CONFIGURATION GUIDES › ADMINISTRATION & SECURITY

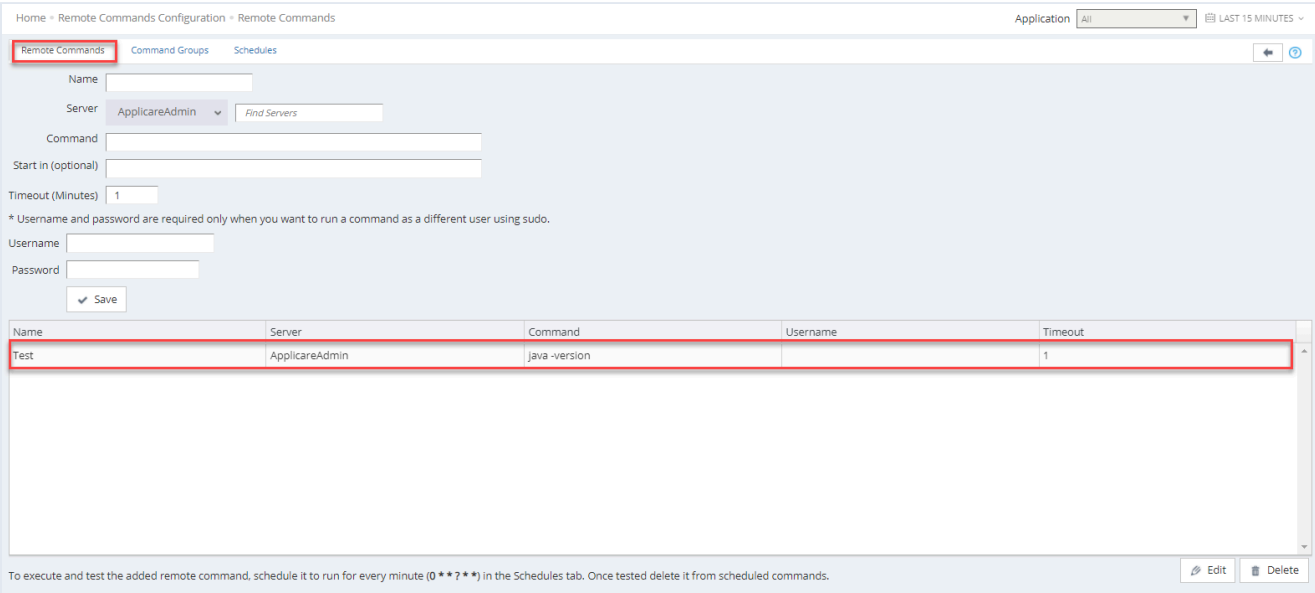
Remote Commands

Applicare 10.0 · 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.

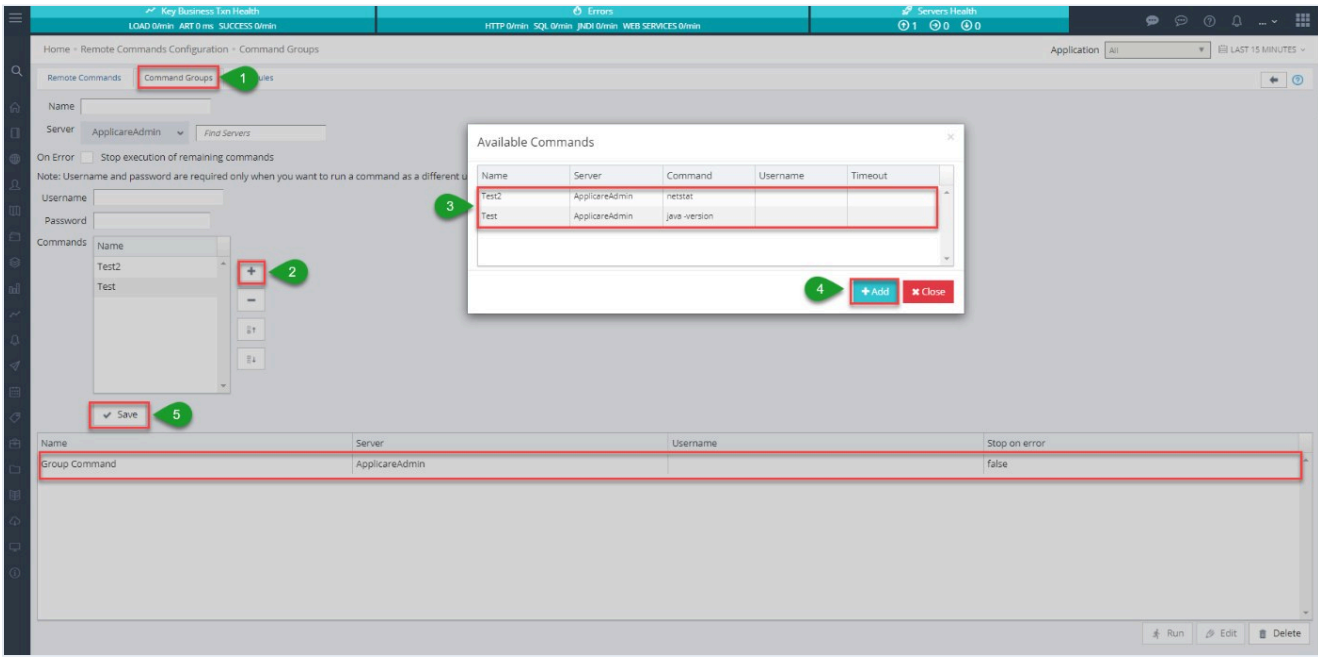
Configuration

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.



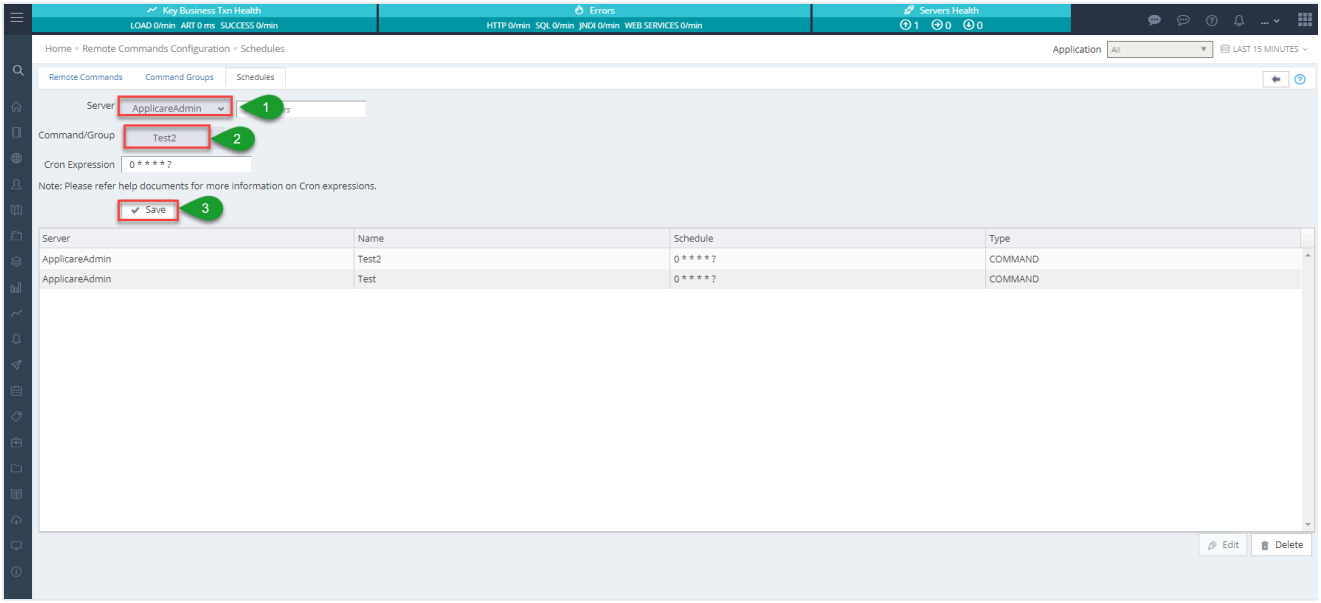
Command Groups

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

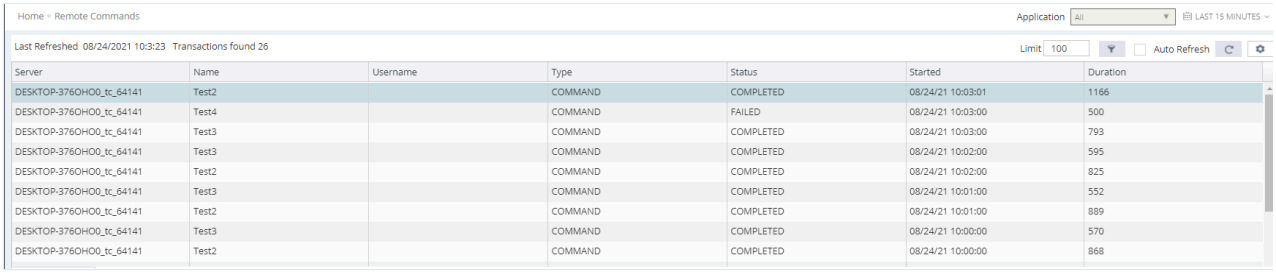
Expression	Meaning
0 * 14 * * ?	Fire every minute starting at 2pm and ending at 2:59pm, every day
0 0/5 14 * * ?	Fire every 5 minutes starting at 2pm and ending at 2:55pm, every day
0 0/5 14,18 * * ?	Fire every 5 minutes starting at 2pm and ending at 2:55pm, AND fire every 5 minutes starting at 6pm and 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

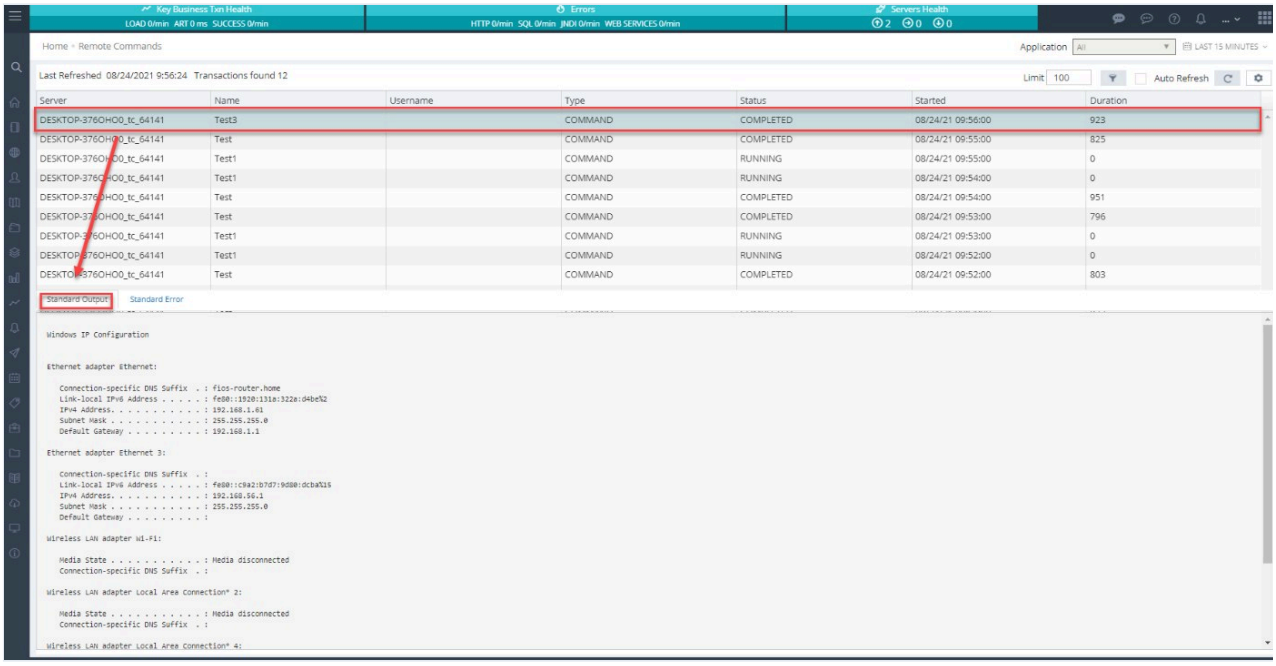
You can view the execution details of commands and command groups run by Applicare agents, whether they are manually triggered by a user or executed automatically according to a user-defined schedule.



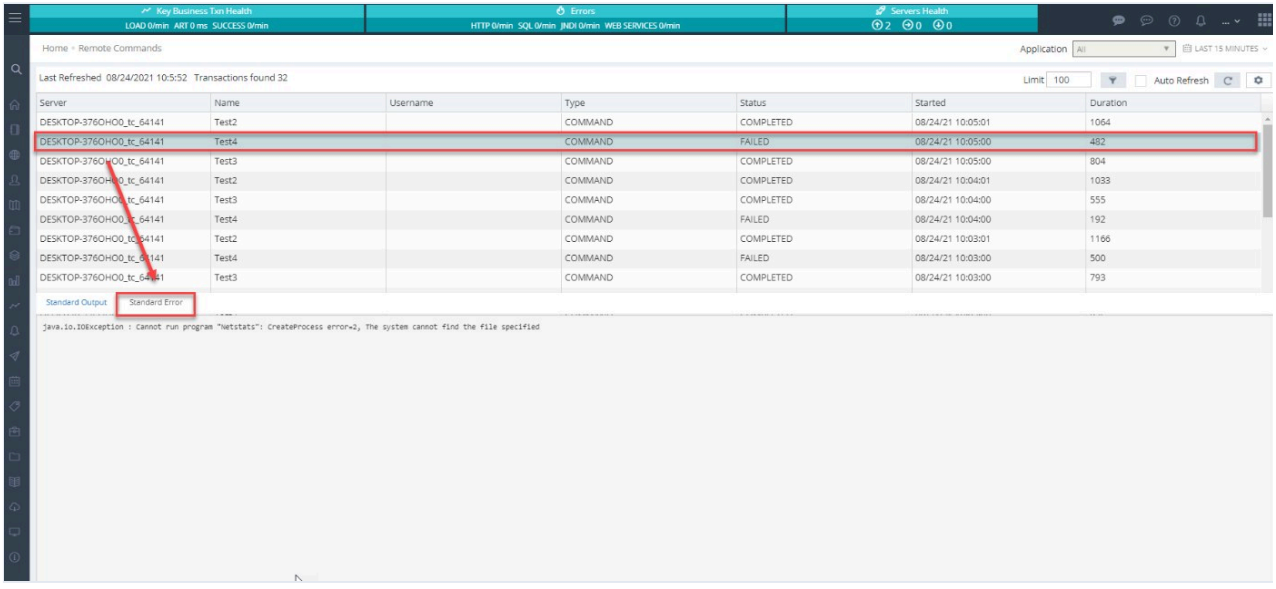
Double-clicking an entry will open a detailed view that displays information about the command or commands (for command groups). By selecting a command in this view, you can see the details written to standard output and standard error during the execution.

Commands

Standard Output



Standard Error



Command Groups

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TEXT
      ![Screenshot 7 – Remote Commands](asset:images/configuration--admin--remote-commands/fig-07.png)
```

Monitoring with Applicare