PowerEdge Product Group

Direct from Development

# BEST PRACTICES FOR PERFORMING FIRMWARE UPDATES ON PowerEdge SERVERS


**SUMMARY**

Know how to develop a server update plan To protect your server investment, it is important to create a plan that ensures all your server and associated components are at the most current level.

Make performing server updates a simple task

Dell provides tools for everything you need to perform server updates, from planning to deployment.


Servers may require updates for many reasons, such as addressing security issues, performance, enabling new functionality, adding support for new operating systems as well as fixing defects.

Keeping your servers and the devices inside of them at the most current level will assist in getting the most out of your investment.

There are three important components of a good updates plan:

- Establish and Maintain a Baseline
- Notification of new updates
- Deployment of updates

In this paper we will touch upon all three components that encompass best practices around performing server updates.

## Baseline Development and Management

It is a best practice to establish a common set of device levels (both Drivers and Firmware) for the systems in your data center; this is referred to as a baseline.

**Dell EMC Advantage:** Dell EMC Repository Manager (DRM) is designed to assist in the creation and maintenance of a baseline of BIOS, Firmware and Driver levels. DRM assists in identifying the updates that are relevant to the systems in your environment.

With DRM you can either manually select the updates to include in your baseline or use the integration with Dell EMC tools such as OpenManage Essential, iDRAC/LC, OMIVV, CMC and DLCI for SCVMM to automate the creation of a baseline. DRM will also assist with identifying updates that are newer than what is currently installed or in your baseline.

The advantages of using baselines and applying the baseline to all systems in your data center is that you know what levels the systems in your data center are at. When a new update is identified, only that new update needs to be deployed to the systems in your data center.

## Update Notification

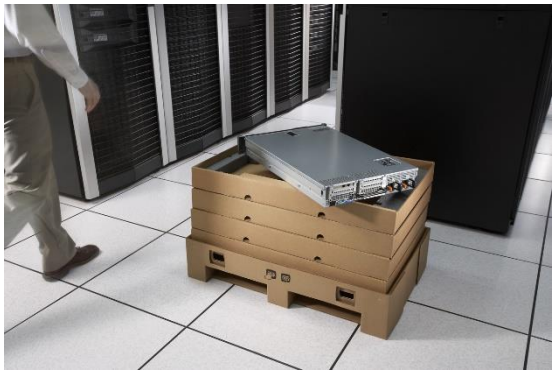
As part of a Baseline strategy for maintaining your systems, it is important to know when a new update is available.

**Dell EMC Advantage**: Using Dell EMC Repository Manager's Scheduled Search for New updates feature will assist in identifying new updates as they become available.

When an update is identified an email notification will be sent and the new update will be added to the baseline that you have used DRM to create and maintain. This eliminates the need to check Dell's drivers and Downloads page online for new updates.

## Deployment

Deploying the updates to the physical systems in your Data Center is the most critical part of an update plan. When deciding to deploy updates, it is important to determine the best time to minimize the impact of server downtime.



**Advantage:** Dell EMC provides the tools to deploy updates in a manner that best suits your needs. We realize that one size does not fit all situations.

**1:Many:** We recommends using Dell EMC OpenManage Essentials.

Dell EMC also provides a variety of options for deploying updates**:** Dell EMC understands that one size does not fit all situations. That is why the same baseline content that is created can be packaged into a number of different formats. Even though you may have chosen to do the majority of your updates via OME, there may be instances where you need to do certain systems another way. Or you have decided that OME is not the right tool for your environment, so we make it easy to create deployment tools that are right.

**Dell System Update (DSU):**
Excellent choice for customers who have decided to automate deployments using CLI.

Bootable ISO: When all else fails Bootable ISO is an excellent option. A Bootable ISO can be created using either DRM or DSU.

**Dell EMC Server Update Utility (SUU):**
The time tested tool for doing 1:1 updates. Advantage is that in one package is the update engine, catalog of updates and all the update files.

**iDRAC Auto-Config**: Out of Band updates. Regardless of what the host operating system is, iDRAC/LC update feature can deploy firmware updates.
Our goal at Dell is to provide easy to use tools that integrate together, allowing for easy development and implementation of a good update strategy.