Configuring Microsoft® System Center Configuration Manager 2007 Inventory to utilize Dell™ OpenManage™ Client Instrumentation 8.0.1 for WakeOnLan Reporting

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Executive summary

Dell OpenManage Client Instrumentation (OMCI) is software that allows systems management application programs to access information about the client computer, monitor the status of the client computer, or change the state of the computer, such as enabling or disabling BIOS settings. OMCI provides the collected data to WMI, which is how Microsoft System Center Configuration Manager (ConfigMgr) retrieves the information.

The Common Information Model (CIM) schema that is utilized by OMCI is defined by a Managed Object Format (MOF) file, which provides a standardized model for describing management information between clients in a management system. A MOF file is not bound to a particular implementation, and it allows the interchange of management information between many different management systems and clients.

This white paper explains how an IT administrator utilizes the information provided by OMCI within ConfigMgr to provide enhanced reporting for managed Dell business client platforms regarding their WakeOnLan capabilities. This white paper assumes the reader is familiar with OMCI and ConfigMgr and their features and capabilities. This white paper is limited to Microsoft System Center Configuration Manager 2007 and is not meant to be applied to Microsoft System Center Configuration Manager 2012.

For more information on OMCI, refer to the OMCI white paper and reference guide available at: http://en.community.dell.com/techcenter/os-applications/w/wiki/using-omci-with-configmgr.aspx.

Sms_def.mof Configuration

The safest method for modifying MOF files are to open a new text file, copy the text from the MOF to be modified, and then perform the modifications. The modified settings should then be appended to the sms_def.mof file. This ensures that when a new MOF is provided by Dell, you can compare the contents with your copy, make necessary changes, save the new copy, and copy the modifications into the sms_def.mof file. Additionally, ConfigMgr will overwrite the sms_def.mof file on upgrades and service packs. Keeping a separate, local Dell MOF allows for easy replacement of the Dell information when ConfigMgr overwrites the sms_def.mof (typically located in the (Install Directory)\sms\inboxes\clifiles.src\hinv directory). For more information on extending hardware inventory using the sms_def.mof file, refer to the following website: http://technet.microsoft.com/en-us/library/bb633227.aspx.

Use the following steps to apply the sample MOF configuration provided in Appendix A to ConfigMgr and enable WakeOnLan BIOS reporting:

1. Copy and paste this MOF into a txt file (example: c:\temp\OMCI_SCCM.txt).

2. Modify the MOF to change any “FALSE” to “TRUE” (or vice versa) for the desired reporting within ConfigMgr. This step allows customization of reports to the level of detail required.

NOTE: In order for a property to be collected for reporting purposes, the value of “SMS_Report” for that property must be set to “TRUE”; additionally, the value of “SMS_Report” for the class that contains the property must also be set to “TRUE” (see the sample MOF below for examples).

3. Save any changes.

4. Append the contents of this text file (c:\temp\OMCI_SCCM.txt) to the end of the sms_def.mof file. This file is typically located in the (Install Directory)\sms\inboxes\clifiles.src\hinv directory.

Appendix A: sms_def.mof Configuration for WakeOnLan Reporting

```
[ SMS_Report(TRUE), SMS_Group_Name("DCIM BIOS Enumeration"),
SMS_Class_ID("DELL|BIOSENUMERATION|1.0"), SMS_Namespace(FALSE),
Namespace("\\\\\\\\.\\\\root\\\\dcim\\\\sysman") ]
class DCIM_BIOSEnumeration : SMS_Class_Template
{
[SMS_Report (FALSE)]    string    Caption;
[SMS_Report (FALSE)]    string    Description;
[SMS_Report (FALSE)]    string    ElementName;
[SMS_Report (TRUE), Key]        string    InstanceID;
[SMS_Report (TRUE)]     string    AttributeName;
[SMS_Report (TRUE)]     string    CurrentValue[];
[SMS_Report (TRUE)]     boolean IsReadOnly;
[SMS_Report (TRUE)]     string    PossibleValues[];
[SMS_Report (TRUE)]     string    PossibleValuesDescription[];
};
```

Appendix B: Sample Report for WoL Enabled

```
// ***************************************************************************
//                 Created by SMS Export object wizard
//                 Friday, December 02, 2011 created
//                 File Name: WakeOnLanReport.MOF
//
// Comments : This report is a modification of Sherri Kissinger's report found
//          http://myitforum.com/cs2/blogs/skissinger/archive/2008/09/27/dell-omci-smbiossettings-
hardware-inventory-extension.aspx and modified by Michael Shuman on 12/2/2011
// ***************************************************************************

// ***** Class : SMS_Report *****
[SecurityVerbs(140551)]
instance of SMS_Report
{
        Category = "Custom Reports";
        Comment = "Report modified from
http://myitforum.com/cs2/blogs/skissinger/archive/2008/09/27/dell-omci-smbiossettings-hardware-
inventory-extension.aspx by Michael Shuman 0n 12/2/2011";
        GraphCaption = "";
        GraphXCol = 1;
        GraphYCol = 2;
        MachineDetail = FALSE;
        MachineSource = FALSE;
        Name = "Wake On Lan Report";
        NumPrompts = 0;
        RefreshInterval = 0;
        ReportGUID = "{E015C662-DD79-4FE4-A599-0F8A8B0C3B67}";

        SecurityKey = "";
```

```
        SQLQuery = "select
\nNetbios_Name0, Operating_System_Name_and0, DBIOS.AttributeName0,
\nCase when DBIOS.CurrentValue0 = 1 then 'Disabled'
\nwhen DBIOS.CurrentValue0 = 4 then 'LAN'
\nwhen DBIOS.CurrentValue0 = 6 then 'LAN or WLAN'
\nwhen DBIOS.CurrentValue0 = 7 then 'WLAN Only'
\nEND as 'WakeuponLAN'
\nfrom v_R_System SYS
\nInner Join v_GS_DCIM_BIOS_Enumeration0 DBIOS on SYS.ResourceID=DBIOS.ResourceID
\nwhere DBIOS.AttributeName0 = 'Wake On Lan'";
        StatusMessageDetailSource = FALSE;
        UnicodeData = FALSE;
        XColLabel = "";
        YColLabel = "";
};
// ***** End *****
```

References

Lai, Benjamin and Martell, Nathan. 2008. Integrating Dell™ OpenManage™ Client Instrumentation with Microsoft® System Center Configuration Manager. Retrieved from http://media.community.dell.com/en/dtc/attach/omci_sccm_whitepaper.pdf