In enterprise IT environments, periodic hardware updates are generally necessary for effective systems management and operation. The IT administrators are responsible for tracking available updates for their systems, and then determining which to deploy and when to do so. In making these decisions, they must identify the relevant updates, evaluate the severity of the issues those updates address or the value of the new features they provide, and schedule the updates they choose to deploy.

Often, the information needed to make these complex decisions is not available from one source. Administrators must devise their own system for tracking and collating the necessary information and for retaining these notes for the next time they consider upgrading their servers. For these reasons, the change management process of defining and deploying baseline configurations can be a tedious and error-prone task.

Updates for Dell PowerEdge servers are typically delivered in Dell Update Packages (DUPs), which include self-contained installation packages for server BIOSs, firmware, drivers, and systems management applications and agents. Although over a thousand DUPs are available on the Dell FTP site, however, only a small subset of these files are likely to be relevant to a specific IT environment.

For environments with Dell servers, administrators can take advantage of the Dell Repository Manager tool to search through the DUPs, create a custom update repository, and then prepare these updates for deployment through existing deployment mechanisms. By doing so, they can dramatically cut down on the time needed to identify, organize, and prepare updates during their server maintenance cycles—helping to simplify and streamline these tasks and lower ongoing administrative costs.

**Comprehensive Dell Update Management**

Dell Repository Manager consists of a stand-alone graphical interface that administrators can use during the planning phase of their change management processes to help quickly acquire and organize DUPs available for their Dell PowerEdge servers. Administrators can use the tool to define custom baseline configurations for use across the Dell servers in the environment, in addition to downloading and managing updates within the IT infrastructure. They can then organize these DUPs into bundles of related updates (see Figure 1).

For each repository, Dell Repository Manager creates an XML file called a catalog, which specifies the contents of that repository. Administrators can
compare two catalogs against each other to help easily identify and reconcile differences between specific repositories, such as a custom local repository and Dell’s latest DUP repository. The tool also supports multiple export formats to help ensure compatibility with existing infrastructures (see Figure 2).

Key Dell Repository Manager features include local baseline repositories, custom baseline configurations, repository comparison reports, preboot Linux® ISO images, raw Microsoft® Windows® driver packs, lightweight deployment scripts, and customized Dell OpenManage™ Server Update Utilities (SUUs).

**Local baseline repositories.** Dell Repository Manager can be configured to create a local repository, which administrators can then synchronize with the catalog available at the Dell FTP site to receive the most recent updates. This local repository can in turn work as a collection of baselines for updating Dell servers within the network.

**Custom baseline configurations.** It is common practice to identify a collection of drivers, firmware, and other essential software for server configuration before provisioning a system. Dell Repository Manager supports this need through bundles—administrator-specified collections of deployable update packages. After administrators have identified the updates for a specific configured server on the network, they can save this baseline collection in the catalog as a bundle. When operating systems and platforms are associated with a bundle, Dell Repository Manager helps ensure that administrators do not inadvertently include updates that are not compatible with the specified configuration, which makes keeping a repository up-to-date easier and less error-prone than it would be otherwise. Effective use of these custom baseline configurations helps significantly simplify periodic system updates in keeping with internal enterprise schedules.

**Repository comparison reports.** After administrators have created a custom repository, they may want to update its contents to include updates released by Dell. Dell Repository Manager can automate this process by producing an HTML document specifying the differences between the custom repository and the official Dell repository. The tool can also selectively modify the custom repository to include new updates that administrators want to deploy.

**Preboot Linux ISO images.** When preparing for OS installation, administrators typically customize the hardware

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**Figure 1.** Viewing bundles for a specific system in Dell Repository Manager

**Figure 2.** Exporting selected update bundles in Dell Repository Manager
configuration during server provisioning based on specific organizational requirements. During server provisioning, ensuring that hardware components are updated is a critical step, because some applications may require specific BIOS, firmware, driver, or application versions during installation. By updating the server components during this pre-OS phase, administrators can avoid spending time and effort later on checking for and applying server component updates.

Dell Repository Manager can create a CD image of a bootable Linux ISO image containing the Dell OpenManage Deployment Toolkit (DTK) and the system updates specified in the custom catalog. The DTK then provides an optimum, OS-independent runtime environment for DUP extraction. After the ISO image is booted on the targeted systems, the DTK runs a custom startup script that allows administrators to apply the system updates relevant to those servers.

**Lightweight deployment scripts.** Dell Repository Manager can generate lightweight deployment scripts to update hardware components in both Windows and Linux post-OS deployment environments. For a given bundle in the repository, administrators can create a simplified deployment solution to apply those updates to appropriate servers after the OS has booted.

**Customized Dell OpenManage SUUs.** The Dell OpenManage SUU contains the latest DUPs to use when applying updates to servers in Windows or Linux post-OS environments. Administrators can use the SUU to view available updates for a given system and then selectively apply those updates as needed. Dell Repository Manager can not only create a SUU release of a given repository, but can also edit the repository of DUPs that accompanies a SUU release to contain only the updates that apply to relevant servers, facilitating the generation of customized SUUs of greatly reduced storage size.

**STREAMLINED ADMINISTRATION FOR DELL SERVERS**

By providing a central location for planning DUP deployment, Dell Repository Manager is designed to significantly simplify the process of managing updates for Dell PowerEdge servers. Administrators can use this tool to easily search the Dell catalog of update files, store the relevant updates, and create and modify collections of updates for later deployment. The variety of supported export formats helps increase flexibility whether administrators deploy updates through an existing deployment infrastructure or directly to a server using lightweight deployment scripts. By helping reduce the time administrators must spend identifying, organizing, and preparing appropriate configurations for Dell servers, Dell Repository Manager can free up their time for other important tasks while helping reduce total cost of ownership.

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Dell Repository Manager: DELL.COM/OpenManage/DellRepositoryManager