

Technical White Paper

Profile Management and Deployment Enhancements in OpenManage Enterprise 3.4

Abstract

OpenManage Enterprise (OME) 3.4 has a new Profile Management portal which enables users to easily replace systems in a data center and to apply changes efficiently. OME 3.4 also significantly enhances the configuration and deployment capabilities and has intelligent identity assignment logic. Read on to know more.

September 2020

Revisions

Date	Description
September 2020	Initial release

Acknowledgements

Authors: OpenManage Enterprise (OME) Engineering

[Pushkala Iyer, Reg Stumpe, Rakesh Ayola, Gabe Stern]

The information in this publication is provided "as is." Dell Inc. makes no representations or warranties of any kind with respect to the information in this publication, and specifically disclaims implied warranties of merchantability or fitness for a particular purpose.

Use, copying, and distribution of any software described in this publication requires an applicable software license.

Copyright © September 2020 Dell Inc. or its subsidiaries. All Rights Reserved. Dell Technologies, Dell, EMC, Dell EMC and other trademarks are trademarks of Dell Inc. or its subsidiaries. Other trademarks may be trademarks of their respective owners. [Technical White Paper] [438]

Table of contents

Re	visions	3	2
Acl	knowle	dgements	2
Tal	ole of c	contents	3
Ex	ecutive	summary	4
1	Back	ground and Overview	5
	1.1	Audience	5
2	Confi	guration and Deployment improvements in OME 3.4	6
	2.1	Profile Management using the Profile Portal	6
	2.1.1	Create Profiles	7
	2.1.2	Deploy Profiles	10
	2.1.3	Edit Profiles	14
	2.1.4	Re-deploy Profiles	15
	2.1.5	Migrate Profiles	17
	2.2	Comprehensive Deployment Covering Target and Secure Attributes	17
	2.3	Intelligent Identity Pools	19
	2.4	Easier Workflows to Manage OME-M Sleds	20
	2.5	Troubleshooting issues	23
	A.1	Related resources	24

Executive summary

OpenManage Enterprise 3.4 has significant improvements in the Configuration and Deployment domain. There is a new Profile Management portal enabling users to view, modify, and deploy profiles. This enables users to generate profiles upfront and enables easy migration and part-replacement. Virtual identity allocation logic is intelligent - the assignment avoids identities that have been externally allocated. OME 3.4 enables deployment of secure and quasi target specific attributes to systems. There are also significant improvements in managing deployments to OME-M sleds specifically with respect to network definitions. Read on to know more about these exciting new features in OME 3.4.

1 Background and Overview

This technical white paper outlines how OME 3.4 addresses many feature gaps and customer issues in device Configuration and Deployment. The following are the key features that are implemented and the customer issues that have been addressed:

- Profile Management Portal
 - Ability to generate profiles with settings and virtual identities for deployment to a device that are discovered or yet to be discovered using Service Tag.
 - Ability to easily view what was deployed to a device (settings and virtual identities).
 - Ability to easily view what has changed on the profile since the last deployment.
 - Ability to deploy just the delta or change-set on the profile only. Thereby, reducing overall deployment time.
 - Problem-free part replacement using full redeployment of profile.
 - Easier server retirement or replacement via unassign and assign of a profile or migrate profile actions.
- Boot Attribute deployment without caveats
 - Previous releases had the restriction that to deploy boot attributes, a template had to be associated with an identity pool and boot attributes could only be seen in the context of identity reservation. In previous releases, boot attributes could not be included for configuration compliance either.
- Deployment covers all attributes
 - In previous releases, deployment did not include secure or target specific attributes. The only target specific attributes that were supported were the virtual identity attributes.
- Intelligent Identity pools
 - Identity pool definitions are not fixed, so it is possible that there are intersections with pool
 definitions in other OME instances or other consoles. Previously, OME was unable to detect
 any externally assigned identity intersection with identity pools and so could potentially
 inadvertently cause a virtual identity conflict.
- Easier workflows to manage OME-M sleds
 - In previous releases, when OME was used to manage multiple MX-7000chassis, the workflows involved repetitive steps to re-create networks on OME. OME-M Sleds would also need to be rebooted to apply VLAN changes as applying VLAN changes was tightly integrated with template deployment.

1.1 Audience

The information in this white paper is intended for users who have some familiarity with the OME Configuration and Deployment workflows for template creation, identity pool creation, template deployment, configuration compliance, and so on. For comprehensive detail of all these features, see the OpenManage Enterprise 3.4 User's guide and OpenManage Enterprise Version 3.4 and OpenManage Enterprise – Modular Edition Version 1.20.00 RESTful API guide.

2 Configuration and Deployment improvements in OME 3.4

2.1 Profile Management using the Profile Portal

OME 3.4 has a new Profile Management Portal as seen in the screenshot below.

A Profile provides a mechanism for reserving identities and establishing deployment images in advance, for use in deployment later.

When a profile is created, applicable virtual identity attribute values are reserved for it. Those assigned identity values are owned by the profile and remain with that profile for as long as it exists.

DpenM	OpenManage Enterprise Search Everything Q									P 6	admin	0	i	
🖗 Config	Seconfiguration													
Firmware/Driver Compliance Templates Profiles Auto Deploy Configuration Compliance Identity Pools VLANs														
Create	View 👻	Edit + Assign +												
✓ ▼ Advanc	ed Filters Clear	All Filters											_	
Modified		Profile Name	Template Name	e Targ	jet	Target Type	Chassis	Profi	le State	L	ast Action Statu	s		
All	•					All	•	AII		•	All	•	- 1	
Ш МО	PROFILE NAME	TEMPLATE NAME	TARGET	TARGET TYPE	CHASSIS	PROFILE STATE	LAST ACTION STATUS		Drafila	00001				
	Profile 00001	server1		Server	cmc-3pdlb42.smd	Assigned	Scheduled		Profile	10001				
	Profile 00002	server1		None		Unassigned	Not Run		View Ide	ntities				
	Profile 00003	server1		None		Unassigned	Not Run							
	Profile 00004	chassis1	cmc-1ff48y	Chassis		Assigned	Scheduled		from source	1: e template:	(server1)			
	Profile 00005	chassis1		None		Unassigned	Not Run		Last Deplo	ved Time:				
	Profile 00006	chassis1		None		Unassigned	Not Run		Last Modif	ed Time:				
							Ŧ		Apr 13, 202	0 3:17:33 F	PM			
6 item(s) four	6 item(s) found, 0 item(s) selected. Displaying items 1 - 6.									Created On: Apr 13, 2020 3:12:26 PM				
									Created By admin	:				

Figure 1 The Profile Management portal showing a list of profiles

The profile portal provides a multitude of functionalities, as seen from the menu options.

- Creation of reserved or unassigned profiles with virtual identities for future deployment (Create Profile).
- An easy way to view what is configured on a device (Edit Profile).
- Virtual identity management using the profiles as virtual identities reside with the profiles (Assign or Unassign)
 - Decommissioning systems and replacing them with new ones is so much easier.
 - Addresses previous release limitations with migration where the settings can be unassigned from a source system and maintained with the profile before assignment to an appropriate target server.
- Ability to deploy only what is changed via Redeploy
 - Reduces deployment time and keeps results limited to what was explicitly changed.

- Ability to deploy the entire profile with **Deploy** or **Redeploy**
 - Useful for part-replacement scenarios. To ensure that all the settings are correctly reapplied on the system.
- Auto-Deploy has been integrated with the Profiles Portal page a profile can be auto-deployed to a service tag.

The following state diagram shows the various profile states and transitions.

Profile States and State Transitions



Figure 2 Profile States and Transitions

The following screenshots illustrate each of these workflows. For brevity, only the most relevant screens in a workflow are included. For more information about the feature, see OME 3.4 User's Guide.

2.1.1 Create Profiles

Create reserved profiles (unassigned) profiles by choosing a template and indicating how many profiles are needed. If the template has identity attributes, it must be associated with an identity pool.



Figure 3 Profile Creation Steps: Select template information

Create Profiles Reserve one or more prof	les	0 ×
Template		
Details	Name Prefix	Profile
Boot to Network ISO	Description	from source template: (server1)
	Profile Count	(Maximum characters: 255) You have 224 characters left. 3
Step 2 of 3		Previous Next Finish Cancel

Figure 4 Profile Creation Steps: Specify name prefix and number of profiles to be generated

Create Profiles Reserve one or more profiles			0)	×
Template Details Boot to Network ISO	Enter ISO File an Specify the full ISO path ar Boot to Network ISO Share Type CIFS CIFS NFS ISO Information ISO Path Share Information Share IP Address Username Password Time to Attach ISO	Ad File Share Information and the share location.		
Step 3 of 3			Previous Cancel	

Figure 5 Profile Creation Steps: If booting to a network ISO after deployment is desired, specify full ISO path and share location

2.1.2 Deploy Profiles

Once a profile is created, it can be assigned to a device via deployment or to a service-tag via autodeployment.

OpenManage Enterprise X +													-	٥	×	
\leftrightarrow \rightarrow C	A Not secure			onfig a tin j i		•							Q 🕁	0 🚦	Θ	:
Dpeni	CopenManage Enterprise Q C 20 F 1 R												B 8	💄 admin	?	Û
🕈 Home	🐈 Home III Devices 🗇 Configuration 🗸 🚩 Alerts 🗸 🖂 Monitor 🗸 🏚 Application Settings 🗸															¥
🖗 Confi	Seconfiguration															
Eirmuore /	river Compliance	Templetes Profiles	Auto Donlou Configu	ration Complian	identity Deale	MI AND										
Firmware/L	inver compliance		Auto Depioy Configu	ration Complian	ice identity Pools	VLANS										
Create	View 🕶	Edit • Assign • Una			Delete Export											
✓ ▼ Advar	iced Filters Clear All F	ilters Deploy														
Modified		Profile Muto Deploy	Template Name	Tar	rget	Target Type	-	Chassis	Pro	file State		•	Last Actio	on Status		
			TADOFT		01140010											
	Auto-Deploy Profi	IempLate Name	TARGET	Sonior	CHASSIS	Deployed	Ea	alled		Profi	le 000	01				
	Profile 00001	test-201		None		Unassigned	No	ot Run		View	/ Identitie	s				
	Profile 00002	test-201	1	None		Unassigned	No	ot Run		_						
	Profile 00003	test-201)	None		Unassigned	No	ot Run		Descri	ption: ource ten	nnlate: (te	st-201)			
									Ŧ	Last D	eployed	Fime:	01 2017			
4 item(s) fo	und, 1 item(s) selecte	d. Displaying items 1 - 4.								Last M	lodified T	ime:				
										Apr 14	, 2020 1:2	24:34 PM				
										Create Apr 14	d On: . 2020 1:2	24:34 PM				
										Create	d By:					
										admin						
_							_		_	_	_	_			-	

Figure 6 Profile assignment: A profile can be assigned to a device (via Deploy) or a service-tag (via Auto-Deploy)



Figure 7 Profile Assignment via Deploy: A target device should be selected to deploy the profile

😑 OpenManage Enterprise 🛛 🗙	+					-	0 ×
← → C 🔺 Not secure 🍯	in the formation of the formation	n/template.profiles			Q \$	0 📢	Θ:
OpenManage Enterprise			Search Everything Q	Ø 33 🚩	2 🗳 8	🛔 admin	0 0
Home Devices & Configu	💢 Deploy Profile Assign and deploy the profile to a target device.			0 ×			*
% Configuration	Details 🗸	Target IP Settings					
Firmware/Driver Compliance Ten	Target 🗸	IDDAG Management ID	O David Alexandr D with an				
Create View - Edit -	Boot to Network ISO 🗸	IDRAC Management IP	Source and the settings Settings				
✓ ▼ Advanced Filters Clear All Filters Modified	iDRAC Management IP	Static IP Settings	* Set static IP		st Action Status		
All	Target Attributes	Fnable IPv4			1		•
MODIFIED PROFILE NAME	Schedule	Dud Menseement ID:					
Auto-Deploy Profile 0		irva management ir:					
U 10 00001		IPv4 Subnet Mask:					
 Profile 00002 		IPv4 Gateway:					
Profile 00003		Imable IPv6					
A Profile from template		IPv6 Management IP:					
6 item(s) found, 1 item(s) selected. Dis		IPv6 Gateway:					
	Step 4 of 6						
			Hevous Next	Cancel			

Figure 8 Profile Assignment via Deploy: Specifying IP settings for target – both IPv4 and IPv6 settings can be supplied.

😔 OpenMana	age Enterprise X	+										-	o x
← → C A Not secure Control of the secure Control of the secure of the secure of the secure Control of the secure Control of the secure of the secur												0 🚦	Θ:
DpenM	anage Enterprise					Search Eve	erything	q	C 24	1	2 8	🔒 admin	00
🕇 Home 🚦	Home 🗏 Devices 🗞 Configuration 🗸 🚩 Alerts 🗸 🖂 Monitor 🗸 🏟 Application Settings 🗸												
© Configuration													
Firmware/Dr	iver Compliance Ten	nolates Profiles Aut	o Deploy Confu	nuration Compliance Identity Pools	VIANe								
Filliwale/Di	iver compliance Ten		o Depidy Conni	juration compliance identity Pools	VLANS								
Create	View • Edit •	Assign + Unassi											
✓ ▼ Advanc	ed Filters Clear All Filters	- 61 - M	T	T	T	0		D. CL O			1	0	
All	Pr	ofile Name	Template Name	larget	All	- Chassis		All	ate		All	in Status	-
MODIF.	. PROFILE NAME	TEMPLATE NAME	TARGET	TARGET TYPE CHASSIS	PROFILE STATE	LAST ACTION S	TATUS	-					
0	Auto-Deploy Profile 000	01 test-183		Server	Deployed	Completed	*	PI	ofile fro	m temp	late 'test	-183' 00	001
	Profile 00001	test-201	ASDFGGH	Identifier	Assigned	Not Run			iew Identitie	es			
	Profile 00002	test-201	lex-deploy-201	Server	Deployed	Failed		_					
	Profile 00003	test-201		None	Unassigned	Not Run		De	scription: file created	from temp	ate 'test-18	3'	
	Profile from template 'te	e test-183	WIN-RIGV2SBD	Server	Assigned	Running		La	t Deployed	Time:			
5 item(s) four	nd, 0 item(s) selected. Disp	playing items 1 - 5.						La Ap	t Modified 14, 2020 6:	Fime: 57:17 PM			
								Cr Ap	ated On: 14, 2020 6:	57:16 PM			
								Croad	ated By:				

Figure 9 Profile portal showing that the profile is now "Assigned" and the deployment job is currently running

2.1.3 Edit Profiles

Edit a profile to change any of the target specific attribute values (except virtual identity attribute values).

Edit Profile Modify the profile WITHOUT saving it to take effect.	the target. The profile must be re	-deployed after editing to		@ X
Modify the profile WITHOUT saving it to take effect. Details Boot to Network ISO Target Attributes	the target. The profile must be re	-deployed after editing to arget Attributes ese attributes are inherited from the source but may be overridden Select the components/attributes to include in the template. Unselect	to exclude them.	
Step 3 of 3				

Figure 10 Edit profile: Allows change of any target specific attribute values except virtual identities

If the profile has been edited after deployment, then the profile grid displays an indicator (yellow bang) showing that it has been modified. This indicator is also displayed if the template from which the profile was created is modified.

Configuration									
Firmware/Driver Compliance	Templates Profiles	Auto Deploy Con	figuration Complia	nce Identity Pool	ls VLANs				
Create View +	Edit 🕶 Assign 👻 Una								
✓ ▼ Advanced Filters Clear All F	ilters								
Modified	Profile Name	Template Name	Ta	rget	Target Type	Chassis	Profile Sta	te	Last Action S
All					All	•	All	•	All
MODIF PROFILE NAME	TEMPLATE NAME	TARGET	TARGET TYPE	CHASSIS	PROFILE STATE	LAST ACTION STATUS	Dre	file 00001	
Profile 00001	t2		Server		Deployed	Completed	^ PR		
t item(s) found, 0 item(s) selecte	d. Displaying Items 1 - 1.						Desa from Last Jul 1	ription: source template: (t2) Deployed Time: 5, 2020 10:51:06 AM)
							Last Jul 1	Modified Time: 5, 2020 10:54:09 AM	
							Crea Jul 1	ted On: 4, 2020 11:47:51 AM	
							Crea	ted By: in	

Figure 11 Profile grid showing a modified profile. The indicator is shown if either the profile (target attributes) or the source template (from which the profile was created) attributes were modified.

2.1.4 Re-deploy Profiles

A modified profile can be redeployed to the system. Users can specify if they want to deploy only the changeset (Modified attributes only—This option is useful for quick deployment) or the entire profile (the "All Attributes" option is useful for part replacement scenarios).



Figure 12 Options for re-deployment of a modified profile

2.1.5 Migrate Profiles

When it is time to retire a server, the migrate wizard can be used to move the profile, including all settings and virtual identities, to its replacement. The 'Force' option can be used to move the profile even when the source system is no longer available.

Image: The Momenta and The Markets Image: Markets
Immer Decent Configuration



2.2 Comprehensive Deployment Covering Target and Secure Attributes

Attributes involved in server configuration can be broadly classified into template attributes and target attributes.

The value of a template attribute is always tied to the template and gets deployed to every target device whenever a profile created from the template is used for deployment. Changes to template attributes affect every profile created from the template.

The value of a target attribute is tied to a target device, so it is specific to each target device that a profile is deployed to. Target attributes can be further classified into:

- Virtual identity attributes: Values assigned automatically by OME identity assignment logic.
- Quasi attributes: Values are inherited from the source template but can be modified on a per-target basis.
- True target attributes: Values should be uniquely specified per deployment target.

In previous OME releases, there was no support for quasi or true target attributes in deployment. Only template and virtual identity attributes could be deployed. Quasi attributes could also not be used to check compliance. Several boot control attributes are Quasi attributes. In OME 3.4, quasi attributes inherit values from the source system (from which the template is captured) and can be deployed. Also, the compliance can be evaluated for these attributes.

In previous OME releases, secure attributes (these are typically password attributes) were not deployed. In OME 3.4, these attributes are processed differently and deployed separately using different API calls. Secure attributes are not included for compliance.

The following screens show edit, save, and deployment of secure attributes:



Figure 14 Ability to edit a template and supply values for secure attributes

🗟 Edit Template		0 ×
Template Information	Summary	
Edit Components	 Here are the components and their configurations. Review before finishing. 	
Summary	Modifications: 5 SAIA Settings SaIA Settings BIOS Boot Settings Boot Settings NVMe Settings Diversifier Boot	•
	 One-Time Boot Serial Communication Redundant OS Control System Profile Settings System Security 	
	Image: AC Power Recovery Last Image: In-Band Manageability Interface Enabled Image: Intel(R) TXT Off	
	✓ New Setup Password ******** ✓ New System Password ******** ✓ Old Setup Password ******** ✓ Old System Password ********	
	Password Status Unlocked Power Button Secure Boot Secure Boot Mode Secure Boot Policy Standard UEFI Variable Access Standard	Ţ
Step 3 of 3	Previous Finish	Cancel

Figure 15 After values have been supplied for secure attributes

2.3 Intelligent Identity Pools

With versions prior to OME 3.4, the virtual identity assignment is unaware of possible conflicts. A conflict can exist if another console has assigned virtual identity values that intersect with identities in pools defined in OME.

In OME 3.4, if the console detects that a device already has virtual identities that intersect with pool definitions in the console, then those virtual identities are marked as already "assigned" and not used in identity assignment logic. If the virtual identities were already assigned out by the console before the externally assigned identities were detected, the device with the duplicate identities is indicated as "In conflict". Devices with "In conflict" virtual identities can be brought out of conflict by deploying a new template to them.

The screenshots below show "In Conflict" virtual identities as seen in the identity pool usage screens.

© Co	2 Configuration									
/ 001	ingulation									
Firmwa	re/Driver Compliance	Templates	Profiles	Auto Deploy	Configuration Compliand	ce Identity Pools	VLANs			
Create										
	AME			DESCRIPTION	I					
	OPool-22894			testing ident	ity pool functionality					
i	o_pool2									
2 item(s) f	ound. Displaying items 1 - (2.								
io_poc	012									
	0									
	Summary	Usage								
View By	Ethornot									
The work	Linemet .									
Total MAC	Addresses: 345 Total U	Ised : 38								
CONFLICT	VIRTUAL MAC ADDRESS		STATE	PROFILENAME	c	ASSIS NAME	SLOT	NAME	MANAGEMENT IP	NIC IDENTIFIER
4	AA:BB:CC:DD:EF:09		Assigned	Profile from t	emplate 'import-server			Server_hostname1		NIC Integrated 1 Port 2 Partition 3
A	AA:BB:CC:DD:EF:09		Assigned					Server_hostname1		NIC Integrated 1 Port 2 Partition 3
A	AA:BB:CC:DD:EF:0A		Assigned	Profile from t	emplate 'import-server			Server_hostname1		NIC Integrated 1 Port 2 Partition 4
A	AA:BB:CC:DD:EF:0A		Assigned					Server_hostname1		NIC Integrated 1 Port 2 Partition 4
A	AA:BB:CC:DD:EF:0B		Assigned	Profile from t	emplate 'import-server			Server_hostname1	·····	NIC Integrated 1 Port 2 Partition 5
	AA:BB:CC:DD:EF:0B		Assigned					Server_hostname1	10.0550.000	NIC Integrated 1 Port 2 Partition 5
A	AA:BB:CC:DD:EF:0C		Assigned	Profile from t	emplate "import-server			Server_hostname1		NIC Integrated 1 Port 2 Partition 6
A	AA:BB:CC:DD:EF:0C		Assigned					Server_hostname1	101000-100	NIC Integrated 1 Port 2 Partition 6
A	AA:BB:CC:DD:EF:0D		Assigned	Profile from t	emplate 'import-server			Server_hostname1	40.0550.005	NIC Integrated 1 Port 2 Partition 7
•	AA:BB:CC:DD:EF:0D		Assianed					Server hostname1	200002120	NIC Integrated 1 Port 2 Partition 7

Figure 16 Identity pool usage: Virtual identities that are in conflict are displayed with a "conflict" icon

io_pool2	io_pool2							
Summa	ary Usage							
View By Etherne	t v							
Total MAC Addresse	 es : 345 Total Used : 38							
CONFLICT VIDTU		OTATE		CHACCIC NAME	81 OT			
CONFLICT VIRTO	AL MAC ADDRESS	STATE	FROFILENAME	CHASSIS NAME	SLOT			
A AA:BB	3:CC:DD:EF:09	Assigned	Profile from template 'import-server					
AA:BB	CC:DD:EF:09	AstignetCor	flict in Identities					
AA:BB	CC:DD:EF:0A	Assigned	Profile from template 'import-server					
AA:BB	CC:DD:EF:0A	Assigned						
AA:BB	CC:DD:EF:0B	Assigned	Profile from template 'import-server					
🔺 AA:BB	CC:DD:EF:0B	Assigned						
AA:BB	CC:DD:EF:0C	Assigned	Profile from template 'import-server					
AA:BB	CC:DD:EF:0C	Assigned						
AA:BB	CC:DD:EF:0D	Assigned	Profile from template 'import-server					
AA:BB	CC:DD:EF:0D	Assigned						
AA:BB	CC:DD:EF:0E	Assigned	Profile from template 'import-server					
AA:BB	CC:DD:EF:0E	Assigned						
AA:BB	CC:DD:EF:0F	Assigned	Profile from template 'import-server					
AA:BB	CC:DD:EF:0F	Assigned						
AA:BB	CC:DD:EF:10	Assigned	Profile from template 'import-server					
AA:BB	CC:DD:EF:10	Assigned						
AA:BB	CC:DD:EF:11	Reserved	Profile from template 'import server					
AA:BB	CC:DD:EF:12	Reserved	Profile from template 'import-server					

Figure 17 Identity pool usage: Virtual identities that are in conflict are displayed with a "conflict" icon, the conflict can apply to virtual identities that were previously reserved also.

2.4 Easier Workflows to Manage OME-M Sleds

Using OME 3.3 and prior versions to manage several MX7000s involved arduous network management.

Fabric management and uplink configuration are functions of the chassis element manager, users go through the following sequence of operations in OME-M.

- 1. Create networks by specifying name, description, VLAN ID, or range / QoS.
- 2. Create fabric design definitions by choosing a pair of applicable IOMs.
- 3. Configure uplinks for the fabric by specifying uplink type, switch ports, and the networks to use for untagged or tagged networks.

If the user preferred to use OME for template deployment and network configuration of MX7000 sleds, then the user would need to replicate network configuration (as in Step 1) in OME. In OME 3.3 and prior releases, the user would need to create the network definitions one at a time, this is time consuming and not convenient when dealing with more than 10 networks.

In OME 3.4, users can import networks into OME simply by targeting an MX7000 chassis or by importing the networks from a file.

	OpenManage Enterprise			Search Everything
🕇 Ho	ome 🔳 Devices 🔗 Configurati	ion 🧹 🔰 Alerts 🗸 🖙 Monitor 🤇	Application Settings 🗸	
¢۲ (Fin	Configuration mware/Driver Compliance Templ	ates Profiles Auto Deploy	Configuration Compliance Identity Pools VLANs	
De	fine Delete Export -	Import -		
	NAME	Import from File	VLAN	D
	A1	Import VLANs from Chassis	1	*
	A2		2-3	
	B1		4	
	B2		5-6	
	N1	N 1	100	
	N2	N 2	110-1	15
	N3	N 3	116	
	N4	N 4	117-1	20
	VLAN1	VLAN1	10	
	VLAN2	VLAN2	20	
12 iter	m(s) found, 0 item(s) selected. Display	ing items 1 - 10.		Page 1 of 2 🏓 🕅

Figure 18 Easier OME-M workflows: The Import network definitions feature

OpenManage Enterprise			Search Everything	
🐂 Home 🔳 Devices 🔗 Configuration 🗸 🕐 Alerts 🗸 📼 Monitor	Import from File		0 ×	
ℜ Configuration	File	Networks.csv Select a file		
Firmware/Driver Compliance Templates Profiles Auto Deploy		S VLAN entries have been identified. View Details		
Define Delete Export + Import +			Finish Cancel	
NAME DESCRIPTION			VLAN ID	
🗎 A1			1	*.
A2			2-3	

Figure 19 Easier OME-M workflows: Importing network definitions from a file





OpenManage Enterprise		Search Everything
🕈 Home 🔳 Devices 🔗 Configuration 🗸 🗡 Alerts 🗸 🖂 Monitor	Job Target Select target devices for the job. Note only devices capable of the action are shown.	0 ×
ℜ Configuration		
Firmware/Driver Compliance Templates Profiles Auto Deploy	SYSTEM GROUPS All Devices All Selected Devices (0)	
	All Devices	
Define Delete Export - Import -	HCI Appliances	MODEL
NAME DESCRIPTION	Hypervisor Systems	PO
C A1	🕨 🚢 Modular Systems	
A2	Alter Strength And Strengt	
B1	Servers	
B2	Storage Devices	
🔲 N1 N 1	CUSTOM GROUPS Y	
N2 N2	Partie Course	
🖬 N3 N 3	Outer Course	
🔲 N4 N4	quely stoups.	
VLAN1 VLAN1		
VLAN2 VLAN2		-
		+
12 item(s) found, 0 item(s) selected. Displaying items 1 - 10.	1 item(s) found. Displaying items 1 - 1.	
	OK	Cancel

Figure 21 Easier OME-M workflows: Import VLANs from Chassis

An additional performance improvement include the ability to affect changes to VLAN assignment without server reboots. With OME 3.4, if changes to VLAN assignments to NIC ports in a template are made, the changes can be propagated to modular servers that the template had been previously deployed to without requiring a server reboot.

🗧 🔶 😋 🔺 Not secure							
OpenManage Enterprise						Search Everything Q	
The Devices Of Configuration -	/ Edit Network					0 ×	
© Configuration	IO Pool Assignment 🗸						
9 Comgaration	Bandwidth 🖌	NIC Teaming 🕕	No Team	ing		-	
Firmware/Driver Compliance Templates Pro	VI ANS V		1 NIC team	ning will only	/ be applied to systems that supp	port it.	
Create Template - Edit Clone		Propagate VI AN settings	immediately View	Details			
> T Advanced Filters	 Propagate VLAN settings immediately View Details Selecting this option will propagate any changes to VLAN settings to MX7000 sleds previously targeted by 						
R NAME DES		this template.					
A imp		Use strict checking					
✓ Temp123		OS are used for matching.	pt to match VLAN This option applie	s with like c s to MX slee	haracteristics. If disabled, only V Is only.	LAN name and	
IDRAC 13G Enable HPC Profile Tur		NIC Identifier	Port	Team	Untagged Network	Tagged Network	
iDRAC 13G Enable Low Latency Profile Tur		NIC in Mezzanine 1B	1		Select VLAN 👻	Select VLAN(s) +	
iDRAC 14G Enable Performance Profile fo Tur			2		Solast VI ANI	Solast VI AN(a)	
DRAC 14G Enable Power profile for Virtua Tur			2		Select VEAN	Select VLAN(S)	
iDRAC 14G Enable Power Profile for Datab. Tur		NIC in Mezzanine 1A	1		Select VLAN •	Select VLAN(s) ~	
iDRAC 14G Enable Performance Profile fo Tur			2		Select VLAN 👻	Select VLAN(s) -	
iDRAC 14G Enable Power Profile for Softw Tur							
10 item(s) found, 1 item(s) selected. Displaying items 1 -							
	Step 3 of 3					Previous Finish Cancel	

Figure 22 Easier OME-M workflows: VLAN assignment changes can be propagated to modular sleds in the NGM chassis, w/o a reboot of the sleds (Propagate checkbox).

The user can also specify if all parameters of VLANs should be matched (use strict checking) or simply best match (name and QoS only) should be used during propagation.

2.5 Troubleshooting issues

Symptom	What to check					
Not all devices in the device picker can be targeted for profile deployment.	 Check if another profile is already deployed to the target that cannot be selected. For example, if a profile P1 is assigned to a device D1, another profile P2 cannot be assigned to D1, without unassigning P1 from D1. Check task execution service logs. 					
Deployment cannot be configured successfully (no deployment job created).	 Check the application log for basic payload validation and task creation errors. 					
Deployment job is created but the deployment fails.	• Check the task execution service log for causes (specifically if there are attribute processing failures, connection errors, errors with identity assignment, and so on).					

Symptom	What to check			
	 If possible, the target device can also be checked for logs or job queue updates via the iDRAC UI. 			
Not all the VLANs are imported successfully.	• VLAN definitions that conflict with existing VLAN definitions in OME cannot be imported. The VLAN import job execution history provides details on the VLANs that were successfully imported or those that failed to import.			

A.1 Related resources

OpenManage Enterprise Version 3.4 and OpenManage Enterprise - Modular Edition Version 1.20.00 RESTful API Guide:: <u>https://topics-cdn.dell.com/pdf/dell-openmanage-enterprise_api-guide5_en-us.pdf</u>