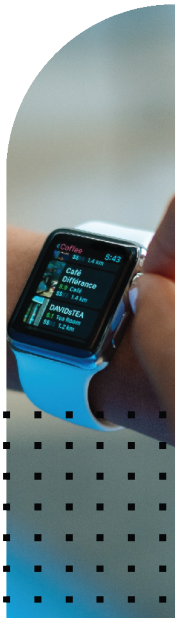
3500G Hardware Configuration Guide

FortiSIEM 6.2.0



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FortiSIEM 6.2.0 3500G Hardware Configuration Guide

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Change Log

Date	Description
06/02/2021	Initial release of this guide.
06/07/2021	Updated Elasticsearch screenshot.
10/08/2021	Removed Migration section from 6.2.x guides.
11/17/2021	Updated Register Collectors instructions for 6.2.x guides.
10/20/2022	Updated Register Collectors instructions for 6.x guides.

Appliance Setup

Follow the steps below to setup FSM-3500G appliance.

- All-in-one Installation
- Cluster Installation

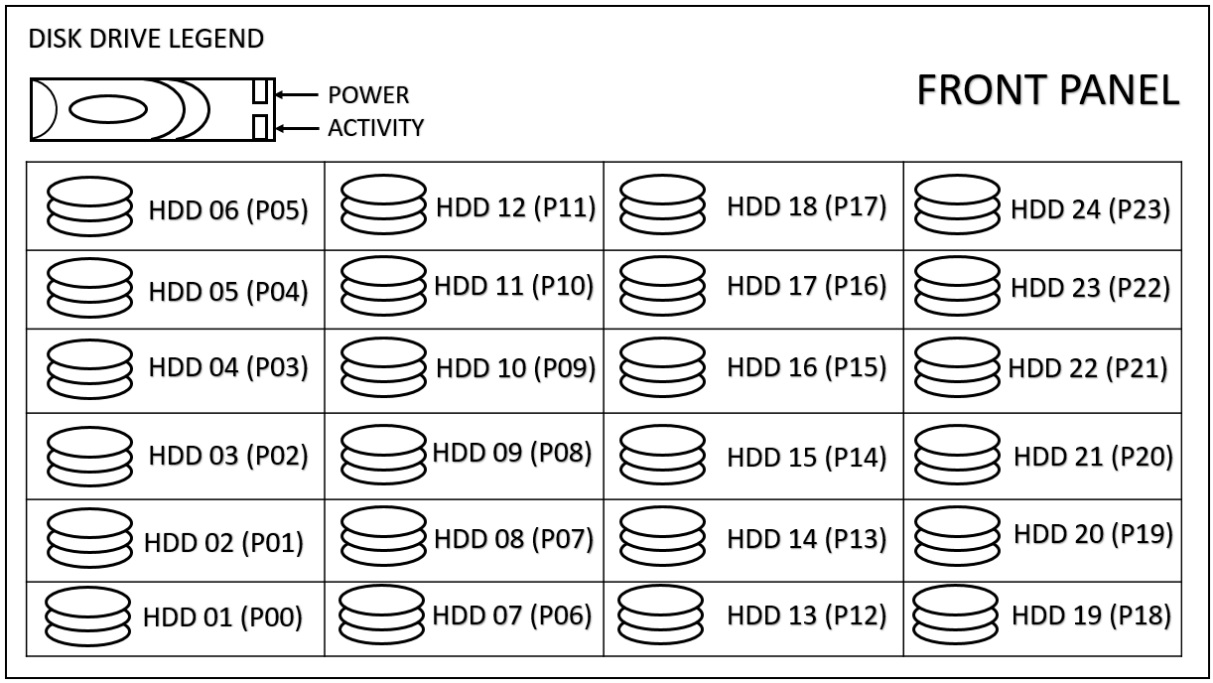
All-in-one Installation

Follow these steps to install all of the FortiSIEM components at one time.

- Step 1: Rack mount the FSM-3500G appliance
- Step 2: Power On the FSM-3500G appliance
- Step 3: Verify System Information
- Step 4: Configure FortiSIEM via GUI
- Step 5: Generate the FortiSIEM FSM-3500G License Key file
- Step 6: Register the FortiSIEM License
- Step 7: Accessing FortiSIEM UI
- Step 8: Choose an Event Database

Step 1: Rack mount the FSM-3500G appliance

1. Follow FortiSIEM 3500G QuickStart Guide here to mount FSM-3500G into the rack.
2. Insert Hard Disks positions as shown below:



3. Connect FSM-3500G to the network by connecting an Ethernet cable to Port0.

> Before proceeding to the next step, connecting Ethernet cable to Port0 is required for Network configuration.

Step 2: Power On the FSM-3500G appliance

1. Make sure the FSM-3500G device is connected to a Power outlet and an Ethernet cable is connected to Port0.
2. Power On the FSM-3500G device.

> FSM-3500G appliance does not have a default IP address. To connect to the GUI, an IP address must be configured using the GUI (Step 4).

Step 3: Verify System Information

1. Connect to the FSM-3500G appliance using VGA port or Console port.
2. Login as '*root*' user with password `ProspectHills`. You will be required to change the password. Remember this password for future use. Once you change the password, you will be logged out. Login again with your new password.
3. Run `get` to check the available FortiSIEM commands.

4. Use these commands to check the hardware information. After running each command, ensure that there are no errors in the displayed output.

Command	Description
`get system status`	Displays system name, version and serial number.
`diagnose hardware info`	Displays system hardware information like CPUs, Memory and RAID information.
`diagnose interface detail port0`	Displays interface status (see the following table).

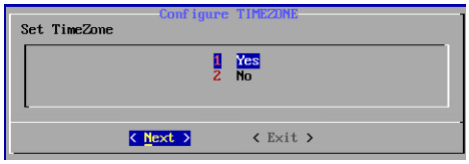
The following table describes the port number mapping between the 3500G physical port number label and the FortiSIEM 6.2.0 interface port numbering.

3500G Physical Port Number Label	FSM 6.2.0 Interface Port Numbering
port1	port0
port2	port1
port3	port4
port4	port5
port5	port2
port6	port3

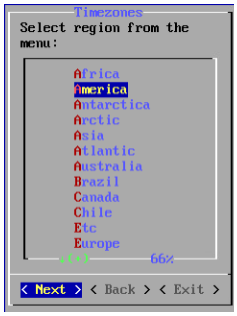
Step 4: Configure FortiSIEM via GUI

Follow these steps to configure FortiSIEM by using a simple GUI.

1. Log in as user `root` with the password you set in Step 3 above.
2. At the command prompt, go to `/usr/local/bin` and enter `configFSM.sh`, for example:
   `# configFSM.sh`
3. In the console, select **1 Set Timezone** and then press **Next**.



4. Select your **Region**, and press **Next**.



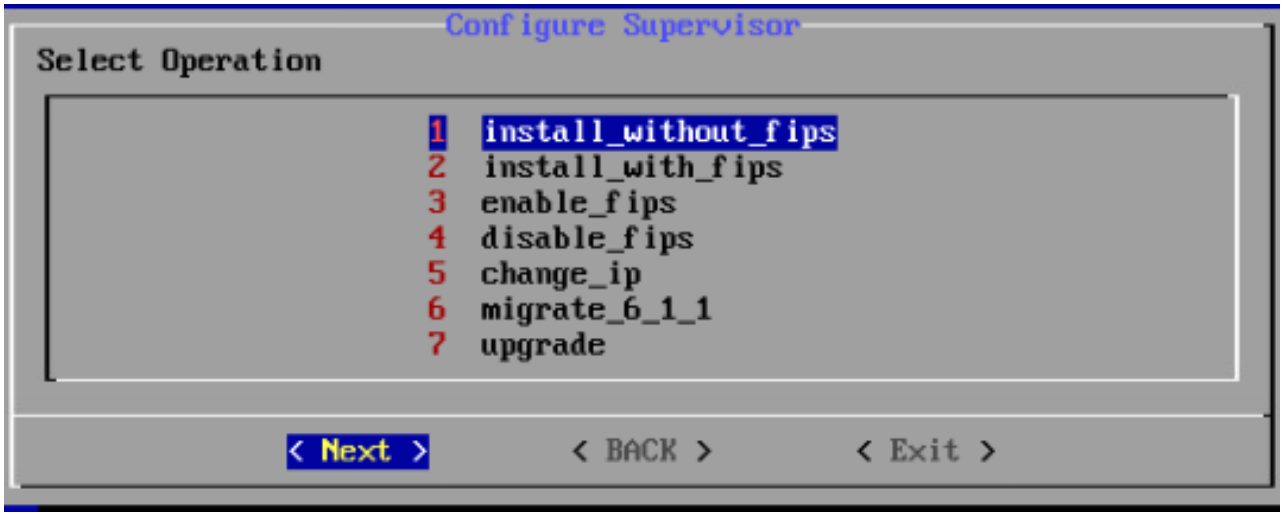
5. Select your **Country**, and press **Next**.

6. Select the **Country** and **City** for your timezone, and press **Next**.

7. Select **1 Supervisor**. Press **Next**.

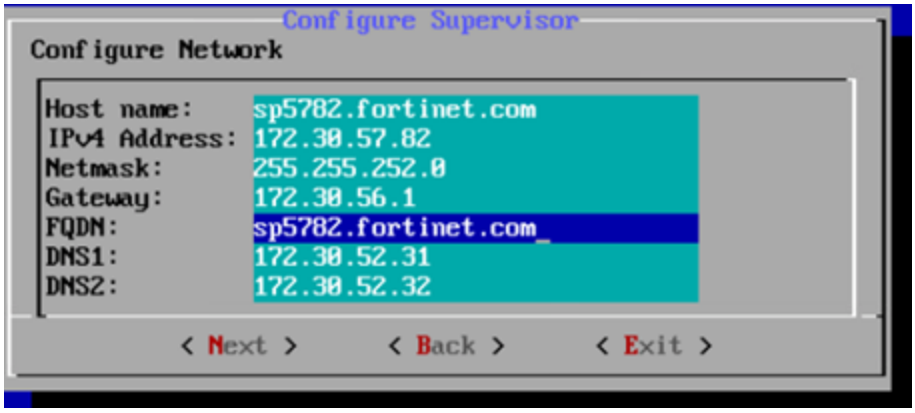
Regardless of whether you select **Supervisor** or **Worker**, you will see the same series of screens.

8. If you want to enable FIPS, then choose **2**. Otherwise, choose **1**. You have the option of enabling FIPS (option **3**) or disabling FIPS (option **4**) later.

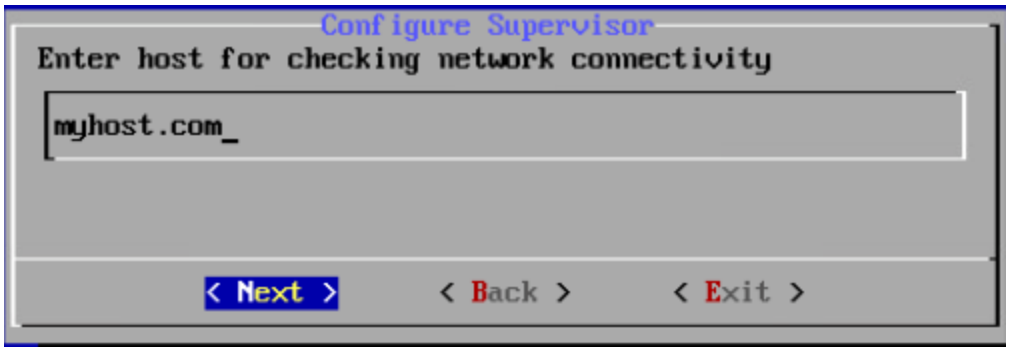


9. Configure the network by entering the following fields. Note the IP Address--you will need it in a later step. Press **Next**.

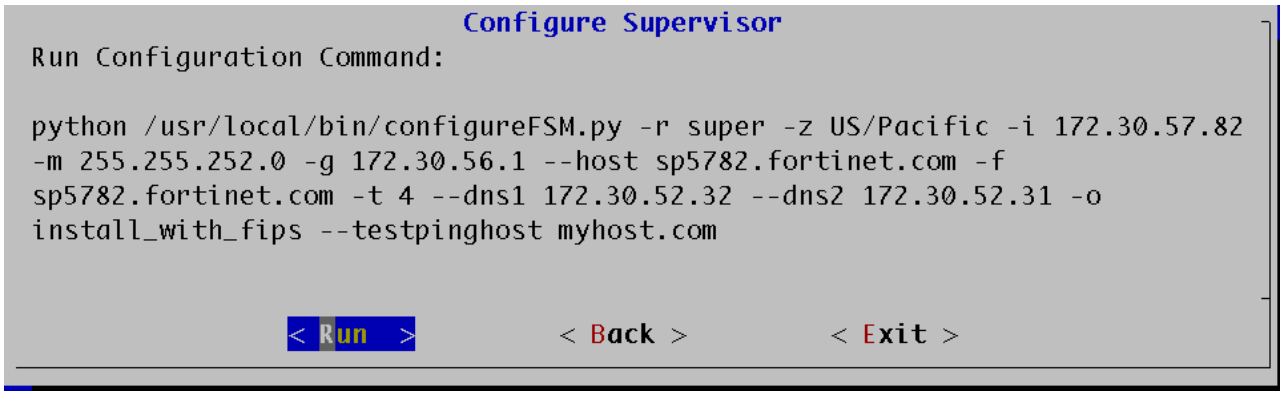
Option	Description
Host Name	The Supervisor's host name
IPv4 Address	The Supervisor's IPv4 address
NetMask	The Supervisor's subnet
Gateway	Network gateway address
FQDN	Fully-qualified domain name
DNS1, DNS2	Addresses of the DNS servers



10. Test network connectivity by entering a host name that can be resolved by your DNS Server (entered in the previous step) and responds to ping. The host can either be an internal host or a public domain host like google.com. In order for the migration to complete, the system still needs https connectivity to FortiSIEM OS update servers: `os-pkgs-cdn.fortisiem.fortinet.com` and `os-pkgs-c8.fortisiem.fortinet.com`. Press **Next**.



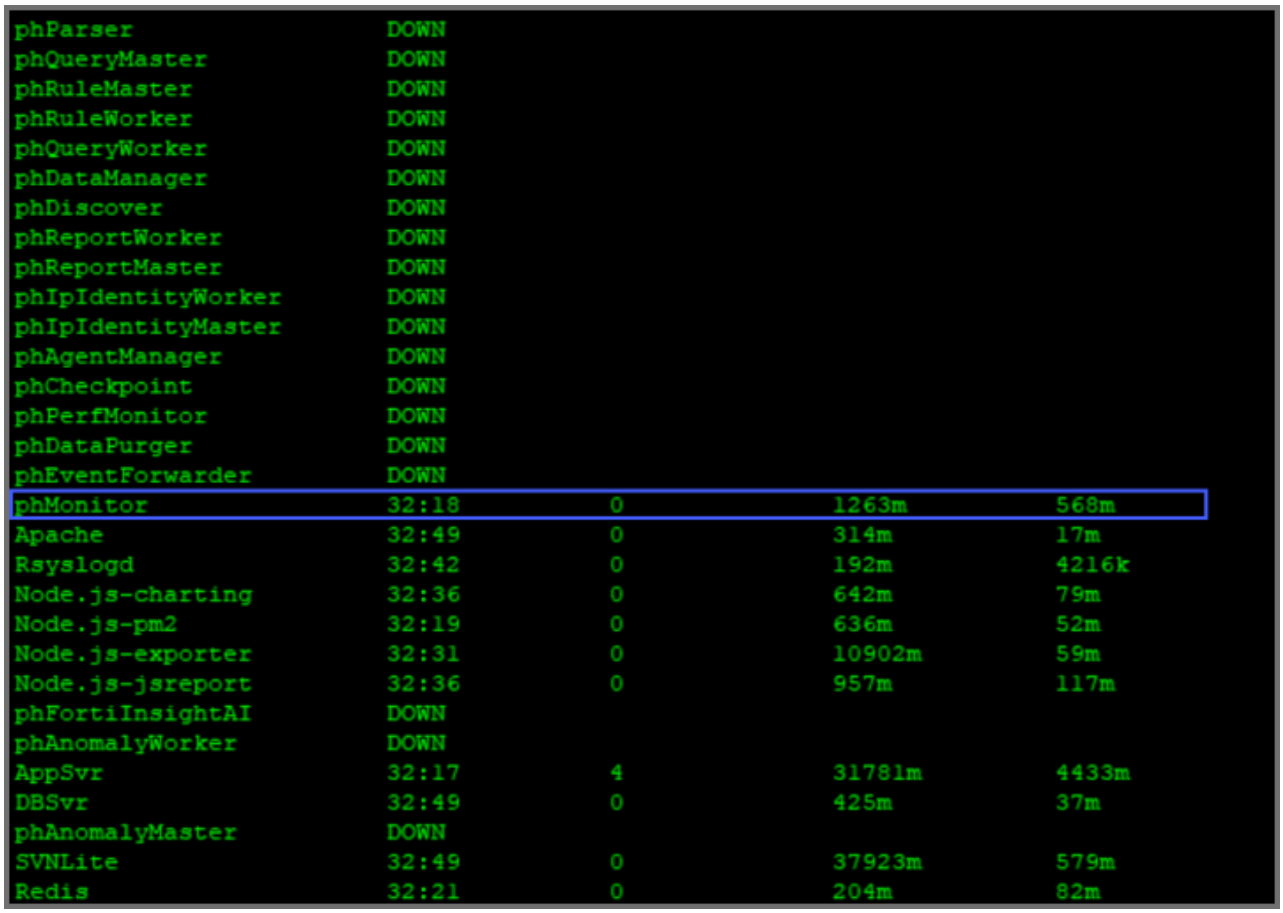
11. The final configuration confirmation is displayed. Verify that the parameters are correct. If they are not, then press **Back** to return to previous dialog boxes to correct any errors. If everything is OK, then press **Run**.



The options are described in the following table.

Option	Description
-r	The FortiSIEM component being configured
-z	The time zone being configured
-i	IPv4-formatted address
-m	Address of the subnet mask
-g	Address of the gateway server used
--host	Host name
-f	FQDN address: fully-qualified domain name
-t	The IP type. The values can be either **4** (for **ipv4**) or **6** (for **v6**) **Note:** the **6** value is not currently supported.
--dns1, --dns2	Addresses of the DNS servers
-o	Installation option (**install_without_fips**, **install_with_fips**, **enable_fips**, **disable_fips**, **change_ip**, or **migrate**)
-z	Time zone. Possible values are **US/Pacific**, **Asia/Shanghai**, **Europe/London**, or **Africa/Tunis**
--testpinghost	The host used to test connectivity

12. It will take some time to complete the FortiSIEM installation. If the installation is successful, then the appliance will reboot automatically. Otherwise, the appliance will stop at the failed task.
    You can inspect the `ansible.log` file located at `/usr/local/fresh-install/logs` if you encounter any issues during FortiSIEM installation.
    After installation completes, ensure that the `phMonitor` is up and running, for example:
    ```
    # phstatus
    ```
    The response should be similar to the following:



phParser	DOWN			
phQueryMaster	DOWN			
phRuleMaster	DOWN			
phRuleWorker	DOWN			
phQueryWorker	DOWN			
phDataManager	DOWN			
phDiscover	DOWN			
phReportWorker	DOWN			
phReportMaster	DOWN			
phIpIdentityWorker	DOWN			
phIpIdentityMaster	DOWN			
phAgentManager	DOWN			
phCheckpoint	DOWN			
phPerfMonitor	DOWN			
phDataPurger	DOWN			
phEventForwarder	DOWN			
phMonitor	32:18	0	1263m	568m
Apache	32:49	0	314m	17m
Rsyslogd	32:42	0	192m	4216k
Node.js-charting	32:36	0	642m	79m
Node.js-pm2	32:19	0	636m	52m
Node.js-exporter	32:31	0	10902m	59m
Node.js-jsreport	32:36	0	957m	117m
phFortiInsightAI	DOWN			
phAnomalyWorker	DOWN			
AppSvr	32:17	4	31781m	4433m
DBSvr	32:49	0	425m	37m
phAnomalyMaster	DOWN			
SVNLite	32:49	0	37923m	579m
Redis	32:21	0	204m	82m

Step 5: Generate FortiSIEM FSM-3500G License Key file from FortiCare

1. Obtain the Hardware Serial Number from FSM-3500G appliance from FortiCare Support Services.
2. Follow FortiSIEM Licensing Guide here to generate the license key file - remember to use 'Hardware Serial Number' for Hardware ID.

Step 6: Register FortiSIEM License

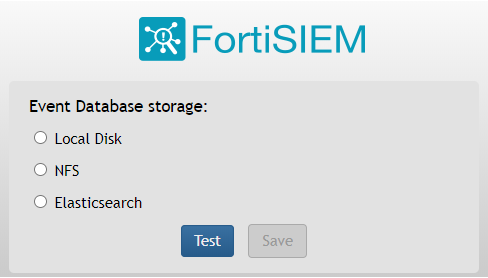
1. Note the IP Address assigned to FortiSIEM in Step 4.
2. Access FortiSIEM from browser (`https://<FortiSIEM-IP>`).
3. Upload the license file obtained from Step 5 and select the **License Type** based on your deployment (note this choice can only be made once and is not reversible):
   - Enterprise for single organizations
   - Service Provider for multiple organizations
4. Click **Upload** to complete the license registration.

Step 7: Accessing FortiSIEM UI

1. Note the IP Address assigned to FortiSIEM in Step 5.
2. Access FortiSIEM from browser (`https://<FortiSIEM-IP>`).
3. Login to FortiSIEM using the default user name, password, and organization:
   - **UserID**: *admin*
   - **Password**: *admin*1*
   - **Cust/OrgID**: *super* (if shown)

Step 8: Choose an Event Database

For a fresh installation, you will be taken to the Event Database Storage page. You will be asked to choose between **Local Disk**, **NFS** or **Elasticsearch** options. For more details, see Configuring Storage.



Cluster Installation

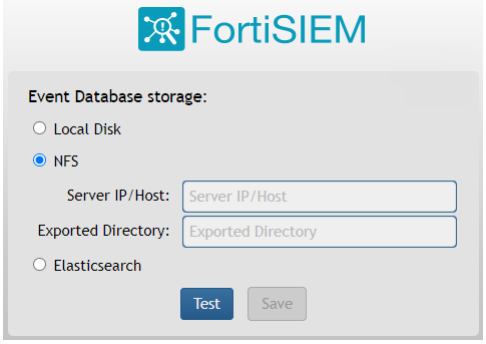
For larger installations, you can choose Worker nodes and external storage (NFS or Elasticsearch).

- Installing the Supervisor
- Installing Workers
- Registering Workers
- Installing Collectors
- Registering Collectors

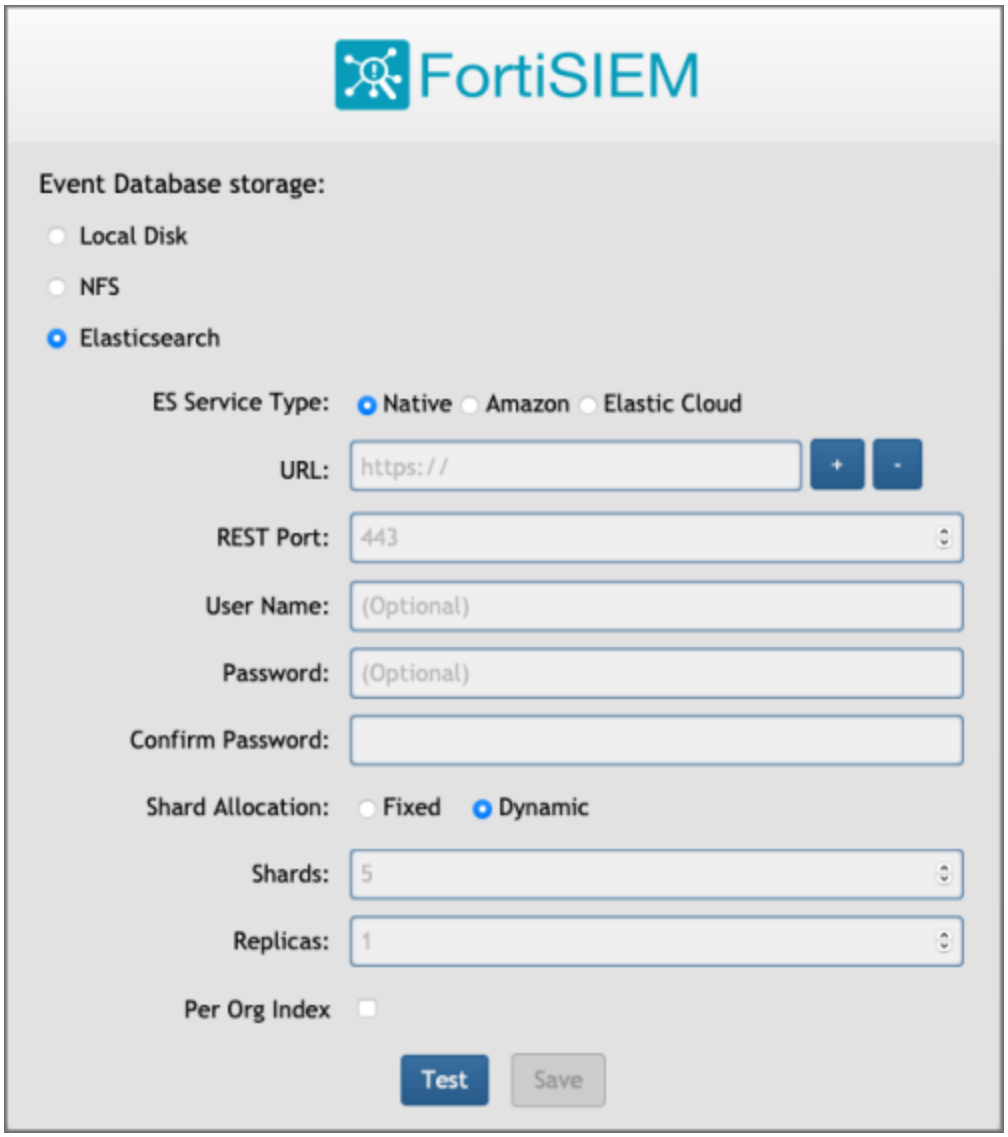
Installing the Supervisor

Follow the steps in All-in-one Installation with two differences:

- Setting up hardware - you do not need an event database.
- Setting up an Event database - Configure the cluster for either NFS or Elasticsearch.
  NFS



Elasticsearch



You must choose external storage listed in Step 8: Choose an Event Database.

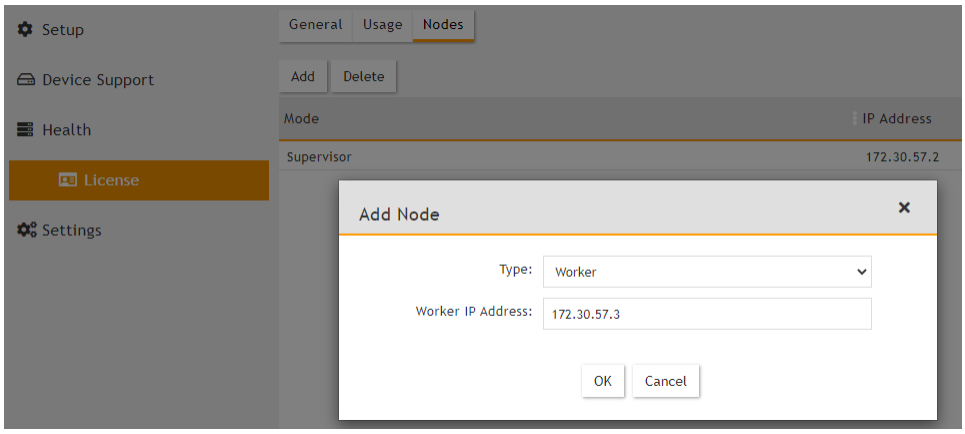
Installing Workers

Once the Supervisor is installed, follow the same steps in All-in-one Installation to install a Worker except that you choose **2 Worker** during Step 4: Configure FortiSIEM via GUI substep 7.

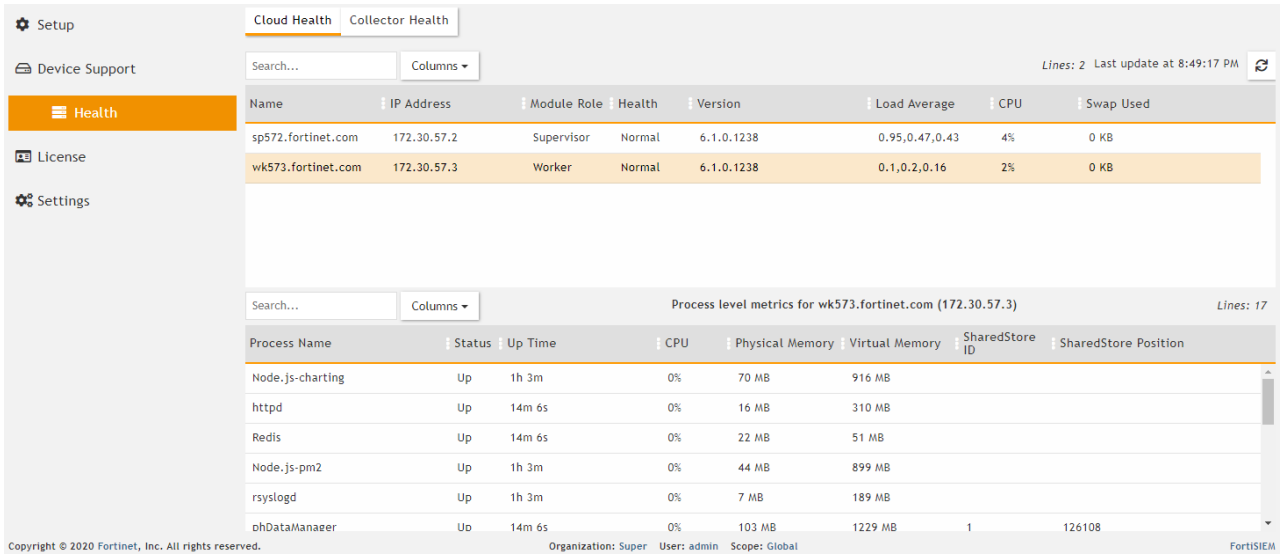
Registering Workers

Once the Worker is up and running, add the Worker to the Supervisor node.

1. Go to **ADMIN > License > Nodes**.
2. Select **Worker** from the drop-down list and enter the Worker's IP address. Click **Add**.



3. See **ADMIN > Health > Cloud Health** to ensure that the Workers are up, healthy, and properly added to the system.



Installing Collectors

Once Supervisor and Workers are installed, follow the same steps in All-in-one Install to install a Collector except only choose OS and OPT disks. The recommended settings for Collector node are:

- CPU = 4
- Memory = 8GB
- Two hard disks:
  - OS – 25GB
  - OPT – 100GB
    For OPT - 100GB, the 100GB disk for /opt will consist of a single disk that will split into 2 partitions, /OPT and swap. The partitions will be created and managed by FortiSIEM when `configFSM.sh` runs.

Registering Collectors

Collectors can be deployed in Enterprise or Service Provider environments.

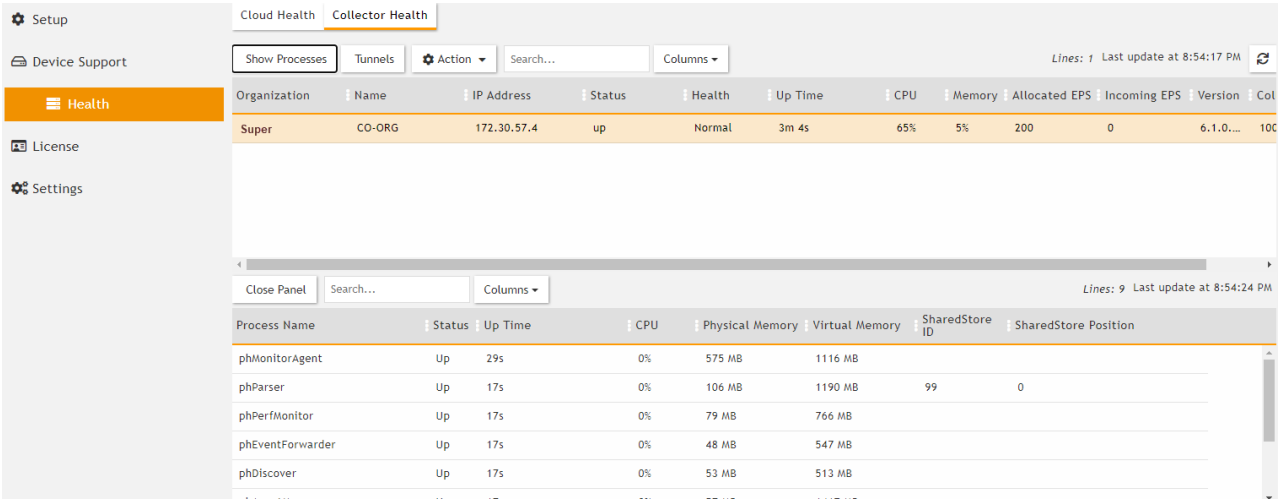
- Enterprise Deployments
- Service Provider Deployments

Enterprise Deployments

For Enterprise deployments, follow these steps.

1. Log in to Supervisor with 'Admin' privileges.
2. Go to **ADMIN > Settings > System > Event Worker**.
   a. Enter the IP of the Worker node. If a Supervisor node is only used, then enter the IP of the Supervisor node. Multiple IP addresses can be entered on separate lines. In this case, the Collectors will load balance the upload of events to the listed Event Workers.
   Note: Rather than using IP addresses, a DNS name is recommended. The reasoning is, should the IP addressing change, it becomes a matter of updating the DNS rather than modifying the Event Worker IP addresses in FortiSIEM.
   b. Click **OK**.
3. Go to **ADMIN > Setup > Collectors** and add a Collector by entering:
   a. **Name** – Collector Name
   b. **Guaranteed EPS** – this is the EPS that Collector will always be able to send. It could send more if there is excess EPS available.
   c. **Start Time** and **End Time** – set to **Unlimited**.
4. SSH to the Collector and run following script to register Collectors:
   `# /opt/phoenix/bin/phProvisionCollector --add <user> '<password>' <Super IP or Host> <Organization> <CollectorName>`
   The password should be enclosed in single quotes to ensure that any non-alphanumeric characters are escaped.
   a. Set `user` and `password` using the admin user name and password for the Supervisor.
   b. Set `Super IP or Host` as the Supervisor's IP address.
   c. Set `Organization`. For Enterprise deployments, the default name is Super.
   d. Set `CollectorName` from Step 2a.
   The Collector will reboot during the Registration.

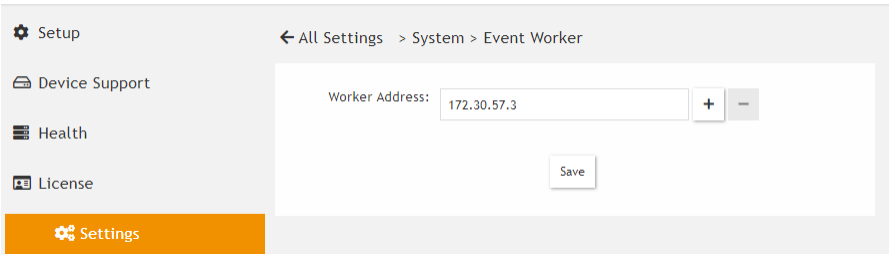
5. Go to **ADMIN > Health > Collector Health** for the status.



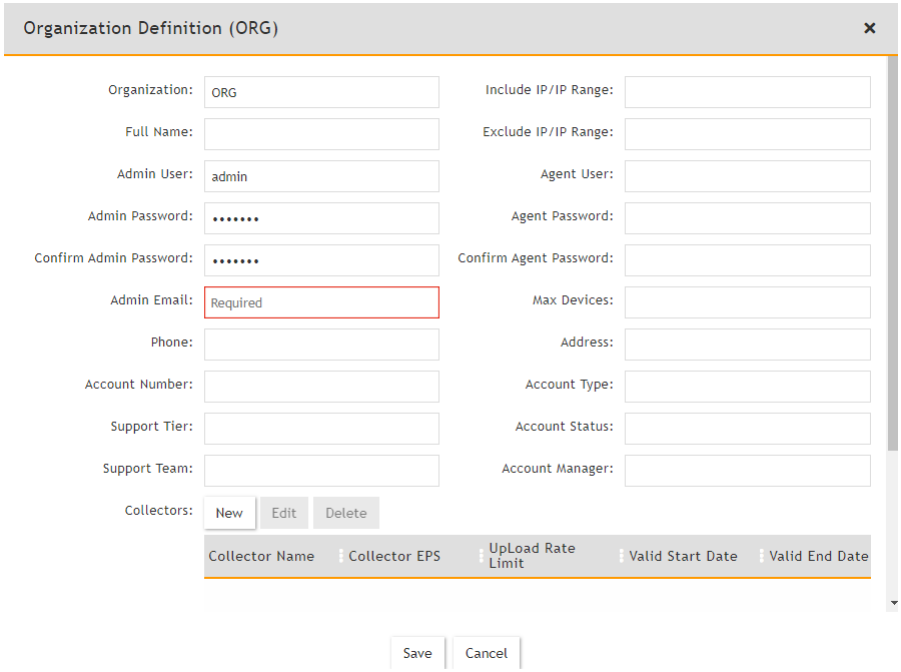
Service Provider Deployments

For Service Provider deployments, follow these steps.

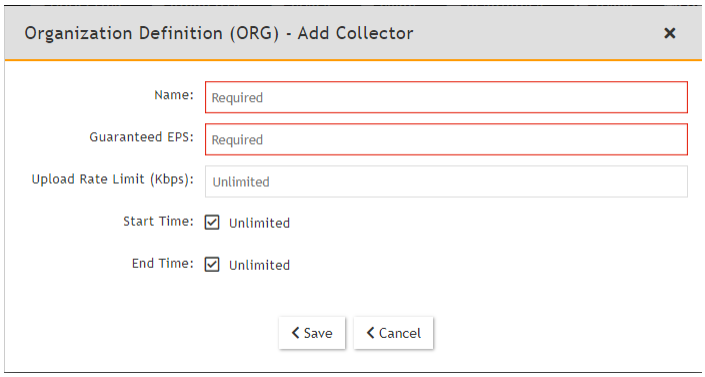
1. Log in to Supervisor with 'Admin' privileges.
2. Go to **ADMIN > Settings > System > Event Worker**.
   a. Enter the IP of the Worker node. If a Supervisor node is only used, then enter the IP of the Supervisor node. Multiple IP addresses can be entered on separate lines. In this case, the Collectors will load balance the upload of events to the listed Event Workers.
   Note: Rather than using IP addresses, a DNS name is recommended. The reasoning is, should the IP addressing change, it becomes a matter of updating the DNS rather than modifying the Event Worker IP addresses in FortiSIEM.
   b. Click **OK**.



3. Go to **ADMIN > Setup > Organizations** and click **New** to add an Organization.



4. Enter the **Organization Name**, **Admin User**, **Admin Password**, and **Admin Email**.
5. Under **Collectors**, click **New**.
6. Enter the **Collector Name**, **Guaranteed EPS**, **Start Time**, and **End Time**.
   The last two values could be set as **Unlimited**. **Guaranteed EPS** is the EPS that the Collector will always be able to send. It could send more if there is excess EPS available.



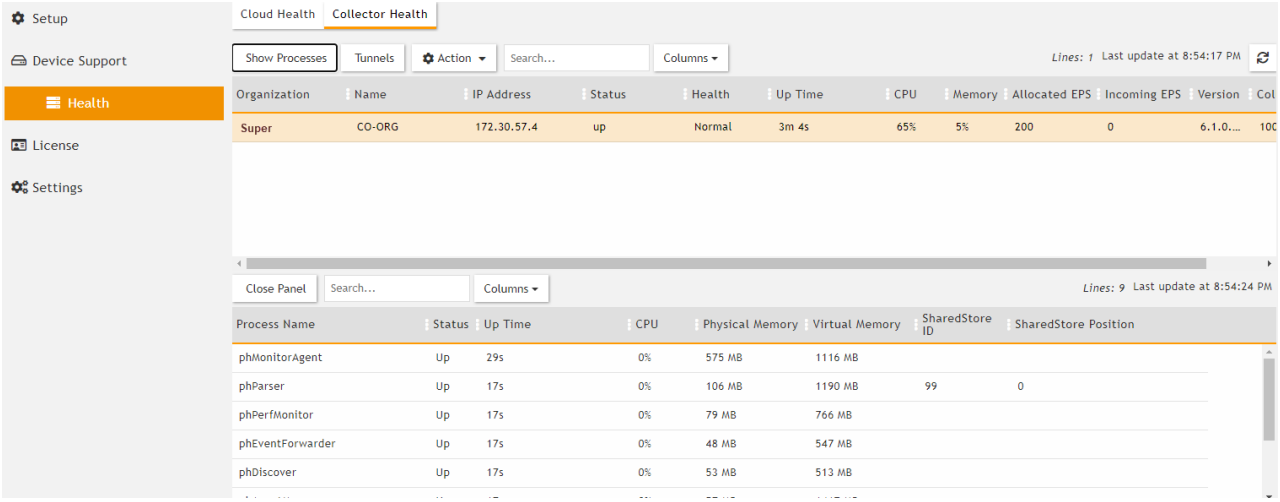
7. SSH to the Collector and run following script to register Collectors:
   `# /opt/phoenix/bin/phProvisionCollector --add <user> '<password>' <Super IP or Host> <Organization> <CollectorName>`
   The password should be enclosed in single quotes to ensure that any non-alphanumeric characters are escaped.
   a. Set `user` and `password` using the admin user name and password for the Organization that the Collector is going to be registered to.
   b. Set `Super IP or Host` as the Supervisor's IP address.
   c. Set `Organization` as the name of an organization created on the Supervisor.

d. Set `CollectorName` from Step 6.

```
[root@co574 ~]# phProvisionCollector
Usage: phProvisionCollector --add <Organization-user-name> <Organization-user-password> <Supervisor-IP> <Organization-name> <Collector-name>
[root@co574 ~]# phProvisionCollector --add admin Admin*11 172.30.57.2  ORG CO-ORG
Continuing to provision the Collector
This collector is registered successfully. Normal Exit and restart of phMonitor after collector license registration.
[root@co574 ~]# _
```

The Collector will reboot during the Registration.

8. Go to **ADMIN > Health > Collector Health** and check the status.



Factory Reset

Follow the steps below to perform factory reset on FortiSIEM FSM-3500G.

- Step 1: Uninstall FortiSIEM application
- Step 2: Reinstall FortiSIEM application

Step 1: Uninstall FortiSIEM application

1. Connect FortiSIEM device using VGA or Console port.
2. Login as `root` user with the new password you set in Step 3: Verify System Information.
3. To check the available FortiSIEM commands, run `sudo get`.
4. To uninstall FortiSIEM, run `sudo execute fsm-clean`.
   This script will uninstall FortiSIEM application.
5. Reboot the system.

Step 2: Reinstall FortiSIEM application

1. Login as `root` with password `ProspectHills`. You will immediately be asked to change your password.
2. To configure RAID, run `execute format disk`.
3. To check Hardware status and RAID information, run `diagnose hardware info`.
4. To install FortiSIEM, run the `execute factoryreset --force` command. The command fails after partial steps. Run the same command again to complete factoryreset.
   This script takes a few minutes to complete FortiSIEM installation.
5. Reboot and run `/user/local/bin/configFSM.sh` to install FortiSIEM.

Follow the steps under Appliance Setup **to configure FSM-3500G.**

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