Level 1 – Collecting Your Data

I began by installing the Datadog agent on an Ubuntu 16.04 server running on VMWare Workstation.

What is the Agent?

Very simply, the agent is a piece of software that runs on the host machine and collects information. This information includes metrics or events, and can be collected from various sources, as well as by various means, on the host machine.

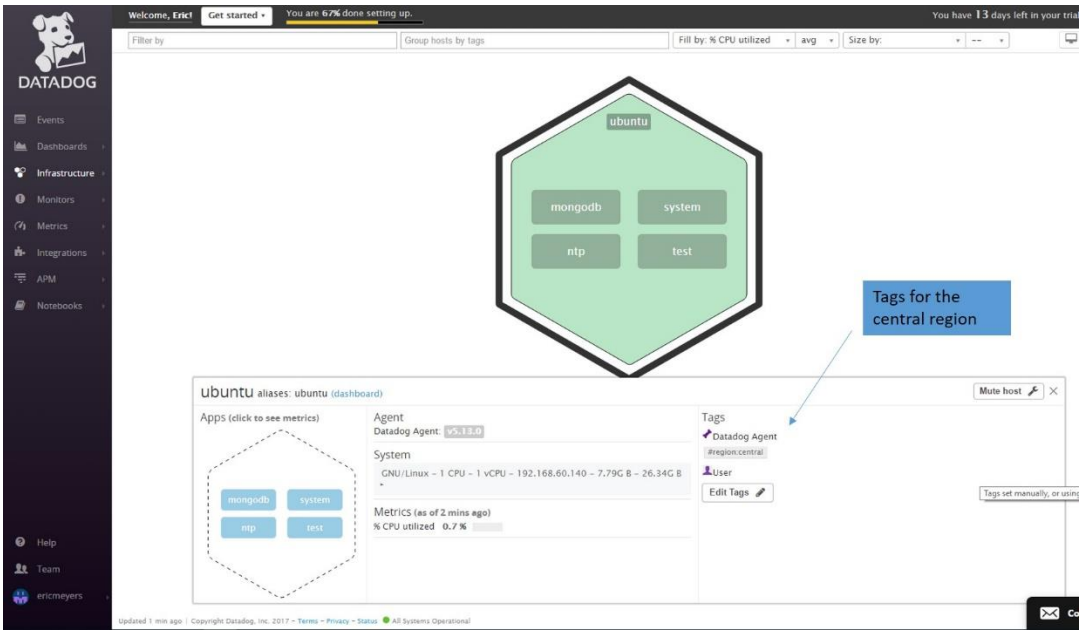
Tags

Tags are used to make it easier to subset and query the metrics that you have to monitor. You can label and organize entities so they roll up into meaningful categories. This, in turn, will make it easier to subset and query those metrics, so that you can find the right metrics you need at the right time.

There are many ways to tag and tagging can be done for the overall agent as well as for each integration. For this exercise, I tagged the datadog.conf file, which is a high level configuration file for the agent. I added a simple line of code to show that our host is in the Central region:

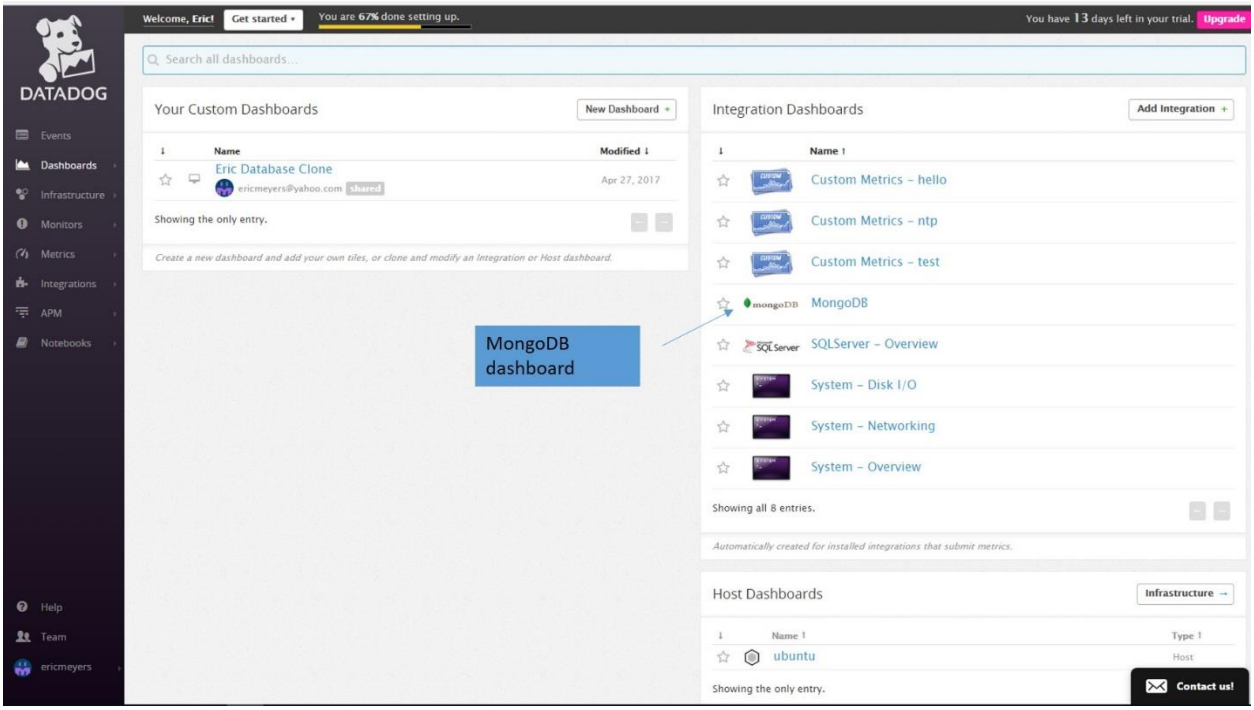
tags: region:central

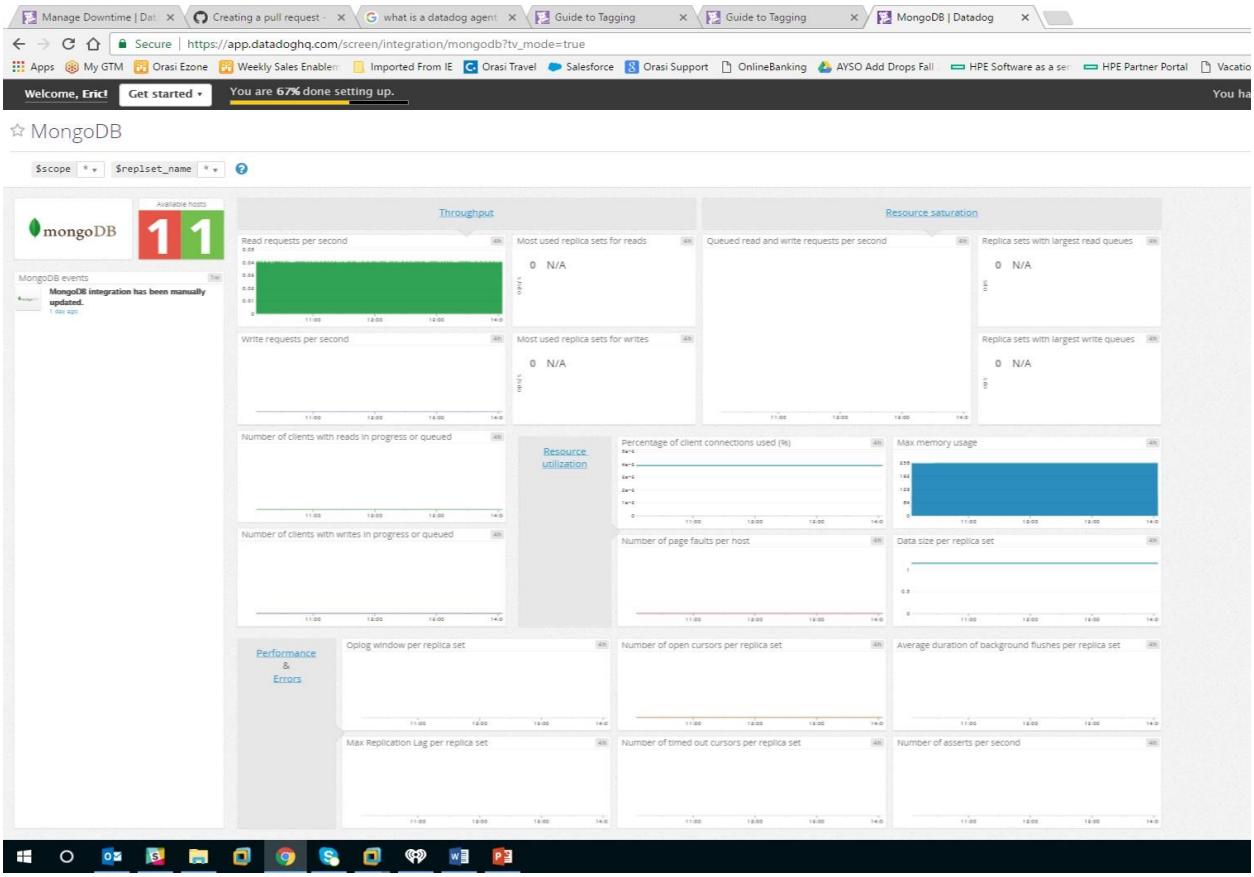
From the Host Map page in Datadog, you will see a screenshot of the host as well as the tags. In particular, you will see that I am focused particular on the Central region, which includes our Ubuntu server.



Database

I installed the latest MongoDB, and then installed the MongoDB integration for this database. I created a new user in the "admin" database, and this user has administrative privileges to collect server statistics. I then began collecting data against this database and it is reporting into a dashboard.





Custom Agent Check

I decided to create a custom agent check that samples a random value between 0 and 1. To do this, I created 2 different files.

Under the checks.d directory (one of the Datadog agent directories), I created a Python file called “eric.py”. Why did I call it “eric” – well I think that’s a great name for a file! This file contains the code itself that grabs the random number and I assigned it to a metric called “test.support.random”. Under the conf.d (another one of the Datadog agent directories), I created a yaml file called “eric.yaml”.

The eric.py file looks like:

```
import random

from checks import AgentCheck

class HelloCheck(AgentCheck):

  def check(self, instance):

    x = random.random()
    self.gauge('test.support.random', x)
```

The eric.yaml code looks like:

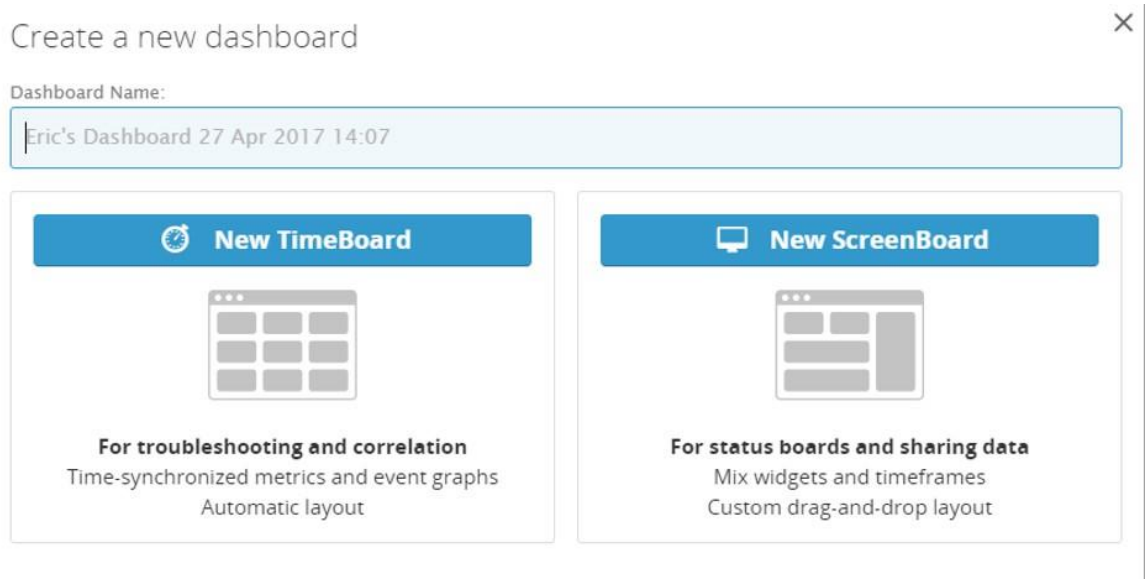
Level 2 – Visualizing Your Data

The MangoDB dashboard was cloned and I added the test.support.random graph to the dashboard as well. The agent may not be currently running, but you will find data on April 27. You will find that dashboard here:

https://p.datadoghq.com/sb/abc79fbd6-3274f27563

Timeboards and Screenboards

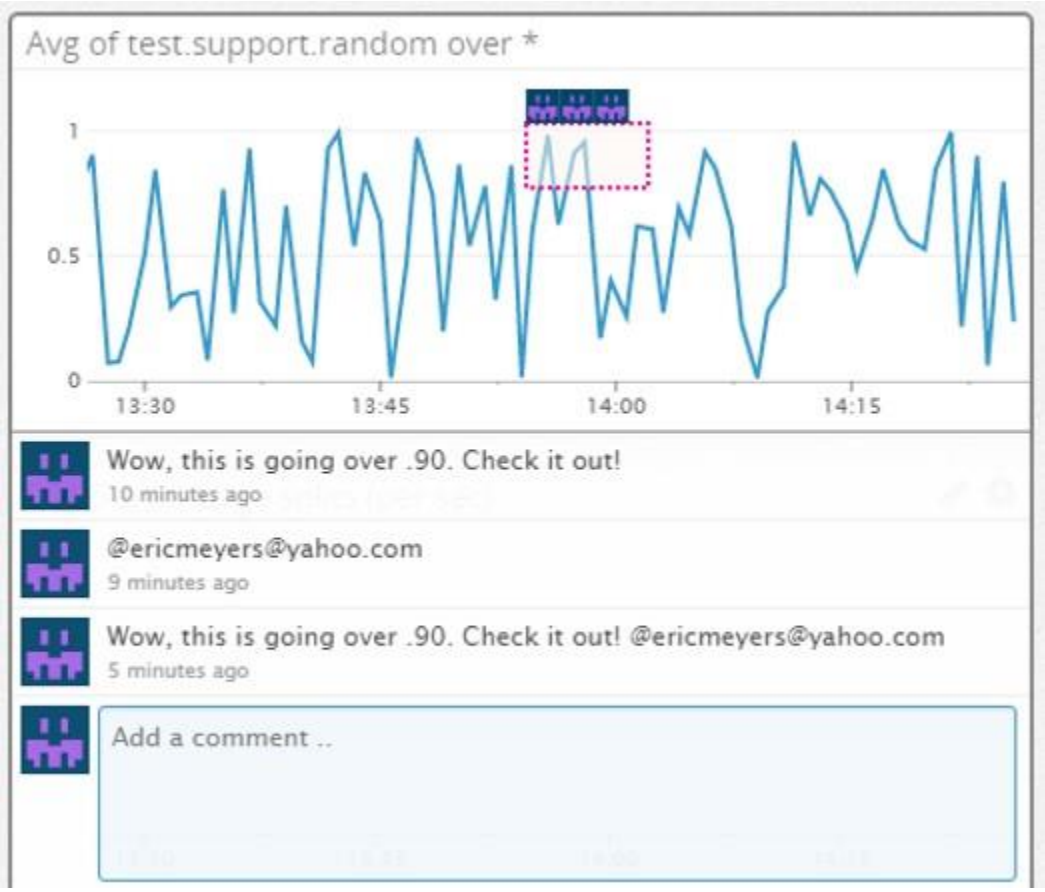
At Datadog, there are 2 different types of dashboards. These are called timeboards and screenboards. You'll see that you can choose the type of dashboard you want when you select a new dashboard.



A timeboard is intended to use in troubleshooting efforts, and has all of the metrics time-synced to try to show correlation between events on different systems.

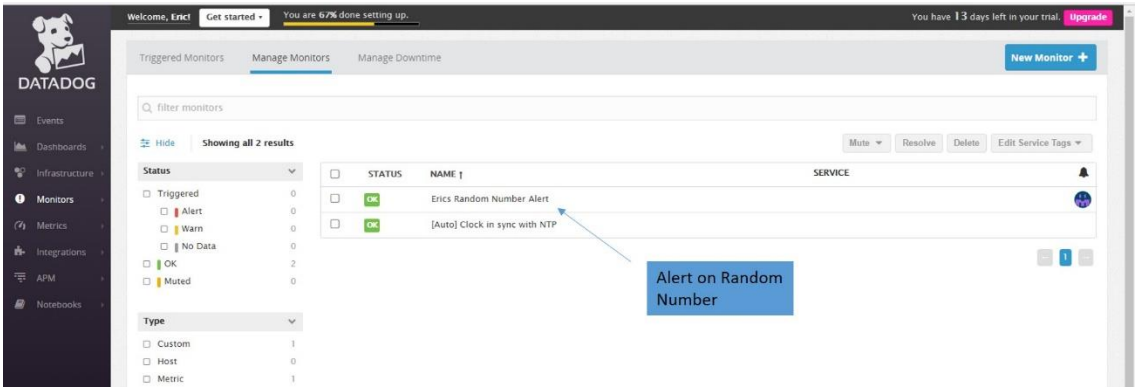
A screenboard is more flexible than dashboards, and each graph can be on its own timeframe and the graphs can have different sizes and different feel. In addition, there is more flexibility in the sharing options of a screenboard.

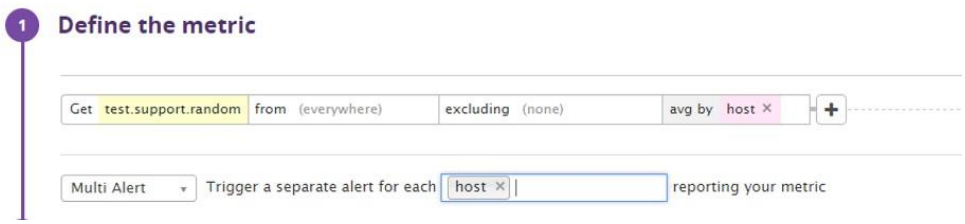
In the test.support.random graph, you will see that it periodically goes above .90. I was able to have some collaboration on this graph – which can be very useful to resolving an issue.



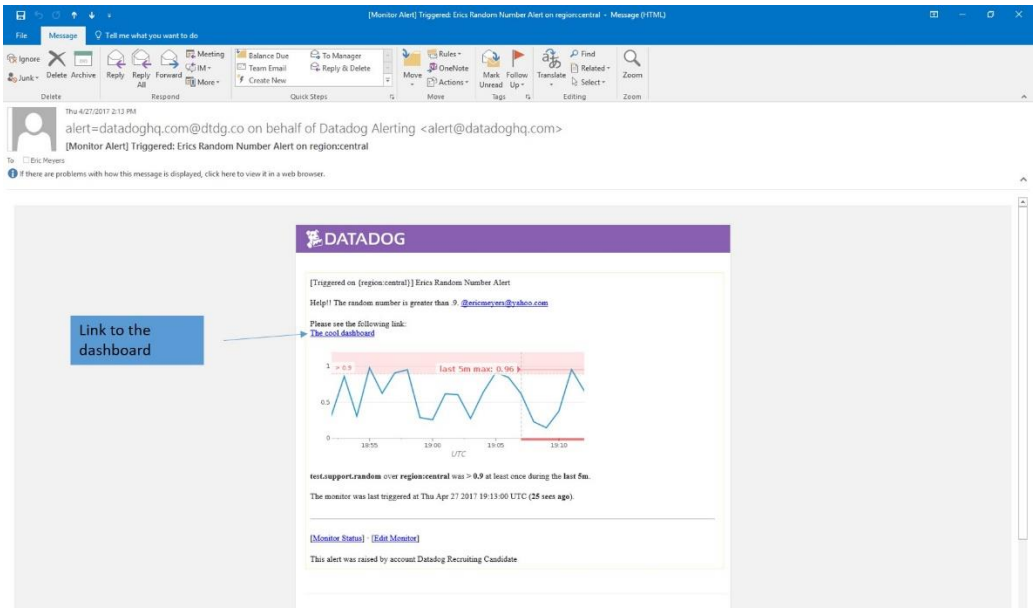
Level 3 – Alerting on your Data

A monitor was set up that alerts me when the value goes above .90 at least one time in the last 5 minutes. In addition, this was set up as a multi-alert by host, so if the infrastructure scales, I won't have to recreate the alert every time an additional host is added.

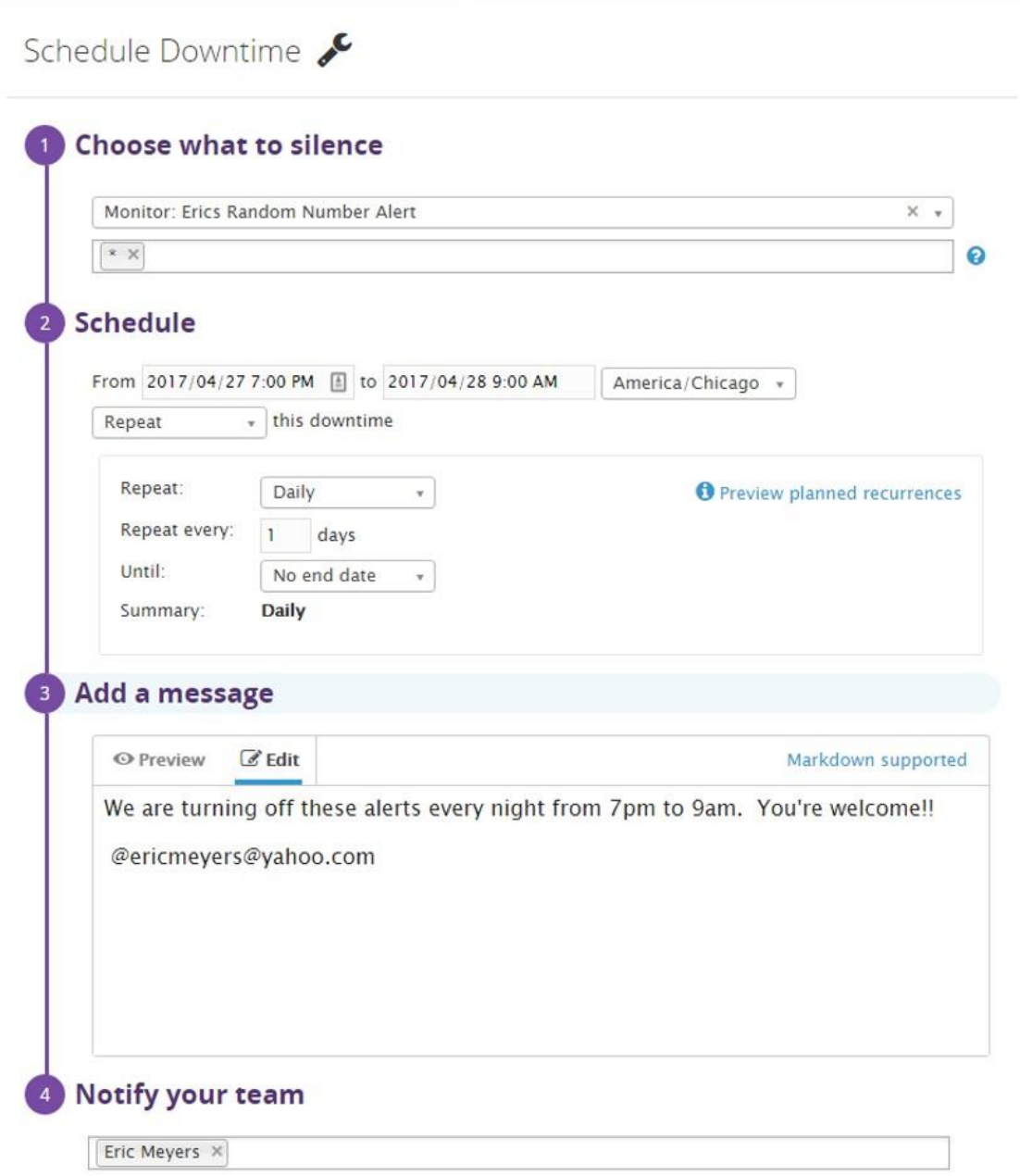


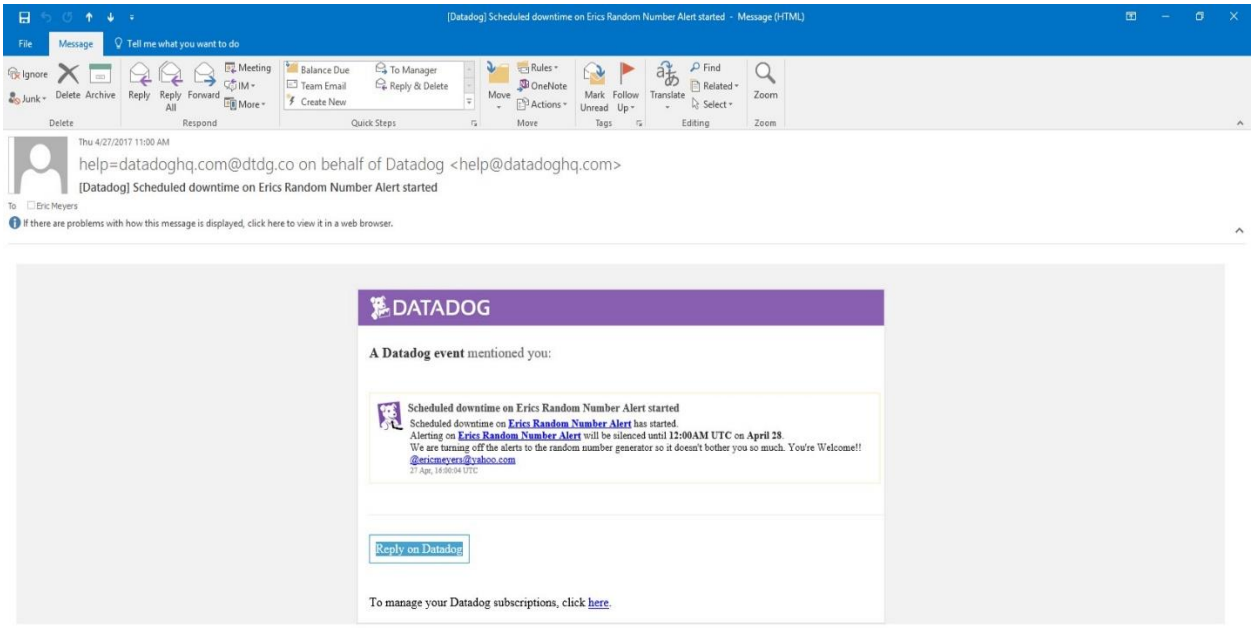


When this alert triggers, it can send out an email.



In addition, since this monitor alerts quite often, I set up scheduled downtime, so I am not alerted at certain times. While most likely you will set this up so that it silences at night, perhaps between 7pm and 9am, I am doing this exercise during the day and I wanted to receive the email telling me about this downtime.




[Datadog] Scheduled downtime on Erics Random Number Alert started - Message (HTML)
File
Message
Tell me what you want to do
Ignore
Junk
Delete
Archive
Reply
Reply All
Forward
Meeting
IM
More
Balance Due
Team Email
Create New
To Manager
Reply & Delete
Move
Rules
OneNote
Actions
Mark Unread
Follow Up
Translate
Find
Related
Select
Zoom
Delete
Respond
Quick Steps
Move
Tags
Editing
Zoom
Thu 4/27/2017 11:00 AM
help=datadoghq.com@dtdg.co on behalf of Datadog <help@datadoghq.com>
[Datadog] Scheduled downtime on Erics Random Number Alert started
To
Eric Meyers
If there are problems with how this message is displayed, click here to view it in a web browser.
DATADOG
A Datadog event mentioned you:
Scheduled downtime on Erics Random Number Alert started
Scheduled downtime on Erics Random Number Alert has started.
Alerting on Erics Random Number Alert will be silenced until 12:00AM UTC on April 28.
We are turning off the alerts to the random number generator so it doesn't bother you so much. You're Welcome!!
@ericmeyers@yahoo.com
27 Apr, 18:00:04 UTC
Reply on Datadog
To manage your Datadog subscriptions, click here.