Performing a migration of Dell Lifecycle Controller Integration data from Microsoft System Center Configuration Manager 2007 to System Center 2012 Configuration Manager

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Executive summary

Dell Lifecycle Controller Integration (DLCI) for Microsoft System Center Configuration Manager enables administrators to use the Configuration Manager console to leverage the remote enablement capabilities of Dell PowerEdge 11th and 12th generation servers’ integrated Dell Remote Access Controller (iDRAC) 6 and 7 with Lifecycle Controller (iDRAC).

Using DLCI, system administrators can automatically discover the Dell PowerEdge servers into Configuration Manager. DLCI enables end-to-end provisioning of PowerEdge servers which includes updating firmware, configuring hardware components like BIOS, RAID, NIC, and iDRAC, and remotely deploying the operating system using the embedded drivers from Lifecycle Controller.

This paper provides steps to migrate DLCI-specific information from Configuration Manager 2007 to System Center 2012 Configuration Manager.
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Introduction

Dell Lifecycle Controller Integration (DLCI) for Microsoft System Center Configuration Manager enables administrators to use the Configuration Manager console to leverage the remote enablement capabilities of the integrated Dell Remote Access Controller (iDRAC) with Lifecycle Controller.

This paper describes methods to migrate DLCI specific information using the Migration Utility and manual steps.

Pre-requisite and scenarios to perform migration of Dell Lifecycle Controller Integration data

Before performing the following steps, it is recommended to first run the migration job in Configuration Manager 2012

- DLCI v1.3 or DLCI v2.0.1 is installed and used on Configuration Manager 2007
- Install DLCI 2.0.1 on System Center 2012 Configuration Manager
- PowerShell v2.0 is available on site servers of Configuration Manager 2007 and 2012.

Options available for Migration

You can migrate DLCI specific information like Dell collections, Discovery Data Records, Share paths, Firmware Update Schedules, Hardware Configuration Profiles either by using the DLCI’s Migration Utility or by doing a set of manual steps on both the Site Servers (Configuration Manager 2007 and 2012).

DLCI Migration Utility

For information on the DLCI Migration Utility, refer the Dell Lifecycle Controller Integration for Configuration Manager Wiki page on Dell community techcenter site:

Manual steps to perform Migration

The following sections provide information on how you can migrate each type of data using manual steps.

Collections

Before doing the collection migration, ensure that the collection migration job has created the ‘All Dell Lifecycle Controller Servers’ folder under Root. This folder contains the collections such as:

- Managed Dell Lifecycle Controller Servers (OS Unknown)
- Managed Dell Lifecycle Controller Servers (OS Deployed)
- UnManaged Dell Lifecycle Controller Servers (OS Unknown)
- UnManaged Dell Lifecycle Controller Servers (OS Deployed)
- Dell Imported Servers

Move all the collections under the ‘All Dell Lifecycle Controller Servers’ folder to Root (Device Collections).

To Move the collections right-click on the collection and select the “Move” option and then select the Root folder as the destination.

Delete the ‘All Dell Lifecycle Controller Servers’ folder.

Modify the collection’s query rule and limiting collections as follows:

To modify the settings:

1. Right-click the required Dell Collection and select Properties.
2. On the “General” tab, click “Browse” to select the Limiting collection.
3. On the “Membership Rules” tab, select ‘Query statement’ and then edit and update the query as follows:

   a. All Dell Lifecycle Controller Servers

   Query rule: Select * from SMS_R_SYSTEM Inner join SMS_R_iDRAC ON (SMS_R_SYSTEM.SMBIOSGUID=SMS_R_iDRAC.SMBIOSGUID OR SMS_R_SYSTEM.NETBIOSNAME=SMS_R_iDRAC.NETBIOSNAME)

   Limiting collection: ‘All Systems’
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b. Dell Imported Servers

**Query rule:** Select * from SMS_R_SYSTEM Inner join SMS_R_iDRAC ON (SMS_R_SYSTEM.SMBIOSGUID=SMS_R_iDRAC.SMBIOSGUID OR SMS_R_SYSTEM.NETBIOSNAME=SMS_R_iDRAC.NETBIOSNAME) WHERE SMS_R_iDRAC.ProvisioningMethod= "Imported" AND SMS_R_iDRAC.Licensed= "Yes"

**Limiting collection:** ‘All Dell Lifecycle Controller Servers’

c. Managed Dell Lifecycle Controller Servers (OS Unknown)

**Query rule:** Select * from SMS_R_SYSTEM Inner join SMS_R_iDRAC ON (SMS_R_SYSTEM.SMBIOSGUID=SMS_R_iDRAC.SMBIOSGUID OR SMS_R_SYSTEM.NETBIOSNAME=SMS_R_iDRAC.NETBIOSNAME) WHERE SMS_R_SYSTEM.Client=0 AND SMS_R_iDRAC.Licensed= "Yes"

**Limiting collection:** ‘All Dell Lifecycle Controller Servers’

d. Managed Dell Lifecycle Controller Servers (OS Deployed)

**Query rule:** Select * from SMS_R_SYSTEM Inner join SMS_R_iDRAC ON (SMS_R_SYSTEM.SMBIOSGUID=SMS_R_iDRAC.SMBIOSGUID OR SMS_R_SYSTEM.NETBIOSNAME=SMS_R_iDRAC.NETBIOSNAME) WHERE SMS_R_SYSTEM.Client=1 AND SMS_R_iDRAC.Licensed= "Yes"

**Limiting collection:** ‘All Dell Lifecycle Controller Servers’

e. Un-managed Dell Lifecycle Controller Servers (OS Unknown)

**Query rule:** Select * from SMS_R_SYSTEM Inner join SMS_R_iDRAC ON (SMS_R_SYSTEM.SMBIOSGUID=SMS_R_iDRAC.SMBIOSGUID OR SMS_R_SYSTEM.NETBIOSNAME=SMS_R_iDRAC.NETBIOSNAME) WHERE SMS_R_SYSTEM.Client=0 AND SMS_R_iDRAC.Licensed= "No"

**Limiting collection:** ‘All Dell Lifecycle Controller Servers’

f. UnManaged Dell Lifecycle Controller Servers (OS Deployed)

**Query rule:** Select * from SMS_R_SYSTEM Inner join SMS_R_iDRAC ON (SMS_R_SYSTEM.SMBIOSGUID=SMS_R_iDRAC.SMBIOSGUID OR SMS_R_SYSTEM.NETBIOSNAME=SMS_R_iDRAC.NETBIOSNAME) WHERE SMS_R_SYSTEM.Client=1 AND SMS_R_iDRAC.Licensed= "No"
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Limiting collection: ‘All Dell Lifecycle Controller Servers’

Discovery Data Records

Discovery Data Records are used by Configuration Manager to store information on the discovered servers. If Dell servers are discovered using DLCI, then DLCI stores additional information about iDRAC.

**Note:** If migration is performed from Configuration Manager 2007 having DLCI v2.0.1 configured with the Dell Connections License Manager (DCLM) details, and Dell servers are present with valid license; then in Configuration Manager 2012, to ensure that all the servers are assigned a valid license after migration, configure the DCLM details as it was in Configuration Manager 2007.

DLCI 2.0.1 supports IP address based discovery using Import Dell Servers wizard. On the Configuration Manager 2012, run the Import Dell Servers Wizard by providing the IP address as explained in the following cases:

a. If the range of IP address of iDRAC is known, then use the Import Dell Servers wizard to import the servers by providing the IP address range as input.

b. If the IP addresses of iDRACs span across subnets and if the list of IP addresses are available in a file, then create a .csv file with comma separated list of IP addresses. Use the Import Dell Servers wizard to import the servers by providing the CSV file created above as input.

c. If you do not have the IP address list handy, then run the following PowerShell command to get a file containing a list of IP addresses. This command needs to be run in the Configuration Manager 2007 Site Server system.

```
PS> Get-WmiObject -namespace ‘root/sms/site_<sitecode>’ -query “select ipaddresses from sms_r_idrac” | Select-Object IPAddresses > temp.csv
```

Where `<sitecode>` is Configuration Manager 2007 site code.

```
PS> Get-content temp.csv | Select -Skip 3
```

Once the file with IP addressed is available, copy the file to the Configuration Manager 2012 Site Server. Use the Import Dell Servers wizard to import the servers by providing the CSV file created the preceding case as input.
Share paths

Migration of share paths cached by DLCI requires export and import of instances of following classes stored in WMI:

a. SMS_Dell_DLCI_Share_Information
   i. SMS_Dell_ImportExportServerProfile_BackupFile_Information
   ii. SMS_Dell_DLCI_LCLogs_Share_Information
   iii. SMS_Dell_DLCI_FTPDownload_Share_Information

Note: You can migrate share paths cached using the Config Utility by using the DLCI’s Migration Utility only.

WMI CIM Studio is required to migrate the preceding information. If you do not have CIM Studio, you can download it from Microsoft site.

1. Run CIM studio in the Configuration Manager 2007 site server.
2. Select the namespace as ‘root\sms\site_XYZ’ where XYZ is the site code of Configuration Manager 2007 site.
3. Search the WMI (click on search icon) and type ‘SMS_Dell’ and search. You will get a list of classes.
4. Double-click on SMS_Dell_DLCI_Share_Information.
5. Now in the left pane you will see the preceding 4 classes listed. Select all of them.
6. Double-click on MOF generator wizard on right-top corner.
7. Click Next.
8. For each class displayed, select all instances.
9. For all classes uncheck ‘Include class definition’ (as this is done using installation of DLCI).
10. Select next and choose the location to save the MOF file.
11. Copy the MOF file to Configuration Manager 2012 site server.
12. Edit the MOF file to correct the site code.
13. Edit the line #pragma namespace ("\\\\\\\\\ROOT\sms\site_XYZ") where XYZ is the Configuration Manager 2012 site code.
15. Double-click on the MOF compile wizard in the right-top corner.
17. Select the MOF file created and namespace to ‘root\sms\site_XYZ’ where XYZ is the Configuration Manager 2012 site code. Click Next.
18. Choose the options ‘Create new classes and change existing classes’ and
‘Create new instances and change existing instances’.
19. Click ‘Finish’ to import.

Firmware Update Schedule

If there are schedule created for Firmware Update operation, then the
schedule can only be migrated using the DLCI’s Migration Utility.

Hardware Configuration Profiles

If the hardware configuration profiles are created using DLCI and are stored
in the Configuration Manager 2007 site server, copy them to appropriate
location in the System Center 2012 Configuration Manager.

Dell Windows PE boot images

Dell Windows PE boot images created using Dell Server Deployment Pack
(DSDP) for Configuration Manager cannot be migrated. You have to import the
OpenManage Deployment ToolKit (DTK) and recreate the Dell Windows PE
images post migration in Configuration Manager 2012. Refer DSDP
documentation for more information on importing DTK and creating boot
images from the following link:

http://support.dell.com/support/edocs/software/smdp/2_0/index.htm

For migrating Drivers, Driver Packages, and Task sequences, refer Migrating
Hierarchies in System Center 2012 Configuration Manager on the Microsoft
site.

Limitations

After migrating from DLCI 2.0.1 on Configuration Manager 2007 to System
Center 2012 Configuration Manager, devices present in the collections such as
“Managed Dell Lifecycle Controller (RHEL 62)” or “Managed Dell Lifecycle
Controller (ESXi 5)” will not show-up in their respective collections in System
Center 2012 Configuration Manager.
Conclusion

Dell Lifecycle Controller Integration (DLCI) for Microsoft System Center Configuration Manager enables the administrators to use the Configuration Manager console to leverage the remote enablement capabilities of integrated Dell Remote Access Controller (iDRAC) with Lifecycle Controller.

This paper articulates a method to migrate DLCI information from System Center Configuration Manager 2007 to System Center 2012 Configuration Manager to enable use of DLCI 2.0.1 with System Center 2012 Configuration Manager.

Learn more

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