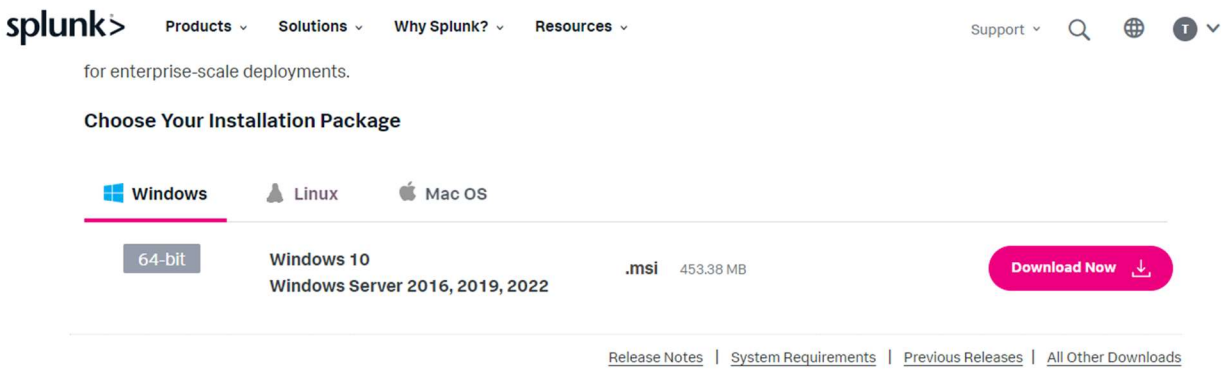
Installing Splunk Enterprise & Setting up Universal Forwarder

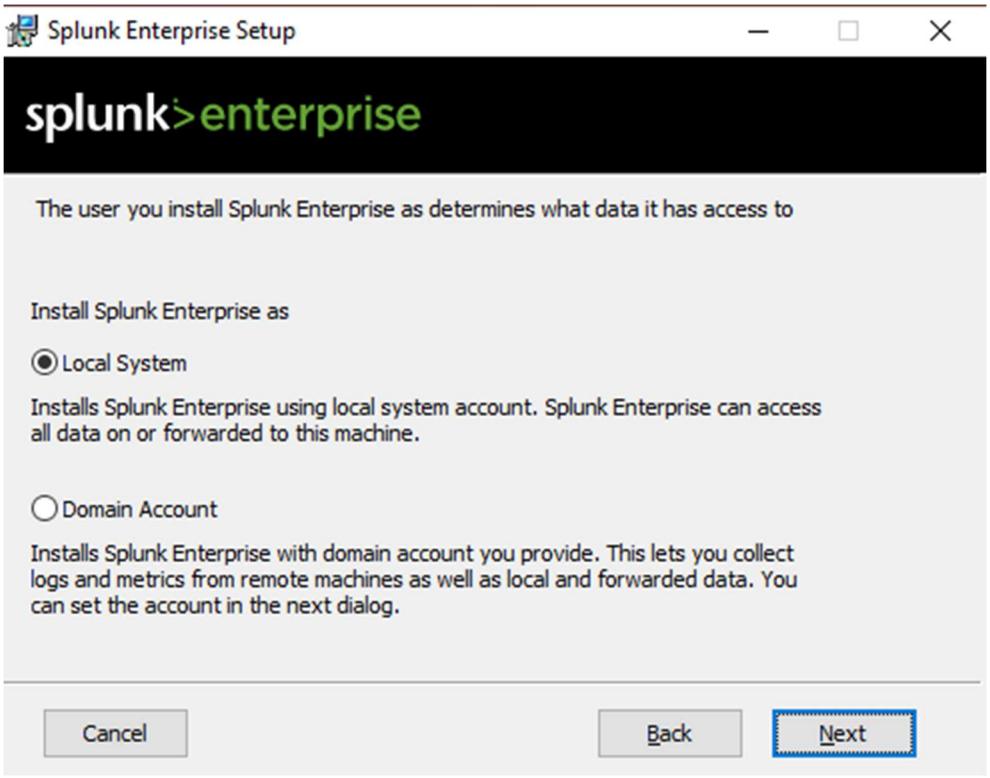
Hosting Splunk on Windows

First to download Splunk, Go to:
https://www.splunk.com/en_us/download/splunk-enterprise.html

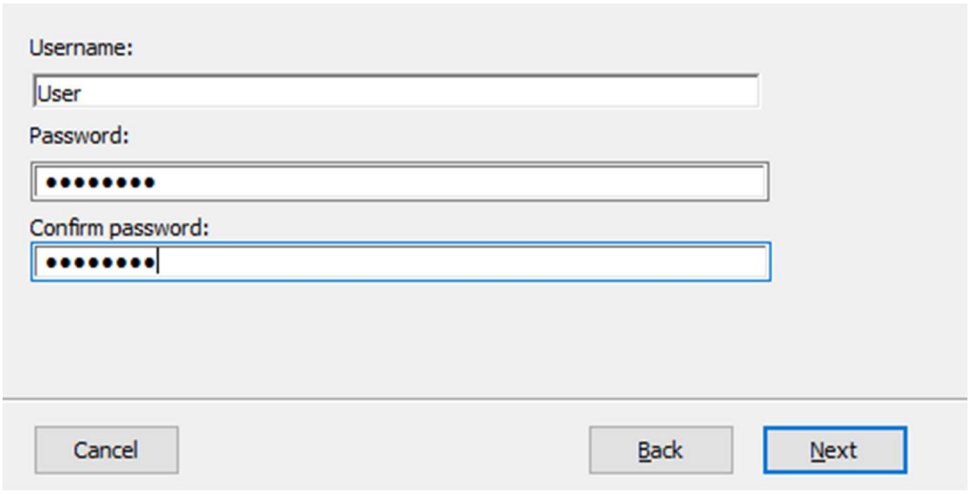
Then Download the version according to your installed OS. I am downloading a free version for windows.



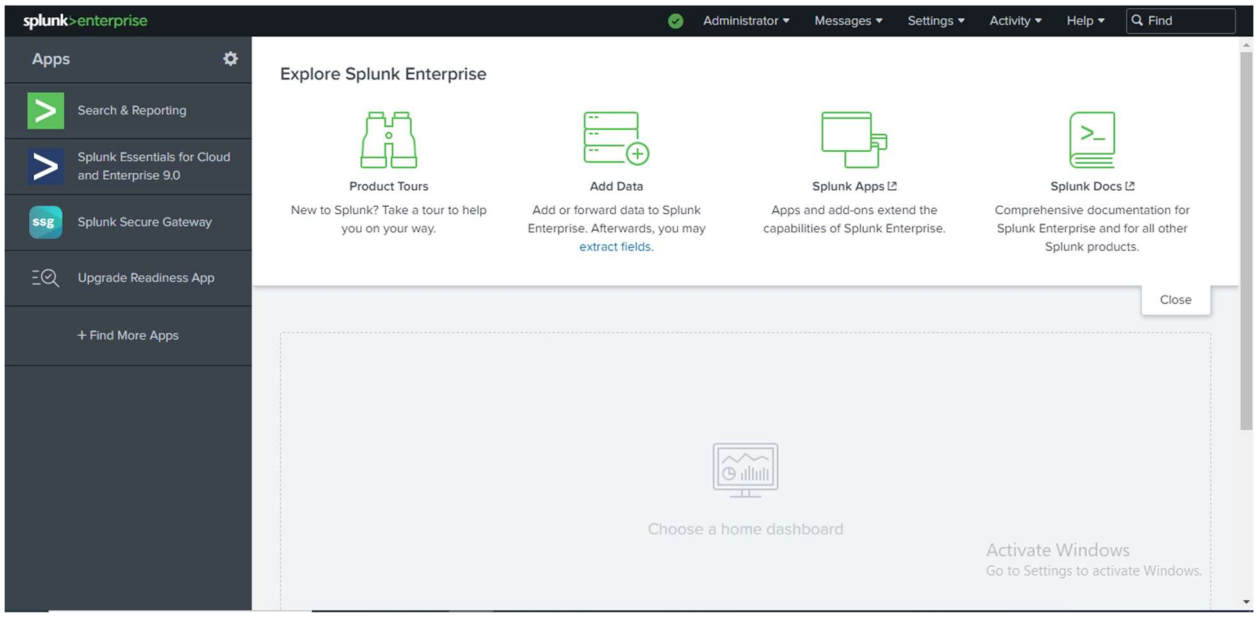
Then after downloading the ".msi" file open the Microsoft Software Installation file. Then after some processing, a UI prompt to chose account for setting up splunk is displayed. Chose the appropriate account. In this case I have chose local account.



Then we need to configure credentials for accessing Splunk. After providing credentials, hit the next button to start the installation process.



After installation completes a prompt to open Splunk in a browser is displayed. By clicking the button, we are redirected to the login page. Then entering the credential that we created during setup allows us to get access to SIEM UI.



By logging in, we are provided with the above interface. By going to Search & Reporting we can search for logs. To do that we must first configure the auditing policy in our system and set up a log forwarder to Splunk enterprise. For the sake of forwarding logs, we are only going to enable Process Creation Log.

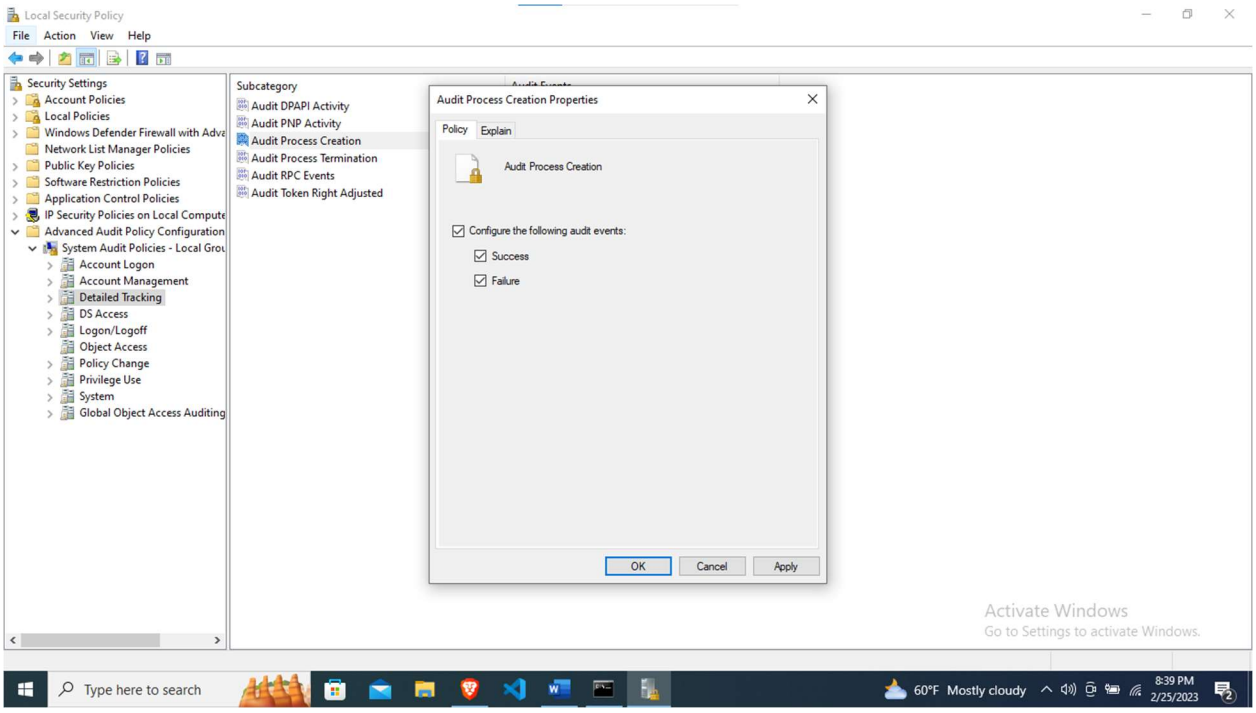
Enabling Auditing

I am currently using Windows 10 Pro. By going to the **Local Security Policy** we can configure the auditing policy.

Aftering opening the **Local Security Policy:**

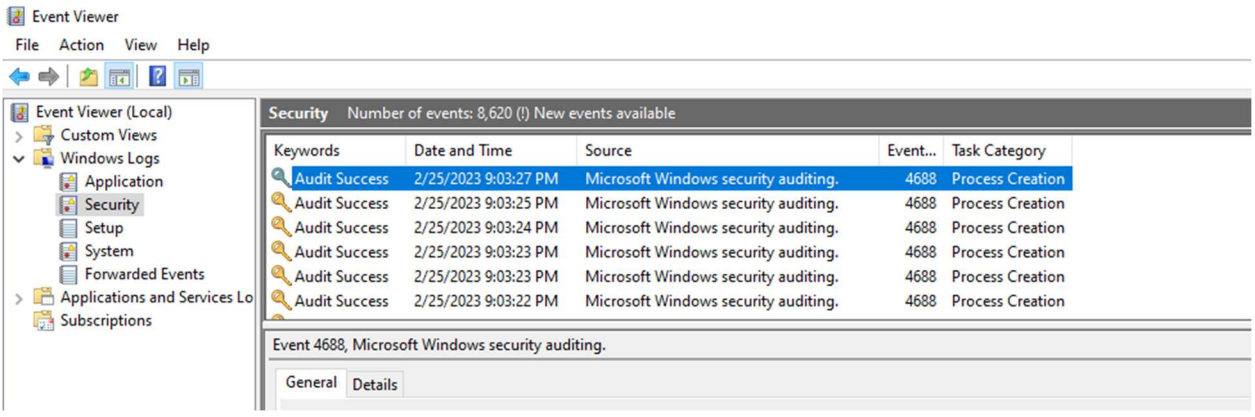
Go to "**Security Settings**" -> "**Advanced Audit Policy Configuration**" **->** "**System Audit Policies – Local Group Policy Object**" -> "**Detailed Tracking**".

Under Detailed Tracking click on "**Audit Process Creation**". Only the "**Success"** event category will be enough for our purpose as it generates a log for every successful process creation event.



To verify if auditing is successful or not.

1. Go to event viewer.
2. Then go to “Windows Logs” **-> “Security”**
3. There we will be able to Event ID 4688 with the task category “Process Creation”



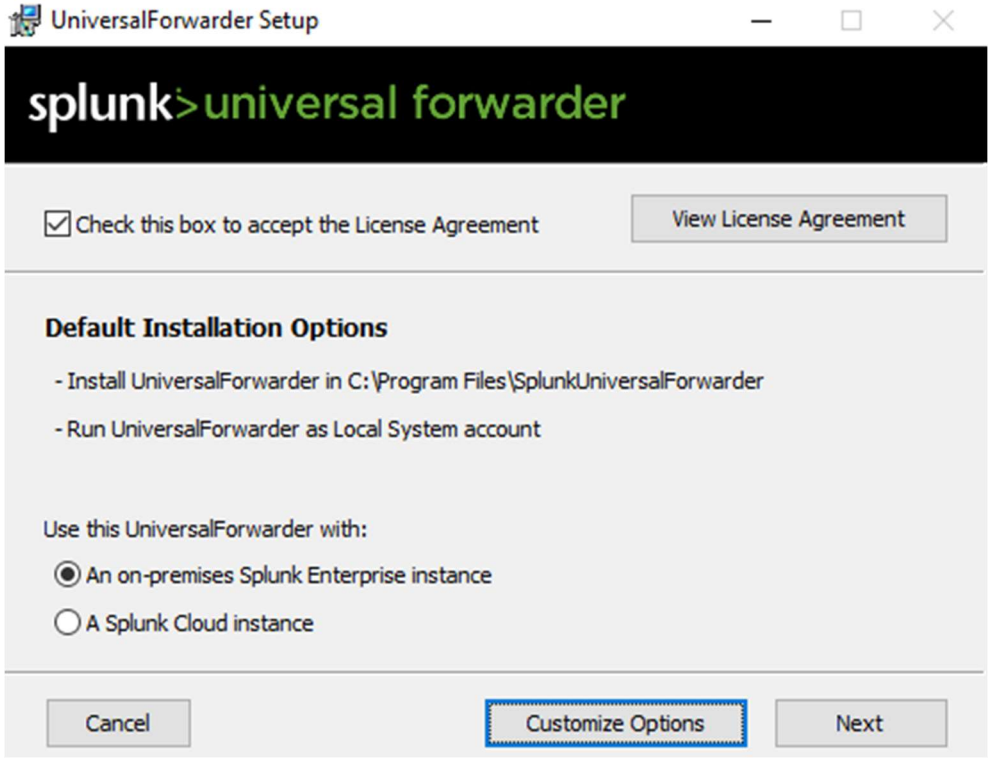
If you were to view similar events as shown above then you were successful in generating process creation logs.

Installing Universal Forwarder

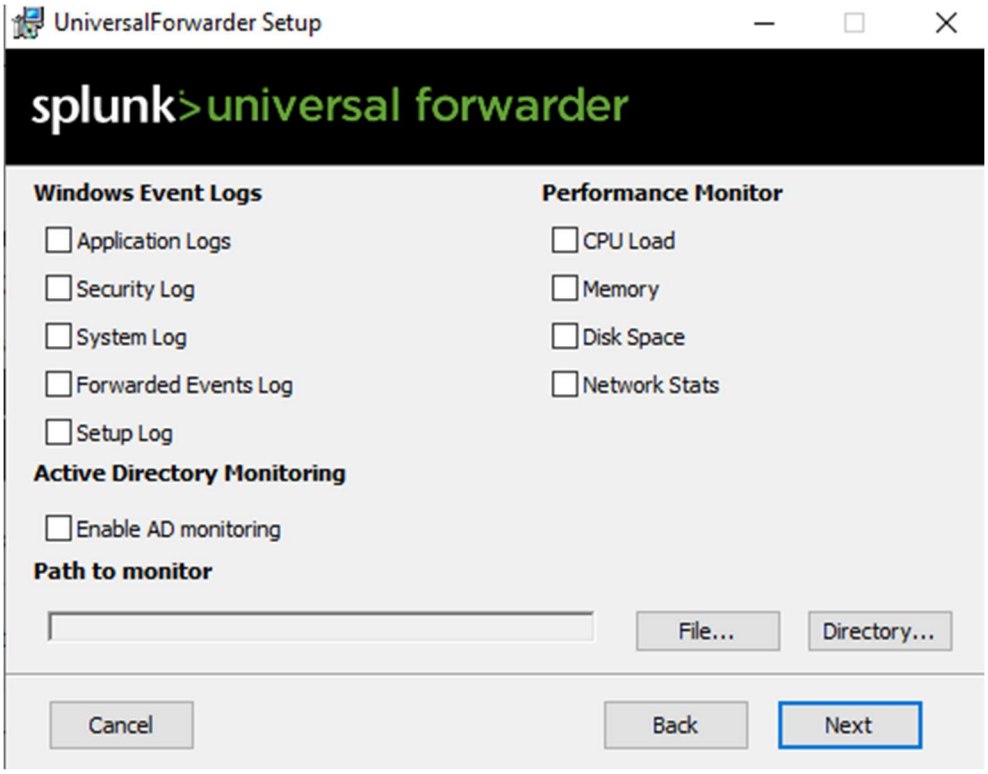
On the Splunk download page, we will be provided with options to install Universal Forwarder.

Link - https://www.splunk.com/en_us/download/universal-forwarder.html

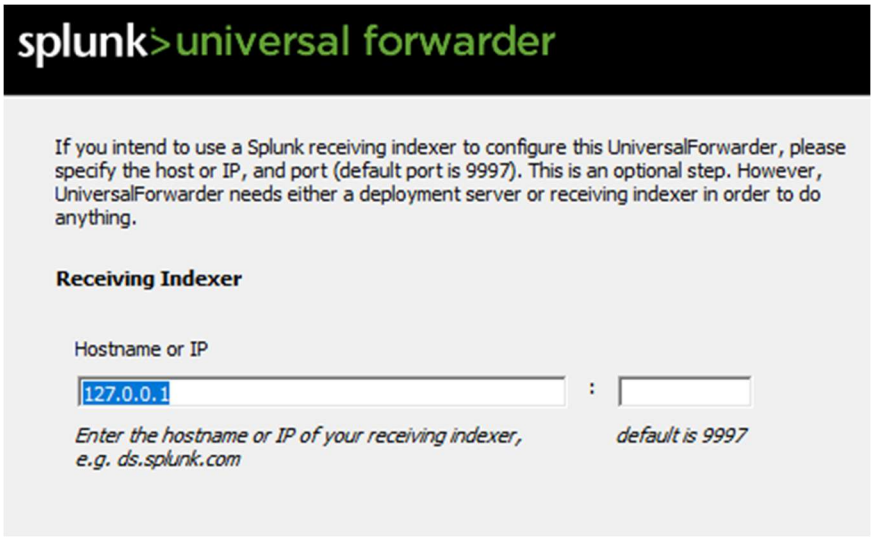
Download the forwarder and install it to forward the log. Click on customize options to select the location to install the forwarder. Then hit next to continue. Also, you don't need to enter the password to continue.



Then choose the appropriate logs to forward and hit next to continue. As we have only enabled process creation logs so selecting **Security Log**, for now, will be sufficient.



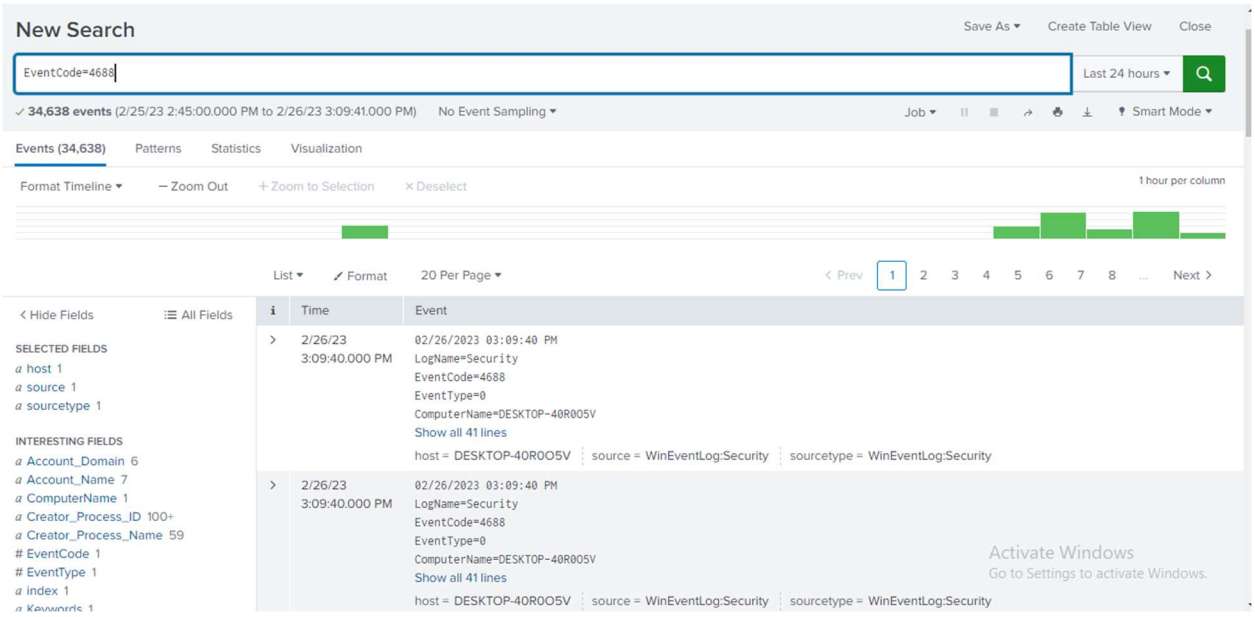
As we are forwarding it to the Splunk instance hosted on our local system, so use the localhost IP address and leave the port as default. In case of other services are running on the port then change it to other available ports. For now, we are leaving the deployment server IP blank and setting up receiving indexer IP only.



Then after completing the installation go back to the web page where Splunk is running.

Then go to Search & Reporting.

Search **EventCode=4688** to view process creation logs (Splunk search engine is case sensitive unline LogPoint)

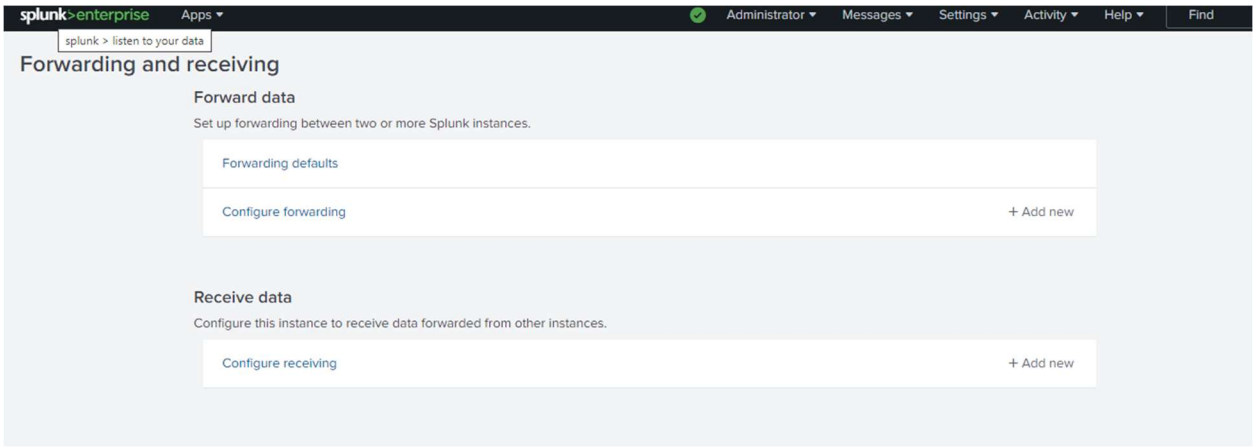


Log Not Forwarded Case

In case any logs are not forwarded then,

Go to **Settings -> Forwarding and Receiving**

Then go to Configure Receiving which is under Receive data.



Then by going to New Receiving Port configure the receiving port or leave it to default in case if you haven't changed it.