##

DELL(TM) SYSTEMS BUILD AND UPDATE UTILITY 1.1 README

##

Version: 1.1
Release Date: March 2009

Description:

This Readme provides information about Dell Systems Build and Update Utility.

You can use Dell Systems Build and Update Utility to perform the following operations on your system:

* install operating system

* view hardware details

* perform firmware update

* create a custom repository

* generate hardware configuration scripts
* Create a bootable image for system of cholice
For the latest version of this Readme, see the Dell Support website at "support.dell.com."

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TABLE OF CONTENTS
##

This file contains the following sections:

##
CRITICALITY
##

3 = Optional

Dell recommends that you review specifics about the update to
determine if it applies to your system. The update contains changes
that impact only certain configurations, or provides new features
that may or may not apply to your environment.

##
MINIMUM REQUIREMENTS
##

This section provides information about the supported systems,
operating systems, and system requirements for Systems Build and
Update Utility.

==
SUPPORTED SYSTEMS
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* The following Dell systems are supported on the "Dell
  Systems Build and Update Utility" version 6.0.1:

  PowerEdge R610, PowerEdge T610, PowerEdge R710, PowerEdge M610,
  PowerEdge M710.

==
SUPPORTED OPERATING SYSTEMS
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The following operating systems are supported:

* Microsoft Windows Server 2003 SP2 x86 Edition - Web, Standard, Enterprise
* Microsoft Windows Server 2003 SP2 x86_64 Edition - Standard, Enterprise
* Microsoft Windows Server 2003 SP2 R2 x86 Edition - Standard, Enterprise
* Microsoft Windows Server 2003 SP2 R2 x86_64 Edition - Standard, Enterprise,
  Datacenter
* Microsoft Windows Server 2003 SBS SP2 R2 x86 Edition-Standard, Premium
* Microsoft Windows Server 2008 x86 Edition - Web, Standard, Enterprise
* Microsoft Windows Server 2008 x86_64 Edition - Web, Standard, Enterprise,
  Datacenter
* Microsoft Windows Server 2008 SBS x64 Edition-Standard, Premium
* Microsoft Windows Server 2008 EBS x64 Edition-Standard, Premium
* Red Hat Enterprise Linux version 4 Update 7 for x86
* Red Hat Enterprise Linux version 4 Update 7 for x86_64
* Red Hat Enterprise Linux version 5 Update 2 for x86
* Red Hat Enterprise Linux version 5 Update 2 for x86_64
* Novell(R) SUSE Linux Enterprise Server (SLES) version 10 (SP2) x86_64
* VMware ESX 3.5 Update 4

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SYSTEM REQUIREMENTS
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You should have a Dell system with:

* Minimum memory of 512 MB

* DVD drive

NOTE: Hard drive requirements vary by operating system

##
RELEASE HIGHLIGHTS
##

* Added support for PowerEdge systems R710, R610, T610, M710, M610
* Added support for VMware ESX 3.5 Update 4
* Added support for Red Hat Enterprise Linux version 4 Update 7 for x86
* Added support for Red Hat Enterprise Linux version 4 Update 7 for x86_64

* Added functionality for following:
* New UI for OS installation
* Advanced options provided in Firmware Update.
* Customized ISO creation
* Creating bootable image for servers of choice, using the "Systems Selection" feature.
* Importing module configuration saved from an earlier session.
* Saving module configuration made during current session.

##
INSTALLATION
##

1. Insert the "Dell Systems Management Tools and Documentation" DVD into your system drive and reboot your system. If the system is supported by the DVD, the "Boot Menu" screen displays. The "Boot Menu" screen contains the following options to boot your system:

   * "Dell Systems Build and Update Utility"
   * "Optical Media (CD/DVD) Check"
   * "Skip Optical Media (CD/DVD) Boot - Boot to Hard Drive"
   * "DTK Command Line Interface (Linux)"

2. When you select the "Dell Systems Build and Update Utility" option, the "Home" page for "Dell Systems Build and Update Utility" displays. From the "Home" page, you can access the Systems Build and Update Utility modules:

   * Server Operating System Installation
   * Firmware Update
   * Update Utility Creation
   * Hardware Configuration
   * View Hardware

   "Dell Systems Build and Update Utility" can also be used to create a bootable image, or export configurations for, any of the supported systems. Click "System(s) Selection" to change the system(s) of choice. The current systems is

selected by default.

3. Each of the above modules can be configured independently,
   and all the configurations can then be applied in one go.
   Alternatively,the Server OS Installation can be done by itself
   in one flow.
   To configure any of the above modules, click "Configure"
   against the module name. Follow the instructions to complete
   the configuration. Context-sensitive help is provided on each
   page.
4. To apply all configurations, click "Apply/Export Configuration".
   Follow the instructions to apply the configurations, and
   select "Continue".

5. Insert the operating system CD/DVD media if installing from
   CD/DVD, when asked by the system.

6. The system reboots and the unattended operating system
   installation continues.

7. When the installation is complete, your system is ready for use.

##
USER NOTES
##

This section provides information to help enhance your experience
with Systems Build and Update Utility.

==
GENERAL NOTES
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* The following languages are supported by Systems Build and
  Update Utility:

  * English
  * French
  * German
  * Spanish
  * Simplified Chinese
  * Japanese

* See the "readme.txt" under the folder
  "/server_assistant/driver_tool" for all details on the driver
  extracting utility.

* For operating systems such as ESX, the native Graphical User
  Installation tool provided by the operating system installation
  media is used. Setting date and time zone in the Systems Build
  and Update Utility setup screen does not apply to ESX.

* If the Systems Build and Update Utility GUI disappears and a
  blank screen is displayed, restart your system. This issue

occurs if you right-click to open a new browser window (from the "Quick Reference Guide" window) and select "Quit" from the "File" menu.

* In order to use the RAID configuration feature of Systems Build and Update Utility to configure RAID and install the operating system, the "Fast Initialization" parameter of the RAID controller must be set to "ON." This setting is the factory default of all RAID controllers.

* Do not insert or remove any hot-swappable drives until the operating system is completely installed while using the "Systems Build and Update Utility". The results may be unpredictable and the installation may fail.

* Replication is supported on systems with multiple controllers, provided the controllers are in an initialized state. This is applicable to both master and target systems.

* If you configure RAID manually and use Systems Build and Update Utility to install an operating system on a master system, then you need to manually configure RAID on the target system as well.

* Use local accounts for creating the SMB share on Windows on which the RPMs will reside for the network download feature.

* Systems Build and Update Utility does not support the installation of tape or Fibre Channel drivers with the operating system installation. You can download the drivers for these devices from the Dell Systems Service and Diagnostics Tools on the "Dell Systems Management Tools and Documentation" DVD or from the Dell Support website at "support.dell.com."

* The "Keyboard Type" locale option offered for a keyboard layout on the Systems Build and Update Utility home page is for the Systems Build And Update Utility screens navigation only. The selected keyboard layout setting is not passed to the installed Operating System.

  Even after you select any language other than English under "Select Language" and "Keyboard Type" on the "Home" page, the input language will be English. That is, the text you enter in the text fields in the GUI will appear in English.

* Do not use the Dell Remote Access Controller (DRAC) virtual media to run "Firmware Update" on the system. This procedure breaks the virtual media connection, causing the firmware update procedure to fail.

* USB keys formatted with NT File System (NTFS) or file allocation table (FAT16) are not supported.

* Any network or Windows share or CD/DVD that you use an input to the Repository must not contain any extra file or folder that is not part of the Server Update Utility (SUU) content.

* When you select the "No Change" option for Trusted Platform
  Module (TPM) Activation, under Boot sequence and security tab,
  the TPM activation token will not be saved to the ".ini" file.

* "Digitally sign communications" enabled Windows share on a
   system running on Windows cannot be accessed. To access the
   share, disable this feature on the Windows system.

* When you insert multiple USB keys into your system, Systems
  Build and Update Utility uses the last inserted USB key
  which has a repository that is applicable to the platform
  to which your system belongs and is compatible with the
  Systems Build and Update Utility repository.

* When user selects date in Date time page during "Server OS Installation"
  and moves furthur, the new values will be stored in server but not
  reflected in UI when he clicks back. This is because SBUU shows current time.

* OS Installation: Windows Server 2008 (32 and 64 bit), VMware apply options
  screen will not have OS ISO loation specified as these installation require
  OS ISO at runtime when OS is getting installed. SBUU will boot to hard disk
  and then ask for OS ISO DVD and then user has to supply it. These
  installations do not work on network. They are for stand alone servers.

* When the User selects options from the Hardware Config screen which are
  not supported on the current system under deployment, the apply operation
  may fail during execution and the option will not be applied on the system.

* When the User selects to use Operating System ISO's from network location
  and during copy operation, if the network is disconnected for a while and
  then reconnected, in case of NFS shares, it will resume the copy operation
  but, in case of SMB/Windows share, it will not resume the copy operation.
  Disconnection on a SMB/Windows share will result in an error and user has
  to reboot and re-run the operation.

* The values configured in the multi-sys-config.csv file will be applied
  only during execution. Only those options are applied that are shown
  during configuration time.
  However, options that are not shown during configuration, but are part of
  multi-sys-config.csv file will be ignored.
  Note: If there is any overlap in the settings between Configuration GUI
  and multi-sys-config.csv file, then settings in multi-sys-config.csv
  file will override those made in the GUI.

* The installation times for different versions of the Windows Server 2008
  operating system will vary considerably. This is because of the differences
  in the software and drivers utilized in different versions of the Windows
  Server 2008 operating systems and the capabilities of the installation platform.
  On the "Installing Windows" screen, the "Completing installation" step,
  where the drivers are installed, may take considerable time to complete.

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USER NOTES FOR WINDOWS OPERATING SYSTEMS
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* During Windows installation, the system will automatically log on to finish the post-installation tasks and will then automatically log out. It is recommended that you do not perform any task until the system has automatically logged out. Installation might end abnormally if the installation process is interrupted.

* If you enable "Console Redirection":

  * a dialog box displays that an Expanded Memory Support (EMS) connection has been discovered during the operating system installation.
  * and you enter the organization name and computer name, an error message displays that "unattend.txt" is incomplete and and prompts you to enter the username. Enter the username to continue with the unattended setup operation.

* In the Advanced "Enter OS Information" screen, enter all IP addresses for the "Trap Destination" field separated by commas. Do not enter trailing commas, or the installation will stop when the Windows Setup program runs.

* If you install Windows Server 2003 Web Edition using Dell Systems Build and Update Utility Internet Information Server (IIS) is installed by default. You should choose NT File System (NTFS) to ensure all of IIS components install correctly.

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USER NOTES FOR RED HAT ENTERPRISE LINUX OPERATING SYSTEMS
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* At least 14.1 GB disk space is required to install Red Hat Enterprise Linux.

* If you use the "Download RPMs from Network" feature, the RPMs are downloaded to the partition called "/home." The recommended size for this partition is 3 GB plus the size of the RPMs you want to update. All downloaded RPMs are installed during the post install phase of the Red Hat Enterprise Linux installer.

* Entering a double quote character (") in the "Root Password" field of the Red Hat Enterprise Linux installation will result in denial of access to the root "log in."

* Systems Build and Update Utility limits the maximum block device size on a Linux system to 8 TB.

* A network download of RPMs requires that the target system have a DHCP IP address and that the system is connected to a network.

* While configuring the hard drive on a system to install a Red Hat Enterprise Linux operating system, if the hard drive space on your

system is used completely and the range specified in the GUI against the "swap" partition is the same (for example [1024 -1024] MB), the scroll bar remains to the left side.

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USER NOTES ON PREPARING LINUX OS INSTALLATION MEDIA
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Systems Build and Update Utility performs a media check on the Linux operating system media that is provided during installation. This is so that you do not copy damaged media that will cause your operating system installation to fail. This is a default action performed by SBUU, and you cannot disable it.

It has been observed that certain CD burning software fail to prepare media to pass the media check.

Dell recommends that you use the optical media obtained from the operating system vendor to install Red Hat Enterprise Linux or SUSE Linux operating systems using Systems Build and Update Utility.

If it is necessary to burn the media using CD burning software, ensure that you:

* Obtain the ISO image file of the media from known sources.

* Try burning the media at slower speeds

* Use the "Disk at Once" or a similar option.

* Close the session.

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USER NOTES FOR VMware ESX
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* ESX 3.0.2 Update 1 or later versions support following systems and devices:

  - Intel Xeon E5400/L5400/X5400, and E7300/L7300/X7300 processor families

  - Dell PERC 6 and SAS 6 family SAS controllers

  - SATA Optical Drives

  For details on the hardware support and ESX build number, see "www.dell.com/vmware" on the Dell Support website at "support.dell.com." Also, see the "Dell OpenManage Server Administrator Compatibility Guide" and the "Dell Systems Software Support Matrix."

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KNOWN ISSUES
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The following subsections list the known issues with this release of
Systems Build and Update Utility.

* On Dell PowerEdge R610, T610, R710, M610, M710 systems with
  internal USB, BIOS setting configuration for internal USB Port is
  possible only if User Accessible/external (UA) USB ports are set to
  "All Ports On". If UA USB ports are not set to "All Ports On"
  and user tries to configure BIOS setting for internal USB Port
  using Server Administrator GUI or CLI, the configuration will appear
  to be successful but the changes will not take effect on next reboot. If
  UA USB ports settings are changed from "All Ports On" to
  "All Ports Off" or "Only Back Ports On", the USB will
  be automatically set to "Off" during the next reboot.

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KNOWN ISSUES ACROSS ALL OPERATING SYSTEMS
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* Systems Build and Update Utility does not support RAID configuration
  on any system with a SAS 5/iR or SAS 6/iR controller connected to
  one hard drive.
  To install Systems Build and Update Utility on a system with the
  SAS 5/iR or SAS 6/iR controller, ensure atleast two hard drives are connected.
* Systems Build and Update Utility does not support RAID
  Configuration on any system with a SATA 2s controller connected to
  one hard drive. To install Systems Build and Update Utility on a
  system with the SATA 2S controller, set the hard drive
  configuration to "Native Mode" in the BIOS setup or configure RAID
  using the "Ctrl+A" option.

* If a USB flash device is connected to the system, Systems Build and
  Update Utility may fail to install the operating system. To resolve
  the issue, perform one of the following actions:

  - Remove the USB flash device.

  - In the BIOS setup, under "Boot Order," move the "USB Device"
    selection to the end of the list.

* The "View Hardware" feature in Systems Build and Update Utility
  does not provide information on devices that are connected to
  the chassis. The current listing of devices is not complete and
  does not include devices such as Fibre Channel cards and Dell
  Remote Access Controller 5 (DRAC 5).

* Use of localized special characters might cause the Systems Build
  and Update Utility GUI to freeze intermittently.

* If there are multiple SAS or RAID controllers on the system,

Systems Build and Update Utility will always use the controller
listed first in the BIOS boot order list. If you want to use a
particular controller for the operating system, you must go to
the BIOS setup (F2 on boot) and set up the given controller as the
first boot device.

* Systems Build and Update Utility does not support the configuration
of partitions or the installation of operating systems on systems
with PERC 2/SC, PERC 2/DC, or PERC 2/QC controllers or any
type of Fibre Channel storage adapter.

* It is not recommended to start the server setup
program if any virtual disks are in a failed or degraded state.
Use the RAID controller's firmware utility (<Ctrl><A> or <Ctrl><M>
or <Ctrl><R> or <Ctrl><C> during boot) to reset the RAID controller's state.
If an array disk is removed, the firmware utility may indicate
the configuration has changed. Accepting these changes on the
command line may not be enough; enter the firmware utility
and reset the controller.

* The Server Setup program might fail if it runs when scrubbing is
active on a RAID virtual disk.

* Systems Build and Update Utility does not identify the boot device
when PERC (4DC/3DC) is in cluster mode and the adapter's BIOS is
disabled. This will put Systems Build and Update Utility in an
infinite "Write Disk signature" and reboot loop. Use Systems
Build and Update Utility to install the operating system
on PERC in a non-cluster mode.

* Systems Build and Update Utility cannot detect the correct
slot number of PCI slots containing Adaptec RAID controllers.
The message "Unknown Slot Number" is displayed.

* On systems with low memory (less than 256 MB) and more than one
RAID controller, Systems Build and Update Utility may fail during
RAID configuration. Install the additional adapters after the
operating system has been installed on the first adapter.

* When using the Custom install script feature, commands which do not
return cause the system to stop responding during booting of Red
Hat Enterprise Linux or while registering components on Windows
installations.

* On SAS 5/iR, 6/iR controller cards, disks that appear in "Foreign" state
will not be available for OS installation in non-RAID mode.
If you wish to use any disk that is in "Foreign"
state for OS installation, clear the physical disks using
"Erase All Physical Disks" feature under System Tools section.
If all disks are in "Foreign" state, Systems Build and Update
Utilitymay fail to install OS on the controller in non-RAID mode.

* On system with SAS 5/iR and/or SAS 6/iR controller cards connected to more
than 2 disks, Systems Build and Update Utility supports only

Advanced RAID Configuration. In Advanced mode, it is mandatory that user select disk with lowest drive ID for RAID configuration.

* When you use Systems Build and Update Utility with a keyboard-video-monitor (KVM) switch, the GUI may not display due to incompatibility with the Server Interface PODs (SIPs) used. To view the GUI, connect your monitor directly to your system or change the SIP.

* The "View Hardware" option in Systems Build and Update Utility lists the L2 cache size as 4 MB for 5300-series processors running on Red Hat Enterprise Linux version 4 operating system; however, the "BIOS SETUP" option lists the L2 cache size as 8 MB.

  This is because Linux "reads" a 5300-series processor in terms of per-logical-CPU-thread. Hence, each logical thread (each set) would still have access to only 4 MB cache, and so it is reported as such by the "View Hardware" option.

  The "BIOS SETUP" option "reads" the 5300-series processor as a two-set package, each with a 4 MB L2 cache. In each set, the two cores share the 4 MB cache. Hence, this option reports a total L2 cache size of 8 MB.

  Therefore, the different L2 cache sizes listed are due to different cache size reporting mechanisms, and not an error by the operating system.

* To ensure the successful installation of an Operating System using Server OS Installation, disable the DRAC Virtual Flash.

* When you are using the Server Operating System Installation module in Systems Build and Update Utility to install an operating system, the installation may fail if an external storage device is connected to your system. Ensure that you disconnect the external storage device before you begin installing the operating system.

* The Edit option shown on the SBUU homepage after Hardware Configuration section is configured, will allow the user only to view all the created Virtual Disks and user is allowed to add or remove Virtual Disks. User will not be allowed to edit the settings of already configured Virtual Disk.

* When an external storage enclosure is connected to the storage controller, RAID can be configured on that controller using SBUU. But, SBUU will not support installing an Operating System on the Virtual Disk which is created on the controller connecting to an external storage enclosure.

* iDRAC users created through SBUU do not get enabled. To enable these users, user will have to goto DRAC (DRAC5 or iDRAC) GUI and set the user priviledge level to desired level (Administrator, Operator etc).

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KNOWN ISSUES FOR LINUX OPERATING SYSTEMS

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When you are using the "Dell Systems Management Tools and Documentation" DVD through DRAC, Systems Build and Update Utility may not eject the

DVD before asking you to insert the operating system media. This displays the error message, "Invalid media inserted."

To correct this, unmount the DVD from DRAC; then insert the correct operating system media and mount the drive again.

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KNOWN ISSUES FOR RED HAT ENTERPRISE LINUX OPERATING SYSTEMS
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* When using the "Dell PowerEdge Installation and Server Management" CD/DVD media for new RAID configurations, installation of the Red Hat Enterprise Linux operating system may fail if both the USB CD and USB floppy are connected. To avoid the installation failure, remove the USB floppy connection before rebooting the system with the CD/DVD for the installation process.

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KNOWN ISSUES FOR NOVELL SLES10 OPERATING SYSTEMS
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* The Novell SLES 10 operating system installation may fail on systems equipped with multiple RAID and/or SAS controllers, whether installed on the system board or in PCI slots. This failure may occur when using Server Setup or performing a manual installation. When two or more RAID or SAS controllers are present, install Novell SLES 10 with only one configured RAID or SAS controller. Configure the other controllers after you install the Novell SLES 10 operating system.

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