

Sending Notifications and Alerts using LibreNMS.

When a specific event occurs (eg: Link Down) NMS should be able to send administrators some notifications. On LibreNMS this is done by creating different Transports and Alerting Rules. Transports are the mechanism on how LibreNMS should send the alerts (may be by Email, by some API etc.), where Alerting Rules specify when and to whom to send those alerts.

Alert Transports [¶]

We need to specify which transport we are going to use.

On your UI, Go to [Alerts](#) --> [Alert Transports](#)



Email Transport

Email transports needs to be created per email basis. If you need two emails to be notified, You have to create two transports.

Go to [Create Alert Transport](#)

- Transport Name: [Email to <Name of Admin1>](#)
- Transport type: [Mail](#)
- Default Alert: [Off](#)
- Email: [<Email Address of Admin1>](#)

Once you save the transport it should see like the following.

Transport Name	Transport Type	Default	Details	Action
email to Thilina	mail	No	Email:  arn@gmail.com	  

Repeat the same for the second Email Address if you have any.

For Email Transports to Work, you need to setup email server details for LibreNMS. Since we haven't installed a public email server, lets use GMAIL as the smtp server.

Log in to <https://myaccount.google.com> with any of your personal gmail accounts.

Goto [Security](#) --> [Less secure app access](#)

Enable [Allow less secure apps](#)

Next, on your LibreNMS installation,

Goto [Settings Wheel](#) --> [Global Settings](#) --> [Alerting](#) --> [Email Options](#) and include gmail settings as per following.

▼ Email Options

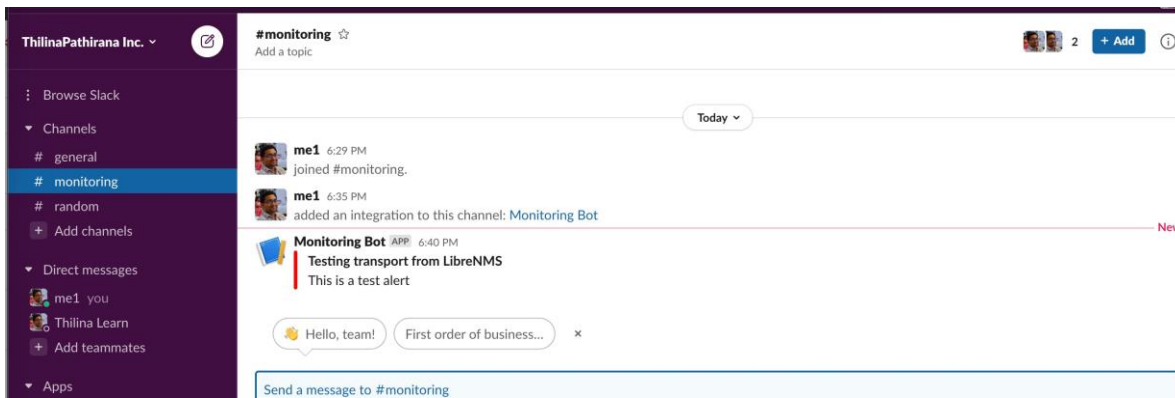
Enable email alerting	<input checked="" type="checkbox"/>		?
From name	<input type="text" value="LibreNMS"/>		?
From email address	<input (eg:="" (if="" a="" account="" accounts="" add="" administrators.<="" an="" and="" are="" as="" attendees="" become="" create="" else="" for="" free="" from="" have="" institute,="" invite="" issue="" it="" later="" make="" may="" multiple="" one="" or="" others="" p="" pdn-test-lorence)="" plan.="" please="" same="" single="" slack="" someday.="" t="" test="" the="" them="" there="" type="text" value='"LibreNMS" <th@...@gmail.com>"/></td> <td style="text-align: center;"><input type="button" value="↺"/></td> <td style="text-align: right;">?</td> </tr> <tr> <td>Use HTML emails</td> <td><input checked="" type="checkbox"/></td> <td style="text-align: center;"><input type="button" value="↺"/></td> <td style="text-align: right;">?</td> </tr> <tr> <td>How to deliver mail</td> <td><input type="text" value="SMTP"/></td> <td style="text-align: center;"><input type="button" value="↺"/></td> <td style="text-align: right;">?</td> </tr> <tr> <td>SMTP Server</td> <td><input type="text" value="smtp.gmail.com"/></td> <td style="text-align: center;"><input type="button" value="↺"/></td> <td style="text-align: right;">?</td> </tr> <tr> <td>SMTP port setting</td> <td><input type="text" value="587"/></td> <td style="text-align: center;"><input type="button" value="↺"/></td> <td></td> </tr> <tr> <td>SMTP timeout setting</td> <td><input type="text" value="10"/></td> <td></td> <td></td> </tr> <tr> <td>Encryption</td> <td><input type="text" value="TLS"/></td> <td style="text-align: center;"><input type="button" value="↺"/></td> <td></td> </tr> <tr> <td>Auto TLS support</td> <td><input checked="" type="checkbox"/></td> <td></td> <td style="text-align: right;">?</td> </tr> <tr> <td>SMTP authentication</td> <td><input checked="" type="checkbox"/></td> <td style="text-align: center;"><input type="button" value="↺"/></td> <td style="text-align: right;">?</td> </tr> <tr> <td>SMTP Auth username</td> <td><input type="text" value="th@...@gmail.com"/></td> <td style="text-align: center;"><input type="button" value="↺"/></td> <td></td> </tr> <tr> <td>SMTP Auth password</td> <td><input type="password" value="....."/></td> <td style="text-align: center;"><input type="button" value="↺"/></td> <td></td> </tr> </table> </div> </div> <div> <p>Now go back to the Alert Transport page and click <input checked="" type="checkbox"/> in front of your transports and check whether you received a test mail to your email account/s.</p> </div> <div> <h2>Slack Transport</h2> </div> <div> <p>Slack (https://slack.com) is an enterprise messaging platform used worldwide for professional use. Slack supports Web and Mobile versions so that we can use slack to generate alerts on mobile devices. This is done by using its SLACK API and by creating a BOT to message you with the alerts.</p> </div> <div> <p>If you don' with="" your=""/>		

Do first three steps under **Getting started with Incoming Webhooks** on <https://api.slack.com/messaging/webhooks> (Example steps [here](#))

- Next, Goto your LibreNMS Transport page and create a new transport and test. Use the webhook URL from your SLACK APP

The screenshot shows the 'Alert Transport' configuration page in LibreNMS. The 'Transport name' is 'Slack-ThillinaPathirana Inc.', 'Transport type' is 'Slack', and 'Default Alert' is 'OFF'. The 'Webhook URL' is a long URL from Slack. There is a 'Save Transport' button at the bottom.

- If your transport worked, you should see something similar to this on your monitoring channel,



Telegram Transport

Telegram is a well-known messaging platform with many users on Mobile devices. We can create another BOT to send Alerts from LibreNMS to a Telegram Group.

Here we will add the BOT to a Telegram Group so that many users can be included into this group.

Create Telegram BOT

Install Telegram app in to your PC. (If you are not a Telegram user, download Telegram app to your mobile phone and create an account). Log in using your account.

- Add BOT Father to your account. <https://t.me/botfather>
- Generate a new bot with the command "/newbot" BotFather is then asking for a username and a normal name. After that your bot is created and you get a HTTP token. (for more options for your bot type "/help")
- Add your bot to telegram with the following url: <http://telegram.me/<botname>> to use app or <https://web.telegram.org/<botname>> to use in web, and send some text to the bot.
- The BotFather should have responded with a token, copy your token code and go to the following page in chrome: <https://api.telegram.org/bot<tokencode>/getUpdates> (this could take a while so continue to refresh until you see something similar to below)
- You see a json code with the message you sent to the bot. Note the Chat id. In this example that is "-9787468" within this example: `"message": { "message_id":7, "from": {"id":656556, "first_name": "Joo", "last_name": "Doo", "username": "!JohnDoo"}, "chat": { "id": -9787468, "title": "Telegram Group"}, "date": 1435216924, "text": "Hi" } }`
- Create a group with your BOT and add you and few of your colleagues who you needs to be notified. Add some sample messages to the group. Refresh <https://api.telegram.org/bot<tokencode>/getUpdates> pick the Chat ID of the group chat (which is not of the Bot itself we received earlier).

Next, Setup the Telegram Transport on LibreNMS.

Alert Transport :: Docs

Transport name:

Transport type:

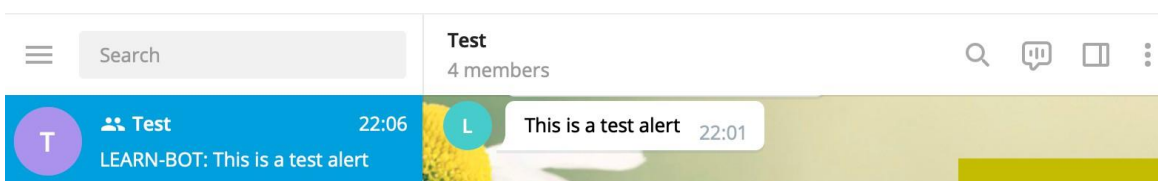
Default Alert:

Chat ID:

Token:

Format:

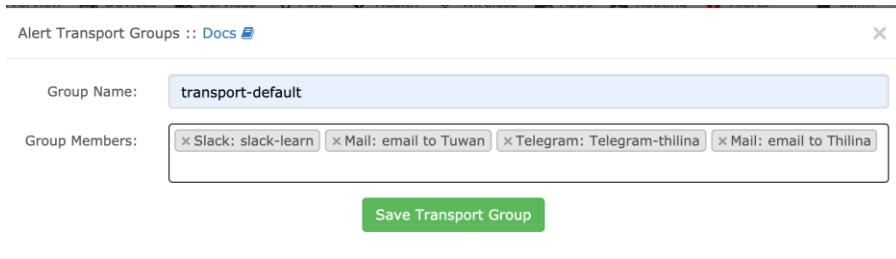
Once you test the transport, you should see similar message on your Telegram Group.



Transport Groups

On the Same Alert Transport page, Create a transport Group. Transport group allows us to set a rule to do alerting on a group of transports. Since we have multiple email address transports, Slack, Telegram, we need you group them before applying them to actual rules.

eg:



Alert Transport Groups :: Docs

Group Name: transport-default

Group Members: ✕ Slack: slack-learn ✕ Mail: email to Tuwan ✕ Telegram: Telegram-thilina ✕ Mail: email to Thilina

Save Transport Group

Custom Alert

Alert rules- Practicals

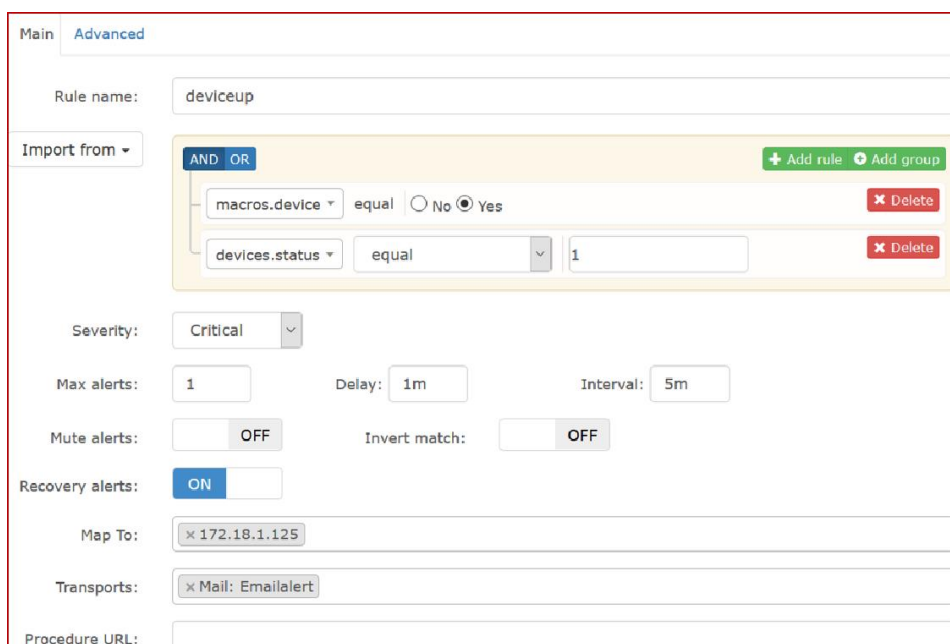
1. Verify whether **pc1** is **down** or **up**
2. Check whether **pc6 memory usage > 50%**
3. Find the devices where the **CPU usage >=90**

Note : Configure to send email in above scenarios

Answers

1.

```
SELECT * FROM devices WHERE (devices.device_id = ?) AND (devices.disabled = 0 && devices.ignore = 0) = 1 AND devices.status = 1
```



Main Advanced

Rule name: deviceup

Import from

AND OR

macros.device equal No Yes ✕ Delete

devices.status equal 1 ✕ Delete

Severity: Critical

Max alerts: 1 Delay: 1m Interval: 5m

Mute alerts: OFF Invert match: OFF

Recovery alerts: ON

Map To: 172.18.1.125

Transports: Mail: Emailalert

Procedure URL:

2.

```
SELECT * FROM devices,mempools WHERE (devices.device_id = ? AND devices.device_id = mempools.device_id) AND (devices.status = 1 && (devices.disabled = 0 && devices.ignore = 0)) = 1 AND mempools.mempool_perc >= 90 AND mempools.mempool_descr REGEXP "Virtual.*"
```

Alert Rule :: Docs

Main **Advanced**

Rule name: (%devices.status = 1 && %macros.device)

Import from ▾

AND OR + Add rule + Add group

macros.device equal No Yes

devices.status equal 1

Severity: Critical ▾

Max alerts: 1 Delay: 1m Interval: 5m

Mute alerts: OFF Invert match: OFF

Recovery alerts: ON

Map To: x 172.18.1.125

Transports: x Mail: Emailalert

3.

```
SELECT * FROM devices,processors WHERE (devices.device_id = ? AND devices.device_id = processors.device_id) AND (devices.status = 1 && (devices.disabled = 0 && devices.ignore = 0)) = 1 AND processors.processor_usage >= 90
```

Rule name: HighCPUUsage

Import from ▾

AND OR + Add rule + Add group

macros.device_up equal No Yes

processors.processor_usage greater or equal 90

Severity: Critical ▾

Max alerts: 2 Delay: 1m Interval: 5m

Mute alerts: OFF Invert match: OFF

Recovery alerts: ON

Map To: Devices or Groups

Transports: x Mail: Emailalert

