SPLUNK DAY 2

UF to INDEXER

Prerequisites:

- **UF**
  - **Install Splunk UF package (untar & start splunk process)**
  - **check connectivity to indexer on port 9997**

- **Indexer**
  - **install Splunk Enterprise (untar & start splunk process)**
  - **Enable 9997 receiving port on this instance**
    to enable receiving port on indexer over 9997

    method1
    UI/web based
    1. Login to SPlunk web
    2. Go to Setttings --> Data(forwarding & receiving)
    enable receiving by clicking on add item --> add 9997 and save it

    method2
    CLI based
    /opt/splunk/bin/splunk enable listen 9997

    method3 (if you follow this method you have restart splunkd)
    config based
    inputs.conf
    [splunktcp://9997]
    connection_host = ip

    check if splunkd is listening on 9997
    netstat -anp|grep :9997
  - **check firewall if indexer is listening on 9997**

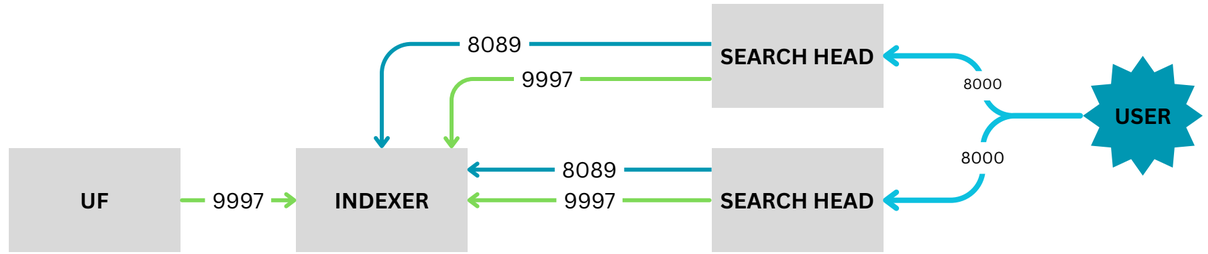
Steps:

1. **Login to UF CLI**
2. **check if splunkd process is running**
   a. **/opt/splunkforwarder/bin/splunk status**

1. **Craete a file outputs.conf in /opt/splunkforwarder/etc/system/local/**
2. **https://help.splunk.com/en/splunk-enterprise/administer/admin-manual/9.4/configuration-file-reference/9.4.4-configuration-file-reference/outputs.conf#outputs.conf.example-0**
   a. **vi /opt/splunkforwarder/etc/system/local/outputs.conf**
   [tcpout]
   defaultGroup = splunksession

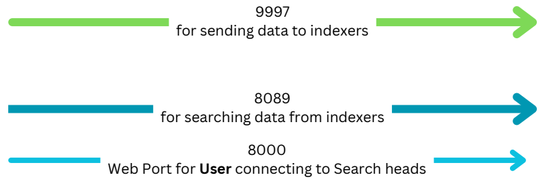
   [tcpout:splunksession]
   server = <indexerIP>:9997

1. **Create a file inputs.conf in /opt/splunkforwarder/etc/system/local/ and a file to monitor the data /opt/splunkforwarder/testfile.log.**
   vi /opt/splunkforwarder/etc/system/local/inputs.conf
   [monitor:///opt/splunkforwarder/testfile.log]
   index = main
   sourcetype=test_access
   #_TCP_ROUTING = splunksession → if you want to send data to specific group.




```
[root@ip-172-31-36-122 local]#
[root@ip-172-31-36-122 local]# /opt/splunk/bin/splunk status
splunkd is running (PID: 3798).
splunk helpers are running (PIDs: 3800 4122 4127 4177 4288 4907).
[root@ip-172-31-36-122 local]# /opt/splunk/bin/splunk enable listen 9997
WARNING: Server Certificate Hostname Validation is disabled. Please see server.conf/[sslConfig]/cliVerifyServe
rName for details.
Splunk username: admin
Password:
Listening for Splunk data on TCP port 9997.
[root@ip-172-31-36-122 local]#
[root@ip-172-31-36-122 local]#
[root@ip-172-31-36-122 local]#
```

```
[root@ip-172-31-36-122 local]#
[root@ip-172-31-36-122 local]#
[root@ip-172-31-36-122 local]#
[root@ip-172-31-36-122 local]# netstat -anp|grep :9997
tcp        0      0 0.0.0.0:9997            0.0.0.0:*               LISTEN      3798/splunkd
[root@ip-172-31-36-122 local]#
[root@ip-172-31-36-122 local]#
[root@ip-172-31-36-122 local]#
[root@ip-172-31-36-122 local]#
[root@ip-172-31-36-122 local]#
```




```
[root@ip-172-31-34-118 local]# nc -zv 3.108.191.143 9997
Ncat: Version 7.93 ( https://nmap.org/ncat )
Ncat: Connected to 3.108.191.143:9997.
Ncat: 0 bytes sent, 0 bytes received in 0.07 seconds.
[root@ip-172-31-34-118 local]#
[root@ip-172-31-34-118 local]#
[root@ip-172-31-34-118 local]#
[root@ip-172-31-34-118 local]#
```

```
[root@ip-172-31-34-118 local]#
[root@ip-172-31-34-118 local]#
[root@ip-172-31-34-118 local]# vi /opt/splunkforwarder/etc/system/local/outputs.conf
[root@ip-172-31-34-118 local]#
[root@ip-172-31-34-118 local]#
[root@ip-172-31-34-118 local]# vi /opt/splunkforwarder/etc/system/local/inputs.conf
[root@ip-172-31-34-118 local]#
[root@ip-172-31-34-118 local]#
[root@ip-172-31-34-118 local]# cat /opt/splunkforwarder/etc/system/local/inputs.conf
[monitor:///opt/splunkforwarder/testfile.log]
index = main
sourcetype=test_access
host = ramesh
[root@ip-172-31-34-118 local]#
[root@ip-172-31-34-118 local]#
[root@ip-172-31-34-118 local]# cat /opt/splunkforwarder/etc/system/local/outputs.conf
[tcpout]
defaultGroup = splunksession

[tcpout:splunksession]
server = 3.108.191.143:9997
[root@ip-172-31-34-118 local]#
[root@ip-172-31-34-118 local]# /opt/splunkforwarder/bin/splunk restart^C
[root@ip-172-31-34-118 local]#
[root@ip-172-31-34-118 local]#
[root@ip-172-31-34-118 local]#
[root@ip-172-31-34-118 local]#
```

```
[root@ip-172-31-34-118 splunkforwarder]#
[root@ip-172-31-34-118 splunkforwarder]# pwd
/opt/splunkforwarder
[root@ip-172-31-34-118 splunkforwarder]#
[root@ip-172-31-34-118 splunkforwarder]#
[root@ip-172-31-34-118 splunkforwarder]# vi testfile.log
[root@ip-172-31-34-118 splunkforwarder]# cat testfile.log
This is a test data for sending text from UF to indexer
[root@ip-172-31-34-118 splunkforwarder]#
[root@ip-172-31-34-118 splunkforwarder]#
```

DEBUG Comands

[root@ip-172-31-46-249 local]# /opt/splunk/bin/splunk btool inputs list --debug
[root@ip-172-31-46-249 local]# ^C
[root@ip-172-31-46-249 local]# ^C
[root@ip-172-31-46-249 local]# /opt/splunk/bin/splunk btool inputs list splunktcp --debug
[root@ip-172-31-46-249 local]# ^C
[root@ip-172-31-46-249 local]# /opt/splunk/bin/splunk show config inputs

```
[root@ip-172-31-46-249 local]# ^C
[root@ip-172-31-46-249 local]# /opt/splunk/bin/splunk btool inputs list splunktcp://9997
[splunktcp://9997]
_rcvbuf = 1572864
connection_host = ip
disabled = 0
host = $decideOnStartup
index = default
[root@ip-172-31-46-249 local]#
[root@ip-172-31-46-249 local]#
[root@ip-172-31-46-249 local]#
[root@ip-172-31-46-249 local]# /opt/splunk/bin/splunk btool inputs list splunktcp://9997 --debug
/opt/splunk/etc/apps/search/local/inputs.conf [splunktcp://9997]
/opt/splunk/etc/system/default/inputs.conf    _rcvbuf = 1572864
/opt/splunk/etc/apps/search/local/inputs.conf connection_host = ip
/opt/splunk/etc/apps/search/local/inputs.conf disabled = 0
/opt/splunk/etc/system/default/inputs.conf    host = $decideOnStartup
/opt/splunk/etc/system/default/inputs.conf    index = default
[root@ip-172-31-46-249 local]#
[root@ip-172-31-46-249 local]#
[root@ip-172-31-46-249 local]#
[root@ip-172-31-46-249 local]#
```

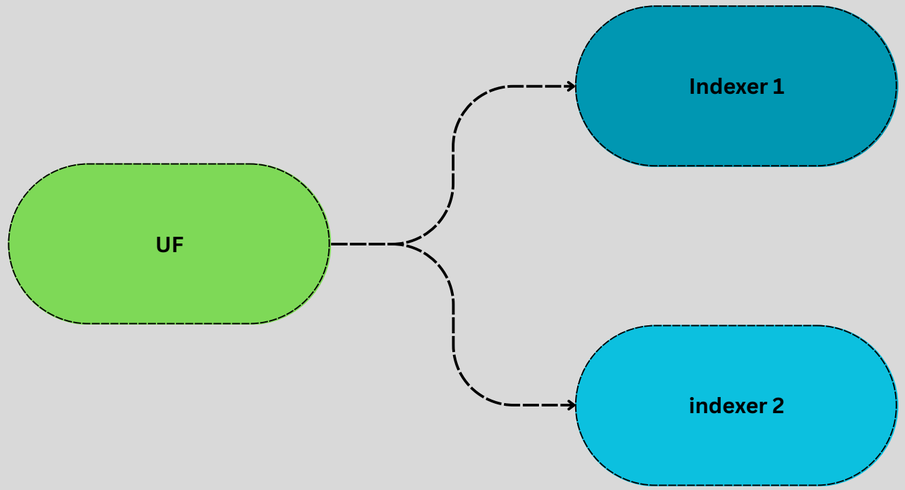
```
[root@ip-172-31-37-21 local]#
[root@ip-172-31-37-21 local]#
[root@ip-172-31-37-21 local]# cat outputs.conf
[tcpout]
defaultGroup = mahesh


[tcpout:mahesh]
server = 13.201.57.159:9997


[tcpout:ramesh]
server = 13.201.86.156:9997

[root@ip-172-31-37-21 local]#
[root@ip-172-31-37-21 local]# cat inputs.conf
[default]
host = uf

[monitor:///opt/mahesh.txt]
index = mah_splunk
sourcetype = alltextfiles
 TCP_ROUTING = ramesh
[root@ip-172-31-37-21 local]#
[root@ip-172-31-37-21 local]#
```



UF configurations

##

Steps:

1. Install UF
2. Start UF accept license
3. configure outputs.conf

   outputs.conf

   [tcpout]

   defaultGroup =

   [tcpout:indexerGroup1]

   server = indexer1IP:9997

   [tcpout:indexerGroup2]

   server = indexer2IP:9997

1. inputs.conf

   vi ...../local/inputs.conf

   [monitor:///opt/montiorfiles1/*]

   host=uf

   index=main

   sourcetype=montiorfiles1

   _TCP_ROUTING = indexerGroup1

   [monitor:///opt/montiorfiles2/*]

   host=uf

   index=main

   sourcetype=montiorfiles2

   _TCP_ROUTING = indexerGroup2

   - After configuring above config file, Restart splunkd

https://help.splunk.com/en/splunk-enterprise/administer/admin-manual/9.4/configuration-file-reference/9.4.4-configuration-file-reference/inputs.conf

Indexer Configurations

##

###

Steps:

1. Install SPlunk enterprise
2. start and accept license
3. enable 9997 port using any one of 3 methods

   /opt/splunk/bin/splunk enable listen 9997
4.

Todays Topics

Bootstarting splunk
inputs.conf (crcSalt,initCrcLength, ignoreOlderthan)
props.conf
transforms.conf

Bootstarting splunk
/opt/splunkforwarder/bin/splunk **enable boot-start** -user root
cat /etc/systemd/system/SplunkForwarder.service
systemctl status SplunkForwarder
systemctl start SplunkForwarder
systemctl status SplunkForwarder
systemctl restart SplunkForwarder

inputs.conf

[monitor://<PATH>]
host = google.com
sourcetype = google_access
crcSalt = <SOURCE>
initCrcLength = 256 bytes
#Cannot be less than 256 or more than 1048576
ignoreOlderthan = 1d

[root@ip-172-31-32-132 local]# cat inputs.conf
[monitor:///opt/monitor/file1.txt]
host=uf
index=main
sourcetype=secure_access
_TCP_ROUTING = indexer

[monitor:///opt/monitor/file2.txt]
host=uf
index=main
sourcetype=secure_access_linebreak
_TCP_ROUTING = indexer

##################################
[root@ip-172-31-32-132 local]# cat outputs.conf
[tcpout:indexer]
server = 15.206.159.98:9997
[root@ip-172-31-32-132 local]#

```
[root@ip-172-31-32-132 monitor]#
[root@ip-172-31-32-132 monitor]# pwd
/opt/monitor
[root@ip-172-31-32-132 monitor]# ls
file1.txt  file2.txt  transform.txt
[root@ip-172-31-32-132 monitor]#
[root@ip-172-31-32-132 monitor]# cat /opt/splunkforwarder/etc/system/local/inputs.conf
[monitor:///opt/monitor/file1.txt]
host=uf
index=main
sourcetype=secure_access
_TCP_ROUTING = indexer

[monitor:///opt/monitor/file2.txt]
host=uf
index=main
sourcetype=secure_access_linebreak
_TCP_ROUTING = indexer

[monitor:///opt/monitor/transform.txt]
host=uf
index=main
sourcetype=transform_rule
_TCP_ROUTING = indexer
[root@ip-172-31-32-132 monitor]#
[root@ip-172-31-32-132 monitor]#
[root@ip-172-31-32-132 monitor]#
```

Props.conf

[secure_access]
SHOULD_LINEMERGE=false
LINE_BREAKER=([\r\n]+)
BREAK_ONLY_BEFORE_DATE=null
NO_BINARY_CHECK=true
CHARSET=UTF-8
MAX_TIMESTAMP_LOOKAHEAD=50
TIME_FORMAT=%a %b %d %Y %H:%M:%S
TIME_PREFIX=^
TZ=Asia/Kolkata
description=this is for tutorial

[secure_access]
BREAK_ONLY_BEFORE_DATE =
DATETIME_CONFIG =
LINE_BREAKER = ([\r\n]+)
MAX_TIMESTAMP_LOOKAHEAD = 50
NO_BINARY_CHECK = true
SHOULD_LINEMERGE = false
TIME_FORMAT = %a %b %d %Y %H:%M:%S
TZ = Asia/Kolkata
category = Custom
description = this is for tutorial
pulldown_type = true

[secure_access_linebreak]
BREAK_ONLY_BEFORE_DATE =
DATETIME_CONFIG =
LINE_BREAKER = ([\r\n]+)?(?=\w{3}\s\w{3}\s\d{2})
NO_BINARY_CHECK = true
SHOULD_LINEMERGE = false
category = Custom
pulldown_type = true
TRANSFORMs-rule1=renamehost

TRANSFORMS-<class> = <transform_stanza_name>, <transform_stanza_name2>

transforms.conf

[renamehost]
DEST_KEY = MetaData:Host
REGEX = .*
FORMAT = host::UniversalForwarder

```
[root@ip-172-31-38-148 local]#
[root@ip-172-31-38-148 local]# cat props.conf
[secure_access]
BREAK_ONLY_BEFORE_DATE =
DATETIME_CONFIG =
LINE_BREAKER = ([\r\n]+)
MAX_TIMESTAMP_LOOKAHEAD = 50
NO_BINARY_CHECK = true
SHOULD_LINEMERGE = false
TIME_FORMAT = %a %b %d %Y %H:%M:%S
TZ = Asia/Kolkata
category = Custom
description = this is for tutorial
pulldown_type = true

[secure_access_linebreak]
BREAK_ONLY_BEFORE_DATE =
DATETIME_CONFIG =
LINE_BREAKER = ([\r\n]+)?(?=\w{3}\s\w{3}\s\d{2})
NO_BINARY_CHECK = true
SHOULD_LINEMERGE = false
category = Custom
pulldown_type = true
TRANSFORMS-rule1=renamehost

[transform_rule]
TRANSFORMS-rule1=renamehost


[root@ip-172-31-38-148 local]#
[root@ip-172-31-38-148 local]# cat transforms.conf
[renamehost]
DEST_KEY = MetaData:Host
REGEX = .*
FORMAT = host::MAHEHAKULA
[root@ip-172-31-38-148 local]#
[root@ip-172-31-38-148 local]# pwd
/opt/splunk/etc/apps/search/local
[root@ip-172-31-38-148 local]#
```