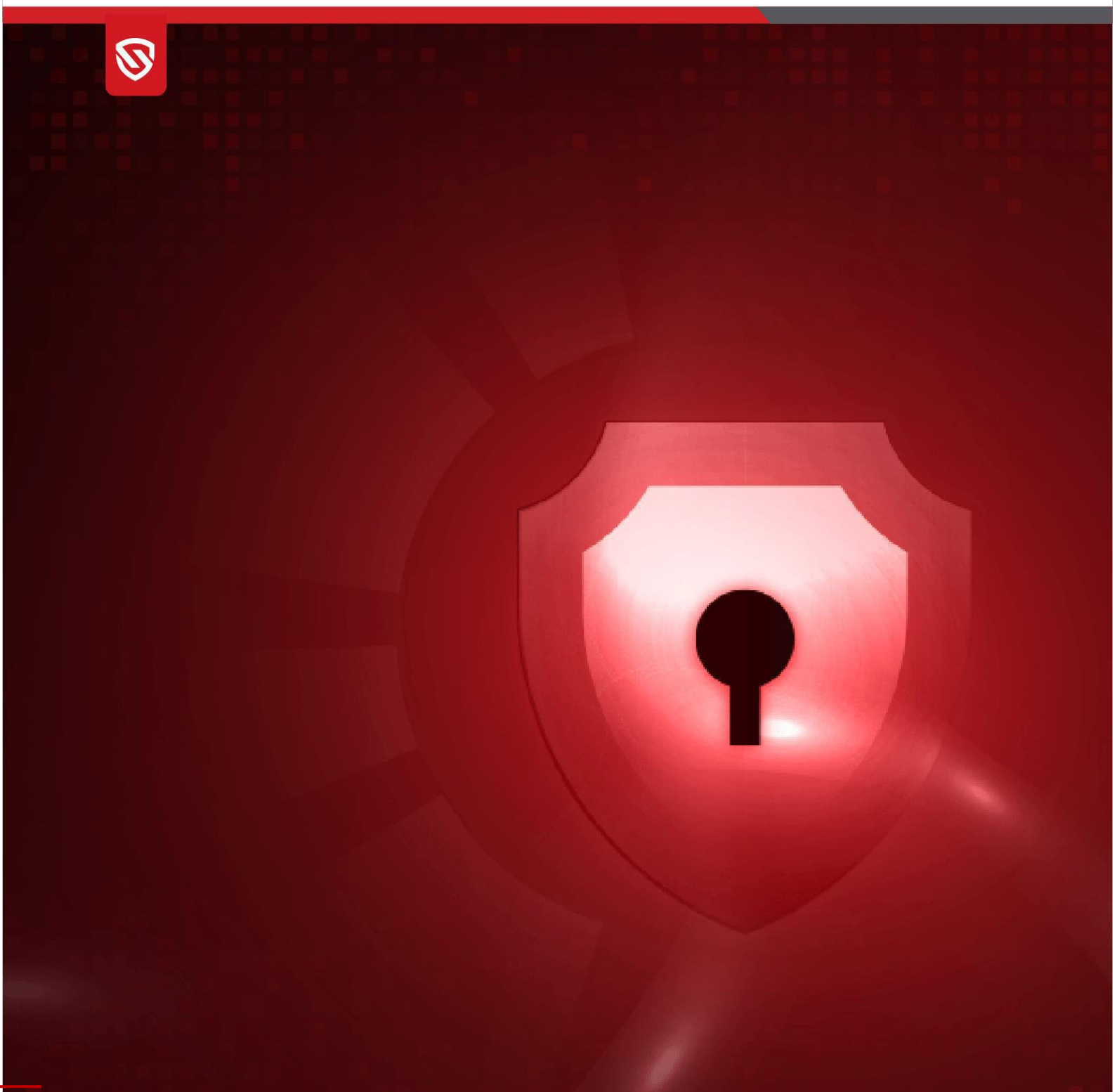
Seqrite
Endpoint Protection



Controller HA Installation Guide

EPP 8.4

19 Sept 2025

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Contents

Revision History

Doc Version	Date	Comment
1.0	19 Sept 2025	**Airgap** - High Availability Automation Fresh Setup Installation Guide for EPP 8.4 Standalone, Site Server, and Controller on Ubuntu 24.04.3

Fresh EPP Standalone | Site Server | Controller HA Installation Guide

Overview

This document provides guidance on configuring a High Availability (HA) setup for the Fresh EPP console within the same network subnet. High availability is designed to ensure maximum system uptime and continuity, regardless of potential disruptions or unforeseen events.

Applicable Version: EPP 8.4

Prerequisite:

Before beginning the configuration, ensure the following requirements are met:

• **Product Key:** The HA flag must be enabled on the product key. Note that HA can only be enabled *after* the key has been registered and activated on one server

• **Floating/Virtual IP Address**:
A reserved floating IP address must be available within the same subnet as the HA nodes. This IP address must **not** be assigned to any physical machine.

• **Three Ubuntu Machines**:

2 Primary Nodes: Must meet the standard hardware requirements as per the EPP license

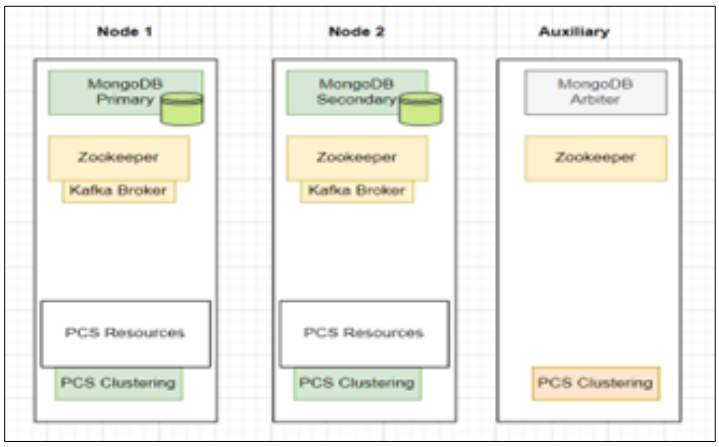
1 Auxiliary Node: Can use lower specifications (e.g., 2 vCPUs / 4 GB RAM)

• **System Date and Time Synchronization Across All 3 Nodes**: The system date and time must be synchronized on all three.

• **Root User password**: The root user password should avoid wildcard characters to prevent potential issues with SSH authentication, automation scripts, or system compatibility.

• **Optional but Recommended**: Take a snapshot of the Fresh EPP server before starting the configuration

High-Level Architecture:



HA Configuration Steps

1. To setup Node 1 and Node 2

- Install the EPP setup on both nodes. After installation, reboot Node 1 and Node 2, then verify that login is functioning correctly on both nodes and that the default clients are installed.

2. To setup Auxiliary Node – Node 3

- Download the HA build from the PROD repository and place it in the **/root** directory.

  To extract, run **tar -xzvf** EPP_HA_Automation.tar.gz

  Or, if in zip, **unzip** EPP_HA_ Automation.gz, **use respective filename**

- **Ansible Configuration:** Navigate to the inventories directory (/root/ha_automation/ansible/inventories)

To Configure Using IP:

Update the hosts.ini file with the IP addresses for the three-node deployment, but do not modify existing host groups like [all_nodes] or [eps_nodes], as changes may cause playbook failures.

```
[all_nodes]
epsnode1 ansible_hostname=epsnode1 ansible_host=17.10.1.18  epsnode_id=1
epsnode2 ansible_hostname=epsnode2 ansible_host=17.10.1.1   epsnode_id=2
epsnode3 ansible_hostname=epsnode3 ansible_host=17.10.1.7  epsnode_id=3

[eps_nodes]
epsnode1
epsnode2

[arbiter_nodes]
epsnode3

[primary_node]
epsnode1
```

Update the vars.yml file with the correct floating (virtual) IP address and its corresponding CIDR or subnet mask. Verify the CIDR using the **ip a** command, and ensure the subnet aligns with the nodes' physical IP addresses to prevent assignment issues.

```
VIP: "172.10'.110'.10"
CIDR: "23"
```

To Configure Using Domain Name:

- Create host file entries in all 3 nodes
- Ansible Configuration: Navigate to the inventories directory (/root/ha_automation/ansible/inventories). Configure the host as required.

```
[all_nodes]
EPSNGAPTPLV102T ansible_hostname=EPSNGAPTPLV102T ansible_host=172.18.14.246 epsnode_id=1
EPSNGAPTPLV103T ansible_hostname=EPSNGAPTPLV103T ansible_host=172.18.14.247 epsnode_id=2
EPSNGAPTPLV104T ansible_hostname=EPSNGAPTPLV104T ansible_host=172.18.14.248 epsnode_id=3

[eps_nodes]
EPSNGAPTPLV102T
EPSNGAPTPLV103T

[arbiter_nodes]
EPSNGAPTPLV104T

[primary_node]
EPSNGAPTPLV102T
```

Update the vars.yml file with the correct floating (virtual) IP address and its corresponding CIDR or subnet mask. Verify the CIDR using the **ip a** command, and ensure the subnet aligns with the nodes' physical IP addresses to prevent assignment issues. Configure the arbiter host as required.

```
VIP: "172.18.14.245"
CIDR: "23"
##############################MongoDB##########################################
db_cls_username: "[redacted]"
db_cls_password: "[redacted]"
db_replica_set: "rs-0"
##########################################PCS CLUSTER############################
pcmk_cluster_name: [redacted]
pcmk_user: [redacted]
pcmk_password: [redacted]
##############################NGINX############################################
max_temp_file_size: "0"
arbiter: "EPSNGAPTPLV104T"
# Offline package path for files
offline_package_path: /root/ha_automation/ansible/packages
```

SMTP Configuration: (optional) – Before Executing HA Automation

1. Go to the path below to configure SMTP server details:
   /root/ha_automation/ansible/roles/cls_health_monitoring/vars

```
root@epsnode3:~/ha_automation/ansible/roles/cls_health_monitoring/vars# pwd
/root/ha_automation/ansible/roles/cls_health_monitoring/vars
```

2. Mention smtp_host and smtp_port details (***If details are not mentioned, the default will be an empty value or a dummy value)

```
maintenance_servers: "{{ groups['all_nodes'] }}"
maintenance_servers_use_inventory_hostname: false
recipient_email_id: "{{ hostvars[groups['primary_node'][0]].email_recipient_id.split('=') [1] }}"
maintenance_nodes: "{{ groups['all_nodes'] | map('extract', hostvars, ['ansible_hostname']) | join(' ') }}"
sender_email_id: "eps@seqrite.com"
# SMTP settings for offline alert delivery (single source of truth)
# Set these to your internal SMTP listener reachable by all nodes.
smtp_host: "172.19.101.61"
smtp_port: "1025"
maintenance_all_nodes: "{{ groups['all_nodes'] | length }}"
maintenance_eps_nodes: "{{ groups['eps_nodes'] | length }}"
##############################################Partition Nodes#########################
zk_nodes_host_with_port: "{{ groups['all_nodes'] | map('extract', hostvars, ['ansible_hostname']) | join(':2181,') }}:2181"
kafka_bootstrap: "{{ groups['eps_nodes'] | map('extract', hostvars, ['ansible_hostname']) | join(':9092,') }}:9092"
kafka_length: "{{ groups['eps_nodes'] | length - 1}}"
kafka_broker_ids: "{{ groups['eps_nodes'] | map('extract', hostvars, ['epsnode_id']) | join(',') }}"
```

3. Verify SMTP settings post HA configuration:

```
if [ "${1:-}" = "--enable" ]; then
    email_Sender="eps@seqrite.com"
    email_Recipient="perfhaoffline@yopmail.com"
    SMTP_HOST="172.19.101.61"
    SMTP_PORT="1025"
```

SMTP Configuration: (optional) – After Executing HA Automation

1. Go To Path: /opt/Seqrite_EndPoint_Security/eps_alert/eps_alert.sh
   Mention smtp_host and smtp_port details

```
if [ "${1:-}" = "--enable" ]; then
    email_Sender="eps@seqrite.com"
    email_Recipient="perfhaoffline@yopmail.com"
    SMTP_HOST="172.19.101.61"
    SMTP_PORT="1025"
```

Handling Dependency Issues in Offline Setup

Since the setup environment is offline and involves a number of dependencies for package installations, there may be instances where certain dependencies are missing, resulting in installation failures.

In such cases, review the error messages to identify the missing packages. Then, on an internet-connected system, use the following command to download the required package(s):

apt-get download <package_name>

```
root@UQAQLUB2446-028:~/dependencies# apt-get download python3.12
Get:1 http://in.archive.ubuntu.com/ubuntu noble-updates/main amd64 python3.12 amd64 3.12.3-1ubuntu0.8 [651 kB]
Fetched 651 kB in 3s (204 kB/s)
root@UQAQLUB2446-028:~/dependencies# ll
total 644
drwxr-xr-x  2 root root   4096 Sep 23 13:20 ./
drwx------ 18 root root   4096 Sep 23 13:18 ../
-rw-r--r--  1 root root 650764 Aug 22 01:16 python3.12_3.12.3-1ubuntu0.8_amd64.deb
```

After downloading, transfer the .deb package files to the auxiliary machine and place them in the following directory:

/root/ha_automation/install_ansible/

This ensures that all required dependencies are available locally for successful installation.

Execution

- **Execution:** Navigate to path **"/root/ha_automation/install_ansible"**

Run the command below to grant ***executable permissions***, if not present already

: chmod +x install_ansible_offline.sh

```
-rw-r--r-- 1 root root  4195278 Aug 22 06:44 gawk-doc_5.2.1-1_all.deb
-rw-r--r-- 1 root root    50826 Aug 22 06:44 gcc-14-base_14.2.0-4ubuntu2~24.04_amd64.deb
-rwxr-xr-x 1 root root     1672 Aug 22 06:44 install_ansible_offline.sh*
-rw-r--r-- 1 root root     6798 Aug 22 06:44 java-common_0.75+exp1_all.deb
-rw-r--r-- 1 root root    54344 Aug 22 06:44 libatk-wrapper-java_0.40.0-3build2_all.deb
```

- **Run HA Automation Script**: To configure HA, execute the following command with the root user privileges from the **/root/ha_automation/install_ansible** directory.

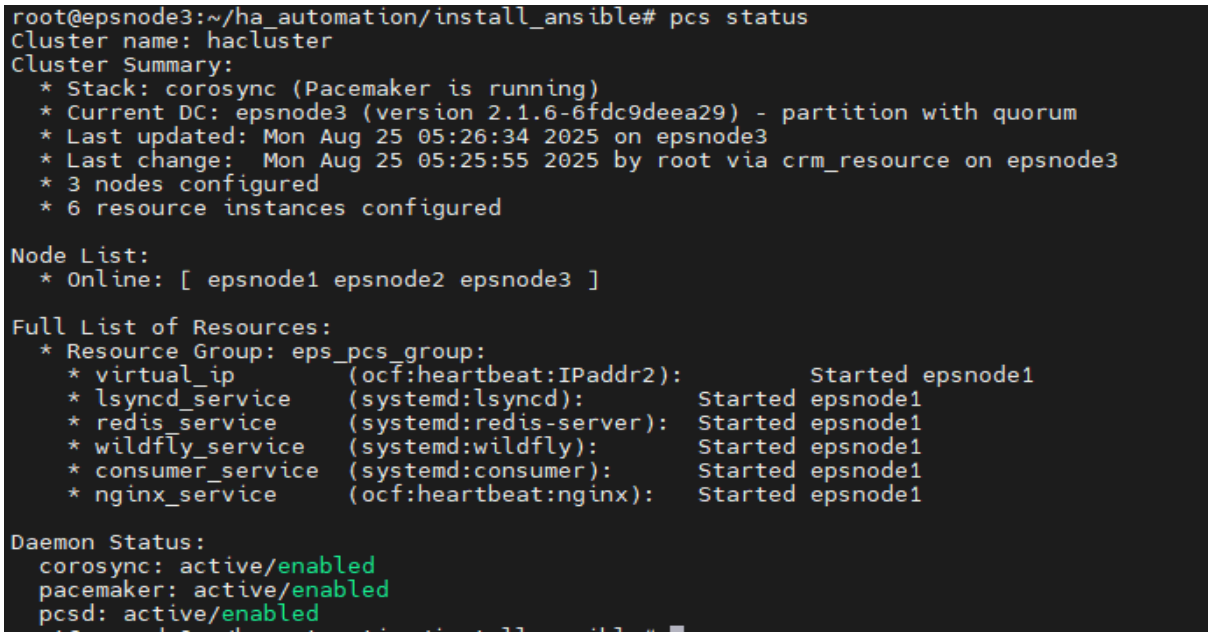
Execute HA Automation: **bash install_ansible_offline.sh.**

Verify, Post installation screenshot having failed=0

```
PLAY RECAP *********************************************************************************************************************
epsnode1                   : ok=242  changed=173  unreachable=0    failed=0    skipped=31   rescued=0    ignored=6
epsnode2                   : ok=196  changed=146  unreachable=0    failed=0    skipped=52   rescued=0    ignored=4
epsnode3                   : ok=75   changed=51   unreachable=0    failed=0    skipped=52   rescued=0    ignored=4
```

- To verify the cluster's status after the setup: On any node

  Execute: **pcs status**



Set up Alert: Execute below in Node1 or Node 2

/opt/Seqrite_EndPoint_Security/eps_alert/eps_alert.sh --enable

Use --disable to disable the alerts

• The email recipient in the alerts is dynamically selected by Ansible based on the recipient configured by the Quick Heal EPP installer for the health check scripts during start-up. The source email address is eps@seqrite.com.

7.6 to EPP 8.4 (HA Setup) Migration

Migration with HA needs some specific steps. Below are the details:

1. Set up HA, and make sure to check the PCS cluster:

- Run Command in Terminal (any server node) – "**pcs status**"
- For more information, please check the HA setup steps
- Make sure HA's pre-requisites are followed

2. **Pre-requisite**: Run **migrationEnableOffline.js** script on HA post handling DB authorization (disable auth and comment key in mongo.conf) on all nodes


migrationEnableOffline.js

Start the Migration process by downloading the tool from the HA setup(server)

- Download the Export Tool from the HA setup to migrate data for 7.6 and import the same via the 8.4 HA console.
- Download the client Migration tool [SSP] from HA setup (Path: Deployment>>EPP 7.6 Migration Tab) and run this SSP on the 7.6 server for client migration.

Note:

Please make sure Win7 client Machines have IE 11 Browser installed [EPP Server Client] before running the SSP on the 7.6 server.