Using the maintenance console

OnCommand Unified Manager 9.5

NetApp
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Using the maintenance console

You can use the maintenance console to configure network settings, to configure and manage the system on which Unified Manager is installed, and to perform other maintenance tasks that help you prevent and troubleshoot possible issues.

What functionality the maintenance console provides

The Unified Manager maintenance console enables you to maintain the settings on your Unified Manager system and to make any necessary changes to prevent issues from occurring.

Depending on the operating system on which you have installed Unified Manager, the maintenance console provides the following functions:

- Troubleshoot any issues with your virtual appliance, especially if the Unified Manager web interface is not available
- Upgrade to newer versions of Unified Manager
- Generate support bundles to send to technical support
- Configure network settings
- Change the maintenance user password
- Connect to an external data provider to send performance statistics
- Change the performance data collection internal
- Restore the Unified Manager database and configuration settings from a previously backed up version.

What the maintenance user does

The maintenance user is created during the installation of Unified Manager on a Red Hat Enterprise Linux or CentOS system. The maintenance user name is the “umadmin” user. The maintenance user has the OnCommand administrator role in the web UI, and that user can create subsequent users and assign them roles.

The maintenance user, or umadmin user, can also access the Unified Manager maintenance console.

Diagnostic user capabilities

The purpose of diagnostic access is to enable technical support to assist you in troubleshooting, and you should only use it when directed by technical support.

The diagnostic user can execute OS-level commands when directed by technical support, for troubleshooting purposes.

Maintenance console menus

The maintenance console consists of different menus that enable you to maintain and

manage special features and configuration settings of the Unified Manager server.

Depending on the operating system on which you have installed Unified Manager, the maintenance console consists of the following menus:

- Upgrade Unified Manager (VMware only)
- Network Configuration (VMware only)
- System Configuration (VMware only)
- Support/ Diagnostics
- Reset Server Certificate
- External Data Provider
- Performance Polling Interval Configuration

Network Configuration menu

The Network Configuration menu enables you to manage the network settings. You should use this menu when the Unified Manager user interface is not available.

This menu is not available if Unified Manager is installed on Red Hat Enterprise Linux, CentOS, or on Microsoft Windows.

The following menu choices are available.

- **Display IP Address Settings**

  Displays the current network settings for the virtual appliance, including the IP address, network, broadcast address, netmask, gateway, and DNS servers.

- **Change IP Address Settings**

  Enables you to change any of the network settings for the virtual appliance, including the IP address, netmask, gateway, or DNS servers. If you switch your network settings from DHCP to static networking using the maintenance console, you cannot edit the host name. You must select **Commit Changes** for the changes to take place.

- **Display Domain Name Search Settings**

  Displays the domain name search list used for resolving host names.

- **Change Domain Name Search Settings**

  Enables you to change the domain names for which you want to search when resolving host names. You must select **Commit Changes** for the changes to take place.

- **Display Static Routes**

  Displays the current static network routes.

- **Change Static Routes**

  Enables you to add or delete static network routes. You must select **Commit Changes** for the changes to

take place.

  - **Add Route**

    Enables you to add a static route.

  - **Delete Route**

    Enables you to delete a static route.

  - **Back**

    Takes you back to the **Main Menu**.

  - **Exit**

    Exits the maintenance console.

- **Disable Network Interface**

  Disables any available network interfaces. If only one network interface is available, you cannot disable it. You must select **Commit Changes** for the changes to take place.

- **Enable Network Interface**

  Enables available network interfaces. You must select **Commit Changes** for the changes to take place.

- **Commit Changes**

  Applies any changes made to the network settings for the virtual appliance. You must select this option to enact any changes made, or the changes do not occur.

- **Ping a Host**

  Pings a target host to confirm IP address changes or DNS configurations.

- **Restore to Default Settings**

  Resets all settings to the factory default. You must select **Commit Changes** for the changes to take place.

- **Back**

  Takes you back to the **Main Menu**.

- **Exit**

  Exits the maintenance console.

System Configuration menu

The System Configuration menu enables you to manage your virtual appliance by providing various options, such as viewing the server status, and rebooting and shutting down the virtual machine.

The System Configuration menu is not available if Unified Manager is installed on Red Hat Enterprise Linux, CentOS, or Microsoft Windows.

The following menu choices are available:

- **Display Server Status**

  Displays the current server status. Status options include Running and Not Running.

  If the server is not running, you might need to contact technical support.

- **Reboot Virtual Machine**

  Reboots the virtual machine, stopping all services. After rebooting, the virtual machine and services restart.

- **Shut Down Virtual Machine**

  Shuts down the virtual machine, stopping all services.

  You can select this option only from the virtual machine console.

- **Change <logged in user> User Password**

  Changes the password of the user that is currently logged in, which can only be the maintenance user.

- **Increase Data Disk Size**

  Increases the size of the data disk (disk 3) in the virtual machine.

- **Increase Swap Disk Size**

  Increases the size of the swap disk (disk 2) in the virtual machine.

- **Change Time Zone**

  Changes the time zone to your location.

- **Change NTP Server**

  Changes the NTP Server settings, such as IP address or fully qualified domain name (FQDN).

- **Restore from an OCUM Backup**

  Restores the Unified Manager database and configuration settings from a previously backed up version.

- **Reset Server Certificate**

  Resets the server security certificate.

- **Change hostname**

  Changes the name of the host on which the virtual appliance is installed.

- **Back**

  Exits the System Configuration menu and returns to the Main Menu.

- **Exit**

  Exits the maintenance console menu.

Support and Diagnostics menu

The Support and Diagnostics menu enables you to generate a support bundle.

The following menu option is available:

- **Generate Support Bundle**

  Enables you to create a 7-Zip file containing full diagnostic information in the diagnostic user's home directory. The file includes information generated by an AutoSupport message, the contents of the Unified Manager database, detailed data about the Unified Manager server internals, and verbose-level logs not normally included in AutoSupport messages.

Additional menu options

The following menu options enable you to perform various administrative tasks on the Unified Manager server.

The following menu choices are available:

- **Reset Server Certificate**

  Regenerates the HTTPS server certificate.

  You can regenerate the server certificate in the Unified Manager GUI by clicking  > **HTTPS Certificate** > **Regenerate HTTPS Certificate**.

- **Disable SAML authentication**

  Disables SAML authentication so that the identity provider (IdP) no longer provides sign-on authentication for users accessing the Unified Manager GUI. This console option is typically used when an issue with the IdP server or SAML configuration blocks users from accessing the Unified Manager GUI.

- **External Data Provider**

  Provides options for connecting Unified Manager to an external data provider. After you establish the connection, performance data is sent to an external server so that storage performance experts can chart the performance metrics using third-party software. The following options are displayed:

  - **Display Server Configuration**--Displays the current connection and configuration settings for an external data provider.
  - **Add / Modify Server Connection**--Enables you to enter new connection settings for an external data provider, or change existing settings.
  - **Modify Server Configuration**--Enables you to enter new configuration settings for an external data provider, or change existing settings.
  - **Delete Server Connection**--Deletes the connection to an external data provider.

    After the connection is deleted, Unified Manager loses its connection to the external server.

- **Performance Polling Interval Configuration**

  Provides an option for configuring how frequently Unified Manager collects performance statistical data from clusters. The default collection interval is five minutes.

  You can change this interval to ten or fifteen minutes if you find that collections from large clusters are not completing on time.

- **Exit**

  Exits the maintenance console menu.

Changing the maintenance user password on Windows

You can change the Unified Manager maintenance user password when required.

Steps

1. From the Unified Manager web UI login page, click **Forgot Password**.

   A page is displayed that prompts for the name of the user whose password you want to reset.

2. Enter the user name and click **Submit**.

   An email with a link to reset the password is sent to the email address that is defined for that user name.

3. Click the **reset password link** in the email and define the new password.
4. Return to the web UI and log in to Unified Manager using the new password.

After you finish

If Unified Manager is installed in a Microsoft Cluster Server (MSCS) environment, then you must change the maintenance user password on the second node of the MSCS setup. The maintenance user password for both nodes must be same.

Changing the umadmin password on Linux systems

For security reasons, you must change the default password for the Unified Manager umadmin user immediately after completing the installation process. If necessary, you can change the password again anytime later.

Before you begin

- Unified Manager must be installed on a Red Hat Enterprise Linux or CentOS Linux system.
- You must have the root user credentials for the Linux system on which Unified Manager is installed.

Steps

1. Log in as the root user to the Linux system on which Unified Manager is running.
2. Change the umadmin password: `passwd umadmin`

The system prompts you to enter a new password for the umadmin user.

After you finish

If Unified Manager is installed in a Veritas Cluster Server (VCS) environment, you must change the umadmin password on the second node of the VCS setup. The umadmin password for both nodes must be the same.

Adding network interfaces

You can add new network interfaces if you need to separate network traffic.

Before you begin

You must have added the network interface to the virtual appliance using vSphere.

The virtual appliance must be powered on.

About this task

You cannot perform this operation if Unified Manager is installed on Red Hat Enterprise Linux or on Microsoft Windows.

Steps

1. In the vSphere console **Main Menu**, select **System Configuration** > **Reboot Operating System**.

   After rebooting, the maintenance console can detect the newly added network interface.

2. Access the maintenance console.
3. Select **Network Configuration** > **Enable Network Interface**.
4. Select the new network interface and press **Enter**.

   Select **eth1** and press **Enter**.

5. Type **y** to enable the network interface.
6. Enter the network settings.

   You are prompted to enter the network settings if using a static interface, or if DHCP is not detected.

   After entering the network settings, you automatically return to the **Network Configuration** menu.

7. Select **Commit Changes**.

   You must commit the changes to add the network interface.

Adding disk space to the Unified Manager database directory

The Unified Manager database directory contains all of the health and performance data

collected from ONTAP systems. Some circumstances may require that you increase the size of the database directory.

For example, the database directory may get full if Unified Manager is collecting data from a large number of clusters where each cluster has many nodes. You will receive a warning event when the database directory is 90% full, and a critical event when the directory is 95% full.

No additional data is collected from clusters after the directory reaches 95% full.

The steps required to add capacity to the data directory are different depending on whether Unified Manager is running on a VMware ESXi server, on a Red Hat or CentOS Linux server, or on a Microsoft Windows server.

Adding space to the data directory of the Linux host

If you allotted insufficient disk space to the `/opt/netapp/data` directory to support Unified Manager when you originally set up the Linux host and then installed Unified Manager, you can add disk space after installation by increasing disk space on the `/opt/netapp/data` directory.

Before you begin

You must have root user access to the Red Hat Enterprise Linux or CentOS Linux machine on which Unified Manager is installed.

About this task

We recommend that you back up the Unified Manager database before increasing the size of the data directory.

Steps

1. Log in as root user to the Linux machine on which you want to add disk space.
2. Stop the Unified Manager service and the associated MySQL software in the order shown: `service ocieau stopservice ocie stopservice mysqld stop`
3. Create a temporary backup folder (for example, `/backup-data`) with sufficient disk space to contain the data in the current `/opt/netapp/data` directory.
4. Copy the content and privilege configuration of the existing `/opt/netapp/data` directory to the backup data directory: `cp -rp /opt/netapp/data/* /backup-data`
5. If SE Linux is enabled:
   a. Get the SE Linux type for folders on existing `/opt/netapp/data` folder:

      ```
      se_type= ls -Z /opt/netapp/data | awk '{print $4}'| awk -F: '{print $3}'|
      head -1
      ```

      The system returns a confirmation similar to the following:

```
echo $se_type
mysqld_db_t
```

b. Run the `chcon` command to set the SE Linux type for the backup directory: `chcon -R --type=mysqld_db_t /backup-data`

6. Remove the contents of the `/opt/netapp/data` directory:

   a. `cd /opt/netapp/data`

   b. `rm -rf *`

7. Expand the size of the `/opt/netapp/data` directory to a minimum of 750 GB through LVM commands or by adding extra disks.

   Mounting the `/opt/netapp/data` directory on an NFS export or CIFS share is not supported.

8. Confirm that the `/opt/netapp/data` directory owner (mysql) and group (root) are unchanged: `ls -ltr / | grep opt/netapp/data`

   The system returns a confirmation similar to the following:

```
drwxr-xr-x.  17 mysql root  4096 Aug 28 13:08 data
```

9. If SE Linux is enabled, confirm that the context for the `/opt/netapp/data` directory is still set to mysqld_db_t: `touch /opt/netapp/data/abc``ls -Z /opt/netapp/data/abc`

   The system returns a confirmation similar to the following:

```
-rw-r--r--. root root unconfined_u:object_r:mysqld_db_t:s0
/opt/netapp/data/abc
```

10. Copy the contents from `backup-data`, back to the expanded `/opt/netapp/data` directory: `cp -rp /backup-data/* /opt/netapp/data/`

11. Start the MySQL service: `service mysqld start`

12. After the MySQL service is started, start the ocie and ocieau services in the order shown: `service ocie start``service ocieau start`

13. After all of the services are started, delete the backup folder `/backup-data`: `rm -rf /backup-data`

Adding space to the data disk of the VMware virtual machine

If you need to increase the amount of space on the data disk for the Unified Manager database, you can add capacity after installation by increasing disk space on `disk 3`.

Before you begin

- You must have access to the vSphere Client.
- The virtual machine must have no snapshots stored locally.
- You must have the maintenance user credentials.

About this task

We recommend that you back up your virtual machine before increasing the size of virtual disks.

Steps

1. In the vSphere client, select the Unified Manager virtual machine, and then add more disk capacity to data `disk 3`. See the VMware documentation for details.
2. In the vSphere client, select the Unified Manager virtual machine, and then select the **Console** tab.
3. Click in the console window, and then log in to the maintenance console using your user name and password.
4. In the **Main Menu**, enter the number for the **System Configuration** option.
5. In the **System Configuration Menu**, enter the number for the **Increase Data Disk Size** option.

Adding space to the logical drive of the Microsoft Windows server

If you need to increase the amount of disk space for the Unified Manager database, you can add capacity to the logical drive on which Unified Manager is installed.

Before you begin

You must have Windows administrator privileges.

About this task

We recommend that you back up the Unified Manager database before adding disk space.

Steps

1. Log in as administrator to the Windows server on which you want to add disk space.
2. Follow the step that corresponds to method you want to use to add more space:

Option	Description
On a physical server, add capacity to the logical drive on which the Unified Manager server is installed.	Follow the steps in the Microsoft topic: Extend a Basic Volume
On a physical server, add a hard disk drive.	Follow the steps in the Microsoft topic: Adding Hard Disk Drives

Option	Description
On a virtual machine, increase the size of a disk partition.	Follow the steps in the VMware topic: Increasing the size of a disk partition

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