

Alerting and Notification on Icinga2

Like in LibreNMS, we can setup multiple alerting mechanisms in Icinga2, and since Icinga Stack is a more advanced software, any type of custom notification system can be associated. In this tutorial, we will only focus on setting up email, slack and telegram alerting systems.

Email Setup

By default, Icinga supports email notifications, but we need to configure an email server on the Icinga node as it will be using the Linux mail utilities for sending the mails.

During the initial installation, we installed `postfix`. Now we need to add google credentials to it so that your server can send mails using Google.

Edit `/etc/postfix/main.cf`

Change following. (DO NOT copy paste these in to the end of the file)

```
# TLS parameters
smtpd_tls_cert_file=/etc/ssl/certs/ssl-cert-snakeoil.pem
smtpd_tls_key_file=/etc/ssl/private/ssl-cert-snakeoil.key
smtpd_tls_security_level=may

smtp_tls_CAspath=/etc/ssl/certs
smtp_tls_security_level=may
smtp_tls_session_cache_database = btree:${data_directory}/smtp_scache

relayhost = [smtp.gmail.com]:587
smtp_use_tls = yes
smtp_sasl_auth_enable = yes
smtp_sasl_security_options =
smtp_sasl_password_maps = hash:/etc/postfix/sasl_passwd
smtp_tls_CAfile = /etc/ssl/certs/ca-certificates.crt
```

Create `/etc/postfix/sasl_passwd` with your Google username and password

```
[smtp.gmail.com]:587 thilinaopathiedulk@gmail.com:MyPassw)<#
```

where `MyPassw)<#` would be my password for google. On google you have to make sure, Less Secure Apps are enabled.

now restart postfix

```
systemctl restart postfix
```

Test mail transport by `mail -s "Hello World" youremail@yourdomain.tld`

Create users who needs to be notified

On your Icinga Director web portal, goto [Users/Contacts](#)

The screenshot shows the Icinga Director web portal interface. On the left is a navigation menu with 'Icinga Director' selected. The main content area is titled 'Get alerts when something goes wrong' and contains five cards: 'Notifications', 'Users / Contacts', 'Timeperiods', 'Dependencies', and 'Scheduled Downtimes'. The 'Users / Contacts' card is highlighted in dark grey and shows '3 objects have been defined, 1 of them are templates, one related group exists'.

and then to User Groups. Create a [User group](#) as follows by clicking [+Add](#) .

Add new Icinga UserGroup

▼ Main properties

Usergroup*	<input type="text" value="Admin Group"/>
	Icinga object name for this user group
Display Name	<input type="text" value="Admin Group"/>

▼ Zone settings

Cluster Zone	<input type="text" value="- please choose -"/>
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[Add](#)

Next, Click on the 'Templates' tab under [Users/Contacts](#) and create a new template with [+Add](#) having the following details.

▼ **Main properties**

User template name*	ADMIN Name for the Icinga user template you are going to create
Groups	Admin Group
Time period	- please choose -
Send notifications	Yes

▼ **State and transition type filters**

States	Critical	Down	OK
	Unknown	Up	Warning
Transition types	Acknowledgem ...	Custom	DowntimeEnd
	DowntimeRemo ...	DowntimeStart	FlappingEnd
	FlappingStart	Problem	Recovery

▼ **Zone settings**

Cluster Zone	- please choose -
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For the States and Transition Types, you have to select all available, one by one.

Next Go to the Users Tab and add Users of your choice as per the below example. (these users are only for the notification purposes, they cannot log in to Icinga System)

▼ Main properties

Username*	thilina Name for the Icinga user object you are going to create
Imports*	ADMIN
Display name	Thilina Pathirana
Groups	- add more -
Time period	- please choose -
Email	thilina@thilina.com
Pager	+94770055755
Send notifications	Yes (inherited from "ADMIN")
Disabled	No

▼ State and transition type filters

States	- add more -
Transition types	- add more -

Enable Email Notifications from Director

On Icinga2, we can define custom scripts to execute different notifications. We use this feature to send emails and other notifications. For the simplicity we have created few scripts so it will enable us to put notifications when host or service category makes alerts.

Download email scripts to the scripts directory.

```
cd /etc/icinga2/scripts

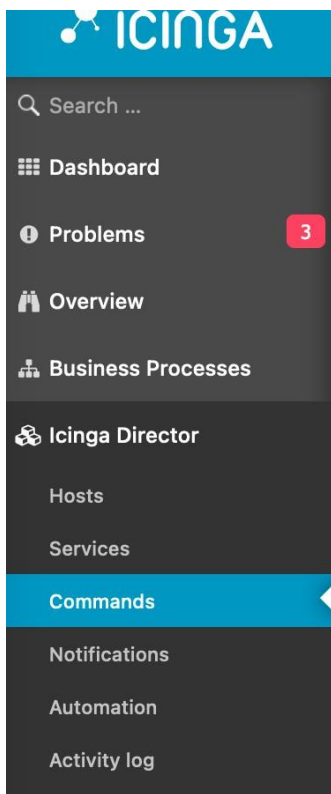
wget https://raw.githubusercontent.com/LEARN-
LK/Tutorials/master/Scripts/ICINGA2/icinga2-mail-host.sh

wget https://raw.githubusercontent.com/LEARN-
LK/Tutorials/master/Scripts/ICINGA2/icinga2-mail-service.sh

chmod +x icinga2-mail-host.sh


chmod +x icinga2-mail-service.sh
```

Next, on Icinga Director go to Commands



Manage your Icinga Commands

Define Check-, Notification- or Event-Comm Checks and the Check plugins on your Monit

**Commands**
Manage definitions for your Commands that should be executed as Check Plugins, Notifications or based on Events

Click **Add** to Add new Icinga Command with the following details.

- ◆ Command Type: **Notification Plugin Command**
- ◆ Command Name: **Host Alarm By Email**
- ◆ Command: **/etc/icinga2/scripts/icinga2-mail-host.sh**

and click add. Now go to the **Arguments** tab of the created command. Then add an Argument like,



Argument name: **-4**

(Make sure you put the - symbol)

Value type: **String**

Value: **\$address\$**

and Click **Add**.

Next Click Back button   just below the command name on Top of the tab.

Repeat above step and add following arguments as well

Argument	Value
-6	\$address6\$
-b	\$notification.author\$
-c	\$notification.comment\$
-d	\$icinga.long_date_time\$
-f	\$notification_from\$
-i	\$icingaweb2url\$
-l	\$host.name\$
-n	\$host.display_name\$
-o	\$host.output\$
-r	\$user.email\$
-s	\$host.state\$
-t	\$notification.type\$
-v	\$notification_logtosyslog\$

At the end of adding all arguments, click **Deploy** and check whether it deployed without any error.

Then go back to command window and Add another command with following details and arguments.

- Command Type: **Notification Plugin Command**
- Command Name: **Service Alarm By Email**
- Command: **/etc/icinga2/scripts/icinga2-mail-service.sh**
- Arguments;

Argument	Value
-4	\$address\$
-6	\$address6\$
-d	\$icinga.long_date_time\$
-e	\$service.name\$
-l	\$host.name\$
-n	\$host.display_name\$
-o	\$service.output\$
-r	\$user.email\$
-s	\$service.state\$
-t	\$notification.type\$
-u	\$service.display_name\$

And Deploy.

Create a Notification Template

Then on the Director, Goto **Notifications** --> **Notification Templates** and click **Add**

Then create a new template to map host based notifications to the script command we created earlier.

Add Notification ↻ ✕

Add new Icinga Notification template

▼ **Main properties**

Notification Template*	Mail-host-Template
Imports	Add a new one...
Users	- add more -
User groups	- add more -
Notification command	Host Alarm By Email
Notification interval	7200
Time period	- please choose -
First notification delay	
Last notification	30d

▼ **State and transition type filters**

States	- add more -
Transition types	- add more -

▼ **Zone settings**

Cluster Zone	- please choose -
--------------	-------------------

Add

Add another template for service based alerts.



Add new Icinga Notification template

▼ Main properties

Notification Template*	<input type="text" value="mail-Service-Template"/>
Imports	Add a new one...
Users	- add more -
User groups	- add more -
Notification command	<input type="text" value="Service Alarm By Email"/>
Notification interval	<input type="text" value="7200"/>
Time period	- please choose -
First notification delay	<input type="text"/>
Last notification	<input type="text" value="30d"/>

▼ State and transition type filters

States	- add more -
Transition types	- add more -

▼ Zone settings

Cluster Zone	- please choose -
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[Add](#)

Create Notification

Once the templates are created we need to map the to hosts and services individually.

On the Icinga Director, goto [Notifications](#) --> [Notifications](#) and click [Add](#)

Create Notificatoin on Host Alerts to Admins by,

Add new Icinga Notification

▼ Main properties

Notification*	<input type="text" value="Notification on Host Alerts to Admins"/> Name for the Icinga notification you are going to create
Imports*	mail-host-template
Users	- add more -
User groups	<input type="text" value="Admin Group"/>
Apply to*	Hosts
Notification interval	7200 (inherited from "mail-host-template")
Time period	- please choose -
First notification delay	
Last notification	2592000 (inherited from "mail-host-template")
Disabled	No

▼ Assign where

host.enable_notifications is true (or set)

▼ State and transition type filters

States	<input type="text" value="Up"/> <input type="text" value="Down"/>
Transition types	<input type="text" value="Problem"/> <input type="text" value="Recovery"/> <input type="text" value="Custom"/> <input type="text" value="Acknowledgem ..."/>

Do the same thing to add a Notification on service alerts.

Add new Icinga Notification

▼ Main properties

Notification*	Notifications on Service Alerts to Admins
Imports*	mail-Service-Template
Users	- add more -
User groups	Admin Group
Apply to*	Services
Notification interval	7200 (inherited from "mail-Service-Template")
Time period	- please choose -
First notification delay	
Last notification	2592000 (inherited from "mail-Service-Template")
Disabled	No

▼ Assign where

service.enable_notifications is true (or set)

▼ State and transition type filters

States	OK	Warning	Critical
	Unknown		
Transition types	Problem	Recovery	Custom
	Acknowledgem ...		

Add

Above both notifications will apply those settings to any host or service that has notifications enabled. You may customise the **Assign where** section if you need to customise hosts or notifications that needs this notification to be used.

Finally, we need to Deploy the changes to get them effected.

Activity Log

Search...

My changes → Deploy 6 pending changes << 1 2 3 4 5 >>

+ [adminhilina] create notification "Notifications on Service Alerts to Admins"

