

# Managing Modular Infrastructure by using OpenManage Essentials (OME)

This Dell EMC technical white paper describes how to manage the modular infrastructure by using OME.

#### Abstract

This Dell EMC technical white paper describes how to manage the modular infrastructure by using OME.

November 2018

### Revisions

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### **Executive summary**

OME 2.5 supports "Simplified modular infrastructure configuration management", where MX Chassis configurations are managed similar to CMC.

OME 2.3 and later versions of OME supports "Simplified modular infrastructure configuration management", where the chassis and IOA configurations are managed together. The Chassis Infrastructure templates contain both the CMC template and all the supported IOA templates on the Chassis.

OME simplifies the configuration compliance features by separating the deployment templates and configuration baselines. The OME introduces new features to create configuration baselines, associate the devices to configuration baselines, and make the devices compliant to the associated baselines.

This technical white paper discusses about:

- Creating the Chassis Infrastructure templates and MX Chassis templates
- Deploying the Chassis Infrastructure template and MX Chassis template
- Creating the configuration baselines
- Associating the devices to configuration baselines
- Making the devices compliant to associated baselines by using the Configuration Baseline feature
- Best practices
- Troubleshooting information

### 1 Features discussed in this technical white paper

- Comprehensive use case examples for using the OME IOA configuration features
- Requirements and setup for using the features
- Creating a template from the Chassis or IOA or MX Chassis
- Editing a Chassis template or MX Chassis template
- Deploying a Chassis template to a Chassis and its IOAs
- Deploying a MX Chassis template to a MX Chassis
- Setting up auto deployment with Chassis templates or MX Chassis templates
- Deploying a template to IOA
- Creating a configuration baseline of the Chassis or MX Chassis
- Associating configuration baseline template to one or multiple Chassis or MX Chassis
- Configuring the Configuration Inventory

## 2 Prepare OpenManage Essentials for managing Modular Infrastructure

The MX Chassis must be discovered by using the MX Chassis Discovery-All Components option in Discovery wizard. When an MX Chassis is discovered by using the MX Chassis Discovery-All Components option in discovery wizard, all the servers of the blade chassis are also discovered automatically in OME.

The chassis devices must be discovered by using the Chassis (CMC) Discovery–All Components option in discovery wizard. When a CMC is discovered by using Chassis (CMC) Discovery–All Components option in the discovery wizard, all the servers and IOAs of the blade chassis are also discovered automatically in OME.

#### 2.1 Target device requirements

- For the MX Chassis, supported firmware versions are:
  - PowerEdge MX7000 with firmware version 1.0
- No license is required for the MX Chassis
- For the chassis, supported firmware versions are:
  - PowerEdge M1000e with chassis firmware version of 5.10 and later, installed
  - PowerEdge VRTX with chassis firmware version of 2.1 and later, installed
  - PowerEdge FX2 or FX2s with chassis firmware version of 1.3 and later, installed
- For the chassis, required licenses are:
  - PowerEdge PowerEdge FX2, PowerEdge FX2s, and V PowerEdge RTX Chassis must have an Enterprise license
- For the IOAs, supported firmware versions are:
  - In the OME version 2.3, the I/O aggregator must have an installed firmware version of 9.10.0.0, 9.10.0.1P10, or 9.11.0.0.
- IOAs must be configured in any of the following operational modes:
  - Standalone
  - Virtual Link Trunk (VLT)
  - Programmable MUX (PMUX)

#### 2.2 File share settings

The device configuration and deployment features require a staging area (file share) for modular chassis infrastructure. This section describes the details of the file share and how to setup the file share.

Note—In case of MX Chassis, file share is not required for device configuration and deployment features.

#### 2.2.1 Requires for file sharing

The file share is a staging area for deployment. To use the deployment features, the file share is required to send and receive configuration files to and from a device. During the "create" or "deploy" task, configuration

files will briefly exist in the file share folder. After the completion of 'create' or 'deploy' task, the file is deleted. Security attributes (passwords and other sensitive data) are not included in the file.

#### 2.2.2 Set up a file share

The file share settings must be entered in the OME. The file share settings require a username and a password of a user who has privileges to read and write the files on OEM system. During the deployment or configuration task, the username and password are sent to the remote targets to access the file share. Using an administrator account is recommended.

- 1. Navigate to the **Deployment** portal.
- 2. In the left pane, click File Share Settings under Common Tasks.
- 3. Type the user name and password and check the Allow using file share for Device Configuration feature on server check box in the File Share Settings dialog box, and then click Apply.

File Share Settings

File Share Settings									
The Device Configuration feature requires a file share on the OpenManage Essentials server for all operations done on a chassis. It is recommended to avoid using the file share because of security reasons in the Windows operating systems. To use Device Configuration feature on chassis, type the credentials that will be assigned and used for accessing the file share.									
Domain \ Username:	.\Administrator								
Password:	•••••								
File Share Status:	Ok								
☑ Allow using file s	share for Device Configuration feature on server								
Help		Cancel Apply							

Figure 1 File share settings

23

## 3 Create Chassis infrastructure template from a reference Chassis by using IOA devices or MX Chassis template from a reference MX Chassis

OME 2.5 supports "Simplified modular infrastructure configuration management", where MX Chassis configurations are managed similar to CMC.

OME 2.3 and later versions support "Simplified modular infrastructure configuration management", where the CMC and IOA configurations are managed together. The Chassis Infrastructure templates have both the CMC template and all the supported IOA templates on the Chassis.

**Example use case**—you have a new or existing blade chassis (with or without IOAs), or a new or existing MX Chassis from which you want to create the template.

This section describes how to create the template from a discovered device. The reference device is the device which is discovered in OME, configured in a desired way, and the functionality of the device is intended to be replicated on other devices. The reference template is essential for the successful configuration of your other devices. Ensure that the reference device is configured correctly before creating the template.

To accomplish this use case:

- 1. Navigate to the **Deployment** tab.
- 2. In the left pane, click Create Template under Common Tasks.
- 3. In the **Create Template** dialog box, type a unique name for the template.
- 4. Select Create from Device.
- 5. Select Chassis or MX Chassis as the device type.
- 6. Select the target CMC (if you have selected Chassis as the device type) or MX Chassis (if you have selected MX Chassis as the device type) from the device tree.

**Note**—Alternatively, you can select the target by entering the device name or Service Tag in the search box next to Create from Device.

- 7. Enter the user credentials in **Execution credential**:
  - a. For the target CMC and IOAs on the chassis (if you have selected Chassis as the device type).
  - b. For the target MX Chassis (if you have selected MX Chassis as the device type)

**Note**—The CMC and MX Chassis credentials must have administrator privileges on the target CMC and MX Chassis respectively. IOA credentials are optional. If IOA credentials are not provided then, the IOA attributes will not be captured.

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Create Template Wizard											
Create Template											
Name: MX Chassis Template											
Create from File Browse											
Create from Device (MX- ST0003I											
Device Type: O Server O Chassis 💿 MX Chassis O IOA											
All Applicable Devices											
E RAC											
- Modular Systems											
PowerEdge MX7000											
MX- ST0003I_Chassis											
MX- ST0003I											
Execution Credentials											
User Name: root											
Password:											
Help Cancel Finish											

Figure 2 Create MX Chassis template from reference device wizard

Create Template Wizard	23
Create Template	
Name: Chassis Infra Template	
Create from File Browse	
Create from Device CMC-9L3BB2S	
Device Type: 🔘 Server 💿 Chassis 🔘 MX Chassis 🔘 IOA	
Note: Only CMCs with an Enterprise license and supported firmware can be selected.	
	•
- cmc-58S2082 [Not Licensed]	
CMC-9L3BB2S	
- cmc-BGCF862	
- CMC-BTYDR42	
	<u> </u>
CMC	
User Name: root	
Password:	
IOA (Optional. If not provided, IOA attributes will not be captured.)	
User Name: root	
Password:	
Help Cancel Finish	כ

Figure 3 Create chassis template from reference device wizard

- 8. Click Finish.
- 9. Click OK.
  - The task is created when the wizard is closed.
- 10. To view the created task, click the Tasks tab in Deployment.
- 11. To view the progress of the task, see the Task Execution History.
- 12. To view the details of execution history, double-click the task execution history entry, or right-click the task execution history entry.
- 13. Select Details.

Information about the issues (such as incorrect credentials) is displayed.

- 14. If the task is successful, the template is created and displayed in the Chassis Templates tree (if you have created template for Chassis) or MX Chassis Templates tree (if you have created template for MX Chassis).
- 15. If the task is unsuccessful, right-click the task execution history or the task, and then click **Run**.

**Note**—Enter the CMC and IOA credentials (for Chassis device type) or MX Chassis credentials (for MX Chassis device type) to rerun the task.

# 4 View and edit Chassis infrastructure template or MX Chassis template

**Example use case**—you have an existing template (Chassis infrastructure template or MX Chassis template) and you have to change some of the template attributes. To accomplish this use case:

- 1. Navigate to the **Deployment** tab.
- 2. Select any Chassis Infrastructure template or MX Chassis template in the **Templates** tree.

Home Manage Deployment Reports Settings Logs	Tutorials I	Dell EMC Soli	utions								Search device, ranges, and more Q,	
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Common Tasks	<u>г</u>											
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Compute Pools ^	✓ Users											
<ul> <li>Repurpose and Bare Metal</li> </ul>	➤ WebServ	/er										

Figure 4 MX chassis template

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Chassis lemplates		✓	CMC	CMC.Integrated.1	ActiveDirectory 1 DomainController1			No	ActiveDirectory	
±- Samples			CMC	CMC.Integrated.1	ActiveDirectory 1 GlobalCatalog1		SpecifyServerEnable;	No	ActiveDirectory	
🖉 👻 Chassis Infra Template 👘	* B	LCLDeployInfo								
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Compute Pools	* C	hassisSlot								
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- Repurpose and bare Metal	× 0	mcinfo								
Virtual IO Pool	× 0	mcTime								
- Virtual IO Pools	× 0									
Tasks A		efaultCredentialCroup								
		anlow								
Tasks		cpicy .								

Figure 5 Chassis infrastructure templates

To change the CMC device template attributes or MX Chassis template attributes:

- 1. Under **Attributes**, select the attribute value.
- 2. Click Save.
- 3. In the Save Template dialog box, click Yes

Home Manage Deployment Reports Settings Log	s Tut	nrials D	ell EMC Solu	itions							Search device range	and more	0
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Deploy Device Configuration Portal													0
Getting Started for Deployment	1 MX	( Chas	sis Templ	ate									1
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Common Tasks	E												
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Setup Auto Deployment		ChassisPu	wei				4744	1					
Manage Auto Deployment Credentials		1		MM	MM.Embedded.1	ChassisPower 1 Power Cap	6/61		NO	ChassisPower			
File Share Settings		1		MM	MM.Embedded.1	ChassisPower 1 Redundancy Policy	PSU_REDUNDANCY		No	ChassisPower			
Replace Server		1		MM	MM.Embedded.1	ChassisPower 1 Enable Power Cap	false		No	ChassisPower			
Reclaim Identities	•	EmailAler	tsConf										
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MX Chassis Templates		¥.					100			0.10			
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<ul> <li>IOA Templates</li> </ul>	v	Racadm											

Figure 6 Editing MX chassis template attributes

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Common Tasks ^										Unda	6700
Create Template										0100	Jave
Create Virtual IO Pool	Grou	ped by: Group								Total: 730	Modified: 1
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Deploy Template		ctiveDirectory									
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Manage Auto Deployment Credentials		¥	CMC	CNIC.Integrated. I	Admetirectory I Adenable	Ū		NO	ActiveDirectory		
File Share Settings		√	CMC	CMC.Integrated.1	ActiveDirectory 1 SCLEnable	0	SSOEnable;ADEnable;	No	ActiveDirectory		
Replace Server		1	CMC	CMC.Integrated.1	ActiveDirectory 1 SSOEnable	0	SCLEnable;ADEnable;	No	ActiveDirectory		
Reclaim Identities		✓	CMC	CMC.Integrated.1	ActiveDirectory 1 RootDomain			No	ActiveDirectory		
Templates ^		1	CMC	CMC.Integrated.1	ActiveDirectory 1 CertValidationEnable	1		No	ActiveDirectory		
- Server Templates		√	CMC	CMC.Integrated.1	ActiveDirectory 1 AuthTimeout	120		No	ActiveDirectory		
- Samples		1	CMC	CMC.Integrated.1	ActiveDirectory 1 ADType	1		No	ActiveDirectory		
		√	CMC	CMC.Integrated.1	ActiveDirectory 1 SpecifyServerEnable	0		No	ActiveDirectory		=
Chassis Templates		<	CMC	CMC.Integrated.1	ActiveDirectory 1 DomainController1			No	ActiveDirectory		
G- Samples		7	CMC	CMC.Integrated.1	ActiveDirectory 1 GlobalCatalog1		SpecifyServerEnable:	No	ActiveDirectory		
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	. 0	menifie									

Figure 7 Editing chassis template attributes of chassis infrastructure template

**Note**—Editing the template attributes in the deployment wizard is not supported. Only device-specific attributes of the CMC device and IOA template(s) can be modified.

4. To view the corresponding IOA templates, navigate to other tabs named with IOA names.



Figure 8 Viewing the IOA templates of chassis infrastructure template

Note—The modification of IOA attributes is not supported.

To deploy the IOA template on the specific IOA:

- 1. Under Attributes, clear the IOA value.
- 2. Click Save.
- 3. In the Save Template dialog box, click Yes.

**Note**—IOA templates selection in the Deployment wizard is not supported. Only the device specific attributes of the CMC device and IOA template can be modified in the Deployment wizard.

#### Configuration Template CMC Infra Demo

Attributes A2 Leave C1 C2 Depay	Undo	Save	
Vilanian Mandar Chud			•
Incluning meader start			
ReleaseTime Aug 24 2016 03:33:35			
IOPTMO -			
IOPTM1 10GBASE-T			
IService-Tag 399RG52			
ISerial-Number CN282984CD0194			
IFCPortsPresent FALSE			
IQuadPortsPresent 33 37 41 45			
IIOM-Mode pmux			
ICheckSum 422db49ae183ca4237d5ece1cf5a842			
I Cioning Header End			
! Version 9.10(0.1910)			
Last configuration change at Tue May 23 21:08:51 2017 by root			
boot system stack-unit 0 primary system://A			
boot system stack-unit 0 secondary system://B			
boot system stack-unit 0 default system://B			
hostname IOA-Demo1			
retorol lido			
redundancy auto-synchronize full			
username root password 7 d7acc8a1dcd4f698 privilege 15			
username arun password 7 95afc322eadcf12d privilege 15			
i Andre and a second s			
Istack-unit u provision //u-/sggregator			
stack-unit 0 port 33 portmode guad			
stack-unit 0 port 37 portmode quad			

Figure 9 Selecting the IOA templates of chassis infrastructure template

?

# 5 Deploy chassis infrastructure template or MX chassis template

**Example use case**—Based on the requirements of your data center, you have configured the settings of the particular MX Chassis or Chassis and the corresponding IOAs (CMC devices and the IOAs on the Chassis). You have a new or existing MX Chassis or Chassis which you want to reuse. You want to copy the settings of the configured MX Chassis or Chassis and its IOAs and apply them to the new or existing MX Chassis or Chassis.

To accomplish this use case:

- 1. Check the configuration of MX Chassis or Chassis and available IOAs which are already configured.
- Save the configuration in OME as a MX Chassis template or Chassis Infrastructure template. See <u>Create Chassis Infrastructure Template from a Reference Chassis by using IOA Devices or MX</u> <u>Chassis Template from a Reference MX Chassis.</u>
- Add the target CMC device (the new or existing CMC device) of the chassis or target MX Chassis to the Repurpose and Bare-metal device group. See <u>Add devices to the 'Repurpose and Bare Metal'</u> <u>Device Group</u>.
- 4. Deploy the template to the MX Chassis or CMC device and its IOAs. See <u>Deploy the Template</u>.

**Note**—Creating and deploying the template have requirements for the OME system and target devices. To review the requirements for creating the template, see <u>Target Device Requirements</u>. To review the requirements for deploying the template, see <u>Deploying the Template</u>.

Note—MX Chassis template can be deployed on MX Chassis device only and CMC template can be deployed on CMC device only. The Quick Deploy Settings cannot be configured for MX7000 Chassis by using the MX Chassis configuration template.

### 6 Deploy a template on bare-metal devices

This section describes the procedure for deploying the template on CMC devices by using manual I/O or on MX Chassis.

Deploying the templates involves sending and applying configuration settings to the remote devices. The template may contain a single configuration setting, one or more specific functional areas configuration settings, or a full device configuration setting. To deploy the template, you must create the template first. The template is essential for the successful task deployment. Make sure that the device from where you are creating the template is configured in the same way you wish to deploy it, when you create the template. To create the template, see <u>Create Chassis Infrastructure Template from a Reference Chassis by using IOA</u> <u>Devices or MX Chassis Template from a Reference MX Chassis</u>.

The template created from the target may contain destructive attributes (especially if it contains RAID configuration settings). Deploying the destructive attributes may cause data loss, connectivity issues, failure to start, and other problems. It is important to review and understand each destructive attribute before deploying it to the target devices.

#### 6.1 Requirements for deploying template on bare-metal devices

- 1. The file share must be configured for modular chassis infrastructure deployment feature. See <u>Set up</u> <u>File Share</u>.
- 2. The target devices must meet the minimum requirements for the deployment and configuration features. See <u>Target Device Requirements</u>.
- 3. The target devices must be added to the repurpose and bare-metal device group. See <u>Add devices to</u> <u>the 'Repurpose and Bare Metal' Device Group</u>.
- 4. Minimum one user-created template (a cloned sample template is a user created template).

## 6.2 Purpose and definition of the 'Repurpose and Bare-metal' Device Group

The Repurpose and Bare-metal device group consists of all the devices eligible for deploying the template task. Add the devices to this group, only if you intend to deploy a template to the devices. If you do not intend to deploy the template to the devices, it is recommended to remove the devices from the Repurpose and Bare-metal device group. You must not add the production devices to the Repurpose and Bare-metal device group, because deploying the template can be destructive and cause downtime or the data loss.

#### 6.2.1 Add devices to the 'Repurpose and Bare Metal' Device Group

- 1. Navigate to the **Deployment** tab.
- 2. In the left pane, click Deployment Portal under Deploy Device Configuration Portal.
- 3. Click the **Repurpose and Bare-metal Devices** tab.
- 4. In the lower-right corner of the grid, click **Modify Devices**.
- 5. Check the target devices in the message displayed. The target devices must be discovered and the target server must have the Server configuration for OME license.
- 6. Click **Ok**.

Note—Only the devices that satisfy the deploy requirements appear in device selection. To review the requirements, see <u>Deploy Requirements</u>.

Modify Devices of the Repurpose and Bare Metal Device Group	23
Only iDRACs with a 'Server Configuration for OpenManage Essentials' license, CMCs with an Enterprise license supported firmware, and IOA switches on an appropriate mode and supported firmware can be added to this gro	and up.
E- 🖻 All Applicable Devices	
CMC-BTYDR42	
— 🕅 CMC-D89RG52	
— 🔲 idrac-2489R42a	
— 🔲 idrac-2489R42b	
— 🔲 idrac-2489R42c	
— 🔲 idrac-2489R42d	
— 🔲 idrac-BN1JR42a	
— 🔲 idrac-BN1JR42b	
— 🔲 idrac-CNJLH62	
— 🔲 idrac-CNKCH62	
idrac-F0HJ7C2	
🛨 🖻 Modular Systems	
Cancel Ok	

Figure 10 Modifying Repurpose and Bare Metal Device Group

#### 6.3 Deploy the template

This section describes the procedure for deploying a Chassis Infrastructure template to chassis (CMC device and the IOAs present on the chassis) or an MX Chassis template to an MX Chassis.

#### 6.3.1 Deploy the template to Chassis or MX Chassis

- 1. Navigate to the **Deployment** tab.
- 2. In the left pane, click **Deploy Template** under **Common Tasks**.
- Type a unique name for the task. The name is optional, since a default name is supplied, but it is a
  generic name, and the same default name is always supplied. Selecting a name that is relevant to
  what is being deployed is suggested.
- 4. Select **Deploy Template**, and then click **Next**.
- 5. Select the template to be deployed on the target CMC device of the target chassis or on the target MX Chassis device and click **Next.**
- 6. Select the target CMC devices of the chassis or target MX Chassis and click Next.
- 7. Type the device specific attributes for each target CMC devices and the IOA devices of the target chassis.

Note—These are the attributes, such as 'StaticGateway', that are not included in the templates because they do not necessarily apply to all target devices. For more details, see <u>Editing the Device Specific Attributes</u> of <u>Deploy Template Task</u>.

- 8. Click Next.
- 9. To continue the deployment when the template is incompatible with the target devices, on the **Options** page, select **Continue on warnings**.
- 10. Click Next.
- 11. Set the schedule when the deploy template task runs. Run now will run the task when the wizard is closed. Run at will run the task on the selected future time.
- 12. Type the credentials for target devices (CMC and IOAs, or MX Chassis). The credentials must be valid for all target devices and must have the Operator or Administrator privileges on iDRAC.
- 13. If the Chassis Infrastructure template contains only the CMC Device Template, type only the CMC credentials.

Note—The credentials must be valid for all target devices (CMC and IOAs, or MX Chassis), and have Administrator privileges.

- 14. Click Next.
- 15. Review the task in **Summary** and click **Finish**.
- 16. Review the message. The deploy action can be destructive. It is important to review and understand the template you are deploying.

Note—While deploying MX Chassis template with RemoteSystemLog and SNMPAlerts group, all the attributes of these groups should be sent.

#### 6.3.2 Edit the device-specific attributes of the Deploy Template task

Device specific attributes are attributes, such as 'StaticGateway', that are not included in templates because they do not necessarily apply to all target devices. Editing and deploying device specific attributes is optional because a device may already have the device specific attributes configured or the attributes may not be applicable to that specific device. If the template being deployed has device specific attributes, the device specific attributes will appear in the **Edit Attributes** page of the deploy wizard. The **Edit Attributes** page lists the target CMC devices of the chassis on the left side and displays the device specific attributes for the selected device in the right side grid. The IOA device specific attributes such as **IOA host name** appears under the sections named by their IOA names (such as A1, A2, B1, B2, C1, and C2).

Note—No device specific attributes are available for MX Chassis template during deployment.

To edit the attributes:

- 1. In the left pane, select a device.
- 2. Click **Deploy** on the attributes that you want to deploy to that device.
- 3. Edit the Value of each checked attribute.
- 4. Click Save.
- 5. Repeat for each device.

Note—OME will automatically rediscover the target CMC device of the target chassis whenever a new static IP address is deployed, after completing the deployment successfully. A new discovery range will be added when needed.

Deploy Template Wizar	rd Ed	it Attribute	s (	3	4	5	6	7
lame and Deploy Options	Select Te	mplate	Selec	t Devices	Edit Attributes	Options	Set Schedule	Summary
emplate Attributes Device S	Specific /	Attributes						
lect Devices:	Devic	e Specific	Attributes fo	r: CMC-D89R	G52 [D89RG52, PowerEdge I	M1000e]	Undo Save	Import/Exp
MC-D89RG52	Gro	uped by:	Group				-	Total: 17 Modified
		Deploy	Modified 7	Section 7	Instance	Attribute	Name	Value
	A	2						
		1	Yes	IOA	IOAconfig	IOA host	name	IOA-D
	~ A	ctiveDirec	tory					
	~ 0	1						
		1	Yes	IOA	IOAconfig	IOA host	name	IOA-E
	R C	hassisLoc	ation					
	43			CMC	CMC.Integrated.1	ChassisL	ocation 1 DataCenterName	
				CMC	CMC.Integrated.1	ChassisL	ocation 1 AisleName	
				CMC	CMC.Integrated.1	ChassisL	ocation 1 RackName	
				CMC	CMC.Integrated.1	ChassisL	ocation 1 RackSlot	
				CMC	CMC.Integrated.1	ChassisL	ocation 1 ChassisLocation	
				CMC	CMC.Integrated.1	ChassisL	ocation 1 RoomName	
	<b>↓</b> I	Pv4						
							1	

Figure 11 Editing the device specific attributes

Alternatively, you can import and export the grid to file to edit. You may want to export/import if you have a large number of devices with a large number of device specific attributes. The device-specific attributes grid can be exported by selected device or all devices. All devices will export to a single file that can be opened in a spreadsheet processing application. After editing the file, it may be imported. The edited values must be valid for the attribute. The grids will be populated with the import data. The UI logs will report any problems with format or values of the import file.

## 7 Auto-deploy configuration templates

Auto deploying the templates applies to all the attribute values of the templates to the device, after it is discovered. To add auto-deploy entries for devices that have not been discovered by OME, a list of Service Tags for the target devices must be provided. To auto-deploy the template, you must first create the template. See <u>Create Chassis Infrastructure Template from a Reference Chassis by using IOA Devices or MX Chassis Template from a Reference MX Chassis</u>.

Note—Auto deploy is only for devices that have not been discovered by OME. To deploy to devices discovered by OME, see <u>Deploying Template to Bare Metal Devices</u>.

#### 7.1 Auto-deploy requirements

In order to add auto deployment entries, the following requirements must be satisfied:

- Must have the template to deploy. See <u>Create Chassis Infrastructure Template from a Reference</u> <u>Chassis by using IOA Devices or MX Chassis Template from a Reference MX Chassis</u>.
- Must satisfy all device configuration requirements of target device. See <u>Target Device Requirements</u>.
- Target Service Tags cannot be matched with a Service Tag of the discovered device.
- A CSV file with the Service Tags. See <u>Create a Service Tag CSV File</u>.

#### 7.2 Set up Auto Deploy of the template

This section describes how to set up the auto deployment of the template against Service Tags. Also, describes how to create and format the auto deployment CSV file, and the auto deployment wizard.

#### 7.2.1 Create a Service Tag CSV File

To create the Service Tag CSV file:

- Must have a column named ServiceTag
- Each Service Tag must correspond to Dell EMC standards Service Tags.
- Service Tags corresponding to the Service Tag of discovered device in OME, may not be required.

	А
1	ServiceTag
2	ABCDEFG
3	HY3912B
4	A123456
5	VNX189W

4.

Figure 12 Format of a CSV file

#### 7.2.2 Set up bare-metal Auto Deploy of the template to Chassis Service Tags

To set up bare-metal auto deploy of the template to Chassis Service Tags:

- 1. Navigate to the **Deployment** tab.
- 2. In the left pane, click Setup Auto Deployment under Common Tasks.
- 3. Select **Deploy Template**, and then click **Next**.

- 4. Select a server or chassis template (as applicable to the type of target devices) to be deployed on the target servers or chassis, and then click **Next**.
- 5. Click the **Import** button to import the csv file that contains the Service Tags. The imported Service Tags must be compatible with the type of template selected in the step **Error! Reference source not found.**
- 6. Browse to the location where the file is saved, select the file, and then click **Open**. All the Service Tags in the file will be imported and listed in OME. The **Import Summary** window is displayed.
- 7. Review and click **Ok** to close the window.
- 8. Click Next.
- 9. (optional) Enter the unique attributes per Service Tag. For details, see <u>Edit the device-specific</u> <u>attributes of the Deploy Template task</u>.
- 10. Click Next.
- 11. Select the execution credentials for the Service Tags. Instead of entering the credentials for each target device, credential definitions must be created. Credential definitions can be added as needed. Credential definitions can be assigned to multiple targets. Credentials are required for each target device. If no credentials exist yet, at least one (a default set of credentials) must be created. Follow these steps, otherwise go to last step.
  - i. Click Add New Credential.
  - ii. Type a description for the credential set (the description text is displayed in the credential selection page).
  - iii. Type the username and password.
  - iv. Click Finish.

Setup Auto Deplo	yment						×
Setup Auto De	eployment						
1 Deploy Opti	ons	2 Select Templat	e Impor	3 t Service Tags	4 Edit Attributes	5 Execution Credentials	6 Summary
Credentials							·
Add New Creden	tial		Add Credentia	ls		23	
Description	T	Username	Add Crede	ntials			
root		root					
credentials1		admin	Description:	Lab X Credentials			
Oevices			User Name:	Administrator			
Device Name 🏹	Device Mod	lel 🝸 Execution (	Password:				
VNX189y	n/a	root	🗹 Default				
VNX189x	n/a	credentials	1				=
VNX189W	n/a	credentials	1				
VNX189w	n/a	credentials	1 Help		Cancel	sh	
VNX189v	n/a	credentials	1		Cancer		
VNX189u	n/a	credentials	1				
VNX189s	n/a	root					
VNX1897	n/a	root					
VNX189p	n/a	root					
Help						Cancel	Back Next

Figure 13 Auto deployment target credentials page

- 12. Review the task in the **Summary** pane and click **Finish**.
- 13. All the Service Tags that were imported are listed in the Auto Deployment tab.

**Note**—The Service Tags remain in the Auto Deployment tab until they are discovered and inventoried in OME and the 'Deploy Configuration to Undiscovered Devices' task creates a deploy task for the device with the Service Tag. The 'Deploy Configuration to Undiscovered Devices' task checks periodically if the devices are discovered and inventoried in OME. Once the discovery and inventory is complete and a deploy task is created, the devices will move to the Repurpose and Bare-metal Devices group and the auto deployment entry will be deleted. Deploy configuration tasks are created to deploy the templates that were selected. The tasks created for the Service Tag entries can be viewed under the tasks tab in the deployment portal. Double-click the task to view the task details. Task execution history entries can be found in the task execution history grid. Double-click the task execution history entry to view the task execution history details.

#### 7.2.3 Modify the Auto Deployment settings

By default, the Deploy Configuration to Undiscovered Devices task runs after every 60 minutes. When this task runs, it checks if any of the auto deployment Service Tags were discovered. If the device matching an auto deployment Service Tag is discovered, a deploy template task is automatically created and the specified template is deployed to that device.

To modify the execution interval for the Deploy Configuration to Undiscovered Devices task or to enable or disable it:

- 1. Select Deployment Settings under Settings.
- 2. Select or clear the **Enable auto deployment for recently discovered devices** check box to enable or disable the Deploy Configuration to Undiscovered Devices task respectively.

**Note**—If the task is disabled, the Service Tags in the Auto Deployment grid will not be deployed automatically.

3. In the **Run auto deployment every** box, type or select the minutes you want the 'Deploy Configuration to Undiscovered Devices' task to run.

Home Manage Deployment Repor	ts Settings Logs	Tutorials Dell EMC Solutions
Settings Permissions		
Settings ^	Deployment Setti	ings
Alert Settings		
Custom URL Settings	File Share Settir	ngs
Deployment Settings	The Device Configurat	tion feature requires a file chare on the OpenManage Eccentials convertor all operations done on a chassic
Device Tree Settings	It is recommended to a	avoid using the file share because of security reasons in the Windows operating systems.
Discovery Settings	To use Device Configu	uration feature on chassis, type the credentials that will be assigned and used for accessing the file share.
Email Settings	Domain \ Username:	.\Administrator
Feature Usage Settings	Deservord	
General Settings	Passworu.	
Mobile Settings	File Share Status:	Ok
Purge Download Settings	🖌 Allow using file :	share for Device Configuration feature on server
Task Settings	Auto Deploymer	nt Settings
Warranty Notification Settings		
	Enable auto dep	ployment for recently discovered devices
	Run auto deploym	nent every 60 🚔 Minutes
		Cancel Apply

Figure 14 Auto deployment settings page

4. Click **Apply**.

## 8 Create Chassis baseline or MX Chassis baseline

**Example use case**—you have a blade chassis (new or existing) or MX Chassis (new or existing) for which you want to create the configuration baseline.

To accomplish this use case:

- 1. Click Manage→Configuration.
- 2. In the left pane, click **Create Baseline** under **Common Tasks**.
- 3. Type a unique name for the template.
- 4. Select Create from Device.
- 5. Select **Device Type** as **Chassis** or **MX Chassis**.
- 6. Select the target CMC device (if you have selected Chassis as device type) or MX Chassis (if you have selected MX Chassis as device type) from the device tree.

**Note**—Alternatively, you can select the target by entering the device name or Service Tag in the search box next to Create from Device.

7. Type the Execution credentials for the target.

Note—The credentials must have administrator privileges on the target device.

Create Baseline wizard		23
Create Baseline		
Name: Baseline MX- ST0003I		
Create from File Browse		
Create from Device (MX- ST0003I		
Device Type: O Server O Chassis  MX Chassis		
- All Applicable Devices		
RAC		
MX- ST0003I		
+ Modular Systems		
+ Repurpose and Bare Metal		
l		
Execution Credentials		
User Name: root		
Password:		
Help	Cancel	Finish

Figure 15 Create MX chassis baseline

Create Baseline wizard	23
Create Baseline	
Name: Baseline CMC-CT3YY42	
Create from File Browse	
Create from Device CMC-CT3YY42	
Device Type: 🔘 Server 💿 Chassis 🔘 MX Chassis	
Note: Only CMCs with an Enterprise license and supported firmware can be selected.	
	•
RAC	
— cmc-58S2082 [Not Licensed]	
- CMC-9L3BB2S	
- cmc-BGCF862	
<ul> <li>CMC-BTYDR42</li> </ul>	
CMC-CT3YY42	
- CMC-DG3XSF2	
<ul> <li>CMC-DG71TF2</li> </ul>	
- CMC-7L3BB2S	•
Execution Credentials	_
User Name: root	
Password:	
Help Cancel Finish	כ

Figure 16 Create chassis baseline

- 8. Click Finish.
- 9. Click **OK**. The task is created when the wizard is closed.
- 10. To view the created task, navigate to
  - a) Tasks → Configuration Tasks → Chassis Baseline Configuration Import (if you have selected Chassis as device type)
  - b) Tasks → Configuration Tasks → MX Chassis Baseline Configuration Import (if you have selected MX Chassis as device type)
  - c) Click Tasks.
- 11. To view the progress of the task, view the Task Execution History grid.

- 12. To view the details of the execution history, double-click the task execution history entry, or right-click the task execution history entry and select **Details**. The details provide you the information (such as incorrect credentials).
- If the task is successful, the baseline is created and displayed in the Chassis Baselines (if you have created baseline for Chassis) or MX Chassis Baselines (if you have created baseline for MX Chassis) tree.
- 14. If the task is unsuccessful, right-click the task execution history or the task, and then click **Run**.

Note: Enter the credentials for target to run the task again.

Home Manage Deployment Reports Settings Logs	Tutoriale De	I EMC Solutions										Search device ranger an	d more
Devices Device Search Discovery and Inventory Alerts	s System Upd	ate Remote Tasks	Configuration									Search served, ranges, an	0 more 0x
Device Configuration Compliance Portal	0	ing Train											2
Getting Started for Compliance	Configura	tion lasks											
Device Compliance Portal	Tasks	_											
Common Tasks ^													
Create Baseline	Drag a colum	n header and drop it he	re to group by that column										
Associate Devices to a Baseline	Schedule 🏆	Task Name		Type	8	Description	Updated On	T	Updated By	Created On	Created By	7	
Make Device(s) Compliant	Ø	Create BaseLine - Ba	seline MX- ST0003I - 09/03/2018 15:26	53 Import MX Cha	ssis Baseline	Device Configuration Import Ta	sk. 9/3/2018 3:26:5	54 PM	WIN-HK861JA8EIH\Administrator	9/3/2018 3:26:54 P	M WIN-HK861JA8EIH\Adm	inistrator	
Configuration Inventory Schedule													
File Share Settings													
Replace Server													
Compliance by Baseline ^													
Server Baselines													
- Samples													
Chassis Baselines													
+- Samples													
<ul> <li>MX Chassis Baselines</li> </ul>													
<ul> <li>Samples</li> </ul>													
Baseline MX- ST0003I													
Configuration Packup													
Backed-Up Devices													
Tasks	L. Tank Eventia	- Mistan											1
Configuration Tester	Mawing 1 Task	(n)											
E- Computation Tasks	viewing 1 Task	(8)						_					
MX Chassis Baseline Configuration Import	brag a colum	n neader and drop it ne	re to group by thet column										
<ul> <li>Remediate Device Configuration</li> </ul>	Status 🍸 1	ask Name	7	Start Time 5	Comple	eted 🛛 🕆 Task State 🏹	End Time	Exe	ecuted by User 🛛 🍸				
<ul> <li>Replace Server Configuration From Backup</li> </ul>		reate BaseLine - Base	ine MX- ST0003I - 09/03/2018 15:26:53	9/3/2018 3:27:28 P	M	100% Complete	9/3/2018 3:27:33 P	M WI	N-HK861JA8EIH\Administrator				
<ul> <li>Chassis Baseline Configuration Import</li> </ul>													
Device Baseline Configuration Import													11

Figure 17 View MX chassis baseline task





## 9 Associate devices to Chassis Configuration baseline or MX Chassis Configuration baseline

**Example use case**—you have a new Chassis baseline or MX Chassis baseline created, for which you want to associate the devices.

To accomplish this use case:

- 1. Click Manage  $\rightarrow$  Configuration.
- 2. Click the new Chassis Baseline in **Chassis Baselines** or new MX Chassis Baseline in **MX Chassis Baselines** tree.

Home Manage Deployment Reports Settings Logs Tutorials Dell EMC Solutions	Search device, ranges, and more Q
Devices Device Search Discovery and Inventory Alerts System Update Remote Tasks Configuration	
Device Configuration Compliance Portal  Cetting Started for Compliance Baseline 1	3 3
Device Compliance Portal Device Compliance Attributes	
Common Tasks   Conste Breeline  Device Compliance	Device Compliance
Associate Devices to a Baseline	Drag a column header and drop it here to group by that column
Make Device(s) Compliant	Compliance Status V Device Name V Service Tag V Model V Compliance Baseline V Inventory Last Ran V
Configuration Inventory Schedule	
File Share Settings	
Replace Server	
Compliance by Baseline ^	
Server Baselines	
I Samples	
Chaoló Baselines  Samples  Giovanni de la constancia de	
B- MX Chassis Baselines D- Samples	
Configuration Backup ^	Associate Devices
Backed-Up Devices Tasks	No devices are associated to this baseline. Compliance information is generated by the comparison of a baseline to associated devices. Associate devices to a baseline for out compliance information.
Configuration Tasks     MX Chassis Baseline Configuration Import     Remediate Device Configuration     Replace Server Configuration From Backup     Chasis Baseline Configuration Import     Device Baseline Configuration Import	Associate Devices

Figure 19 Associate devices to configuration baseline

- 3. Click Associate Devices.
- 4. If you have not configured the Configuration Inventory Schedule or File share settings, you receive a message to configure the settings required for Configuration Baseline feature.
- 5. To configure the file share settings and retrieve the configuration inventory of the devices, see <u>File</u> <u>share settings</u>.
- 6. To configure the Configuration Inventory Schedule, see Set up and run the configuration inventory.
- 7. On the **Associate Devices to a Baseline** page, in the Select Baseline step, select the Chassis baseline or MX Chassis baseline for which you want to associate the devices.
- 8. Click Next.
- 9. Select the CMC devices to be associated to the Chassis or MX Chassis devices to be associated to the MX Chassis in Select Devices step.
- 10. Click Finish.
- 11. Click Ok.

Associate Devices to a Baseline Wizard		23
Associate Devices to a Baseline Wizard S	elect Devices	2/2
1 Select Baseline	2 Select Devices	
<ul> <li>All Applicable Devices</li> <li>RAC</li> <li>Modular Systems</li> <li>PowerEdge FX2</li> <li>CMC-BTYDR42_Chassis</li> <li>PowerEdge M1000e</li> <li>CMC-D89RG52_Chassis</li> <li>CMC-D89RG52</li> <li>Repurpose and Bare Metal</li> </ul>		
Help	Cancel Back Finis	h

Figure 20 Associating target devices to chassis baseline

**Note**—If you associate devices with a different configuration baseline while the Make Device(s) Compliant task is running, the latest baseline is considered by the task for remediation of these devices.

## 10 View compliance of devices associated to the Chassis baseline or MX Chassis baseline

**Example use case**—you have a new chassis baseline or a new MX Chassis baseline created for which you want to view the compliance of devices associated to the chassis baseline.

To accomplish this use case:

- 1. Click Manage  $\rightarrow$  Configuration.
- 2. Click the new Chassis Baseline template in the **Chassis Baselines** or new MX Chassis Baseline template in **MX Chassis Baselines** tree.



Figure 21 View Compliance of Associated Devices to an MX Chassis Baseline



Figure 22 View Compliance of Associated Devices to a Chassis Baseline

- 3. In **Device Compliance** tab, right-click the non-compliant device.
- 4. Click **View Compliance Details**. The non-compliant attributes are displayed.

Chassis Baseline D89F	RG52					
Device Compliance Attributes						
Device Compliance	Compliance for CMC	-BTYDR42				23
	1 Non-Compliant Result	s (Missing: 0, Different: 1	)			
	Drag a column header a	and drop it here to group	by that column			
	Compliance Result 🍸	Component Name 🍸	Attribute Name 🍸	Template Value 🍸	Inventory Value 🍸	
	Different	CMC.Integrated.1	Users.3#Name	UR_3	usr3	
		1				
Compliant Not Cor	npliant 🥃 Not Inve	entoried				

Figure 23 View Non-Compliant Attributes of Associated Devices to the Chassis Baseline

## 11 Make the associated devices compliant to Chassis baseline or MX Chassis baseline

**Example use case**—you have a Chassis baseline or MX Chassis baseline for which some of the associated devices are not compliant.

To accomplish this use case:

- 1. Click Manage → Configuration.
- 2. Click the new Chassis Baseline in **Chassis Baselines** tree or new MX Chassis Baseline in **MX Chassis Baselines** tree.
- 3. Under Device Compliance, right-click any non-compliant device.
- 4. Select Make Compliant.

Chassis Baseline D89RG52



Figure 24 Device compliance

- 5. In Make Devices Compliant Wizard, type a unique name for the Make Compliant task.
- 6. Click Next.
- 7. Select the device for which you want to make compliant. The non-compliant attributes for each associated device appears.
- 8. Click Next.

ake Devices Co	mpliant Wiza	rd						
Make Device	s Compliant	t Wiza	ard Sele	ect Devic	95			2,
1			2		3	4	)	5
Name		Sele	ect Devices		Options	Set Sche	dule	Summary
Drag a column hea	ader and drop it h	nere to g	group by that	t column				
Device Name	Service Ta	ag 🍸	Model	7 C	mpliance Baseline 🛛 🕅	Inventory Last Ran	7	
CMC-BTYDR	42 BTYDR42	2	PowerEdge	FX2s Cl	assis Baseline D89RG5	2 5/31/2017 9:12:27	PM	
Non-Compliant R	esults (Missing: (	0, Differ	ent: 1)		=			
l Non-Compliant R Drag a column hea	esults (Missing: ( ider and drop it h	0, Differ	ent: 1) group by that	t column	=			
I Non-Compliant R Drag a column hea Device Name 🏹	esults (Missing: ( ider and drop it h Compliance Re:	0, Differ here to g sult V	ent: 1) group by that Compone	t column nt Name	=	Template Value 🏹	Inventory Value V	
1 Non-Compliant R Drag a column hea Device Name 🏹 CMC-BTYDR42	esults (Missing: ( der and drop it h Compliance Re Different	0, Differ here to g sult 🍸	ent: 1) group by that Compone CMC.Integ	t column nt Name grated.1	= ▼ Attribute Name ▼ Users.3#Name	Template Value V UR_3	Inventory Value V usr3	•
I Non-Compliant R Drag a column hea Device Name CMC-BTYDR42	esults (Missing: ( ader and drop it h Compliance Re Different	0, Differ here to s sult 🍸	ent: 1) group by that Compone CMC.Integ	t column nt Name grated.1	= ▼ Attribute Name ▼ Users.3#Name	Template Value V UR_3	Inventory Value V usr3	

Figure 25 Make devices compliant

- 9. To make the Server or iDRAC compliant, navigate to the Options step, and then click Next.
- 10. Set the schedule when the deploy template task runs. Run now will run the task when the wizard is closed. Run at will run the task on the selected future time. Type the credentials for all target devices. The credentials must be valid for all target devices and must have the Operator or Administrator privileges on target devices.
- 11. Click Next.
- 12. Review the task in the **Summary** pane and click **Finish**.

## 12 Upgrade old Chassis templates

In OME 2.3, the Chassis Templates are enhanced to provide:

- User-friendly attribute names
- Enhanced deployment task details with detailed status reporting for changed/failed attributes

After upgrading the OME version to 2.3, all the old chassis templates (created in the OME version 2.2 or earlier) will be shown with a broken icon in **Deployment Portal**. The old templates can be recreated by using the **Recreate this Template** option. The association between the CMC device and the Chassis template will be retained. The existing Configuration Inventory will be deleted after the upgrade. The compliance will be shown after the re-creation of template and Scheduled/Refresh (Manual) Configuration Inventory.

## 13 Upgrade the existing Chassis Templates (created by using OME 2.3 and earlier versions)

**Example use case**—you want to use existing chassis templates (created in OME version 2.2 or earlier) in OME 2.3 after the version upgrade.

This section describes how to upgrade the chassis template (created in OME 2.2 or earlier) and use them in OME 2.3. The OME 2.3 uses enhanced version of the chassis template. For more details, see <u>Upgrade old</u> <u>Chassis templates</u>. Also, supports Chassis Infrastructure Templates with IOAs. Therefore, all the chassis templates (created in OME 2.2 or earlier) needs to be upgrade to get enhanced capabilities.

To accomplish this use case:

- 1. Upgrade the OME to version 2.3.
- 2. Start OME Console. A dialog box is displated.
- 3. Click Ok.

**Note**—After the upgrade, OME 2.3 creates a corresponding Chassis Baseline template and associates to the devices, for all the CMC template.

 Select Manage→Configuration. Home Manage Deployment Reports Settings Logs Tutorials Dell EMC Solutions s Device Search Discovery and Inventory Alerts System Update Remote Tasks Configuration ice Configuration Compliance Portal Device Compliance ing Started for Compliance Device Compliance Portal Device Compliance Device Compliance non Tasks Drag a column header and drop it h Create Baselin Associate Devices to a Baseline Compliance Status 🍸 Device Nan Make Device(s) Compliant Configuration Inventory Schedul File Share Settings Replace Server nce by Baseline Cha is Baselines 🗺 cmc ini BTY(Baseline) 🔵 Compliant 🔵 Not Compliant 🥥 Not Inventoried 🌑 Not Associated 🍚 Not Licensed 🖉 cmc ini d89(Baseline) Unsupported Firmware ation Backup Backed-Up Devices Task Execution History Drag a column header and drop it here to group by that column Status 🖗 Task Name 🕅 🕅 Start Time 🖓 % Completed 🕅 Task State 🖗 End Time T Executed by User T mediate Device Configuration 100% Complete Configuration Inventory of CMC-BTYDR42 (User Requested) 6/1/2017 10:14:46 AM 6/1/2017 10:15:18 AM System ce Server Configuration From Back 100% Complete Chassis Baseline Configuration Import Configuration Inventory of CMC-D89RG52 (User Requested) 6/1/2017 10:14:46 AM 6/1/2017 10:15:10 AM System Device Baseline Configuration Import

Figure 26 New Chassis Baselines Created in OME 2.3 for Existing CMC Templates

- 5. Select Deployment.
- 6. Expand Chassis Templates tree. The existing CMC templates appears with a broken icon.
- 7. Click the existing CMC template.



Figure 27 Existing CMC Templates (Created in OME 2.2 or Earlier) After Upgrade

8. Click Recreate this Template.

Home Manage Deployment Reports Settings	Logs Tutorials Dell'EMC Solutions	Search device, ranges, and more
Deployment		
Deploy Device Configuration Portal		
Getting Started for Deployment	CNC_III	
Deployment Portal	Attributes	
Common Tasks ^		
Create Template		
Create Virtual IO Pool	Grouped by: Section	Total: 0 Modified:
Create Compute Paol	Deploy Modified & Section & Instance & Attribute Name & Value & Dependencies & Destructive & Group &	
Deploy Template		
Setup Auto Deployment		
Manage Auto Deployment Credentials		
File Share Settings		
Replace Server		
Reclaim Identities		
Templates ^		
- Server Templates		
- Samples		
Chassis Templates		
- Samples	Template action	
CMC ini	This template is no longer supported for deployment related task. You must re-create the template for the deployment to work.	
	Note: After re-creation of terminate classes review the terminate and channess made.	
<ul> <li>IOA Templates</li> </ul>	in attribute values.	
Commute Baole	Recreate this Template	
<ul> <li>Repurpose and Bare Metal</li> </ul>		
Virtual IO Pool		
Mitani IA Park		
<ul> <li>Virtual 10 Poolis</li> </ul>		
Tasks ^		
■- ĭasks		
- IOA Configuration Pre-Check		
- IOA Configuration Deployment		
104 Configuration Deproyment		
- TOA Computation Import		
Keplace Server		

Figure 28 Recreate this Template Dialog

- 9. In the Task Authentication dialog box, type the credentials for CMC device.
- 10. If you want to capture the IOA templates on that chassis to create a Chassis Infrastructure template (containing the CMC device and all the IOAs), type the IOA credentials.
- 11. Click Ok. The task is created to upgrade the existing template.



Figure 29 CMC Template Recreate Task

## 14 Recreate Chassis baselines

**Example use case**—after upgrading the OME to version 2.3, you want to use the compliance feature for the devices associated to existing chassis templates (created by using OME 2.2 or earlier versions).

This section describes how to recreate the chassis baseline templates (created in OME 2.3 after the upgrade) and use them with Device Compliance features. After upgrade, OME 2.3 creates a new chassis baseline template for all the existing CMC templates. However, these chassis baseline template are cloned from the previous format of the chassis templates. The OME 2.3 uses enhanced version of the chassis template. For more details, see <u>Upgrade old Chassis templates</u>. To use the Device Compliance features, the chassis baseline templates need to be created again.

To accomplish this use case:

- 1. Select Manage→Configuration.
- 2. Click Chassis Baselines tree. The chassis baseline templates with broken icon appear.
- 3. Click the chassis baseline template (with a broken icon).

Home Manage Deployment Reports Settings Log	gs Tutorials	Dell EMC Solutions							
Devices Device Search Discovery and Inventory Ale	ts System I	Jpdate Remote Tasks Configuration							
Device Configuration Compliance Portal	Device (	Compliance							
Getting Started for Compliance	Device C	Jomphance							
Device Compliance Portal	Device Con	npliance	De	vice Compliance					
Common Tasks					-				1.1
Create Baseline								rag a column header an	d drop it he
Associate Devices to a Baseline							c	ompliance Status 🍸	Device Nan
Make Device(s) Compliant									
Configuration Inventory Schedule									
File Share Settings			2						
Replace Server									
Compliance by Baseline									
- Server Baselines									
±- Samples									
Chassis Baselines									
- Samples									
- 🖑 cmc ini BTY(Baseline)									
🖵 🚰 cmc ini d89(Baseline)	🔵 Com	pliant 🔵 Not Compliant 🥥 Not Inventoried	Not Associated	Not Licer	ısed				
Configuration Backup	🔘 Unsi	upported Firmware							
Backed-In Devices	<u> </u>				_				
Tasks	Task Execu	tion History							
Configuration Tasks	Drag a colu	umn header and drop it here to group by that column							
Remediate Device Configuration	Status 🍸	Task Name	Start Time 🍸	% Completed	T	Task State 🍸	End Time	Executed by User 🍸	
Replace Server Configuration From Backup		Configuration Inventory of CMC-BTYDR42 (User Requested	6/1/2017 10:14:46 AM		100%	Complete	6/1/2017 10:15:18 AN	System	
<ul> <li>Chassis Baseline Configuration Import</li> </ul>		Configuration Inventory of CMC-D89RG52 (User Requested)	6/1/2017 10:14:46 AM		100%	Complete	6/1/2017 10:15:10 AN	System	
Device Baseline Configuration Import			1						
bevice baseline configuration import									

12.

Figure 30 New Chassis Baselines Created in OME 2.3 for the Existing CMC

4. In the right side pane, click Recreate this Baseline in the dialog box.



Figure 31 Recreate baseline dialog

- 5. In the **Task Authentication** dialog, type the credentials for CMC device.
- 6. Click Ok. The Create Baseline Template task is created.



Figure 32 CMC Baseline Template Recreate Task

## 15 Check configuration compliance of devices in OpenManage Essentials

Configuration compliance detects drift of a device's attributes from the template's attributes. The configuration inventory process acquires configuration information (inventory) from all the applicable devices, and compares the inventory against an associated compliance template.

Note—Device configuration compliance feature is not available for Dell Networking IOAs.

#### 15.1 Configuration compliance requirements

- The file share must be configured for CMC and iDRACs. File share is not required for MX Chassis configuration compliance. See <u>Set up a file share</u>.
- The target devices must satisfy the minimum requirements for the deployment and configuration features. See <u>Target Device Requirements</u>.
- At least one user created template (a cloned sample template is a user created template).
- Configuration Inventory must be enabled and the target device credentials must be provided.

#### 15.2 Set up and run the configuration inventory

The configuration inventory task collects the attribute information from all eligible devices. The eligible device is any device that meets the device configuration target requirements. See <u>Target Device Requirements</u>. The values in inventory are used to calculate the compliance of the device against the associated template of the device.

Note—Dell Networking IOAs will not be listed for scheduled configuration inventory collection.

#### 15.2.1 Modify configuration inventory Ccredentials and/or schedule

The configuration inventory schedule and credentials may be modified. If the network or performance problems are encountered, the configuration inventory can be disabled.

To modify the schedule and set the credentials for the configuration inventory:

- 1. Select Manage → Configuration.
- 2. In the left pane, click Configuration Inventory Schedule under Common Tasks.
- 3. If credentials have not been added, click Add New Credential.
- 4. Type a unique description.
- 5. Type the username and password of the target devices.
- 6. Select **Default** for the credential to automatically map the credential to the discovered devices.

#### **Note**—Setting the default credentials is must.

- 7. Select the credentials for each device. Each device can have the credentials.
- 8. Click Next.

Configuration Ir	Inventory	Sche 1 Cred	edule Inventory	Credentials			2		
Credentials	Inventory	1 Cred	entials				2		
→ Credentials	Inventory	Cred	entials				$\bigcirc$		
<ul> <li>Credentials</li> </ul>	J					S	chedule		
	J								
Add New Credentia	11								
Description	7	Userr	name 🍸	Password	Is Default	Update	Delete		
Default Credentials for	r CMC	root		*****	<ul> <li>Image: A start of the start of</li></ul>	1	ŵ		
Default Credentials for	r iDRAC	root		*****		12	Ē		
Devices				·					
Device Name 🍸 D	evice Model	T	Execution Credentials	s					<u>م</u>
CMC-BTYDR42 P	owerEdge FX	(2s	Default Credentials	s for CMC	•				
CMC-D89RG52 P	owerEdge M1	1000e	Default Credential	s for CMC					
drac-2489R42a P	owerEdge FM	1120	Default Credential	s for iDRAC					
drac-2489R42b P	owerEdge FM	/120	Default Credentials for	or iDRAC					
drac-2489R42c P	owerEdge FM	/120	Default Credentials for	or iDRAC					
drac-2489R42d P	owerEdge FM	/120	Default Credentials for	or iDRAC					
drac-BN1JR42a P	owerEdge FM	/120	Default Credentials for	or iDRAC					
drac-BN1JR42b P	owerEdge FM	/120	Default Credentials for	or iDRAC					
drac-CNJLH62 P	owerEdge M6	6 <mark>30</mark>	Default Credentials for	or iDRAC					
drac-CNKCH62 P	owerEdge M6	6 <mark>30</mark>	Default Credentials for	or iDRAC					
drac-F0HJ7C2 P	owerEdge M8	8 <mark>30</mark>	Default Credentials for	or iDRAC					-
Help								Cancel	Next

Figure 33 Configuration Inventory Credentials Page

- 9. Ensure that Enable Configuration Inventory is selected.
- 10. Select the schedule—either every week on the same day and time or every day or hour interval. The Execution histories for the configuration inventory are displayed in the **Task Execution History** grid.
- 11. Double-click the **Execution History** to view task details or right-click the **Execution History** row and select the details.

#### 15.2.2 Run configuration inventory per target

To get the current configuration inventory from the device:

- 1. Select Manage → Devices.
- 2. Right-click the target device under **All Devices** tree.
- 3. Click Device Configuration.
- 4. Select Refresh Device Configuration Inventory.

#### 15.3 View and Leverage the compliance report

The device compliance panel shows the configuration compliance status and state of all eligible devices. See <u>Target Device Requirements</u>. To view all the devices and its state, click a slice of the pie chart. Device configuration compliance can be viewed in the **Configuration** tab under the **Manage** tab.

Eligible Device	Required Action			
Compliant Devices	No action required.			
Not Compliant Devices	Double-click the compliance row to view differences between the associated template and the device's inventory.			
	Adjust the device's settings or associate to a different template to make the device compliant.			
Not Inventoried Devices	Inventory the device. See <u>Set up and run the</u> <u>configuration inventory</u> .			
	Make sure the credentials for the target are			
	accurate.			
Devices without license	Import a CMC Enterprise license.			
	Make sure the credentials for the target are			
	accurate.			

## 16 Create the template from a reference IOA

To create the template from the reference IOA:

- 1. Select the **Deployment** tab.
- 2. In the left pane, click **Create Template** under **Common Tasks**.
- 3. Type a unique name for the template.
- 4. Select Create from Device.
- 5. In the device type selection, select the target IOA.

**Note**—Alternatively, you can select the target by typing the device name or Service Tag in the search box next to the **Create from Device** button.

#### 6. Type **Execution credentials** for the target.

Note—The credentials must have administrator privileges on the target IOA.

Create Template Wizard	23
Create Template	
Name: IOA Template	
Create from File Browse	
Create from Device 100.96.24.14	
Device Type: 🔘 Server 🔘 Chassis 🔘 MX Chassis 💿 IOA	
- All Applicable Devices	
Dell EMC Networking Switches	
100.96.24.14	
+ Modular Systems	
l	
Execution Credentials	
User Name: root	
Password:	
Help Cancel Finis	h

Figure 34 Create IOA template from reference device wizard

- 13. Click Finish.
- 14. Click **OK**. The task is created when the dialog box is closed.
- 15. In the Deployment portal, click Tasks.
- 16. To view the progress of the task, Click Task Execution History.
- 17. To view the details of the execution history, double-click or right-click the task execution history entry.
- 18. Select **Details**. The details provide the information (such as incorrect credentials, etc.).
- 19. If the task is successful, the template is created and displayed in the **IOA Templates** tree.
- 20. If the task is unsuccessful, right-click the task execution history or the task, and then click Run.

**Note**—Enter the IOA credentials to run the task again.

**D&LL**EMC

Technical support and resources

Templates ^					
■- Server Templates					
ti- Samples ≡					
- Chassis Templates					
+- Samples					
— 🛣 cmc ini BTY					
🗕 🕜 cmc ini d89	Task Execut	ion History			
	Drag a colu	mn header and drop it here to group by that column			
IOA Templates					
🗕 📒 IOA template_1	Status 🌾	Task Name V	Start Time Y	% Completed	Task State 🦞
Compute Pools		Create Template - IOA template_1 - 06/01/2017 12:01:42	6/1/2017 12:01:47 PM	100%	Complete
		Create Template - cmc ini d89 - 06/01/2017 10:49:58	6/1/2017 10:50:07 AM	100%	Complete
<ul> <li>Repurpose and Bare Metal</li> </ul>		Create Template - cmc ini d89 - 06/01/2017 10:11:32	6/1/2017 10:11:36 AM	100%	Complete
Virtual IO Pool		Create Template - cmc ini BTY - 06/01/2017 10:10:59	6/1/2017 10:11:03 AM	100%	Complete
— Virtual IO Pools					
Tasks ^					
- Tasks					

Figure 35 Create template task of IOA

#### Executive summary



Figure 36 IOA template

## 17 Deploy an IOA template

This section describes how to deploy an IOA template to IOAs.

### 17.1 Deploy an IOA template to IOA device

To deploy the IOA template to IOA device:

- 1. Select Deployment.
- 2. In the left pane, click **Deploy Template** under **Common Tasks**.
- 3. Type a unique name for the task.

**Note**—This step is optional since a default name is supplied, but it is a generic name. It is recommended to type the name relevant to what is being deployed.

- 4. Make sure **Deploy Template** is selected and click **Next**.
- 5. Select the template to be deployed and click **Next**.
- 6. Select the target IOA devices and click **Next**.
- 7. Type the device specific attributes for each IOA device. These are the attributes, such as 'IOA host name', that are not included in templates because they do not necessarily apply to all the target devices. For more details, see <u>Edit the device-specific attributes of an IOA Deploy Template task</u>.
- 8. Click Next.
- 9. If you want to check the whether the device configuration template is deployed successfully, on the **Options** page, select **Perform pre-check only**.
- 10. If you do not want to stop the deployment when the template is incompatible with the target devices, select **Continue on warnings**.
- 11. Click Next.
- 12. Set the schedule when the deploy template task runs. Run now will run the task when the wizard is closed. Run at will run the task on the selected future date. Type the credentials for all the target IOA devices.
- 13. The credentials must have Administrator privileges and valid for all the IOA devices.
- 14. Click Next.
- 15. Review the task in the **Summary** pane and click **Finish**.
- 16. Review the message. The deploy action can be destructive. It is important to review and understand the template you are deploying.

#### 17.2 Edit the device-specific attributes of an IOA Deploy Template task

Device specific attributes, such as 'IOA host name', are not included in templates because they do not necessarily apply to all the target devices. Editing and deploying device specific attributes is optional because the device may already have the device specific attributes configured or the attributes may not be applicable to that specific device. If the template being deployed has device specific attributes, the device specific attributes will appear on the **Edit Attributes** page of the deploy wizard. The **Edit Attributes** page contains the target IOA devices in the left and the device specific attributes for the selected device in the right side grid.

To edit the attributes:

- 1. In the left pane, select a device.
- 2. Click **Deploy** on the attributes that you want to deploy to that device.
- 3. Edit the **Value** of each checked attribute.

4. Click Save.

#### 5. Repeat for each device.

Deploy Template Wizard						X
Deploy Template Wizard	Edit Attributes					4/7
1	2	3 Solart Davisor	4 Edit Attributes	5 Online	6 Sat Sabadula	
Warne and Deploy Options Se	siect remplate	Select Devices	Eait Attributes	Options	Set Schedule	Summary
Device Specific Attributes						
Select Devices:	Device Specific Attrib	utes for: ioadc1 [29	9RG52, M I/O Aggregator bridge	<u>ا</u>	Undo	Save Import/Export
ioadc1	Grouped by:	Section				Total: 1 Modified: 1
	Deploy Modif	ied 🝸 Section 🍸	Instance	Attribute Name	Value	
	▲ IOAconfig					
	✓ Yes	IOAconfig	IOAconfig	IOA host name	newHo	stname_1
				1		
	•					•
Help					Cancel	Back Next

#### Figure 37 Edit Attributes pane

Alternatively, you can import and export the grid to file to edit. You may want to export or import if you have a large number of devices with a large number of device specific attributes. The device specific attributes grid can be exported by using the selected device or all devices. All devices will export to a single file that can be opened in a spreadsheet processing application. After editing the file, the file may be imported. The edited values must be valid for the attribute. The grids will be populated with the import data. The UI logs will report any problems with format or values of the import file.

## 18 Create a template from a file

### 18.1 Create a template from a TXT File

The TXT format is for IOA devices and creating a template from a TXT file will create the IOA template.

Create Template Wizard	23
Create Template	
Name: IOA Template from File	
Create from File     Browse     Template.txt	
Ensure that the IOA template has not been edited after it was created. Deployment of an edited IOA template not be successful.	nay
Create from Device Search Devices	
Device Type: <ul> <li>Server</li> <li>Chassis</li> <li>MX Chassis</li> <li>IOA</li> </ul>	
Note: Only those servers that have the supported firmware are available for selection. To select the servers, upgrate to the latest firmware version, or use the file share settings.	ade
All Applicable Devices	
+- Servers	
±- RAC	
Help Cancel Finish	

Figure 38 Create IOA Template from TXT File

#### 18.2 Create a template from an XML File

The XML format is for Chassis devices and creating a template from an XML file will create the Chassis template.

To create the template from an XML file:

- 1. Navigate to the **Deployment** tab.
- 2. In the left pane, click Create Template under Common Tasks.
- 3. Type a unique name for the template.
- 4. Select Create from File.
- 5. Click **Browse** and browse to the file's location.
- 6. Select the file and click **Open**.

Create Template Wizard	23
Create Template	
Name: Template from File	
Create from File     Browse     Template.xml	
Create from Device Search Devices	
Device Type:  Server Chassis MX Chassis IOA	
Note: Only those servers that have the supported firmware are available for selection to the latest firmware version, or use the file share settings.	. To select the servers, upgrade
All Applicable Devices	
E- RAC	
+- Modular Systems	
OEM Devices	
L	
Help	Cancel Finish

Figure 39 Create Template from an XML File

7. Click **Finish** to create the template. The template name is added to the Chassis Templates tree.

#### 18.3 Create a template from a JSON File

The JSON format is for MX Chassis devices and creating a template from a JSON file will create the MX Chassis template.

To create the template from a JSON file:

- 1. Navigate to the **Deployment** tab.
- 2. In the left pane, click **Create Template** under **Common Tasks**.
- 3. Type a unique name for the template.
- 4. Select Create from File.
- 5. Click **Browse** and browse to the file's location.
- 6. Select the file and click **Open**.

Create Template Wizard	23
Create Template	
Name: Template from File	
Create from File     Browse     Template.json	
Create from Device Search Devices	
Device Type:  Server  Chassis  MX Chassis  IOA	
Note: Only those servers that have the supported firmware are available for selection to the latest firmware version, or use the file share settings.	. To select the servers, upgrade
- All Applicable Devices	
+- RAC	
+- Modular Systems	
+- OEM Devices	
Help	Cancel Finish

Figure 40 Create Template from a JSON File

7. Click Finish to create the template. The template name is added to the MX Chassis Templates tree

## 19 Export a Chassis Infrastructure template or an MX Chassis template

- 1. Select Deployment.
- 2. In the left pane, right-click Chassis Templates or MX Chassis Templates under Common Tasks.
- 3. Click Export Template.

Home Manage Deployment R	teports Settings L	ogs Tutorials Dell EMC Solutions
Deployment		
Deploy Device Configuration	Portal 🔺	Configuration Tomplate CMC Infra Domo
Getting Started for Deployment		Conliguration Template CMC Inita Demo
Deployment Portal		Attributes A2 C1
Common Tasks		Attributes Deploy
Create Template		protocol lldp
Create Virtual IO Pool		no shutdown
Create Compute Pool		interface TenGigabitEthernet 0/7
Deploy Template		1
Setup Auto Deployment		protocol lldp
Manage Auto Deployment Crede	entials	no snutdown
File Share Settings		interface TenGigabitEthernet 0/8
Replace Server		
Reclaim Identities	1	protocol lidp no shutdown
Templates		
		interface TenGigabitEthernet 0/9
Server Templates		protocol lldp
+- Samples		no shutdown
— ፖ Configuration Templ	ate idrac-18MP08:	
🗕 😿 Configuration Templ	ate idrac-DG73TF:	nterface TenGigabitEthernet 0/10
		switchport
– Chassis Templates		vlan tagged 10
+- Samples		vlan untagged 100
Configuration		protocol lldp
	Deploy	no shutdown
<ul> <li>IOA Templates</li> </ul>	Clone	! interface TenGigabitEthernet 0/11
	Rename	1
Compute Pools	Delete	protocol lldp
Repurpose and Bare Me		no shutdown
- idrac-CNKCH62	Exp at lemplate	interface TenGigabitEthernet 0/12
idrac-F0HJ7C2	Properties	
		no shutdown

Figure 41 Export Template

- 4. In the Export Template dialog, select Ok.
- 5. In the **Save As** dialog box, type a filename for the exported chassis infrastructure template or MX Chassis template. The chassis infrastructure template will be exported in .zip format. The .zip file contains the CMC device template in .XML format and all the IOA templates in .TXT format. The MX Chassis template will be exported in .JSON format.

○ ↑ ↓ Templates → cmc_inf	ra_template		✓ C St
Name	Date modified	Туре	Size
Configuration Template CMC Infra Dem	5/25/2017 12:35 PM	XML File	61 KB
∞ Configuration Template CMC 🕅 fra Dem	5/25/2017 12:35 PM	TXT File	7 KB
∞ Configuration Template CMC Infra Dem	5/25/2017 12:35 PM	TXT File	6 KB

Figure 42 Chassis Infrastructure Template Folder

## 20 Troubleshoot issues in managing Modular Infrastructure by using OpenManage Essentials

## 20.1 Troubleshoot the File Share issues in managing Modular Infrastructure

To troubleshoot the file share:

1. Check the file share status in OME.

**Note**—The file share status is at the bottom of the file share wizard and is in the Deployment Settings preference.

File Share Settings				
File Share Settings				
The Device Configurat chassis. It is recommended to a To use Device Configu Domain \ Username:	ion feature requires a file share on the OpenManage Essentials server for all operations done on a avoid using the file share because of security reasons in the Windows operating systems. Irration feature on chassis, type the credentials that will be assigned and used for accessing the file share.			
Password:	•••••			
File Share Status:	User information could not be resolved. Please ensure domain, username and password are accurate.			
Allow using file share for Device Configuration feature on server				
Help	Cancel Apply			

Figure 43 File Share Settings Status

- 2. Check the domain, username, and password.
- 3. Check the share folder in Windows Explorer.
- 4. Make sure that the **ServerConfig** folder exists in the installation configuration folder (by default, Program Files\Dell\SysMgt\Essentials\configuration).
- 5. Make sure that the folder is shared.
- 6. To share the folder, right-click the folder, select **Properties**, and then select **Sharing**.

**Note**—The Advanced Sharing permission settings should have the user entered in OME, as the only user with permissions to the folder.

📔 configuration					
🚱 🕤 🗸 🔹 Program Files 🔹 Dell 🔹 SysMgt 🔹 Essentials 🔹 configuration 🔹 🔹 🔹 Search configuration					
Organize 🔻 🧊 Open Include in library 🔻 Share with 🔻 New folder 🛛 🔠 💌 🗍 🔞					
Name +	Date modified	f Type Si	ze		
CimRepository					
)) ConnectionFiles	General Sharing Security Previous		📜 Permissions for ServerConfi	ig X	
) DataFormatterFiles	Network File and Folder Sharing	ranced Sharing	Share Permissions		
퉬 device_support		Share this folder	Course and a second second	1	
鷆 MapperFiles	A Shared	Settings	Administrator (ComputerN	ame\Administrator)	
퉬 Mibs	Network Path:	Share name:		ameyeuministratorij	
퉬 PluginFiles	\\ComputerName\ServerConi	ServerConfig			
🕌 ServerConfig	Share	Add Remove			
) SessionFiles		Limit the number of simultaneous us			
dbmgr.pro	Advanced Sharing	Limit the humber of simultaneous as		Add Bemove	
dbmgr_de.pro	Set custom permissions, create advanced sharing options	Comments:			
dbmgr_es.pro			Permissions for Administrator	Allow Deny	
dbmgr_fr.pro	😌 Advanced Sharing		Full Control		
📄 dbmgr_ja.pro			Bead		
dbmgr_zh.pro	Password Protection	Permissions Caching	1168G		
dbmgr_zh_tw.pro	computer to access shared fold				
dbreport.pro	To change this setting use the	ОКС			
dbreport_de.pro					
dbreport_es.pro			Learn about access control and	permissions	
dbreport_fr.pro		Concel ( )			
dbreport_ja.pro	Llose	Lancer Apply		Cancer Apply	
ServerConfig State: US Shared Shared with: ComputerName\OmeAdministrators; ComputerName\OmePowerUsers; File folder Date modified: 8/19/2014 12:05 PM					

Figure 44 Advanced Sharing Tab of the ServerConfig Folder

- 7. Verify the share folder location by using the net share command.
- 8. Open the command prompt and type net share.

A share with the name ServerConfig should be in the network share list.

📾 Administrator: Command Prompt 📃 🛛 🗙						
C:\Users\Administrator>net share						
Share name	Resource	Remark				
 C\$ IPC\$	C:\	Default share Remote IPC				
ADMIN5 ServerConfig	C:\Windows C:\Program Files\Dell\SysMgt\Es:	Remote Admin sentials\configuration\ServerConfig				
Users C:\Users The command completed successfully.						
C:\Users\Administrator>_						
		*				



9. In the User Accounts window, check the user permissions.

#### 20.2 Troubleshoot the template creation in OpenManage Essentials

To troubleshoot the creation of template from a reference device:

- 1. Make sure that the file share settings are configured correctly. See <u>Set up a file share</u> or <u>Troubleshoot the File Share issues in managing Modular Infrastructure</u>.
- 2. Right-click the task or task execution history and select Run.
- 3. Make sure that the typed credentials have privileges to run the task.

Note—The credentials must have administrator privileges on the CMC/IOA/MX Chassis.

4. Make sure that the minimum firmware version and supported operational mode requirements are satisfied by the reference Dell Networking IOA device.

To troubleshoot the creation of template from a file:

- 1. Make sure the file meets the requirements. See File Requirements.
- 2. If you do not see the file you want, make sure that the file type is correct.

Note—The available options are an .xml file, a .txt file, and a .json file.

#### 20.2.1 File requirements for creating templates in OpenManage Essentials

Files used for a template must meet the following requirements:

For an XML file:

- Must be well formed.
- Must contain at least one attribute.

For a TXT file:

• Must be a valid Dell Networking IOA configuration file.

For a JSON file:

- Must be well formed.
- Must contain at least one attribute.

## 20.3 Troubleshoot the Chassis template deployment or the MX Chassis template deployment

The task execution history details provide the troubleshooting information.

- 1. Check the file share settings. See <u>Troubleshoot the File Share issues in managing Modular</u> <u>Infrastructure</u>.
- To see the task execution history details, double-click the task execution history entry or right-click and select **Details**. The **Results** tab displays information on task activities and any errors that occurred.
- 3. If the task is incomplete, the task will be timed out and exits after 30 minutes of inactivity.
- 4. Run the task again. A restart and/or CMC reset may be required.

#### 20.4 Troubleshoot the Auto-deploying templates

Whenever the Deploy Configuration to Undiscovered Devices task is executed, it looks for Service Tags in the **Auto Deployment** list. The following situations may be encountered:

- There are no Service Tags in the Auto Deployment list. In this case, the task exits, and no entry is created in the task execution history grid.
- The task finds one or more Service Tags in the Auto Deployment list for devices that have not been discovered by OME yet. In this case, a task execution history entry is created and it indicates why the Service Tag was not processed.
- The task finds one or more Service Tags in the Auto Deployment list for devices that have been discovered by OME. It creates tasks named Deploy Configuration to Undiscovered Devices–Task–timestamp to deploy to those devices. In this case, an execution history entry is created and the entry specifies which Service Tags were processed for deployment.
- If an error occurs in a task created for auto deployment to a device, to troubleshoot the error, see <u>Troubleshoot the File Share issues in managing Modular Infrastructure</u>.

### 20.5 Troubleshoot the configuration compliance in OpenManage Essentials

To troubleshoot the configuration compliance:

- If a device is not shown in the pie chart, make sure it meets the device configuration requirements. For details, see <u>Target Device Requirements</u>.
- If a device has acquired the license recently and shows as unlicensed, refresh the inventory of the device by right-clicking on the device in the device view under Manage→Devices and select **Refresh Inventory**. After the inventory is run, the device state should no longer be 'Not Licensed'.
- If you believe that the state of a device is incorrect, refresh the configuration inventory of the device (right-click the device compliance entry and select **Run Inventory Now**'.
- If the existing template cannot be upgraded, perform discovery and inventory on the CMC device from which the template was created.



Figure 46 Troubleshoot configuration compliance in OpenManage Essentials

## A Technical support and resources

Dell.com/support is focused on meeting customer needs with proven services and support.

#### A.1 Related resources

Referenced or recommended Dell publications:

- Dell OpenManage Essentials TechCenter page: <u>http://en.community.dell.com/techcenter/systems-management/w/wiki/1989.openmanage-essentials.aspx</u>
- Chassis discovery feature in OME: <u>http://en.community.dell.com/techcenter/extras/m/white\_papers/20441673</u>
- Deployment and Managing Configurations with Dell OpenManage Essentials