CONFIGURATION GUIDES › NODE.JS, PHP, GO & COBOL

Automatically instrument a Go Application running in Docker with OpenTelemetry and Applicare (With additional container)

Applicare 10.0 · 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

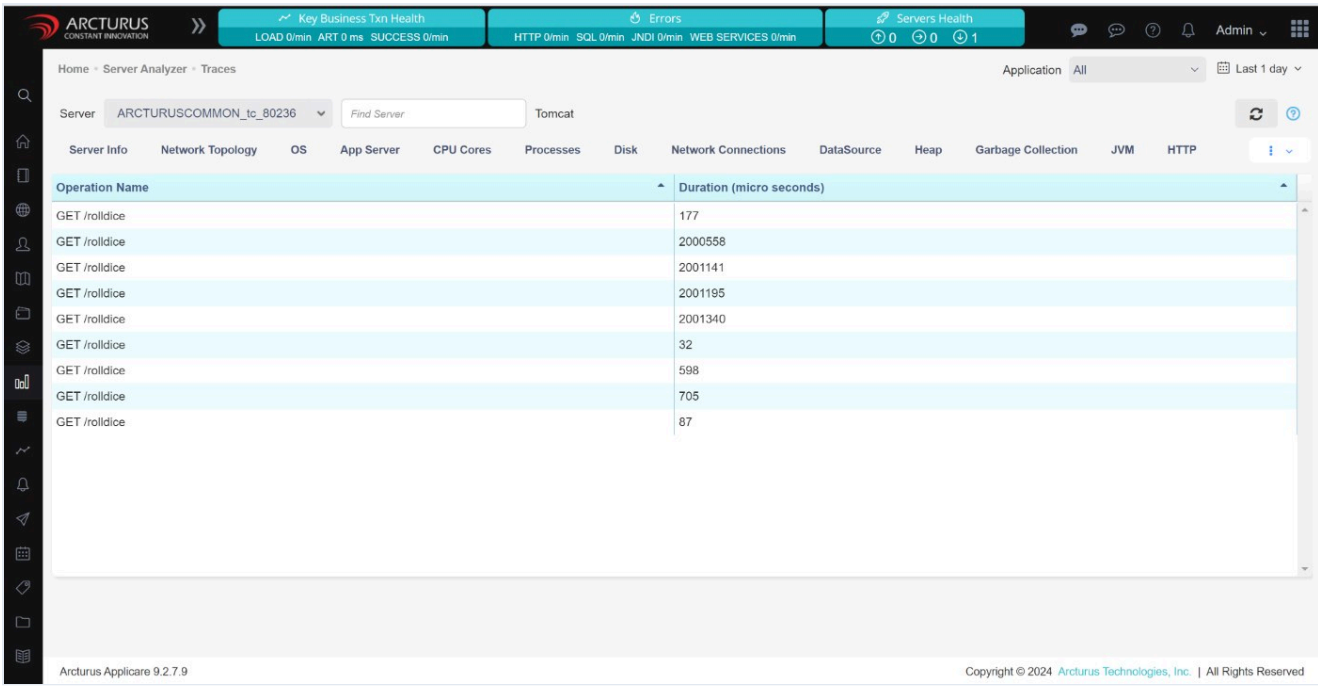
d. Go 1.18 or newer

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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