High Availability Automation Setup Installation Guide for EPP 8.3.4.2 Standalone, Site Server and Migration on Ubuntu 24.04.2

Fresh EPP Standalone / Site Server HA Installation Guide

Overview: This document will help users to configure the High Availability setup for EPP 8.3 console within the network. High availability focuses on ensuring maximum availability, regardless of disruptions or events that may occur.

Applicable Version: EPP 8.3

Following are the pre-requisites and steps to configure HA Setup.

Prerequisite:

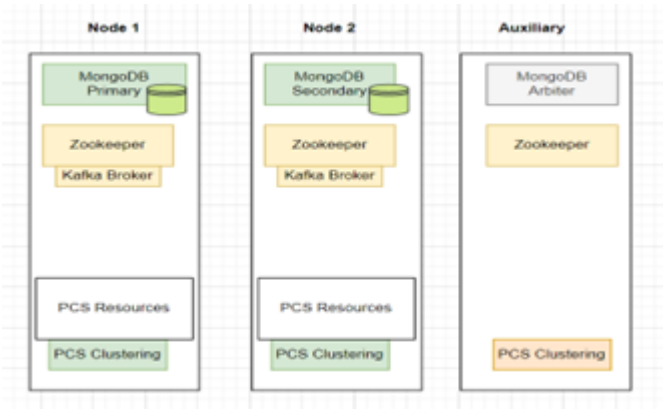
• **Product Key**: Enable the HA flag on the key. Note that the HA can only be enabled after the key is activated.

• 1 Floating IP in the same network (it should be a reserved IP not allocated to any machine)

• 3 HA Ubuntu 24.04.2 Machines - 2 with the required normal hardware setup as per EPP licence and 1 with lower configuration for Auxiliary node (for example, 2CPU/4GB RAM).

***Keep fresh server snapshot if possible – Optional Step

High Level Architecture:



1. To set up Node 1 and Node 2,

- Run the following commands in sequence:

• sudo apt update

• apt --fix-broken install

- Install EPP setup and check application login post activation.

- After completing the EPP installation on both the nodes, Run the following commands in sequence again to avoid any library or broken installation issues

• sudo apt update

• Please install ssh if not pre-installed and run command: **apt install sshpass -y**

• **apt --fix-broken install** - run this command if prompted during above install

- Reboot Node 1 and Node 2 and check if login is working.

2. To Setup Auxiliary Node

- Steps to Install Ansible.

• sudo apt update

• apt --fix-broken install

• sudo apt install ansible-core

• Please install ssh if not pre installed and run command: **apt install sshpass -y**

To re validate the installation of sshpass and Ansible, execute: **apt install sshpass ansible -y** & Below shown output is expected.

```
root@epsnode3:~# apt install sshpass ansible -y
Reading package lists ... Done
Building dependency tree ... Done
Reading state information ... Done
sshpass is already the newest version (1.09-1).
ansible is already the newest version (9.2.0+dfsg-0ubuntu5).
0 upgraded, 0 newly installed, 0 to remove and 283 not upgraded.
```

- ansible --version

```
root@epsnode3:~# ansible --version
ansible [core 2.16.3]
  config file = /etc/ansible/ansible.cfg
  configured module search path = ['/root/.ansible/plugins/modules', '/usr/share/ansible/plugins/modules']
  ansible python module location = /usr/lib/python3/dist-packages/ansible
  ansible collection location = /root/.ansible/collections:/usr/share/ansible/collections
  executable location = /usr/bin/ansible
  python version = 3.12.3 (main, Jun 18 2025, 17:59:45) [GCC 13.3.0] (/usr/bin/python3)
  jinja version = 3.1.2
  libyaml = True
```

- Execute below to change locale encoding - Ansible requires the locale encoding to be UTF-8,

• sudo nano /etc/default/locale

Make below changes mentioned:

LANG=en_US.UTF-8

LC_ALL=en_US.UTF-8

Or

sudo update-locale LANG=en_US.UTF-8 LC_ALL=en_US.UTF-8

• Validate changes after above command is executed, less /etc/default/locale

• **Reboot** the Auxiliary Node to implement the above changes.

• To check ansible Installation, execute: **ansible --version**

```
root@epsnode3:~# ansible --version
ansible [core 2.16.3]
  config file = /etc/ansible/ansible.cfg
  configured module search path = ['/root/.ansible/plugins/modules', '/usr/share/ansible/plugins/modules']
  ansible python module location = /usr/lib/python3/dist-packages/ansible
  ansible collection location = /root/.ansible/collections:/usr/share/ansible/collections
  executable location = /usr/bin/ansible
  python version = 3.12.3 (main, Jun 18 2025, 17:59:45) [GCC 13.3.0] (/usr/bin/python3)
  jinja version = 3.1.2
  libyaml = True
```

3. Make the following changes in /etc/ansible/ansible.cfg in Auxiliary Node:

*******If above folder and file is not present , please create following above

• set `host_key_checking` to `False` (**Uncomment the line if commented**)

• set `log_path` to `/var/log/ansible.log` (**Uncomment the line if commented**)

Add below:

[defaults]

log_path = /var/log/ansible.log

host_key_checking = False

Execute: **export ANSIBLE_HOST_KEY_CHECKING=False**

4. Setup for HA Automation Script in Auxiliary Node:

Download HA build from PROD repository and place in /root directory.

To extract, run: **tar -xzvf EPP_HA_Config.tar.gz.**

Or if in zip ,run: unzip EPP_HA_Config.gz

5. Ansible Configuration details:

• Ansible playbooks and inventories are located within the **ha_automation/ansible** directory.

• Navigate to the inventories directory and ensure to update the **hosts.ini** and **vars.yml** files with the necessary parameters as needed.

• In the **hosts.ini** file, update the IP addresses of the nodes for a 3-node deployment. However, avoid making changes to any existing host groups such as [all_nodes] or [eps_nodes], as modifying them might result in 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
```

• In the vars.yml file, ensure that you provide the accurate floating IP address along with the corresponding CIDR or subnet mask. You can validate the CIDR by executing the command ip a. It is important to ensure that the subnet mask matches the physical IP addresses of the nodes to prevent any issues with the assignment of the floating IP.

```
VIP: "172.10'.110'.10"
CIDR: "23"
##############################MongoDB#########################################
db_cls_username: "dbclusteradmin"
db_cls_password: "StrongPassword"
db_replica_set: "rs-0"
#########################################PCS CLUSTER############################
pcmk_cluster_name: hacluster
pcmk_user: hacluster
pcmk_password: haadmincluster
##############################NGINX###########################################
max_temp_file_size: "0"
arbiter: "epsnode3"
```

6. To avoid lock errors on all three nodes, follow these steps:

- Rerun to check if any new updates
    - apt-get update
    - apt --fix-broken install
    - apt-get -y purge unattended-upgrades
    - systemctl disable --now apt-daily.timer
    - systemctl disable --now apt-daily-upgrade.timer
    - systemctl daemon-reload

Note: Wait for 15 to 20 minutes to allow all machines to stabilize. During this time, various processes such as updates, snapd updates, and unattended upgrades will run on the auxiliary node. You can monitor these processes using the top command or by checking CPU usage.

After the 15- to 20-minutes, use the top command to verify CPU usage and ensure that no processes are holding any locks.

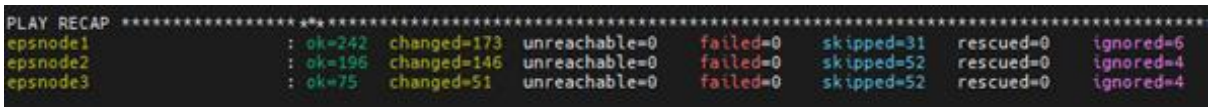
• Execute to check lock: **sudo lsof /var/lib/dpkg/lock**

• **Run HA Automation Script**: To configure HA using Ansible, execute the following command with the root user privileges from **ha_automation/ansible** directory.

Execute HA Automation: **ansible-playbook site.yml -i inventories/hosts.ini --ask-pass**

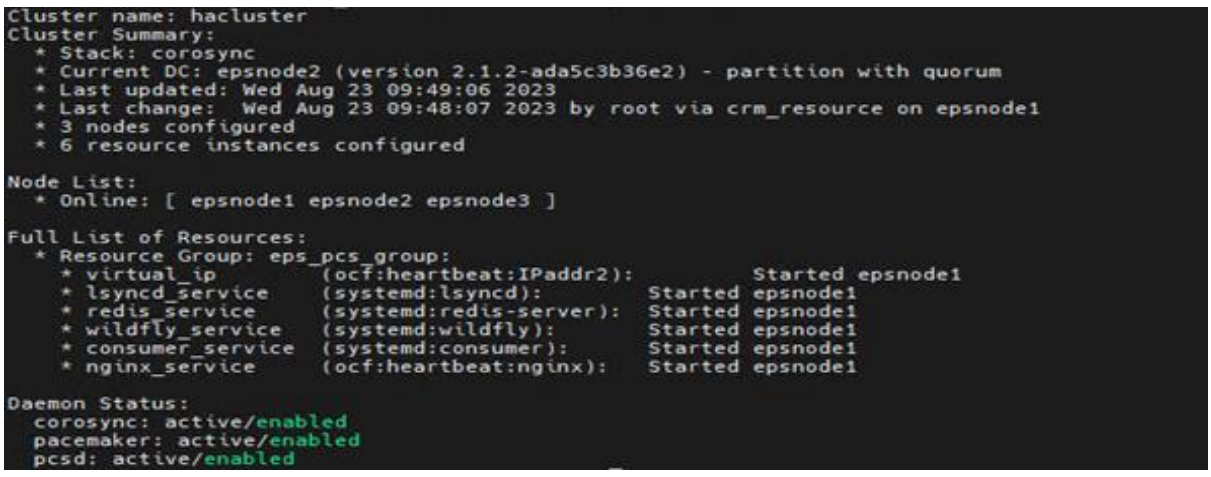
*****NOTE**: skip **--ask-pass** if **paswordless-ssh** connection between controller and remote nodes have been established.

The above command should run the automation script with necessary changes.



• To verify the cluster's status after the setup:

Execute: **pcs status**



7. **Setup 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 8.3 installer for the health check scripts during start-up. The source email address is eps@seqrite.com.

Existing client from 7.6 to 8.3 migration

Migration with HA needs some specific steps, below are the details:

1. Setup HA, and make sure the to check the PC cluster:

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

2. 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 8.3 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 are IE 11 Browser is installed [EPP 8.3 Server Client] before running the SSP on 7.6 server.