



Zabbix – sendQuick Integration Guide

Version 1.1

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Zabbix – sendQuick Integration Guide

1.0 Introduction

1.1 About TalariaX Pte Ltd

TalariaX™ develops and offers **enterprise mobile messaging solutions** to facilitate and improve business workflow and communication, and is widely used in areas such as IT alerts & notifications, secure remote access via 2-Factor Authentication, emergency & broadcast messaging, business process automation and system availability monitoring.

In addition to functionality, TalariaX's messaging solutions have also been developed with other key features in mind. These include **security** and **confidentiality** of company information, and **ease in mitigating disruption** during unplanned system downtime such as that arising from cyberattacks.

1.2 About sendQuick

sendQuick is a comprehensive Short Messaging Service (SMS) and Mobile Instant Messaging (MIM) gateway that is available in the form of an **appliance** or as a **cloud-based** solution. **sendQuick** is used by more than 1,500 businesses, including many Fortune Global 500 companies, in 40 countries and across industries such as banking, finance, insurance, manufacturing, retail, government, education, and healthcare.

1.3 Purpose of Document

This document is a guide on how to integrate sendQuick with Zabbix to send SMS alerts. In this guide, we will be using sendQuick Entera for the integration.

The simplest method to integrate Zabbix with sendQuick is the email method. This method allows users to make full use of sendQuick Entera's notification management features such as roster and escalation management. Besides SMS, sendQuick can also notify alerts through other communication channels such as social messenger applications, multiple emails and automated Voice calls

2.0 Send Email to sendQuick

When any device is down or there is a need to send a notification alert, Zabbix can trigger an email to sendQuick. sendQuick will then convert the email message to SMS.

2.1 Configure Email Filter in sendQuick

sendQuick allows you to configure alerts to be sent to multiple phone numbers, groups or even combination of emails and sms. To explore this feature, navigate on the sendQuick dashboard to:

Filter Rules > Email Filter

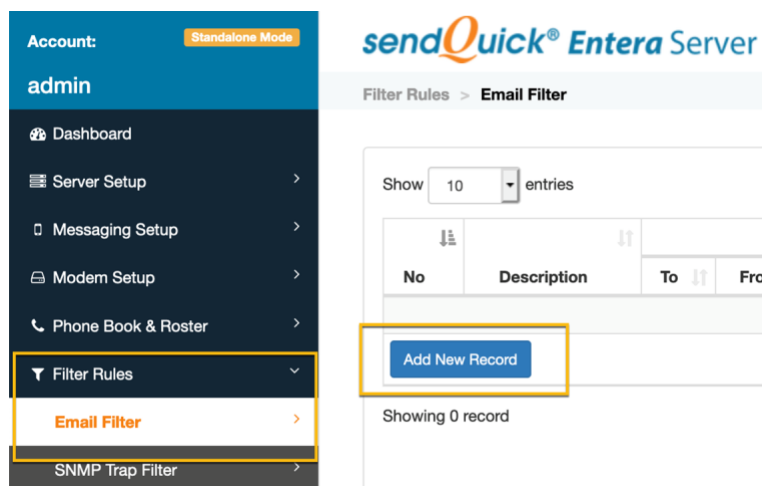


Figure 1: sendQuick's Dashboard

Click on **Add New Record**.

You can then create a new record to define the email address Zabbix should send to. In our example, we will use **zabbix@entera64.sendquick.messenger**

The user email can be anything meaningful that you choose but the domain name of the email address must correspond to your domain name of your sendQuick system.

Fill in the **Description**, **Mail To** and for **Match Mode**, check on **ANY**. Once done, click **Save**.

Add Mail Filter Rule ×

Description

[Variables Usage](#)

Mail To ☒

Mail From ☐

Subject ☐

Message ☐

Match Mode ☐ ALL ☒ ANY

Priority

[Save](#) [Cancel](#)

Figure 2:Email Filter Rule

Click on **View** for the record that you have created :

sendQuick® Entera Server Admin English Shutdown Restart Logout

Filter Rules > **Email Filter**

Show 10 entries Search:

No	Description	To	From	Subject	Message	Priority	Date Created	Match	Alert
1	Zabbix Alerts	zabbix@entera64.sendquick.messenger				5	11/12/2019	ANY	View

[Add New Record](#) [Duplicate](#) [Delete](#)

Showing 1 to 1 of total 1 records Previous 1 Next

[Email Forwarding](#) [Message Time Buffer](#)

Figure 3:View Email Filter record

Then click on **Add New Record**

sendQuick® Entera Server Admin

Filter Rules > Email Filter > View Alert

Email Filter Rules	
Description	Zabbix Alerts
Mail To	zabbix@entera64.sendquick.messenger
Mail From	
Subject	
Message	
Match Mode	ANY

Expand

Show 5 entries

No	Message Receiver
No data available in table	

Add New Record

Showing 0 record

○ - Roster Management Enabled, ● - Roster Management Disabled

Figure 4:View Alert

You can then add multiple numbers, emails, or even pre-defined groups to receive the notification alerts.

Alert Message Alert Email Alert Voice

Alert Template

xFRx:xSUBx:MSGx

The default message is: xFRx:
 • xFRx is Email sender
 • xSUBx is the Email sub
 • xMSGx is the Email me
 • xDTMx is the alert trigg
 • xCASEIDx is the alert c
 • xLEVELx is the alert esk

Alert Mode Once

☐ Disable Roster Management ○
☒ Send Acknowledgement Notice

Once - system will trigger aler
 Once & Report - system will t
 Escalation & Report - system
 settings, then send report.
 Disable Roster Management
 Send acknowledgement noti
 case has been acknowledged.

Alert Receiver

Mobile Number to Receive Alert

93873088

Select from Phone Book

Email to Receive Alert

andyhun@talariax.com

Select from Phone Book

Voice to Receive Alert

Select from Phone Book

Save Cancel

Figure 5:Add Alert Receiver

After you have keyed in the information, click on **Save** to continue.

Quicktip - To check your host and domain name and IP address, you can find the value in the sendQuick dashboard under **Server Setup > IP Configuration**

For e.g. our domain name is **entera64.sendquick.messenger** and the IP address is **192.168.1.95**

The screenshot displays the 'sendQuick® Entera Server Admin' interface. On the left, a sidebar menu shows 'Account: admin' at the top, followed by 'Dashboard', 'Server Setup' (highlighted with a red circle), and 'IP Configuration' (highlighted with a red circle). Below these are 'SMTP Routing', 'Optional Network Setup', 'HTTP/HTTPS Proxy', and 'System Date & Time Setup'. The main content area is titled 'Server Setup > IP Configuration'. It contains four input fields: 'Host' with the value 'entera64', 'Domain' with the value 'sendquick.messenger', 'IP Address' with the value '192.168.1.95', and 'Netmask' with the value '255.255.255.0'. A note below the Netmask field states '(If unsure, set to: 255.255.255.0)'. A yellow circle highlights the 'Host' and 'Domain' fields.

Figure 6:IP configuration

2.2 Configure Email Settings on Zabbix.

On the dashboard of Zabbix, navigate to the following item :

Administration > Media types

Click on **Create media type**.

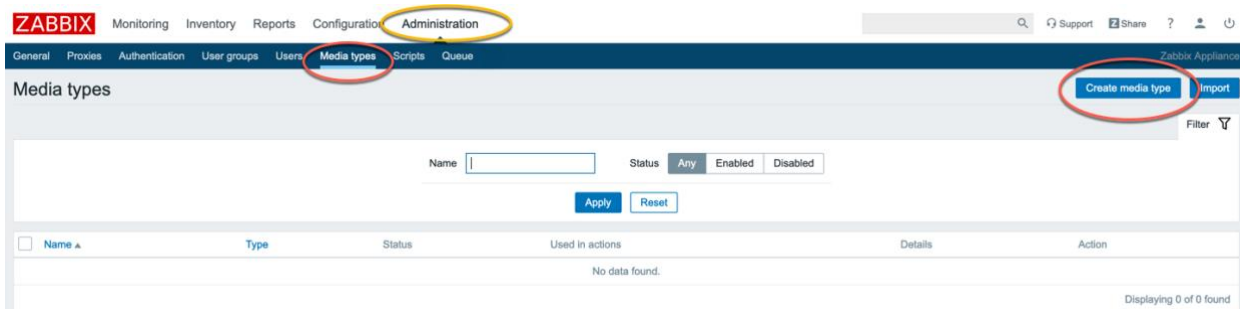


Figure 7:Media Types

Enter a suitable **Name** to identify this media type. Ensure **Type** is “Email”. For the **SMTP server** field, key in the IP address of your sendQuick server.

Leave the **SMTP server port** as “25”.

The screenshot shows the Zabbix Media type configuration form. The form is titled 'Media types' and shows the 'Options' tab. The 'Name' field is 'Email to sendQuick', 'Type' is 'Email', 'SMTP server' is '192.168.1.95', and 'SMTP server port' is '25'. The 'SMTP helo' field is 'yourdomain.com' and the 'SMTP email' field is 'anyemail@yourdomain.com'. The 'Connection security' is set to 'None', 'Authentication' is 'None', and 'Message format' is 'Plain text'. The 'Enabled' checkbox is checked. The 'Add' button is highlighted with a red circle.

Figure 8:Create Media Type

For **Connection security**, leave it as “None” unless you have configured SSL or TLS in sendQuick. Please note that you will also need to have the same security certificate on Zabbix for this to work. Please refer to Zabbix manuals on how to configure this. If no security has been configured, leave the **Authentication** as “None”. Ensure **Enabled** box is checked and click on **Add**.

Quicktip - To check what security was installed on sendQuick, navigate to the following item on the sendQuick dashboard :

Security Setup > SSL Setup > SSL Protocol

Figure 9: SSL Setup

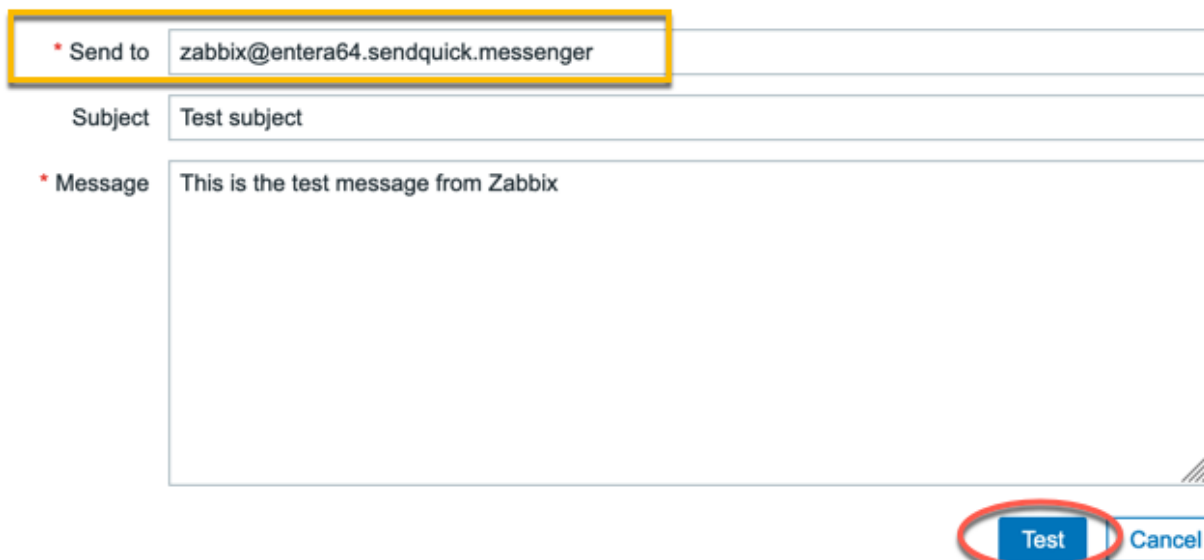
Once added, test the configuration to ensure it is correct. Click on **Test**.

Figure 10: Test Configuration

A popup will appear. For the **Send to** field, enter the email that was configured as the email address used in the email filter in section 2.1

For our example we are using `zabbix@entera64.sendquick.messenger` for **Send to** field as per the email filter set up on Section 2.1

Test media type



* Send to

Subject

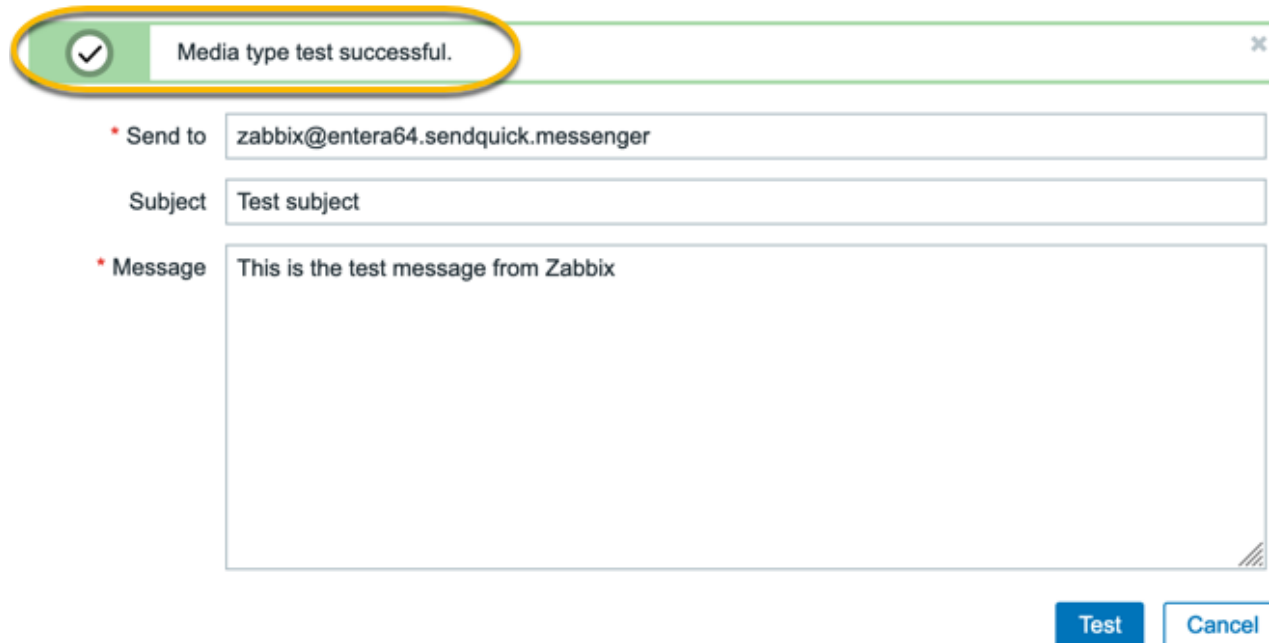
* Message

Test Cancel

Figure 11: Test Media Type

Click on the **Test** button. If successful, a popup will appear as below:

Test media type



Media type test successful.

* Send to

Subject

* Message

Test Cancel

Figure 12: Media Test Result

To confirm that sendQuick has subsequently received the email and sent out as SMS, go to sendQuick dashboard. Navigate to :

Usage Logs > Message Logs

Click on the **Sent** tab and **SMS** tab. If there is a corresponding entry in the logs, that means the SMS text was sent successfully.

The screenshot shows the 'sendQuick® Entera Server Admin' interface. On the left is a sidebar menu with 'Message Log' highlighted. The main area shows the 'Message Log' page with tabs for 'Queue', 'Sent', 'Inbox', and 'Inbox'. The 'Sent' tab is active, and the 'SMS' filter is selected. Below the filters, there is a search bar and a table of message logs. The table has columns: No, Date & Time, Delivery Date, Turnaround Time, Sender, Mobile Number, Message, and IMEI. One entry is shown with the following details:

No	Date & Time	Delivery Date	Turnaround Time	Sender	Mobile Number	Message	IMEI
1	03/12/2019 17:46:28	03/12/2019 17:46:30	10:10	anyemail@yourdomain.com (Zabbix Alerts)	93873088	anyemail@yourdomain.com:Test Alert:This is the test message from Zabbix	359180087997349

Below the table are buttons for 'Save CSV', 'Save Excel', 'Save PDF', and 'Refresh'. At the bottom, it says 'Showing 1 to 1 of total 1 records'.

Figure 13:sendQuick's Message Logs

2.3 Configuring Actions on Zabbix to send email to sendQuick

Before creating the trigger and action to send SMS alerts, there are several items that need to be configured.

2.3.1 Creating Host and Host Groups

Firstly, read [Zabbix manual](#) on how to create a Host and Host Groups. This will be the device that needs to be monitored and to trigger alerts if certain conditions are met.

There are already many pre-configured Host Groups in Zabbix and you can find one that matches your device. In our example, we will create a new Host Group for *sendQuick* servers.

On the dashboard of Zabbix, navigate to the following item :

Configuration > Host groups

Click on **Create host group**.

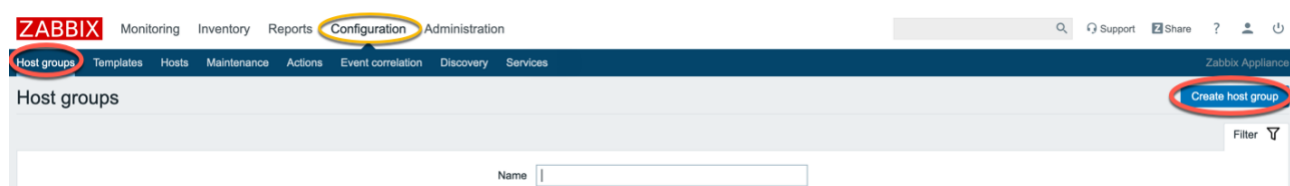


Figure 14: Create Host Groups

Fill in the name of the new **Group name** as below. Click on **Add**.

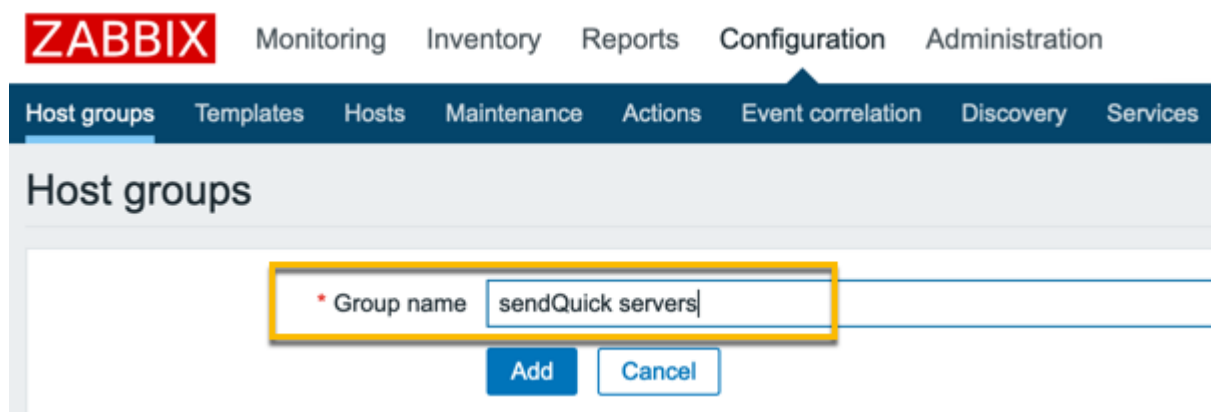


Figure 15: Add Group Name

Next, we will create the host for the device we want to monitor and add them into this Host group.

On the dashboard of Zabbix, navigate to the following item :

Configuration > Hosts

Click on **Create host**.

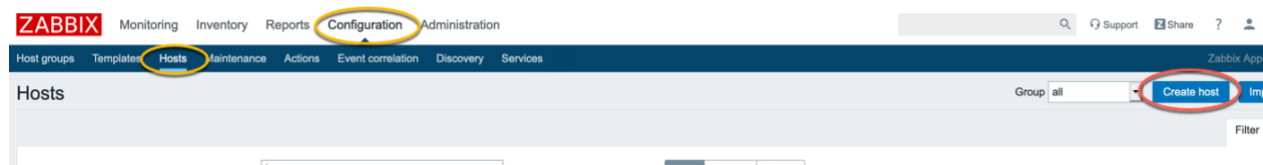


Figure 16:Create Host

Fill in the following.

- **Host name** : Provide any name to identify the device
- **Groups** : Select the group that was created or from the predefined list
- **IP Address** : Key in IP Address of device
- Ensure **Enabled** box is ticked

Click on the **Template** tab at the top after you have filled the fields.

Figure 17:Adding host details

For this example, we will not be installing Zabbix agent to monitor device. We will monitor the availability of the server using **ICMP ping**. In order to do that, we have to link the template to this host. Click on **Add**.

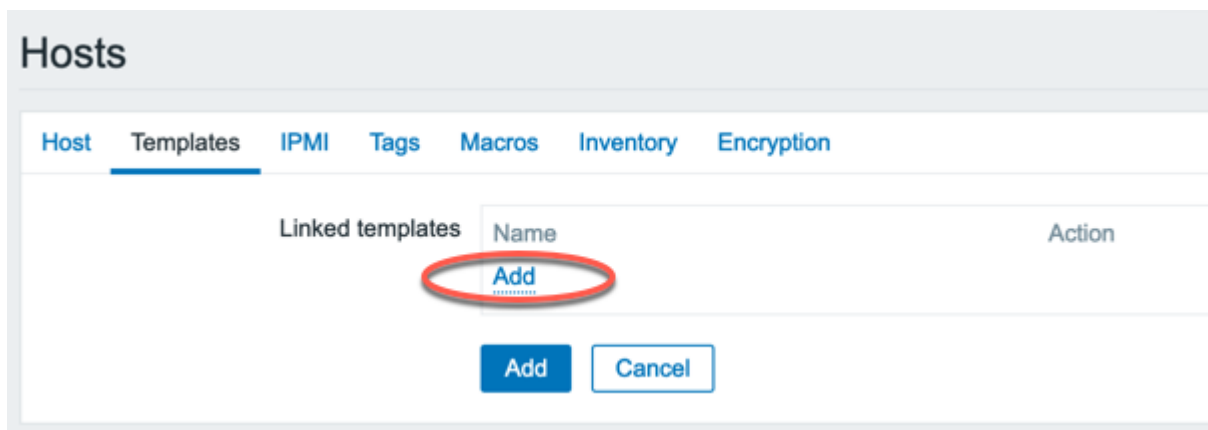


Figure 18: Add link template

Select the template “**Template Module ICMP Ping**” and click on **Select**. If this template is not available for selection, you can download it from [Zabbix Share](#) and add the template under **Configuration > Templates**

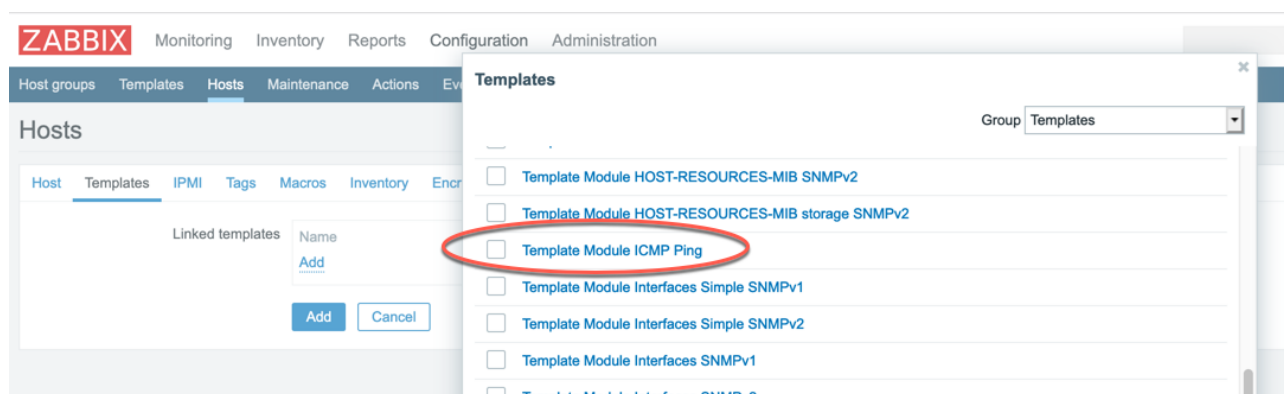


Figure 19: Add template

After the template has been linked, click on **Add**.

Verify that the host has been added successfully.

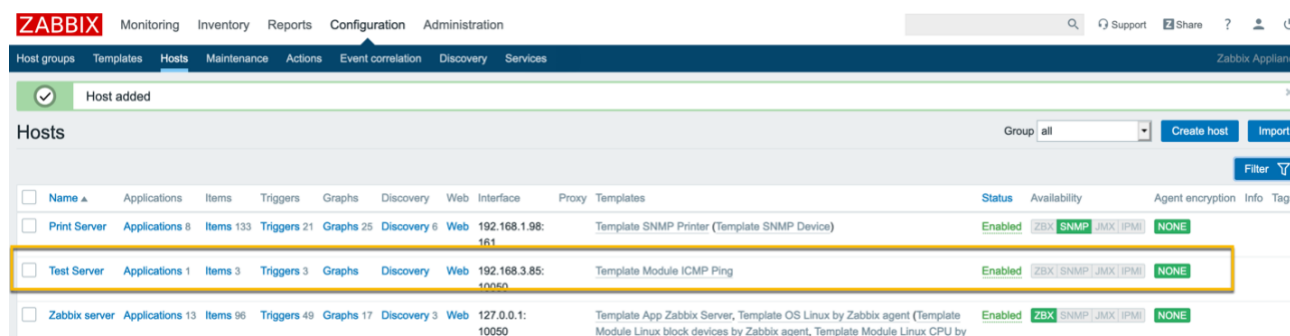


Figure 20: Host added successfully

2.3.2 Creating User Group

Next we will create a user to associate the trigger action to. First we will create a new User Group for this user or you can use existing user groups predefined in Zabbix.

In our example, will create a new user group, “**Alert Users Group**.”

On the dashboard of Zabbix, navigate to the following item :

Administration > User groups

Click on **Create user group**.

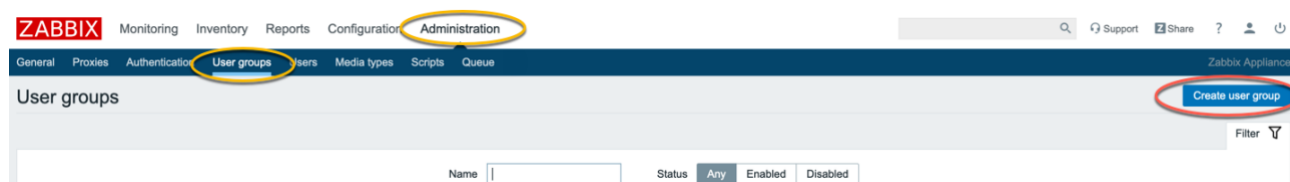


Figure 21:Create user group

Fill in the **Group name** and ensure the box for **Enabled** is ticked. Click on the **Permissions** tab at the top.

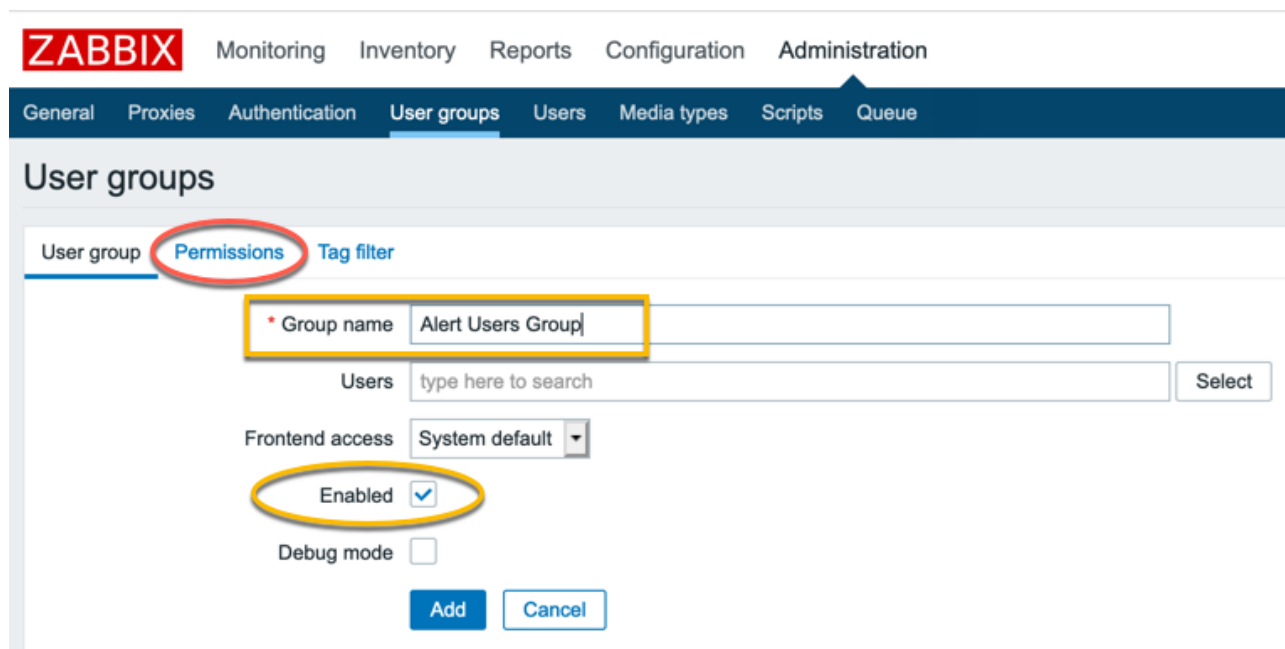


Figure 22:Add user group details

Click on the **Select** button.

The screenshot shows the 'User groups' interface in Zabbix. The 'Permissions' tab is selected. There is a search bar with the text 'type here to search' and a 'Select' button circled in red. Below the search bar, there is a checkbox for 'Include subgroups' and an 'Add' button. At the bottom, there are 'Add' and 'Cancel' buttons.

Figure 23:Select host

Select the User Group to set the permissions. In this example, we will select the “sendQuick servers” host group to give access to this group of servers for the alert action. Click on **Select**.

The screenshot shows the 'Host groups' selection dialog. The 'sendQuick servers' group is selected and highlighted in yellow. The 'Select' button is circled in red. The dialog lists various host groups including 'Name', 'Discovered hosts', 'Hypervisors', 'Linux servers', 'Templates', 'Templates/Applications', 'Templates/Databases', 'Templates/Modules', 'Templates/Network devices', 'Templates/Operating systems', 'Templates/Server hardware', 'Templates/Virtualization', 'Virtual machines', and 'Zabbix servers'.

Figure 24:Host groups selection

Click on **Read** and click on the **Add** link shown below. (Do not click on the **Add** button below instead)

ZABBIX Monitoring Inventory Reports Configuration Administration

General Proxies Authentication **User groups** Users Media types Scripts Queue

User groups

User group Permissions Tag filter

Permissions	Host group	Permissions
	All groups	None

sendQuick servers ✕
type here to search

☐ Include subgroups

[Add](#)

Add Cancel

Select Read-write **Read** Deny

Figure 25:Search for entry

Confirm that the entry of the host group and the correct permission is highlighted as reflected below. If so, then click on the **Add** button.

User groups

User group Permissions Tag filter

Permissions	Host group	Permissions
	All groups	None

sendQuick servers Read-write **Read** Deny None

type here to search S

☐ Include subgroups

[Add](#)

Add Cancel

Figure 26:Entry and permissions

2.3.3 Creating User

Next we will create a user to associate to this user group to inherit the permissions.

On the dashboard of Zabbix, navigate to the following item :

Administration > Users

Click on **Create user**.



Figure 27:Create User

Fill in the **Alias** and select for the **Groups** with the User Group created in Section 2.3.2. Choose any password to be used for this user and key them twice in the field provided.

Before adding this user, click on **Media** in the tab menu at the top.

 A screenshot of the 'Add user details' form in Zabbix. The 'Media' tab is selected and circled in red. The form contains several fields: 'Alias' (TestUser), 'Name', 'Surname', 'Groups' (Alert Users Group), 'Password', 'Password (once again)', 'Language' (English (en_GB)), 'Theme' (System default), 'Auto-login', 'Auto-logout' (15m), 'Refresh' (30s), 'Rows per page' (50), and 'URL (after login)'. The 'Add' and 'Cancel' buttons are at the bottom.

Figure 28:Add user details

Click on the **Add** link (not the **Add** button)

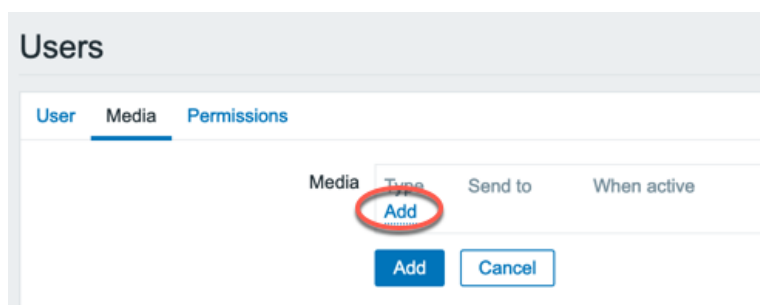


Figure 29:Media

Fill in the fields with the values that were configured earlier. For **Type** select the Media type that was configured in Section 2.2

For the email address to fill in **Send to** type in the email configured in Section 2.1

Click on **Add**.

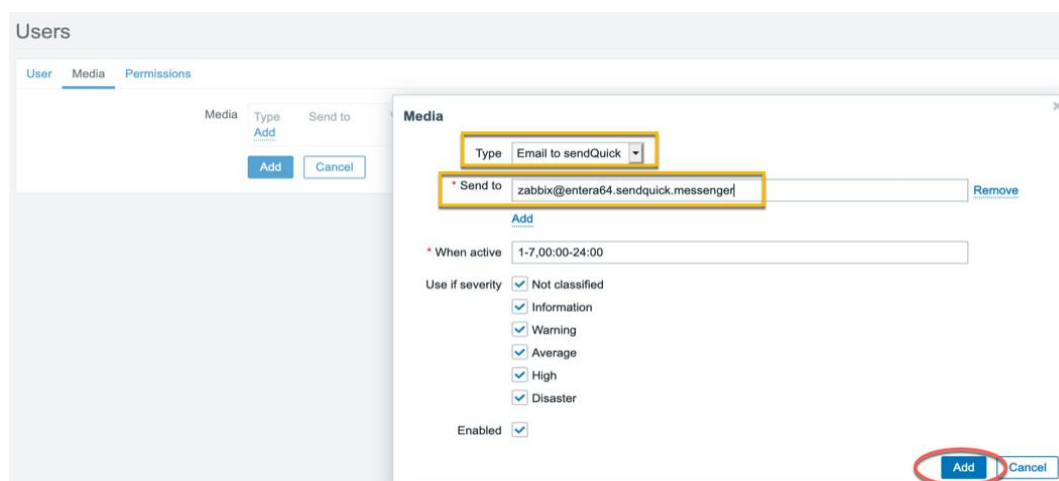


Figure 30:Add media

Confirm that the entry is reflected such as below and click on **Add**.

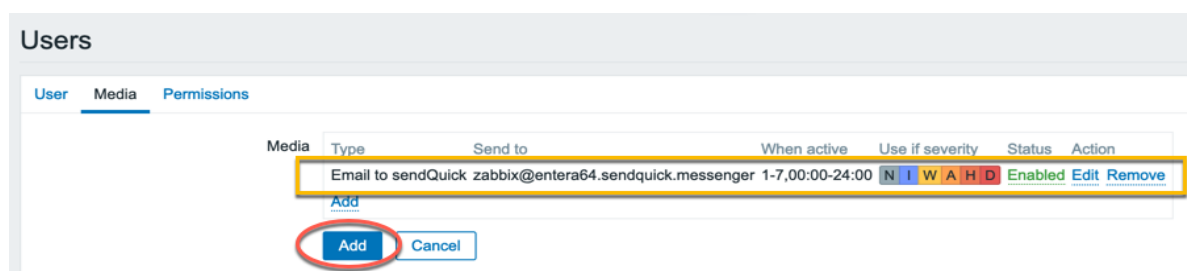


Figure 31:Media entry

2.3.4 Creating Action

We will now create the Action for Alert Triggers to send email to sendQuick server when conditions are met.

On the dashboard of Zabbix, navigate to the following item :

Configuration > Actions

Click on **Create action**.

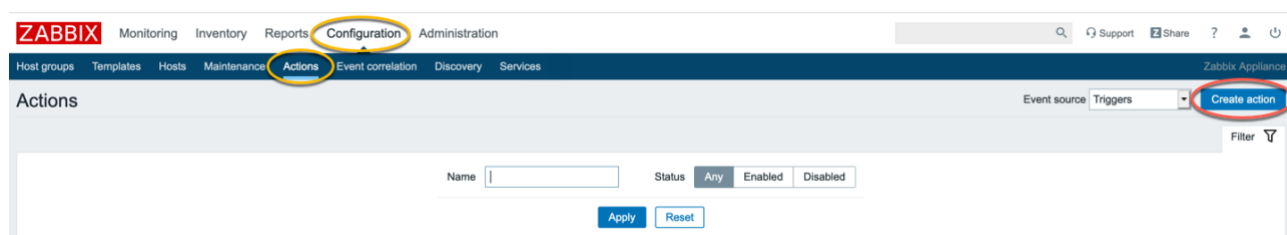


Figure 32:Create action

Fill in the **Name** for this Action. For this example, we will call it *Test Server Alert*. For the **New Condition**, select the conditions that you want to trigger the alert. For this example, we will use **Trigger**. Click on **Select**.

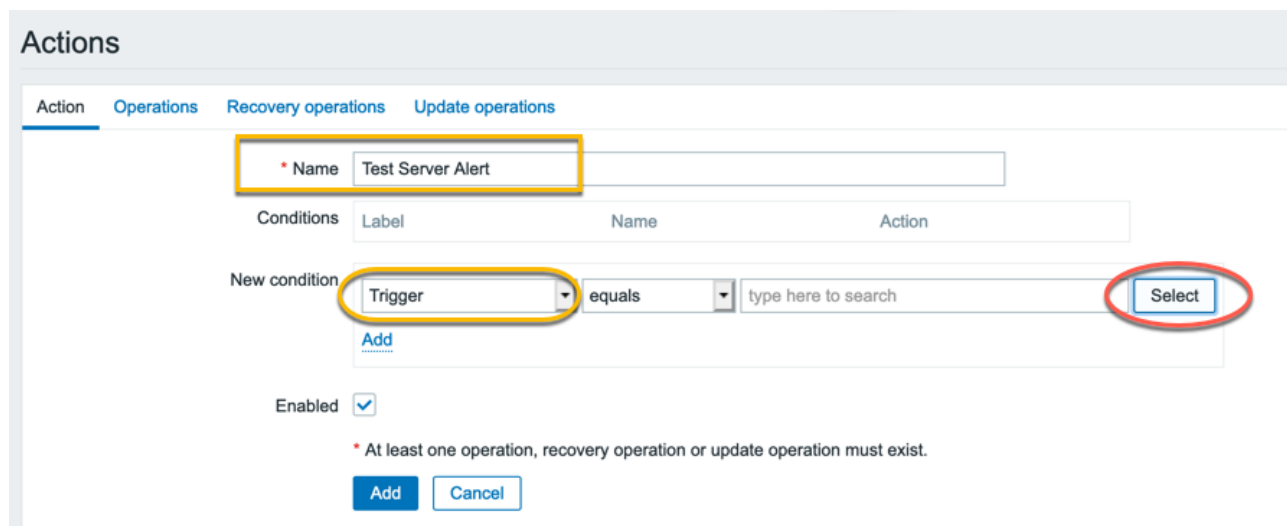


Figure 33:Add condition to trigger alert

In our example, we will use the Triggers already made available in the *Template Module ICMP Ping*. Select “Unavailable by ICMP Ping” and click on **Select**.

Make sure the Group and Host at the top right is the correct device that you want to monitor and send alerts.

The screenshot shows the 'Actions' configuration page in Zabbix. The 'Name' field is set to 'Test Server Alert'. The 'Conditions' section shows 'Label' and 'New condition' set to 'Trigger'. The 'Enabled' checkbox is checked. A modal window titled 'Triggers' is open, showing a list of triggers for the group 'sendQuick servers' and host 'Test Server'. The trigger 'Unavailable by ICMP ping' is selected, and the 'Select' button is highlighted.

Name	Severity	Status
<input type="checkbox"/> High ICMP ping loss Depends on Unavailable by ICMP ping	Warning	Enabled
<input type="checkbox"/> High ICMP ping response time Depends on Unavailable by ICMP ping High ICMP ping loss	Warning	Enabled
<input checked="" type="checkbox"/> Unavailable by ICMP ping	High	Enabled

Figure 34: Triggers option

Ensure the New Condition is now reflected as below and click on the **Add** link. (NOT Add Button)

The screenshot shows the 'Actions' configuration page in Zabbix. The 'Name' field is set to 'Test Server Alert'. The 'Conditions' section shows 'Label', 'Name', and 'Action' fields. The 'New condition' section shows 'Trigger' selected, 'equals' as the operator, and 'Test Server: Unavailable by ICMP ping' as the value. The 'Add' button is highlighted.

Label	Name	Action
Test Server: Unavailable by ICMP ping		

Figure 35: Condition added successfully

Check that the **Conditions** has been added. You can add more conditions to determine the trigger action by selecting more parameters for **New Condition** and clicking on the **Add** link.

Click on **Operations** on the tab menu at the top.

Actions

Action **Operations** Recovery operations Update operations

* Name Test Server Alert

Conditions	Label	Name	Action
A	Trigger equals	Test Server: Unavailable by ICMP ping	Remove

New condition

Trigger equals type here to search [Select](#)

[Add](#)

Enabled ☒

* At least one operation, recovery operation or update operation must exist.

[Add](#) [Cancel](#)

Figure 36:Actions

Operations section will define what happens next after the condition is triggered.

Click on **New**.

Actions

Action Operations Recovery operations Update operations

* Default operation step duration 1h

Default subject Problem: {EVENT.NAME}

Default message

Problem started at {EVENT.TIME} on {EVENT.DATE}
 Problem name: {EVENT.NAME}
 Host: {HOST.NAME}
 Severity: {EVENT.SEVERITY}
 Original problem ID: {EVENT.ID}
 {TRIGGER.URL}

Pause operations for suppressed problems ☒

Operations	Steps	Details	Start in	Duration	Action
	New				

* At least one operation, recovery operation or update operation must exist.

[Add](#) [Cancel](#)

Figure 37:Add new operation

Edit the message to send as Alerts or leave it as the default message.

For **Send to Users**, select the User that was configured earlier in Section 2.3.3

For **Send only to**, select the Media type that was configured earlier in Section 2.2

Figure 38:Edit operation

Click on the **Add** link (NOT the Add button)

Figure 39: Add

Confirm that the Operations has been added and click on the **Add** button.

Actions

Action Operations Recovery operations Update operations

* Default operation step duration 1h

Default subject Problem: {EVENT.NAME}

Default message Problem started at {EVENT.TIME} on {EVENT.DATE}
Host: {HOST.NAME}
Severity: {EVENT.SEVERITY}
Original problem ID: {EVENT.ID}

Pause operations for suppressed problems ☒

Operations	Steps	Details	Start in	Duration	Action
1	Send message to users: TestUser via Email to sendQuick	Immediately	Default	Edit	Remove

* At least one operation, recovery operation or update operation must exist.

Add Cancel

Figure 40:Add operation

If configured correctly, the Action entry would have been added like below

ZABBIX Monitoring Inventory Reports Configuration Administration

Host groups Templates Hosts Maintenance Actions Event correlation Discovery Services Zabbix Appliance

✓ Action added

Actions Event source Triggers Create action

Name Status Any Enabled Disabled

Apply Reset

Name	Conditions	Operations	Status
Report problems to Zabbix administrators		Send message to user groups: Zabbix administrators via all media	Disabled
Test Server Alert	Trigger equals Test Server: Unavailable by ICMP ping	Send message to users: TestUser via Email to sendQuick	Enabled

Displaying 2 of 2 found

Figure 41:Action entry

2.3.5 Monitoring Problem

If the Action has been configured properly, whenever there is a problem that meets the condition, the operation of sending email to sendQuick will then be triggered.

On the dashboard of Zabbix, navigate to the following item :

Monitoring > Problems

If there is a problem (in our example, the server is down and ping to the server failed), it will be reflected as shown below.

The screenshot shows the Zabbix Monitoring Problems page. The 'Monitoring' tab is selected in the top navigation bar. The 'Problems' sub-tab is also selected. The page displays a list of problems with various filters and a table of results.

Time	Severity	Info	Host	Problem	Duration	Ack	Actions	Tags
11:09:14	High		Test Server	Unavailable by ICMP ping	8h 22m 36s	No	1	

Figure 42:Monitoring problems

To confirm that sendQuick has subsequently received the email and sent out as SMS, go to sendQuick dashboard. Navigate to :

Usage Logs > Message Logs

Click on the **Sent** tab and **SMS** tab. If there is a corresponding entry in the logs, that means the SMS text was sent successfully.

The screenshot shows the 'sendQuick® Entera Server Admin' interface. On the left is a sidebar menu with 'Usage Logs' and 'Message Log' highlighted. The main area shows the 'Message Log' with tabs for 'Queue', 'Sent', 'Unsent', and 'Inbox'. The 'Sent' tab is active, and within it, the 'SMS' sub-tab is selected. Below the tabs, there are search filters for 'Search From' and 'To' (both set to 12/12/2019) and a 'Show' dropdown set to 100 entries. A table displays the message log with the following data:

No	Time	Date	Delivery Time	Sender	Number	Message	IMEI	Priority
1	12/12/2019 11:07:14	12/12/2019 11:07:16	00:12	test@yourdomain.com (Zabbix Alerts)	93873088	test@yourdomain.com:Problem: Unavailable by ICMP ping:Problem started at 03:09:14 on 2019.12.12 Host: Test Server Severity: High Original problem ID: 196	359180083538501	5

Below the table are buttons for 'Save CSV', 'Save Excel', 'Save PDF', and 'Refresh'. At the bottom, it says 'Showing 1 to 1 of total 1 records' and has 'Previous', '1', and 'Next' navigation links.

Figure 43:sendQuick's message log