

2 Remote commands

Overview

With remote commands you can define that a certain pre-defined command is automatically executed on the monitored host upon some condition.

Thus remote commands are a powerful mechanism for smart pro-active monitoring.

In the most obvious uses of the feature you can try to:

- Automatically restart some application (web server, middleware, CRM) if it does not respond
- Use IPMI 'reboot' command to reboot some remote server if it does not answer requests
- Automatically free disk space (removing older files, cleaning /tmp) if running out of disk space
- Migrate a VM from one physical box to another depending on the CPU load
- Add new nodes to a cloud environment upon insufficient CPU (disk, memory, whatever) resources

Configuring an action for remote commands is similar to that for sending a message, the only difference being that Zabbix will execute a command instead of sending a message.

Remote commands are not supported to be executed on Zabbix agents monitored by Zabbix proxy, so for commands from Zabbix server to agent a direct connection is required.

Remote commands are limited to 255 characters. Multiple commands can be executed one after another by placing them on a new line. Remote commands may contain macros. See also the [command execution](#) page.

Remote commands are executed even if the target host is in maintenance.

The following tutorial provides step-by-step instructions on how to set up remote commands.

Configuration

Those remote commands that are executed on Zabbix agent (custom scripts) must be first enabled in the respective [zabbix_agentd.conf](#).

Make sure that the **EnableRemoteCommands** parameter is set to **1** and uncommented. Restart agent daemon if changing this parameter.

Remote commands do not work with active Zabbix agents.

Then, when configuring a new action in *Configuration*→*Actions*:

- In the *Operations* tab, select the **Remote command** operation type
- Select the remote command type (IPMI, Custom script, SSH, Telnet, Global script)
- Enter the remote command

For example:

```
sudo /etc/init.d/apache restart
```

In this case, Zabbix will try to restart an Apache process. With this command, make sure that the command is executed on Zabbix agent (mark the respective radio button against *Execute on*).

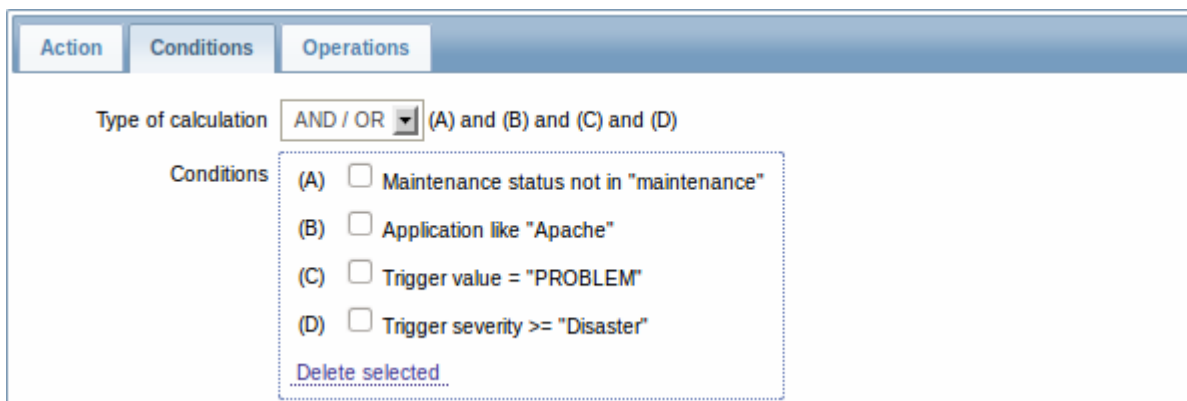
Note the use of **sudo** - Zabbix user does not have permissions to restart system services by default. See below for hints on how to configure **sudo**.

Zabbix agent should run on the remote host and accept incoming connections. Zabbix agent executes commands in background.

Zabbix does not check if a command has been executed successfully.

Remote commands on Zabbix agent are executed without timeout by the `system.run[,nowait]` key. On Zabbix server remote commands are executed with timeout as set in the `TrapperTimeout` parameter of `zabbix_server.conf` file.

- In the *Conditions* tab, define the appropriate conditions. In this example, set that the action is activated upon any disaster problems with one of Apache applications.



The screenshot shows the Zabbix configuration interface with the 'Conditions' tab selected. The 'Type of calculation' is set to 'AND / OR'. The 'Conditions' list includes: (A) Maintenance status not in "maintenance", (B) Application like "Apache", (C) Trigger value = "PROBLEM", and (D) Trigger severity >= "Disaster". A 'Delete selected' link is visible at the bottom of the conditions list.

Access permissions

Make sure that the 'zabbix' user has execute permissions for configured commands. One may be interested in using **sudo** to give access to privileged commands. To configure access, execute as root:

```
# visudo
```

Example lines that could be used in `sudoers` file:

```
# allows 'zabbix' user to run all commands without password.  
zabbix ALL=NOPASSWD: ALL
```

```
# allows 'zabbix' user to restart apache without password.  
zabbix ALL=NOPASSWD: /etc/init.d/apache restart
```

On some systems `sudoers` file will prevent non-local users from executing commands. To change this, comment out **requiretty** option in `/etc/sudoers`.

Remote commands with multiple interfaces

If the target system has multiple interfaces of the selected type (Zabbix agent or IPMI), remote commands will be executed on the default interface.

IPMI remote commands

For IPMI remote commands the following syntax should be used:

```
<command> [<value>]
```

where

- <command> - one of IPMI commands without spaces
- <value> - 'on', 'off' or any unsigned integer. <value> is an optional parameter.

Examples

Example 1

Restart of Windows on certain condition.

In order to automatically restart Windows upon a problem detected by Zabbix, define the following actions:

PARAMETER	Description
Operation type	'Remote command'
Type	'Custom script'
Command	c:\windows\system32\shutdown.exe -r -f

Example 2

Restart the host by using IPMI control.

PARAMETER	Description
Operation type	'Remote command'
Type	'IPMI'
Command	reset

Example 3

Power off the host by using IPMI control.

PARAMETER	Description
Operation type	'Remote command'

PARAMETER	Description
Type	'IPMI'
Command	power off

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Permanent link: https://www.zabbix.com/documentation/2.0/manual/config/notifications/action/operation/remote_command

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