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 **Solved**

Grafana Advanced Alerting - Platform Management Automations

Hello All,

As part of the subscription services team it's common that we have to build custom Grafana dashboards and integrations to elevate/customize reporting within the product. Please see below an example of this that I wanted to share with the community - If this is something you are interested in having assistance with then I would encourage you to reach out to us and consider our subscription services offering, please see following links;

Want to learn more about our services? - [SAM+Unlimited Upgrades](#) | [Analytic Co-Pilot](#) | [TAM](#)

Purpose: There are some blind spots in terms of platform management with LogRhythm, please see below examples. The following solution offers a means to bridge this gap, make admins lives easier and ensure that the SIEM is running optimally at all times. This is just a few examples, but there are countless other corner cases that we can resolve using the next steps.

- There is currently no way to raise an alarm if there is DXRP build up.
- You don't get alarms if a SQL maintenance or backup job fails.
- There is no alarms/alerts for when your indexing rate drops below a certain threshold.

The main point to make clear though, is that if exists in SQL, or Windows Performance Monitoring as a metric, you can leverage it within Grafana for custom dashboards and alerting.

How: You can essentially create an automated Grafana alert on anything that is picked up by the LogRhythm Metrics/Common engine (Telegraf) and anything that can be pulled via a SQL query. They have integrated SMTP/Email services and no additional cost, and their own alarms engine.

Please see the below example of what one of the email alerts looks like. The idea here is that you can just get a quick email summary that lets you know the deployment is down, maintenance has failed, some other threshold has been crossed etc.

Setup Summary: To get this up and running you will need to configure the following things. They are all fairly straightforward and will require standard administrators details like the SA password for SQL, admin rights on the XM/PM server so you can edit some configuration files and general remote access etc.

- You will need to configure the required data sources, to be able to monitor/query/alert correctly.
 - Telegraf is already done for you by default.
 - SQL needs to be added in.
 - ElasticSearch is a good idea but not required.
- We are going to disable anonymous authentication into Grafana as well, for security reasons. As a general note you don't need to authenticate into Grafana to view it's contents, by default. This corrects that, just be careful not to lose your password.
- You will need to input some SMTP details so that Grafana knows where to send the alerts to.
- It's a good idea to import some of the Community dashboards at this stage as you can leverage these to build alerts more easily.
- Now you can actually build the Grafana alerts, you can either do this from scratch or you can leverage a pre-existing widget, which is always going to be the easier method.

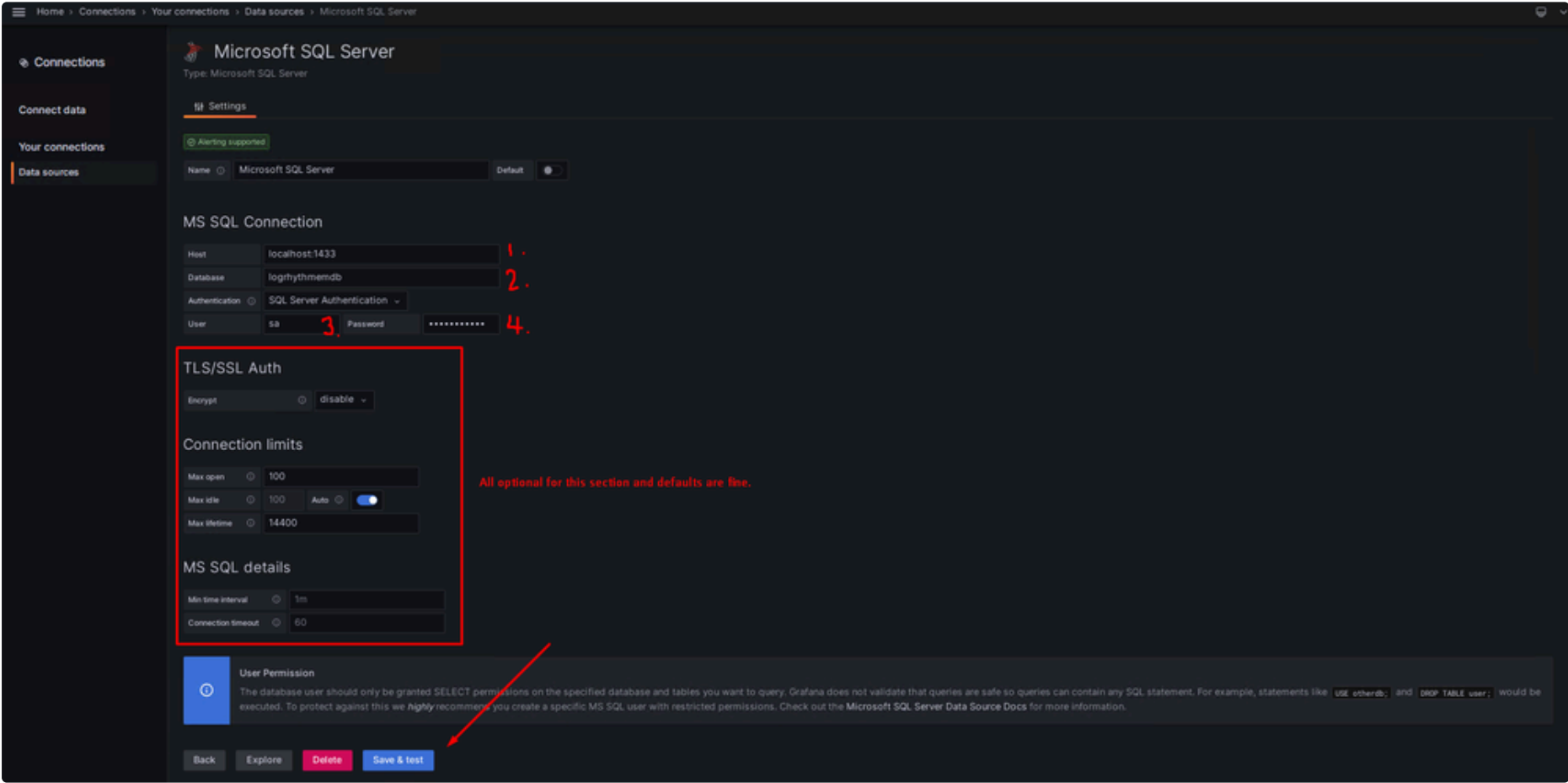
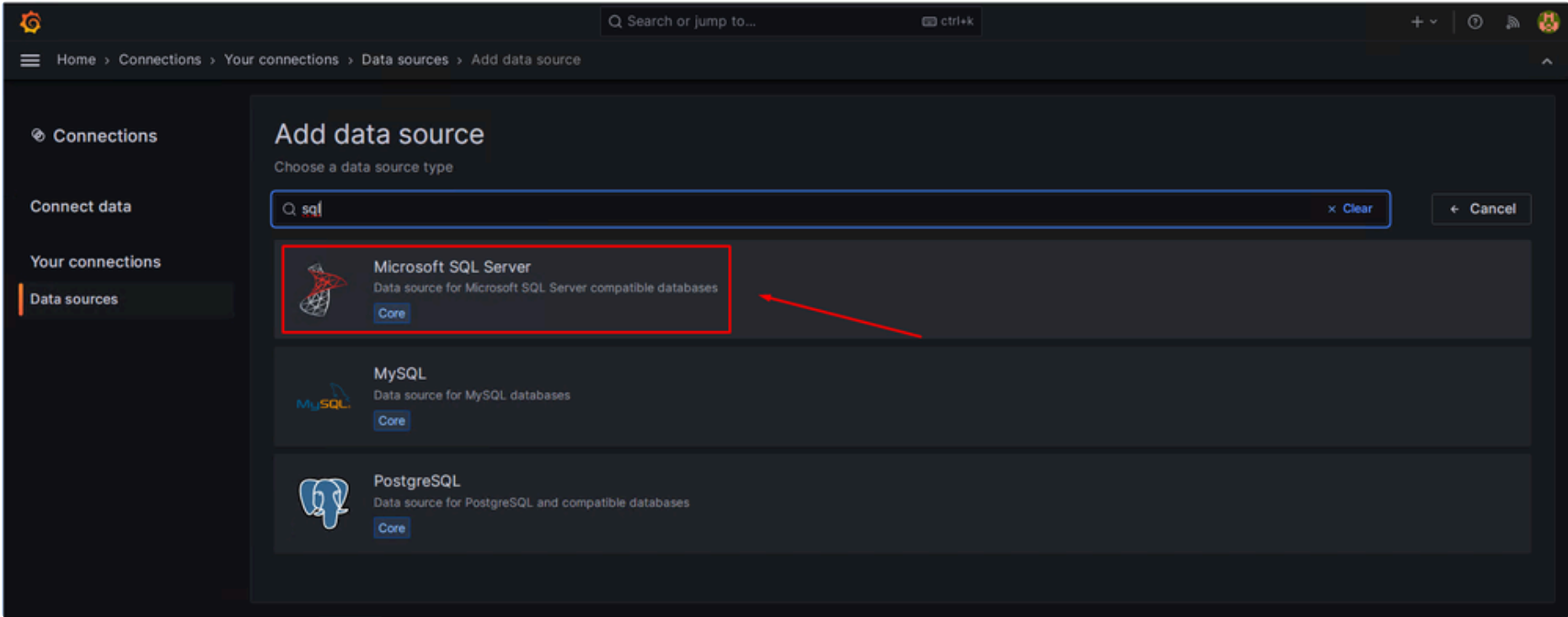
Configuring Data Sources: Configuring the required data sources is simple, there is three in total and one is done for us already. Run through the below steps to get this done.

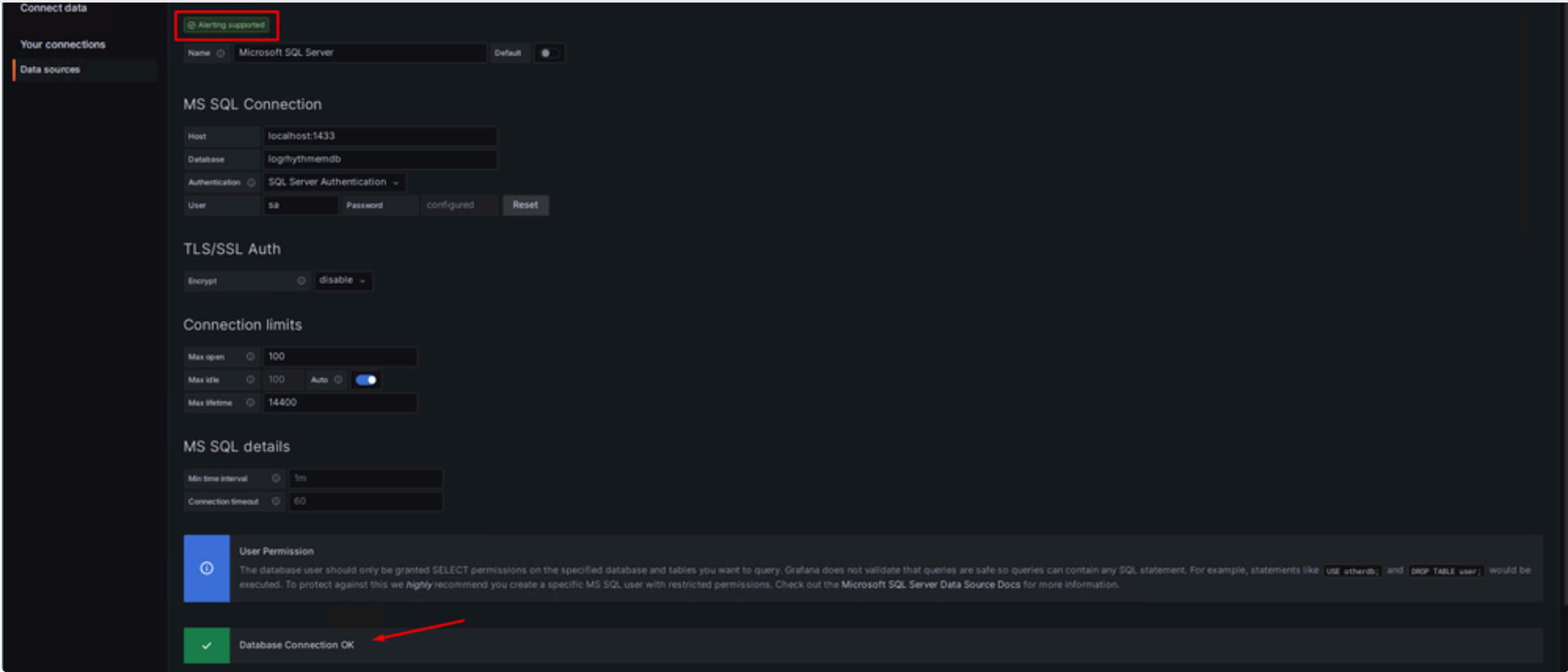
- RDP onto your XM/PM server, open Google Chrome or Edge and browse to localhost:3000 (Grafana)).

Follow the below steps.

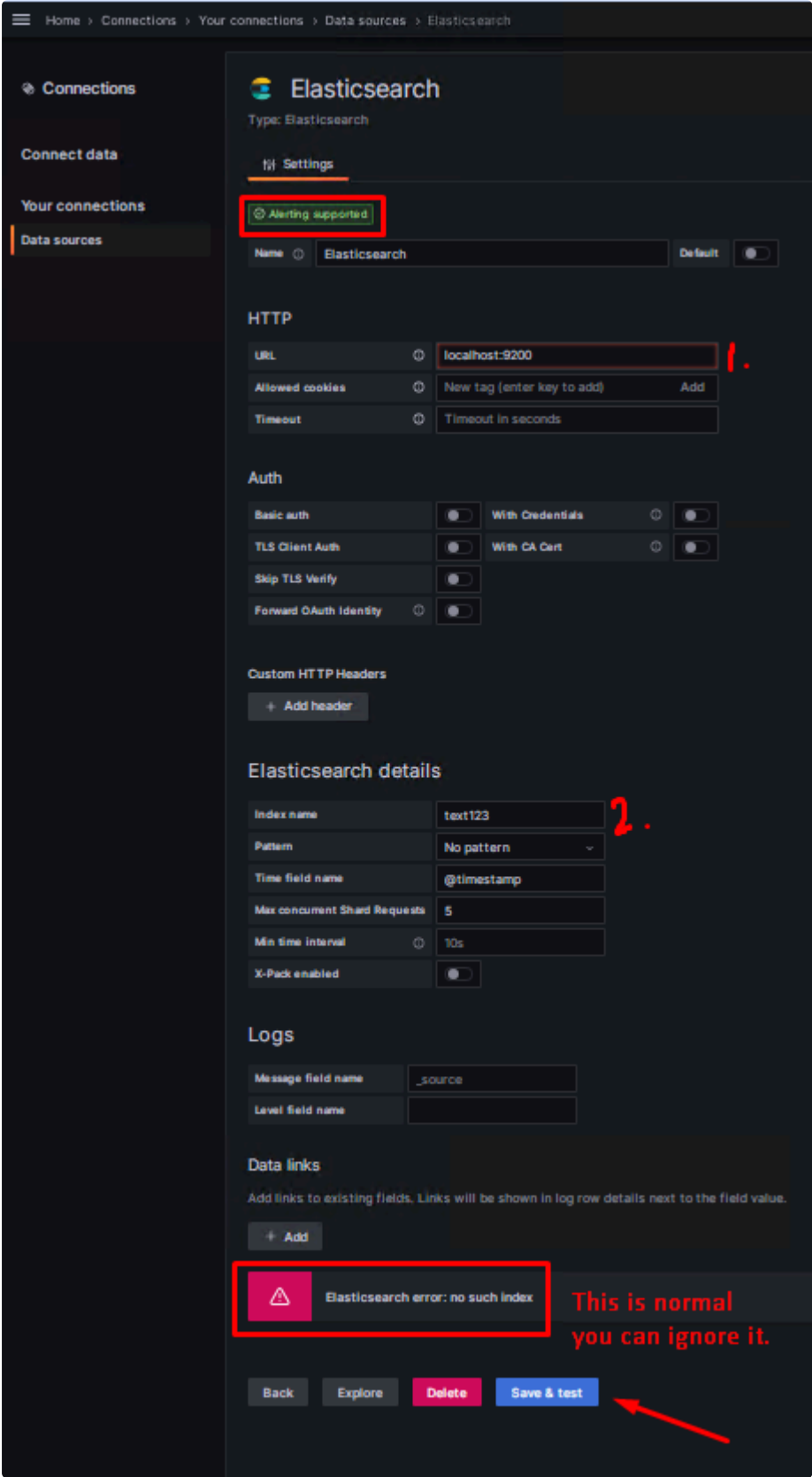
- Open elevated CMD prompt.
 - Navigate to the following directory, you can just paste the below statement in:
cd C:\Program Files\LogRhythm\LogRhythm Metrics\LogRhythm Metrics Web UI\dependencies\grafana\bin
 - Now run the following command and change the section that says logrhythm!1, to whatever you want, this is just the generic password we use for the platform.
 - **grafana-cli admin reset-admin-password logrhythm!1**
 - If you did it correctly CMD will say "Admin Password cahnged Succesfully" and you should now be able to login to Grafana on the previous step.
- Click on the "hamburger" menu in the top left corner of the screen, expand the "Connections" tab and click on "Your Connections". You should see that Telegraf is already in there.
- Now you can add in SQL Server by clicking the large "Add New Data Source" button in the top right corner. The next steps for this section are easier to explain via screenshots so see below;

SQL Connection



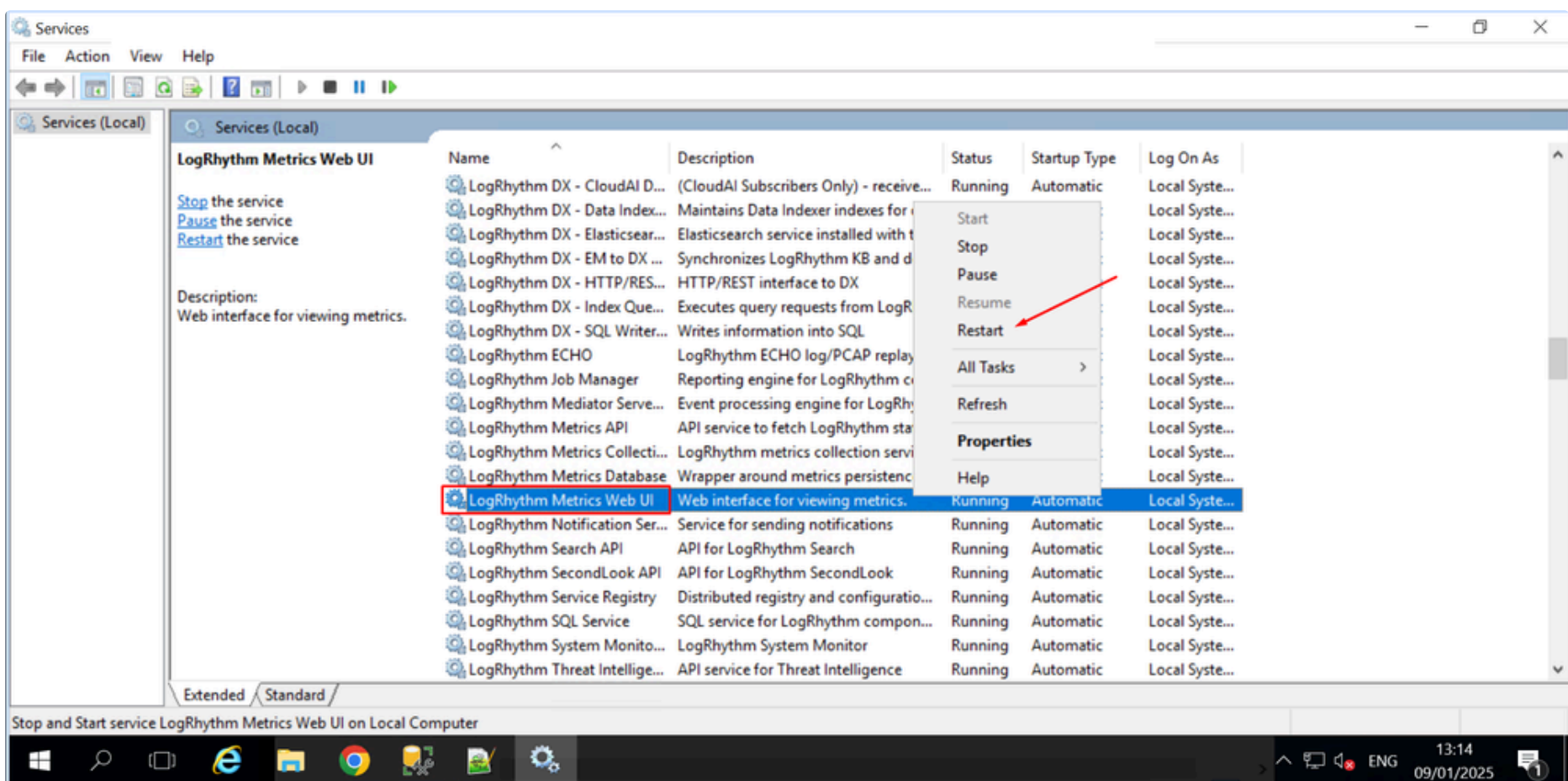
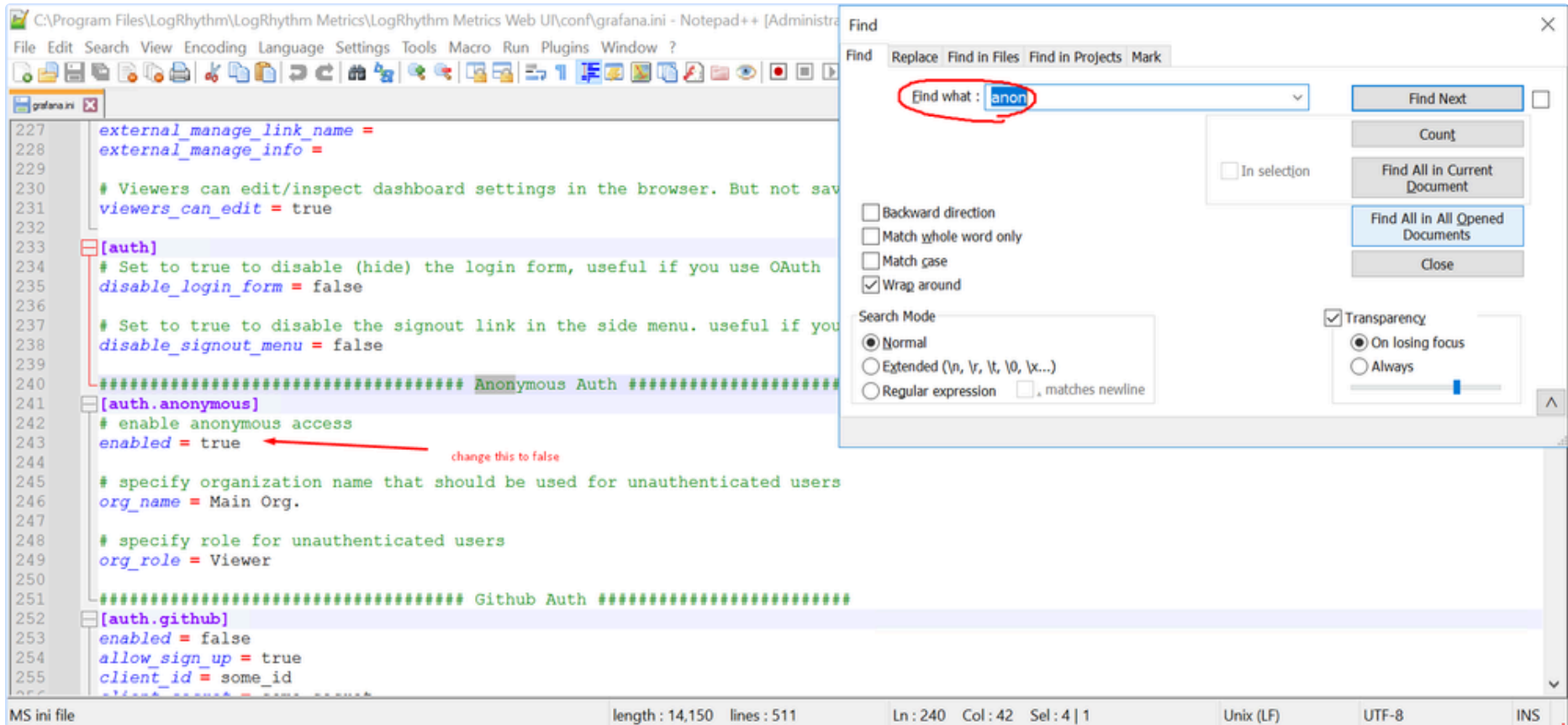


ElasticSearch Connection (Optional - This is just for some of the custom community dashboards)



Disabling Anonymous Authentication (Optional - Highly Reccomended): For an additional level of security, you can also alter the additional grafana.ini variable to revoke anonymous logins. However, you will need to ensure you have Grafana accounts setup before enforcing this. This appears to be included by default in 7.19 so you may not need to do this part if you are on 7.19, worth checking if you need to login to Grafana to see data.

- Open File Explorer & browse to the following path C:\Program Files\LogRhythm\LogRhythm Metrics\LogRhythm Metrics Web UI\conf .
- There is a file in there called Grafana, open this in a text editor (I used Notepad++) make sure you do this as an admin or you might get a permissions prompt.
- CTRL + F for "anon" . Then match your configuration to the below screenshot, and restart the service in 2nd screenshot. Grafana will be down for a moment whilst this goes through.
- Once Grafana loads back up, sign out of it, and refresh the page. You should notice that nobody can now get into Grafana without logging in first. This is the desired effect of this change.



Configuring SMTP Details: So we have got to a point where we have our data connections, Grafana requires a password for access and now we can move onto setting up the SMTP details. It's a similar format to the last step, details below;

- Open Notepad ++ as admin
- Browse to this file "C:\Program Files\LogRhythm\LogRhythm Metrics\LogRhythm Metrics Web UI\conf\grafana.ini"
- CTRL + F for "SMTP" and look for these default values as seen in screenshot 1 below. Once you have found it, change the settings to the configuration in screenshot 2. I setup a test SMTP server and put the following details in, you will have a slightly different config (I used mail hog as my test server).
- Once you have done that you will need to save the grafana file and restart the same service as before.


```

324 enabled = false
325 config_file = /etc/grafana/ldap.toml
326 allow_sign_up = true
327
328 ##### SMTP / Emailing #####
329 [smtp]
330 enabled = false
331 host = localhost:25
332 user =
333 # If the password contains # or ; you have to wrap it with triple quotes.
334 password =
335 cert_file =
336 key_file =
337 skip_verify = false
338 from_address = admin@grafana.localhost
339 from_name = Grafana
340 ehlo_identity =
341

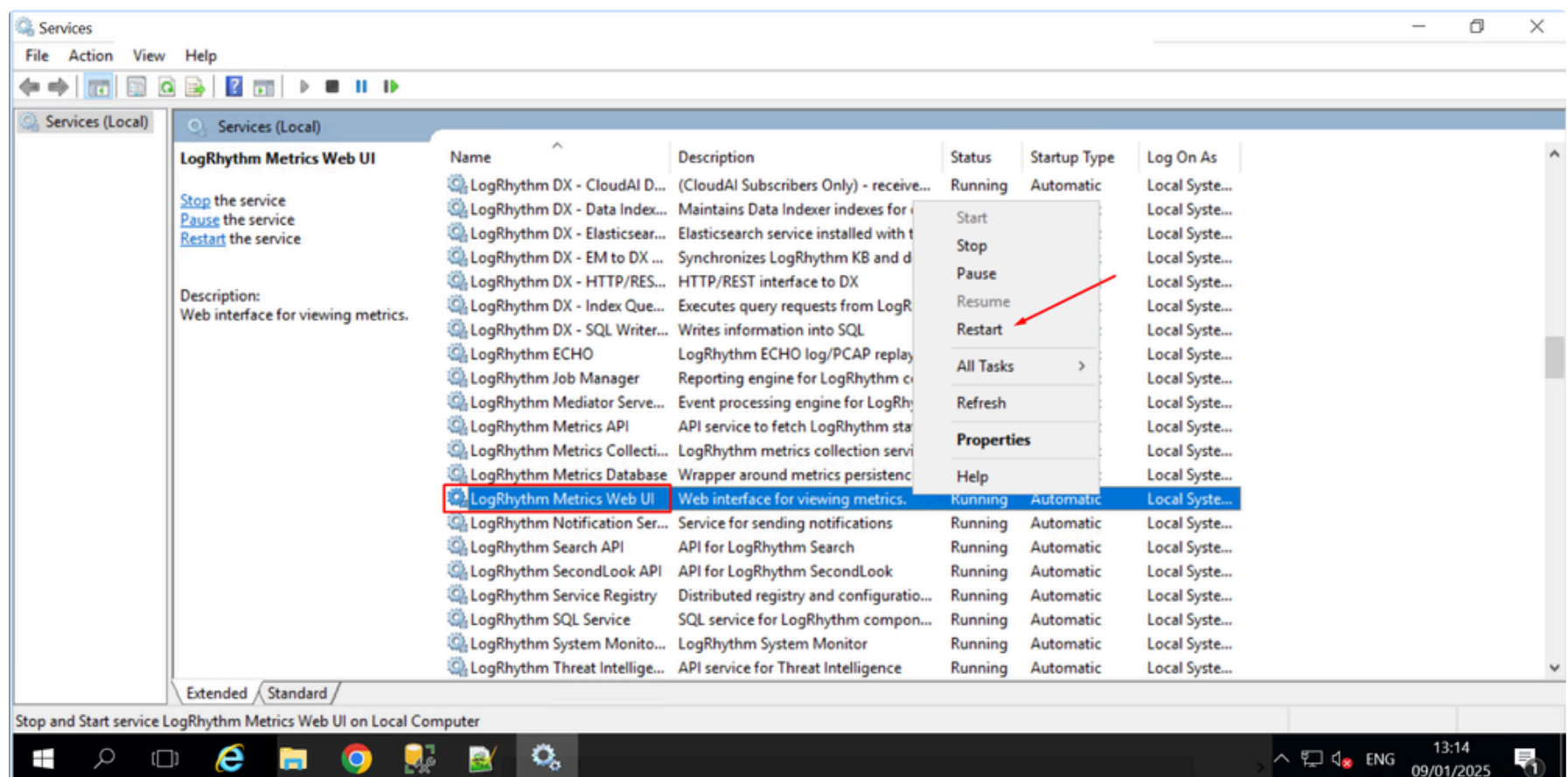
```

```

##### SMTP / Emailing #####
[smtp]
enabled = true
host = localhost:1025
user =
# If the password contains # or ; you have to wrap it with triple quotes.
password =
cert_file =
key_file =
skip_verify = true
from_address = exampleaddress@example.com
from_name = Grafana
ehlo_identity =

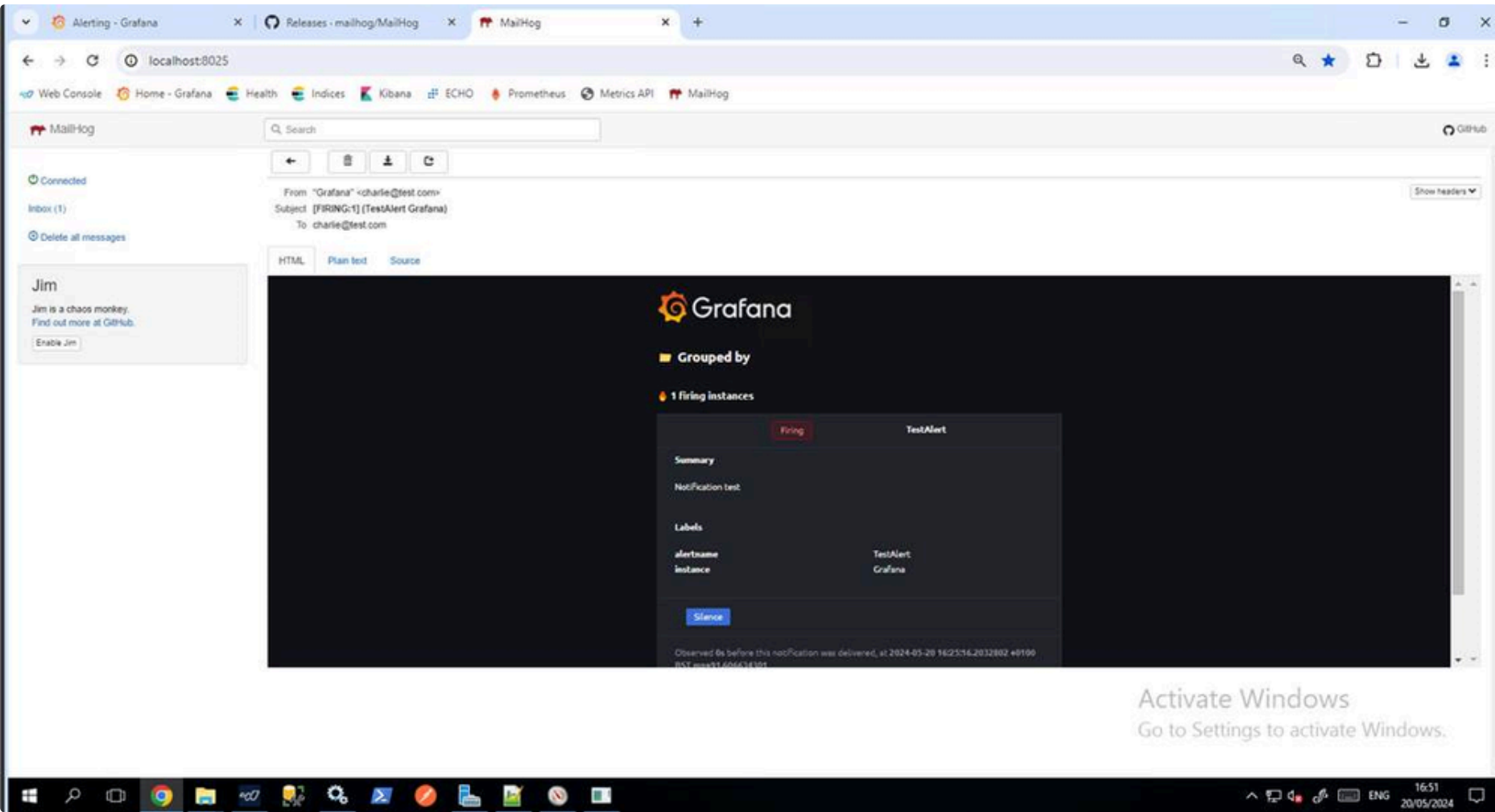
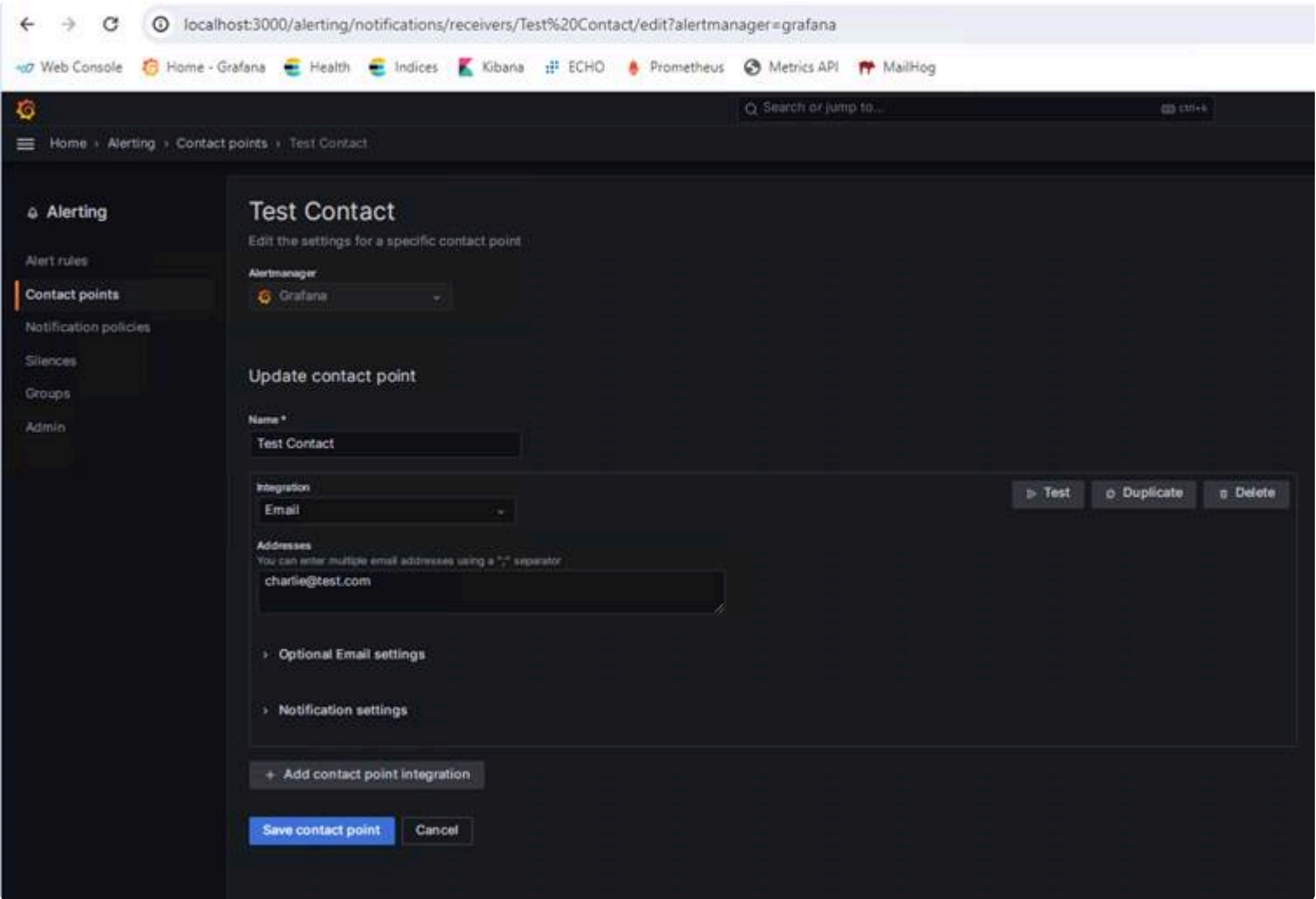
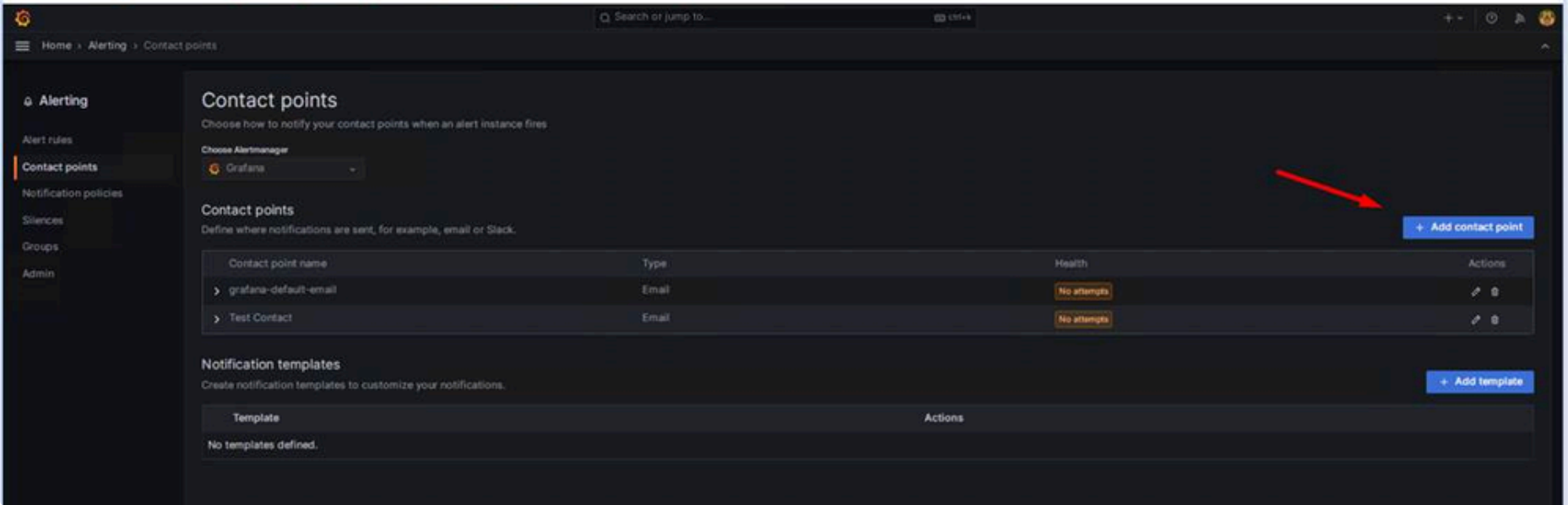
[emails]
welcome_email_on_sign_up = false
templates_pattern = emails/*.html

```



At this point it is a good idea to create some contact points within Grafana, populate them with test target email addresses and get familiar with the UI. In the past people have added in SOC team distribution lists, or specific email addresses of administrators responsible for SIEM maintenance etc. Examples below of what works in my lab, once you have it setup you can hit the test button and get an example email through like I have.

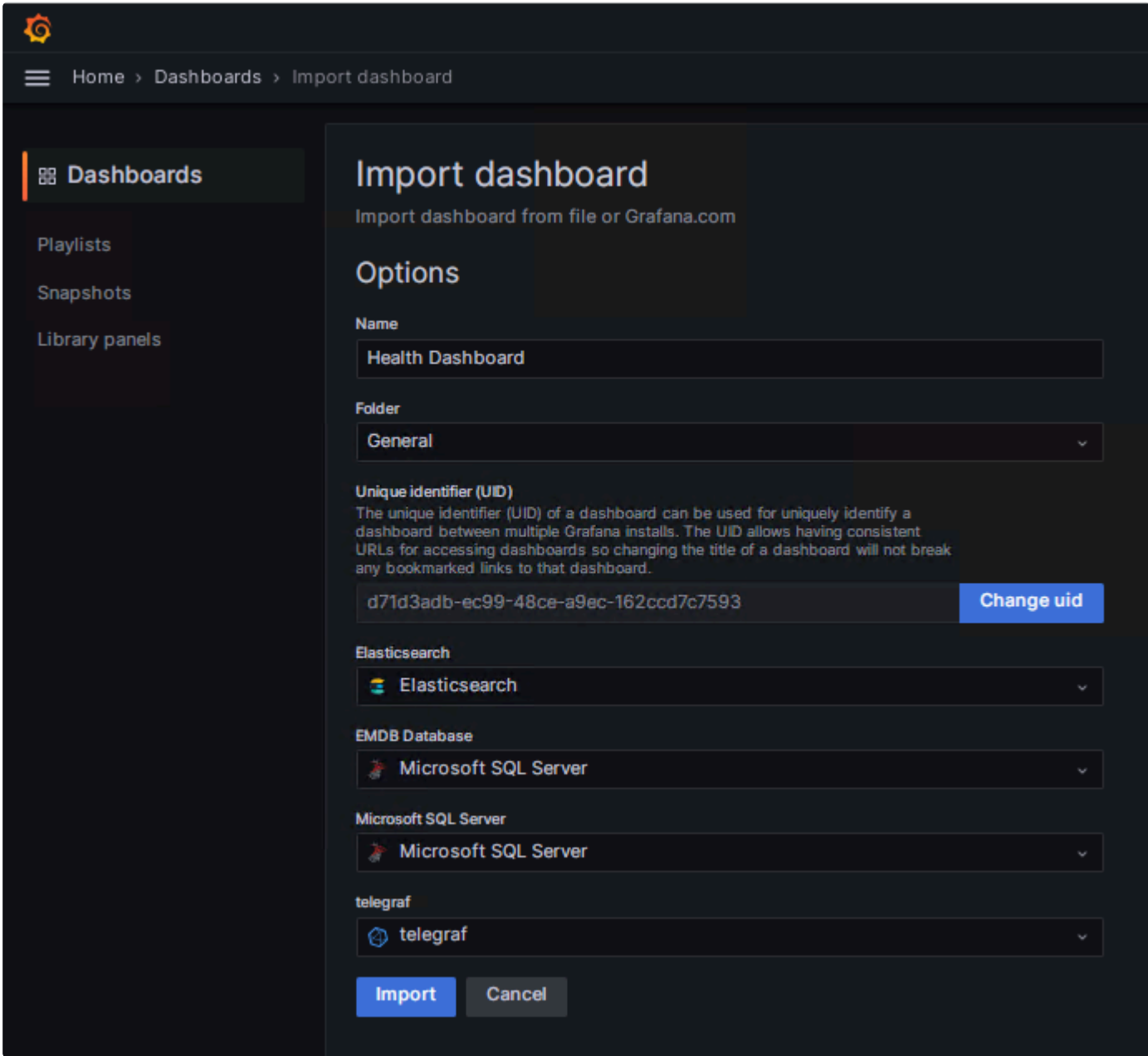
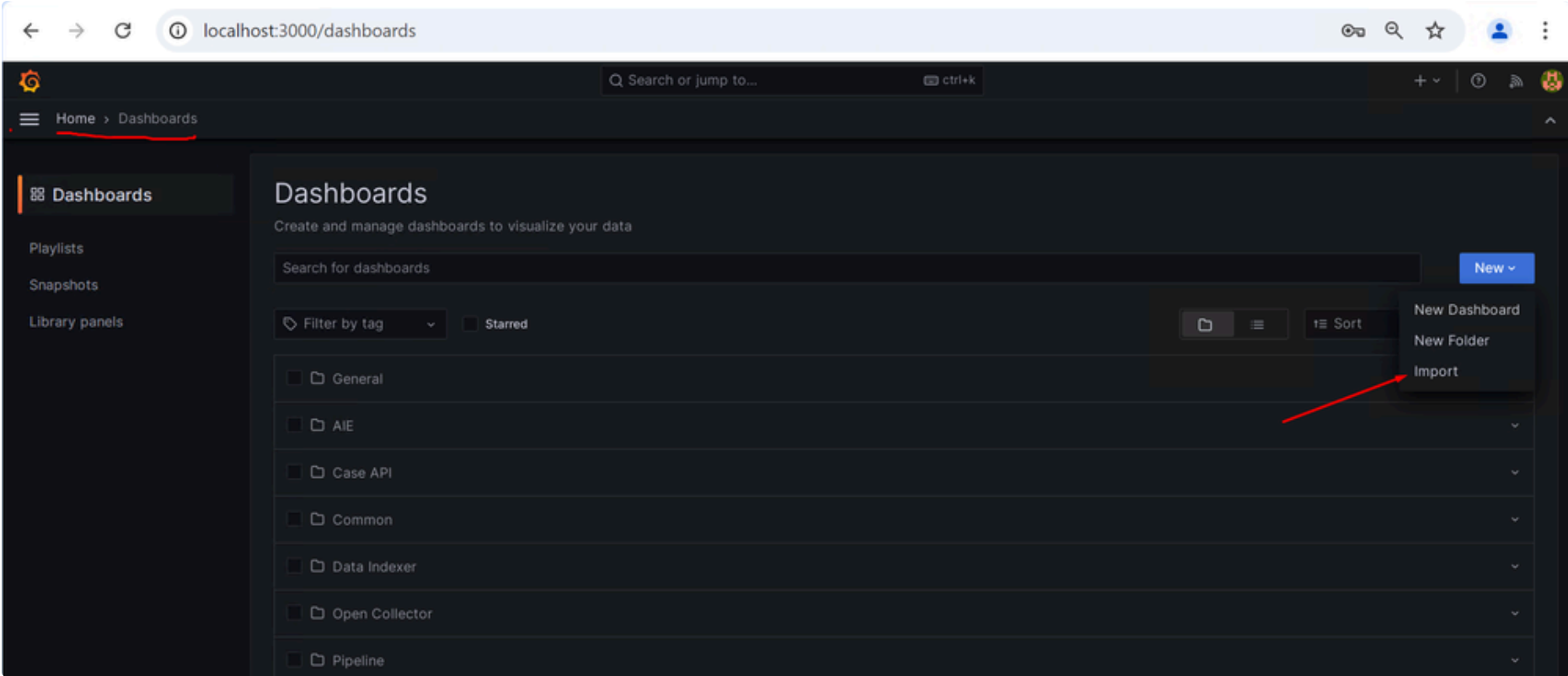
Link to official Grafana documentation if you need it - <https://grafana.com/docs/grafana/latest/alerting/configure-notifications/manage-contact-points/>

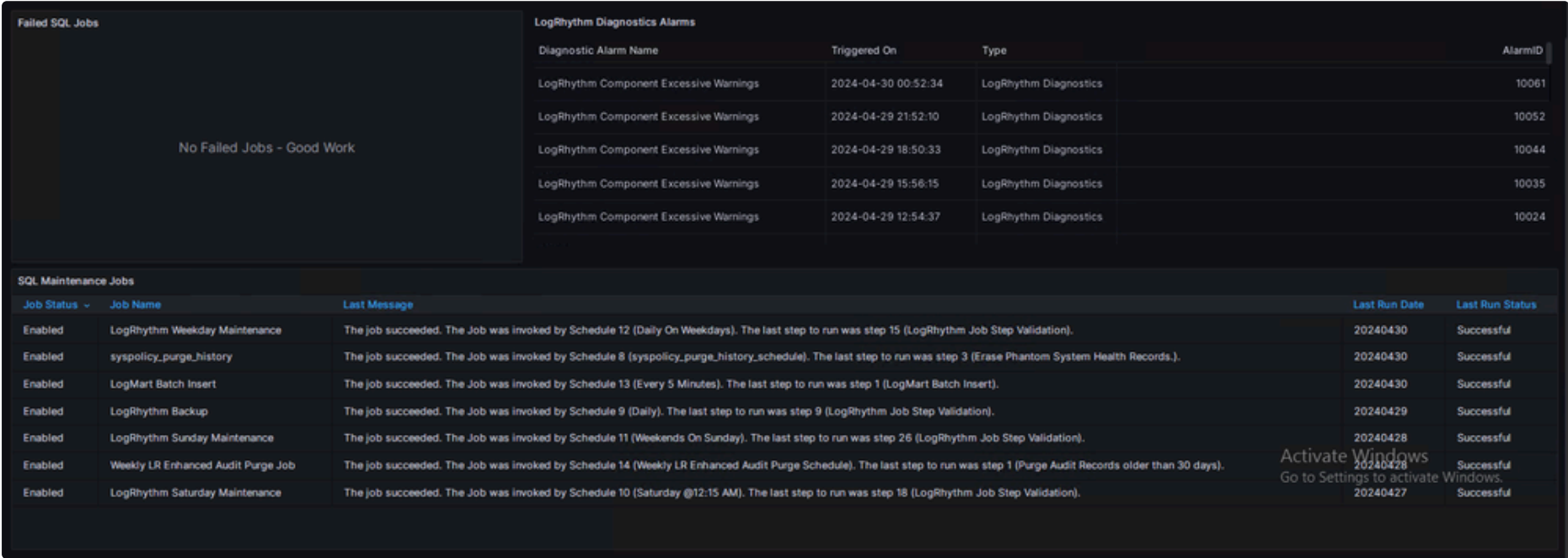


Importing Pre-Existing Community Dashboards (As a minimum you will need the Health Monitoring One)

from scratch, if you don't then you will likely require SQL query knowledge and telegraf knowledge. Essentially you just grab the JSON file in those links and you can import them.

- **Download The JSON Files From Health Monitoring Dashbord**
[Health Monitoring Dashboard](#)
- **Optional Downloads - Useful Dashboards**
- [Alarming KPI Dashboard](#)
- [AIE Alarm Tuning Dashboard](#)
- [Log Source Onboarding Dashboard](#)

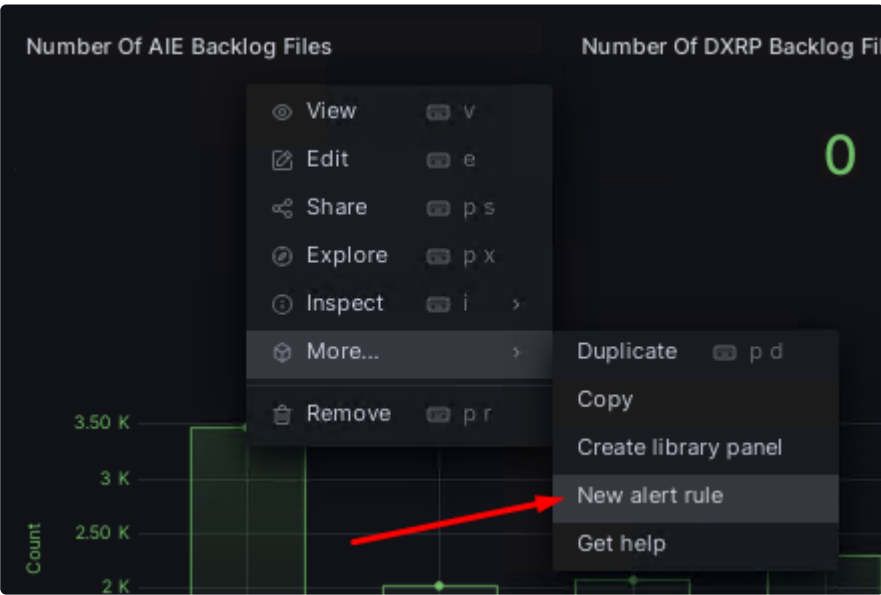




Creating Alerts: Circling back to some of the original items I mentioned, lets create some alerts that allow us to monitor the below things and send an email if a certain threshold is met.

- There is currently no way to raise an alarm if there is DXRP build up.
- You don't get alarms if a SQL maintenance or backup job fails.
- There is no alarms/alerts for when your indexing rate drops below a certain threshold.

The fastest way to do this is to pick a working widget in a dashboard, whilst logged in as an admin to Grafana, click on the 3 dots in the corner and click "create alert rule".



At this point I highly reccomend checking out the official guidance from Grafana on how to configure alerts, but I will provide an example below anyway. https://www.youtube.com/watch?v=6W8Nu4b_PXM.



backlog the count, is above 100, then fire the alarm. You can test the alarm by setting that amount to -1 and pressing preview, or you can change it to IS BELOW 100, and pressing preview - Just ensure you set it all back to normal once you see the red "FIRING" notificaiton.

The second screenshot below illustrates the customization options for things like how often to review, how often to send the emails if there is an issue, tags, anotations and other less used features etc.

2. Define query and alert condition

Define queries and/or expressions and then choose one of them as the alert rule condition. This is the threshold that an alert rule must meet or exceed in order to fire. [Need help?](#)

A

telegraf

Options 7 days, MD = 100, Min. Interval = 2h

Set as alert condition

FROM

default

ale

X

WHERE

+

SELECT

field(Cument_A_of_Data_Files)

X

last()

X

+

GROUP BY

time(\$__interval)

X

fill(previous)

X

+

TIMEZONE

[optional]

ORDER BY TIME

ascending

▼

LIMIT

[optional]

SUMIT

[optional]

FORMAT AS

Time seri...

▼

ALIAS

Naming pattern

Graph

Lines Bars Points Stacked line Stacked bars

12.5

10

7.5

5

2.5

0

01/04 00:00

01/05 00:00

01/06 00:00

01/07 00:00

01/08 00:00

01/09 00:00

01/10 00:00

ale.last

Add query

Rule type

Select where the alert rule will be managed. [Need help?](#)

Grafana-managed

Data source-managed

Based on the selected data sources this alert rule will be Grafana-managed.

Expressions

Manipulate data returned from queries with math and other operations.

B Reduce

Set as alert condition

Take one or more time series returned from a query or an expression and reduce each series into a single output.

Input

A

▼

Function

Last

▼

Mode

Strict

▼

Series 1

0

1 series

Add expression

▼

Preview

C Threshold

Alert condition

Take one or more time series returned from a query or an expression and checks if any of the series matches the threshold condition.

Input

B

▼

IS ABOVE

▼

100

Custom recovery threshold

▼

Series 1

0

Normal

1 series: 0 firing, 1 normal

https://mycommunity.exabeam.com/discussions/siembed/grafana-advanced-alerting---platform-management-automations/656932/replies/656947

9/12



Platform Manager

or

+ New folder

Evaluation group

Rules within the same group are evaluated concurrently over the same time interval.

Select an evaluation group...

or

+ New evaluation group

Pending period

Period in which an alert rule can be in breach of the condition until the alert rule fires.

5m

> Configure no data and error handling

4. Add annotations

Add annotations to provide more context in your alert notifications. [Need help?](#)

Summary (optional)

Short summary of what happened and why.

Enter a summary...

Description (optional)

Description of what the alert rule does.

Enter a description...

Runbook URL (optional)

Webpage where you keep your runbook for the alert.

https://

Dashboard UID (optional)

Health Dashboard [V2 Test] [🔗](#) Number Of AIE Backlog Files [🔗](#) [🔗](#) [🔗](#)

Panel ID (optional)

+ Add custom annotation

5. Labels and notifications

Labels

Add labels to your rule to annotate your rules, ease searching, or route to a notification policy. [Need help?](#)

Choose key

Choose value

🗑️

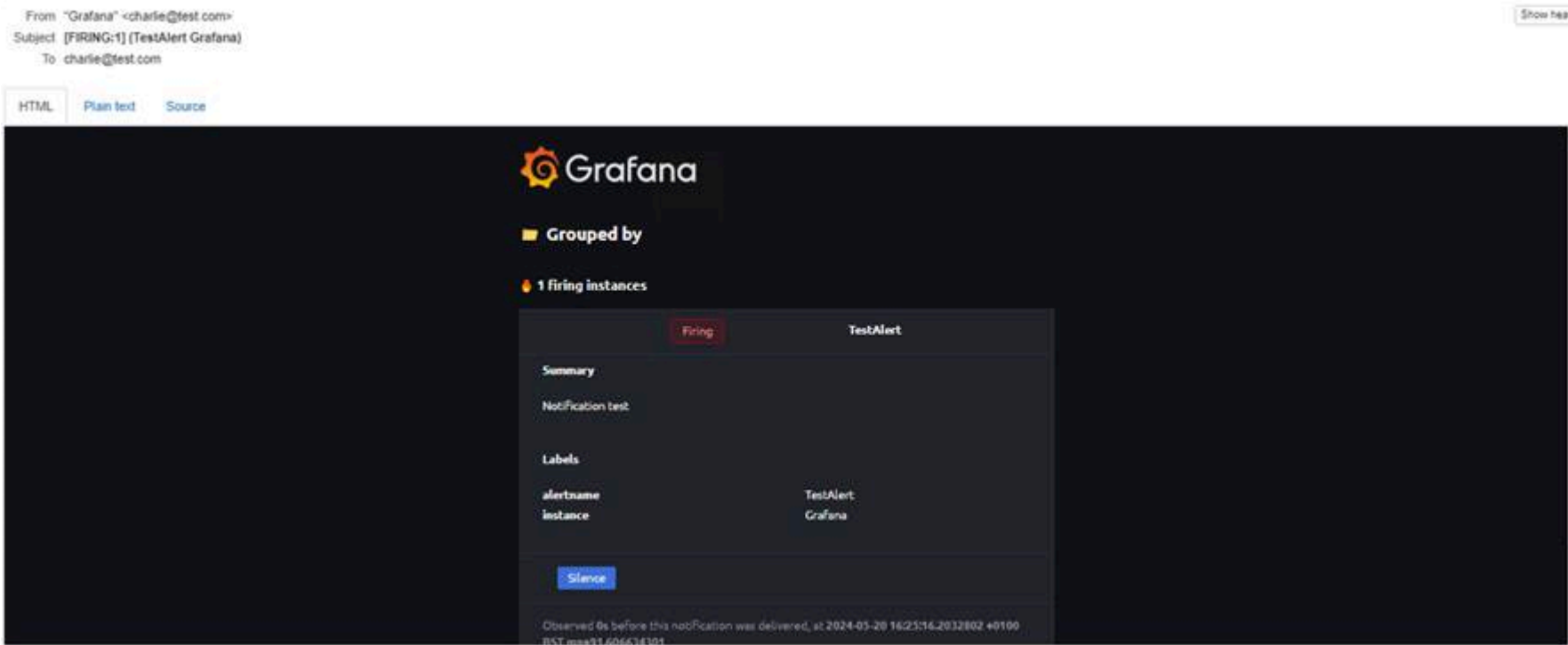
+ Add label

Alert instance routing preview

When you have your folder selected and your query and labels are configured, click "Preview routing" to see the results here.

Preview routing

You can edit the contents of the email notifications for specific alert rules, the logo, who gets the email, how often they are sent when an issue is detected etc. It's all heavily customizable.



Closing Statement - Going Forward: I will be adding to this page with example of alerts that we have seen in Production, tweaking any points that need clarificaiton and generally supporting the customer bases questions from this page. If you yourself have created any useful alerts that others would benefit from please share the configuration in the comments and lets see if we can get some support behind this.

[Health Dashboard \(V2 Test\)-1714473440479.json](#)

56 KB

- ALERTING X
- CUSTOM X
- EMAILS X
- GRAFANA X
- MONITORING X
- PLATFORM X
- PLATFORM MANAGMENT X
- SMTP X
- + TAG

9

Reply

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