



Configuring Optimized Multi-Node Setup

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Database Node

The database node hosts the database service in a multi-node setup. While configuring a multi-node setup for the first time with Release 6.8.0.0, you must always first configure the database node.

If you are Migrating/Upgrading the existing 6.7.4.x to 6.8, please following the [Cisco UCS Director Upgrade Guide, Release 6.8](#).

Primary Node

The primary node in the optimized multi-node setup runs the Cisco UCS Director software services, and also acts as the front-end user interface node. While configuring the optimized multi-node setup with release 6.8.0.0, you must first configure the database node, and then configure the primary node.

Configuring a Database Node

Procedure

- Step 1** Login to the Cisco UCS Director Shell Admin Console on the node that you want to configure as the database node.
- Step 2** From the menu, choose `Configure Multi-Node` and press **Enter**.
- Step 3** When prompted, enter **y** to configure the multi- node setup.
- Step 4** When prompted, enter **2** to configure the node as the database node.

- Step 5** When prompted, enter **y** to confirm configuring the current node as the database node.
 - Step 6** When prompted, enter and confirm a new root password for the MariaDB database.
 - Step 7** When prompted, enter and confirm the admin password for the MariaDB database.
 - Step 8** When prompted, enter **y** to log out so that the changes can take effect.
 - Step 9** After you are logged out, log back on to the Cisco UCS Director shelladmin on the database node.
After you return to the Shell Admin, the menu options change to those available for a database node.
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What to do next

Configure the primary node.

Configuring the Primary Node

Before you begin

You should have configured the database node. See [Configuring a Database Node, on page 1](#).

Procedure

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- Step 1** Login to the Cisco UCS Director Shell Admin Console on the node that you want to configure as the primary node.
 - Step 2** From the menu, choose `Configure Multi-Node` and press **Enter**.
 - Step 3** When prompted, enter **y** to configure the multi-node setup.
 - Step 4** When prompted, enter **1** to configure the node as the primary node.
 - Step 5** When prompted, enter **y** to confirm configuring the current node as the primary node.
 - Step 6** When prompted, enter the database node IP address.

Note Do not configure multiple primary nodes with the same database node IP address. This will lead to data corruption. If the database node IP address of one multi-node configuration has to be configured for a primary node in a different multi-node configuration, then you must first stop the services running on the primary node.

- Step 7** When prompted, enter the password for the MariaDB root user and admin user for the database node.
 - Step 8** When prompted, enter **y** to log out so that the changes can take effect.
 - Step 9** After you are logged out, log back on to the Cisco UCS Director shelladmin on the primary node.
After you return to the Shell Admin, the menu options change to those available for a primary node.
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Converting a Standalone Configuration to a Multi-Node Configuration

Complete the following procedure to convert your release 6.7 standalone configuration to a multi-node configuration.

Procedure

- Step 1** Take a snapshot of the existing standalone VM.
- Step 2** Deploy a new Cisco UCS Director VM, and configure it as the database node.
For more information, see [Configuring a Database Node, on page 1](#).
- Step 3** Take the backup of the database of the existing standalone VM.
- Step 4** Configure the existing standalone VM as the primary node.
As part of this configuration, you will need to provide the IP address of the database node. For more information, see [Configuring the Primary Node, on page 2](#).
- Step 5** Restore the data from the database backup.
- Step 6** If you have configured Bare Metal Agent accounts, run the following script in the primary node to re-configure the database IP configured in the BMA.

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/opt/scalability/migration/updateDatabaseIPForBMAAccounts.sh
```
- Step 7** Start the Cisco UCS Director services in the primary node.
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Setting Up Passwordless Authentication

In an optimized multi-node setup, prior to installing or upgrading the base platform pack to version 6.7.3.1 and later or to Cisco UCS Director 6.7(4.0) and later, you must first configure passwordless authentication between the primary node and the database node. You need to configure this form of authentication only once and need not repeat it before upgrading to later versions.

Procedure

- Step 1** Login to the primary node.
- Step 2** Run the following command on the primary node: `cd /opt/scalability`.
- Step 3** Run the `./passwordlessConnectivity` command to start the passwordless authentication setup.
- Step 4** When prompted, enter the database node IP address.
- Step 5** When prompted, enter `root` as the username for the database node.
- Step 6** When prompted, enter `y` to generate the key.
- Step 7** At the confirmation prompt, enter `yes` if you want to configure yet another node for passwordless connectivity.

- Step 8** If you are installing a new version of Cisco UCS Director using the OVA, and if the default **root** user password of the database node is not reset already, you are prompted to change the password.
- Step 9** When prompted, enter the password for the **root** user of the database node.
- A confirmation message stating that passwordless authentication for the **root** user on the database node is displayed.
- Step 10** Run the **chmod 600 ~/.ssh/id_rsa** command.
This completes the passwordless authentication setup.
- Step 11** Run the **sudo ssh <<username>>@<<db nodeIp>>** command to verify the completion of the setup.
- If you are logged in to the database node after running this command, then passwordless authentication is successfully configured.
- Step 12** (Optional) If you cannot login to the database node without a password, login to the primary node and delete the entry of the database node from the `~/.ssh/id_rsa/known_hosts` file and repeat this procedure.
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