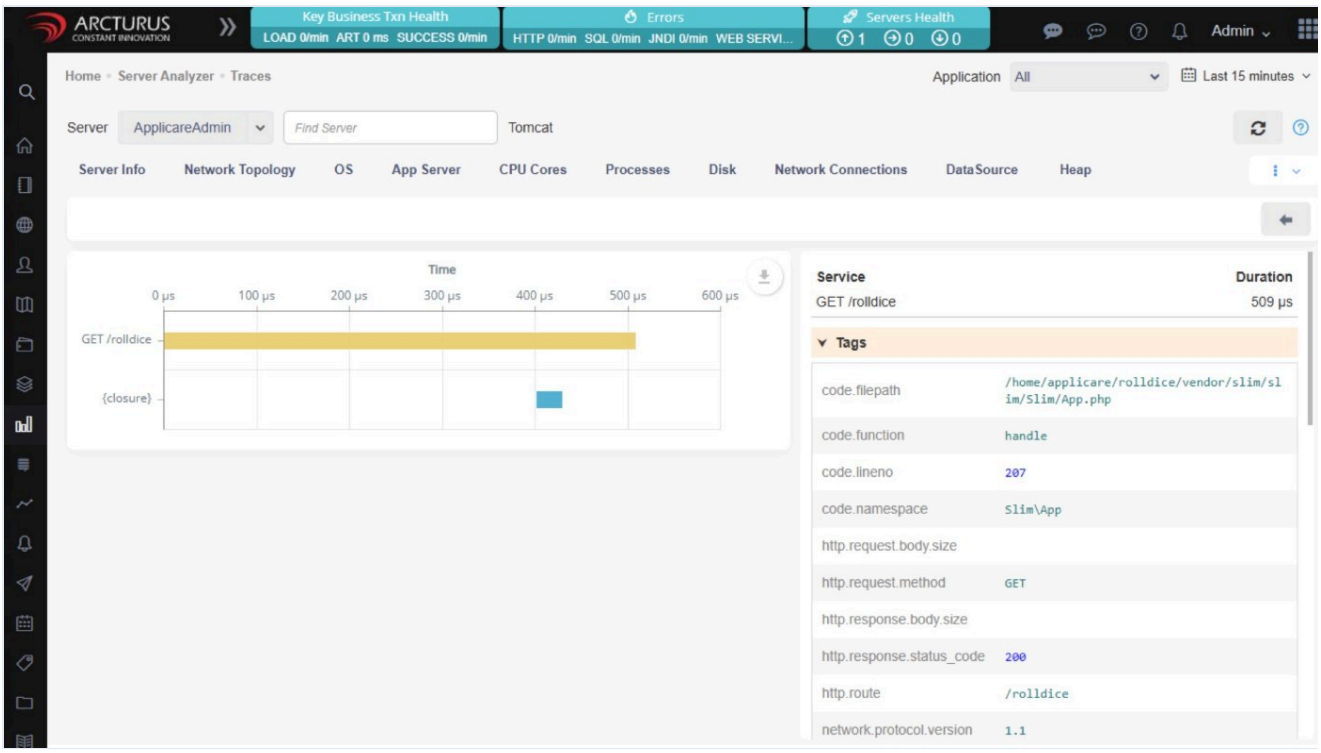
Applicare 9.2 · Updated April 1, 2025 · php · **Pending technical review**

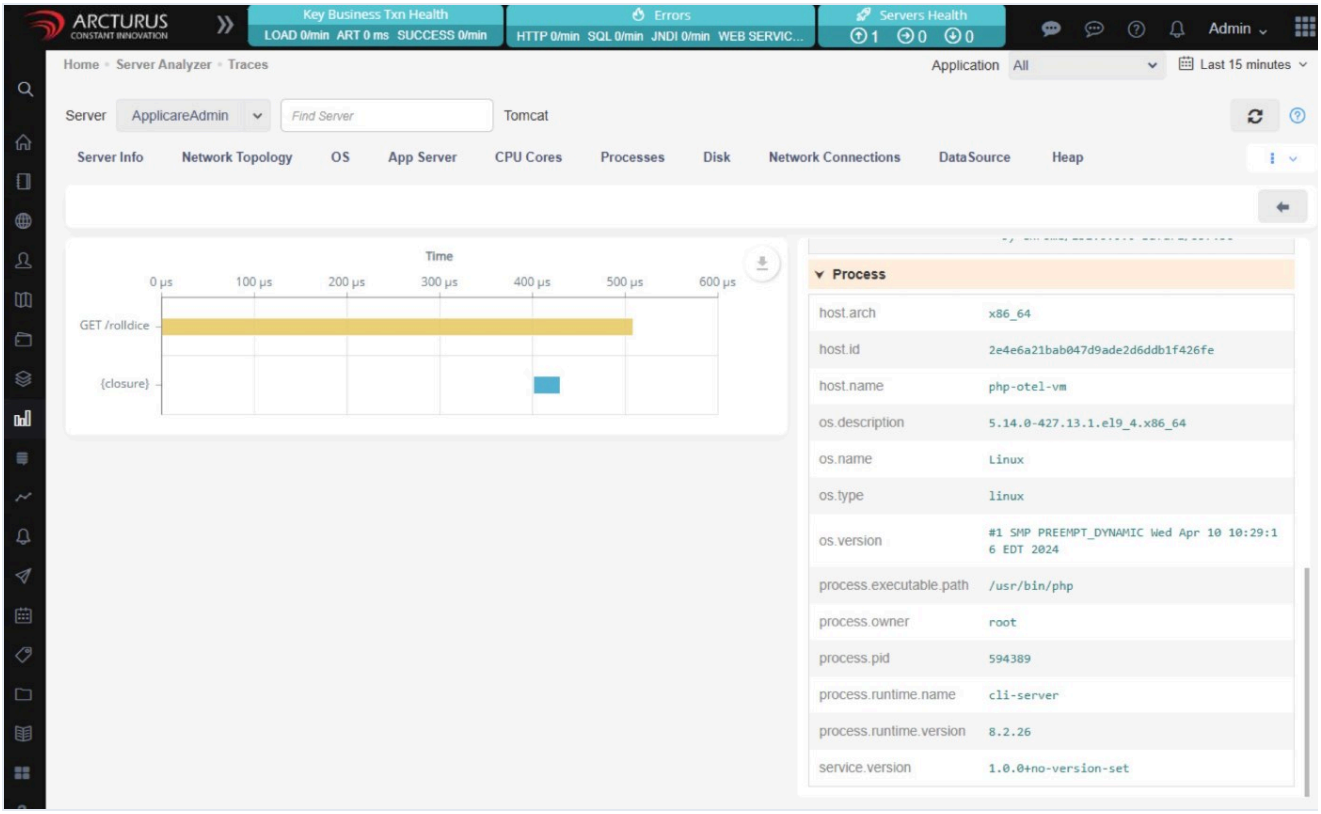
Log in to Applicare controller and navigate to the Server Analyzer->Telemetry Traces menu to view the details of PHP application transaction.

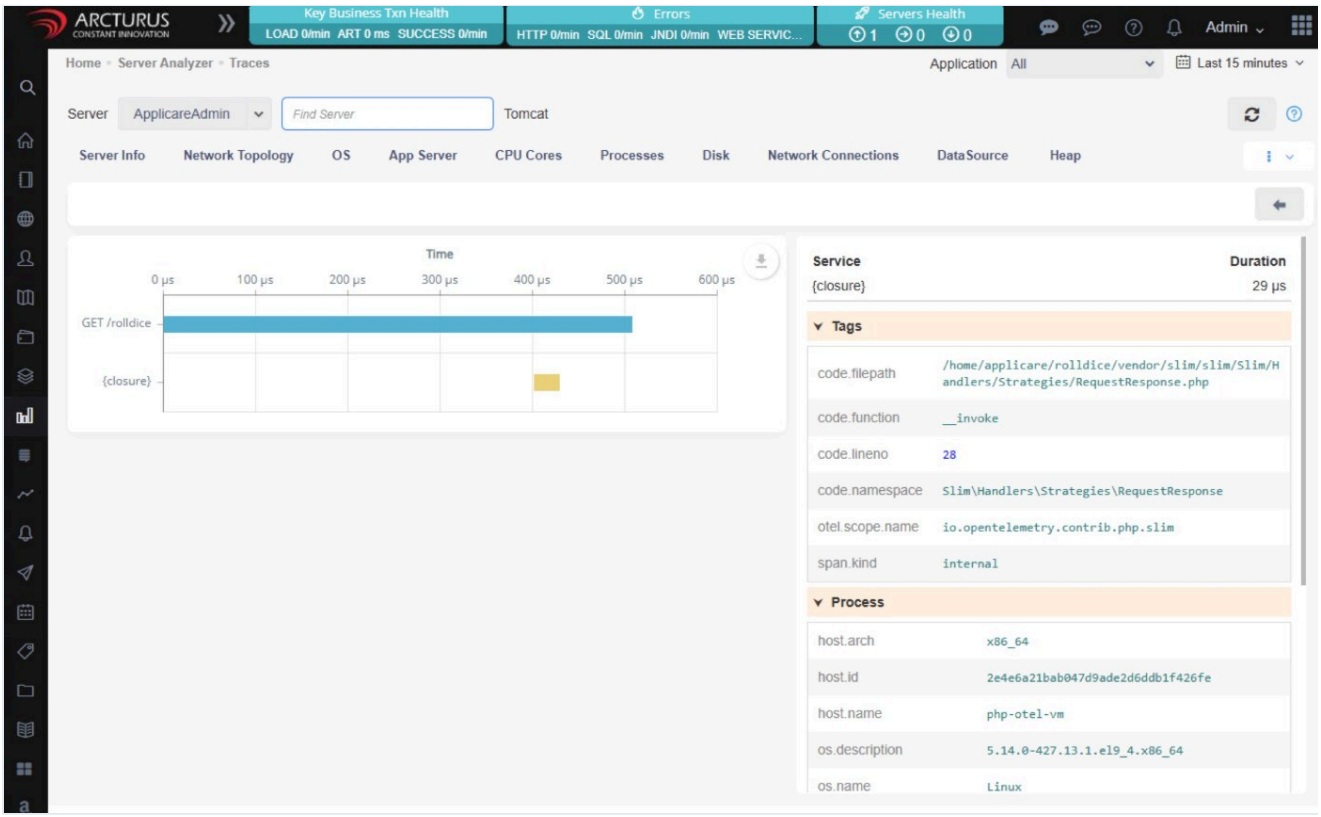
1. The screen displays a list of PHP applications transactions, including their durations and status codes.




2. After clicking on any transaction, it will show the transaction trace details.






## Configuration

Follow the configuration instructions provided in the link below to monitor your PHP application.

### Configure PHP application

CONFIGURATION GUIDES › NODE.JS, PHP, GO & COBOL

# Configure PHP application

Applicare 9.2 · Updated April 1, 2025 · php · **Pending technical review**

To automatically instrument a PHP application, use PHP latest version 8.2 or later is required.

**Prerequisites:** PHP 8.2 or later, Composer, and PHP Extension Community Library (PECL) are installed.

**Step 1:** Execute below command to build the OpenTelemetry PHP extension.

```bash
yum install -y https://rpms.remirepo.net/enterprise/remi-release-$(rpm -E %rhel).rpm
yum install php-cli php-pear php-devel gcc php-grpc -y
yum install gcc make autoconf
```

**Step 2:** Use PECL to build the OpenTelemetry PHP extension.

```text
pecl install opentelemetry
```

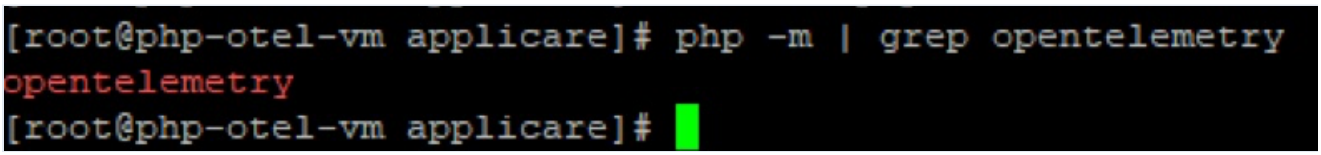
**Step 3:** Add the following code to the php.ini file.

```text
[opentelemetry]
extension=opentelemetry.so
```

**Step 4:** Execute below command to verify whether the OpenTelemetry PHP extension is built and enabled.

```text
php -m | grep opentelemetry

Expected output: opentelemetry
```




**Step 5:** Exceute below command to add additional dependencies required for OpenTelemetry SDK for PHP to perform automatic instrumentation on your application.

```
TEXT
composer config allow-plugins.php-http/discovery false

composer require \
open-telemetry/sdk \
open-telemetry/opentelemetry-auto-slim \
open-telemetry/exporter-otlp \
php-http/guzzle7-adapter \
open-telemetry/transport-grpc
```

**Step 6:** Run the application with below command.

```
TEXT
env OTEL_PHP_AUTOLOAD_ENABLED=true OTEL_SERVICE_NAME=<Server-Name> OTEL_TRACES_EXPORTER=otlp
OTEL_METRICS_EXPORTER=none OTEL_LOGS_EXPORTER=none OTEL_EXPORTER_OTLP_PROTOCOL=grpc
OTEL_EXPORTER_OTLP_ENDPOINT=http://<Applicare_IP>:4317
```

**Change the value in that variable as below.**

**<Server_name>= The name of the agent shown in the Applicare console.**

**<Applicare_IP>= The IP address of the machine running the Applicare controller.**

**Example:** env OTEL_PHP_AUTOLOAD_ENABLED=true OTEL_SERVICE_NAME=**rolldice** OTEL_TRACES_EXPORTER=otlp OTEL_METRICS_EXPORTER=none OTEL_LOGS_EXPORTER=none OTEL_EXPORTER_OTLP_PROTOCOL=grpc OTEL_EXPORTER_OTLP_ENDPOINT=http://**192.168.2.6**:4317 php -S 10.0.0.4:8080

CONFIGURATION GUIDES › NODE.JS, PHP, GO & COBOL

# Manually instrument a Go application using OpenTelemetry and Applicare

Applicare 9.2 · Updated August 22, 2024 · go, opentelemetry · **Pending technical review**

Install the following packages:

```text
go get "go.opentelemetry.io/otel" \
  "go.opentelemetry.io/otel/exporters/stdout/stdoutmetric" \
  "go.opentelemetry.io/otel/exporters/stdout/stdouttrace" \
  "go.opentelemetry.io/otel/exporters/stdout/stdoutlog" \
  "go.opentelemetry.io/otel/sdk/log" \
  "go.opentelemetry.io/otel/log/global" \
  "go.opentelemetry.io/otel/propagation" \
  "go.opentelemetry.io/otel/sdk/metric" \
  "go.opentelemetry.io/otel/sdk/resource" \
  "go.opentelemetry.io/otel/sdk/trace" \
  "go.opentelemetry.io/otel/semconv/v1.24.0" \
  "go.opentelemetry.io/contrib/instrumentation/net/http/otelhttp"\
  "go.opentelemetry.io/contrib/bridges/otelslog"
```

This installs the OpenTelemetry SDK components and `net/http` instrumentation.

Add the following packages to your Go application:

```
TEXT
import (
          "context"
          "fmt"
          "net"
          "os"
          "os/signal"
        "time"
          "net/http"
          "google.golang.org/grpc"
          "google.golang.org/grpc/credentials/insecure"
          "go.opentelemetry.io/otel"

          "go.opentelemetry.io/otel/exporters/otlp/otlptrace/otlptracegrpc"
          "go.opentelemetry.io/otel/propagation"
          "go.opentelemetry.io/otel/sdk/resource"

         semconv "go.opentelemetry.io/otel/semconv/v1.25.0"
sdktrace "go.opentelemetry.io/otel/sdk/trace"
          "go.opentelemetry.io/contrib/instrumentation/net/http/otelhttp"
)
```

You need to wrap the HTTP handlers with instrumented code.

YAML

```
var serviceName = semconv.ServiceNameKey.String(<APPLICARE_AGENT_NAME>)

func initConn() (*grpc.ClientConn, error) {
    conn, err := grpc.NewClient("localhost:4317",
        grpc.WithTransportCredentials(insecure.NewCredentials()),
    )
    if err != nil {
        return nil, fmt.Errorf("failed to create gRPC connection to collector: %w", err)
    }
    return conn, err
}

func initTracerProvider(ctx context.Context, res *resource.Resource, conn *grpc.ClientConn)
(func(context.Context) error, error) {
 traceExporter, err := otlptracegrpc.New(ctx, otlptracegrpc.WithGRPCConn(conn))
    if err != nil {
        return nil, fmt.Errorf("failed to create trace exporter: %w", err)
    }
    bsp := sdktrace.NewBatchSpanProcessor(traceExporter)
    tracerProvider := sdktrace.NewTracerProvider(
        sdktrace.WithSampler(sdktrace.AlwaysSample()),
        sdktrace.WithResource(res),
        sdktrace.WithSpanProcessor(bsp),
    )
    otel.SetTracerProvider(tracerProvider)
    otel.SetTextMapPropagator(propagation.TraceContext{})
    return tracerProvider.Shutdown, nil
}

func main() {
    if err := run(); err != nil {
        log.Fatalln(err)
    }
}

func run() (err error) {
    ctx, stop := signal.NotifyContext(context.Background(), os.Interrupt)
    defer stop()

    conn, err := initConn()

    if err != nil {
        log.Fatal(err)
    }
```

```
    res, err := resource.New(ctx,
        resource.WithAttributes(
            serviceName,
        ),
    )

    if err != nil {
        log.Fatal(err)
    }

    shutdownTracerProvider, err := initTracerProvider(ctx, res, conn)

    if err != nil {
        log.Fatal(err)
    }

    defer func() {
        if err := shutdownTracerProvider(ctx); err != nil {
            log.Fatalf("failed to shutdown TracerProvider: %s", err)
        }
    }()

// Start HTTP server.
    srv := &http.Server{
        Addr:         ":8080",
        BaseContext:  func(_ net.Listener) context.Context { return ctx },
        ReadTimeout:  time.Second,
        WriteTimeout: 10 * time.Second,
        Handler:      newHTTPHandler(),
    }

    srvErr := make(chan error, 1)
        go func() {
        srvErr <- srv.ListenAndServe()
    }()

    select {
        case err = <-srvErr:
        return
        case <-ctx.Done():
        stop()
    }

    err = srv.Shutdown(context.Background())
    return
```

```
}

   func newHTTPHandler() http.Handler {
       mux := http.NewServeMux()
       handleFunc := func(pattern string, handlerFunc func(http.ResponseWriter,
*http.Request)) {
        handler := otelhttp.WithRouteTag(pattern, http.HandlerFunc(handlerFunc))
        mux.Handle(pattern, handler)
    }

   // your handler function here ..........
   // ...........

    handler := otelhttp.NewHandler(mux, "/")
    return handler
}
```

CONFIGURATION GUIDES › NODE.JS, PHP, GO & COBOL

# Automatically instrument a Go Application running in Docker with OpenTelemetry and Applicare (With additional container)

Applicare 9.2 · Updated August 22, 2024 · go, opentelemetry · **Pending technical review**

A Go executable can be instrumented without modifying the original code of the application by configuring environment variables and running the instrumentation with elevated privileges.

1. To instrument an application automatically, you need the following:

a. Linux with kernel version 4.19 or newer

b. x64 or ARM processor

c. Docker image or compiled binary for OpenTelemetry Go Automatic Instrumentation

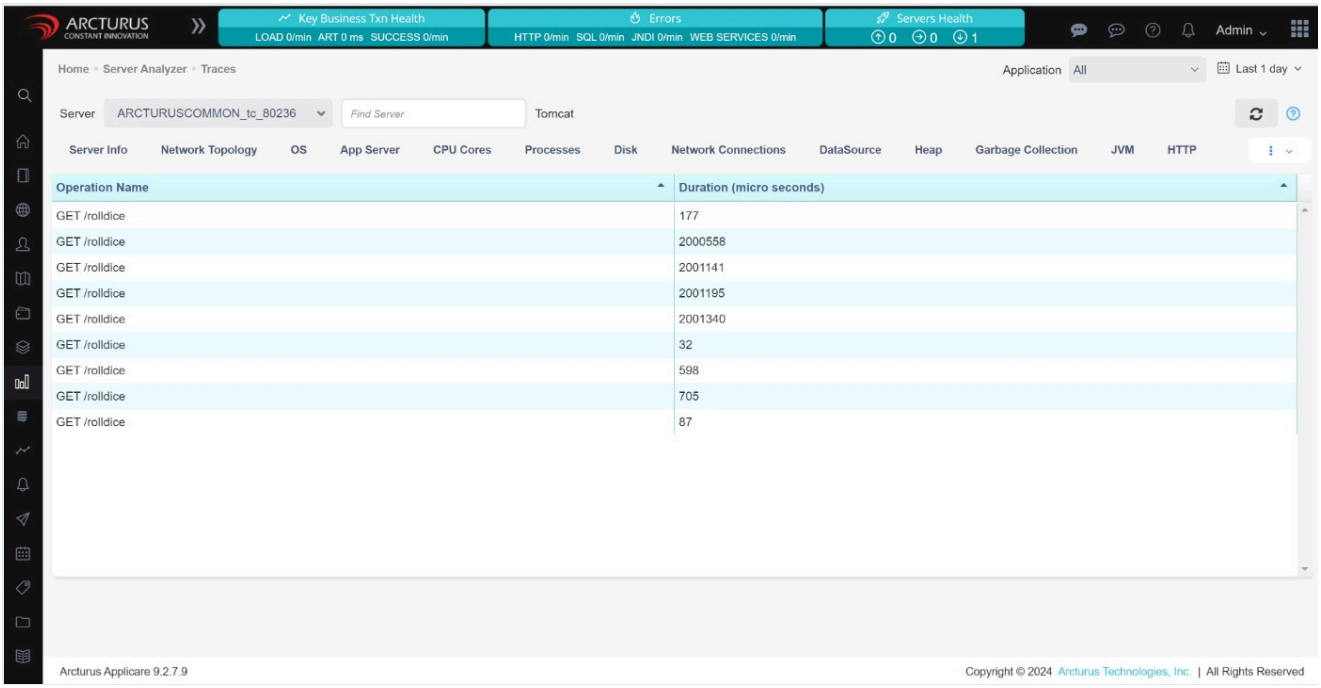
d. Go 1.18 or newer

2. Edit the docker-compose file to add a new service for the instrumentation.

```yaml
  go-auto:
    image: otel/autoinstrumentation-go
    privileged: true
    pid: "host"
    environment:
      - OTEL_EXPORTER_OTLP_ENDPOINT=http://<Applicare_Controller_IP>:4318
      - OTEL_GO_AUTO_TARGET_EXE=<location_of_target_application_binary>
      - OTEL_SERVICE_NAME=<Applicare_Agent_Name>
      - OTEL_PROPAGATORS=tracecontext,baggage
    volumes:
      - <shared_volume_of_application>
      - /proc:/host/proc
```

3. Use the command `docker compose up` to build and start the Docker containers.

4. The collected traces will be shown in Server Analyzer -> Telemetry Traces screen in Applicare console.


ARCTURUS
CONSTANT INNOVATION
Key Business Txn Health
LOAD 0/min ART 0 ms SUCCESS 0/min
Errors
HTTP 0/min SQL 0/min JNDI 0/min WEB SERVICES 0/min
Servers Health
0 0 1
Admin
Home • Server Analyzer • Traces
Application All
Last 1 day
Server ARCTURUSCOMMON_tc_80236
Find Server
Tomcat
Server Info
Network Topology
OS
App Server
CPU Cores
Processes
Disk
Network Connections
DataSource
Heap
Garbage Collection
JVM
HTTP
Operation Name
Duration (micro seconds)
GET /rolldice 177
GET /rolldice 2000558
GET /rolldice 2001141
GET /rolldice 2001195
GET /rolldice 2001340
GET /rolldice 32
GET /rolldice 598
GET /rolldice 705
GET /rolldice 87
Arcturus Applicare 9.2.7.9
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CONFIGURATION GUIDES › NODE.JS, PHP, GO & COBOL

# COBOL Monitoring with Applicare

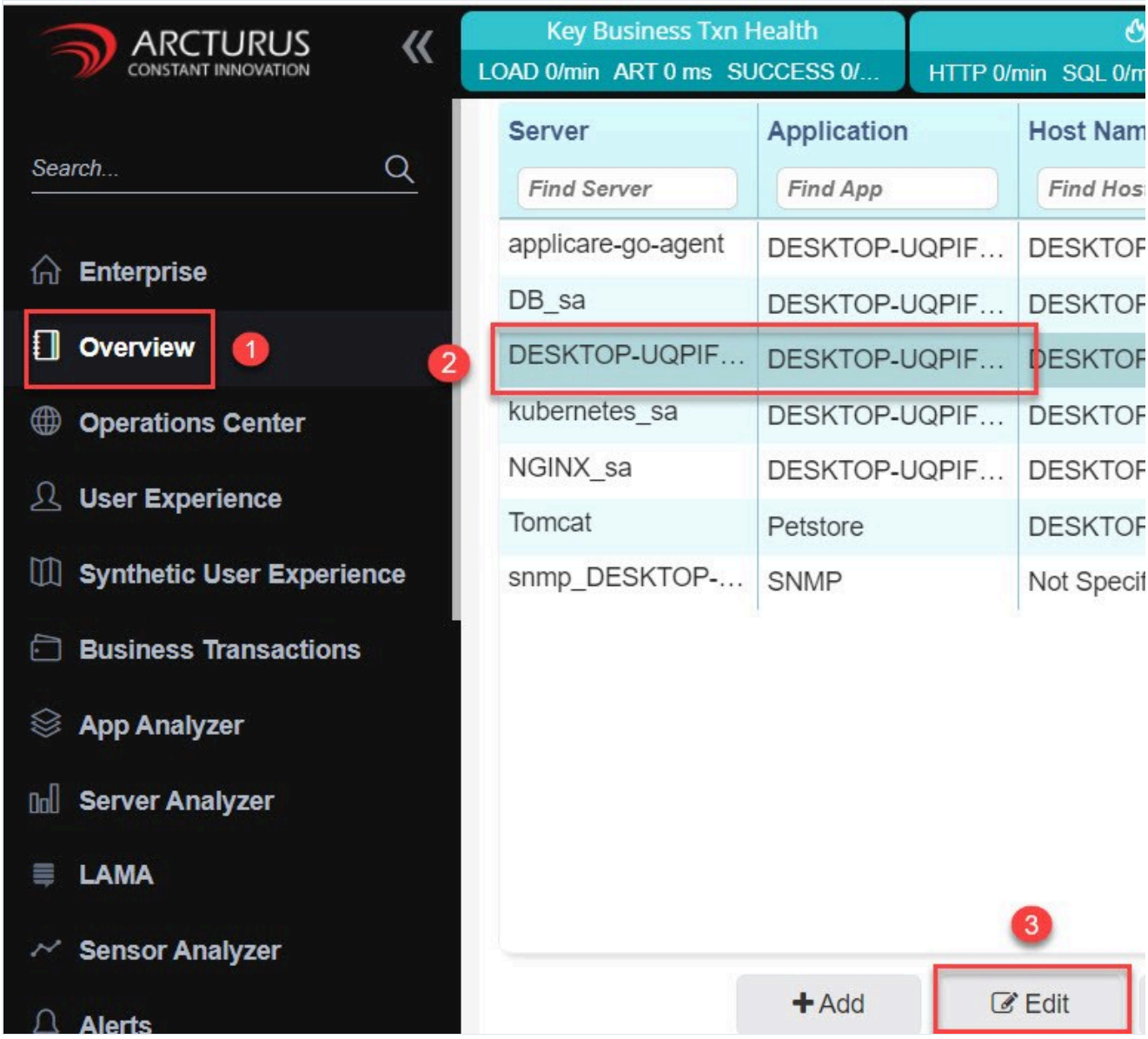
Applicare 9.2 · Updated September 24, 2024 · cobol · **Pending technical review**

COBOL monitoring is especially important for maintaining the health, performance, and security of COBOL-based systems, which often serve as the backbone for mission-critical applications in industries like finance, insurance, and government.

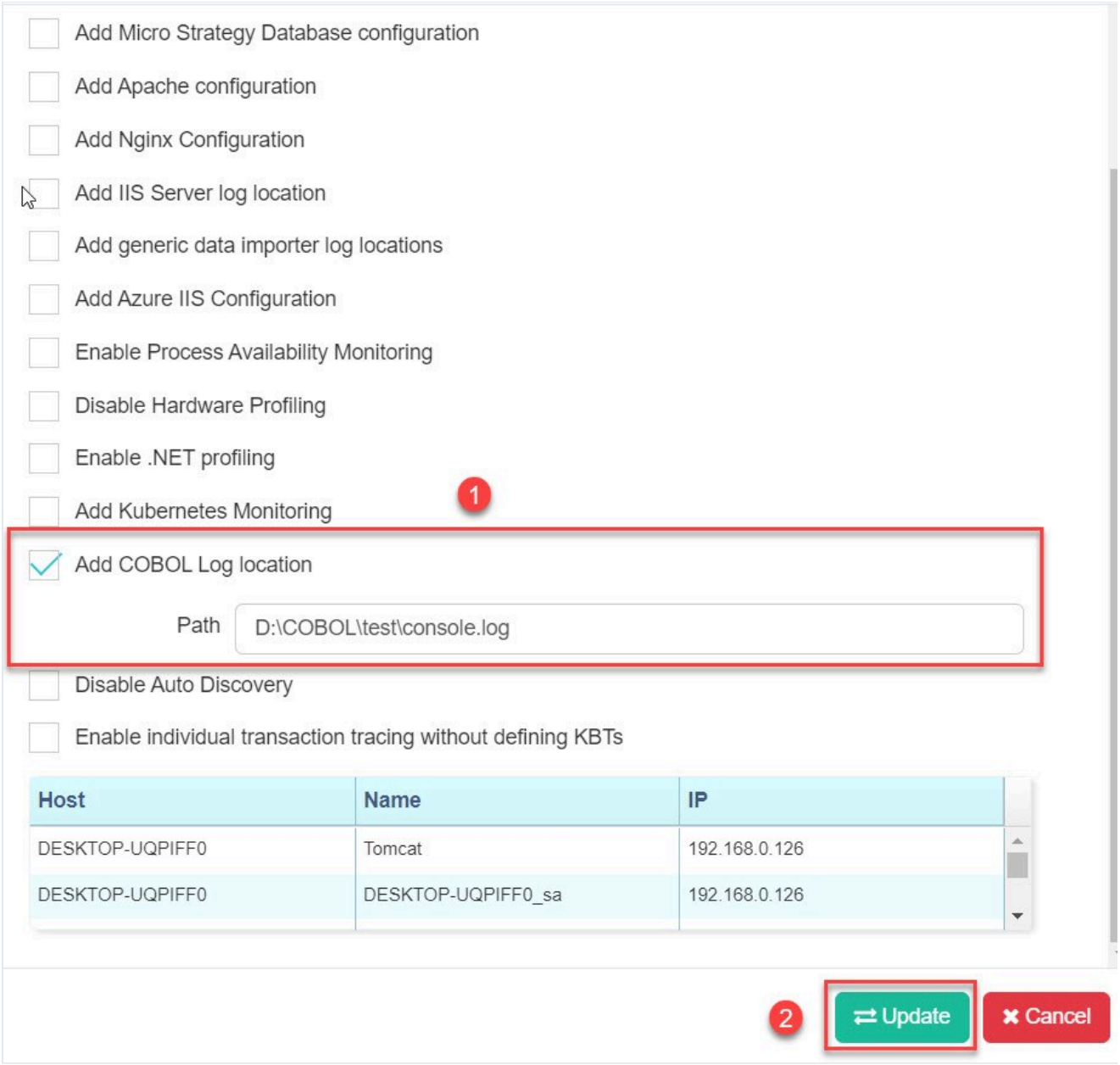
Applicare doesn't require any adjustments to COBOL applications. It pulls in the logs generated by COBOL applications and gathers transactions data from them.

## Configuration for the COBOL Log monitoring in Applicare

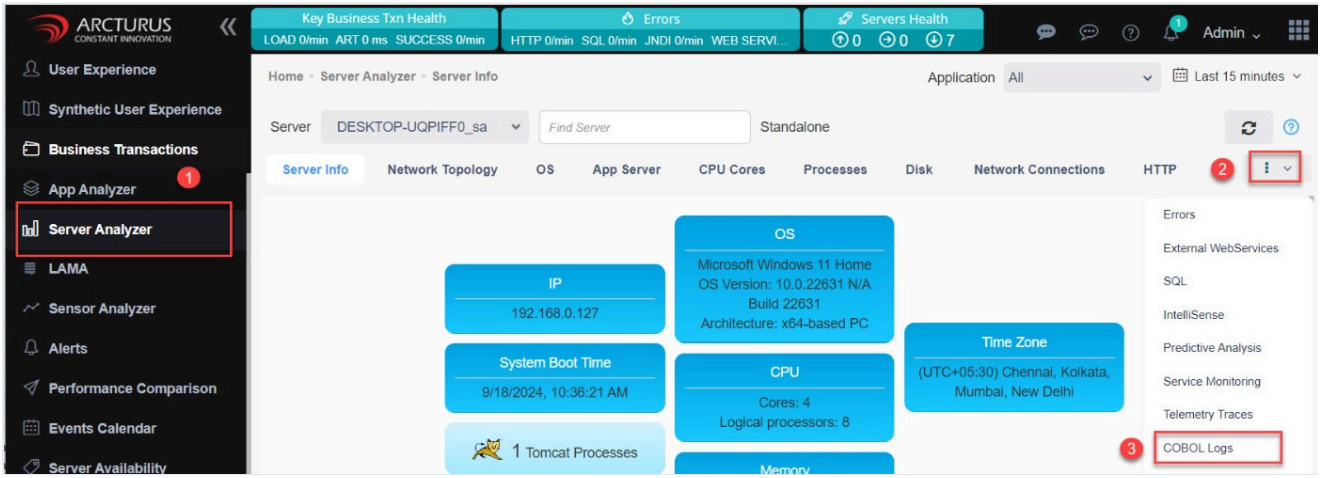
1. Go to the **Overview** menu and select the **server** and click the **Edit** button.

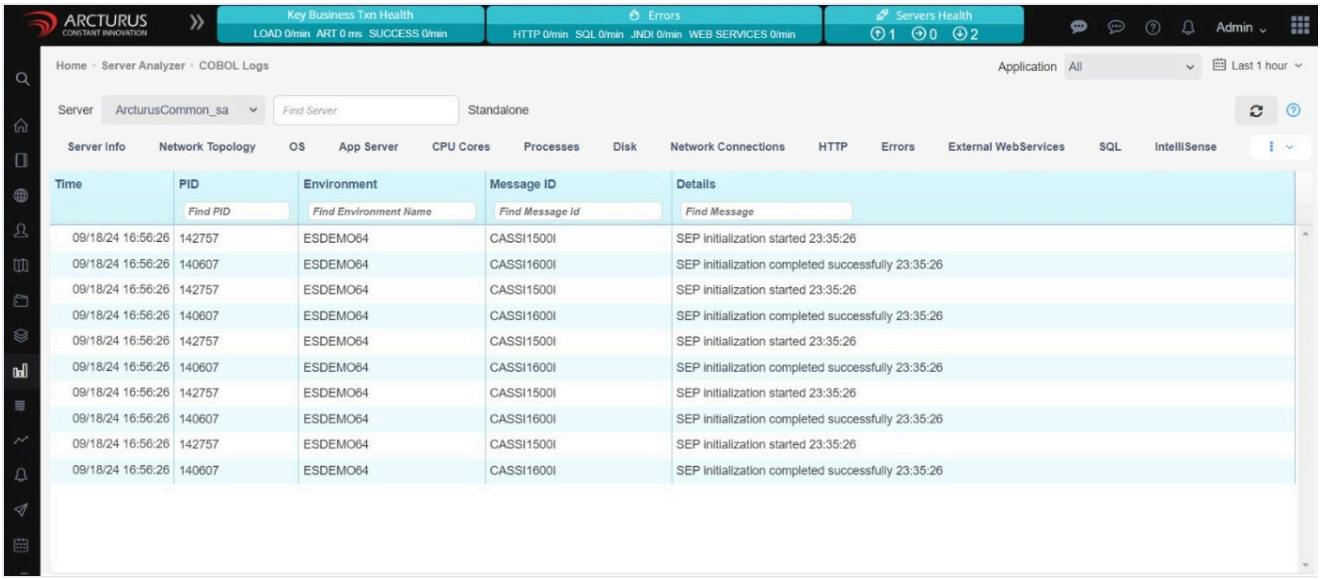


2. Enable the **Add COBOL Log Location** checkbox and enter the log file path and click the **update** button.




3. Go to the **Server Analyzer** menu and select the **COBOL Logs**.






## Why COBOL Monitoring with Applicare?

**1. Error Detection and Troubleshooting** Applicare provide detailed information about errors and exceptions that occur during the execution of COBOL programs. Monitoring the COBOL logs in real time helps detect issues early, allowing teams to quickly troubleshoot and resolve problems before they escalate into larger failures.

**2. Performance Analysis** Allows teams to identify performance bottlenecks, slowdowns, and inefficiencies, enabling optimizations that ensure smooth operations.

**3. Compliance and Security** COBOL systems frequently handle sensitive information, especially in sectors like banking and healthcare. Applicare COBOL log monitoring is essential for tracking access, changes to data, and unauthorized activities. This is crucial for ensuring compliance with industry regulations and maintaining system security through audit trails and anomaly detection.

**4. Root Cause Analysis** When issues arise, historical logs are essential for performing root cause analysis. Applicare COBOL log monitoring provides access to historical data that can help teams trace the cause of failures or inefficiencies, identify which part of the system was impacted, and determine the best course of action for resolution.

**5. Business Continuity and Uptime** Applicare monitoring ensures that the COBOL systems, which often support critical business operations, continue to run smoothly. Any significant issue that impacts uptime, such as job failures or resource exhaustion, can be quickly identified through logs, ensuring minimal disruption to business processes.

**6. Audit and Accountability** Applicare COBOL log monitoring helps in keeping a detailed record of activities within COBOL systems, including who accessed what and when. This supports both internal auditing and regulatory compliance, ensuring that all activities are traceable and transparent.

**7. Security Incident Detection** Applicare monitoring is key to identifying security breaches or attempts at unauthorized access. By continuously tracking login attempts, changes to system configurations, or unusual behavior in the COBOL system, it becomes easier to detect and respond to security threats in real-time.

**8. Support for Legacy Systems Transition** If an organization is modernizing or migrating away from COBOL-based systems, log monitoring helps ensure a smooth transition by providing insights into current operational patterns. Understanding how the COBOL system behaves through its logs makes it easier to map requirements for new systems or monitor the migration process.

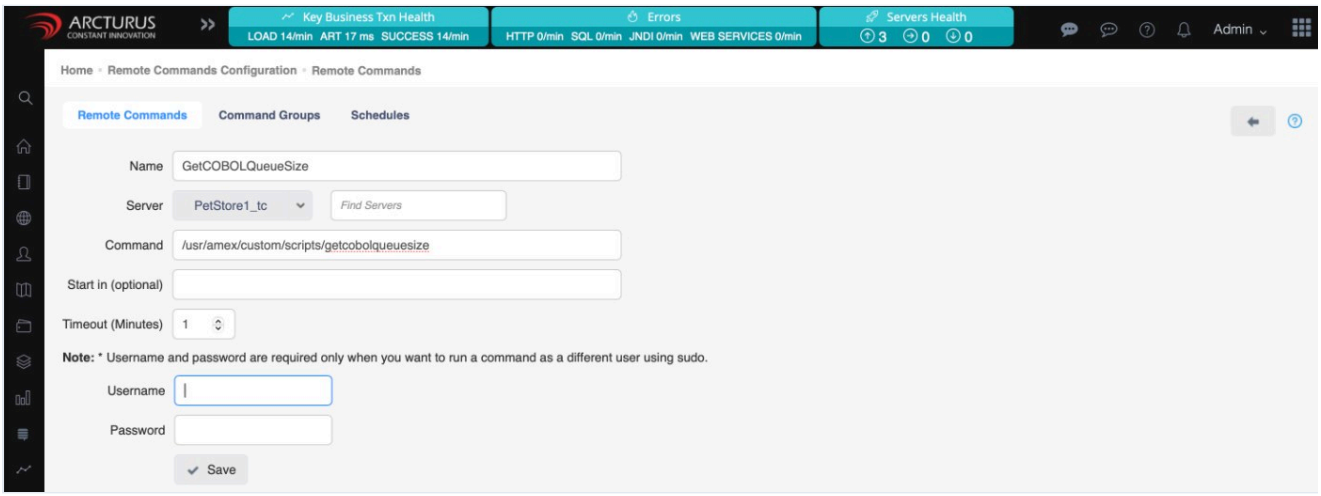
In summary, Applicare plays a crucial role in ensuring system stability, security, and performance. It enables organizations to quickly detect and address issues, maintain compliance, and support ongoing modernization efforts, while minimizing the risk of downtime or data breaches.

CONFIGURATION GUIDES › NODE.JS, PHP, GO & COBOL

# COBOL Monitoring

Applicare 9.2 · Updated September 13, 2024 · cobol · **Pending technical review**

Applicare supports COBOL and other legacy technologies without requiring source code changes by using Shell Script Sensors and Remote Commands. Applicare can ingest data from existing COBOL monitoring commands via Shell Script Sensors. For example, if you need to monitor, chart, alert, or report on queue sizes for COBOL requests, and you have a shell script named getQueuesize that utilizes COBOL/OS APIs to return the precise queue size, you can set up a Shell Script Sensor in Applicare to run at your desired frequency. Once the Shell Script Sensor is configured, Applicare will process the queue size data natively, enabling you to display, chart, and report on this data seamlessly.




Monitoring with Applicare

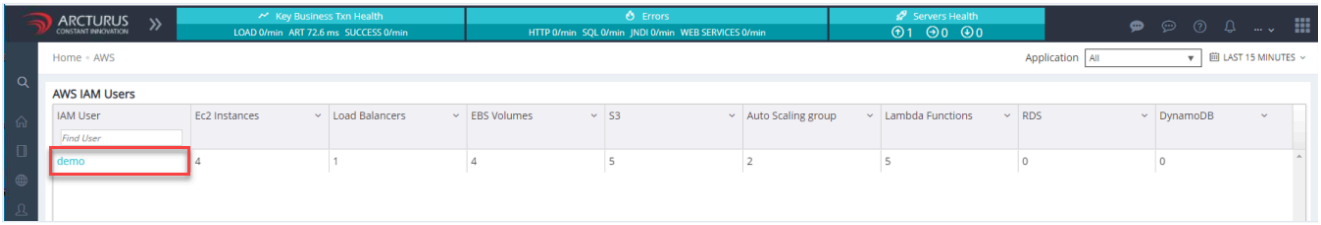
CONFIGURATION GUIDES › AWS

# AWS Monitoring

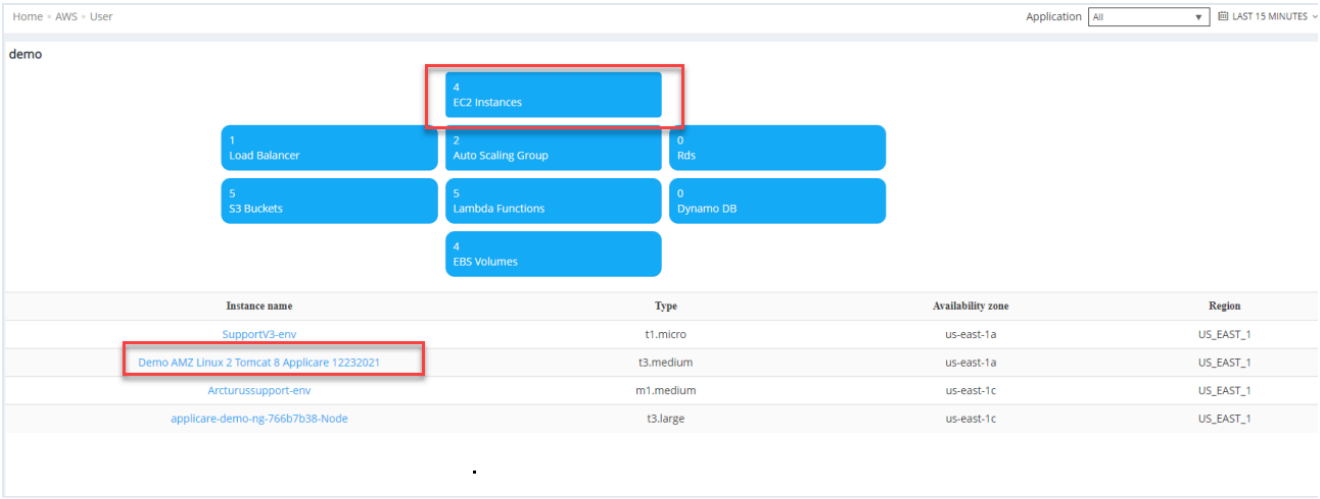
Applicare 9.2 · Updated September 13, 2024 · aws · **Pending technical review**

## Agent less Monitoring of the AWS environment

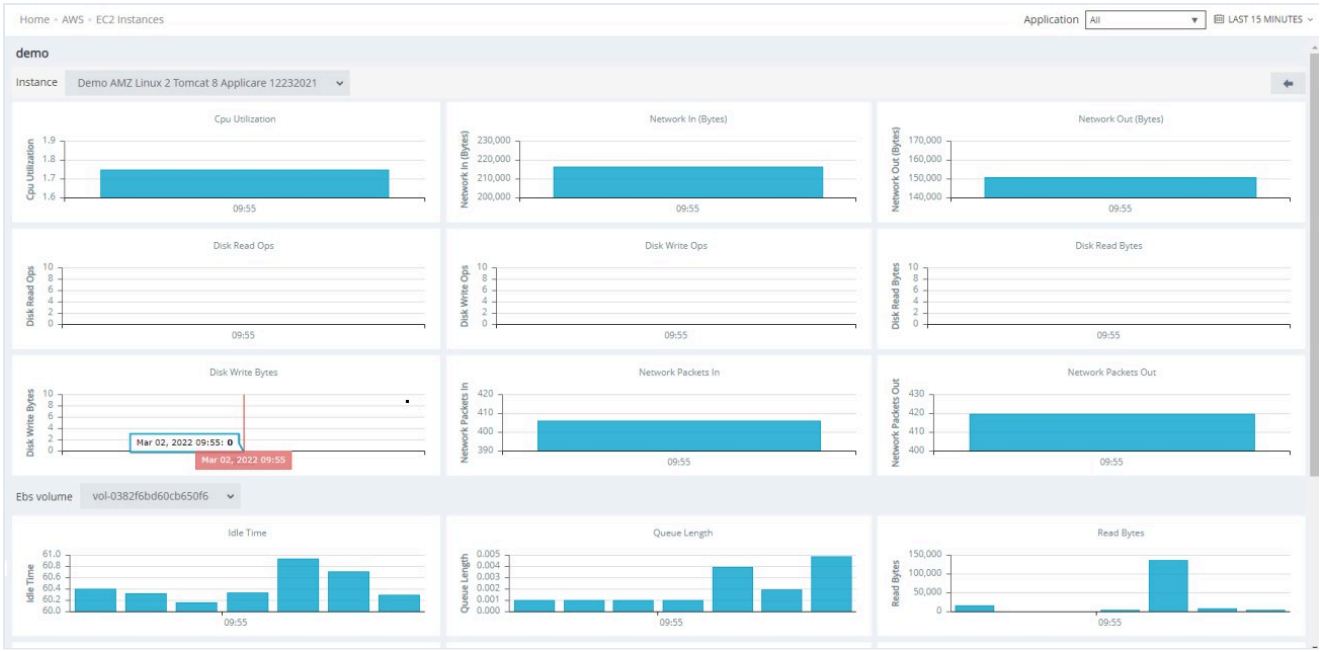
1. Log in to the Applicare controller and navigate to the **AWS** screen in the left side menu. Select the configured IAM user.




2. Applicare automatically maps the entire AWS environment, with information being auto-detected and updated as changes occur. You can view detailed information by selecting a specific AWS resource.




3. You can access a detailed view of the resource without needing to deploy any agents.




Follow this for **AWS monitoring configuration**

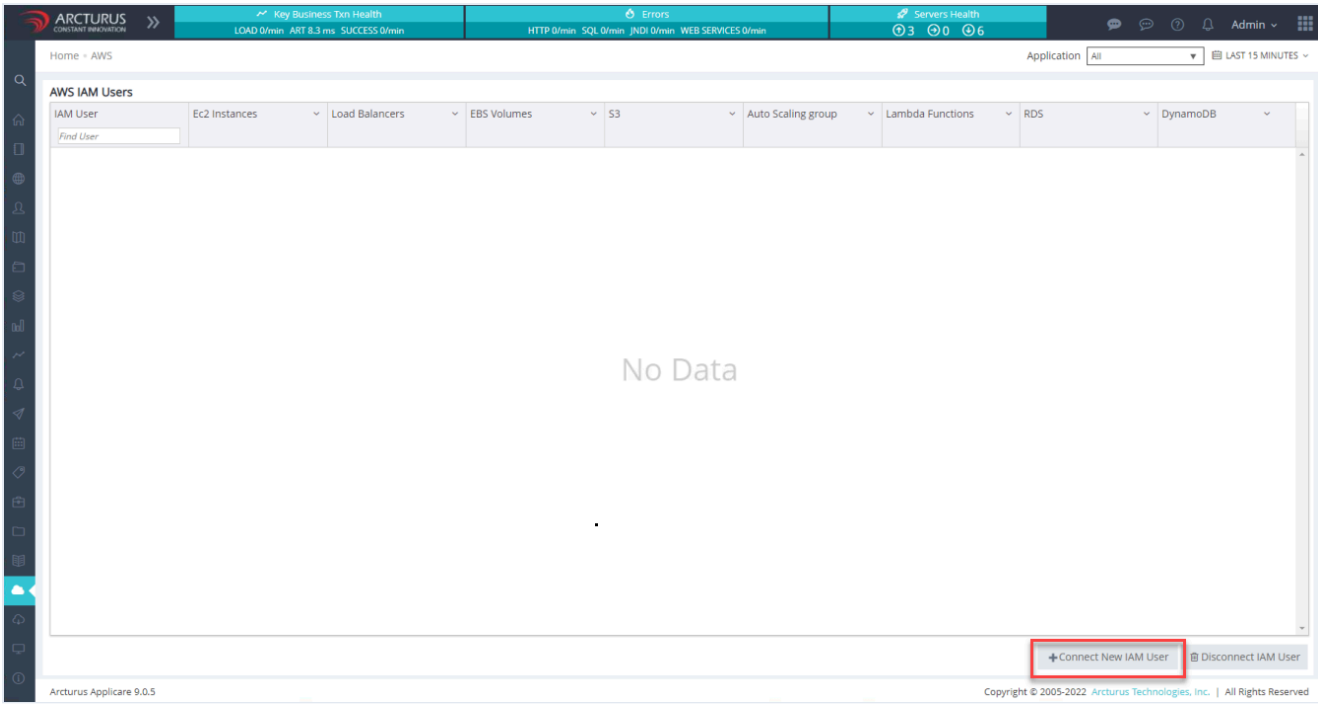
## Monitoring with Applicare

CONFIGURATION GUIDES › AWS

# Configuring AWS Monitoring

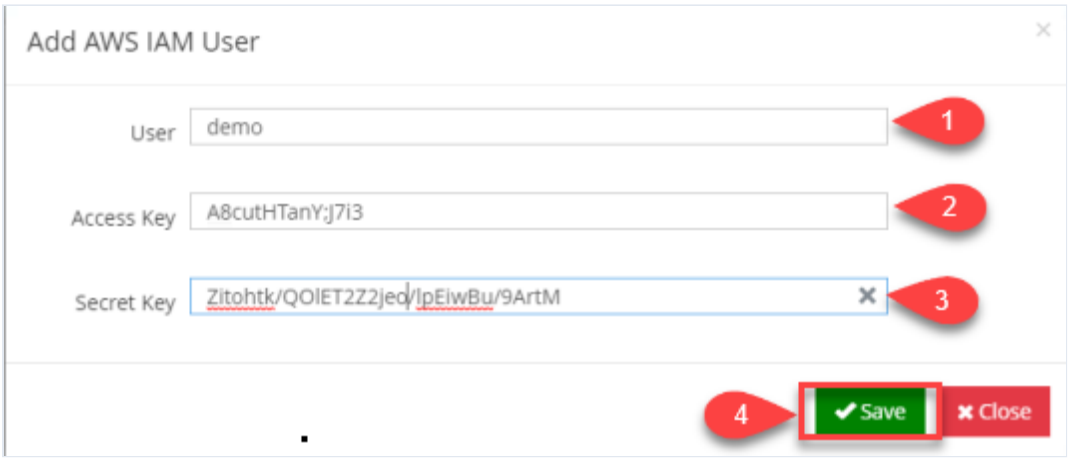
Applicare 9.2 · Updated September 13, 2024 · aws · **Pending technical review**

**Steps 1:** Log in to Applicare controller. On the left side menu, navigate to the AWS screen and click **Connect New IAM User** button located at the bottom right of AWS screen.




**Step 2: Fill in the Add AWS IAM user** popup with the required information as shown below. and then click the **Save** button. If needed, follow the steps in the **IAM user creation/configuration for AWS monitoring guide for further instructions.**.

- **User**: Enter the IAM user name.
- **Access Key**: Enter the access key for the IAM user from the monitored AWS account.
- **Secret Key**: Enter the secret key for the IAM user from the monitored AWS account.




Save the configuration and allow up to 15 minutes for the data to become available.

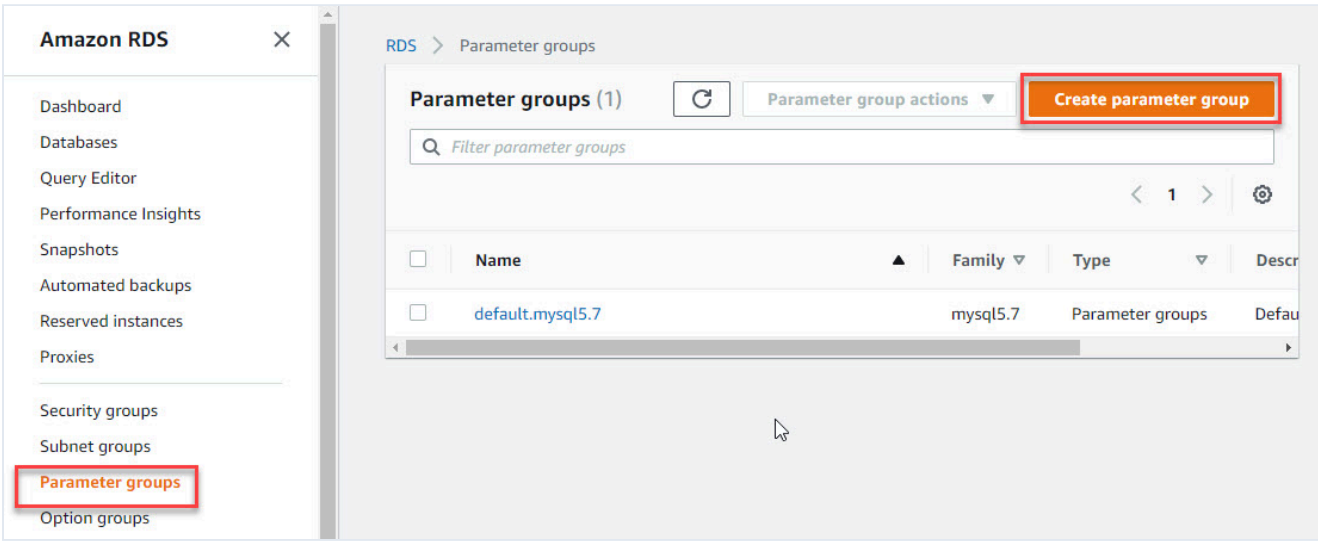
## Monitoring with Applicare

CONFIGURATION GUIDES › AWS

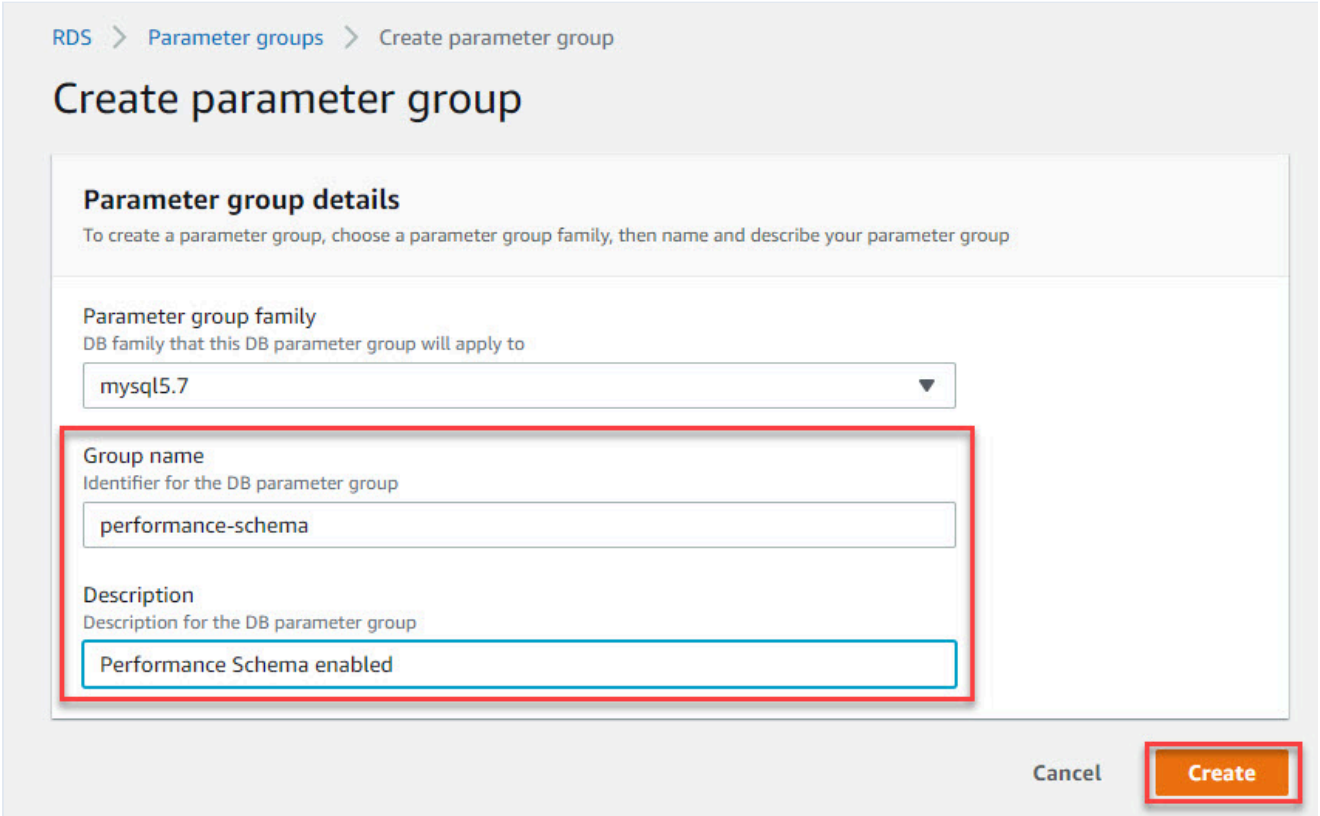
# Creating a DB parameter Group for AWS RDS MySQL

Applicare 9.2 · Updated August 22, 2024 · aws, mysql · **Pending technical review**

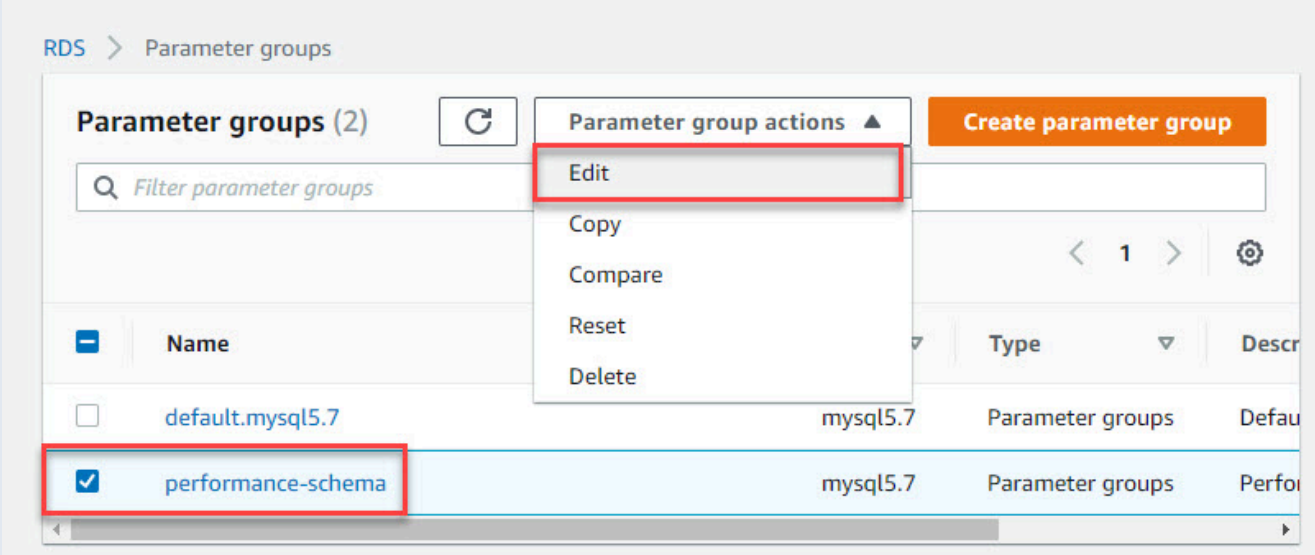
1. Navigate to **RDS -> Parameter Groups** and click the **Create parameter group** button.



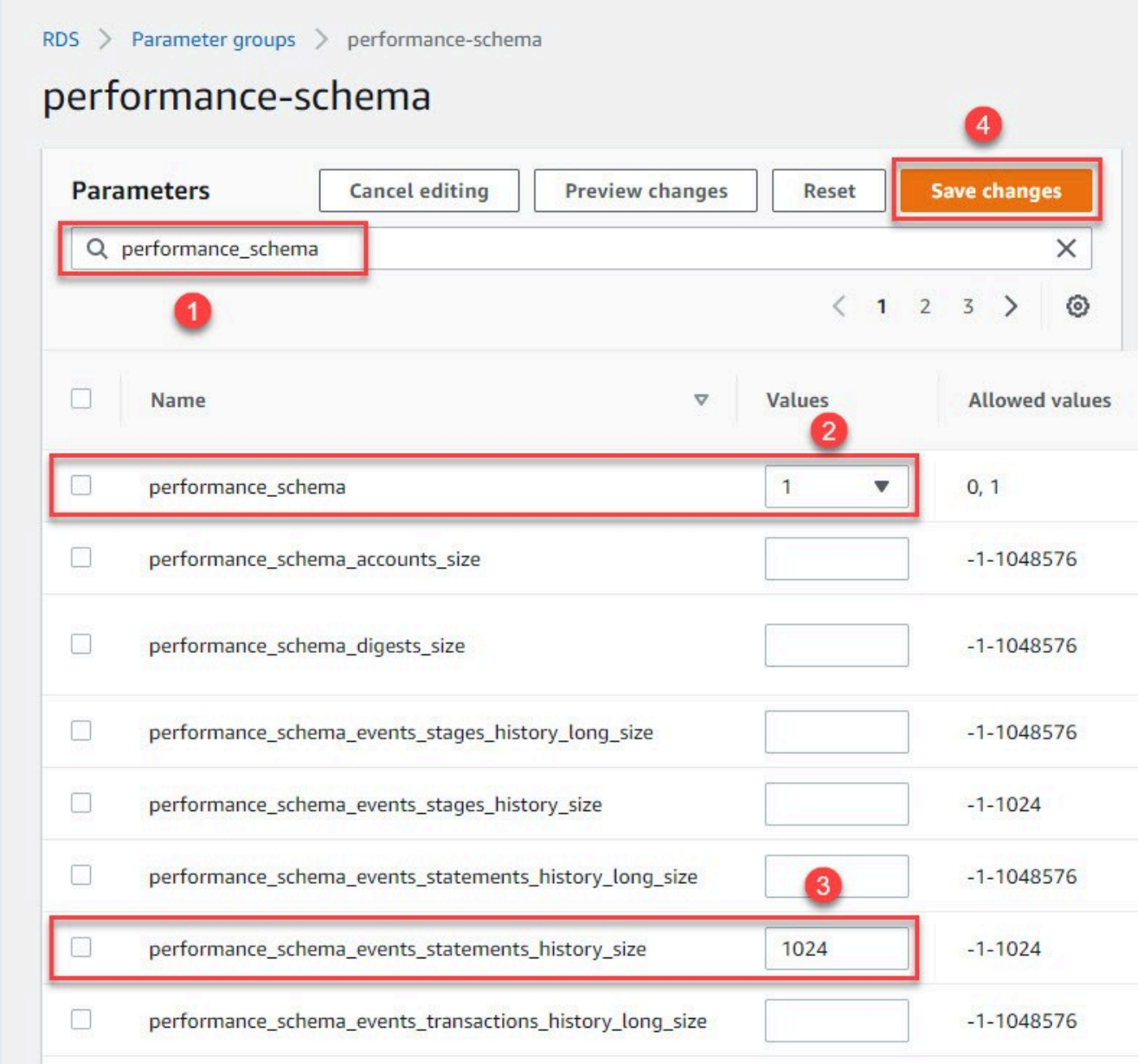

2. Enter the **Group name** and **Description** then click the **Create** button.



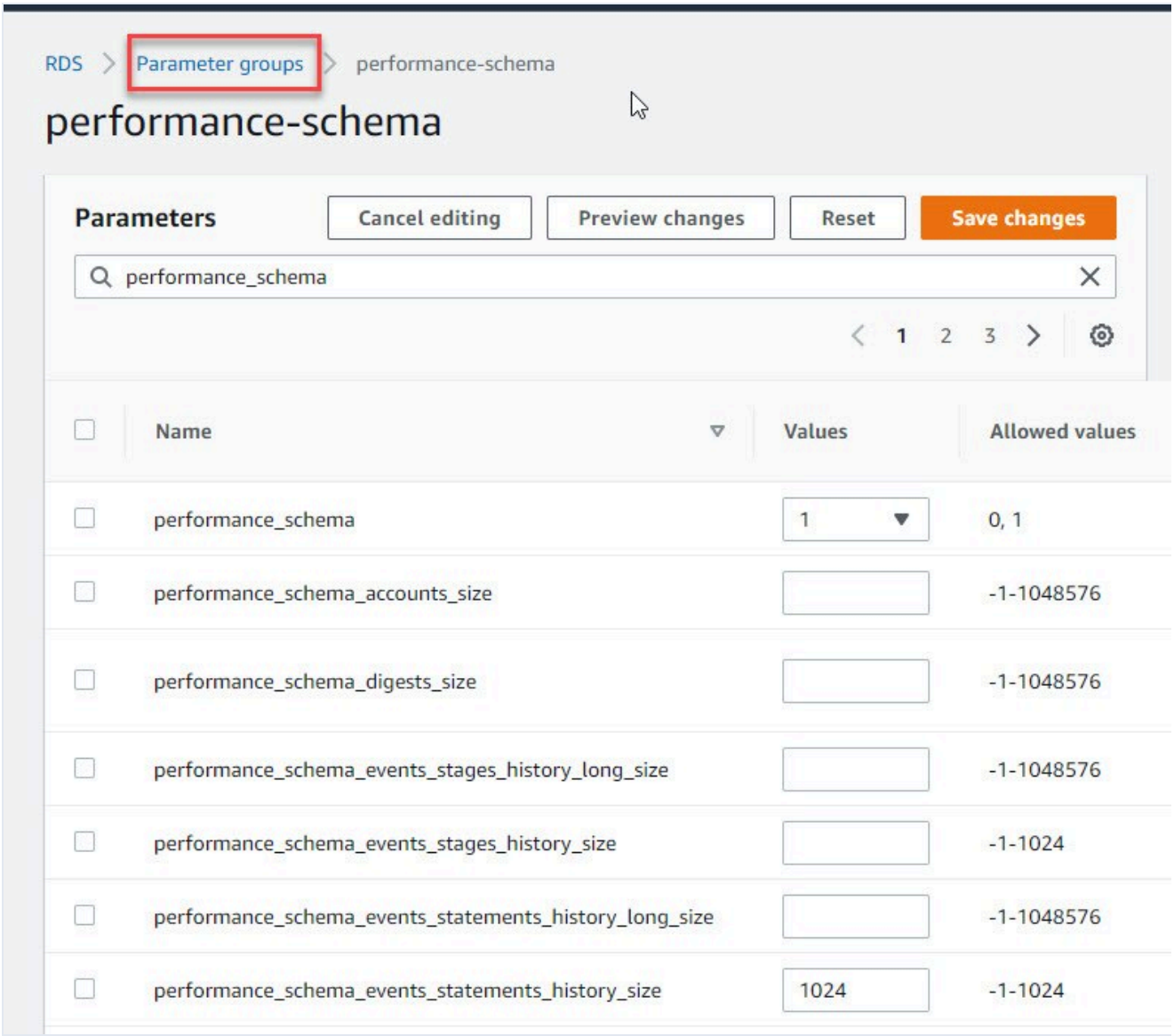

3. Select the **newly created parameter groups** and select the **Edit** option from the **Parameter group actions** dropdown.



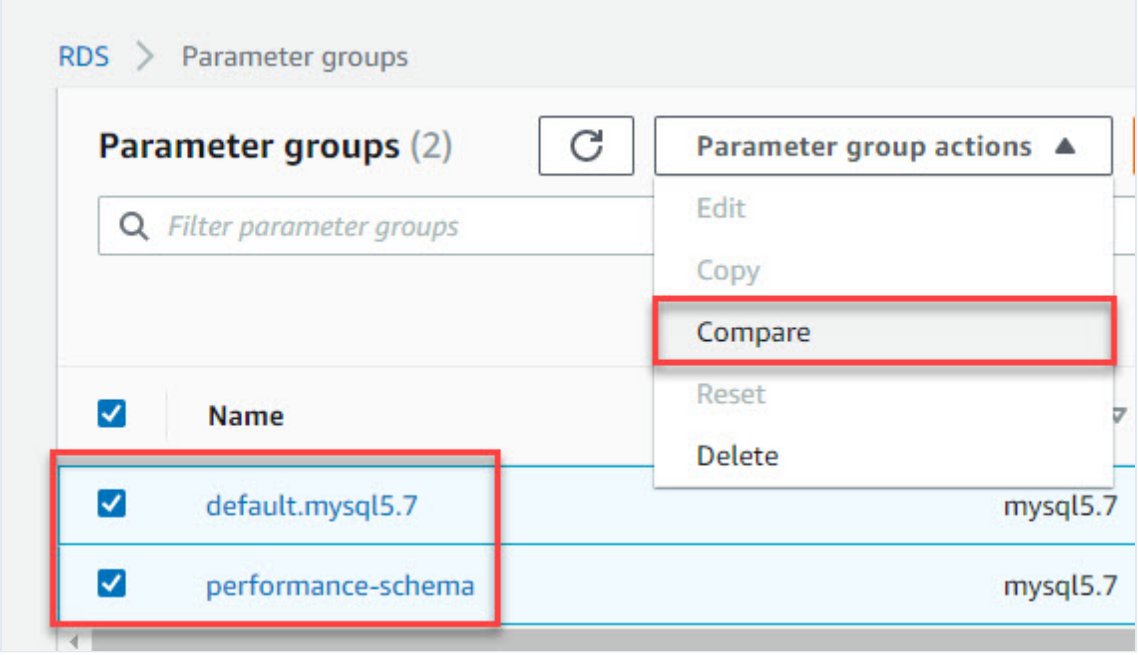

4. Search for **performance_schema** and set its value to **1** change **performance_schema_events_statements_history_size** to **1024** and click the **Save changes** button.



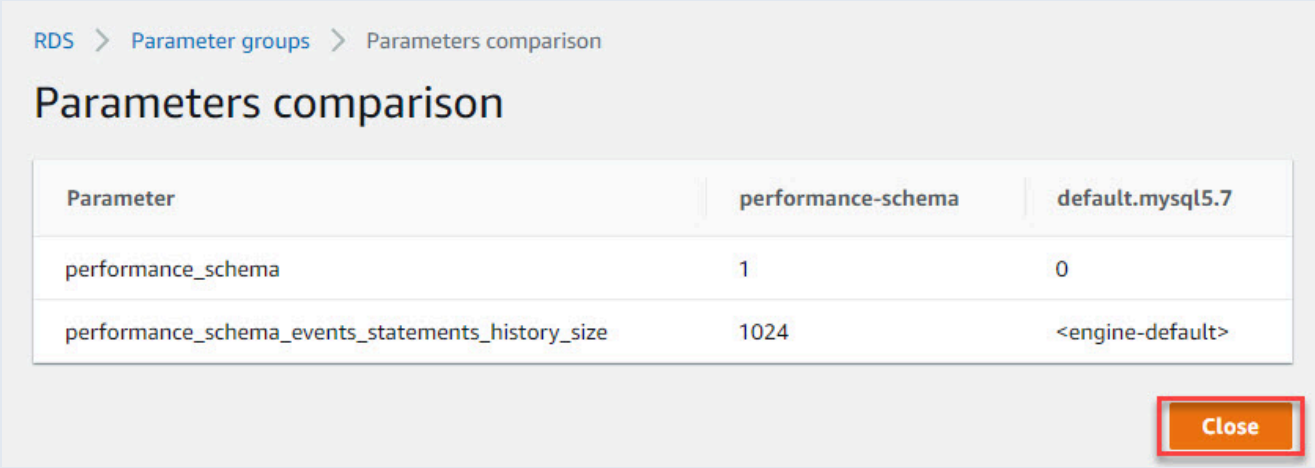

5. Navigate to the **Parameter Groups** screen.



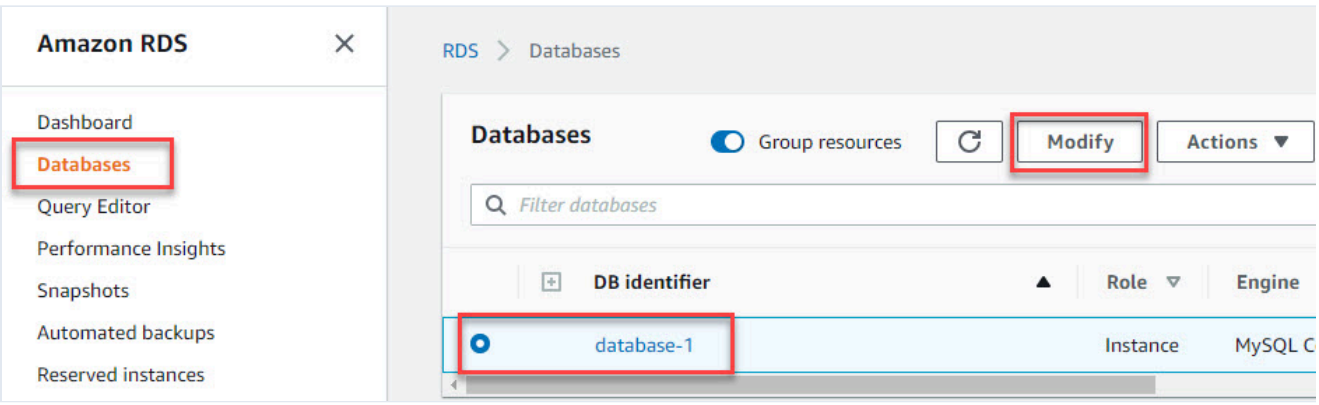

6. Select both the **default** and **newly created parameter** groups, then choose the **Compare** option from the **Parameter group actions** dropdown.



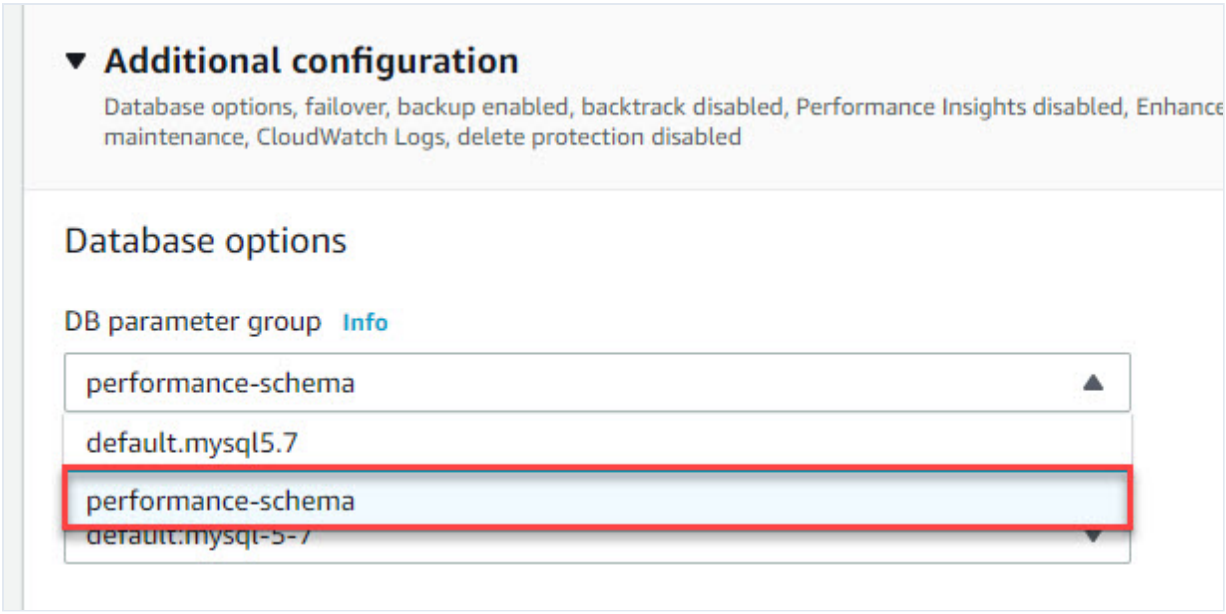

7. This will display a list of **Parameters list** that differ between the from default and the newly created groups. If there are additional changes beyond these parameters, edit the newly created parameter group to include those change and save your updates.




8. Navigate to **RDS > Databases** and click the **Modify** button.



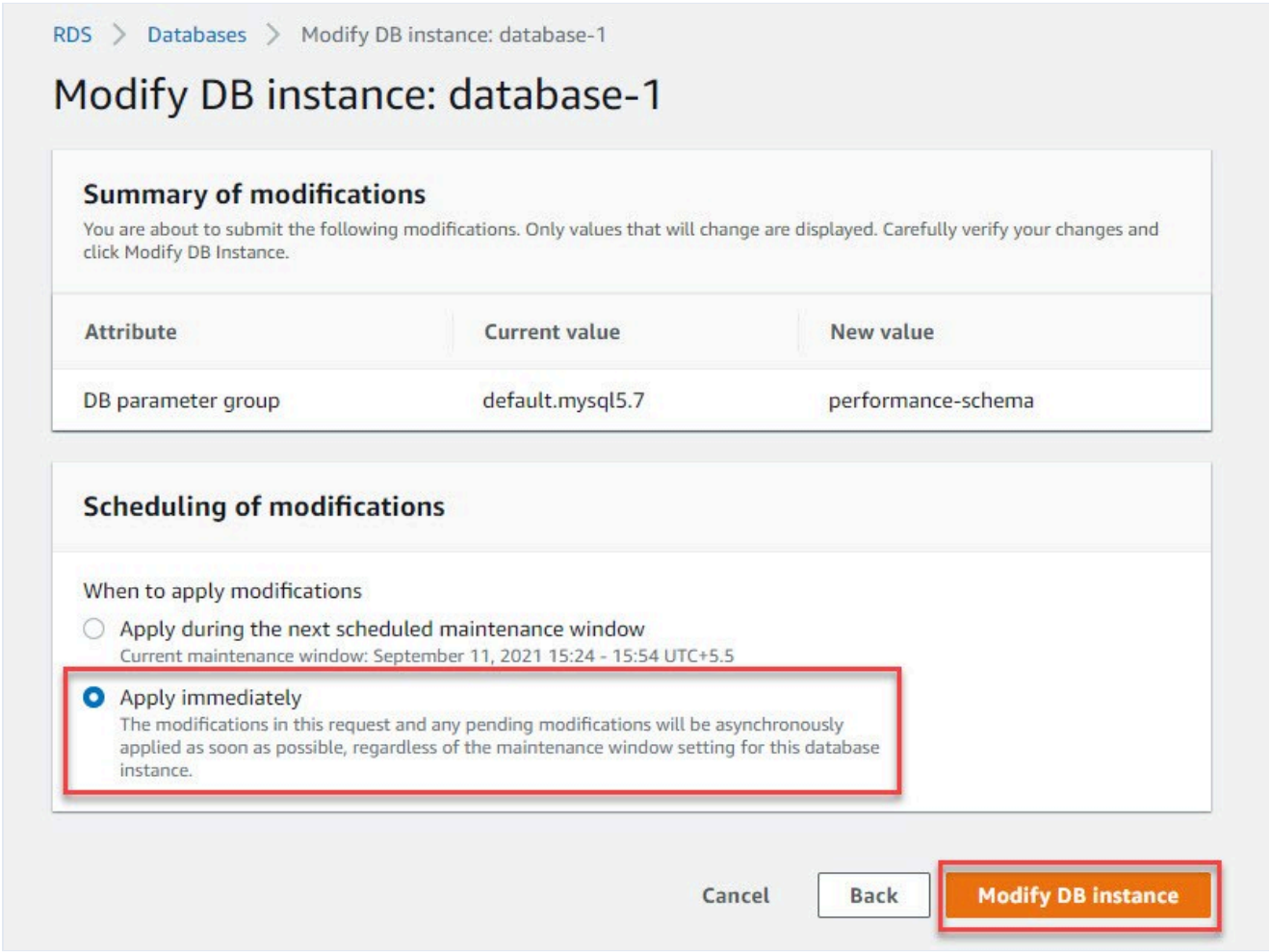

9. Choose the newly created parameter group from the **DB parameter group** dropdown and click the **Continue** button.



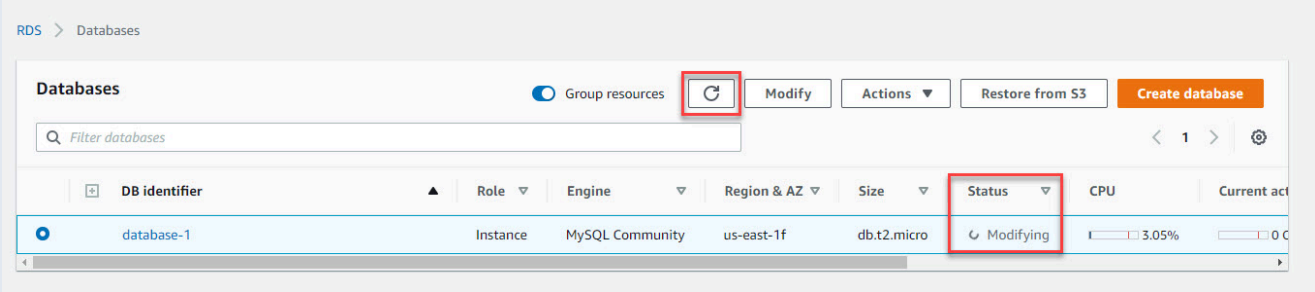




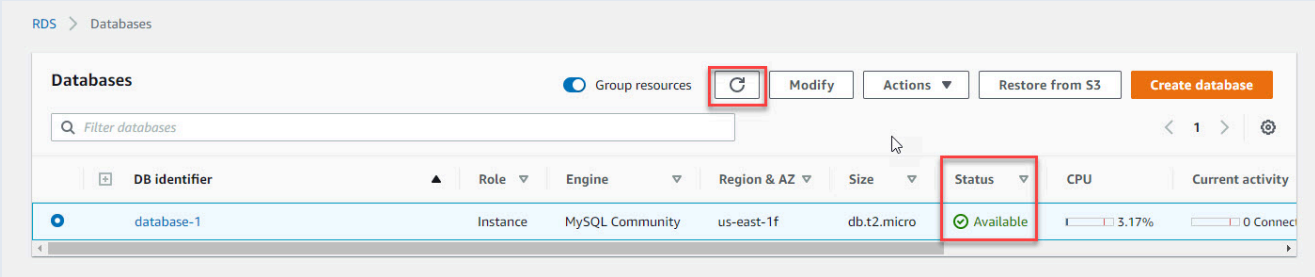
10. Select the **Apply immediately** option and click the **Modify DB instance** button.



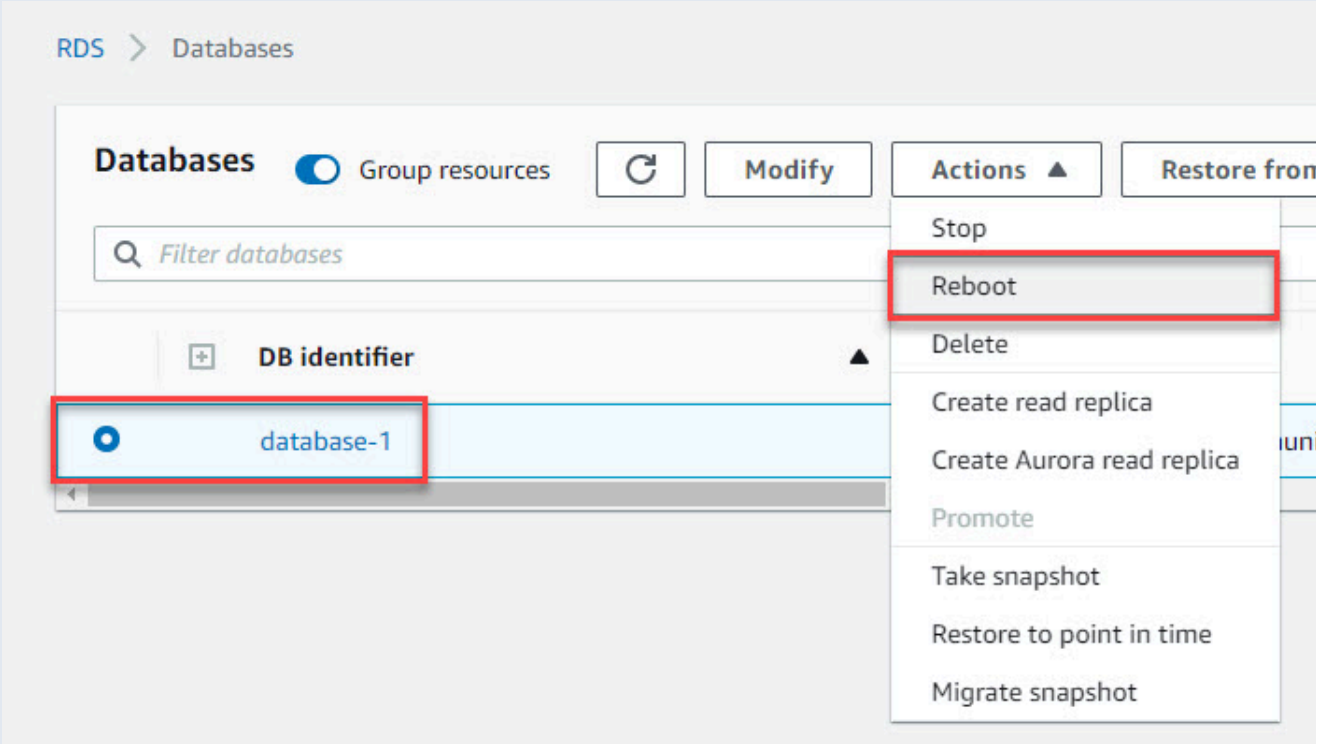
11. Select the DB instance and click the **Reload** button to check the status. It will display the status as **Modifying**. Wait until the Status to became Available.




12. Click the **Reload** button to check the status frequently.




13. Once the status changes Available, select the **Reboot** option from the **Actions** dropdown.



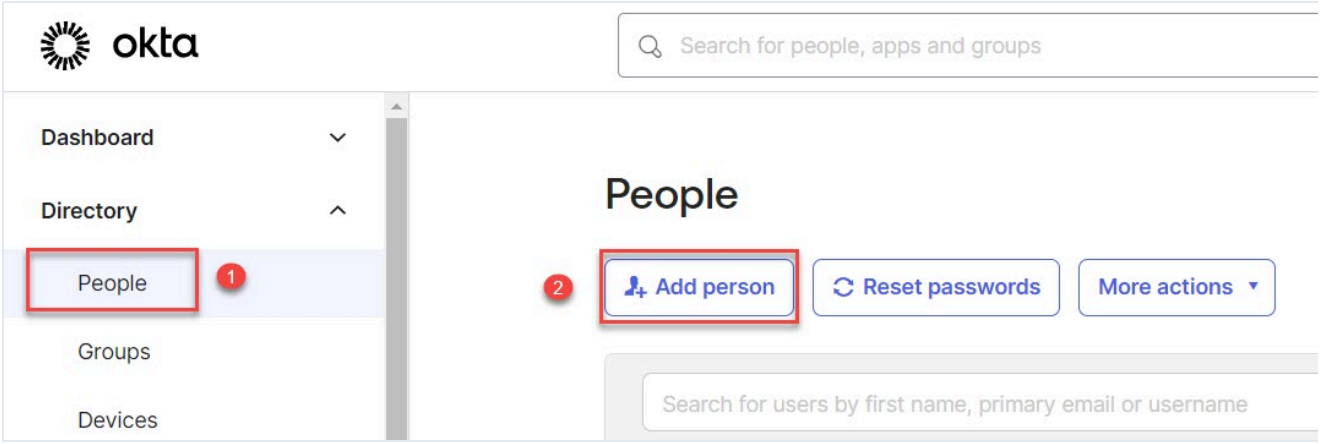
CONFIGURATION GUIDES › ADMINISTRATION & SECURITY

# Configuring Applicare with OKTA using SAML

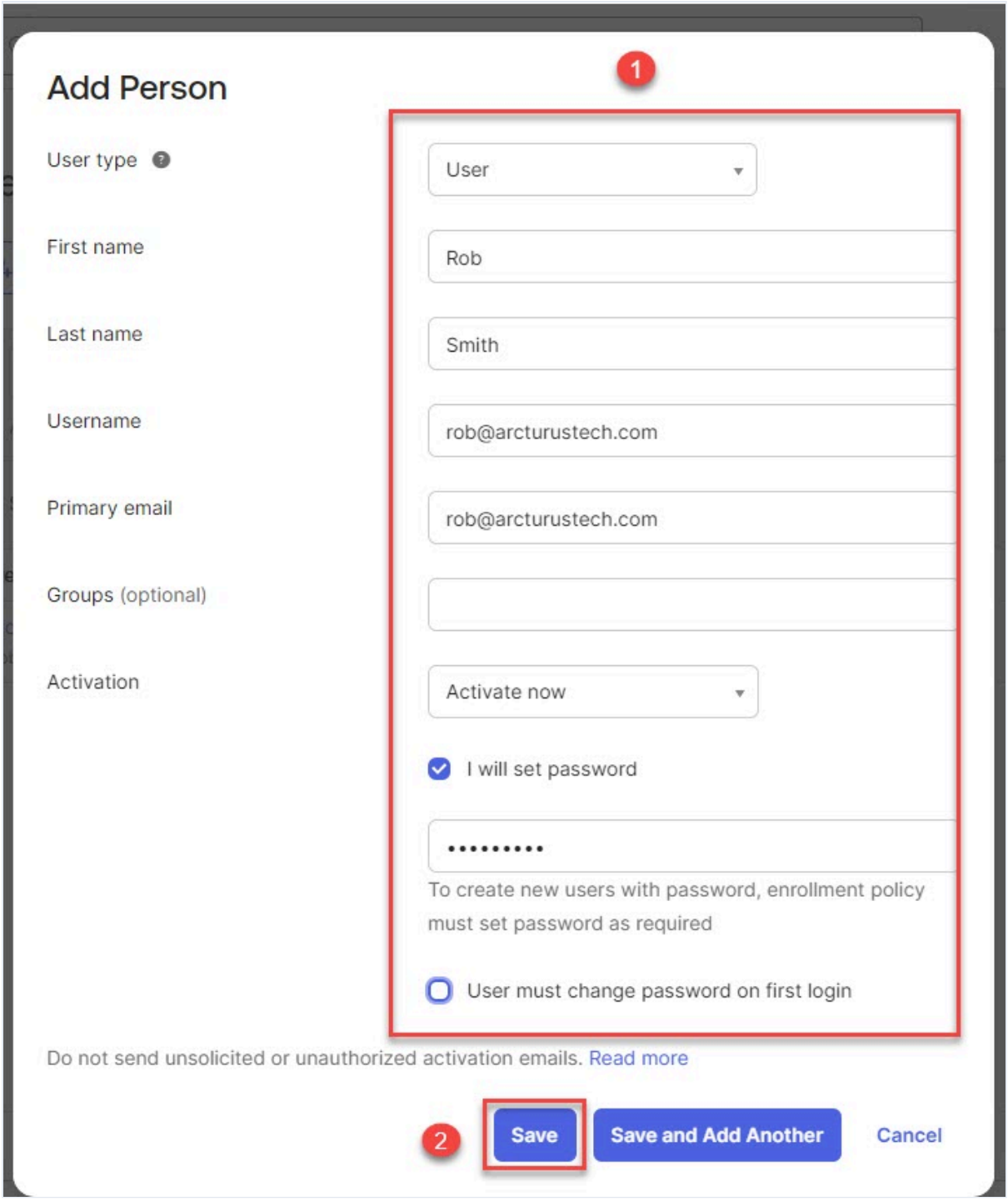
Applicare 9.2 · Updated September 13, 2024 · sso · **Pending technical review**

### User Creation

1. Log in to your **OKTA** Admin account and select People from the **Directory** menu.

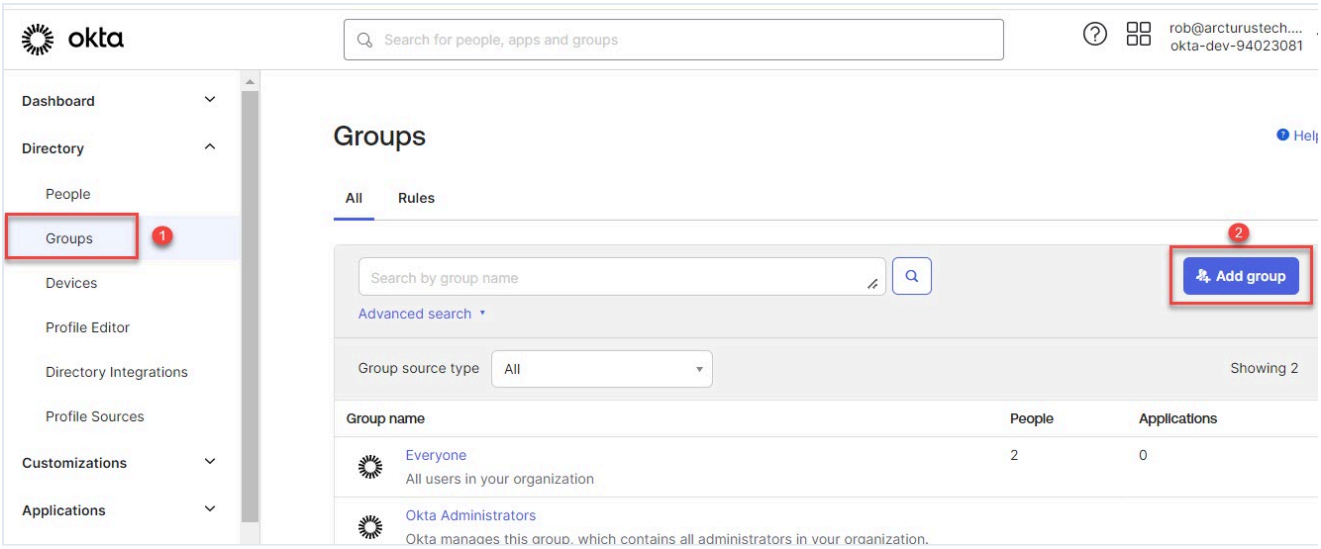



2. Enter the user details and set the password and click the **Save** button.

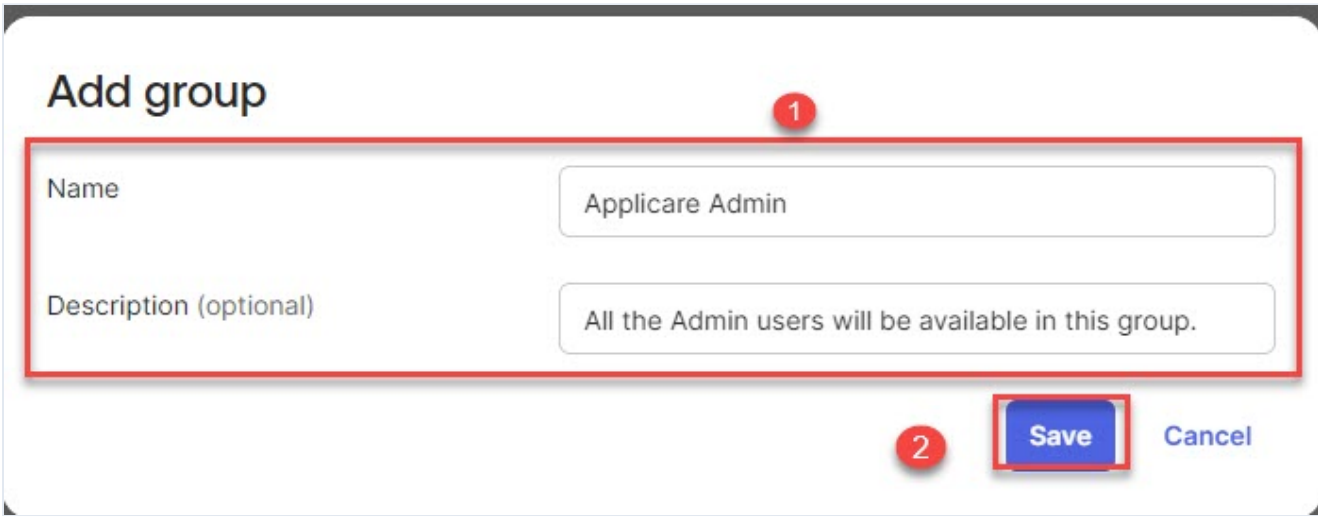



**Group Creation**

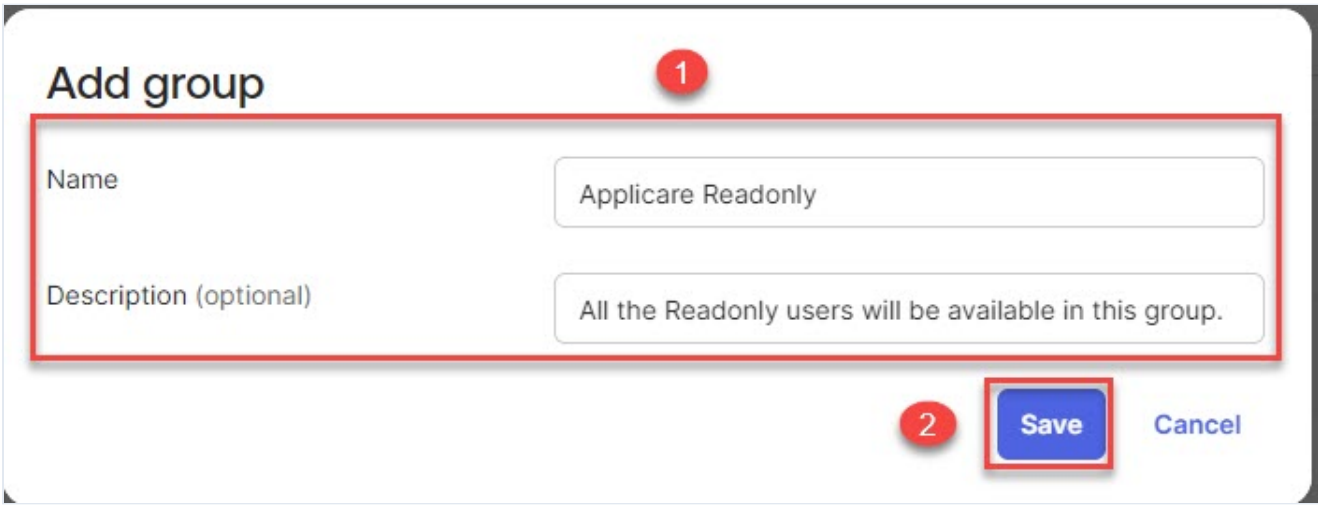
1. Go to **Groups** under the **Directory** menu and click the **Add Group** button.




2. Enter **Applicare Admin** as the name and click the **Save** button. The description is optional.

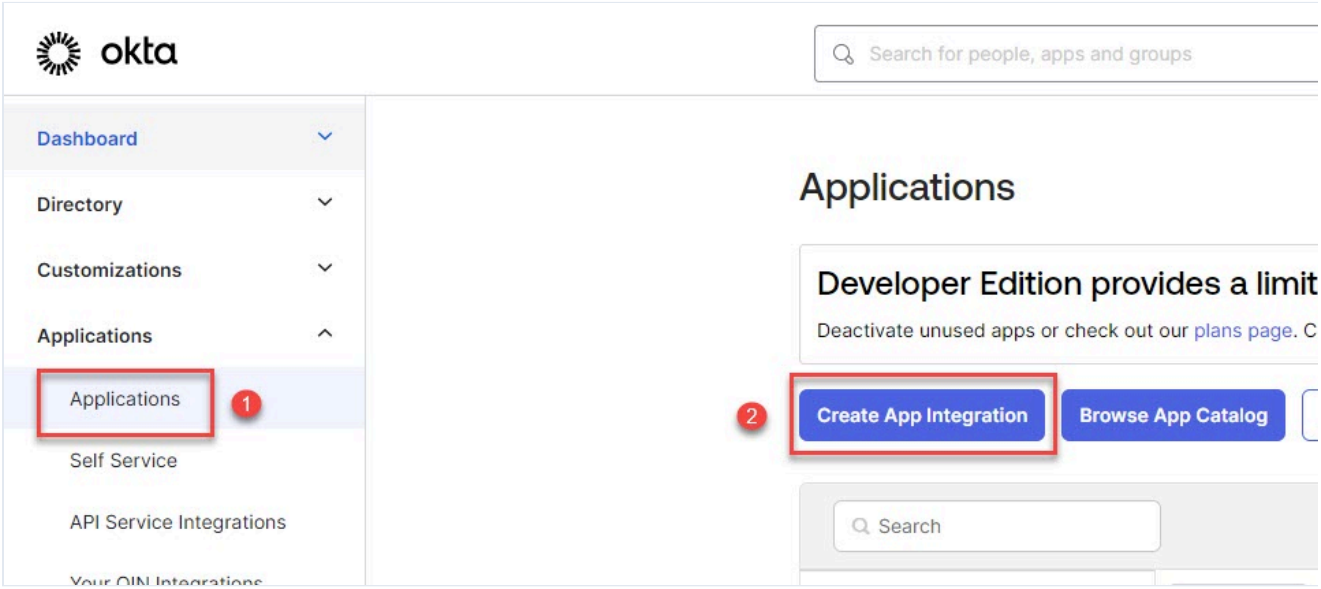



3. Similarly, add another group with the name as **Applicare Readonly** and click the **Save** button. The description is optional.

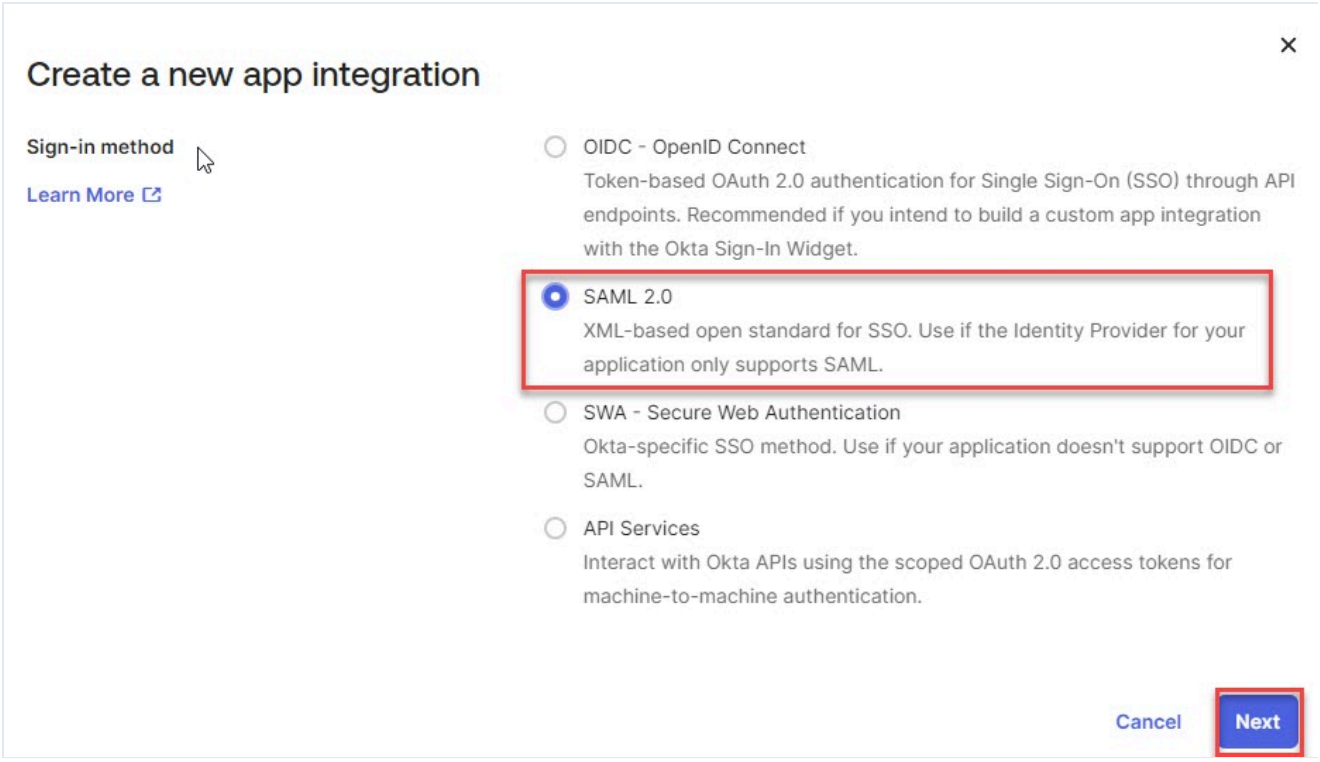



**App Integration**

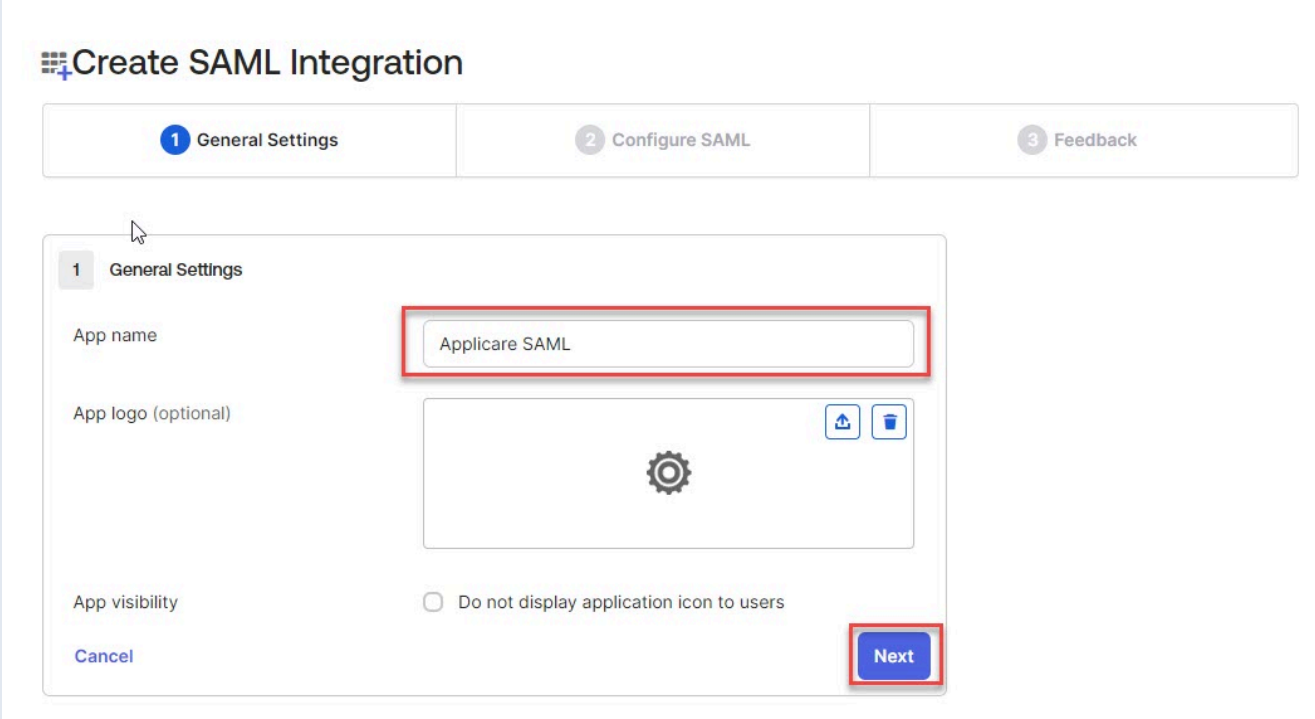
1. Go to **Applications** under the **Applications** menu and click the **Create App Integration** button




2. Select **SAML 2.0** and click the **Next** button.




3. Enter the App name as **Applicare SAML** and click the **Next** button.

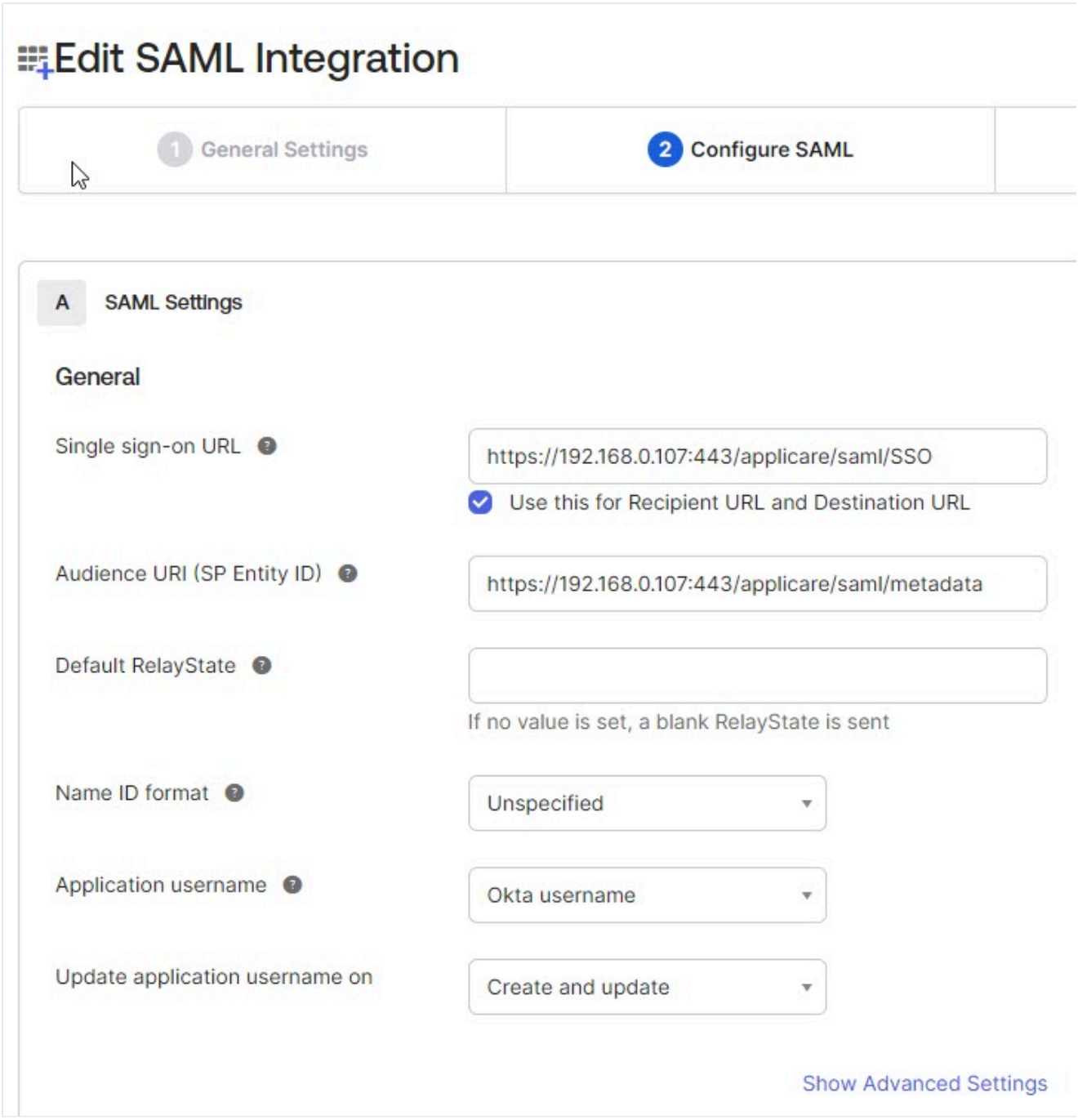



4. Enter the **Single sign-on URL** and **Audience URI** and select other options in the dropdown.

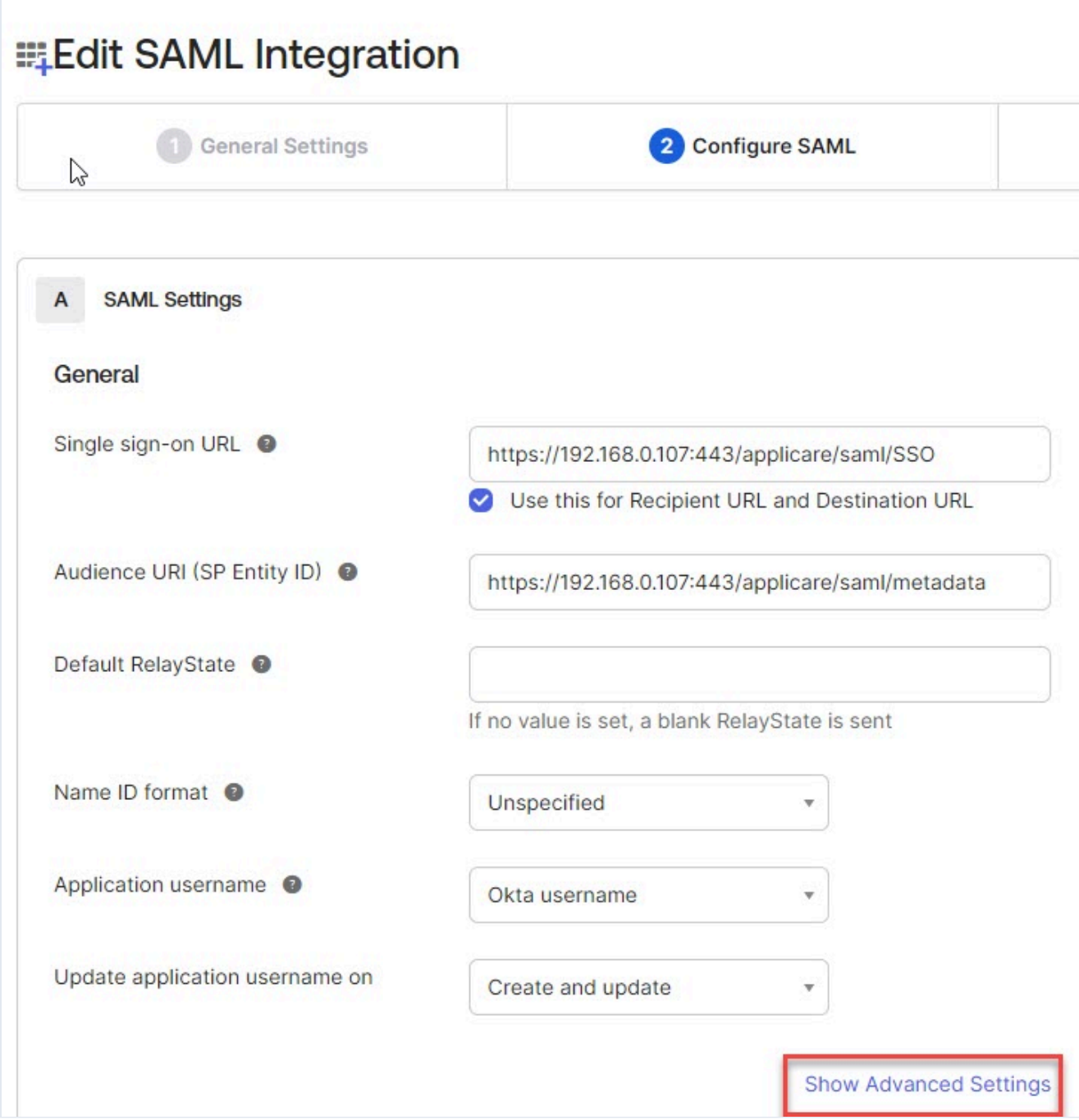
- Single sign-on URL -> **Applicare_Base_URL**/saml/SSO
- Audience URI (SP Entity ID) -> **Applicare_Base_URL**/saml/metadata
- Replace the **Applicare_Base_URL** with the actual URL.

**e.g.**

- Applicare_Base_URL-> `https://192.168.0.107:443/applicare`
- Single sign-on URL -> `https://192.168.0.107:443/applicare`/saml/SSO
- Audience URI (SP Entity ID) -> `https://192.168.0.107:443/applicare`/saml/metadata




5. Click **Show Advanced Settings** button



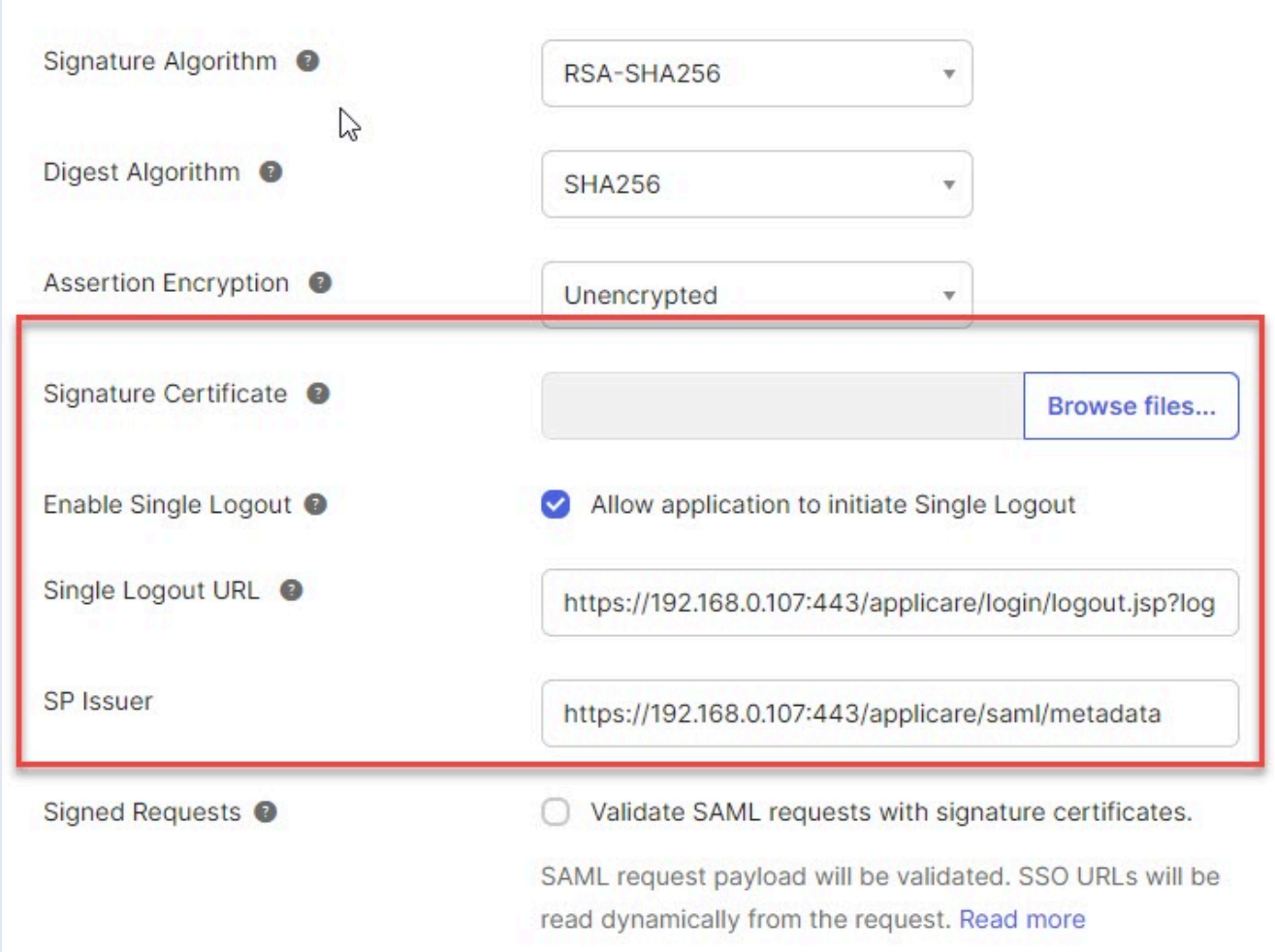

6. Add the below details

- Browse and upload the Applicare Signature Certificate file (.cer). This certificate file is generates during the HTTPS configuration for Applicare. For instruction on self- signed HTTPS configuration **Click here.**
- Check the box for **Allow Application to initiate Single Logout**.
- Enter the **Single Logout URL** as **Applicare_Base_URL**/login/logout.jsp?loginType=console
- Enter the **SP Issuer** as **Applicare_Base_URL**/saml/metadata
- Replace the **Applicare_Base_URL** with actual URL.

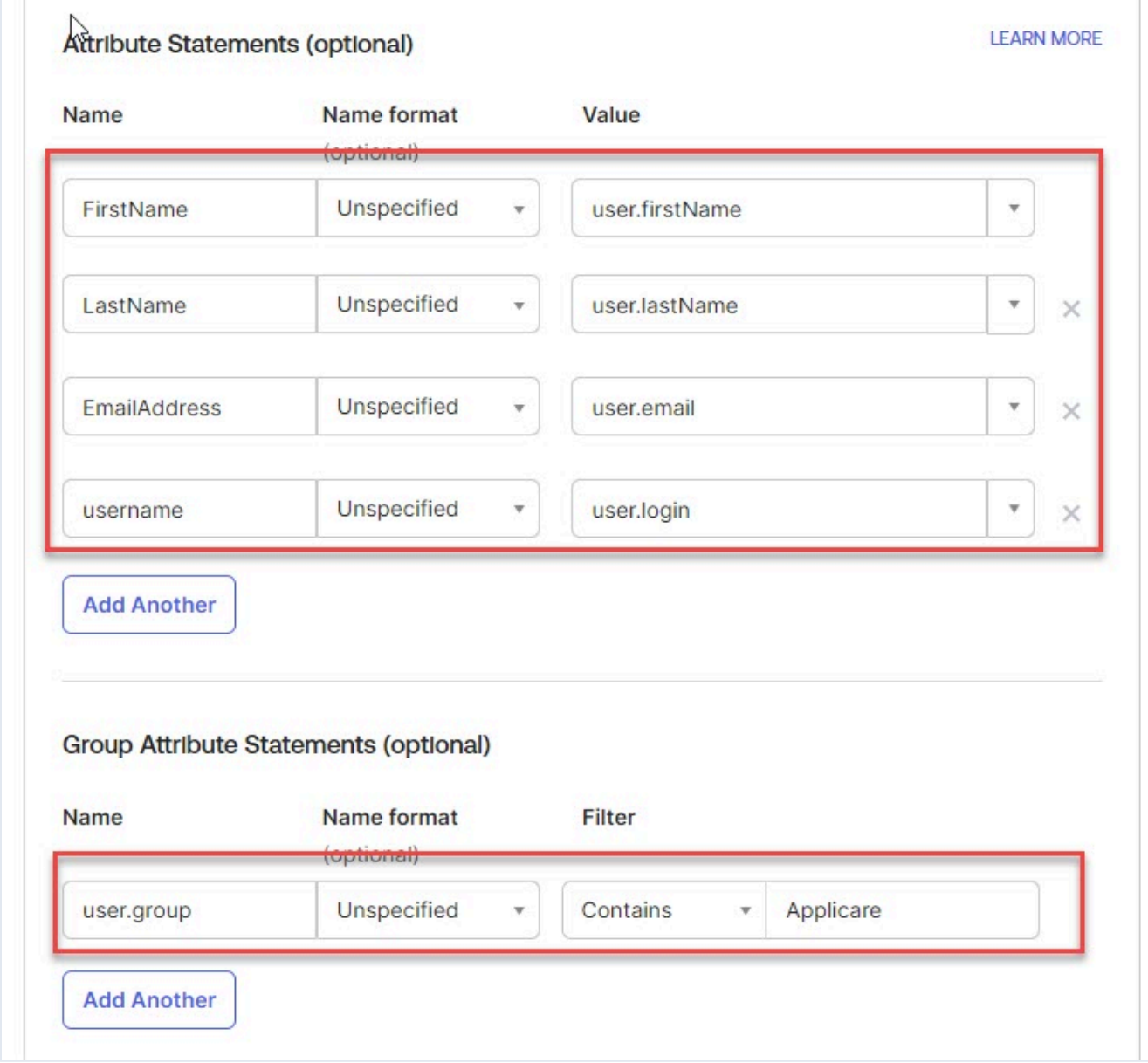
**e.g.**

- Applicare_Base_URL -> `https://192.168.0.107:443/applicare`

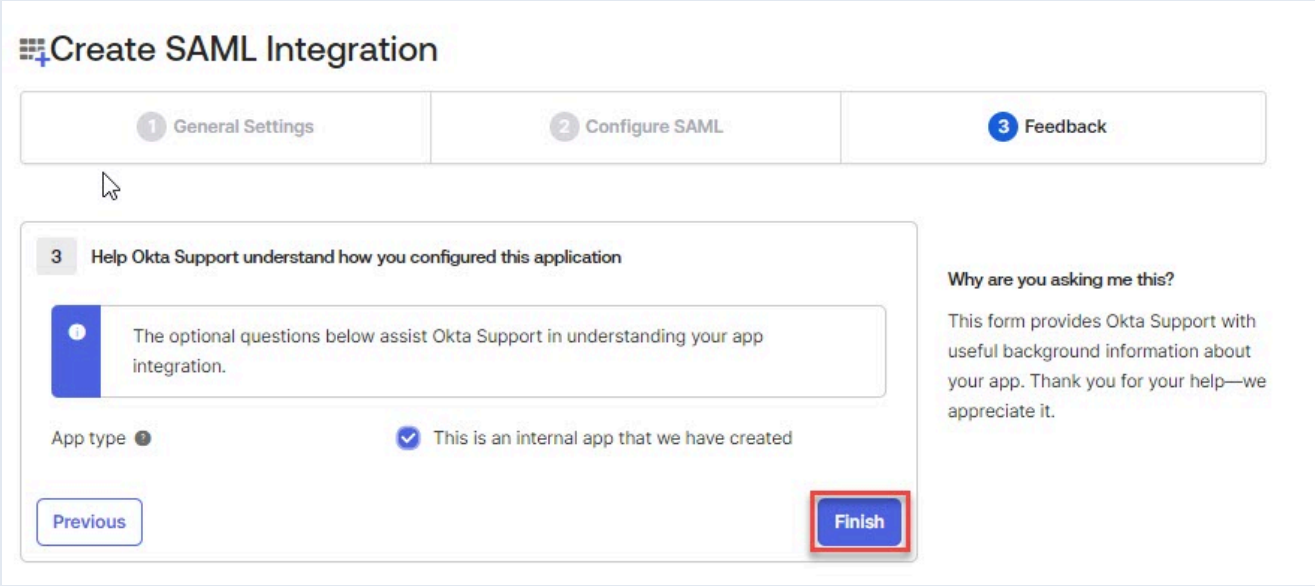
- Single Logout URL -> `https://192.168.0.107:443/applicare`/login/logout.jsp?loginType=console
- SP Issuer -> `https://192.168.0.107:443/applicare`/saml/metadata




7. Add the **FirstName, LastName, EmailAddress, Username** and **user.group** attributes, then click the **Next** button.

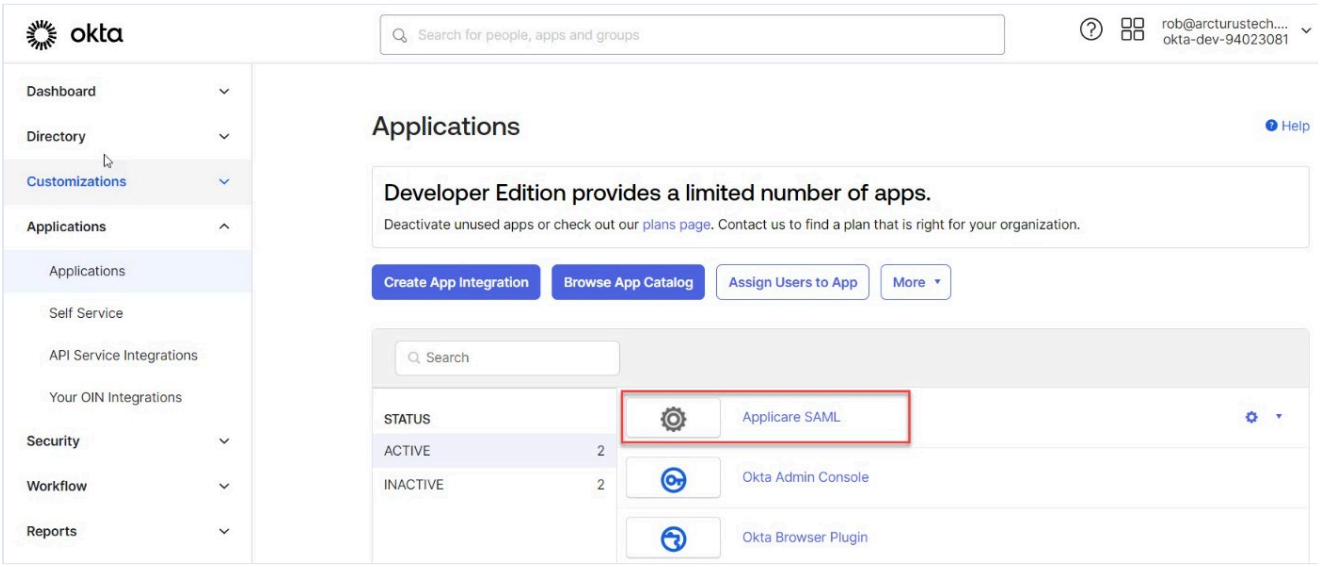



8. Click the **Finish** button.

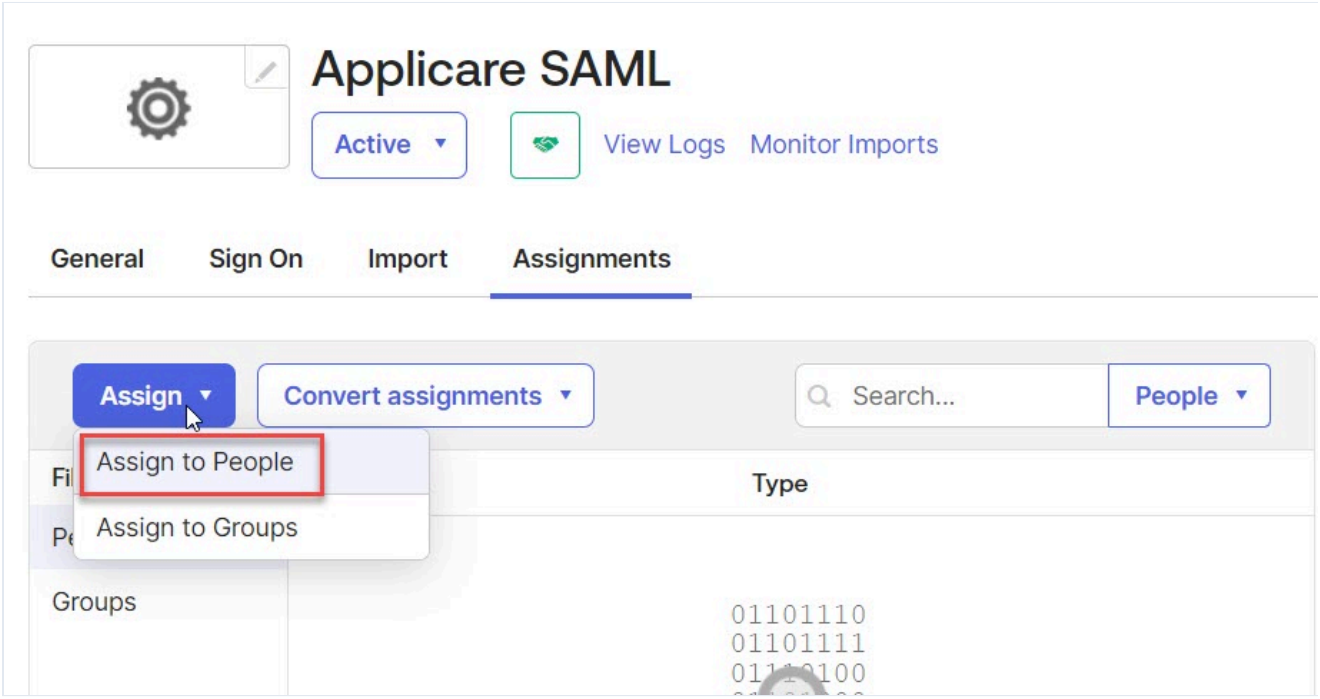


### Assign Application to People

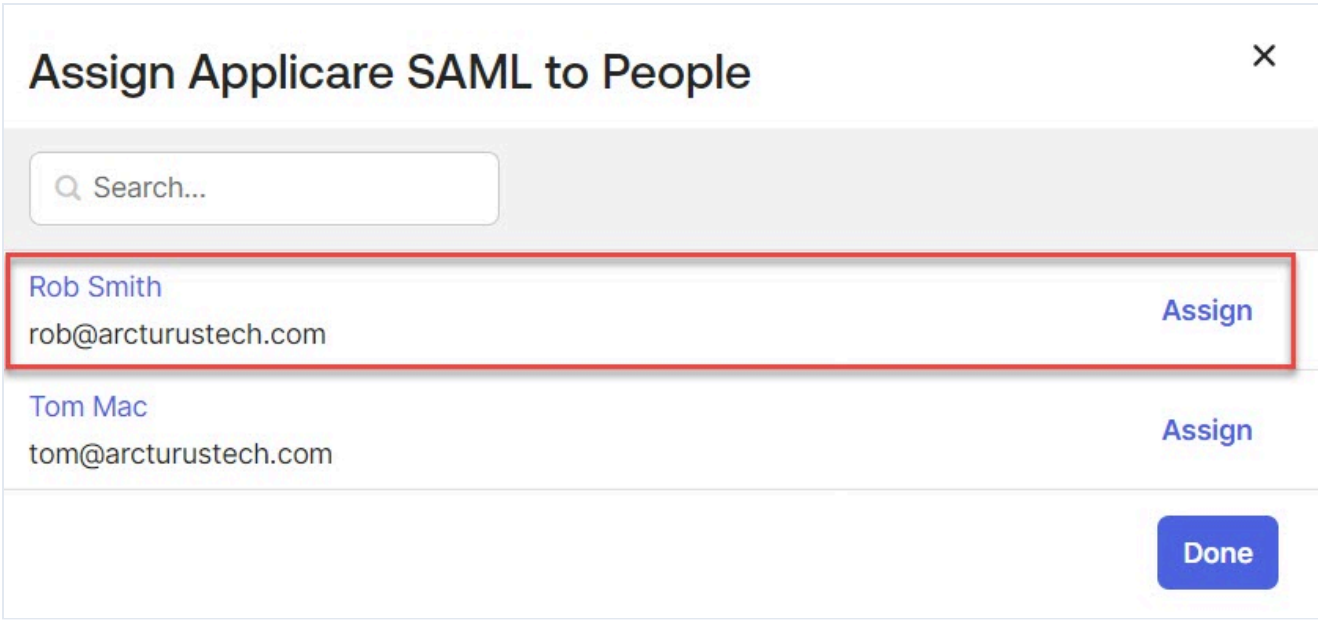
1. Go to **Applications** under the **Applications** menu and select **Applicare SAML**.




2. Select **Assign to People** option under the **Assign** dropdown.




3. Click the **Assign** button for the user which we are going to assign the App.




4. Click the **Save and Go Back** button.

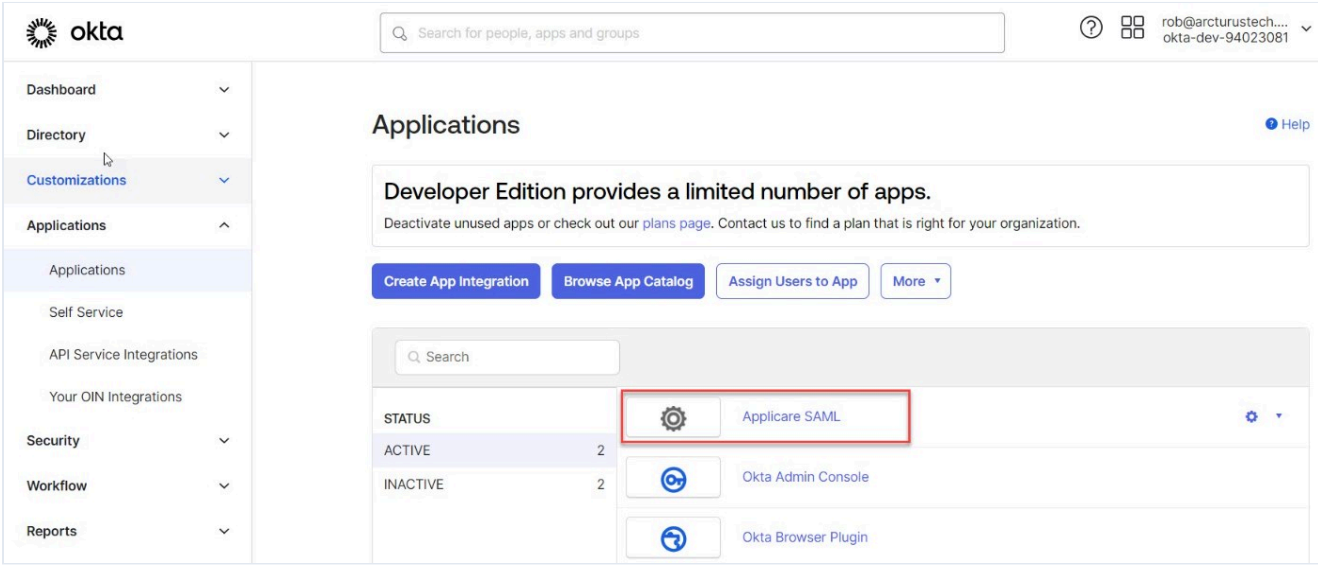



5. After assigning the users click the **Done** button.

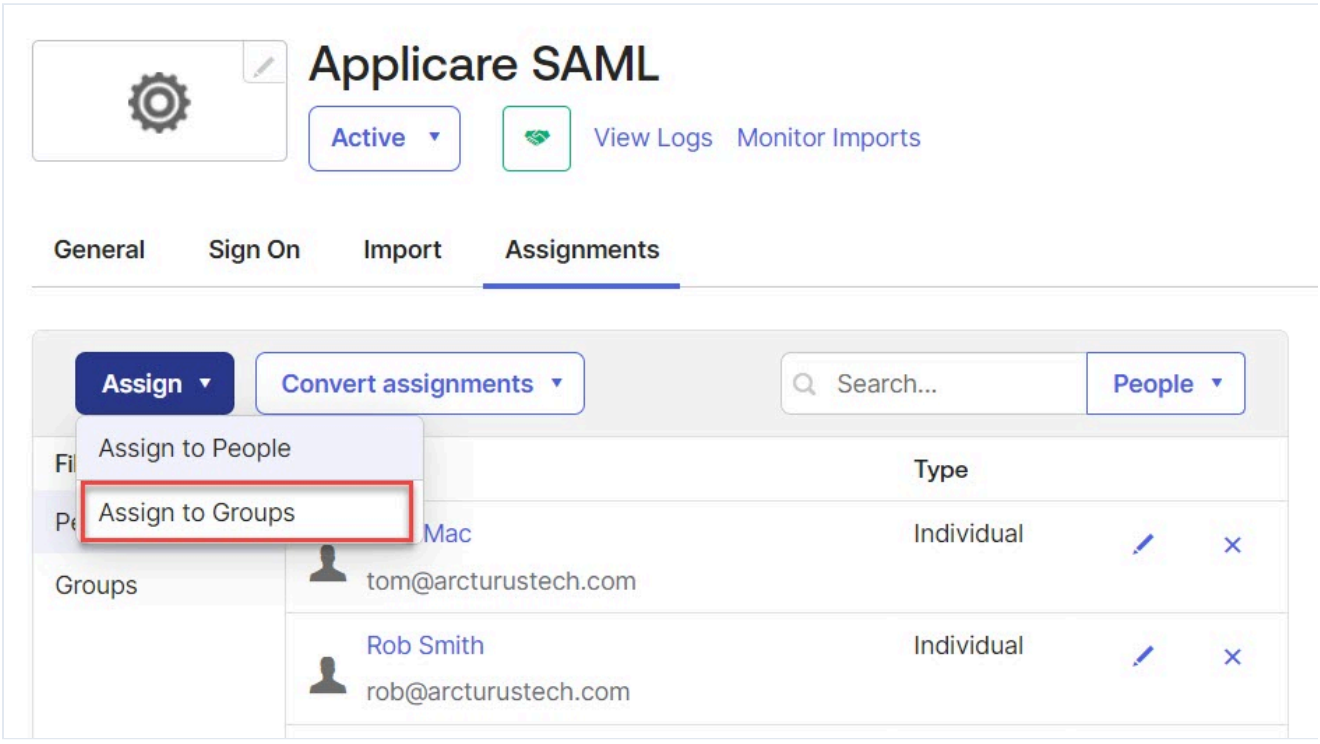



**Assign Application to Group**

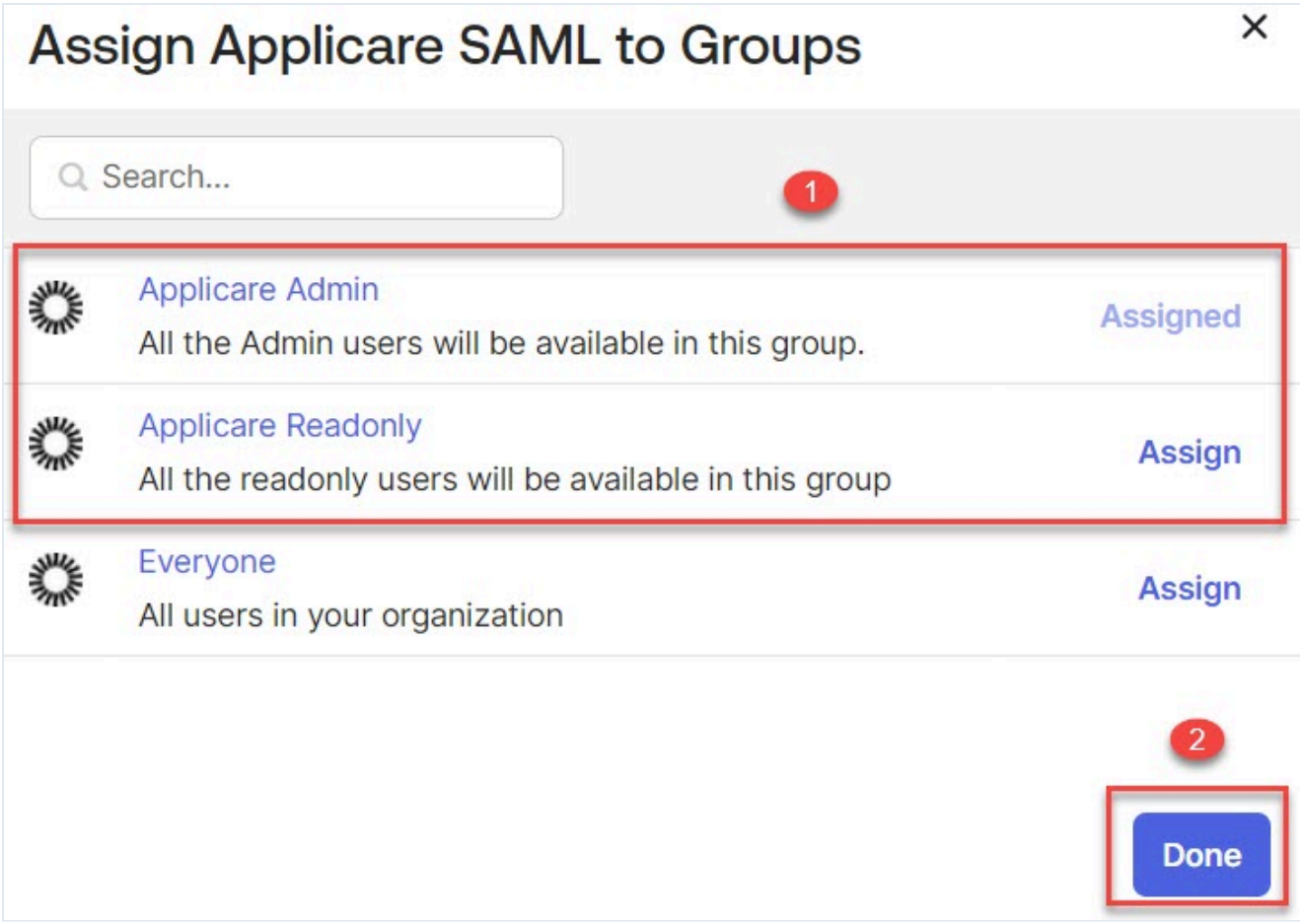
Navigate to **Applications** under the **Applications** menu and select **Applicare SAML**.




2. Choose **Assign to Groups** from the **Assign** dropdown.

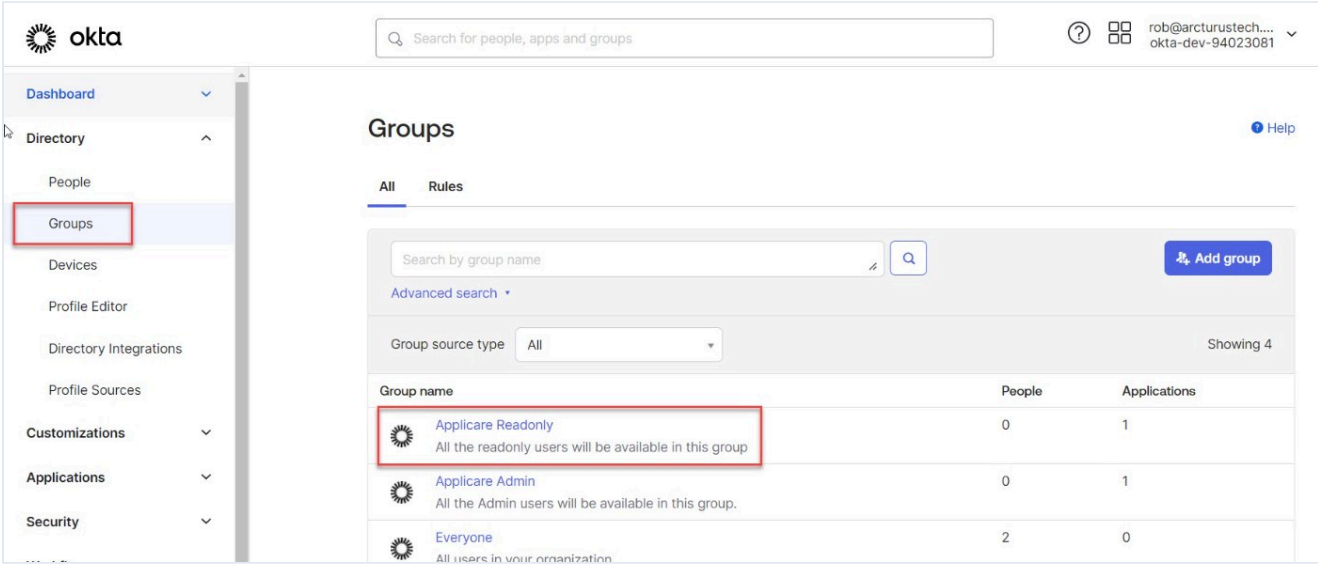



3. Click the **Assign** button for both the **Applicare Admin** and **Applicare Readonly** groups, then click the **Done** button.

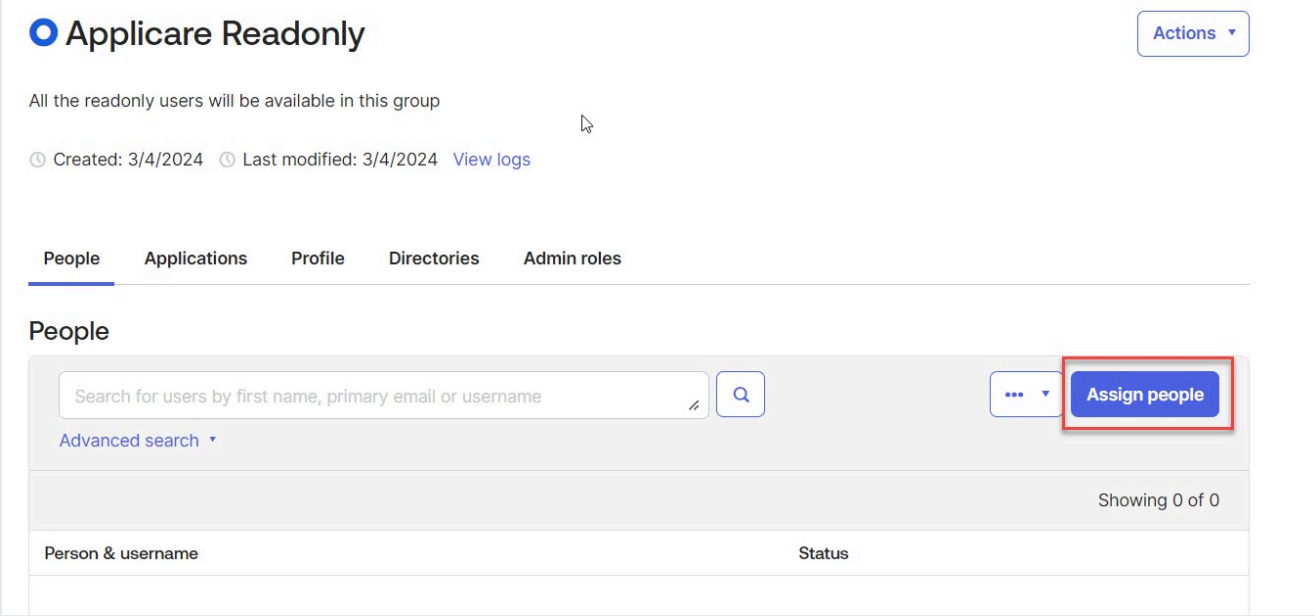



**Assign People to Group**

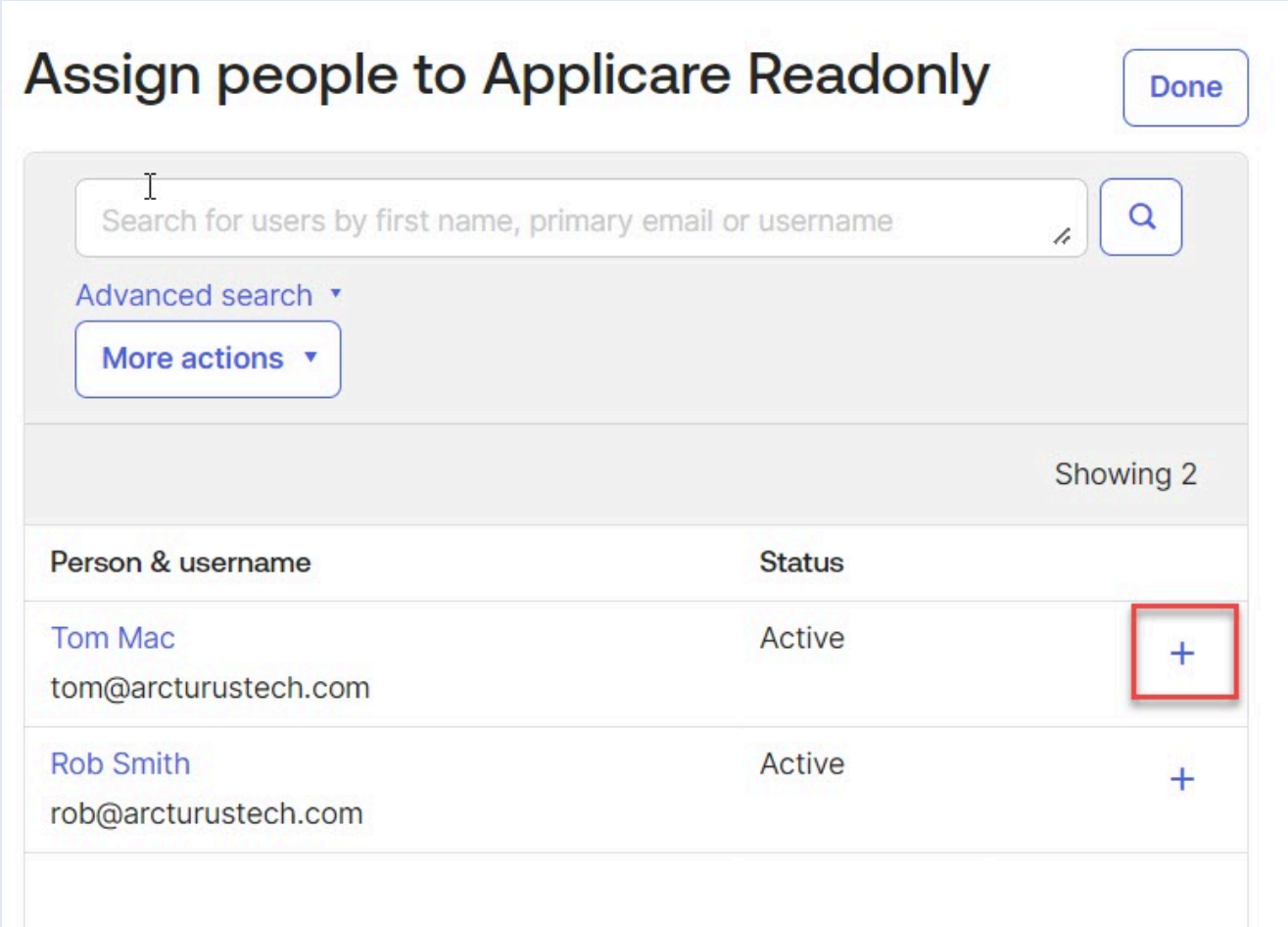
1. Go to **Groups** under the **Directory** menu and select the **Applicare Readonly** group.



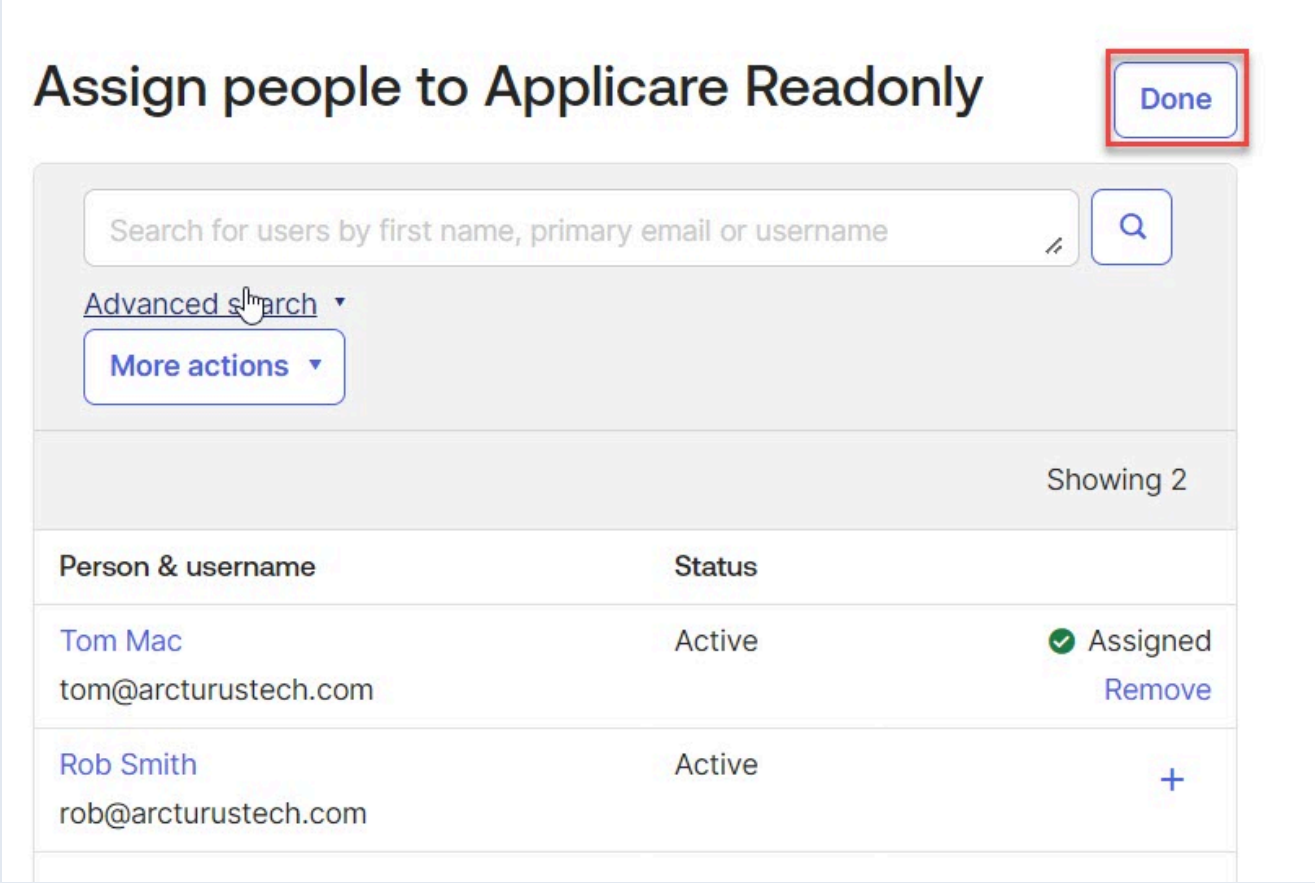

2. Click the **Assign people** button.



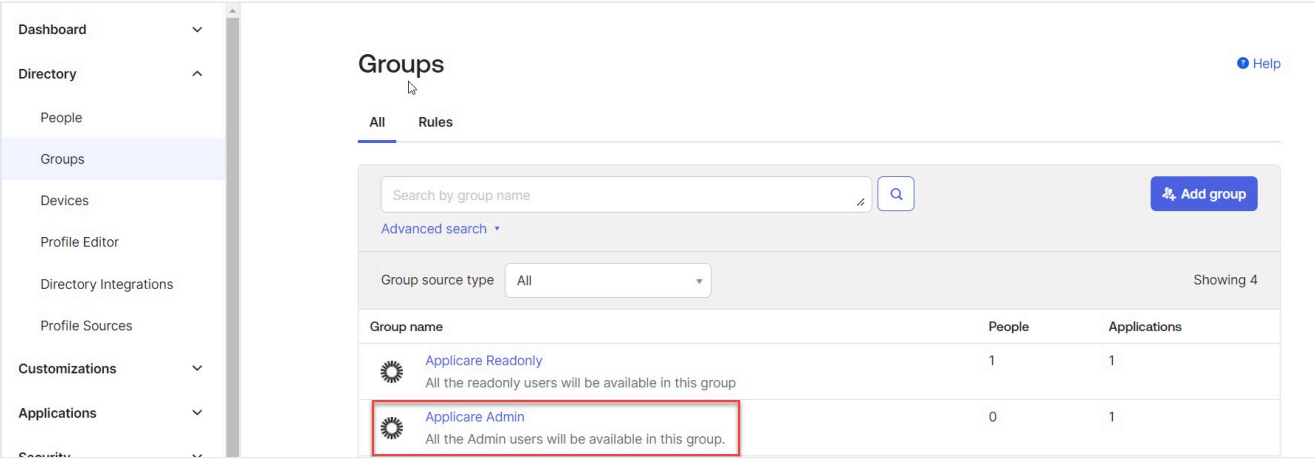

3. Click the **plus button** for the users which we need to assign that group.



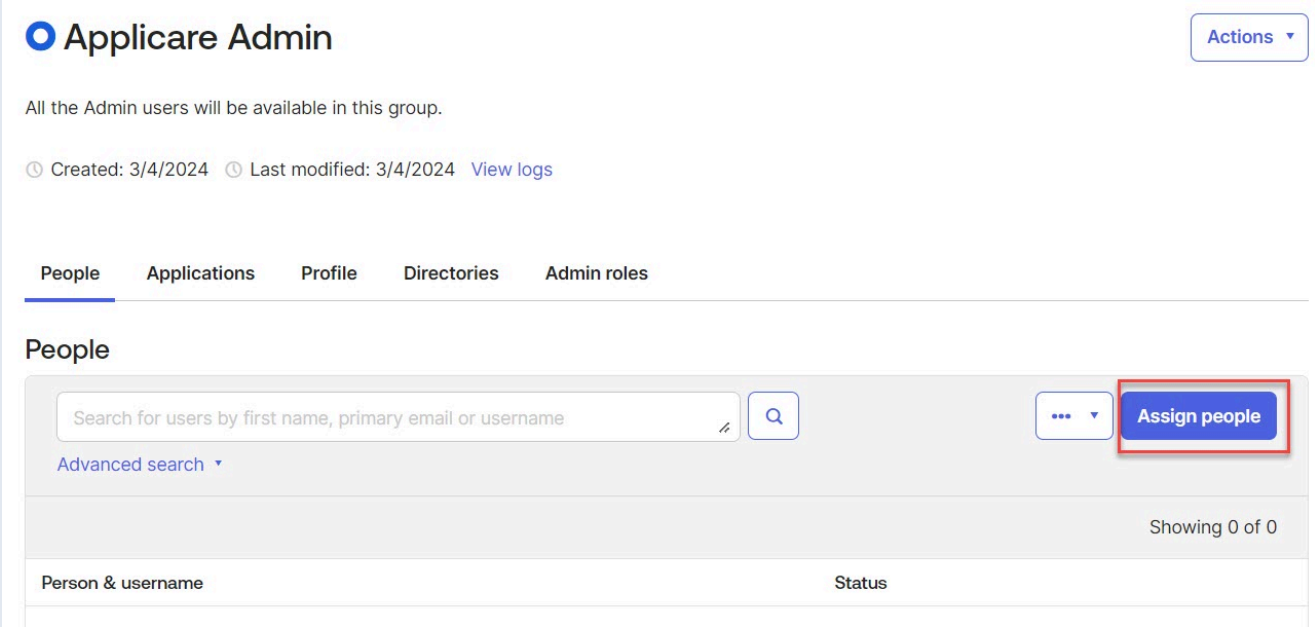

4. After assigning the users, click the **Done** button.



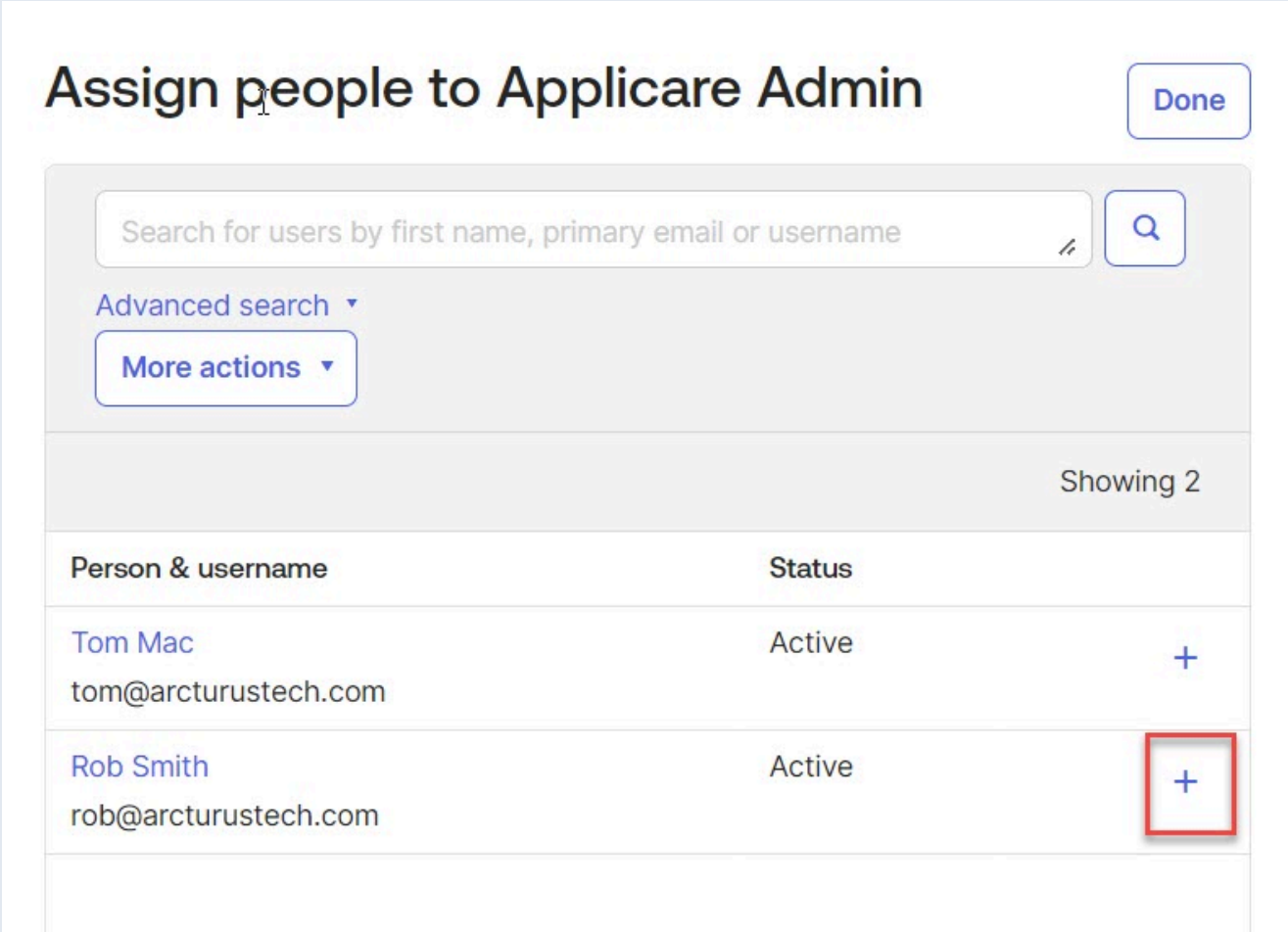

5. Go to **Groups** under the **Directory** menu and select the **Applicare Admin** Group.



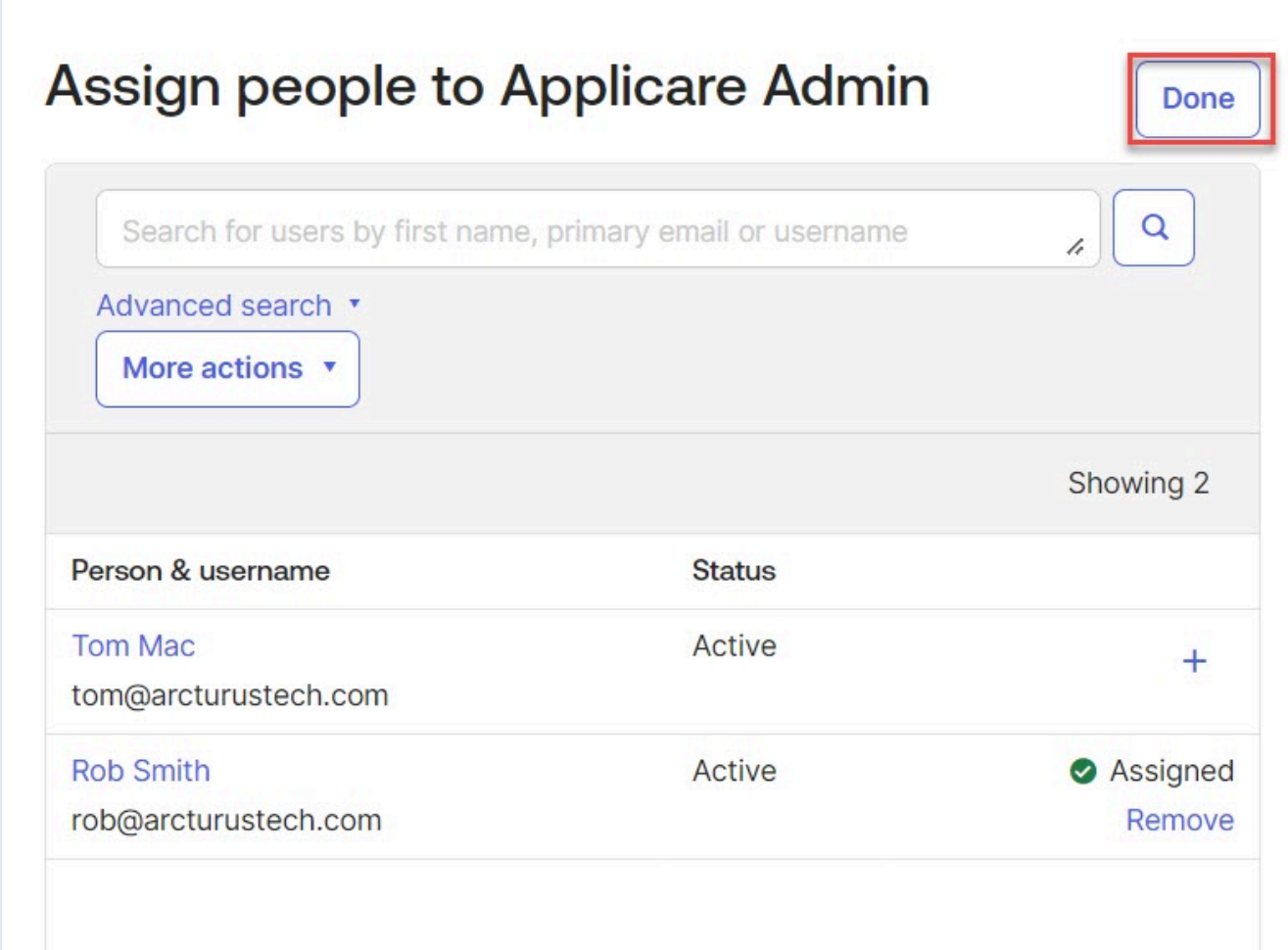

6. Click the **Assign people** button.




7. Click the **plus button** for the users which we need to assign that group.




8. After assigning the users click the **Done** button.




## Configuration on Applicare Controller

**Step 1:** Add the following properties to the **ApplicareController.props** file.

saml.firstname.field=FirstName saml.lastname.field=LastName saml.email.field=EmailAddress saml.login.field=username saml.group.field=user.group applicare.saml.enableReadOnlyAccess=true

The **saml.login.field** is used to authenticate the SAML user for the Application. If the **username** attribute is not available, use any other available provided by the Application.

**e.g.**

saml.login.field=EmailAddress **(or)** saml.login.field=FirstName **(or)** saml.login.field=LastName

```
saml.firstname.field=FirstName
saml.lastname.field=LastName
saml.email.field=EmailAddress
saml.login.field=username
saml.group.field=user.group
applicare.saml.enableReadOnlyAccess=true
```

**Step 2:** Modify the Applicare server startup script located in **${arcturus_home/scripts/setAdminEnv.sh}** for Unix/Linux or **${arcturus_home/scripts/setAdminEnv.bat}** for Windows.

**1.** Change the **-Dspring.profiles.active=nosaml** to **-Dspring.profiles.active=saml** option to JAVA_OPT as shown here:

```
TEXT
-Dspring.profiles.active=saml
```

This is required for the Applicare server to start.

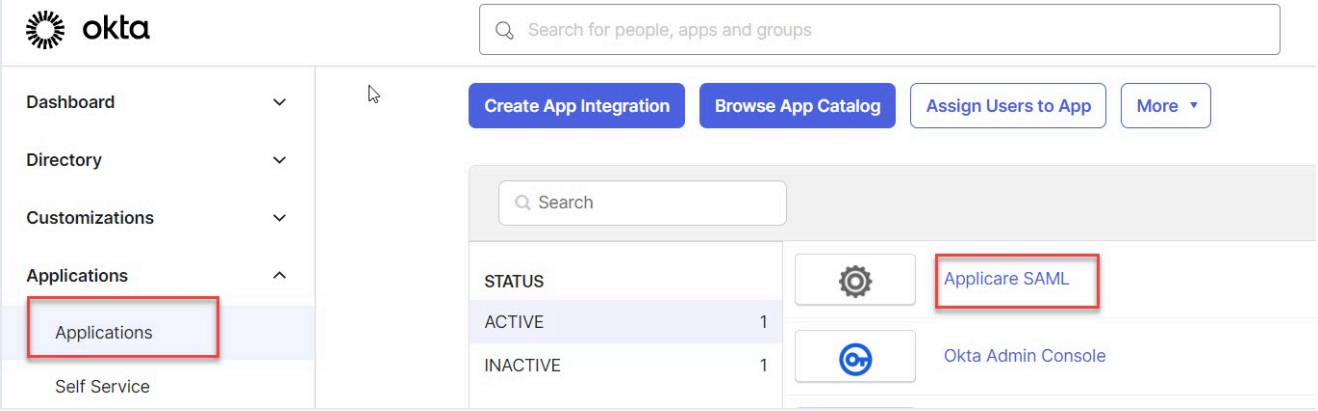
```
set JAVA_OPTS=-noverify -Darcturus_home=%ARCTURUS_HOME% -Dspring.profiles.active=saml
```

**2. Configure Identity Provider Metadata XML**

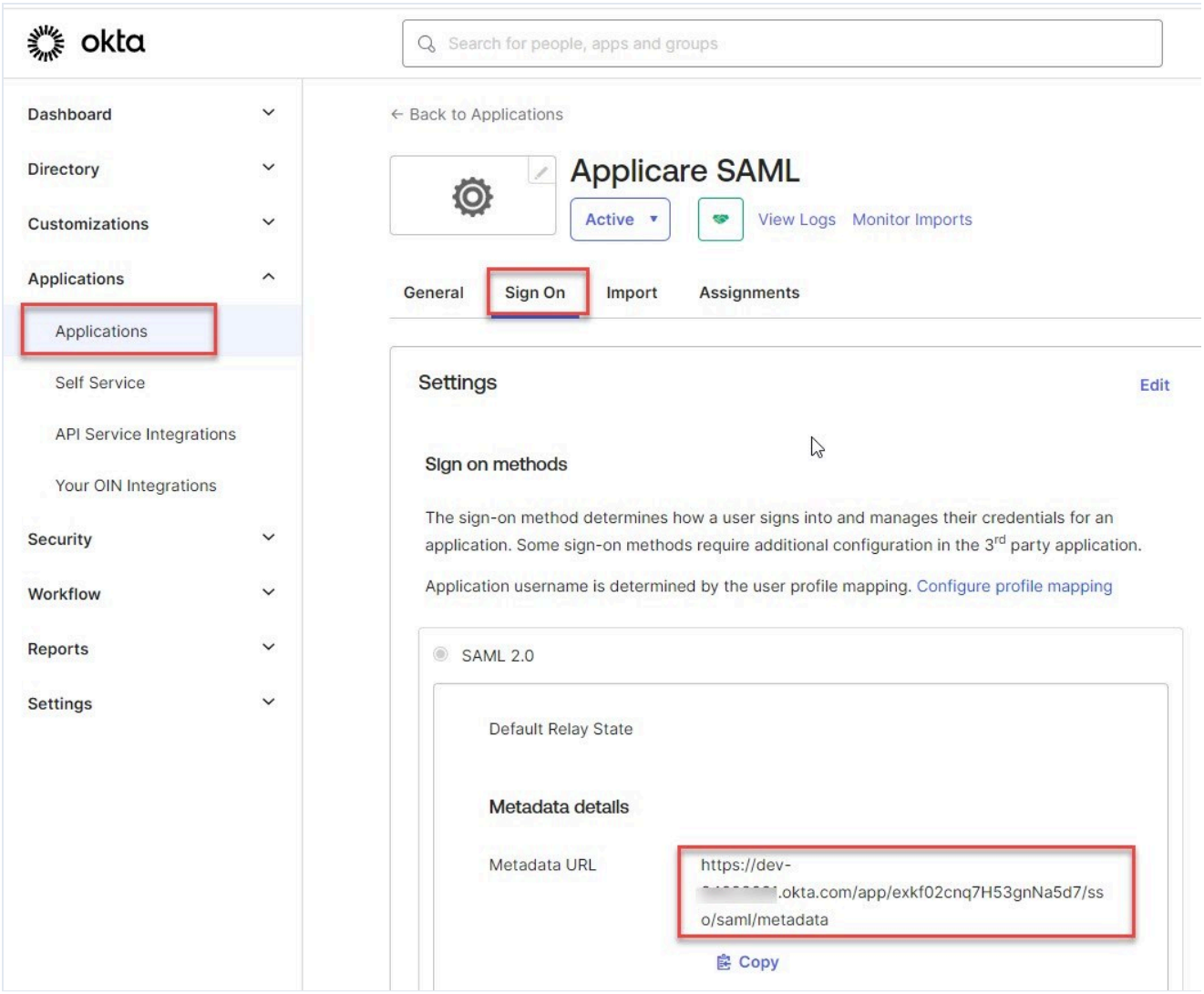
Obtain the URL from the Identity Provider.

**To retrieve URL from OKTA:**

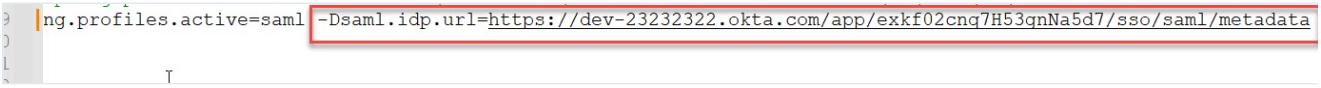
- **Login** in to **OKTA**.
- Select **Applications** from the left hand menu.
- Choose the **Applicare SAML** app.




- Select the **Sign On** tab.
- Copy the **Metadata URL** and replace it in the **<metadataurl>** in the **-Dsaml.idp.url** argument.

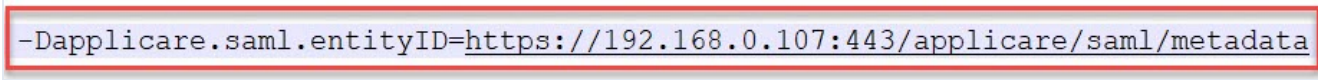



```yaml
-Dsaml.idp.url=<metadataurl>
Example:
-Dsaml.idp.url=https://dev-23232322.okta.com/app/exkf02cnq7H53gnNa5d7/sso/saml/metadata
```




### 3. Configure entity ID

```yaml
-Dapplicare.saml.entityID=https://{ApplicareIP}:{ApplicarePort}/applicare/saml/metadata
Example:
-Dapplicare.saml.entityID=https://192.168.0.107:443/applicare/saml/metadata
```




### 4. Set the entity base

```
YAML
-Dapplicare.saml.entityBaseUrl=https://{ApplicareIP}:{ApplicarePort}/applicare
Example:
-Dapplicare.saml.entityBaseUrl=https://192.168.0.107:443/applicare
```




### 5. Set the Certificate file path

```
YAML
-Dsaml.jksfile=Applicare controller SSL Certificate (.jks) file path
Example:
-Dsaml.jksfile=C:\sscertificate\certificate.jks
```




### 6. Set the KeyStore alias name

```
YAML
-Dsaml.jksalias=ALIAS_NAME
Example:
-Dsaml.jksalias=applicare
```



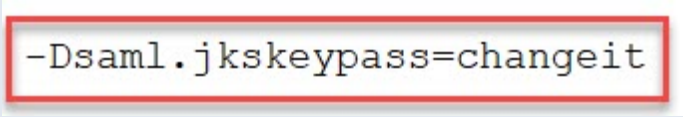

### 7. Set the KeyStore password

```
YAML
-Dsaml.jkskeystorepass=Keystore password
Example:
-Dsaml.jkskeystorepass=changeit
```




### 8. Set the Key password

```
YAML
-Dsaml.jkskeypass=Key password for alias
Example:
-Dsaml.jkskeypass=changeit
```




## Monitoring with Applicare

CONFIGURATION GUIDES › ADMINISTRATION & SECURITY

# Manage LDAP User Roles

Applicare 9.2 · Updated September 13, 2024 · sso · **Pending technical review**

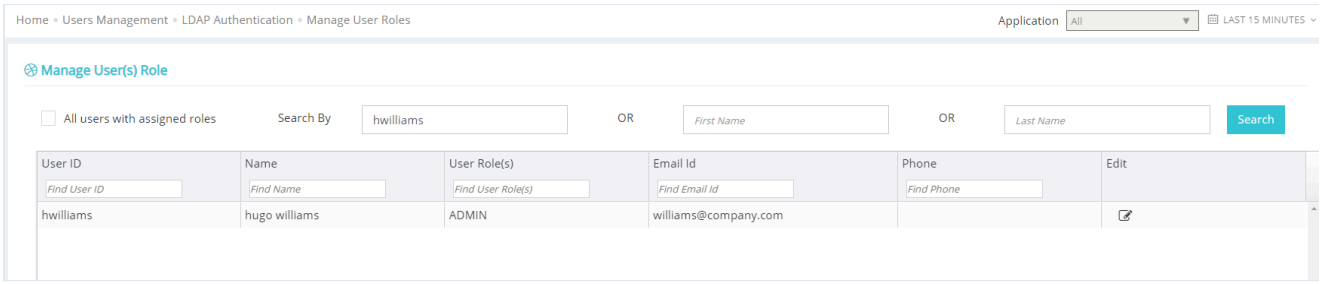
This page guides how to configure LDAP user Roles.

Search for LDAP users by username, first name or last name. The search will retrieve and displays all matching records on this page. You can click the **Edit** button to assign a role to a user. Applicare supports predefined roles such as **Admin** or **Readonly**. You must assign either of these roles to a user in order to provide Applicare access. If readonly access is enabled for all LDAP user, they will have readonly access by default. Only users assigned the admin role in Applicare will have admin access.

Applicare supports LDAP group-based access control. To enable this, create 'admin' and 'readonly' groups in LDAP and assigned them to the appropriate users.

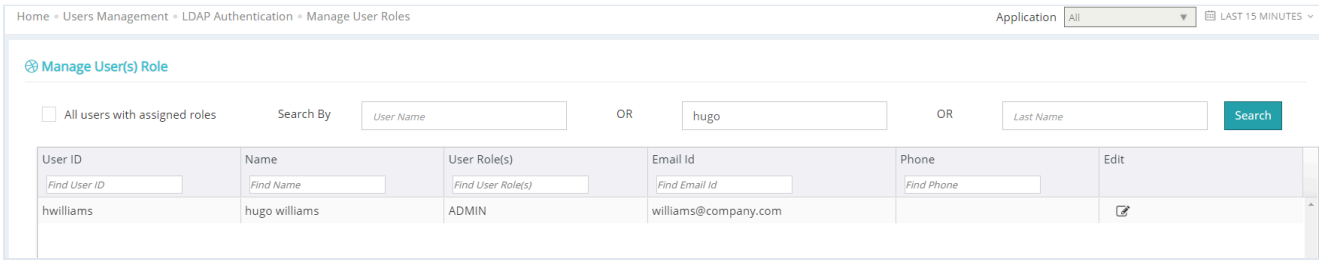
## Search By Username

Searching by user name requires the full username and doesn't support wild characters.



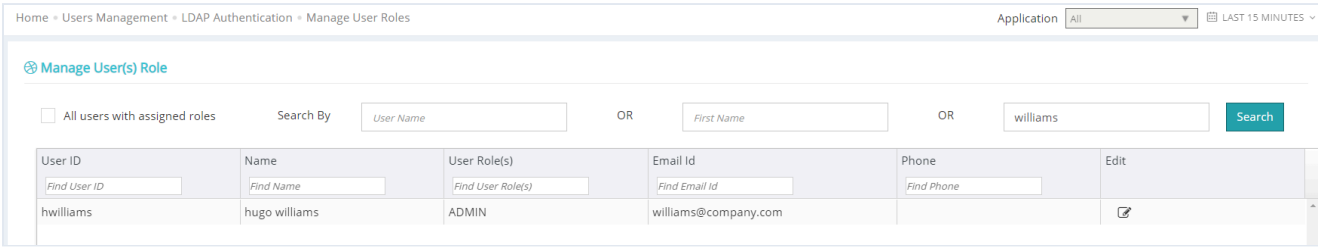

## Search By First Name

Search by first name supports wildcard character and will retrieve all matching records. You do not need to include "*" at the end search of them.



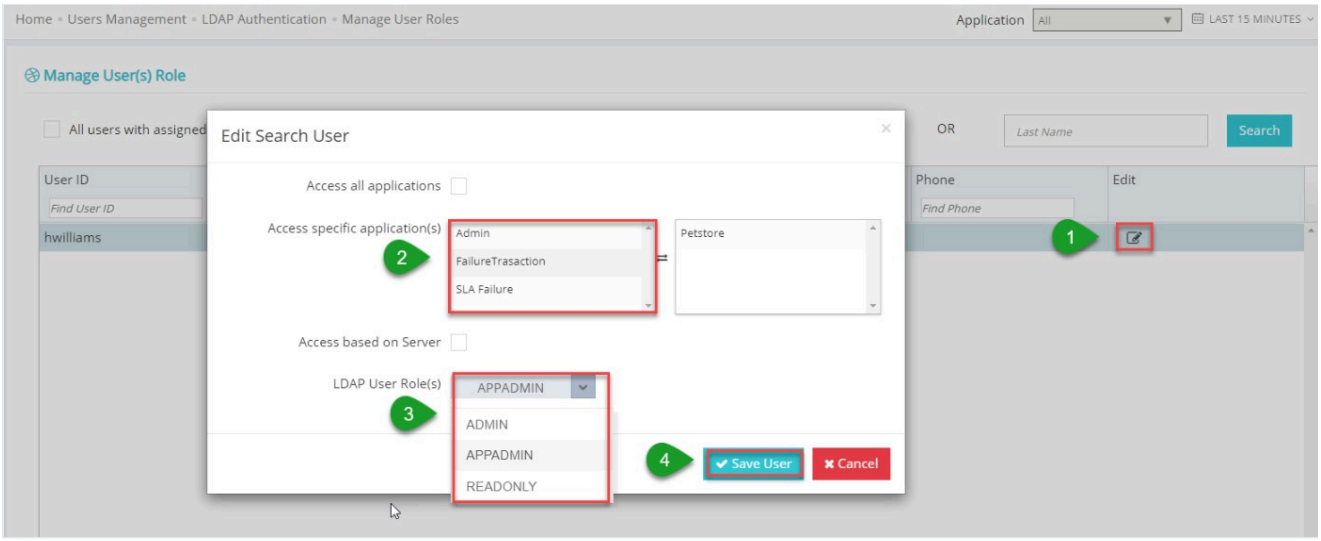

## Search By Last Name

Searching by last name supports wildcard characters and retrieves all matching records. There is no need to add '*' at the end of the search term.




## Save User Role

After locating the user, click the "Edit" button and assign role to user on the following screen.



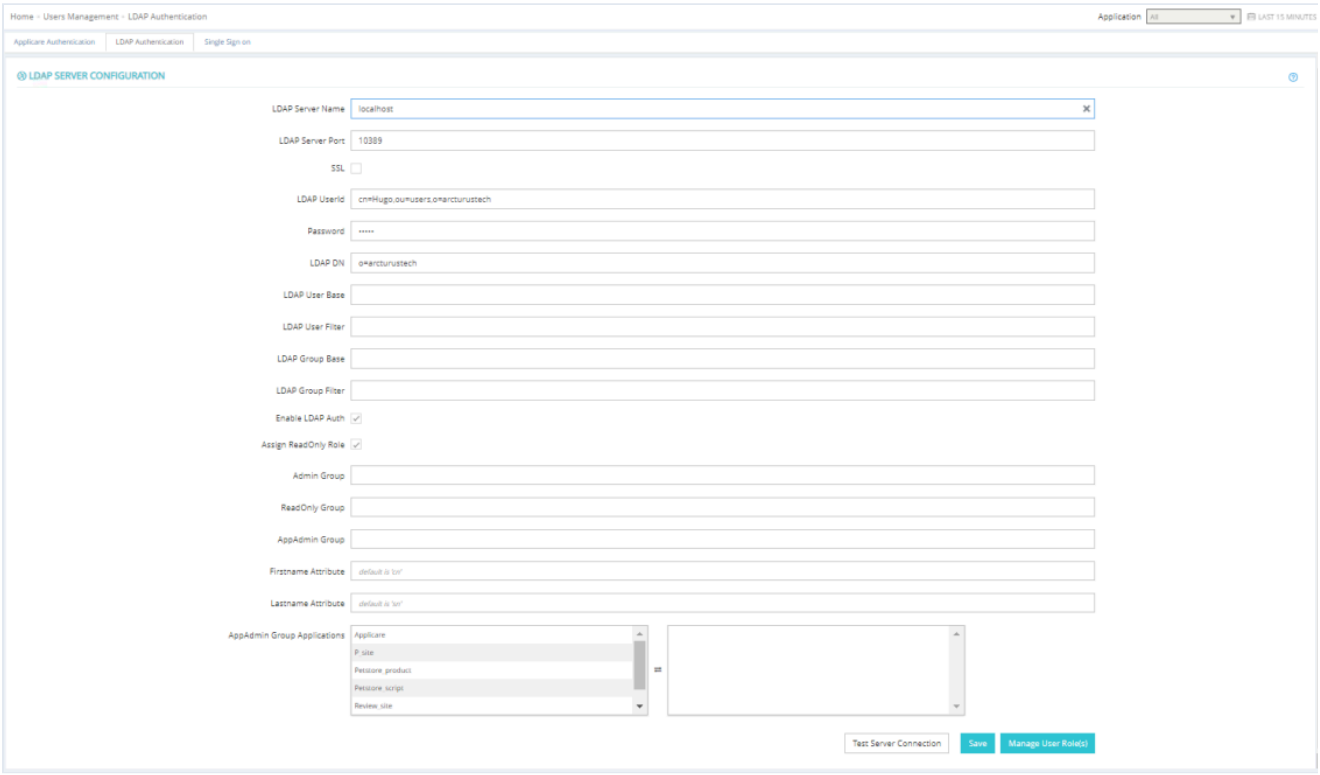

**Monitoring with Applicare**

CONFIGURATION GUIDES › ADMINISTRATION & SECURITY

# Active Directory/LDAP Settings

Applicare 9.2 · Updated September 13, 2024 · sso · **Pending technical review**

Go to Configuration -> LDAP Server Configuration to set up LDAP server settings and enable LDAP authentication.




If SSL is enabled, you need to install LDAP SSL certificate on the Applicare server.

The DN (Distinguished Name) is the base directory folder in Active Directory where organizational users and groups are defined. It is required field.

The User OU (Organization Unit) is the base directory where user details are configured (Optional). If you are familiar about AD query formats, you can specify the filter otherwise, you can leave it blank (Optional).

The Group OU (Organization Unit) is the base folder where user group details are configured (Optional). If you are familiar with AD query formats, you can specify the filter; Otherwise, you may leave it blank (Optional).

Enable LDAP Auth to allow users to log into Applicare using their LDAP credentials. If it is not enabled, user authentication will be handled using Applicare database.

Assign the Readonly role to grant default read-only access to all the LDAP users if read-only access is enabled. You can override this default and assign different roles as needed. Click "Manage Role" to assign the appropriate Applicare role to an LDAP user.

**Monitoring with Applicare**

CONFIGURATION GUIDES › ADMINISTRATION & SECURITY

# Role of Single Sign-On Users

Applicare 9.2 · Updated September 13, 2024 · sso · **Pending technical review**

Applicare provides granular access control to the resources it monitors. A user can be assigned either full control or read-only access to a specific application, or to a single server. This way each Application administrator has access to their application resources and are not distracted by other application alerts.

## Applicare Users

Applicare comes with two predefined users in its default configuration.

### Super Admin ('admin')

The Super Admin user has a fixed ID of "admin" and possesses full access to all features in Applicare. The default password for this account is 'admin', which should be changed after installation is complete.

### Guest ('guest')

In the default configuration, there is a guest user with ID 'guest'. The Default password for this account is 'guest'. This user has a read-only access and will must be granted access to specific applications or servers.

## Applicare User Roles

User access in Applicare is managed by assigning specific roles. The following roles can be assigned in Applicare.

### Admin

The Admin role grants the user with full of rights to create, edit and remove users, as well as manage their access. However, this role does not permit modifications to or removal of the Super Admin's privileges.

### App Admin

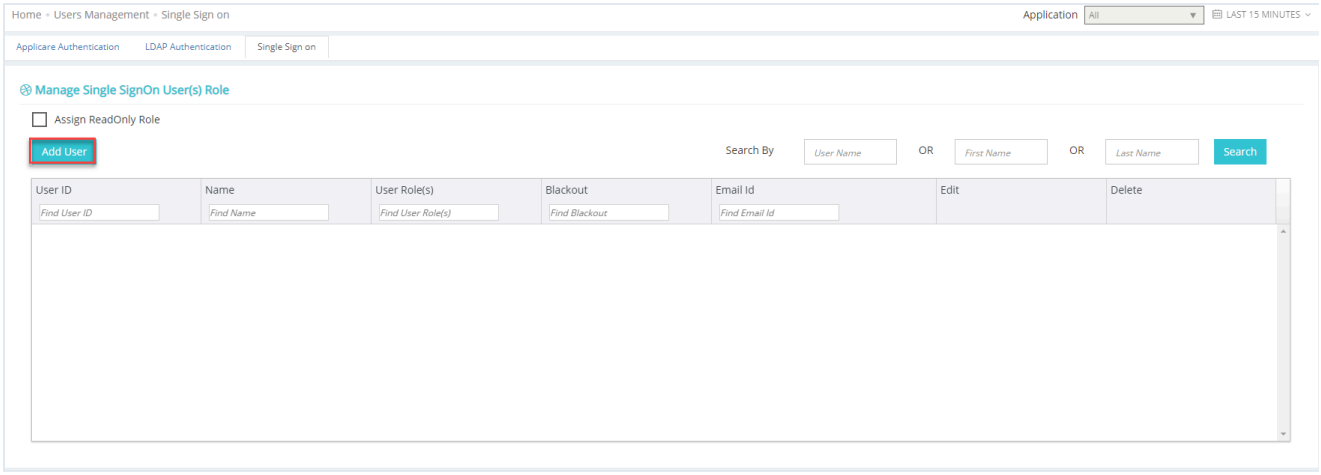
The App Admin role allows users to administer and manage a specific applications. Users assigned this role are designated by the Super Admin or Admin to oversee particular applications.

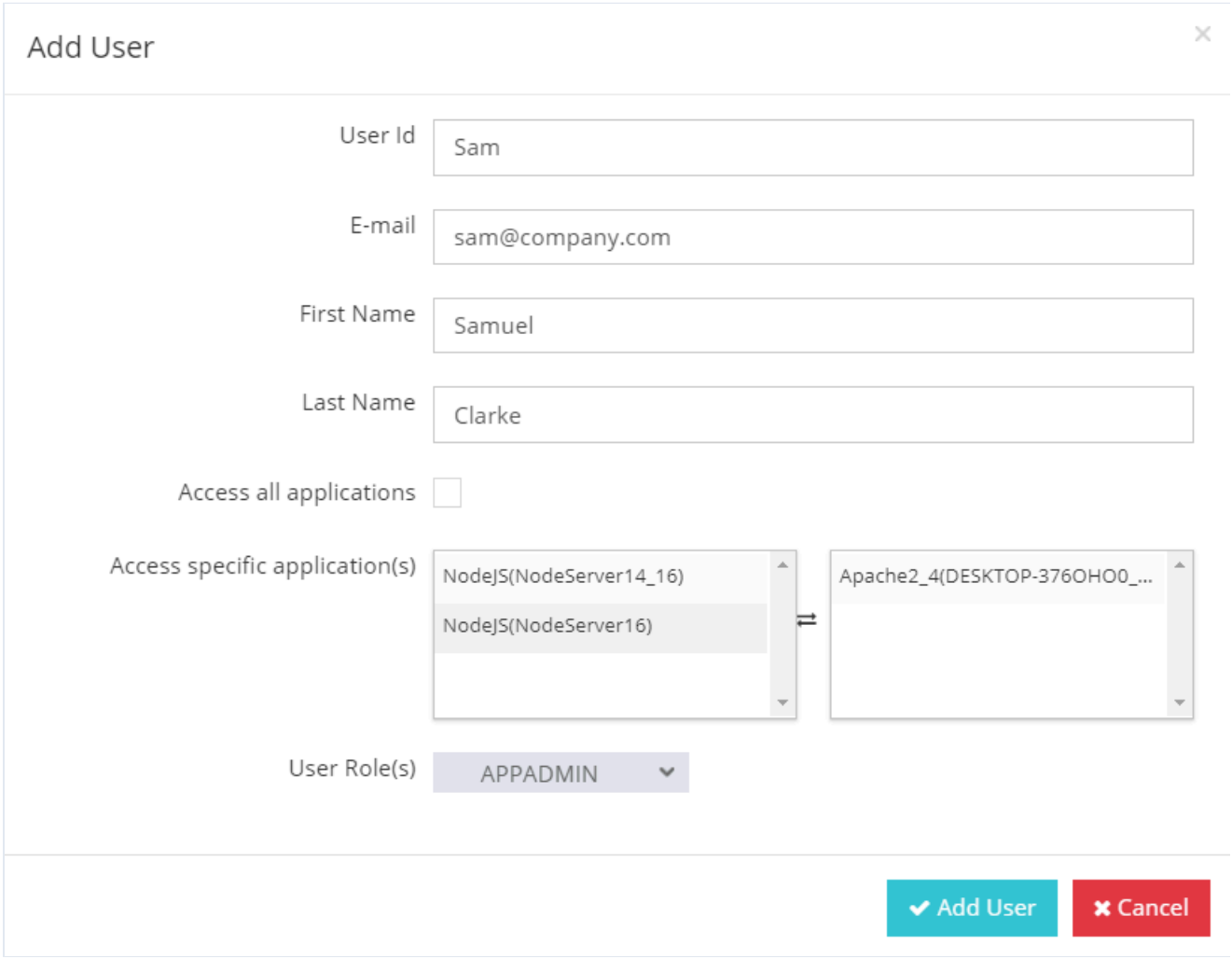
### Read only

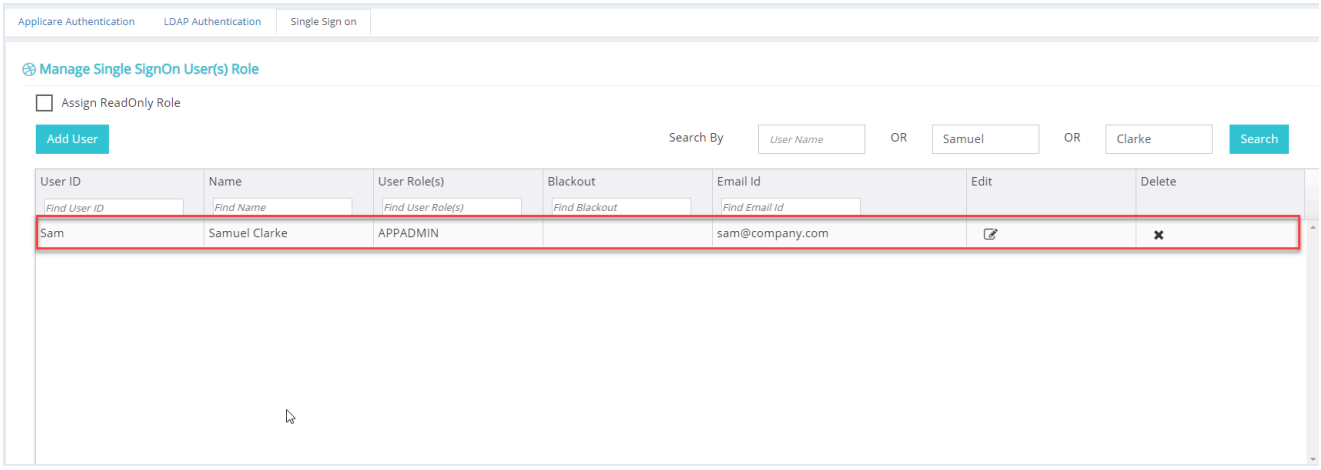
Read only role grants the user read only access and they can't make changes to monitoring.

## Adding a user

Creating a new Applicare user is straightforward. Enter the user's details, select the applications they should access and assign the appropriate role. Application for access control are application created in Applicare when adding app servers or server Agents to the system. These are NOT the .ear or .war applications deployed on app servers.


Home • Users Management • Single Sign on
Application
LAST 15 MINUTES
Applicare Authentication
LDAP Authentication
Single Sign on
Manage Single SignOn User(s) Role
Assign ReadOnly Role
Add User
Search By
User Name
OR
First Name
OR
Last Name
Search
User ID
Name
User Role(s)
Blackout
Email Id
Edit
Delete
Find User ID
Find Name
Find User Role(s)
Find Blackout
Find Email Id


Add User
User Id
Sam
E-mail
sam@company.com
First Name
Samuel
Last Name
Clarke
Access all applications
Access specific application(s)
NodeJS(NodeServer14_16)
NodeJS(NodeServer16)
Apache2_4(DESKTOP-376OHO0_...
User Role(s)
APPADMIN
Add User
Cancel




## Monitoring with Applicare

CONFIGURATION GUIDES › ADMINISTRATION & SECURITY

# User Role Management

Applicare 9.2 · Updated September 13, 2024 · sso · **Pending technical review**

Applicare allows fine grain access control to the resources that are monitored by Applicare. A user can be given either full control or readonly access to a particular application consisting of many many servers in different geographic locations or a particular server. This way each Application administrator has access to their application resources and are not distracted by other application alerts.

## Applicare Users

Applicare out of the box configuration has two pre defined users.

### Super Admin ('admin')

The Super Admin user's id is fixed - admin. Super Admin user has all permissions to access every feature in Applicare. Default password for this account is 'admin'. You should change this password after installation is complete.

### Guest ('guest')

In out of the box configuration, a guest user exists with id - guest. Default password for this account is 'guest'. This user is a readonly user and will need to be assigned access to specific applications/servers.

## Applicare User Roles

Applicare user's access is controlled by assigning them a particular role. Following roles can be assigned in Applicare

### Admin

The Admin role grants the user all rights to create/edit/remove users and control other user's access. Admin role just doesn't allow modifing or removing Super Admin's privileges.

### App Admin

App Admin role grants the user access to administer and manage a particular application. Users with App Admin role are assigned application/s to manage by Super Admin or Admin

### Read only

Read only role grants the user read only access and they can't make changes to monitoring.

## Adding a user

Adding a new Applicare user is fairly simple. Fill in user's details, select the applications and assign the role. Application for access control are application created in Applicare at the time of adding the app server/server agents to Applicare. These are NOT the .ear or .war applications deployed on app servers.

## Monitoring with Applicare

CONFIGURATION GUIDES › ADMINISTRATION & SECURITY

# Email/SMTP Configuration in Applicare

Applicare 9.2 · Updated September 13, 2024 · alerts · **Pending technical review**

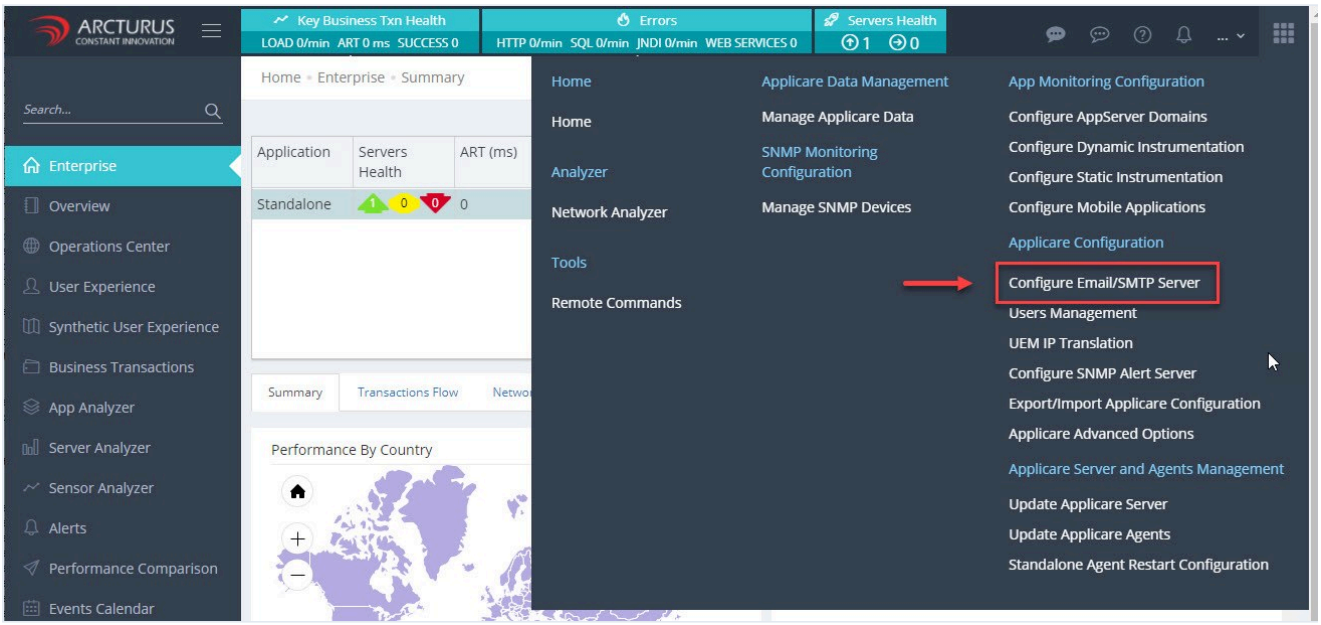
An app password must be created before setting up mail in Applicare.

## Steps to Create an App Password for Gmail Here

Steps to Create an App Password for yahoo mail Here

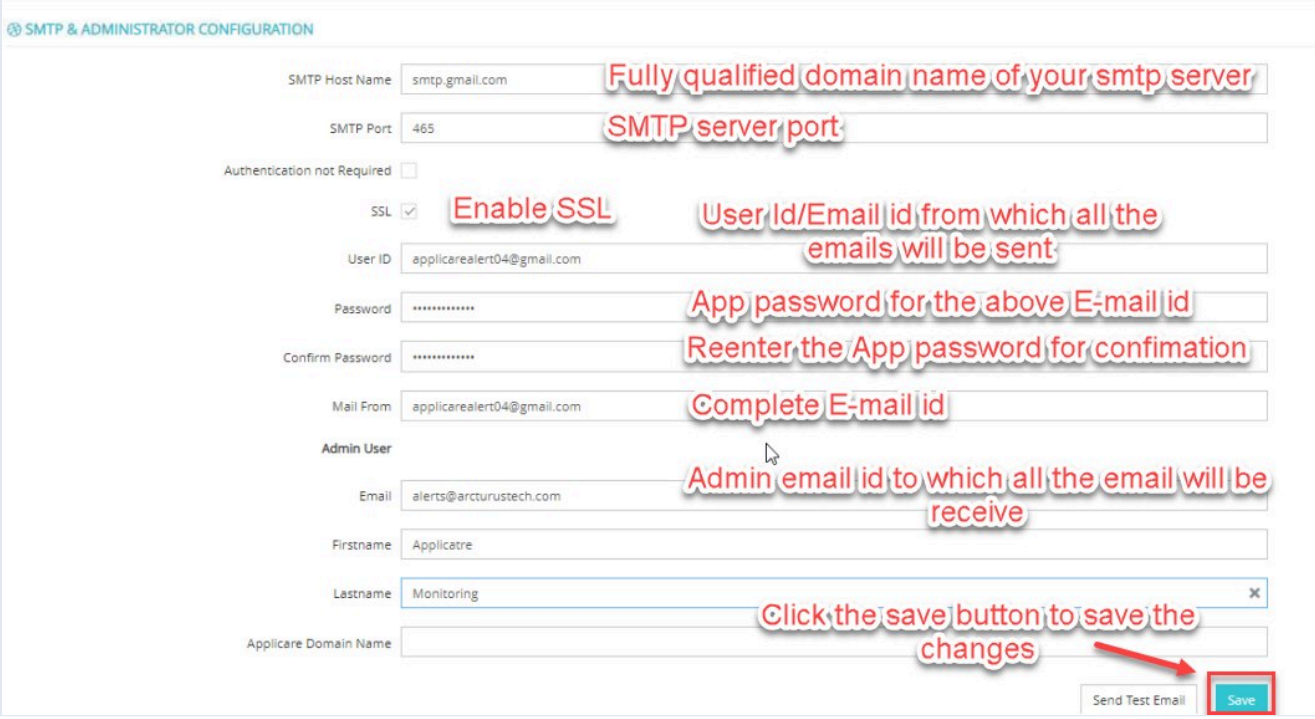
To enable email and alert configuration in Applicare, you need to set up the SMTP server details in the **SMTP & ADMINISTRATOR CONFIGURATION** dashboard.

In Applicare dashboard, navigate to the top menu on the right and click on **Configure Email/SMTP Server** under **Applicare Configuration** section.



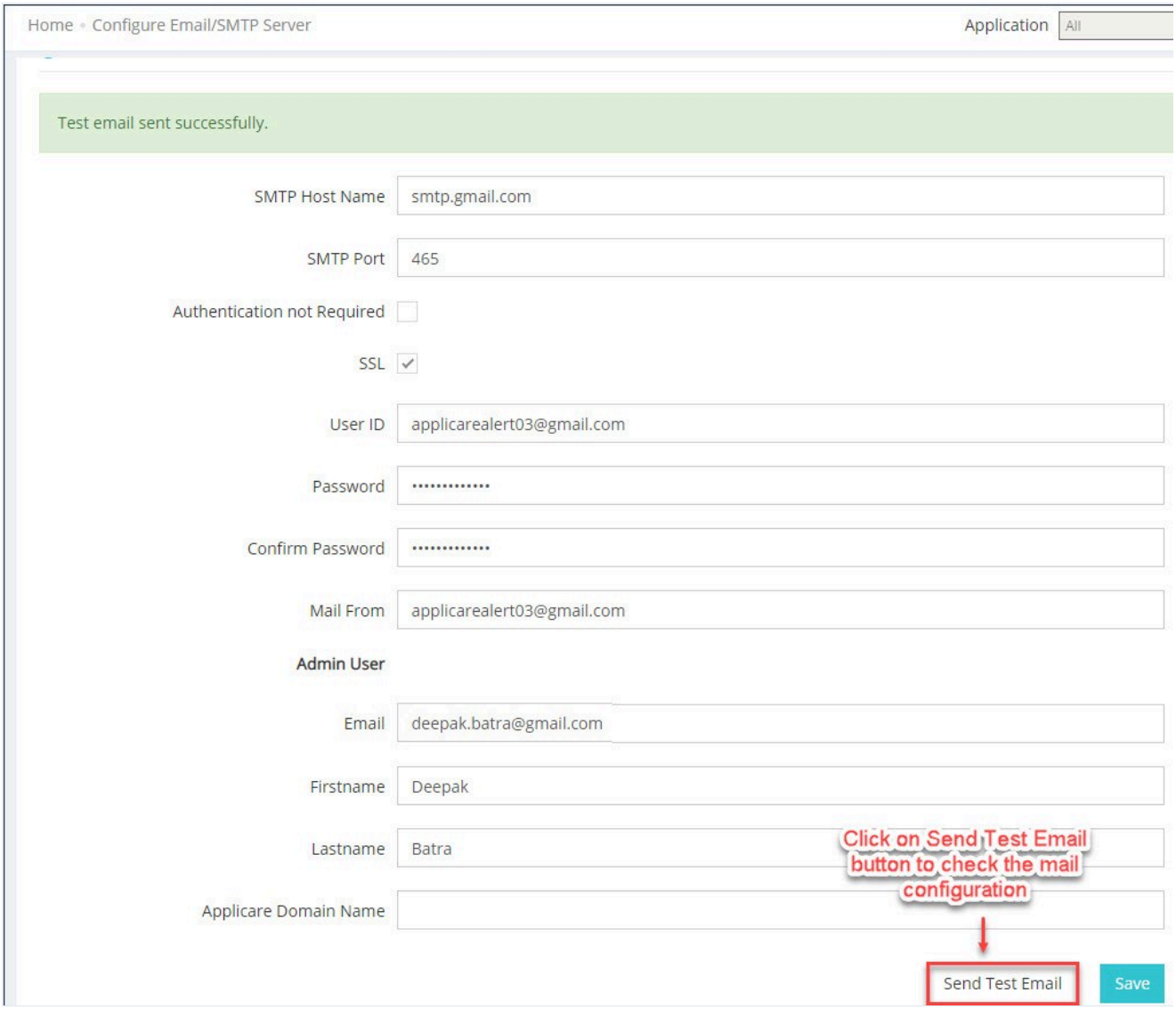

In **SMTP & ADMINISTRATOR CONFIGURATION** dashboard, enter the SMTP server details.

Here is an example of the **SMTP server details for Gmail:**




**You can add multiple admin email addresses, separated by commas.**

After entered the details, click the **Send Test Email** button to verify the configuration.




## Monitoring with Applicare

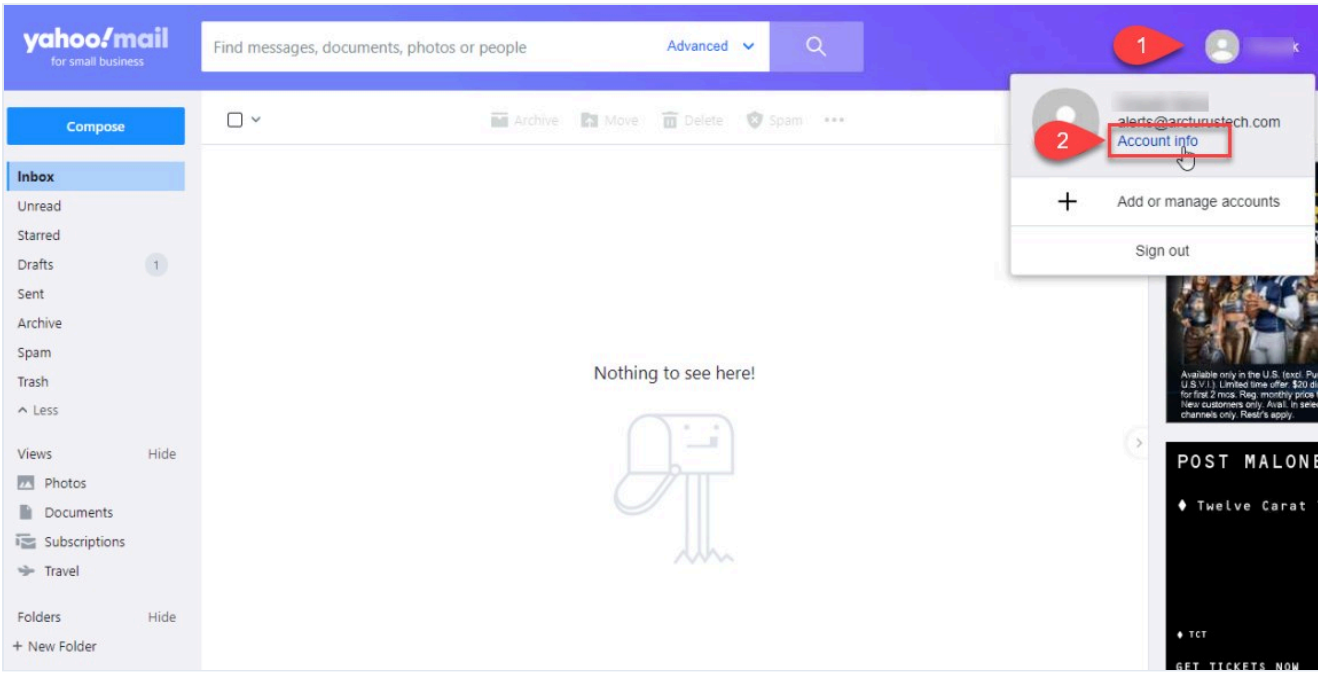
CONFIGURATION GUIDES › ADMINISTRATION & SECURITY

# Set Up SMTP for Yahoo Mail

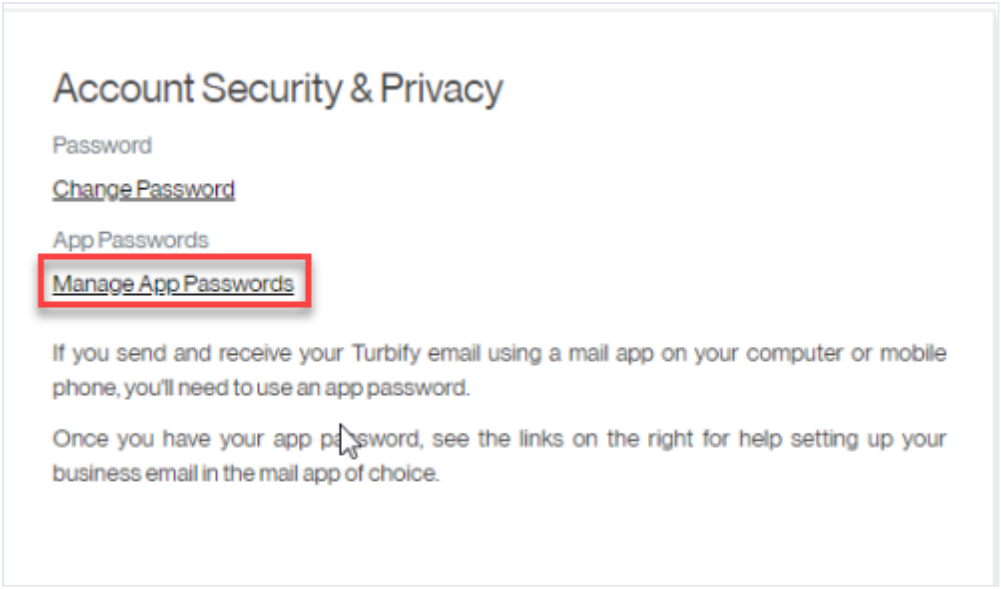
Applicare 9.2 · Updated September 13, 2024 · alerts · **Pending technical review**

**Step 1:** Log in to your Yahoo mail account.

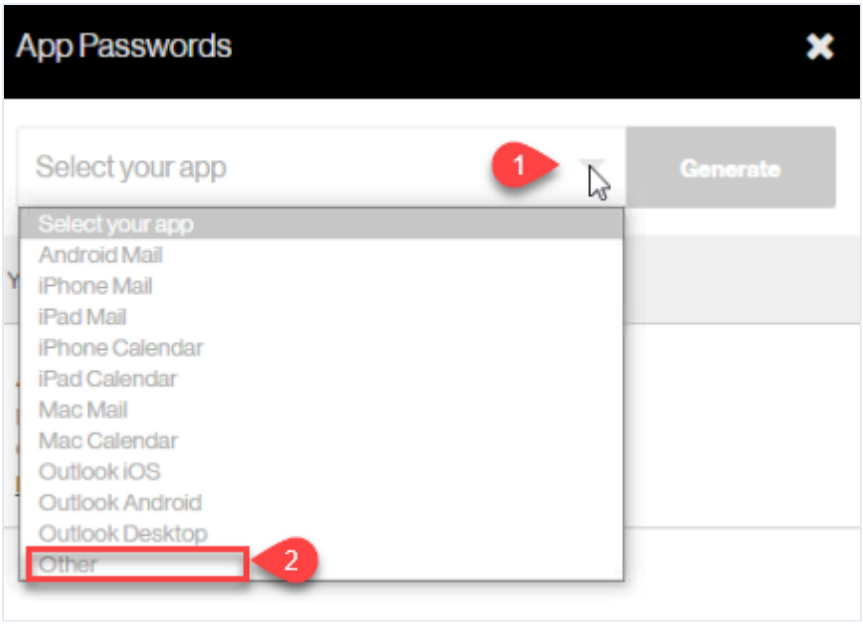
**Step 2:** Click on your Yahoo account icon and then select **Account info.**

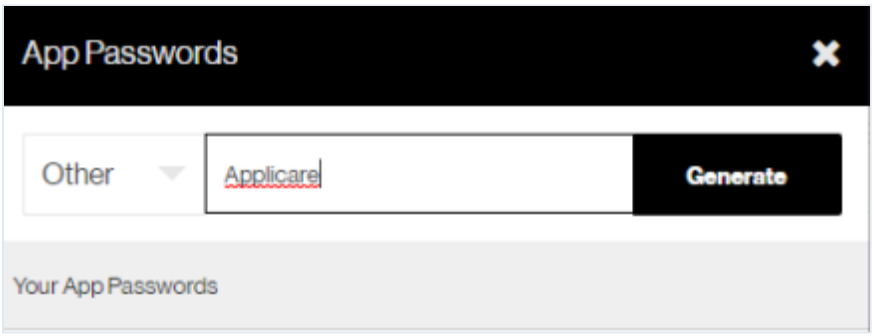



**Step 3:** Click on **Manage App Passwords** option under the **Account Security & Privacy section.**




**Step 4:** A popup window for app will appear, Click on **Other** from the **select your app** dropdown menu, enter "Applicare" in the text box and click the **generate** button. Once the app password is generated, copy it and save it securely.




## Monitoring with Applicare

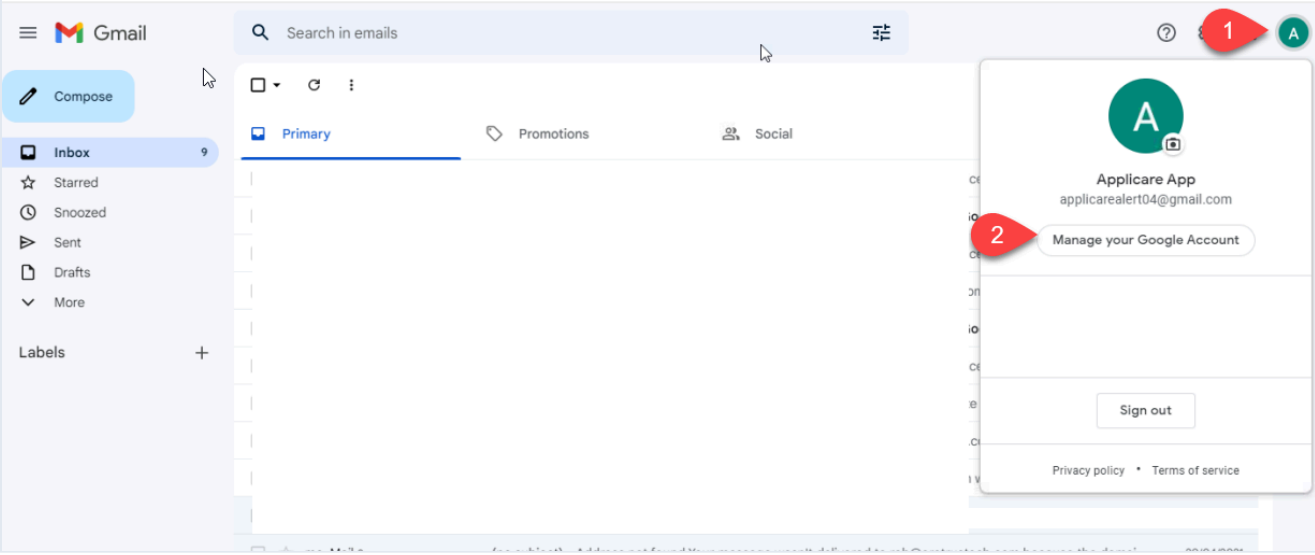
CONFIGURATION GUIDES › ADMINISTRATION & SECURITY

# Configure SMTP for Gmail

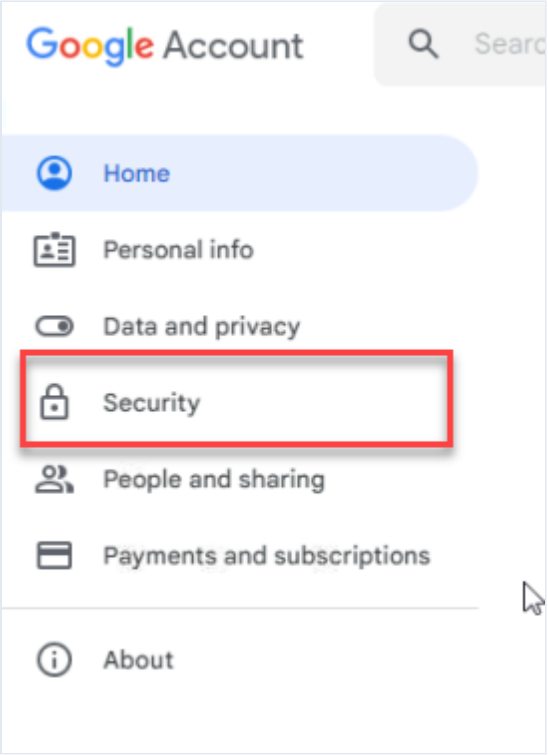
Applicare 9.2 · Updated September 13, 2024 · alerts · **Pending technical review**

**Step 1:** Log in to your **Gmail** account.

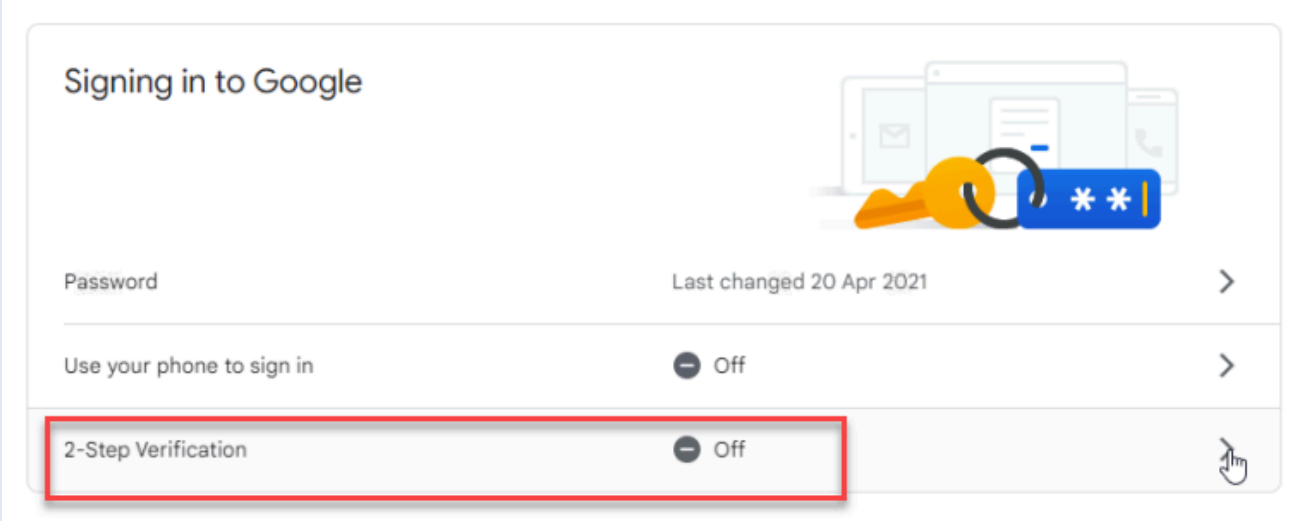
**Step 2:** Click on your Google account icon and select **Manage your Google Account**.



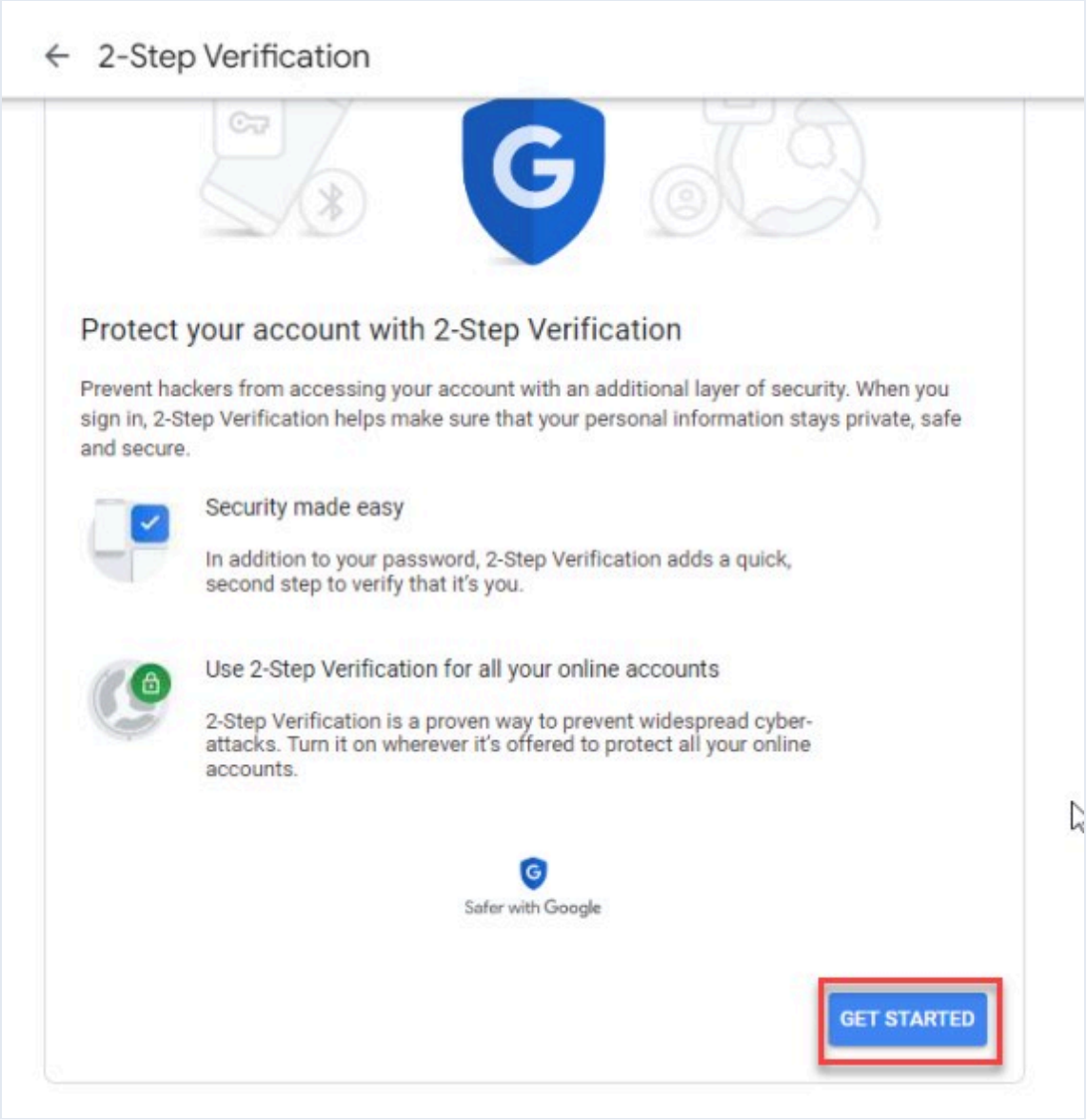

**Step 3:** Click on the **Security** option on the left side.




**Step 4:** Click on **2-Step Verification.**

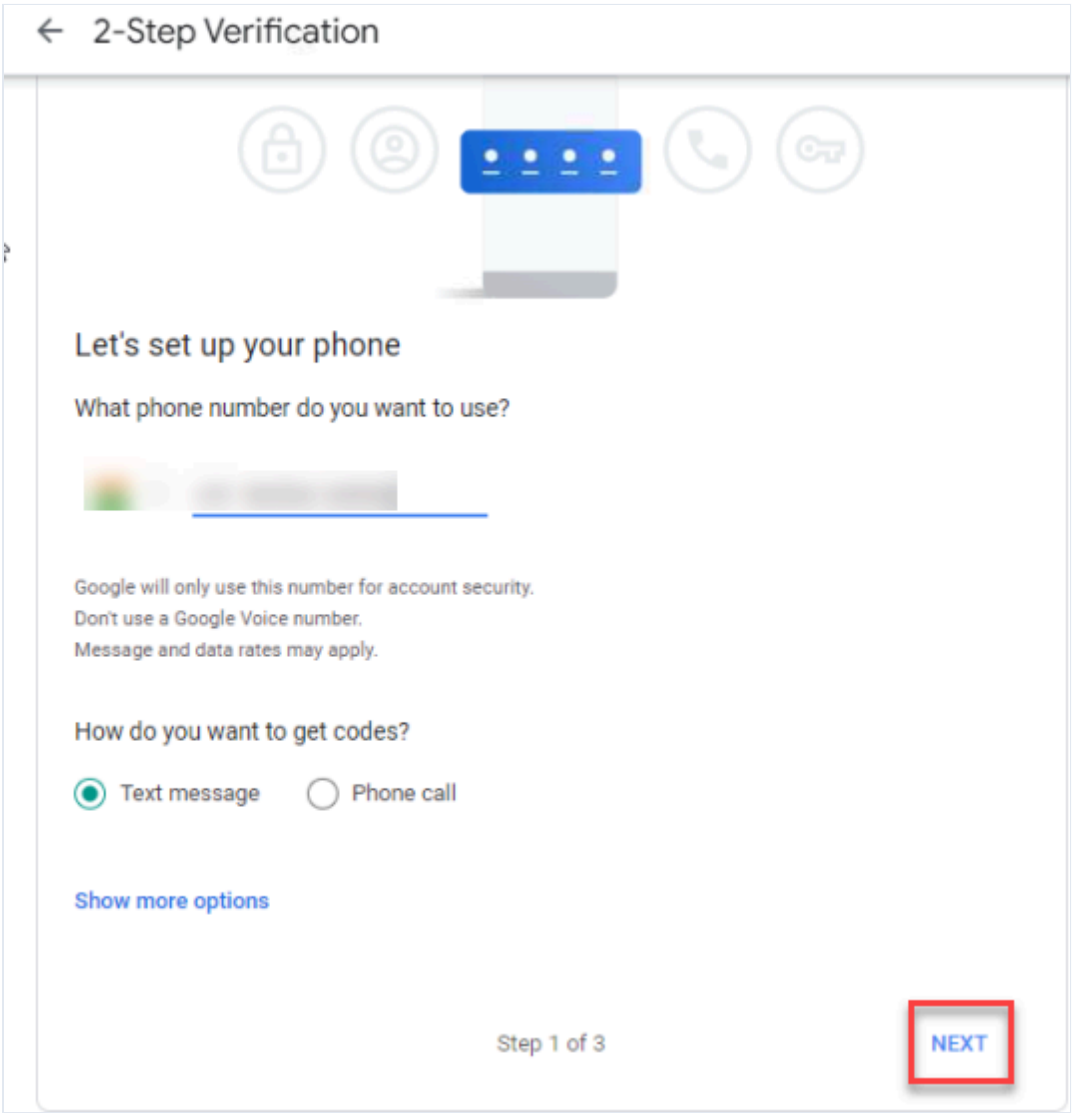



Click the **"Get Started"** button.

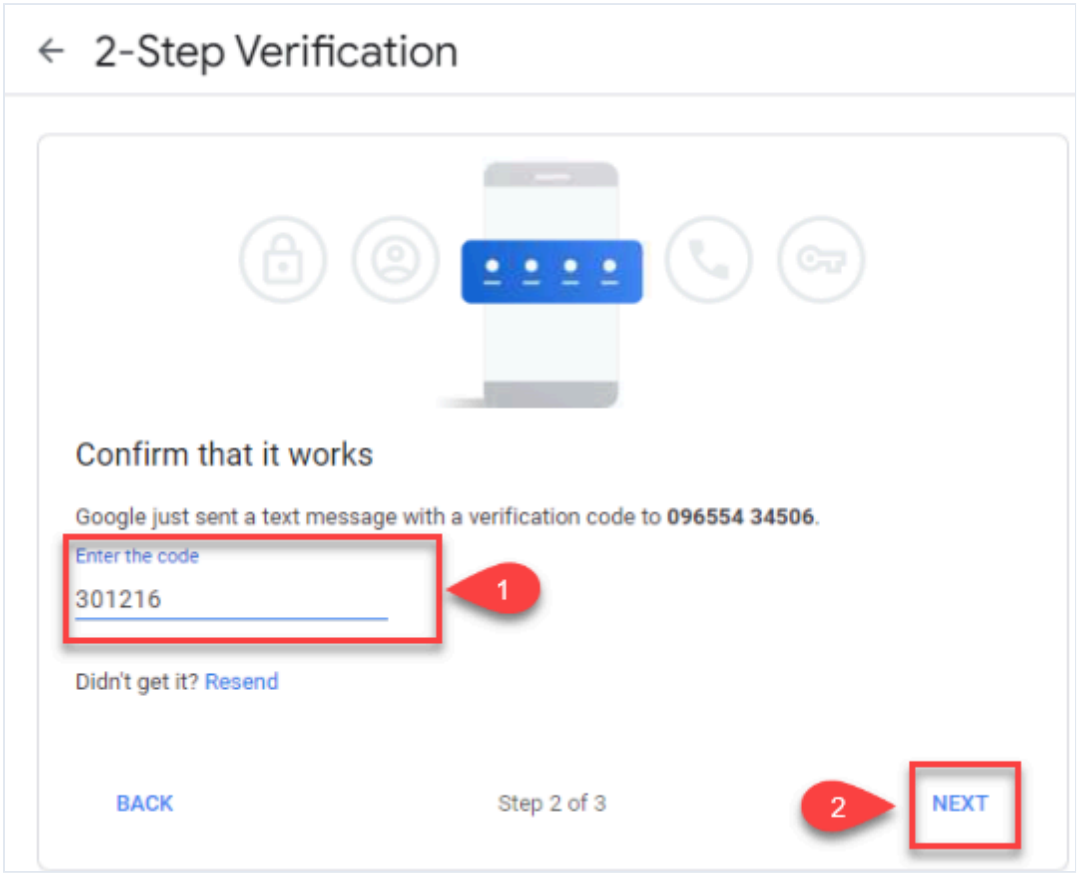



**Step 5:** Log in again using your **Gmail password** and **verification code**.

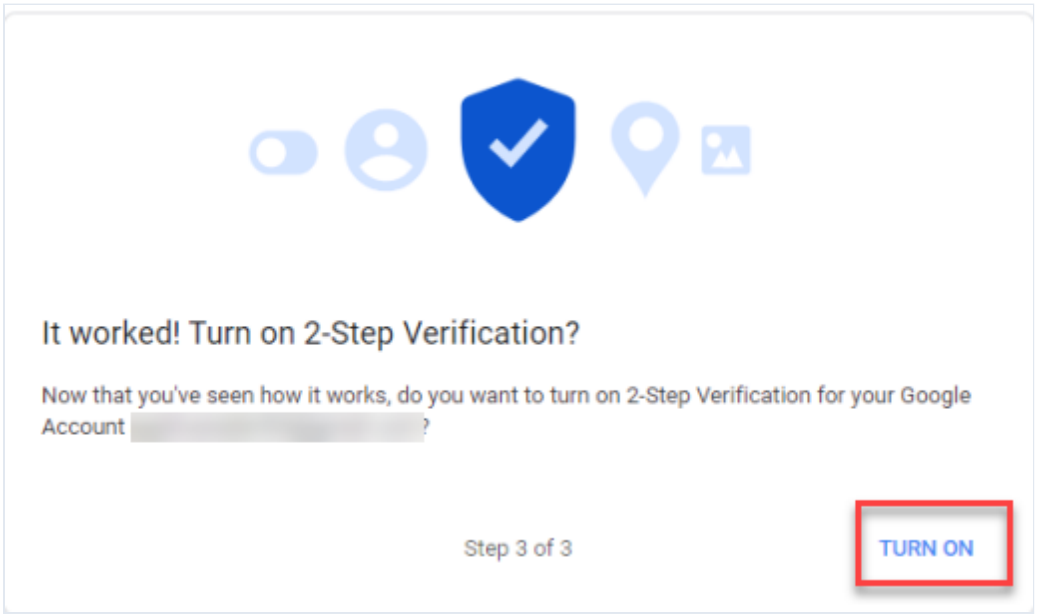
**Step 6:** Verify your **mobile number** and click on **Next** button.




**Step 7:** Enter the **verification code** and click on the **Next** button.

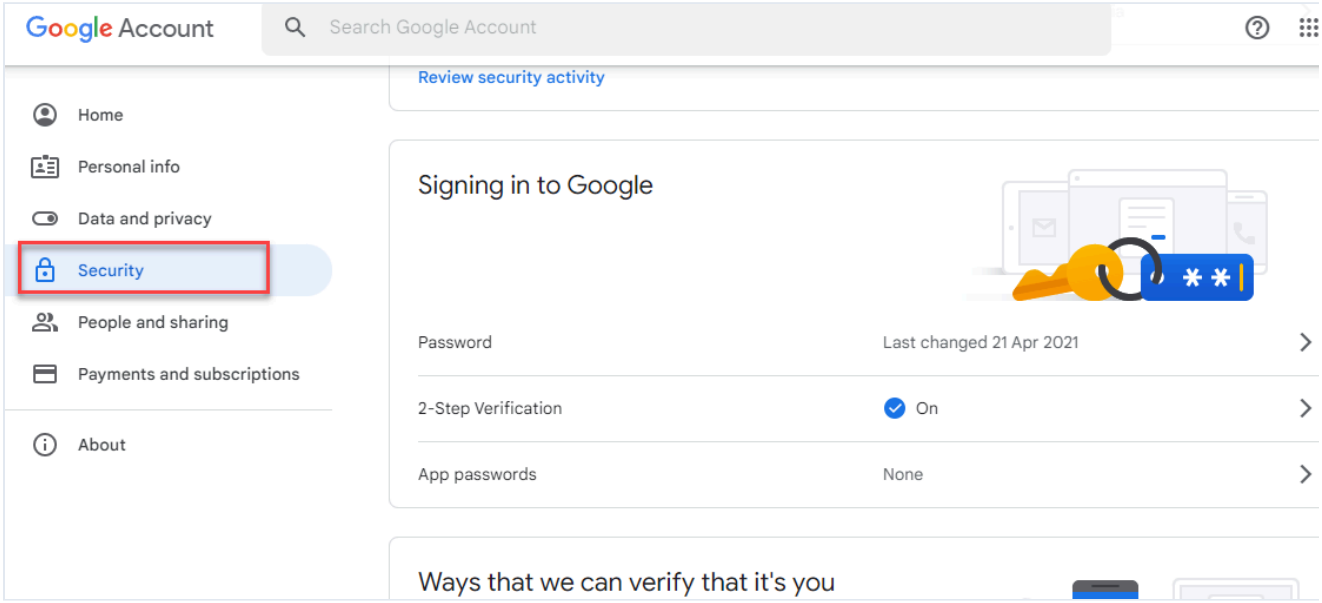



**Step 8:** Click the **Turn On** button.

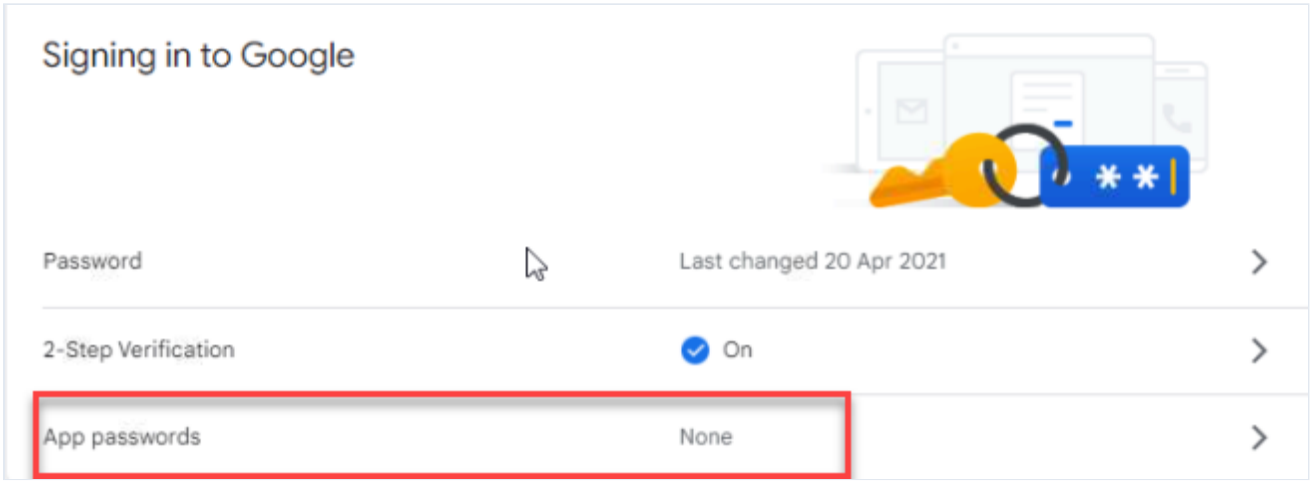



**Click on 2-Step Verification to access the Gmail security screen.**



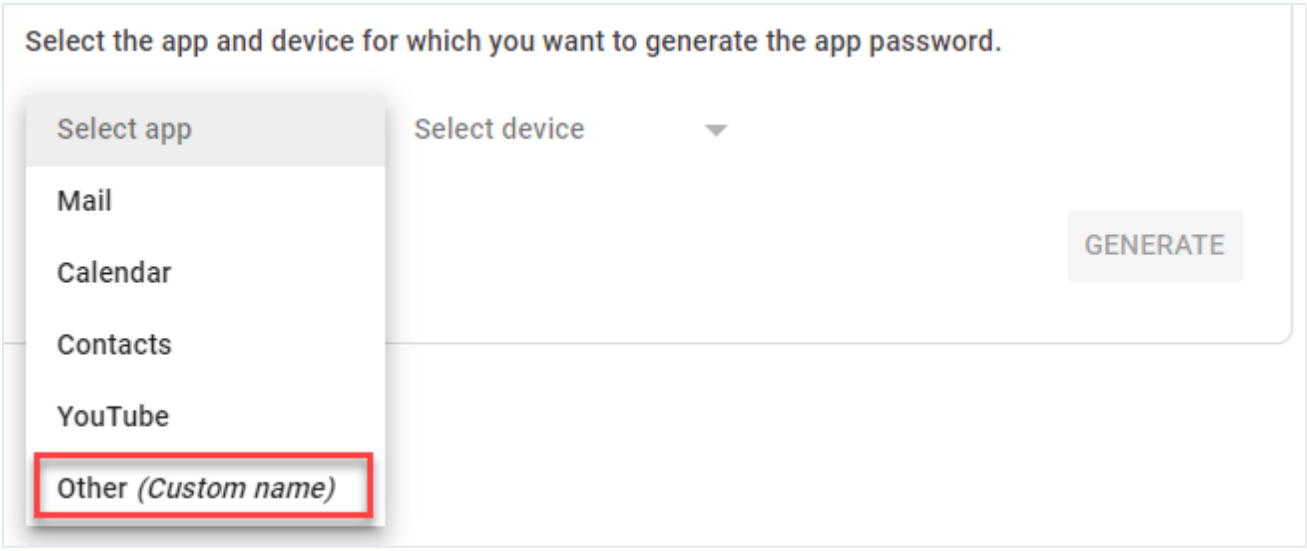




**Step 9:** Click on **App password**

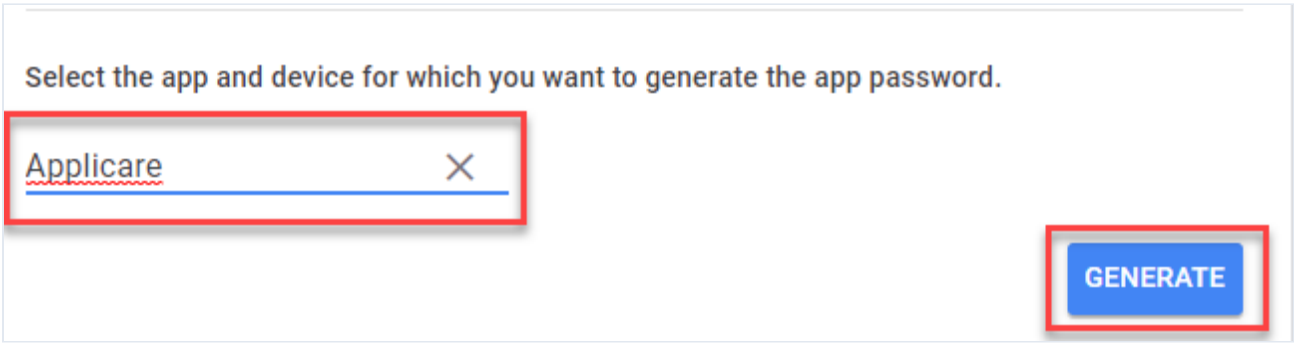



**Step 10:** Log in again your **Gmail password** and **verification code**.

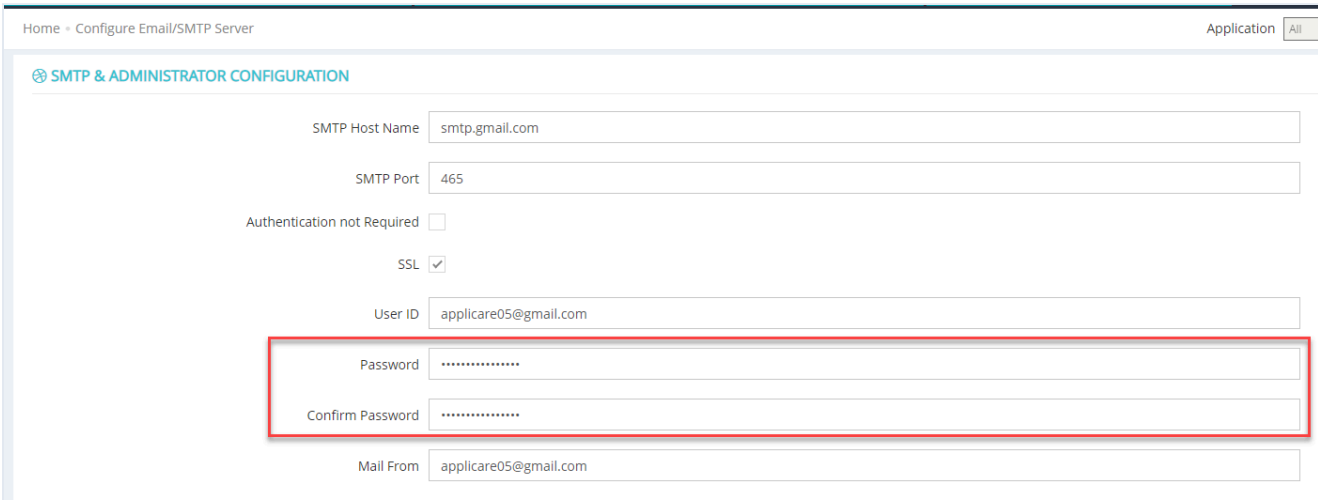
**Step 11:** From the **Select app** dropdown menu, choose the "other (custom name)" option.




**Step 12:** Enter "Applicare" name as the **App name** and click the **Generate** button.




**Step 13:** Copy the generated app password and save it in a file. This app password will be used as the email password in the SMTP configuration.




## Monitoring with Applicare

CONFIGURATION GUIDES › ADMINISTRATION & SECURITY

# Disable Auto Add SNMP on controller

Applicare 9.2 · Updated January 2, 2025 · alerts · **Pending technical review**

Add the below jvm argument in the controller **catalina.bat/sh** file

```text
-Dapplicare.disableAutoAddSnmp=true
```

CONFIGURATION GUIDES › ADMINISTRATION & SECURITY

# SQL injection detection in Applicare

Applicare 9.2 · Updated February 24, 2025 · **Pending technical review**

SQL injection is a type of cyberattack where malicious SQL code is inserted into a web application's input fields, which then interferes with the application's database queries. This can allow attackers to view, modify, or delete data that they are not authorized to access.

How it works:

1. **Vulnerable Application:** A web application is vulnerable to SQL injection if it directly incorporates user-supplied input into SQL queries without proper sanitization or parameterization.
2. **Malicious Input:** An attacker crafts malicious SQL code and inserts it into an input field, such as a search box or login form.
3. **Query Manipulation:** When the application processes the input, the malicious SQL code becomes part of the database query, altering its intended logic.
4. **Unauthorized Access:** The modified query can grant the attacker access to sensitive data, allow them to modify or delete data, or even take control of the database server.

**Example:**

Imagine a web application with a login form. The application constructs an SQL query like this:

SQL

```
TEXT
SELECT * FROM users WHERE username = '$username' AND password = '$password';
```

If an attacker enters the following username:

```
TEXT
' OR '1'='1
```

The resulting query becomes:

SQL

```
TEXT
SELECT * FROM users WHERE username = '' OR '1'='1' AND password = '$password';
```

Since `'1'='1'` is always true, this query will return all users in the database, effectively bypassing authentication.

**Impact:**

SQL injection attacks can have severe consequences, including:

- **Data breaches:** Attackers can steal sensitive data, such as customer information, financial records, or intellectual property.
- **Data manipulation:** Attackers can modify or delete data, leading to data corruption or loss.
- **Denial of service:** Attackers can disrupt the availability of the application or the database server.
- **Complete system compromise:** In some cases, attackers can gain complete control of the database server and potentially other systems on the network.

**Prevention:**

The most effective way to prevent SQL injection is to use parameterized queries or prepared statements. These techniques treat user input as data rather than executable code, which prevents attackers from injecting malicious SQL code. Other prevention measures include input validation, least privilege, and web application firewalls.

CONFIGURATION GUIDES › ADMINISTRATION & SECURITY

# Vulnerability Scanner Setup

Applicare 9.2 · Updated September 13, 2024 · **Pending technical review**

### Vulnerability Scanner

1. The scan will run on the configured server. 2. Once the scan is complete, the report will be transferred to the controller and saved in the controller's home directory. 3. Users can view the scan results and download the report from the Vulnerability Scanner screen.

### Note

1. An internet connection is required on the agent machine for scanning to work. 2. The first scan will take longer as it needs to download and save data from the internet to the local machine. Subsequent scans will be quicker. 3. The duration of the scan depends on the number and size of the files. 4. CPU usage is also dependent on the number and size of the files.

Monitoring with Applicare

CONFIGURATION GUIDES › ADMINISTRATION & SECURITY

# REST API Calls Using Token-Based Authentication

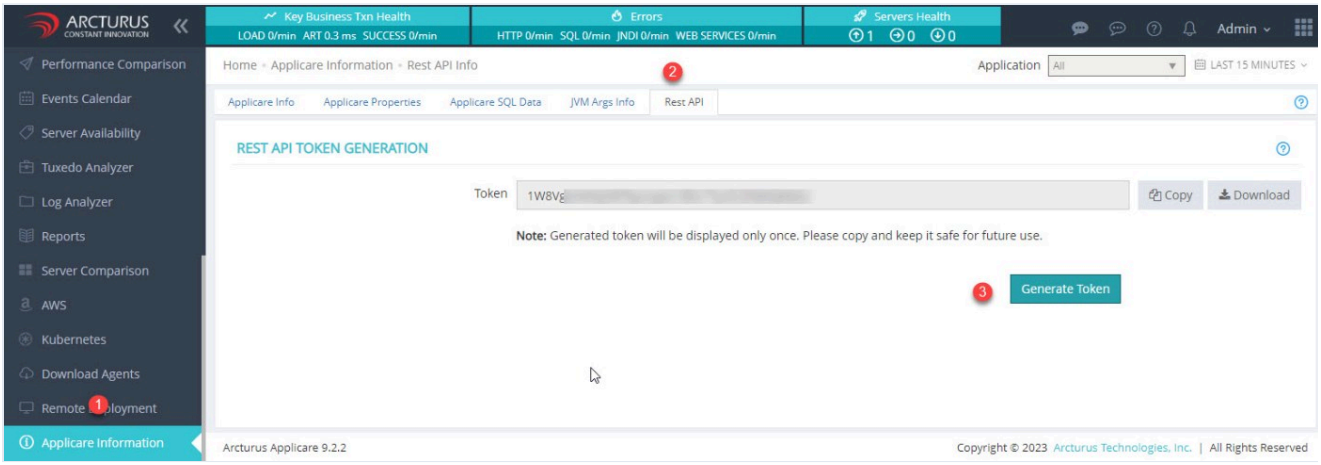
Applicare 9.2 · Updated September 4, 2024 · **Pending technical review**

To access data via the REST API, generate a API token in Applicare and include it in your request.

## Token Generation

**Navigate to Menu> Applicare Information > Rest API** and click the **Generate Token** button. The newly generated token will appear in the Token field. This token is shown only once, So be sure to copy and securely store it for future use. The Controller saves the token in an encrypted format. **Once a new token is generated old token becomes invalid.**

### REST APIs retrieve details from the controller




**Authentication -** API Key Authentication.

**Token** - One token per controller.

**Token Validity** - The token expires either when a new token is issued or if the Applicare license expires. After renewing the license, the existing token will remain valid.

### Request content details

```yaml
Method Type: POST
Content-Type: application/json
REST_API_URL: Controller_Protocol://Controller_IP:Controller_Port/applicare/restapi
Header: X-API-Key: TOKEN_VALUE
REQUEST_BODY: REST API details to fetch
CA_CERTIFICATE_FILE: For SSL Certificate
```

### Response content details

```
TEXT
Content-Type: application/json
```

```
TEXT
Success Response
{"status":"success","details":[{"name": "Google","state": "Failed"}]}

Failed Response
{"status":"error","details":[{"error": "Unauthorized. Token is missing or invalid"}]}

status – It displays the response is success or failure
details – Response message (JSON Array)
```

## CURL Syntax

**HTTP:**

curl -H "X-API-Key: **TOKEN_VALUE**" -H "Content-Type: application/json" -X POST -d **REQUEST_BODY REST_API_URL**

**HTTPS:**

curl --cacert **CA_CERTIFICATE_FILE** -H "X-API-Key: **TOKEN_VALUE**" -H "Content-Type: application/json" -X POST -d **REQUEST_BODY REST_API_URL**

**Parameters:**

**CA_CERTIFICATE_FILE: .crt** (or) **.pem** file location

**TOKEN_VALUE:** Generated Token value from Applicare Console

**REQUEST_BODY:** REST API details to fetch

**REST_API_URL: Controller_Protocol://Controller_IP:Controller_Port**/applicare/restapi

```
TEXT
Controller_Protocol: Applicare Controller running protocol (http or https)
Controller_IP: Applicare Controller running IP or domain name
Controller_Port: Applicare Controller running Port
```

**For example, let us consider the below values**

**CA_CERTIFICATE_FILE:** D:\applicare.pem

**TOKEN_VALUE:** 123456789

**REST_API_URL:**

**HTTP:** `http://localhost:8880/applicare/restapi`

**HTTPS:** `https://localhost:8443/applicare/restapi`

## REQUEST_BODY details for Various API

**1. To get the status of all active synthetic transactions**

```
TEXT
{"\q\":\"syntheticAllTransactionStatus\"}
```

**CURL e.g.**

**HTTP:**

curl -H "X-API-Key: **123456789**" -H "Content-Type: application/json" -X POST -d **{\"q\":\"syntheticAllTransactionStatus\"} http**://**localhost**:**8880**/applicare/restapi

**HTTPS:**

curl --cacert **D:\applicare.pem** -H "X-API-Key: **123456789**" -H "Content-Type: application/json" -X POST -d **{\"q\":\"syntheticAllTransactionStatus\"} https**://**localhost**:**8443**/applicare/restapi

**Response**

```
TEXT
{"status":"success","details": [{"name": "Google","state": "Failed"},
{"name": "google","state": "Queued"},{"name": "Json","state":"Success"}]}
```

**name -** Synthetic Transaction Name

**state -** State of the transaction. (Success, Failed or Queued)

**2. To retrieve details of all active synthetic transactions**

```
TEXT
{\"q\":\"syntheticAllTransactionDetails\"}
```

**CURL e.g.**

**HTTP:**

curl -H "X-API-Key: **123456789**" -H "Content-Type: application/json" -X POST -d **{\"q\":\"syntheticAllTransactionDetails\"} http**://**localhost**:**8880**/applicare/restapi

**HTTPS:**

curl --cacert **D:\applicare.pem** -H "X-API-Key: **123456789**" -H "Content-Type: application/json" -X POST -d **{\"q\":\"syntheticAllTransactionDetails\"} https**://**localhost**:**8443**/applicare/restapi

**Response**

```
TEXT
{"status":"success","details":[{"group": "Default","app": "Applicare",
"name": "Google","node": "ApplicareAdmin","state": "Failed","lastChecked": 1657724700000,
"executionTime": 21040,"message": ""},{"group": "Default","app":"","name": "Json",
"node": "ApplicareAdmin","state": "Success","lastChecked":1657724700000,
"executionTime": 316,"message": ""}]}
```

**group -** Name of the group

**app -** Name of the application

**name -** Name of the synthetic transaction

**node-** Node where the transaction executed

**state -** State of the transaction. (Success, Failed or Queued)

**lastChecked** - Last execution time

**executionTime** - Time taken for the transaction. Value in milliseconds

**3. To get the transaction status based on transaction names**

```
TEXT
{\"q\":\"syntheticTransactionStatus\",\"txnname\":\"TXN_NAME1,TXN_NAME2\"}
```

**TXN_NAME1, TXN_NAME2 -** Name of synthetic transactions

**cURL e.g.**

**a. To get the transaction status for single transaction**

**HTTP:**

curl -H "X-API-Key: **123456789**" -H "Content-Type: application/json" -X POST -d {\"q\":\"**syntheticTransactionStatus**\",\"**txnname**\":\"**00001**\"} **http**://**localhost**:**8880**/applicare/restapi

**HTTPS:**

curl --cacert **D:\applicare.pem** -H "X-API-Key: **123456789**" -H "Content-Type: application/json" -X POST -d {\"q\":\"**syntheticTransactionStatus**\",\"**txnname**\":\"**00001**\"} **https**://**localhost**:**8443**/applicare/restapi

**Response**

```
TEXT
{"status":"success","details": [{"name": "00001","state": "Failed"}]}
```

**b. To get the transaction status for multiple transactions**

**HTTP:**

curl -H "X-API-Key: **123456789**" -H "Content-Type: application/json" -X POST -d {\"q\":\"**syntheticTransactionStatus**\",\"**txnname**\":\"**00001,00002**\"} **http**://**localhost**:**8880**/applicare/restapi

**HTTPS:**

curl --cacert **D:\applicare.pem** -H "X-API-Key: **123456789**" -H "Content-Type: application/json" -X POST -d {\"q\":\"**syntheticTransactionStatus**\",\"**txnname**\":\"**00001,00002**\"} **https**://**localhost**:**8443**/applicare/restapi

**Response**

```
TEXT
{"status":"success","details": [{"name": "00001","state": "Failed"},
{"name": "00002","state":"Success"}]}
```

**4. To get the transaction status based on applications**

```
TEXT
{\"q\":\"syntheticTransactionStatus\",\"appname\":\"APP_NAME1,APP_NAME2\"}
```

**APP_NAME1, APP_NAME2 -** Name of the Application which synthetic transactions was assigned.

**CURL e.g.**

**a. To retrieve transaction the status for single application**

**HTTP:**

curl -H "X-API-Key: **123456789**" -H "Content-Type: application/json" -X POST -d {\"q\":\"**syntheticTransactionStatus**\",\"**appname**\":\"**TestApp**\"} **http**://**localhost**:**8880**/applicare/restapi

**HTTPS:**

curl --cacert **D:\applicare.pem** -H "X-API-Key: **123456789**" -H "Content-Type: application/json" -X POST -d {\"q\":\"**syntheticTransactionStatus**\",\"**appname**\":\"**TestApp**\"} **https**://**localhost**:**8443**/applicare/restapi

**Response**

```
TEXT
{"status":"success","details":[{"name":"00004","state":"Queued"},
{"name":"10jmeter","state":"Success"}]}
```

**b. To get the transaction status for multiple applications**

**HTTP:**

curl -H "X-API-Key: **123456789**" -H "Content-Type: application/json" -X POST -d {\"q\":\"**syntheticTransactionStatus**\",\"**appname**\":\"**TestApp,Applicare**\"} **http**://**localhost**:**8880**/applicare/restapi

**HTTPS:**

curl --cacert **D:\applicare.pem** -H "X-API-Key: **123456789**" -H "Content-Type: application/json" -X POST -d {\"q\":\"**syntheticTransactionStatus**\",\"**appname**\":\"**TestApp,Applicare**\"} **https**://**localhost**:**8443**/applicare/restapi

**Response**

```
TEXT
{"status":"success","details":[{"name":"00004","state":"Queued"},
{"name":"10jmeter","state":"Success"},{"name":"Error","state":"Failed"},
{"name":"Google","state":"Failed"}]}
```

**5. To get the transaction details based on transaction names**

```
TEXT
{\"q\":\"syntheticTransactionDetails\",\"txnname\":\"TXN_NAME1,TXN_NAME2\"}
```

**TXN_NAME1, TXN_NAME2 -** Name of synthetic transactions

**CURL e.g.**

**a. To get the transaction details for single transaction**

**HTTP:**

curl -H "X-API-Key: **123456789**" -H "Content-Type: application/json" -X POST -d {\"q\":\"**syntheticTransactionDetails**\",\"**txnname**\":\"**00001**\"} **http**://**localhost**:**8880**/applicare/restapi

**HTTPS:**

curl --cacert **D:\applicare.pem** -H "X-API-Key: **123456789**" -H "Content-Type: application/json" -X POST -d {\"q\":\"**syntheticTransactionDetails**\",\"**txnname**\":\"**00001**\"} **https**://**localhost**:**8443**/applicare/restapi

**Response**

```
TEXT
{"status":"success","details":[{"group":"Default","app":"","name":"00001","node":"Agent1",
"state":"Queued","lastChecked":0,"executionTime":0,"message":""}]}
```

**b. To get the transaction details for multiple transactions**

**HTTP:**

curl -H "X-API-Key: **123456789**" -H "Content-Type: application/json" -X POST -d {\"q\":\"syntheticTransactionDetails\",\"**txnname**\":\"**00001,00002**\"} **http**://**localhost**:**8880**/applicare/restapi

**HTTPS:**

curl --cacert **D:\applicare.pem** -H "X-API-Key: **123456789**" -H "Content-Type: application/json" -X POST -d {\"q\":\"syntheticTransactionDetails\",\"**txnname**\":\"**00001,00002**\"} **https**://**localhost**:**8443**/applicare/restapi

**Response**

```yaml
{"status":"success","details":[{"group":"Default","app":"","name":"00001","node":"Agent1",
"state":"Queued","lastChecked":0,"executionTime":0,"message":""},
{"group":"Default","app":"","name":"00002","node":"ApplicareAdmin","state":"Success",
"lastChecked":1657878180000,"executionTime":116720,"message":""}]}
```

**6. To get the transaction details based on applications**

```text
{\"q\":\"syntheticTransactionDetails\",\"appname\":\"APP_NAME1,APP_NAME2\"}
```

**APP_NAME1, APP_NAME2 -** Name of the Application which synthetic transactions was assigned.

**CURL e.g.**

**a. To get the transaction for single application**

**HTTP:**

curl -H "X-API-Key: **123456789**" -H "Content-Type: application/json" -X POST -d {\"q\":\"**syntheticTransactionDetails**\",\"**appname**\":\"**TestApp**\"} **http**://**localhost**:**8880**/applicare/restapi

**HTTPS:**

curl --cacert **D:\applicare.pem** -H "X-API-Key: **123456789**" -H "Content-Type: application/json" -X POST -d {\"q\":\"**syntheticTransactionDetails**\",\"**appname**\":\"**TestApp**\"} **https**://**localhost**:**8443**/applicare/restapi

**Response**

```yaml
{"status":"success","details":[{"group":"Default","app":"TestApp","name":"00004",
"node":"Agent2","state":"Queued","lastChecked":0,"executionTime":0,"message":""},
{"group":"Default","app":"TestApp","name":"10jmeter","node":"ApplicareAdmin",
"state":"Success","lastChecked":1657879080000,"executionTime":1469,"message":""}]}
```

**b. To get the transaction details for multiple applications**

**HTTP:**

curl -H "X-API-Key: **123456789**" -H "Content-Type: application/json" -X POST -d {\"q\":\"**syntheticTransactionDetails**\",\"**appname**\":\"**TestApp,Applicare**\"} **http**://**localhost**:**8880**/applicare/restapi

**HTTPS:**

curl --cacert **D:\applicare.pem** -H "X-API-Key: **123456789**" -H "Content-Type: application/json" -X POST -d {\"q\":\"**syntheticTransactionDetails**\",\"**appname**\":\"**TestApp,Applicare**\"} **https**://**localhost**:**8443**/applicare/restapi

### Response

YAML

{"status":"success","details":[{"group":"Default","app":"TestApp","name":"00004",
"node":"Agent2","state":"Queued","lastChecked":0,"executionTime":0,"message":""},
{"group":"Default","app":"TestApp","name":"10jmeter","node":"ApplicareAdmin",
"state":"Success","lastChecked":1657879080000,"executionTime":1469,"message":""},
{"group":"Default","app":"Applicare","name":"Error","node":"ApplicareAdmin",
"state":"Failed","lastChecked":1657879020000,"executionTime":24432,"message":""},
{"group":"Default","app":"Applicare","name":"Google","node":"ApplicareAdmin",
"state":"Failed","lastChecked":1657879080000,"executionTime":21031,"message":""}]}

CONFIGURATION GUIDES › ADMINISTRATION & SECURITY

# REST API Calls Using X.509 Certificate-Based Authentication

Applicare 9.2 · Updated August 30, 2024 · **Pending technical review**

## X.509 Certificate-Based Authentication

X.509 Cert-based authentication provides an easy and secure way to access Applicare REST APIs. Below are the details on enabling it.

1. Bring down the Applicare controller.

2. Navigate to **<Applicare controller home directory>\server\conf** and open the **server.xml** file.

3. Add a new connector as detailed below, specifying the **Keystore** and **Truststore** file paths password and set the **clientAuth** to true.

<Connector protocol="HTTP/1.1" port="8444" maxThreads="200" scheme="https" secure="true" SSLEnabled="true" keystoreFile="**<keystorefile.jks>**" keystorePass="**password**" truststoreFile="**<truststorefile.jks>**" truststorePass="**password**" **clientAuth="true"** sslProtocol="TLS" />

**Example:**

```
<Connector
protocol="HTTP/1.1"
port="8444" maxThreads="200"
scheme="https" secure="true" SSLEnabled="true"
keystoreFile="E:\Applicare\MySQL\keystore.jks" keystorePass="123456"
truststoreFile="E:\Applicare\MySQLtruststore.jks" truststorePass="123456"
clientAuth="true" sslProtocol="TLS" />
```

4. Restart the Applicare Controller.

**Request content details**

```yaml
Method Type: POST
Content-Type: application/json
REST_API_URL: Controller_Protocol://Controller_IP:Controller_Port/applicare/restapi
REQUEST_BODY: REST API details to fetch
CA_CERTIFICATE_FILE: CA Certificate file for SSL.
CLIENT_CERTIFICATE_FILE: Client Certificate file for client side authentication. (.p12) file
PassphrasePassword: Password for the .p12 file at the time of file generation.
```

**Request Content Information**

```
TEXT
Content-Type: application/json
```

```
TEXT
Success Response
{"status":"success","details":[{"name": "Google","state": "Failed"}]}

Failed Response
{"status":"error","details":[{"error": "Unauthorized. Token is missing or invalid"}]}

status – It displays the response is success or failure
details – Response message (JSON Array)
```

### cURL Command Syntax

**HTTPS:**

curl --cacert **CA_CERTIFICATE_FILE** --cert **CLIENT_CERTIFICATE_FILE:PassphrasePassword** -H "Content-Type: application/json" -X POST -d **REQUEST_BODY REST_API_URL**

**Fields:**

**CA_CERTIFICATE_FILE :** Location of the **.crt** (or) **.pem** certificate file

**CLIENT_CERTIFICATE_FILE:** Client certificate file with **.p12** extension

**PassphrasePassword:** Passphrase for the client certificate file

**REQUEST_BODY:** Details of the REST API request

**REST_API_URL: Controller_Protocol://Controller_IP:Controller_Port**/applicare/restapi

```
TEXT
Controller_Protocol: Applicare Controller running protocol (http or https)
Controller_IP: Applicare Controller running IP or domain name
Controller_Port: Applicare Controller running Port
```

**For example, Consider the following values:**

**CA_CERTIFICATE_FILE:** D:\applicare.pem

**.P12_FILE:** D:\client.p12

**PassphrasePassword:** clientpass

**REST_API_URL:** `https://localhost:8443/applicare/restapi`

## REQUEST_BODY details for Various API

**1. To retrieve the status of all active synthetic transactions**

```
TEXT
{"\q\":\"syntheticAllTransactionStatus\"}
```

**cURL Example**

curl --cacert **D:\applicare.pem** --cert **D:\client.p12:changeit** -H "Content-Type: application/json" -X POST -d **{\"q\":\"syntheticAllTransactionStatus\"}** **https**://**localhost**:**8444**/applicare/restapi

**Response**

```
TEXT
{"status":"success","details": [{"name": "Google","state": "Failed"},
{"name": "google","state": "Queued"},{"name": "Json","state":"Success"}]}
```

**name -** Synthetic Transaction Name

**state -** State of the transaction. (Success, Failed or Queued)

**2. To retrieve details of all active synthetic transactions**

```
TEXT
{\"q\":\"syntheticAllTransactionDetails\"}
```

**cURL Example**

curl --cacert **D:\applicare.pem** --cert **D:\client.p12:changeit** -H "Content-Type: application/json" -X POST -d **{\"q\":\"syntheticAllTransactionDetails\"}** **https**://**localhost**:**8443**/applicare/restapi

**Response**

```
TEXT
{"status":"success","details":[{"group": "Default","app": "Applicare",
"name": "Google","node": "ApplicareAdmin","state": "Failed","lastChecked": 1657724700000,
"executionTime": 21040,"message": ""},{"group": "Default","app":"","name": "Json",
"node": "ApplicareAdmin","state": "Success","lastChecked":1657724700000,
"executionTime": 316,"message": ""}]}
```

**group -** Group Name

**app -** Application Name

**name -** Synthetic Transaction Name

**node-** In Which Node it executes

**state -** State of the transaction. (Success, Failed or Queued)

**lastChecked** - Last execution time

**executionTime** - Time taken for the transaction. Value in milliseconds

**3. To retrieve transaction status based on transaction names**

```
TEXT
{\"q\":\"syntheticTransactionStatus\",\"txnname\":\"TXN_NAME1,TXN_NAME2\"}
```

**TXN_NAME1, TXN_NAME2 -** Name of synthetic transactions

**cURL Example**

**a. To get the transaction status for single transaction**

curl --cacert **D:\applicare.pem** --cert **D:\client.p12:changeit** -H "Content-Type: application/json" -X POST -d {\"q\":\"**syntheticTransactionStatus**\",\"**txnname**\":\"**00001**\"} **https**://**localhost**:**8443**/applicare/restapi

**Response**

```
TEXT
{"status":"success","details": [{"name": "00001","state": "Failed"}]}
```

**b. To get the transaction status for multiple transactions**

curl --cacert **D:\applicare.pem** --cert **D:\client.p12:changeit** -H "Content-Type: application/json" -X POST -d {\"q\":\"**syntheticTransactionStatus**\",\"**txnname**\":\"**00001,00002**\"} **https**://**localhost**:**8443**/applicare/restapi

**Response**

```
TEXT
{"status":"success","details": [{"name": "00001","state": "Failed"},
{"name": "00002","state":"Success"}]}
```

**4. To retrieve the transaction status based on applications**

```
TEXT
{\"q\":\"syntheticTransactionStatus\",\"appname\":\"APP_NAME1,APP_NAME2\"}
```

**APP_NAME1, APP_NAME2 -** Name of the Application which synthetic transactions was assigned.

**cURL Example**

**a. To get the transaction status for single application**

curl --cacert **D:\applicare.pem** --cert **D:\client.p12:changeit** -H "Content-Type: application/json" -X POST -d {\"q\":\"**syntheticTransactionStatus**\",\"**appname**\":\"**TestApp**\"} **https**://**localhost**:**8443**/applicare/restapi

**Response**

```
TEXT
{"status":"success","details":[{"name":"00004","state":"Queued"},
{"name":"10jmeter","state":"Success"}]}
```

**b. To get the transaction status for multiple applications**

curl --cacert **D:\applicare.pem** --cert **D:\client.p12:changeit** -H "Content-Type: application/json" -X POST -d {\"q\":\"**syntheticTransactionStatus**\",\"**appname**\":\"**TestApp,Applicare**\"} **https**://**localhost**:**8443**/applicare/restapi

**Response**

```
TEXT
{"status":"success","details":[{"name":"00004","state":"Queued"},
{"name":"10jmeter","state":"Success"},{"name":"Error","state":"Failed"},
{"name":"Google","state":"Failed"}]}
```

**5. To get the transaction details based on transaction names**

```
TEXT
{\"q\":\"syntheticTransactionDetails\",\"txnname\":\"TXN_NAME1,TXN_NAME2\"}
```

**TXN_NAME1, TXN_NAME2 -** Name of synthetic transactions

**cURL Example**

**a. To get the transaction details for single transaction**

curl --cacert **D:\applicare.pem** --cert **D:\client.p12:changeit** -H "Content-Type: application/json" -X POST -d {\"q\":\"**syntheticTransactionDetails**\",\"**txnname**\":\"**00001**\"} **https**://**localhost**:**8443**/applicare/restapi

**Response**

```
TEXT
{"status":"success","details":[{"group":"Default","app":"","name":"00001","node":"Agent1",
"state":"Queued","lastChecked":0,"executionTime":0,"message":""}]}
```

**b. To get the transaction details for multiple transactions**

curl --cacert **D:\applicare.pem** --cert **D:\client.p12:changeit** -H "Content-Type: application/json" -X POST -d {\"q\":\"syntheticTransactionDetails\",\"**txnname**\":\"**00001,00002**\"} **https**://**localhost**:**8443**/applicare/restapi

**Response**

```
YAML
{"status":"success","details":[{"group":"Default","app":"","name":"00001","node":"Agent1",
"state":"Queued","lastChecked":0,"executionTime":0,"message":""},
{"group":"Default","app":"","name":"00002","node":"ApplicareAdmin","state":"Success",
"lastChecked":1657878180000,"executionTime":116720,"message":""}]}
```

**6. To get the transaction details based on applications**

```
TEXT
{\"q\":\"syntheticTransactionDetails\",\"appname\":\"APP_NAME1,APP_NAME2\"}
```

**APP_NAME1, APP_NAME2 -** Name of the application to which the synthetic transactions are assigned.

**cURL Example**

**a. To get the transaction for single application**

curl --cacert **D:\applicare.pem** --cert **D:\client.p12:changeit** -H "Content-Type: application/json" -X POST -d {\"q\":\"**syntheticTransactionDetails**\",\"**appname**\":\"**TestApp**\"} **https**://**localhost**:**8443**/applicare/restapi

**Response**

```
YAML
{"status":"success","details":[{"group":"Default","app":"TestApp","name":"00004",
"node":"Agent2","state":"Queued","lastChecked":0,"executionTime":0,"message":""},
{"group":"Default","app":"TestApp","name":"10jmeter","node":"ApplicareAdmin",
"state":"Success","lastChecked":1657879080000,"executionTime":1469,"message":""}]}
```

**b. To retrieve transaction details for multiple applications**

curl --cacert **D:\applicare.pem** --cert **D:\client.p12:changeit** -H "Content-Type: application/json" -X POST -d {\"q\":\"**syntheticTransactionDetails**\",\"**appname**\":\"**TestApp,Applicare**\"} **https**://**localhost**:**8443**/applicare/restapi

**Response**

```
YAML
{"status":"success","details":[{"group":"Default","app":"TestApp","name":"00004",
"node":"Agent2","state":"Queued","lastChecked":0,"executionTime":0,"message":""},
{"group":"Default","app":"TestApp","name":"10jmeter","node":"ApplicareAdmin",
"state":"Success","lastChecked":1657879080000,"executionTime":1469,"message":""},
{"group":"Default","app":"Applicare","name":"Error","node":"ApplicareAdmin",
"state":"Failed","lastChecked":1657879020000,"executionTime":24432,"message":""},
{"group":"Default","app":"Applicare","name":"Google","node":"ApplicareAdmin",
"state":"Failed","lastChecked":1657879080000,"executionTime":21031,"message":""}]}
```

CONFIGURATION GUIDES › ADMINISTRATION & SECURITY

# Applicare Data Security

Applicare 9.2 · Updated September 2, 2024 · **Pending technical review**

Applicare can be deployed either as an On-Prem(ise) hosting or accessed through our SaaS environment.

## Applicare On-Prem

In the Applicare On-Prem environment, security is managed by the customer. Applicare supports multiple TLS versions and cipher suites, including TLS 1.2 (SSL Labs Grade A+). All traffic to the Applicare controller is secured with HTTPS/TLS. Customers are responsible for using their own SSL certificate.

## Applicare On-Prem Data Storage

Applicare supports industry-standard databases such as Oracle and MySQL for data storage, adhering to the customer's security guidelines. We also offer encryption for JDBC communication with the selected database.

## Applicare On-Prem Isolation

In an Applicare On-Prem deployment, connection to Arcturus occur only if explicitly initiated by customer such as for checking updates. The Applicare On-Prem Controller doesn't require any internet access to function.

## Applicare SaaS

The Applicare SaaS environment is build on industry leading AWS (or Microsoft Azure or Google Cloud Platform as needed). It is secured foundation-ally by design with the following

- Each customer is operates within dedicated runtime environment
- Each customer's data is stored in a separate database schema
- Each customer assigned a unique domain

All Applicare traffic between SingleAgents deployed at customer's site or cloud and Applicare SaaS is encrypted using latest TLS currently TLS 1.2 (SSL Labs Grade A+) and certs are managed by AWS ACM.

Applicare database is NOT accessible from outside and is only accessible from within Arcturus VPN and only by Applicare SaaS Controllers.

CONFIGURATION GUIDES › ADMINISTRATION & SECURITY

# Manage Applicare Data

Applicare 9.2 · Updated September 13, 2024 · **Pending technical review**

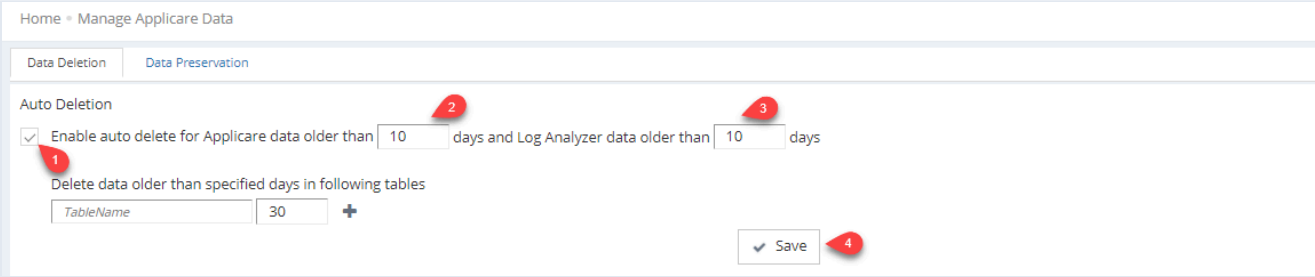
## Overview

As the Applicare Controller operates, table storage in the database will grow, potentially reducing disk space on the machine running the controller. Configuring this screen can help mitigate such issues.

### Configuration

#### Auto Deletion

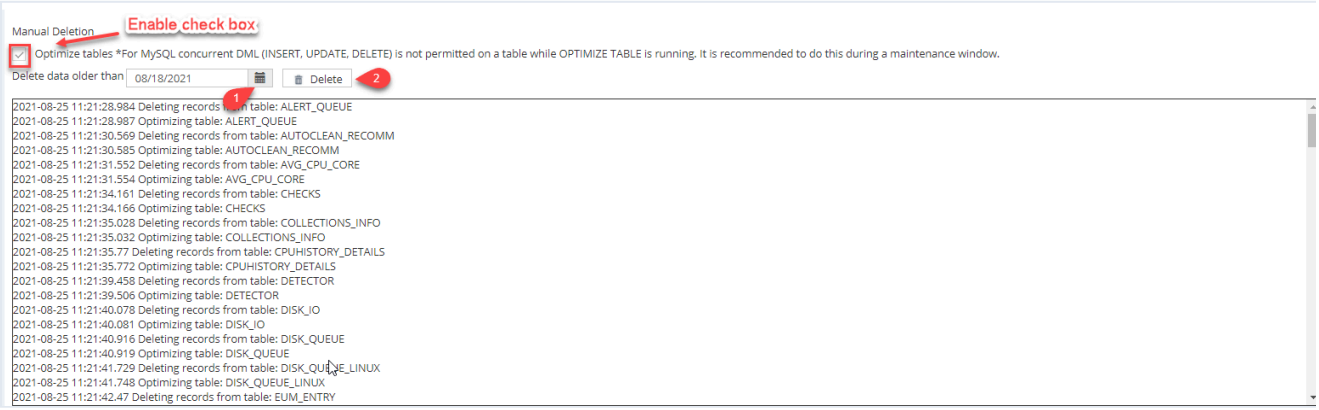
When set up on this screen, Applicare will automatically clear the database storage as per the configuration.




Enable auto deletion by checking the appropriate checkbox. Then, specify the no of days after which data should be deleted and save the setting.

#### Manual Deletion

Use this option to immediately delete database storage if disk space is running low on the machine running the Applicare Controller.




Enable the Manual deletion check box, select the date for which you want to remove the data, and click the Delete button. The database storage will be cleared according to the specified date within a few seconds.

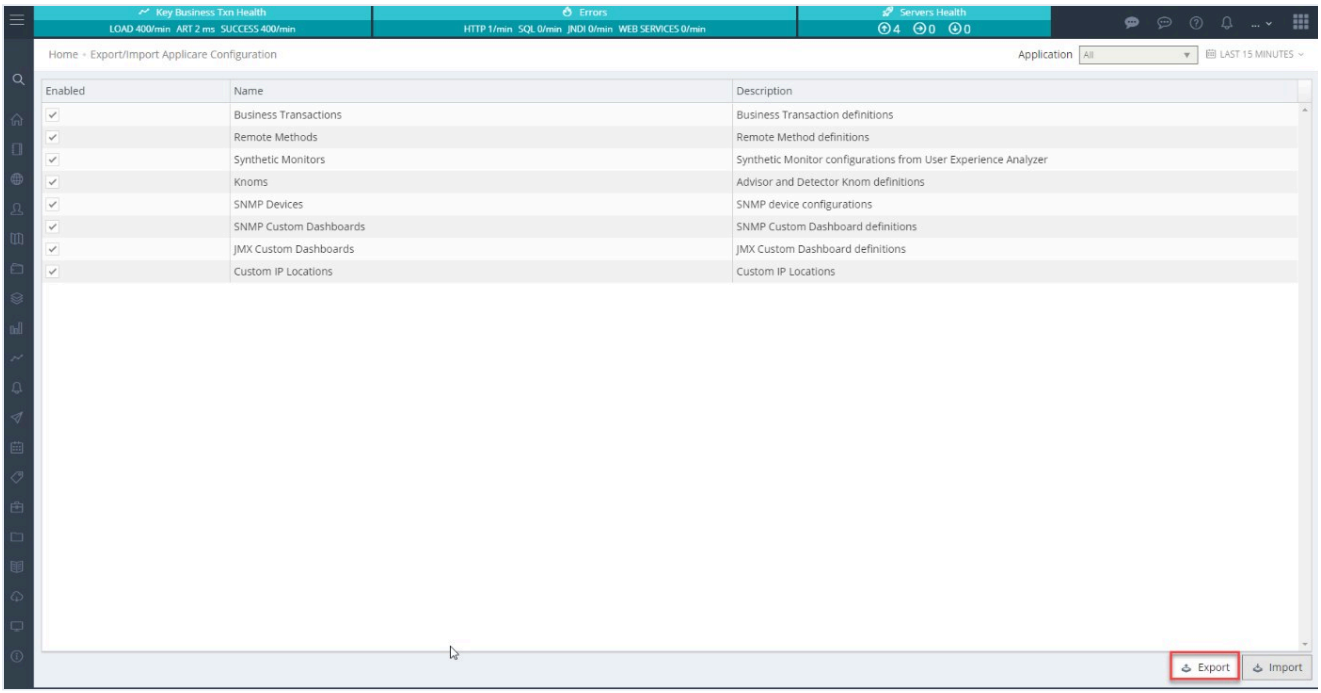
**Monitoring with Applicare**

CONFIGURATION GUIDES › ADMINISTRATION & SECURITY

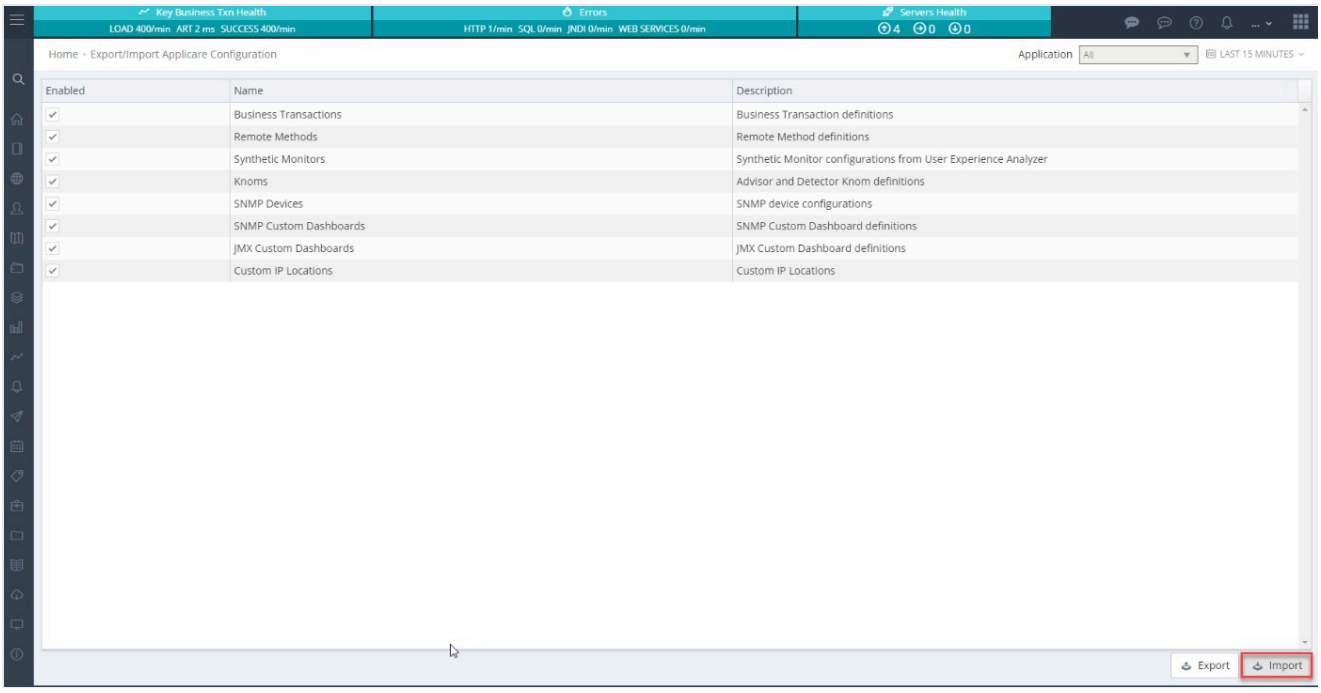
# Export/Import Applicare Configuration

Applicare 9.2 · Updated August 22, 2024 · **Pending technical review**

## Export Applicare Configuration




## Import Applicare Configuration



CONFIGURATION GUIDES › ADMINISTRATION & SECURITY

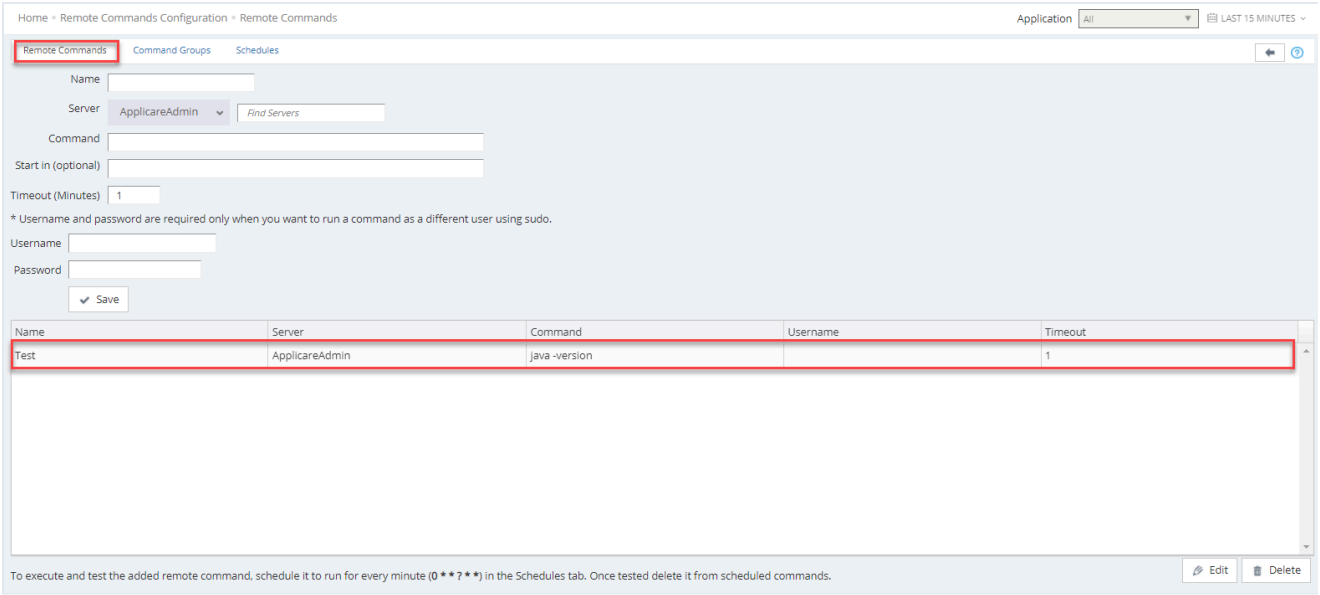
# Remote Commands

Applicare 9.2 · Updated September 13, 2024 · **Pending technical review**

Remote Commands allow you to execute scripts or processes on servers where Applicare agents are installed. They can be configured to run as specific users (On Unix-based systems with sudo access) and scheduled to execute periodically using cron-like schedules.

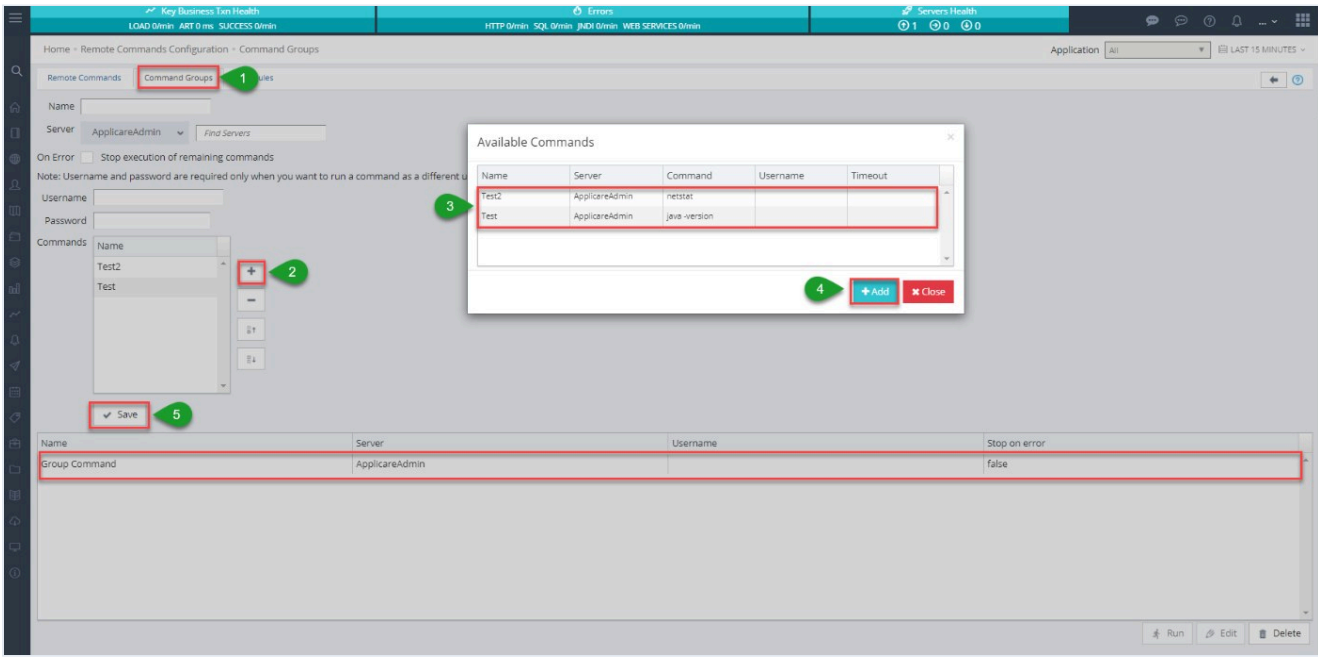
## Configuration

| | |
|---|---|
| **Name** | **A unique name to identify the command within the Applicare console** |
| **Server** | The Applicare agent that will execute this command |
| **Command** | The script or command to be executed |
| **Start in (optional)** | Specify the directory path from which the command should be executed |
| **Timeout (Minutes)** | Applicare will automatically terminate the process if it does not complete within the specified number of minutes. |
| **Username (optional)** | You can execute commands as a specific user on the target server. This setting can be overridden when running commands manually and is only supported on operating systems with sudo installed. |
| **Password (optional)** | Enter the password for the specified username. This can be overridden when executing commands manually. |



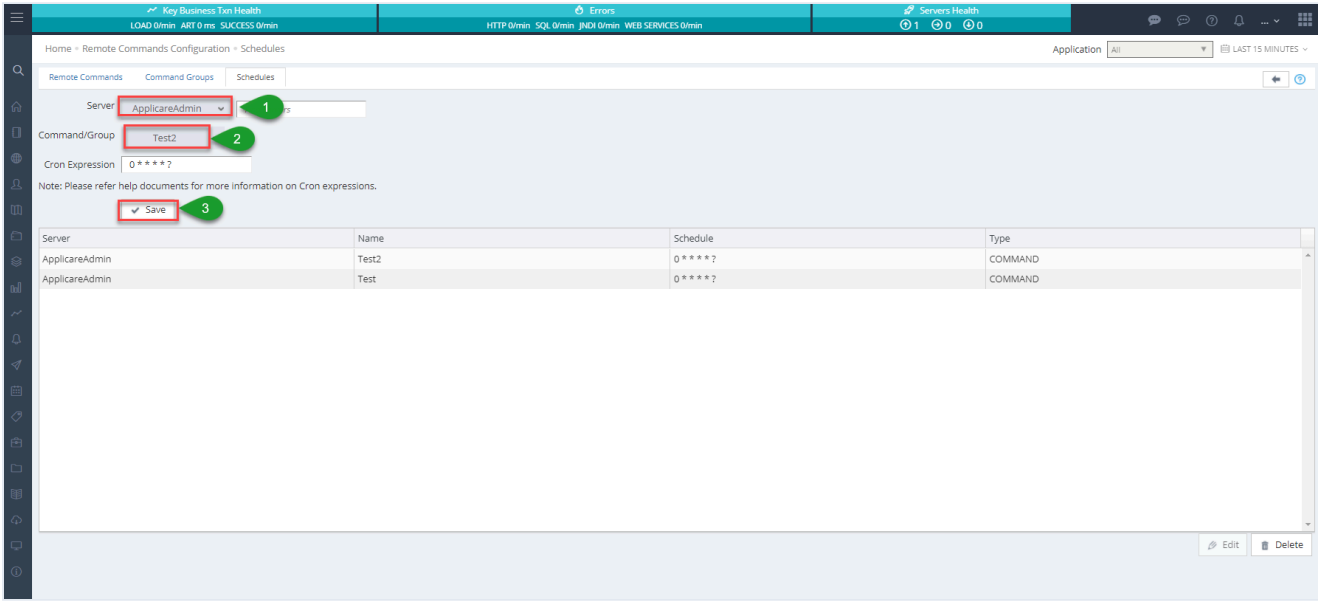
## Command Groups

You can organize multiple commands on a server into a single group. Commands within the group will be executed in the specified order. Similarly to Individual commands, you can execute the command group as a specific user on operating systems where sudo is available.




### Command Schedules

You can schedule commands and command groups to run periodically using cron-like scheduling expressions.




### Format

A cron expression is a string consisting of 6 or 7 fields separated by whitespace. Each field can include any of the permitted values and various combinations of the special characters to that field. The fields are described as follows:

| Field Name | Mandatory | Allowed Values | Allowed Special Characters |
|---|---|---|---|
| Seconds | YES | 0-59 | , - * / |
| Minutes | YES | 0-59 | , - * / |
| Hours | YES | 0-23 | , - * / |
| Day of month | YES | 1-31 | , - * ? / L W |
| Month | YES | 1-12 or JAN-DEC | , - * / |
| Day of week | YES | 1-7 or SUN-SAT | , - * ? / L # |
| Year | NO | empty, 1970-2099 | , - * / |

Cron expressions can be as simple as: * * * * ? * or more complex, like this: 0 0/5 14,18,3-39,52 ? JAN,MAR,SEP MON-FRI 2002-2010

### Special characters

- *

(*"all values"*)- used to select all values within a field. For example, "*" in the minute field means *"every minute"*

- ?

(*"no specific value"*) - useful when you need to specify something in one of the two fields in which the character is allowed, but not the other. For example, if I want my trigger to fire on a particular day of the month (say, the 10th), but don't care what day of the week that happens to be, I would put "10" in the day-of-month field, and "?" in the day-of-week field. See the examples below for clarification.

- -

  - used to specify ranges. For example, "10-12" in the hour field means *"the hours 10, 11 and 12"*

- ,

  - used to specify additional values. For example, "MON,WED,FRI" in the day-of-week field means *"the days Monday, Wednesday, and Friday"*

- /

  - used to specify increments. For example, "0/15" in the seconds field means *"the seconds 0, 15, 30, and 45"*. And "5/15" in the seconds field means *"the seconds 5, 20, 35, and 50"*. You can also specify '/' after the '**' character - in this case **'' is equivalent to having '0' before the '/'. '1/3' in the day-of-month field means *"fire every 3 days starting on the first day of the month"*

- **L**

  (*"last"*) - has different meaning in each of the two fields in which it is allowed. For example, the value "L" in the day-of-month field means *"the last day of the month"* - day 31 for January, day 28 for February on non-leap years. If used in the day-of-week field by itself, it simply means "7" or "SAT". But

if used in the day-of-week field after another value, it means *"the last xxx day of the month"* - for example "6L" means *"the last friday of the month"*. When using the 'L' option, it is important not to specify lists, or ranges of values, as you'll get confusing results.

- **W**

  (*"weekday"*) - used to specify the weekday (Monday-Friday) nearest the given day. As an example, if you were to specify "15W" as the value for the day-of-month field, the meaning is: *"the nearest weekday to the 15th of the month"*. So if the 15th is a Saturday, the trigger will fire on Friday the 14th. If the 15th is a Sunday, the trigger will fire on Monday the 16th. If the 15th is a Tuesday, then it will fire on Tuesday the 15th. However if you specify "1W" as the value for day-of-month, and the 1st is a Saturday, the trigger will fire on Monday the 3rd, as it will not 'jump' over the boundary of a month's days. The 'W' character can only be specified when the day-of-month is a single day, not a range or list of days.

  The 'L' and 'W' characters can also be combined in the day-of-month field to yield 'LW', which translates to *"last weekday of the month"*.

- #

  - used to specify "the nth" XXX day of the month. For example, the value of "6#3" in the day-of-week field means *"the third Friday of the month"* (day 6 = Friday and "#3" = the 3rd one in the month). Other examples: "2#1" = the first Monday of the month and "4#5" = the fifth Wednesday of the month. Note that if you specify "#5" and there is not 5 of the given day-of-week in the month, then no firing will occur that month.

  The legal characters and the names of months and days of the week are not case sensitive. MON is the same as mon.

### Examples

Here are some full examples:

| Expression | Meaning |
|---|---|
| 0 * * * * ? | Fire at every minute |
| 0 */2 * ? * * | Fire at every 2 minutes |
| 0 */3 * ? * * | Fire at every 3 minutes |
| 0 0 * ? * * | Fire at every hour |
| 0 0 */2 ? * * | Fire at every 2 hours |
| 0 0 */3 ? * * | Fire at every 3 hours |
| 0 0 12 * * ? | Fire at 12pm (noon) every day |
| 0 15 10 ? * * | Fire at 10:15am every day |
| 0 15 10 * * ? | Fire at 10:15am every day |
| 0 15 10 * * ? * | Fire at 10:15am every day |
| 0 15 10 * * ? 2005 | Fire at 10:15am every day during the year 2005 |

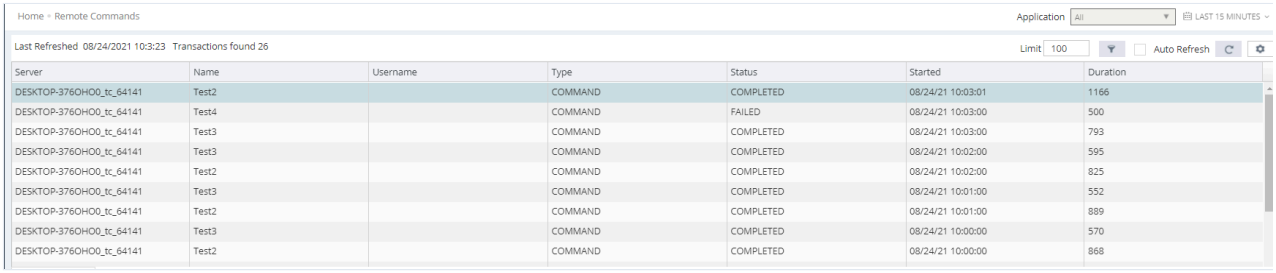
| Expression | Meaning |
|---|---|
| 0 * 14 * * ? | Fire every minute starting at 2pm and ending at 2:59pm, every day |
| 0 0/5 14 * * ? | Fire every 5 minutes starting at 2pm and ending at 2:55pm, every day |
| 0 0/5 14,18 * * ? | Fire every 5 minutes starting at 2pm and ending at 2:55pm, AND fire every 5 minutes starting at 6pm and ending at 6:55pm, every day |
| 0 0-5 14 * * ? | Fire every minute starting at 2pm and ending at 2:05pm, every day |
| 0 10,44 14 ? 3 WED | Fire at 2:10pm and at 2:44pm every Wednesday in the month of March. |
| 0 15 10 ? * MON-FRI | Fire at 10:15am every Monday, Tuesday, Wednesday, Thursday and Friday |
| 0 15 10 15 * ? | Fire at 10:15am on the 15th day of every month |
| 0 15 10 L * ? | Fire at 10:15am on the last day of every month |
| 0 15 10 ? * 6L | Fire at 10:15am on the last Friday of every month |
| 0 15 10 ? * 6L | Fire at 10:15am on the last Friday of every month |
| 0 15 10 ? * 6L 2002-2005 | Fire at 10:15am on every last friday of every month during the years 2002, 2003, 2004 and 2005 |
| 0 15 10 ? * 6#3 | Fire at 10:15am on the third Friday of every month |
| 0 0 12 1/5 * ? | Fire at 12pm (noon) every 5 days every month, starting on the first day of the month. |
| 0 11 11 11 11 ? | Fire every November 11th at 11:11am. |

Pay attention to the effects of '?' and '*' in the day-of-week and day-of-month fields!

- Support for specifying both a day-of-week and a day-of-month value is not complete (you must currently use the '?' character in one of these fields).
- Be careful when setting fire times between mid-night and 1:00 AM - "daylight savings" can cause a skip or a repeat depending on whether the time moves back or jumps forward.

## Execution Results

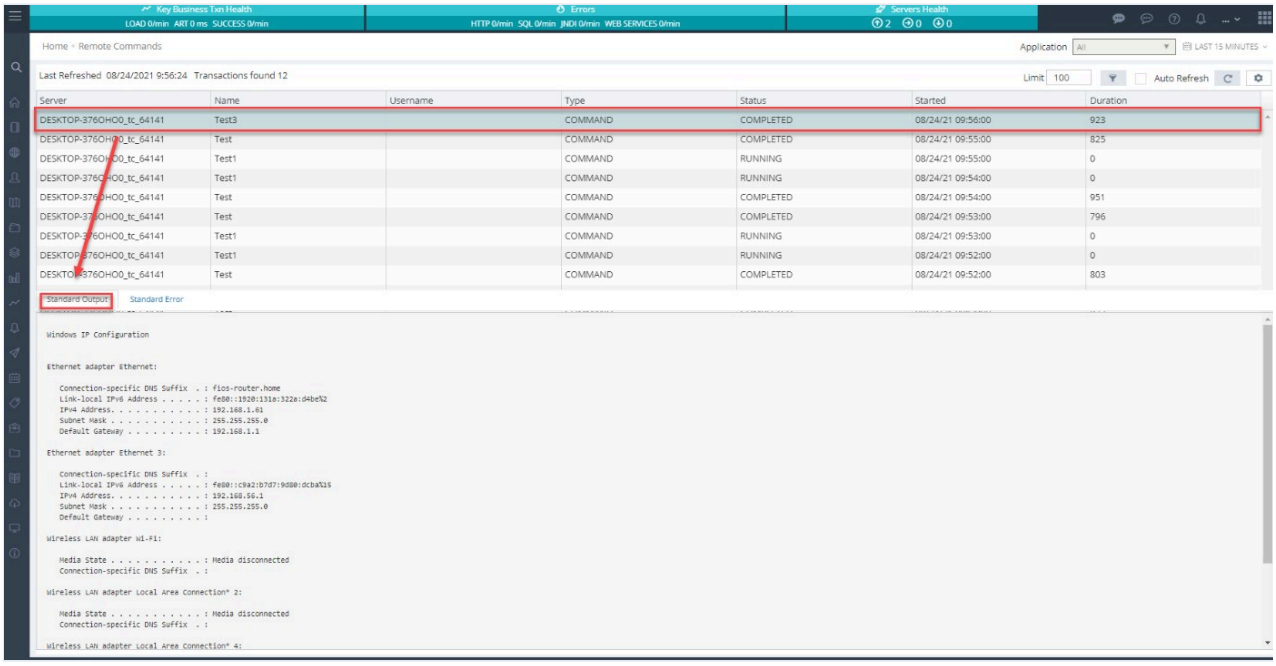
You can view the execution details of commands and command groups run by Applicare agents, whether they are manually triggered by a user or executed automatically according to a user-defined schedule.



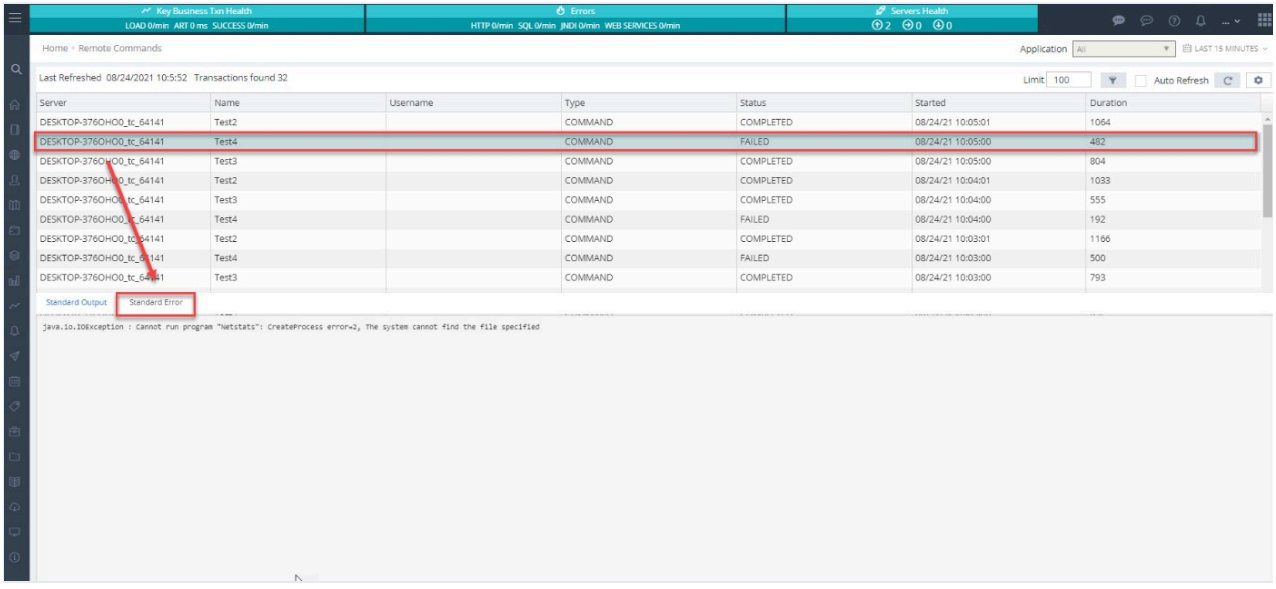
Double-clicking an entry will open a detailed view that displays information about the command or commands (for command groups). By selecting a command in this view, you can see the details written to standard output and standard error during the execution.

### Commands

### Standard Output




### Standard Error




## Command Groups

```
TEXT
      ![Screenshot 7 – Remote Commands](asset:images/configuration--admin--remote-commands/fig-07.png)
```

## Monitoring with Applicare

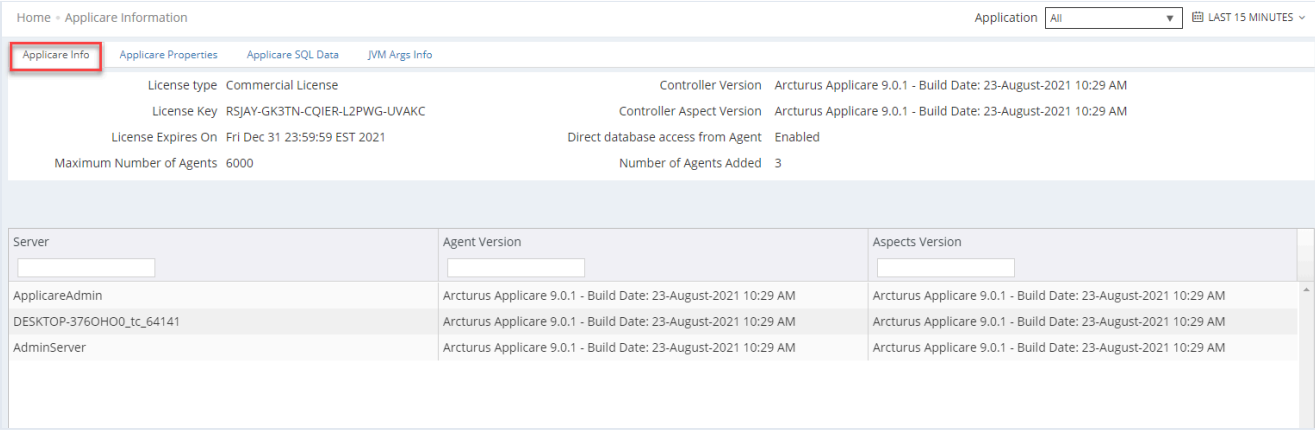
CONFIGURATION GUIDES › ADMINISTRATION & SECURITY

# Applicare Information

Applicare 9.2 · Updated September 13, 2024 · **Pending technical review**

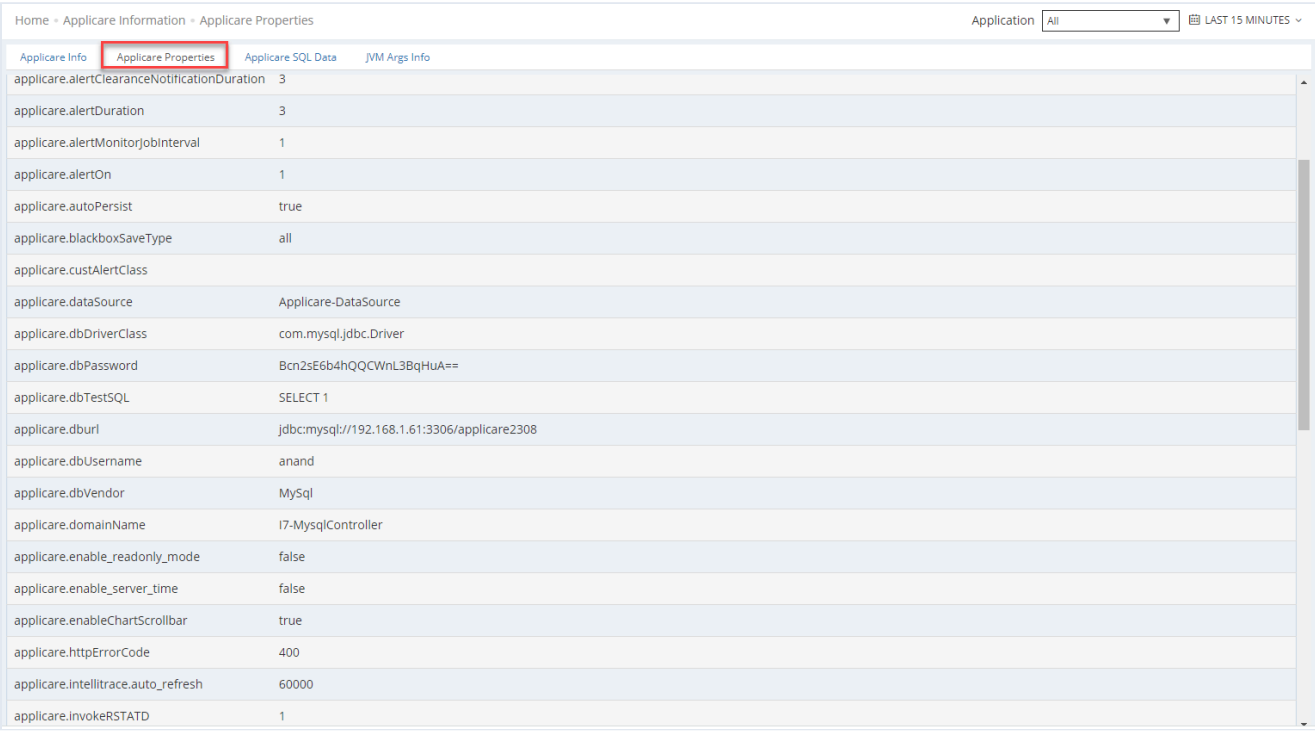
## Applicare Info

Display the information of the Applicare Controller and agent that has been added to the Applicare Controller and license details.



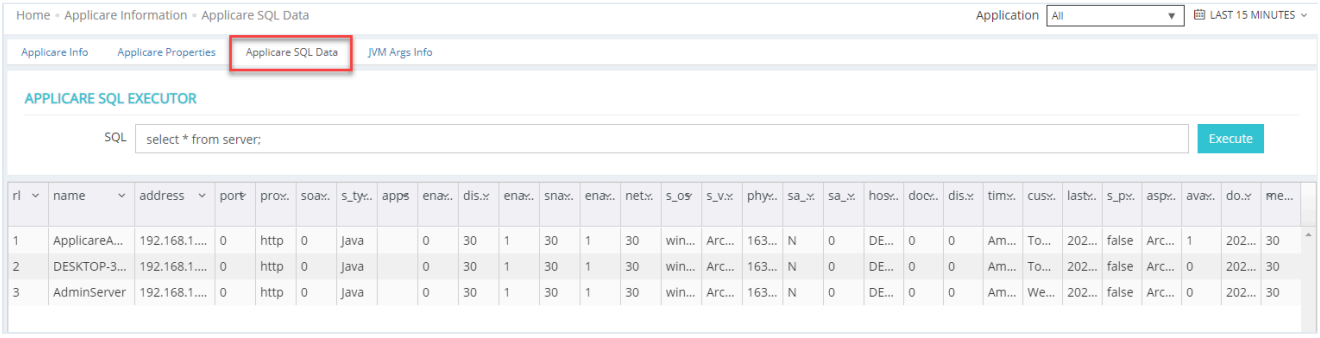

## Applicare properties

This screen displays details about the Applicare Controller, including the database name, log file path, DB URL, and DB DriverClass, among other information.



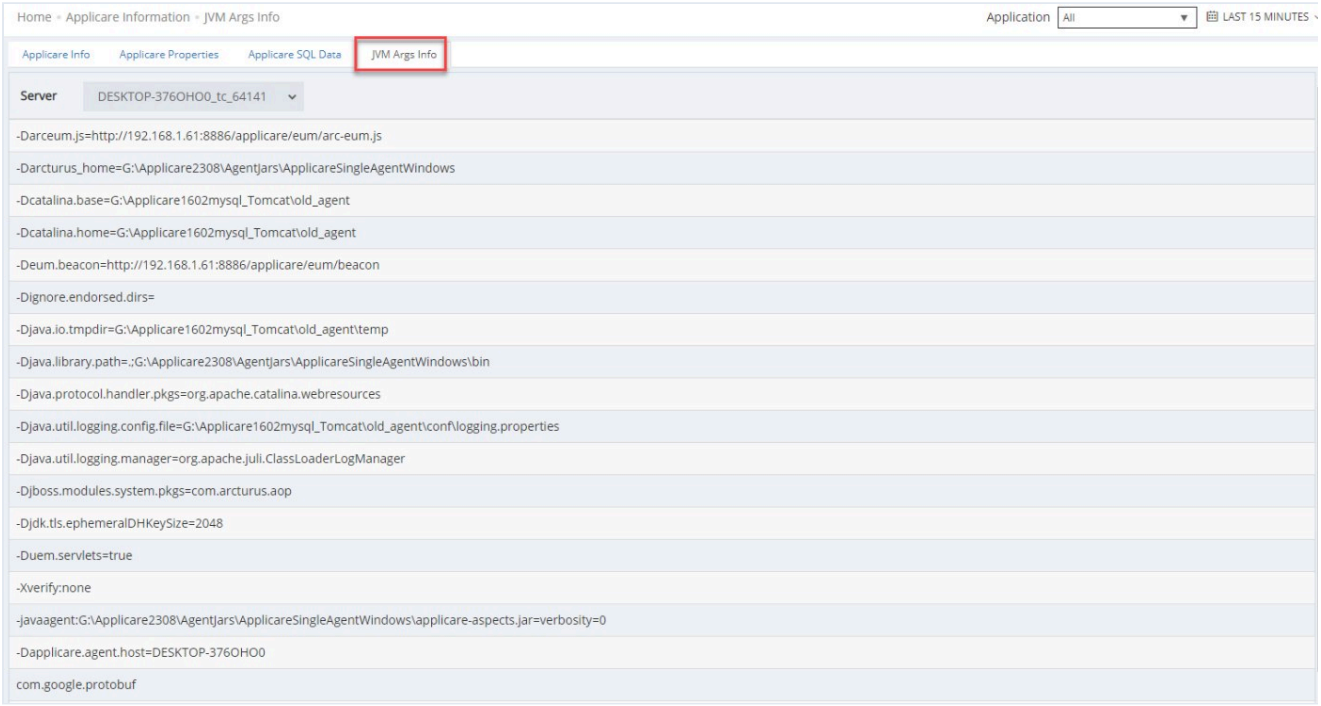
## Applicare SQL Data

You can execute database queries directly from this screen. e.g.- you can run queries related to the agent server in the Applicare Controller.




## JVM Arguments Info

Shows the Java arguments used by the server within the Applicare controller.




## REST API

https://helpdesk.arcturustech.com/hc/en-us/articles/7644666377357

**Monitoring with Applicare**

CONFIGURATION GUIDES › ADMINISTRATION & SECURITY

# Compressing log files on Windows

Applicare 9.2 · Updated September 13, 2024 · **Pending technical review**

1. Create a **.bat** file in the directory where the log folder is located.

2. Edit that **.bat** file, paste the following contents into it, and then save the changes.

```bat
@echo
for /f "tokens=2 delims==" %%a in ('wmic OS Get localdatetime /value') do set "dt=%%a"
set "YY=%dt:~2,2%" & set "YYYY=%dt:~0,4%" & set "MM=%dt:~4,2%" & set "DD=%dt:~6,2%"
set "HH=%dt:~8,2%" & set "Min=%dt:~10,2%" & set "Sec=%dt:~12,2%"

set "fullstamp=%MM%-%DD%-%YYYY%_%HH%-%Min%-%Sec%"

echo compressed file to zip that folder
set path=%cd%
:: uncomment the below line enter the path if the bat file is in different location
rem set path=

cd %path%
zip -r compressed_%fullstamp%.zip *.* -x "*.zip" "*.bat"
```

3. Running the **.bat** file will compress all the files within the folder.

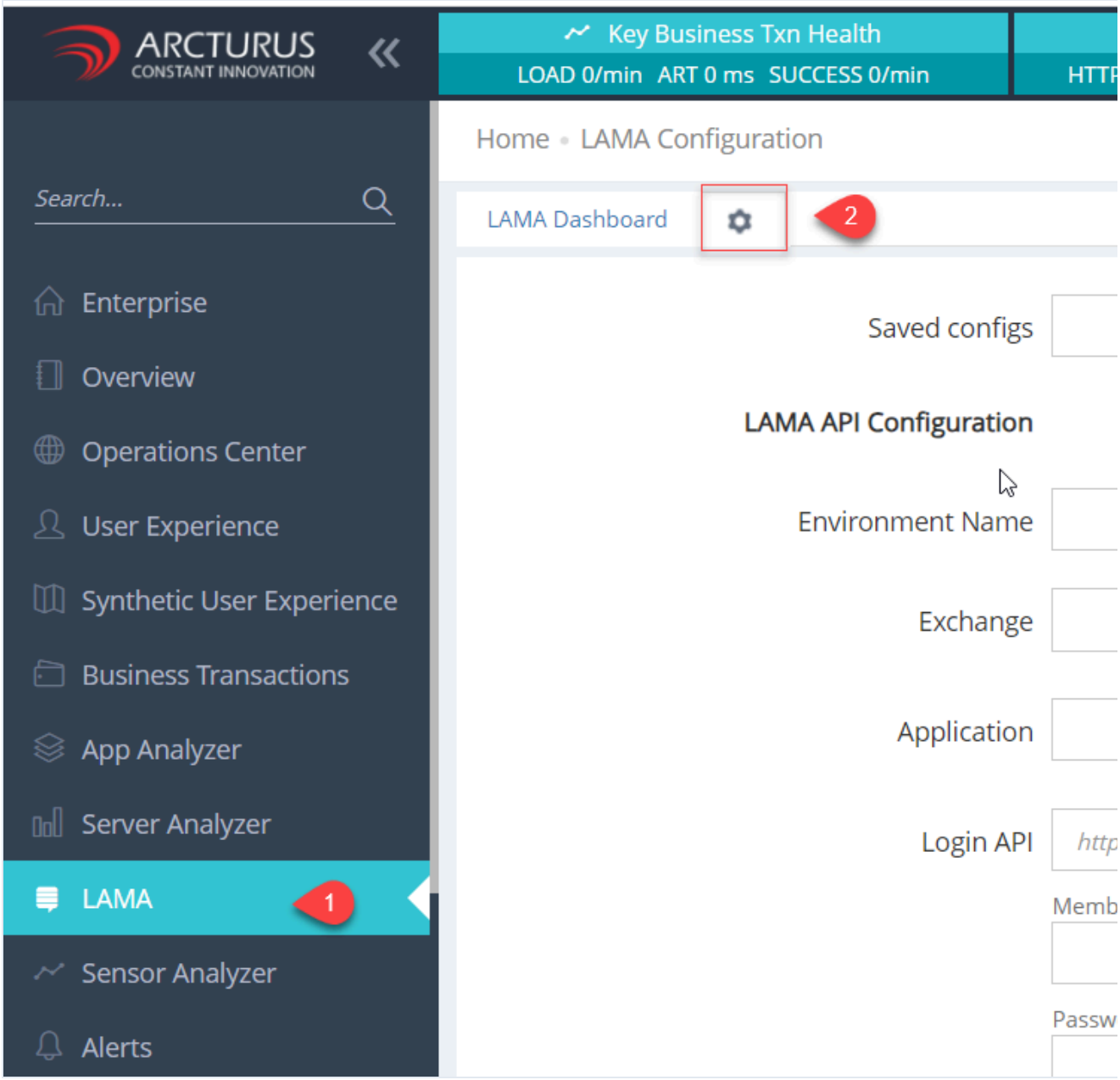
## Monitoring with Applicare

CONFIGURATION GUIDES › ADMINISTRATION & SECURITY

# LAMA configuration in Applicare

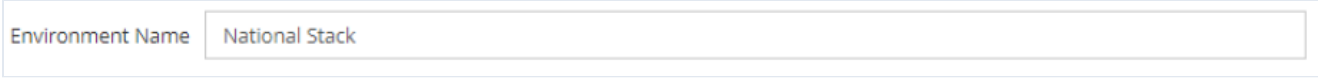
Applicare 9.2 · Updated September 13, 2024 · **Pending technical review**

1. Log in to **Applicare console.** Go to **LAMA** menu and click the **settings** icon.

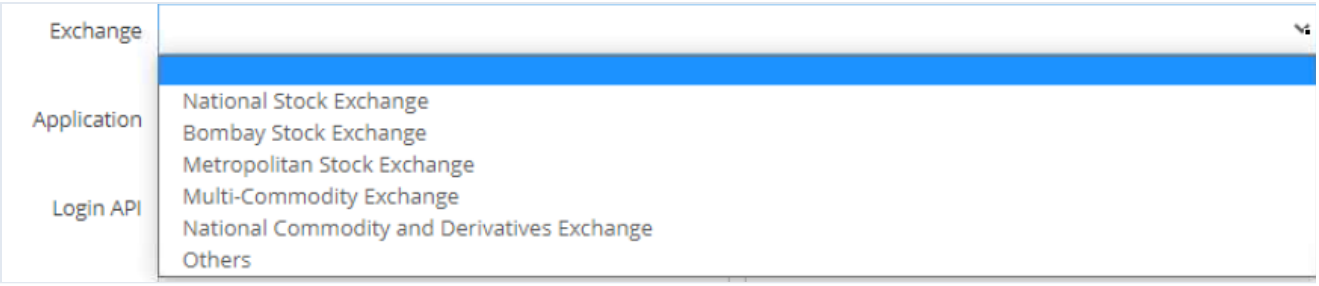



2. Follow the below steps to configure LAMA API.

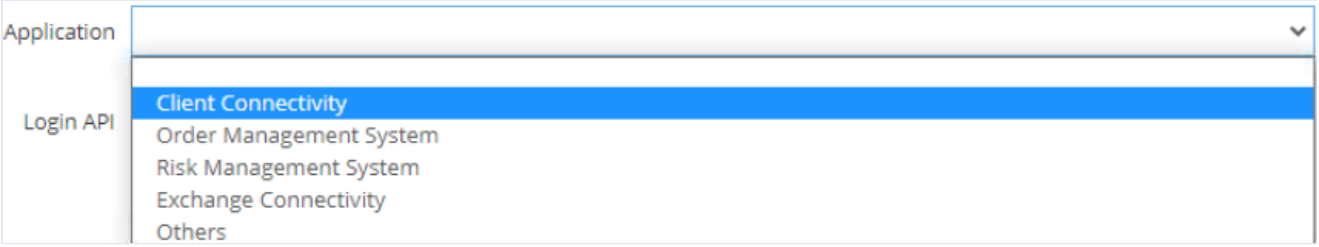
a. Enter the required name in the **Environment Name** text box.



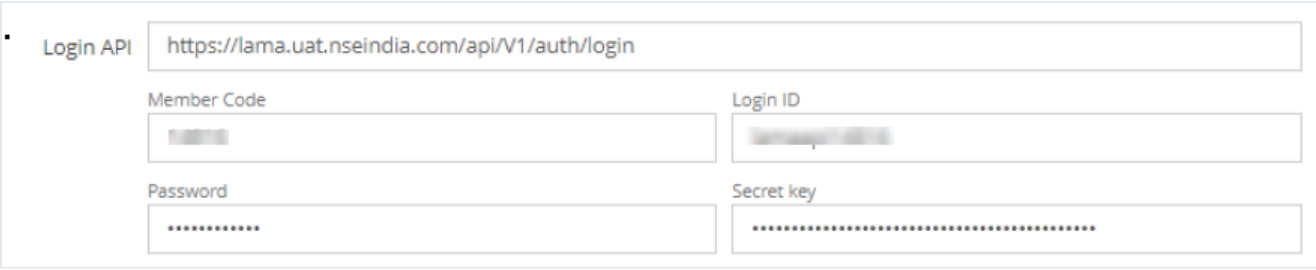

b. Click on **Exchange dropdown** and choose the desired **stock exchange**.



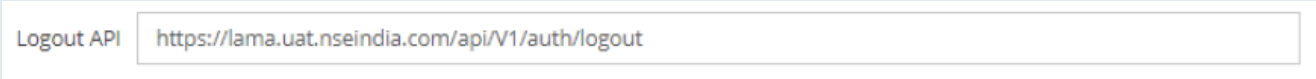

c. Click on **Application dropdown** and select any required application.



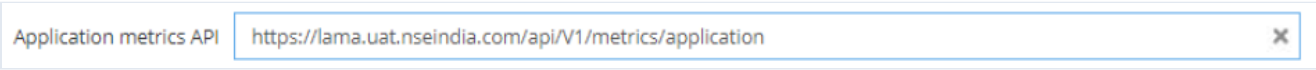

d. Enter the **API login URL** and your login credential.



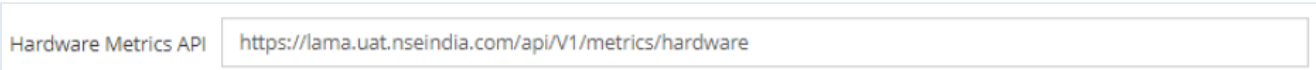

e. Enter the **API logout URL**



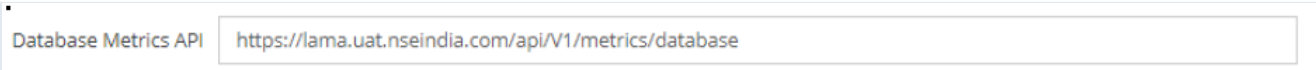

f. Enter the **Application metrics API URL**.



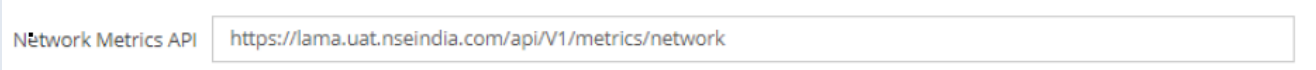

g. Enter the **Hardware Metrics API URL**.



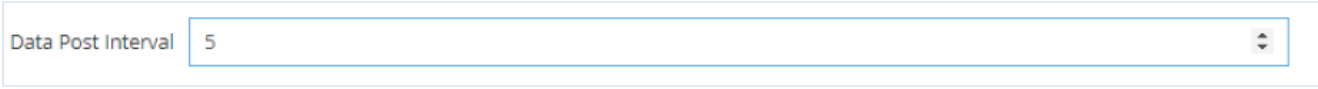

h. Enter the **Database Metrics API URL**.



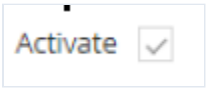

i. Enter the **Network Metrics API URL**.



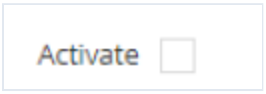

j. In the **Data Post Interval** textbox, Enter the time interval for posting the data.




k. To post data, You need to check the "Activate" checkbox.




To avoid posting data, Uncheck the checkbox.




l. Choose the **application** to which you want to post data from the **Assign Application** box.




m. Select the **application** for posting network data from the **Assign SNMP Application** box.




n. Enter the index details for APPs in the "SNMP Index Details" section and click the "Save" button..

**INERR -** IfInErr Index

**OUTERR -** IfOutErr Index

**IN** - IfInOctets Index

**OUT** - IfOutOctets Index

**SP** - IfSpeed Index



**e.g.**

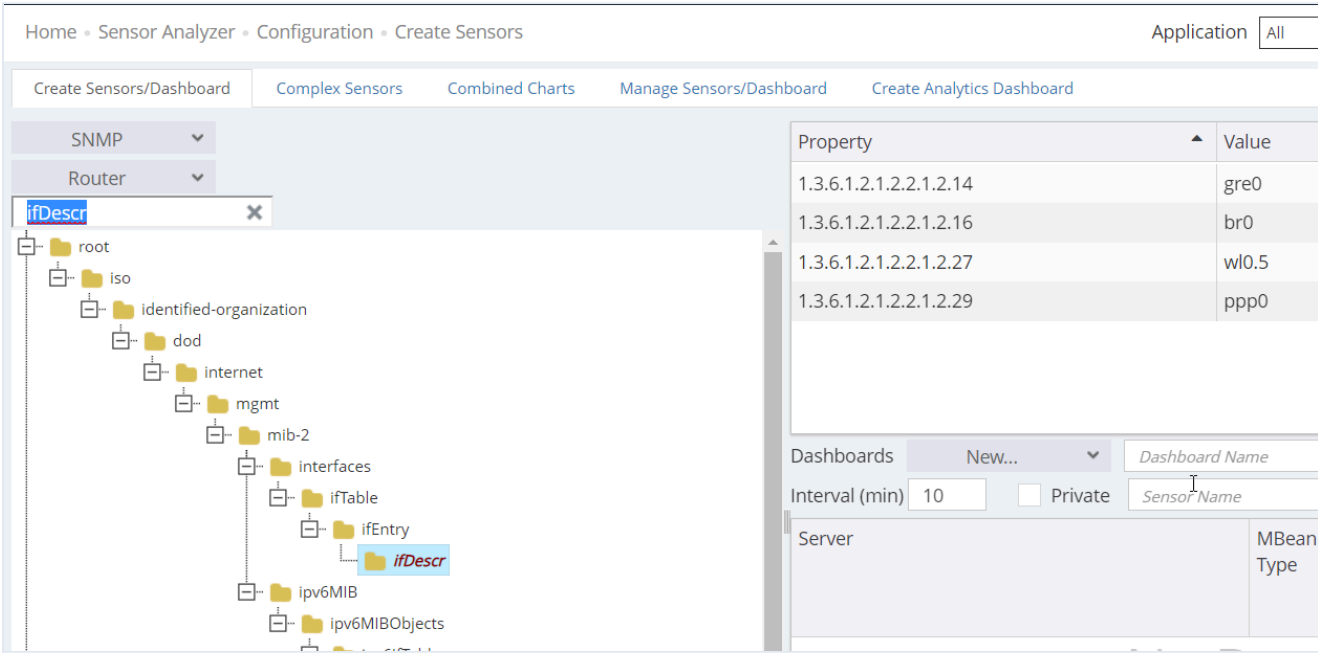
1. For Single App entry : {"Router":"INERR_16~~OUTERR_16~~IN_16~~OUT_16~~SP_16"}

2. For Multiple App entry

{"Router":"INERR_16~~OUTERR_16~~IN_16~~OUT_16~~SP_16",
"Router2":"INERR_29~~OUTERR_29~~IN_29~~OUT_29~~SP_29"}

To find the index, follow these steps:

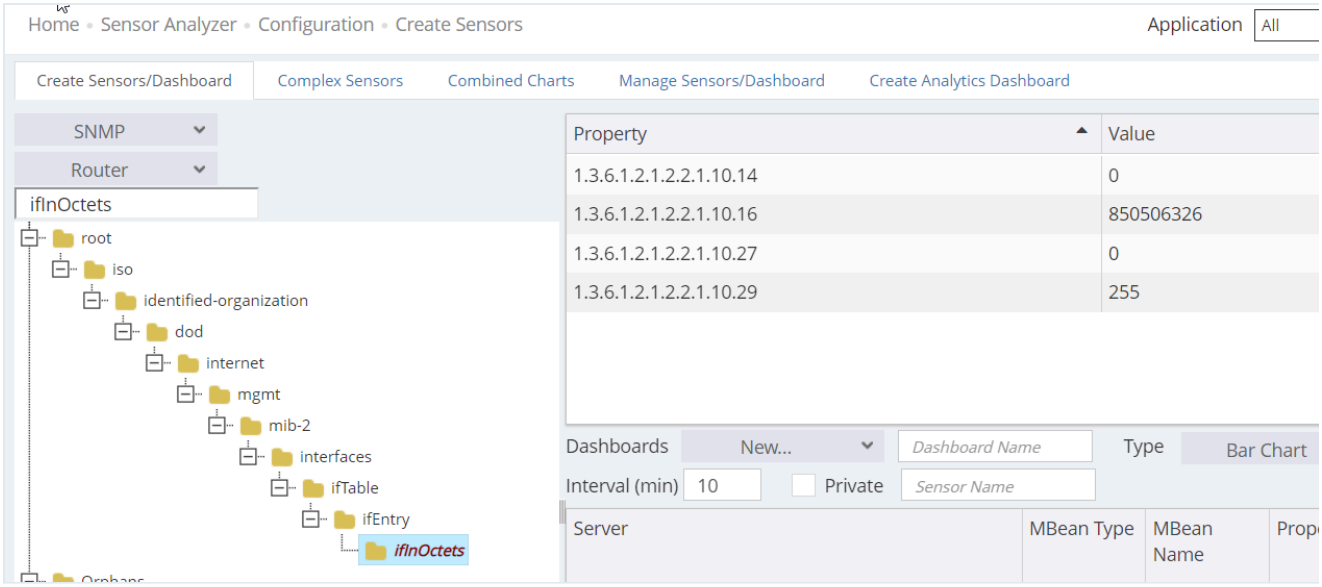
- The index refers to the interface. To locate the index for a specific interface, go to the Sensor Analyzer screen.
- Set the type to SNMP and select the server.
- In the search box, type 'ifDescr' and select that field from the left-hand side.
- On the right-hand side, you will see a list of interfaces and their OIDs. The last value in the OID is the index for that interface. Typically, this index will be the same for the IN, OUT, and SP values.

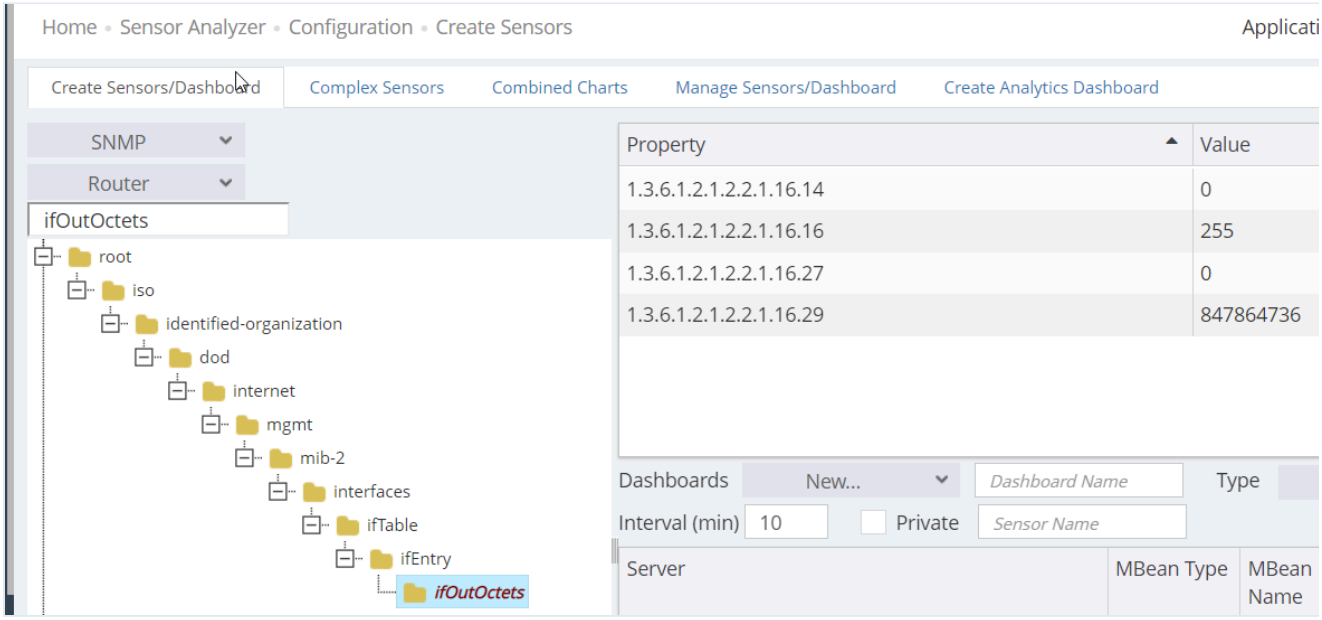


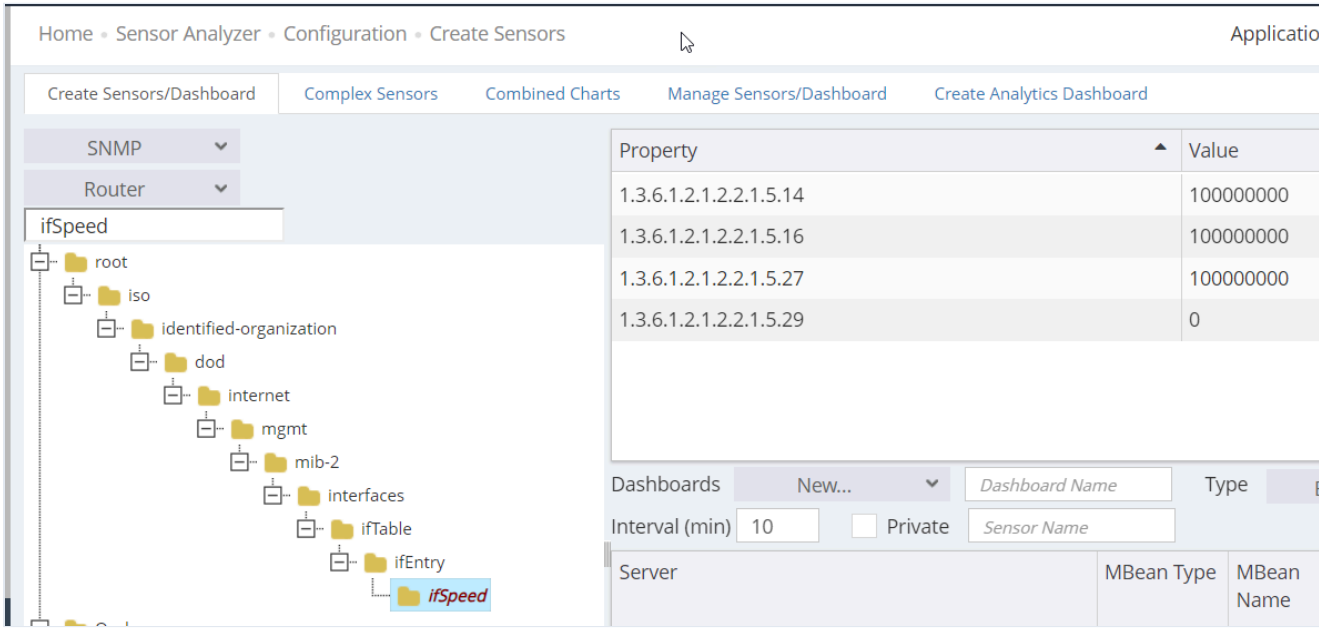

The index for **gre0** interface is **14**

The index for **br0** interface is **16**

Likewise we can find the index for **IN, OUT and SP** values.


Home • Sensor Analyzer • Configuration • Create Sensors
Application All
Create Sensors/Dashboard
Complex Sensors
Combined Charts
Manage Sensors/Dashboard
Create Analytics Dashboard
SNMP
Router
ifInOctets
root
iso
identified-organization
dod
internet
mgmt
mib-2
interfaces
ifTable
ifEntry
ifInOctets
Property
Value
1.3.6.1.2.1.2.2.1.10.14
0
1.3.6.1.2.1.2.2.1.10.16
850506326
1.3.6.1.2.1.2.2.1.10.27
0
1.3.6.1.2.1.2.2.1.10.29
255
Dashboards
New...
Dashboard Name
Type
Bar Chart
Interval (min)
10
Private
Sensor Name
Server
MBean Type
MBean Name


Home • Sensor Analyzer • Configuration • Create Sensors
Create Sensors/Dashboard
Complex Sensors
Combined Charts
Manage Sensors/Dashboard
Create Analytics Dashboard
SNMP
Router
ifOutOctets
root
iso
identified-organization
dod
internet
mgmt
mib-2
interfaces
ifTable
ifEntry
ifOutOctets
Property
Value
1.3.6.1.2.1.2.2.1.16.14
0
1.3.6.1.2.1.2.2.1.16.16
255
1.3.6.1.2.1.2.2.1.16.27
0
1.3.6.1.2.1.2.2.1.16.29
847864736
Dashboards
New...
Dashboard Name
Type
Interval (min)
10
Private
Sensor Name
Server
MBean Type
MBean Name


Home • Sensor Analyzer • Configuration • Create Sensors
Create Sensors/Dashboard
Complex Sensors
Combined Charts
Manage Sensors/Dashboard
Create Analytics Dashboard
SNMP
Router
ifSpeed
root
iso
identified-organization
dod
internet
mgmt
mib-2
interfaces
ifTable
ifEntry
ifSpeed
Property
Value
1.3.6.1.2.1.2.2.1.5.14
100000000
1.3.6.1.2.1.2.2.1.5.16
100000000
1.3.6.1.2.1.2.2.1.5.27
100000000
1.3.6.1.2.1.2.2.1.5.29
0
Dashboards
New...
Dashboard Name
Type
Interval (min)
10
Private
Sensor Name
Server
MBean Type
MBean Name

**For Database Metrics**

1. For oracle we need to add few custom values in the **LAMA Settings** in the **overview screen.**

PNAME_<VALUE>,TMBPS_<VALUE>

**e.g.**

**PNAME - Process Name indicating Replication Availability**

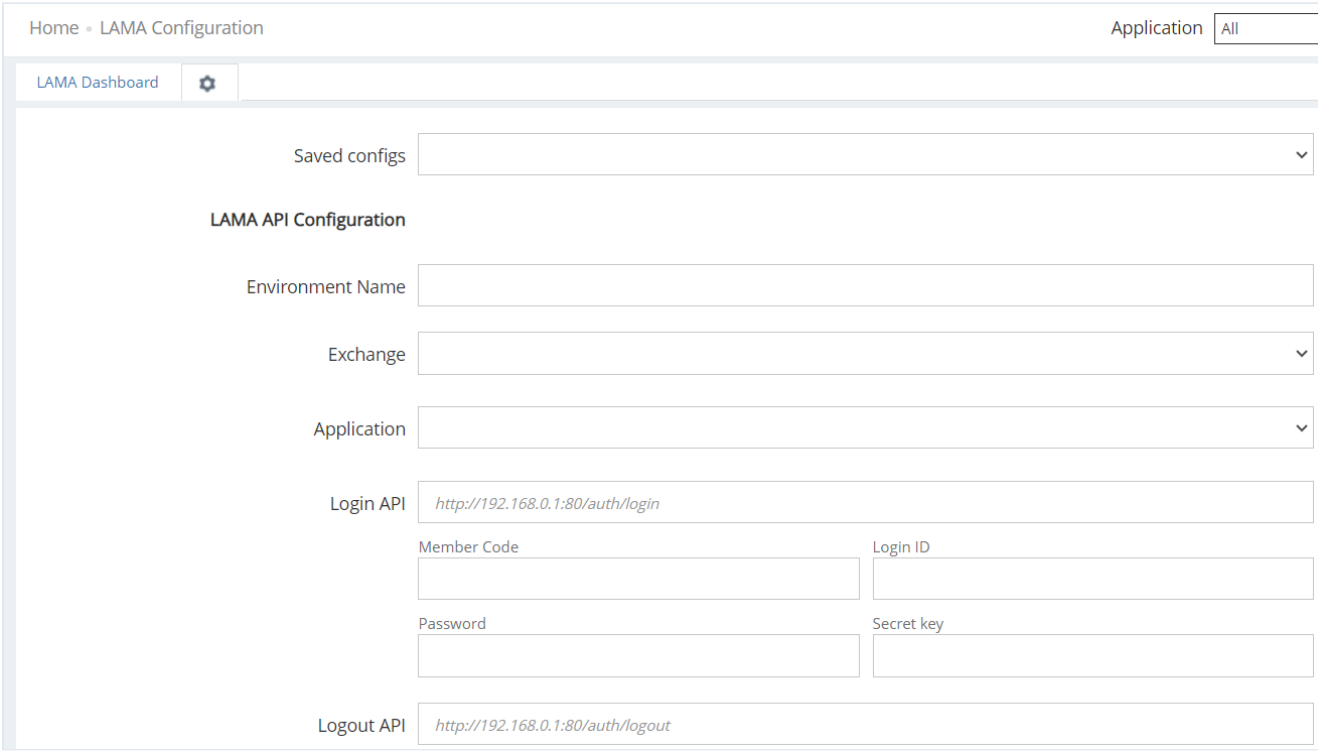
**TMBPS - Total Megabits per second of internet speed**

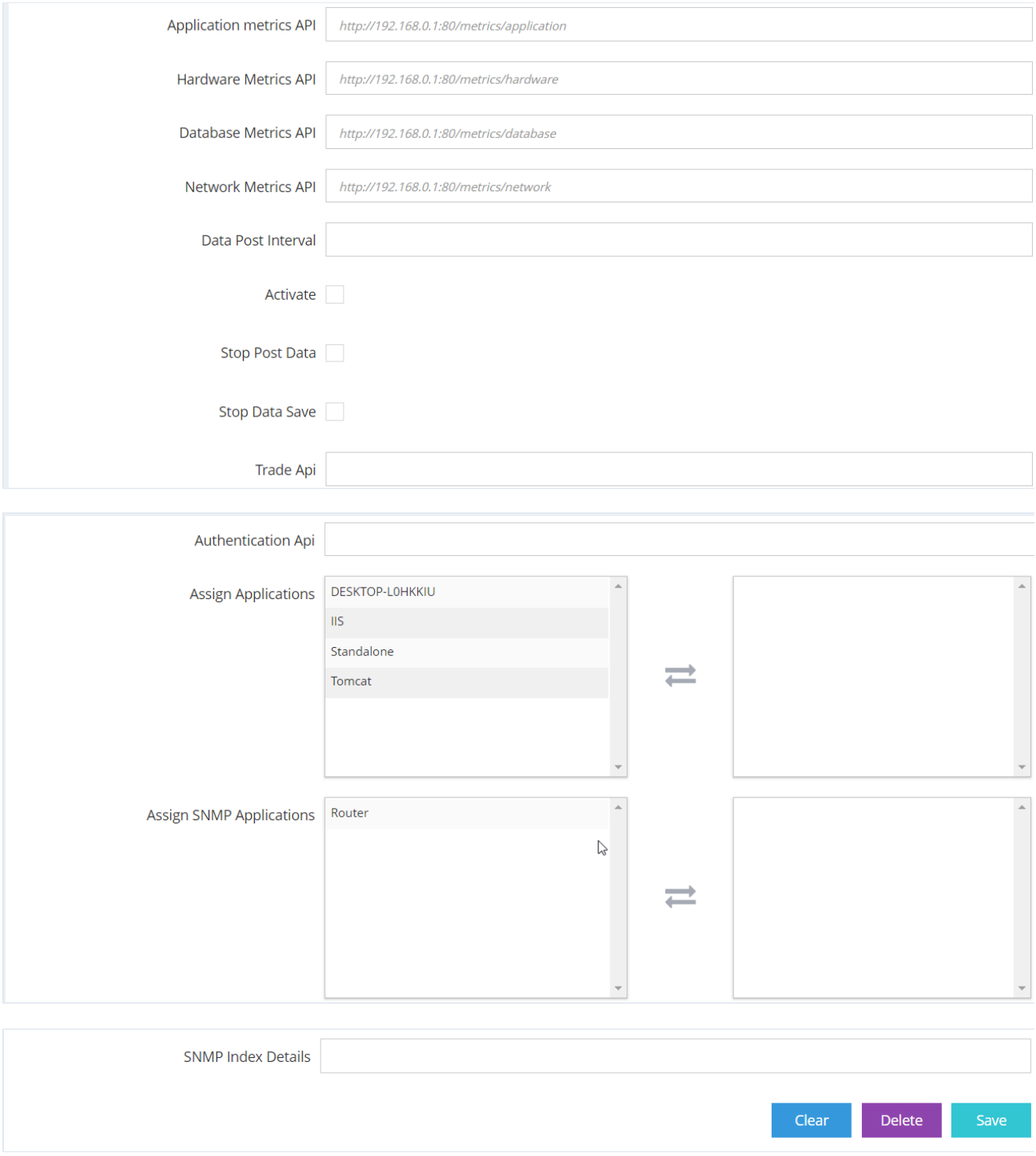
PNAME_MRP0,TMBPS_1000

MRP0 - It is the process name. If this process is not available then the replication is not active.

1000 - 1000 Megabits per second.

## LAMA Configuration






## Monitoring with Applicare