

Akkadian Console Server HA

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Akkadian Labs

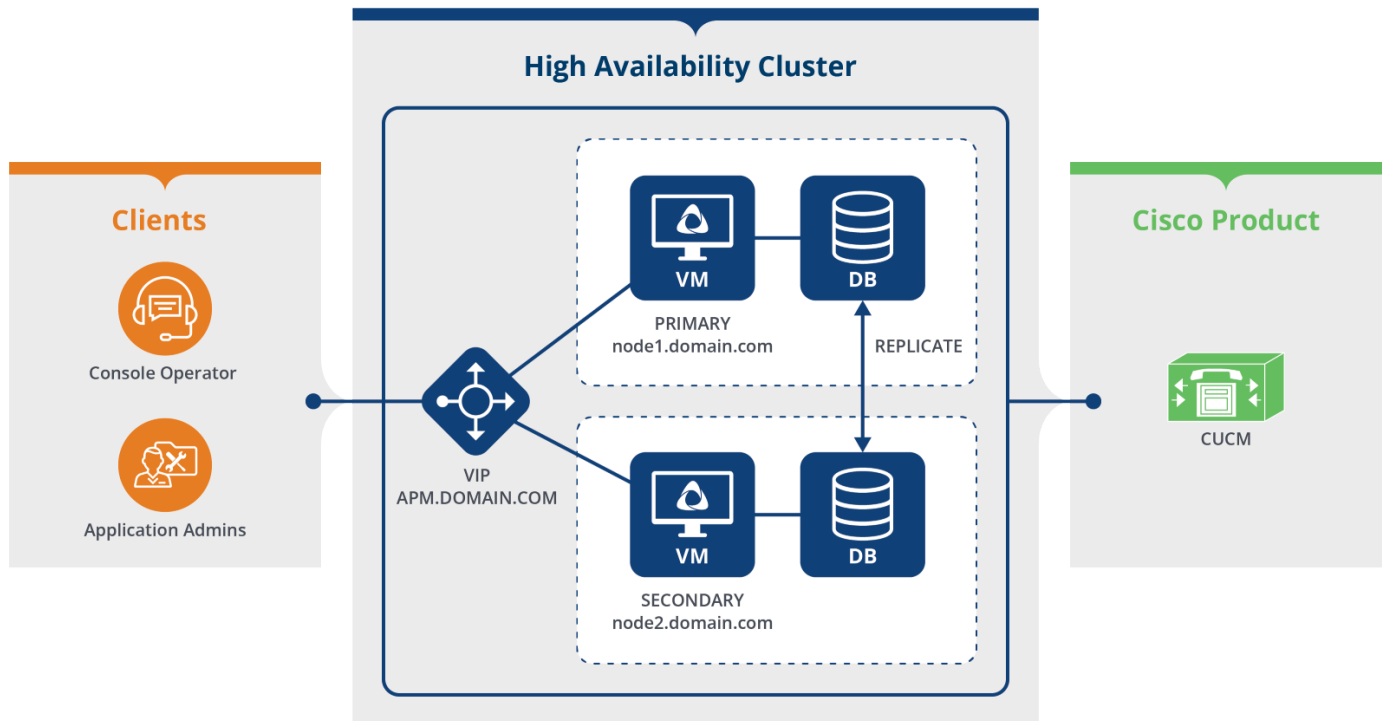
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1. HA Overview

The Console Web and server have HA capability built into the applications and the architecture layers to mitigate against disasters. Please see HA Diagram.

Akkadian Console High Availability



- HA is enabled through the CLI (Akkadian Appliance Manager)
- Support only 2 nodes to a HA cluster
- End users access application via Virtual IP
 - >* End Users
 - >* Applications Admins
 - >* Operators
 - >* Console Clients
- No load balancer is needed
- VIP routes traffic to active primary node
- Database replication is enabled when HA is enabled
 - >* Real-time replication is MASTER – Slave
- Promotion of Secondary Node to Primary in the event of Primary Node failure is automatic. In case of Console system take almost 3-5 min to initialize the system.

2. Requirements

2.1. Pre-requisites for High Availability

Pre-requisites for High Availability.

- Two Akkadian **Application Servers**
- One **Virtual IPV4 Address** and Mask (ex 255.255.255.0)
- Nodes must be assigned an **IP address**
- Nodes must be configured with **unique hostnames**
- Node hostname should be accessible via DNS for other nodes

HA Network Port Utilization

Traffic	Port	Direction
HA Heartbeat	TCP Port 2224	Inbound
HA Database	TCP Port 3306	Inbound
SNMP	UDP Ports 161-162	Inbound
SSH	TCP 22	Inbound
HA Database (aCO Server – Web)	TCP 27017	Inbound

2.2. Building Server for HA

If you are already running console server and want to enable HA you have to do following

Building Primary Server:

- Step 1: Download the latest (4.1.1.491) Akkadian Console Server OVA.
- Step 2: Once Downloaded install the OVA. Please follow the [instruction here](#) on how to install OVA
- Step 3: Once new server is up and running and admin user is able to login.
- Step 4: Login to current production server.
- Step 5: Take the backup of current server, please follow the [instruction here](#).
- Step 6: Login to new server and restore. please follow the [instruction here to restore](#)
- Step 7: Login to new server and validate all your data is moved to new server.

Building Secondary Server:

- Step 1: Download the latest (4.1.1.491) Akkadian Console Server OVA.
- Step 2: Once Downloaded install the OVA. Please follow the [instruction here](#) on how to install OVA
- Step 3: Once second server is up and running and admin user is able to login.

Now both server are ready to be configured for HA. Please see [next section](#) on how to configure HA.

3. High Availability Configuration

To enable High Availability:

1. Login to the Akkadian Appliance Manager on the node you intend to be your initial Primary(Master) using:

Username	akkadianuser
Password	akkadianpassword



Note* configurations will be applied to secondary nodes automatically

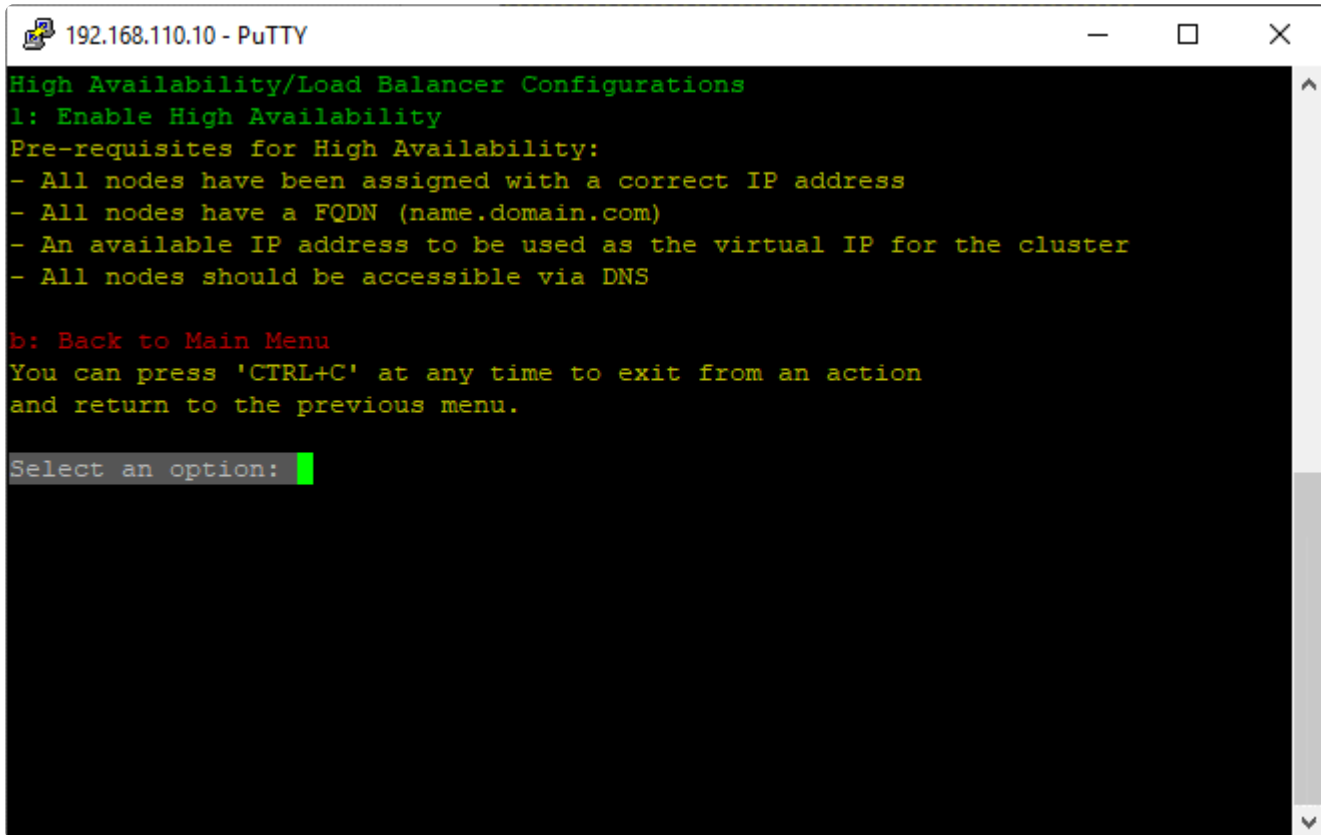
```
192.168.110.10 - PuTTY
#####
#
# Welcome to Akkadian Appliance Manager - 2.1.4-1981efc #
#
#####
Main Menu:
 1: Configure Network
 2: Configure Time
 3: Update Akkadian Products
 4: Product Settings Menu
 5: Appliance Manager Settings
 6: High Availability
 r: Reboot Server
 s: Shutdown Server
 q: Quit Akkadian Appliance Manager
You can press 'CTRL+C' at any time to exit from an action
and return to the previous menu.

Use the following url to access the application
Secure URL, https://192.168.110.10

Select an option: █
```

2. Select Option 6 High Availability

3. Select Option 1 – Enable High Availability

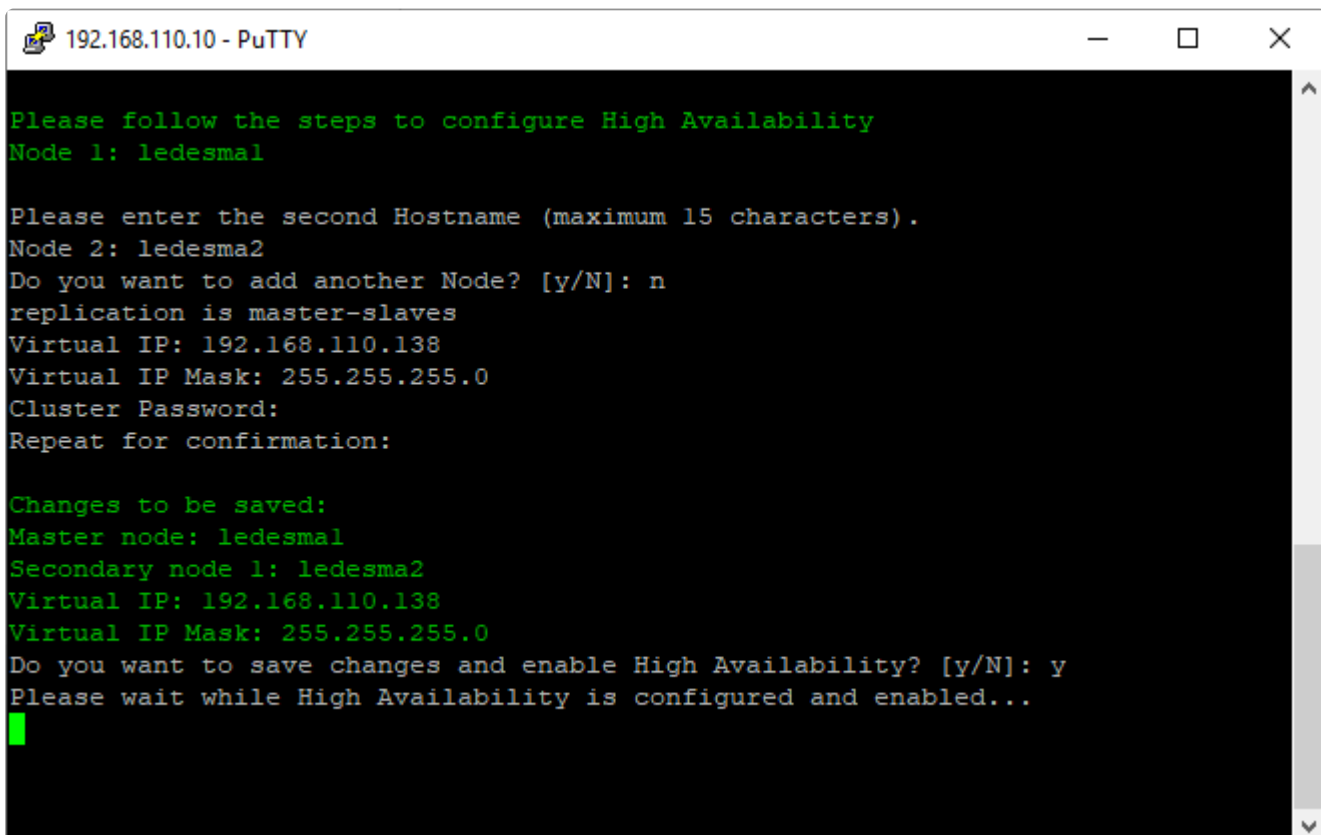


```
192.168.110.10 - PuTTY

High Availability/Load Balancer Configurations
1: Enable High Availability
Pre-requisites for High Availability:
- All nodes have been assigned with a correct IP address
- All nodes have a FQDN (name.domain.com)
- An available IP address to be used as the virtual IP for the cluster
- All nodes should be accessible via DNS

b: Back to Main Menu
You can press 'CTRL+C' at any time to exit from an action
and return to the previous menu.

Select an option: █
```



```
192.168.110.10 - PuTTY

Please follow the steps to configure High Availability
Node 1: ledesmal

Please enter the second Hostname (maximum 15 characters).
Node 2: ledesma2
Do you want to add another Node? [y/N]: n
replication is master-slaves
Virtual IP: 192.168.110.138
Virtual IP Mask: 255.255.255.0
Cluster Password:
Repeat for confirmation:

Changes to be saved:
Master node: ledesmal
Secondary node 1: ledesma2
Virtual IP: 192.168.110.138
Virtual IP Mask: 255.255.255.0
Do you want to save changes and enable High Availability? [y/N]: y
Please wait while High Availability is configured and enabled...
█
```

4. Enter the Secondary Hostname, Virtual IP, and Virtual IP Mask
5. Choose a *Cluster Password and Repeat for confirmation*

6. Enter “y” to save changes and Enable High Availability



Note* High Availability and Database replication configuration status takes about around 2 minutes before its reflected on the CLI

From the main Appliance Manager menu, you will see High Availability is Enabled

```
#####  
#                                                                 #  
# Welcome to Akkadian Appliance Manager - 2.1.4-1981efc #  
#                                                                 #  
#####  
#####  
High Availability is Enabled  
Master Node: ledesma1  
  
Online:  
ledesma1  
ledesma2  
  
VIP: 192.168.110.138  
#####
```

4. Updating with High Availability

To Update Product on Primary Server:

- Login to primary aCO portal
- Update CLI (If applicable)
- Update Server
- Wait for 3-5 min, make sure server is up and running and make sure updates are verified.

To Update Product on Secondary Server:

- Login to Secondary aCO portal
- Update CLI (If applicable)
- Update Server
- Wait for 3-5 min, make sure server is up and running and make sure updates are verified.

5. Restore with High Availability

To restore Product on Primary Server:

- Login to primary aCO portal
- Restore the Server
- Wait for 3-5 min, make sure server is up and running and make sure updates are verified.

6. Disabling High Availability

To Disable HA

1. Login to the Akkadian Appliance Manager(CLI) on the node you intend to be your initial Primary(Master) using: Note* configurations will be applied to secondary nodes automatically.

```
High Availability Actions
1: Current High Availability Status
2: Manage Nodes
3: Manage Resources
4: Maintenance Mode
5: Remove High Availability Cluster Config
6: Database Replication Settings
b: Back to Main Menu
You can press 'CTRL+C' at any time to exit from an action
and return to the previous menu.

Select an option:
Are You sure you want to remove the High Availability Configurations? [y/N]: y
Cleaning sync db settings
Removing replication pre-conditions on: aco
Removing Replication Configurations, please wait...
Removing Mongo Replication -- Success
Shutting down pacemaker/corosync services...

Killing any remaining services...

Removing all cluster configuration files...

Shutting down pacemaker/corosync services...

Killing any remaining services...

Removing all cluster configuration files...

gpg: WARNING: message was not integrity protected

[OK] High Availability is Disable
Please press any key to continue...
```