

#####

## Dell(TM) Lifecycle Controller

Version 1.3

Release Date: December 2009

#####

In order to provide new and robust server management capabilities, the Unified Server Configurator/Unified Server Configurator - Lifecycle Controller Enabled (USC/USC-LCE) software product has been enhanced to include additional remote services functionality. Since this addition allows for a comprehensive approach to server management, the entire set of software components is now called Lifecycle Controller (LC).

The LC software components are built upon the integrated Dell Remote Access Controller 6 (iDRAC6) Express card and the Unified Extensible Firmware Infrastructure (UEFI) system firmware. The iDRAC6 works together with the UEFI firmware to access and manage every aspect of the hardware, including component and subsystem management that is beyond the traditional BMC (Baseboard Management Controller) capabilities.

Remote server management is accomplished using the network for programmatic web services, while command line (CLI) and graphical user interfaces (GUI) are provided by the iDRAC6 card in an operating system-and system-power-state independent manner. The UEFI environment provides the local console interface, and the infrastructure for locally and remotely managing system components.

The remote services functionality enables consoles, such as the Dell Management Console (DMC) and partner consoles, to access LC features in a pre-operating system environment. USC/USC-LCE provides an embedded solution on the local server to assist with provisioning in a pre-operating system environment

The Dell Unified Server Configurator (USC) is an embedded configuration utility that enables systems and storage management tasks from an embedded environment throughout the server's lifecycle.

Residing on an embedded flash memory card, the USC is similar to a BIOS utility in that it can be started during the boot sequence and can function independently of the operating system.

Using the USC you can quickly identify, download, and apply system updates without needing to search the Dell support site (support.dell.com). The field replacement and recovery feature allows you to restore embedded tools and utilities in the event of data corruption or hardware failure. You can also configure BIOS and system firmware (such as NIC, power supply, and iDRAC), deploy an operating system, and run diagnostics to validate the system and attached hardware.

#####  
CONTENTS  
#####

- \* Criticality
- \* Compatibility/Minimum Requirements
- \* Installation
- \* Known Issues

#####  
CRITICALITY  
#####

2 = Recommended

#####  
COMPATIBILITY/MINIMUM REQUIREMENTS  
#####

Supported Microsoft(R) Windows(R), Red Hat(R) Enterprise Linux(R), and SUSE(R) Linux Enterprise Server operating systems. See the "Dell System Software Support Matrix" on the Dell Support site for details.

#####  
INSTALLATION  
#####

To start the USC, press the <F10> key within 10 seconds of the Dell logo being displayed during the system boot process.

NOTE: If you power on or restart the system while iDRAC is initializing, the message System Services Disabled will display during the system boot process. This occurs if you power on the system immediately after AC is applied to the server, or if you restart the system immediately after resetting the iDRAC. To avoid this issue, wait about a minute to restart the server. This will allow enough time for the iDRAC to complete initialization.

The first time you boot the system, the USC starts with the User Settings wizard displayed so that you can configure your preferred language and network settings. See "Unified Server Configurator User's Guide" for more information.

#####  
KNOWN ISSUES  
#####

After you apply newer firmware on H200i storage controller, there will be a delay of 2 to 3 minutes.

The drivers exposed by USC will be present in a read-only device labeled OEMDRV, and the device will be active for 18 hours. In a

Microsoft(r) Windows(r) environment, the drivers will be automatically installed and no further action is required. In a Linux environment, the drivers are not automatically installed and you have to install the drivers manually after the OS installation has been completed.

In Windows 2003 (32 bit, SBS, and 64 bit), in addition to the device labeled OEMDRV, a floppy drive labeled FLOPPY will also be exposed that contains drivers and will remain active for 18 hours.

USC supplies necessary Windows 2003 Server drivers via a temporary, internal USB device that may initially be assigned the drive letter C: during Windows 2003 Server Setup. Before proceeding, please refer to the USC User Guide or the Microsoft support article KB896536 for appropriate installation steps to ensure that your operating system is properly installed to drive letter C:.

You will be prompted during the beginning of Red Hat(r) Enterprise Linux(r) (RHEL)5.x installation that a "Read-only filesystem was detected." RHEL has detected the temporary storage area of the USC that stores updates for your system. When prompted, make sure to click the "OK" button. The following warning will indicate a "loop partition layout" was detected that needs formatting. Make sure to click the "Ignore drive" button. These two warning messages may be displayed several times during the course of RHEL 5.x installation.

If the boot mode is set to UEFI in BIOS (F2 setup) and if you launch System Services (F10) and Deploy OS, the installation might fail or you may not be able to boot to the OS after the installation. Always ensure boot mode is set to BIOS in F2 setup before launching USC and deploying the OS.

You may see a no optical device found error if you have a bad DVD/CD in the optical drive. This error does not mean that there are no optical devices on the system. If you remove the bad media, then this error will go away.

For RHEL and SUSE(r) operating systems, you need to install kernel source before installing the drivers present in OEMDRV.

For RAID Configuration and Platform Updates, PERC 6.1 Firmware or above is required.

For RAID Configuration, PERC 6.1 Firmware or above is required.

To maintain compatibility with other iDRAC configuration tools, it is recommended that only digits (0-9), alphanumeric (a-z, A-Z) and hyphen (-) characters be used when entering a "Name" or "Password" string. When entering a "Domain Name", such as 'x123.com', a period (.) character is also permissible.

When attempting a Platform Update via an FTP server, specifying a valid proxy server but selecting an invalid proxy type will cause USC to halt for a long period (possibly over 30 minutes) before it returns to normal operation.

USC does not support the update or rollback options of PERC5/E Adapter for External Storage or SAS5iR Adapter for tape.

If a floppy drive is attached to the system when the USC is used to deploy a Windows 2003 Server operating system, error popup messages will be displayed, and many required device drivers such as NIC, video, and chipset drivers will not be installed, but the storage device drivers will be installed. Do not attach floppy devices before using the USC to deploy a Windows 2003 Server operating system.

If you see this error message "Unable to find a boot device on which to install the operating system. Verify boot disk availability." and if you have a USB key plugged in to the system after booting to USC, please remove the USB key before deploying the operating system.

**IMPORTANT:** If you are updating iDRAC firmware using a tool other than USC, do not run USC during the firmware update because doing so will result in unknown behavior. After the firmware is successfully updated, you can safely use USC.

**IMPORTANT:** If you are updating iDRAC firmware, do not run USC during the firmware update because doing so will result in unknown behavior. After the firmware is successfully updated, you can safely use USC.

**Note:** If the iDRAC firmware update is interrupted for any reason, you may be required to wait for up to 30 minutes before you can attempt another firmware update.

**Note:** When configuring the FTP server for your repository in the platform update, you may get a message that indicates that a network connection exists with your FTP server; however, it may mean that the validation process needs some extra time depending on your network setting. Click OK on the message box, and try one more time to connect to the FTP server.

**Note:** Account access can be disabled only if there is more than one user enabled on the iDRAC. To enable users, access the iDRAC Web-based GUI. Navigate to the Users section under the Network/Security tab and enable users as needed. Note that at least one more user needs to be enabled in order to disable the account access in the USC.

**Note:** In the iDRAC Configuration Wizard, the DNS Domain Name may contain a maximum of 64 ASCII characters. (282986)

**Note:** When attempting a Platform Rollback, there may be a two minute delay before Rollback tasks are displayed on the screen. (287021)

**Note:** "When using Hardware Configuration Advanced Configuration, if you click on any NIC or BIOS devices and then leave the page and come back, you may experience delays of up to 18 seconds on all the pages. (286799)

**Note:** In the iDRAC Configuration Wizard, there is not a selection for auto-attached on the Virtual Media Config page. (287428)

Note: Intel NIC cards are not supported through Platform Update in USC.

Note: If custom server credential are used for auto-discovery. Auto discovery completion may be delayed for several hours if a new server certificate is loaded on the provisioning server immediately prior to initiating auto-discovery. This is due to timezone not being set on the iDRAC during initial power up.

#####

Information in this document is subject to change without notice.  
(C) 2009 Dell Inc. All rights reserved.

Reproduction of these materials in any manner whatsoever without the written permission of Dell Inc. is strictly forbidden.

Trademarks used in this text: "Dell," "PowerEdge," "PowerVault," and "Dell OpenManage" are trademarks of Dell Inc.; "Windows Server," "Microsoft," and "Windows" are registered trademarks of Microsoft Corporation; "Intel" is a registered trademark of Intel Corporation; Red Hat and Red Hat Enterprise Linux are registered trademarks of Red Hat, Inc; SUSE is a registered trademark of Novell, Inc. in the United States and other countries.

Other trademarks and trade names may be used in this document to refer to either the entities claiming the marks and names or their products. Dell Inc. disclaims any proprietary interest in trademarks and trade names other than its own.

December 2009