

ZABBIX

PUTTING YOUR MIND AT EASE: ALERTING AND ESCALATION BEST PRACTICES

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**WHAT ARE ACTIONS
AND ESCALATIONS?**

WHAT ARE EVENTS?

- ✓ Trigger events
- ✓ Internal events
- ✓ Service events
- ✓ Discovery events
- ✓ Auto-registration events

WHAT ARE ACTIONS?

- ✓ Specify conditions
- ✓ Execute operations / escalations

Actions

Action Operations 4

* Name

Type of calculation A and B

Conditions	Label	Name	Action
	A	Tag name equals <i>Production</i>	Remove
	B	Time period in <i>1-5,08:00-19:00</i>	Remove
	Add		

Enabled

* At least one operation must exist.

WHAT ARE ESCALATIONS?

- ✓ Operations that you define when creating an action
- ✓ Escalations include:
 - Sending notifications
 - Executing scripts / commands
 - Escalating unresolved problems

The screenshot shows the Zabbix Actions configuration page for an action named "Operations 4". The interface is dark-themed. At the top, there are tabs for "Action" and "Operations 4". Below the tabs, there is a form with several sections:

- Default operation step duration:** A text input field containing "1h".
- Operations:** A table with columns "Steps", "Details", "Start in", "Duration", and "Action".

Steps	Details	Start in	Duration	Action
1	Send message to user groups: Admins via all media	Immediately	Default	Edit Remove
1	Send message to user groups: Admins, Linux sysadmins via all media	Immediately	Default	Edit Remove
2	Run script "Restart Apache2 WEB service" on current host	01:00:00	Default	Edit Remove

Below the table is an "Add" link.
- Recovery operations:** A section with a "Details" tab and an "Action" tab. The "Details" tab is active, showing "Notify all involved" and "Add" link. The "Action" tab shows "Edit" and "Remove" links.
- Update operations:** A section with a "Details" tab and an "Action" tab. The "Details" tab is active, showing "Add" link.
- Pause operations for suppressed problems:** A checkbox that is checked.
- Notify about canceled escalations:** A checkbox that is checked.
- Footer:** A note "* At least one operation must exist." and four buttons: "Update", "Clone", "Delete", and "Cancel".

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**SO, WHEN ARE YOU
GOING TO TALK ABOUT
BEST PRACTICES?**

1. KEEPING A GOOD STRUCTURE

- ✓ Setting up actions involves using triggers
- ✓ Keeping a good structure ensures less confusion
- ✓ Have a clear naming convention:
 - Service unavailable: Port 22 (SSH)
 - Interface eth0: High bandwidth usage

Time ▾	<input type="checkbox"/> Severity	Recovery time	Status	Info	Host	Problem
2022-05-20 17:52:48	<input type="checkbox"/> Average		PROBLEM		<u>mik-ryl1</u>	↑ Interface ether11(): Link down ?

2. CONFIGURING TRIGGERS

- ✓ Flapping triggers are a headache
- ✓ You can combat flapping triggers by:
 - creating dependent triggers
 - Delaying notifications

Time	Severity	Recovery time	Status	Info	Host	Problem
2022-05-20 17:52:48	Average		PROBLEM		mik-ryl1	Interface ether11(): Link down
2022-05-20 17:52:48	Average		PROBLEM		mik-ryl1	Dependent
2022-05-20 17:52:30	Average		PROBLEM		RB1100AH	Interface ether11(): Ethernet has changed to lower speed than it was before
2022-05-20 17:52:30	Average		PROBLEM		RB1100AH	Interface ether11(): High bandwidth usage
2022-05-20 17:52:30	Average		PROBLEM		RB1100AH	Interface ether11(): High error rate

Triggers

All hosts / mik-ryl1 Enabled **SNMP** Items 216 Triggers 112 Graphs 37 Discovery rules 8

Trigger Tags 2 Dependencies 1

Dependencies	Name
	mik-ryl1: Interface ether11(): Link down

3. DELAYING NOTIFICATIONS

- ✓ Understanding how step duration works in actions
- ✓ Delaying notifications by 5-10 minutes

Actions

Action Operations 2

* Default operation step duration 10m

Steps	Details	Start in	Duration	Action
2	Send message to users: tbross (Tomass Janis Bross) via Email internal	00:10:00	Default	Edit Remove
7	Run script "Restart Apache2 WEB service" on hosts: Zabbix server	01:00:00	Default	Edit Remove

[Add](#)

Recovery operations [Details](#) [Action](#)
[Add](#)

Update operations [Details](#) [Action](#)
[Add](#)

Pause operations for suppressed problems

Notify about canceled escalations

* At least one operation must exist.

[Update](#) [Clone](#) [Delete](#) [Cancel](#)

4. UTILIZING INTERNAL ACTIONS

- ✓ Items might become unsupported
- ✓ Triggers go into unknown state
- ✓ Suddenly, you're not getting notifications anymore

Actions

Action Operations 2

* Name

Conditions

Label	Name	Action
A	Event type equals <i>Item in "not supported" state</i>	Remove
Add		

Enabled

* At least one operation must exist.

5. DO NOT DRIVE YOUR SYSTEM ADMINISTRATORS CRAZY

- ✓ Keep working hours in mind
- ✓ Assign corresponding problem severity to the notification type

Users

User **Media 3** Permissions

Media	Type	Send to	When active	Use if severity	Status	Action
	Email - public	tomass.bross@zabbix.com	1-5,9:00-18:00	N I W A H D	Enabled	Edit Remove
	MS Teams	tomass.bross@zabbix.com	1-7,00:00-24:00	N I W A H D	Enabled	Edit Remove
	SMS	12345678	1-5,09:00-18:00	N I W A H D	Enabled	Edit Remove
Add						

[Update](#) [Delete](#) [Cancel](#)

6. BUT ALSO DO DRIVE YOUR SYSTEM ADMINISTRATORS CRAZY ?

- ✓ Intentional spam can be a useful thing
- ✓ Having the desire to stop receiving SMS messages every 2 minutes is a powerful motivator

SMS 12345678 1-7,00:00-24:00 N I W A H D Enabled Edit Remove

Actions

Action Operations 2

* Default operation step duration 2m

Operations	Steps	Details	Start in	Duration	Action
1 - 0	Send message to users: tbross (Tomass Janis Bross) via SMS	Immediately	Default		Edit Remove

Add

Recovery operations

Details	Action
Notify all involved	Edit Remove

Add

Update operations

Details	Action

Add

Pause operations for suppressed problems

Notify about canceled escalations

* At least one operation must exist.

Update Clone Delete Cancel

7. CREATE USER GROUPS

- ✓ Create user groups for notification purposes
- ✓ Specify which groups should be notified when escalations are taking place
- ✓ Allows you to not send useless information to parties which are not interested in the problem

The screenshot shows the 'Operation details' dialog box in Zabbix. It is configured for a 'Send message' operation with 1 step and a duration of 0. The 'Send to user groups' section is active, showing a table with two entries: 'Linux sysadmins' and 'MySQL admins', each with a 'Remove' link. There is also an 'Add' link. The 'Send to users' section is empty with an 'Add' link. The 'Send only to' dropdown is set to '- All -'. The 'Custom message' checkbox is unchecked. The 'Conditions' section is empty with an 'Add' link. At the bottom, there are 'Add' and 'Cancel' buttons.

User group	Action
Linux sysadmins	Remove
MySQL admins	Remove
Add	

User	Action
Add	

Label	Name	Action
Add		

8. MAINTENANCE MODE AND PROBLEM SUPPRESSION

- ✓ Allows to temporarily suppress problems
- ✓ If a problem arises during maintenance period, escalation operations will start after the maintenance period is done
- ✓ Two maintenance modes supported:
 - With data collection
 - Without data collection

Name ▲	Interface	Availability	Tags	Status
MySQL server 01 🔧	127.0.0.1:10050	ZBX	class: database target: mysql	Enabled
Oracle19c_Agent2	Database server maintenance [Maintenance with data collection]	ZBX	class: database target: oracle	Disabled

2022-06-03 13:52:52 High **PROBLEM** 🔧 Oracle DB 19c 🔧 ↑ Oracle TBS 'SYSTEM': Tablespace usage is too high (over 95% for 5m).

Maintenance period

Period type: Monthly

* Month:
 January
 February
 March
 April
 May
 June
 July
 August
 September
 October
 November
 December

Date: Day of month Day of week

* Day of month:

At (hour:minute): :

* Maintenance period length: Days Hours Minutes

Add Cancel

Maintenance periods

* Name:

Maintenance type: With data collection No data collection

* Active since:

* Active till:

* Periods:

Period type	Schedule	Period	Action
Monthly	At 19:00 on day 3 of every January, February, March, April, May, September, October, November, December	1h 30m	Edit Remove

[Add](#)

Host groups: Select

Hosts: Select

* At least one host group or host must be selected.

Tags:

And/Or Or

Contains Equals Remove

[Add](#)

Description:

Add Cancel

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QUESTIONS ?

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**THANK YOU FOR YOUR
ATTENTION!**

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