



OpenManage Integration for VMware vCenter

Migration from older versions to the 2.0 version

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Revisions

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November 2013	Initial release

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Introduction

The OpenManage Integraton for VMware vCenter is designed to streamline the management processes in your data center environment by allowing you to use [VMware vCenter](#) to manage your entire infrastructure- both physical and virtual. From firmware updates to bare metal deployment, the OpenManage Integration will expand and enrich your data center management experience with Dell PowerEdge servers.

The OpenManage Integration for VMware vCenter 2.0 integrates into the new vSphere Web Client and the traditional vSphere Desktop client.

This document is focused on helping the existing users to migrate to the new OpenManage Integration for VMware vCenter application.



1 Migration Path

OpenManage Integration for VMware vCenter 2.0 is an OVF only release. There is not an RPM update path from prior versions to this version. The only supported method to migrate from an older version (1.6 or 1.7) to the 2.0 release is using the Backup and Restore functionality. The migration path is only supported from an existing appliance running version 1.6 and 1.7. If the appliance is at a lower version than 1.6, upgrade your appliance to the latest 1.7 version before performing the migration to OpenManage Integration for VMware vCenter 2.0.

1.1 Migration path from version 1.6/1.7

Use the following steps to perform the migration to the OpenManage Integration for VMware vCenter:

1. Backup the database on the 1.6/1.7 appliance.
2. Power off the 1.6/1.7 appliance
3. Deploy the new 2.0 OVF.
4. Power on the 2.0 appliance
5. Setup the network, time zone etc. on the new appliance
6. Restore the database to the new appliance.
7. Upload the new license file.
8. Verify the appliance.
9. Run Inventory for hosts on all the registered VCenters.
10. Check Compliance of all the managed hosts.

CAUTION: Do not unregister the Dell Integration for VMware vCenter from the VCenter. Unregistering the Dell Integration for VMware vCenter from the vCenter will remove all the Alarms registered by the integration, and remove all the customization performed on the alarms (i.e. actions, etc.) on the vCenter. Refer to the section “How to recover if I have unregistered the older plug-in after the backup” in this document if you have already unregistered the Dell Integration for VMware vCenter after the backup.



1.1.1 Backing up the database of a 1.6/1.7 appliance

Use the following steps to obtain a backup of the database on the old appliance:

1. Login to the Administrator Console
2. In the left pane, click Backup and Restore

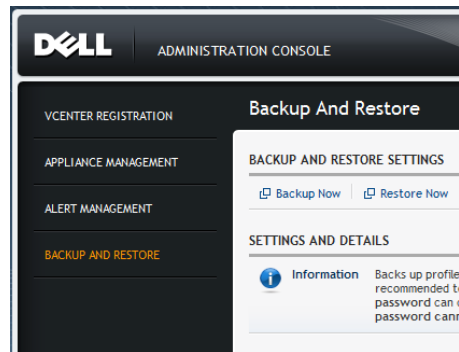


Figure 1 Administration Console, Backup and Restore Menu Item

3. Perform the backup.
 - (a) Click the Backup Now link.
 - (b) To use the location and encryption password from the Backup settings, select the checkbox.
 - (c) If you choose not to use the location previously saved in the backup settings, enter the backup location and the credentials to access the backup location.
 - (d) Enter the encryption password for the backup. The encryption password can contain alpha numeric characters and following special characters: !@#\$%*.
 - (e) Click backup.

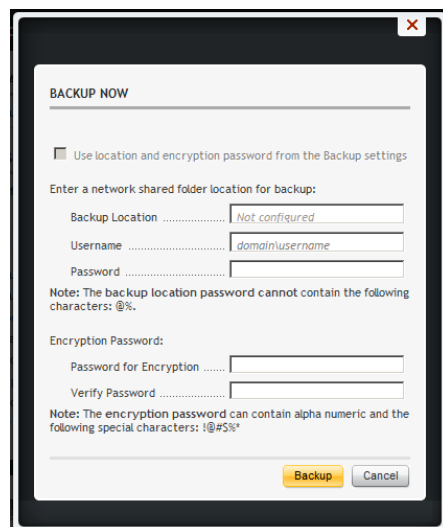


Figure 2 Administration Console, Backup Now dialog

1.1.2 Powering off the 1.6/1.7 appliance

Power off the older appliance from the ESXi Host or vCenter

1.1.3 Setting up initial settings on the new appliance:

Setup the credentials, network settings, time zone on the new appliance from the appliance virtual machine console.

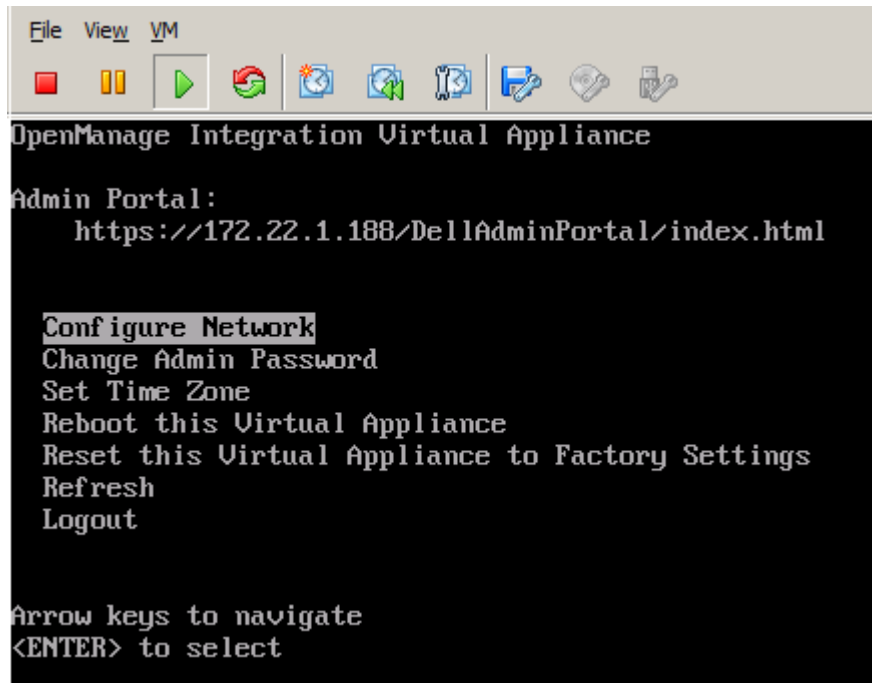


Figure 3 Appliance Virtual Machine Console Menu

NOTE: It is recommended that the new 2.0 appliance have the same IP address as the old appliance. This can be done using static IP addressing, If using DHCP, consider assigning the MAC address from the old appliance virtual machine to the new appliance virtual machine network adapter.

1.1.4 Restoring the database to the new appliance

NOTE: If the 2.0 appliance has DHCP, ensure it is not configured to use custom DNS settings. Any custom DNS settings for DHCP reset after appliance reboots, and will fail the migration process.

- Login to the Administrator Console
- In the left pane, click Backup and Restore
- To perform the restore, click Restore Now link
 - o Enter the file location location and the credentials to access the backup location.
 - o Enter the username, password and encryption password for the backup file.
 - o Click Apply.

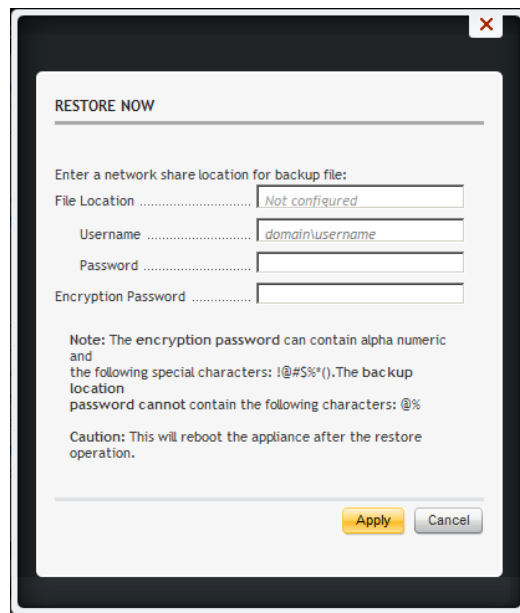


Figure 4 Administration Console, Restore Now dialog

NOTE: The virtual appliance will reboot after the apply button is clicked, and take about 3-5 minutes before the appliance is ready to be used.

1.1.5 Verifying the application installation

From vSphere Web Client

- Close any vSphere Client windows and open a new vSphere Web client.
- Confirm that the OpenManage Integration icon appears inside vSphere Web Client.
- Check that vCenter can communicate with the OpenManage Integration for VMware vCenter by attempting a ping command from the vCenter server to the virtual appliance IP address or hostname.
- In vSphere Web Client, click Plug-ins → Managed Plug-ins. In the Plug-in Manager window verify the OpenManage Integration for VMware vCenter is installed and enabled.



Figure 5 Web Console Plug-ins

From vSphere Desktop Client

- Confirm that the OpenManage Integration icon appears inside vSphere Client. If it does not, restart the vSphere Client and check again.
- Check that vCenter can communicate with the OpenManage Integration for VMware vCenter by attempting a ping command from the vCenter server to the virtual appliance IP address or hostname.
- In vSphere Client, click Plug-ins → Managed Plug-ins. In the Plug-in Manager window verify the OpenManage Integration for VMware vCenter is installed and enabled.

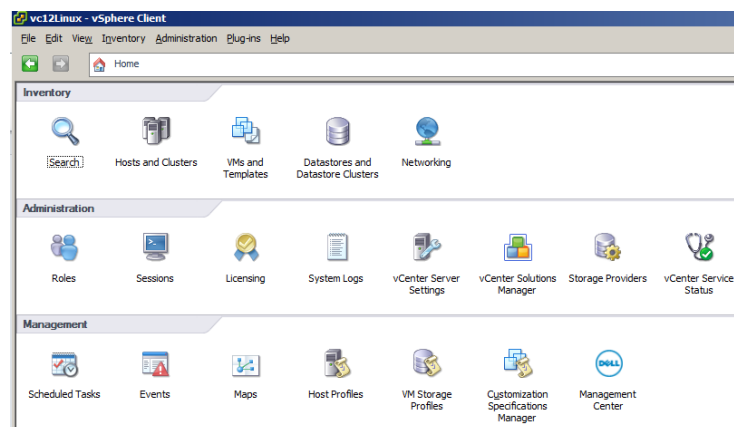


Figure 6 vSphere Desktop Client Plug-ins

1.1.6 Running Inventory for hosts on all the registered VCenters

It is recommended to run the inventory on all the hosts managed by the Dell Integration for VMware vCenter again after the upgrade. Inventory can be run from within the Management Center by clicking on the Job Queue menu item, then inventory History tab.

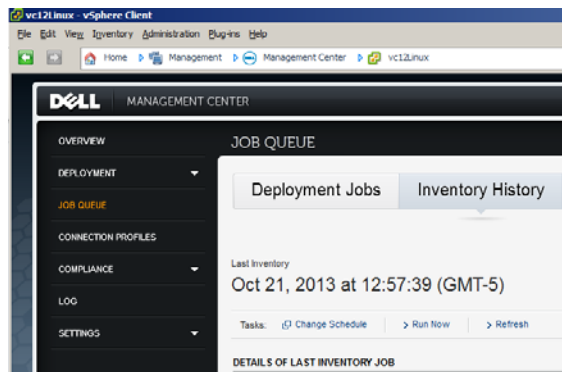


Figure 7 vSphere Desktop Client Management Center Job Queue Menu Item

NOTE: If the IP of the new 2.0 appliance has changed from that of the old appliance, the trap destination for the SNMP traps need to be configured to point to the new appliance. For 12G servers, this will be fixed by running the Inventory on these hosts. For all 11G or lower generation hosts that were earlier compliant, this IP change will show up as non-complaint and will require configuring OMSA.

1.1.7 Checking the compliance of all the managed hosts

Ensure that all host that were compliant before the migration are also compliant after the migration. With the 2.0 release, checking compliance can only be performed using the vSphere Desktop client. The hosts may show up as non-compliant if the appliance IP has changed. If any of the host show up in the non-complaint list, use the Fix Host Compliance option to make them compliant again.

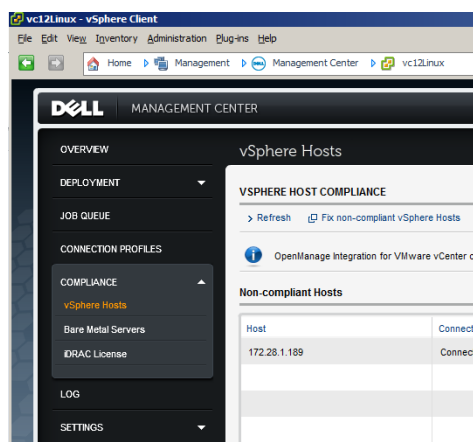


Figure 8 vSphere Desktop Client Management Center Compliance Menu Item

1.2 How to recover if I have unregistered the older plug-in after the backup

If the appliance was unregistered after taking a database backup of the older version, perform the following steps to before proceeding to the next steps in the migration

NOTE: Unregistering the appliance will remove all the customization that was done on the registered alarms by the Dell Integration for VMware vCenter. The steps below will not be able to restore the customization, however, it will re-register the alarms in the default state.

1. Perform steps 3-5 above.
2. Register the new Dell Integration for VMware vCenter to the same VCenters that you had registered earlier in the older appliance.
3. Proceed with step 6 thru 10 to complete the migration.



2 How to revert back to the older version if upgrade to 2,0 fails

If for some reason the upgrade to 2.0 fails and user wants to use the older version of the plugin, these are the steps to follow to get back to the old state.

1. Login to the Administrator Console.
2. In the left pane, click VCenter Registration

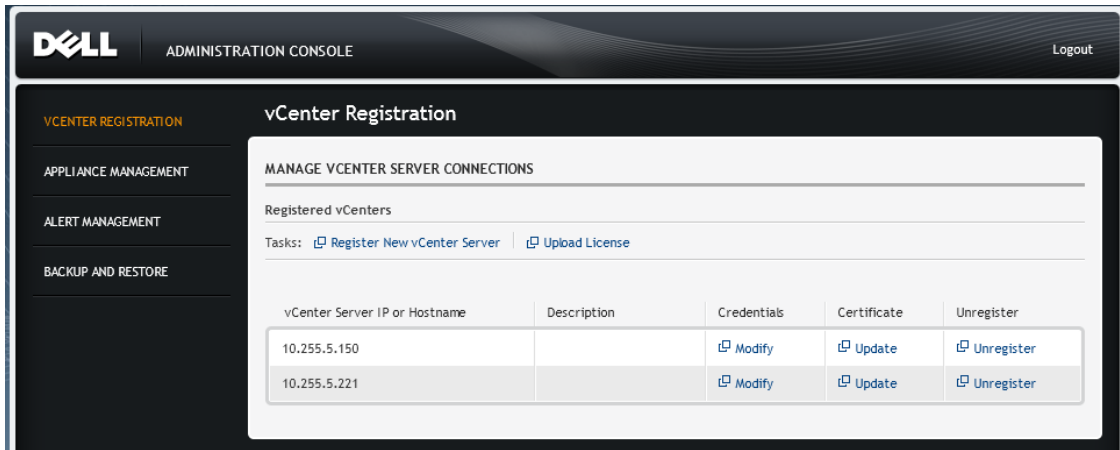


Figure 9 VCenter Registration Page in Administrator Console

3. For each of the VCenters listed under the Registered VCenters, select Unregister to unregister the plugin registration with the VCenter. Click Unregister button on the confirmation dialog box.

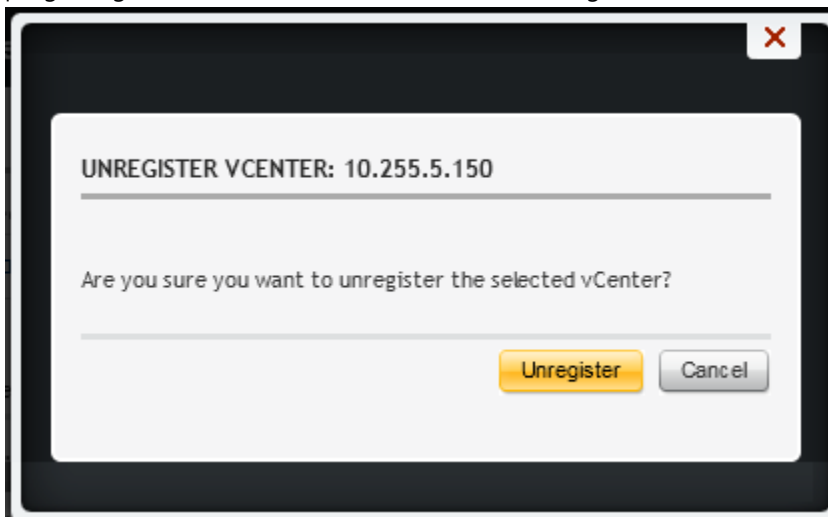


Figure 10 VCenter Registration Confirmation Dialog

4. Log Off from the Administrator Console.
5. Power Off the 2.0 appliance.
6. Ensure the Plugin entry is removed from the VCenter's MOB. Follow the step to ensure the entries are removed from VCenter MOB for each of the VCenters the plugin was registered.
 - a. Login to the MOB. The URL to login to the VCenter mob is <https://<VCenter IP>/mob>
 - b. Click content.

Home

Managed Object Type: ManagedObjectReference:ServiceInstance
 Managed Object ID: **ServiceInstance**

Properties

NAME	TYPE	VALUE
capability	Capability	capability
content	ServiceContent	content
serverClock	dateTime	"2013-09-03T20:20:32.204375Z"

Methods

RETURN TYPE	NAME
dateTime	CurrentTime
HostVMotionCompatibility[]	QueryVMotionCompatibility
ServiceContent	RetrieveServiceContent
ProductComponentInfo[]	RetrieveProductComponents
Event[]	ValidateMigration

Figure 11 VCenter MOB home page

- c. Click ExtensionManager

Home		
Data Object Type: ServiceContent Parent Managed Object ID: ServiceInstance Property Path: content		
Properties		
NAME	TYPE	VALUE
about	AboutInfo	about
accountManager	ManagedObjectReference:HostLocalAccountManager	Unset
alarmManager	ManagedObjectReference:AlarmManager	AlarmManager
authorizationManager	ManagedObjectReference:AuthorizationManager	AuthorizationManager
clusterProfileManager	ManagedObjectReference:ClusterProfileManager	ClusterProfileManager
complianceManager	ManagedObjectReference:ProfileComplianceManager	MoComplianceManager
customFieldsManager	ManagedObjectReference:CustomFieldsManager	CustomFieldsManager
customizationSpecManager	ManagedObjectReference:CustomizationSpecManager	CustomizationSpecManager
diagnosticManager	ManagedObjectReference:DiagnosticManager	DiagMgr
dvSwitchManager	ManagedObjectReference:DistributedVirtualSwitchManager	DVSManager
dynamicProperty	DynamicProperty[]	Unset
dynamicType	string	Unset
eventManager	ManagedObjectReference:EventManager	EventManager
extensionManager	ManagedObjectReference:ExtensionManager	ExtensionManager
fileManager	ManagedObjectReference:FileManager	FileManager
guestOperationsManager	ManagedObjectReference:GuestOperationsManager	questOperationsManager
hostProfileManager	ManagedObjectReference:HostProfileManager	HostProfileManager
ipPoolManager	ManagedObjectReference:IpPoolManager	IpPoolManager
licenseManager	ManagedObjectReference:LicenseManager	LicenseManager

Figure 12 VCenter mob context page

- d. Click UnregisterExtension to open a Unregister Dialog box.

[Home](#)

Managed Object Type: ManagedObjectReference:ExtensionManager
Managed Object ID: ExtensionManager

Properties

NAME	TYPE	VALUE
extensionList	Extension []	<ul style="list-style-type: none"> extensionList["cim-ui"] extensionList["com.vmware.vim.eam"] extensionList["com.vmware.vim.ls"] extensionList["com.vmware.vim.sms"] extensionList["com.vmware.vim.sps"] extensionList["com.vmware.vim.stats.report"] extensionList["com.vmware.vim.vsm"] extensionList["health-ui"] extensionList["hostdiag"] extensionList["VirtualCenter"] extensionList["com.vmware.vcIntegrity"] extensionList["com.vmware.vcops"] extensionList["com.dell.plugin.OpenManage_Integration_for_VMware_vCenter"] extensionList["com.dell.plugin.OpenManage_Integration_for_VMware_vCenter_WebClient"]

Methods

RETURN TYPE	NAME
Extension	FindExtension
string	GetPublicKey
ManagedObjectReference:ManagedEntity[]	QueryManagedBy
void	RegisterExtension
void	SetExtensionCertificate
void	SetPublicKey
void	UnregisterExtension
void	UpdateExtension

Figure 13 VCenter mob ExtensionManger page

- e. Enter com.dell.plugin.OpenManage_Integration_for_VMware_vCenter for the extensionKey and click Invoke Method.

Managed Object Type:
ManagedObjectReference:ExtensionManager
Managed Object ID: ExtensionManager
Method: UnregisterExtension

void UnregisterExtension

Parameters

NAME	TYPE	VALUE
extensionKey (required)	string	<input type="text" value="com.dell.plugin.OpenManage_Integration_for_VMware_vCenter"/>

[Invoke Method](#)

Figure 14 UnregisterExtension Dialog from VCenter mob

- f. Repeat the same for extensionKey
com.dell.plugin.OpenManage_Integration_for_VMware_vCenter_WebClient

- g. Repeat the same for the extensionKey com.dell.plugin.Dell Management Plug-in
7. Deploy the appliance for the older version. Power on the appliance.
8. Setup the credentials, network settings, time zone on the new appliance from the appliance virtual machine console.
9. Register the plugin to the all the VCenters as was registered before taking the backup. Repeat the steps for each of the VCenters registered earlier.
 - a. Log in to the Administrator Console
 - b. Click on VCenter Registration
 - c. Click on Register New vCenter Server

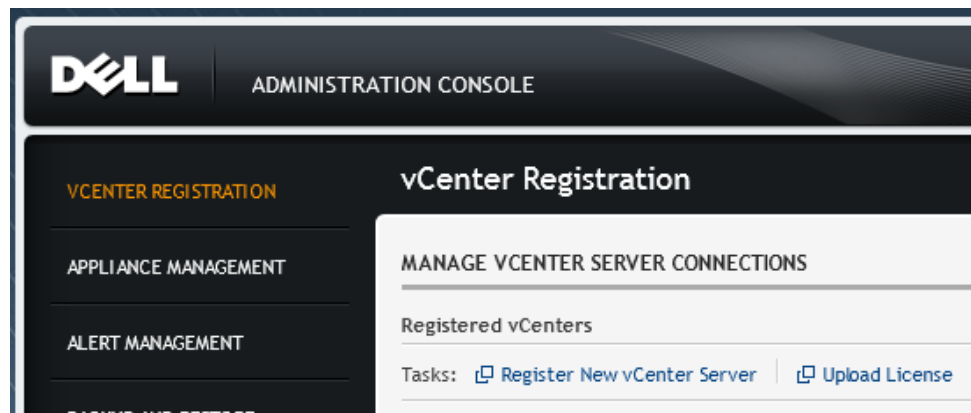


Figure 15 Administrator Console VCenter Registration Page

- d. Enter the IP address of the VCenter or the hostname of the VCenter, administrator username and password. Verify the password and click Register.

Figure 16 VCenter Registration Page from Administrator Console

10. Restore the database to the appliance.

- a) Login to the Administrator Console
- b) In the left pane, click Backup and Restore
- c) To perform the restore, click Restore Now link
 - o Enter the file location location and the credentials to access the backup location.
 - o Enter the username, password and encryption password for the backup file.
 - o Click Apply.

RESTORE NOW

Enter a network share location for backup file:

File Location

Username

Password

Encryption Password

Note: The encryption password can contain alpha numeric and the following special characters: !@#\$%^&*(). The backup location password cannot contain the following characters: @%

Caution: This will reboot the appliance after the restore operation.

Figure 17 Administration Console, Restore Now dialog

NOTE: The virtual appliance will reboot after the apply button is clicked, and take about 3-5 minutes before the appliance is ready to be used.

11. Verify the appliance installation.

- a. Confirm that the Dell Management Plugin icon appears inside vSphere Client. If it does not, restart the vSphere Client and check again.
- b. Check that vCenter can communicate with the Dell Management Plugin for VMware vCenter by attempting a ping command from the vCenter server to the virtual appliance IP address or hostname.
- c. In vSphere Client, click Plug-ins → Managed Plug-ins. In the Plug-in Manager window verify the Dell Management Plugin for VMware vCenter is installed and enabled.
- d. Verify that the Connection Profiles, Hypervisor Profiles, Hardware Profiles, etc. that were created in the old appliance before backup appear.

3 Conclusion

After successful completion of the migration process to 2.0 as described in this whitepaper, explore the features for managing Dell Servers in the new Web Client interface. A user can still deploy and fix any compliance issues using the vSphere Desktop client,

