




# Dell System Update Version 1.3 User's Guide



# Notes, cautions, and warnings

-  **NOTE:** A NOTE indicates important information that helps you make better use of your product.
-  **CAUTION:** A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.
-  **WARNING:** A WARNING indicates a potential for property damage, personal injury, or death.

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# Overview

Dell System Update (DSU) is an improved version of Dell OpenManage Linux Repository (DLR) to distribute Dell updates for Linux systems. The DSU distributes:

- OpenManage Server Administrator
- BIOS and firmware updates for different servers

DSU extensively uses Yum and Zypper.

- **Yellowdog Updater, Modified (Yum)**

Yum is an open source command line package management utility used for Linux operating systems. Yum primarily helps to do automatic updates, package and dependency management, mainly for RedHat Package Manager (RPM) based distributions.

Yum has a command line interface and it is implemented in the Python programming language. Yum is mostly used to update and manage Red Hat Enterprise Linux systems. Yum has a great informational output and syntax.

- **Zypper**


Zypper is used for installing, removing, updating, and querying software packages of local and remote networked media. It has been extensively used for the openSUSE operating systems. It is a package management engine that powers Linux applications like Yet another Setup Tool (YaST). Zypper can download several update packages, and install them at once. Zypper is one of the fastest and powerful package manager for the Linux environment.

## What is new in this release

This release of **Dell System Update** (DSU) supports the following new features:

- New feature options added to configure and display are:

- `--input-inventory-file=<FILE>`
- `--output-inventory-xml=<FILE>`

 **NOTE: The option `dsu --collect-inventory=<FILE>` has been replaced with `dsu --input-inventory-file=<FILE>` from this release of DSU.**

For more information, see [Updating the system using DSU](#)

## Transitioning from DLR to DSU

Currently, customers can get all the updates for their systems through DLR. However, DSU provides a better customer experience for getting the latest updates for their systems.

**Table 1. Design differences between DSU and DLR**

Dell Linux Repository (Current)	Dell System Update (New)
Helps in Identifying components using individual inventory controller	It has a Collector-based inventory system
Uses reverse mapping for devices using PCI or component information	Supports XML to inventory result comparison, and used for more accurate and faster update identifications

<b>Dell Linux Repository (Current)</b>	<b>Dell System Update (New)</b>
Use multiple commands for different operations	Use single command for different operations
Selected installation of updates is not possible	Selected installation of updates are possible
Cluttered console view	Better customer experience with specific readable information on the console
No option to revert to the earlier version	Reverting to earlier version of the update is possible, if repository have earlier version
Packages are based on Open Build System	Packages are based on Dell Update Packages (DUPs)
Updates could be pre-promoted	Promoted packages are available in DSU repository

## Other documents you might need

In addition to this guide, you can access the following guides available at [dell.com/support/manuals](http://dell.com/support/manuals).

- *Dell Systems Management - OpenManage Software Support Matrix*
- *Dell OpenManage Server Administrator Installation Guide\**
- *Dell OpenManage Server Administrator User's Guide\**

\* This guide is also found on the Dell Systems Management Tools and Documentation DVD.



# Prerequisites for installing the Dell System Update

This section lists the specific prerequisites for installing the DSU.

## Supported hardware and operating system

This section describes the list of supported hardware and operating systems.

### Supported hardware

For more information on supported hardware, see [linux.dell.com/repo/hardware/omsa.html#Supported\\_Hardware](http://linux.dell.com/repo/hardware/omsa.html#Supported_Hardware).

### Supported operating system

For more information on supported operation system, see [linux.dell.com/repo/hardware/omsa.html#Supported\\_Operating\\_Systems](http://linux.dell.com/repo/hardware/omsa.html#Supported_Operating_Systems).

Community distros like Fedora and openSUSE are not tested with this repository. Since most of the kernel drivers in this repository are in Dynamic Kernel Module Support (DKMS) format, community distros may work.

# Installing OpenManage Server Administrator

You can install OpenManage Server Administrator using one of the following commands:

- yum  
`yum install srvadmin-all`
- zypper  
`zypper install srvadmin-all`

- **NOTE:** OMSA does not support installation on unsupported systems. If you receive a message like 'the system is not supported' while installing, it means the system is not supported and the installation fails. This is most common on SC-class systems, as OMSA is completely unsupported on these systems.
- **NOTE:** To use a 64-bit package on a 32-bit Dell package installed (`srvadmin-dell_ie`) on the system, uninstall the 32-bit packages and install the 64-bit package. New installations help installing the architecture of OMSA that matches your operating system.


# Updating the system using Dell System Update

For a list of CLI options for systems running DSU, a description of each option, and the command syntax see the following table:

**Table 2. CLI Options: Usage**

Option	Task Description	Command Syntax
Configuring the system using DSU	To configure the DSU repository.	<pre>wget -q -O - http:// linux.dell.com/repo/ hardware/dsu/bootstrap.cgi   bash</pre>
Installing DSU	To install the new client DSU to update the system.	<ul style="list-style-type: none"> <li>Red Hat Enterprise Linux: <code>yum install dell-system-update</code></li> <li>SuSE Linux: <code>zypper install dell-system-update</code></li> </ul>
Executing DSU	To get the applicable Updates.	<code>dsu</code>
Viewing System Inventory using DSU	To see the System Inventory.	<code>dsu --inventory</code> <b>or</b> <code>dsu -i</code>
Getting supported Category values using DSU	To get all the supported category values.	<code>dsu --get-categories</code> <b>or</b> <code>dsu -g</code>
Getting all components of the specified categories using DSU	To get all the upgradable components of the specified categories.	<code>dsu --category=</code> <code>&lt;CATEGORY1, CATEGORY2, ...&gt;</code> <b>or</b> <code>dsu -c</code>
Run Non-Interactive Updates using DSU	To run the Non-Interactive updates.	<code>dsu --non-interactive</code> <b>or</b> <code>dsu -n</code>
Getting the Upgradable updates only	To get the list of only upgradable components.	<code>dsu --apply-upgrades-only</code> <b>or</b> <code>dsu -u</code>
Getting the Downgradable updates only	To get the list of only downgradable components.	<code>dsu --apply-downgrades-only</code> <b>or</b> <code>dsu -d</code>
Includes the Equivalent updates	To get the list including equivalent components.	<code>dsu --apply-equivalent-updates</code> <b>or</b> <code>dsu -e</code>
Applying the updates specified in the file list	To apply the updates specified in the file list, if available in configured repository.	<code>dsu --update-</code> <code>list=&lt;FILENAME1, FILENAME2, ...&gt;</code> <b>or</b> <code>dsu -l</code>
Using DSU Help	To access the DSU Help.	<code>dsu --help</code> <b>or</b> <code>dsu -h</code>
Getting the DSU utility version	To get the DSU utility version.	<code>dsu --version</code> <b>or</b> <code>dsu -v</code>
Configuration file for DSU	Configuration the file path for DSU.	<code>dsu --config=&lt;FILE&gt;</code>
Configures the type of repository	To configure the source type of repository. The supported type is <PDK>.	<code>dsu --source-type=&lt;TYPE&gt;</code>



Option	Task Description	Command Syntax
Configures the path of the repository	To configure the path of repository. When the source type is PDK, location of the repository is mandatory.	<code>dsu --source=&lt;PATH&gt;</code>
Packages the updates into a bootable ISO or a directory	<p><code>--destination-type=&lt;ISO   CBD&gt;</code></p> <p>When the type is <code>--destination-type=ISO</code></p> <p>DSU runs in the interactive mode and the selected updates are delivered as a bootable ISO, upon boot the components are updated.</p> <p>When ISO if used along with <code>--non-interactive</code></p> <p>Bootable ISO is created, upon boot, runs DSU in noninteractive mode. The repository location should be configured using <code>--config=&lt;FILE&gt;</code></p> <p>When the type is <code>--destination-type=CBD</code>(where CBD is: Custom Bootable DSU) — DSU runs in the interactive mode, provides the selected updates along with deployment script.</p>	<code>dsu --destination-type=&lt;TYPE&gt;</code>
Path where the package is created	To provide the path of the package created using the <code>--destination-type</code> and to be saved.	<code>dsu --destination-location=&lt;DIR&gt;</code>
Path of the file where the bootable ISO output is logged	To provide the path, of the log file in the target machine when the bootable ISO option is used.	<code>dsu --bootable-log-location=&lt;FILE&gt;</code>
Path of the inventory collector binary file	To provide the path, of the inventory collector binary file in the target machine.	<code>dsu --ic-location=&lt;FILE&gt;</code>
Displays a preview of the applicable updates	Displays a preview of the updated system inventory post commit.	<code>dsu --preview</code>
Path of the file providing the inventory	To provide the path of the inventory file.	<code>dsu --input-inventory-file=&lt;FILE&gt;</code>
		<p> <b>NOTE: The option <code>dsu --collect-inventory=&lt;FILE&gt;</code> has been replaced from this release of DSU.</b></p>
Destination path to save the inventory file	To provide the destination filepath to save the inventory file in XML format.	<code>dsu --output-inventory-xml=&lt;FILE&gt;</code>

## DSU Outputs and Options

Following are the DSU outputs and options:



[ ] represents components which are not selected

[\*] represents components which are selected

[-] represents component already at repository version (cannot be selected)

Choose: q to Quit without update

Choose: c to Commit and apply updates

Choose: <number> to Select/Deselect updates

Choose: a to Select All

Choose: n to Select None

# Sample Commands

The following are some of the sample options with DSU:

## Sample Config file

To point to a repository hosted at <http://192.168.10.11/16.08.00/>, the config XML file is:

```
<DSUConfig>
<Repository Type="YUM">
<RepoLocation IP="192.168.10.11" Directory="16.08.00"/>
</Repository>
</DSUConfig>
```

## Command to create bootable non-interactive DSU ISO

```
dsu --non-interactive --destination-type=ISO --destination-location=/root/home/output.iso --
config=/root/home/config.xml
```

## Command to create bootable interactive DSU ISO

```
dsu --destination-type=ISO --destination-location=/root/home/output.iso
```

## Selected updates to with using existing bootable ISO

```
dsu --destination-type=CBD --destination-location=/root/home/outdirectory --bootable-log-
location=/var/log/bootmsg.log
```

## DSU to use with custom offline repository created with Dell Repository Manager

```
dsu --source-type=PDK --source=/mnt/DRM_REPO/
```



# Troubleshooting Dell System Update

## The repository setup is fine, however OMSA (srvadmin) is failing to install

Even though DSU does not block OMSA installation or upgrade on any server, OMSA is supported only for certain Linux distributions and PowerEdge server models. For more details on supported OS and server, check the latest OMSA documentation. DSU supports upgrade of OMSA (srvadmin), where an OMSA version is already installed in the system. A fresh installation of OMSA can be performed directly with YUM commands from same DSU repository as mentioned in “Installing OpenManage Server Administrator using DSU” section.

### Yum-based systems:

In some circumstances, yum caches incorrect repository metadata. Run `yum clean all` to remove old metadata, and retry. Up2date can also cache incorrect metadata at times. To remove old metadata, run `rm -f /var/spool/up2date/*`. You should be able to safely remove all the files under `/var/spool/up2date/` at any time and up2date automatically downloads what it needs.

If you still have problems, please report to the [linux-poweredge@dell.com](mailto:linux-poweredge@dell.com) mailing list. Ensure to include the following information:

- Subject line should mention the repository you are having problems with
- Linux Distribution, arch, version, and patchlevel: eg. RHEL 6 x86\_64 Update 9
- Dell system model and system id
- Error output from any commands

## The repository setup is fine, OMSA (srvadmin) installed but won't start or you can't get to it

Have you started the services? Use the `srvadmin-services.sh` script to start them:

```
# srvadmin-services.sh start
```

If you get a message like:

```
Starting ipmi driver: [FAILED]
```

Then you need to make sure that the `openipmi` service is enabled and started:

```
# chkconfig openipmi on
```

For detailed information about OMSA trouble shooting, please check OpenManage Server Administration Manuals.

## Repository conflicts for updates having different version

DSU will point to incorrect updates if multiple repositories are configured which contains different versions of similar packages.

It is advised to disable other repositories in such cases.

## Frequently asked questions

This section lists some frequently asked questions about Dell System Update.

### How many commands do I need to execute to update my system?

There are 3 commands. You should execute them in the order. For more information see [Updating the system using DSU](#).

### Can I execute those three commands in any order?

We recommend you to follow the order while executing the commands. For more information see [Updating the system using DSU](#).

### Can I update the inventory of the system using DSU?

Yes, you can update the inventory file of the system using DSU. For more information see [Updating the system using DSU](#).

### Can I use the catalog location option and point it at catalog.cab on the FTP site?

No, catalog supports only XML format and not CAB format.

### What is an option?

It is the way to inform DSU to perform related tasks for the available features .

There are several options that you can select – any valid key from the given list of updates (these key appears in front of each update)

c -- `commit` – after selecting the required updates, use commit option to start the update.

q - `quit` – it closes DSU.

a – to select all the updates.

n – to deselect all the updates.

### How can I select an update in the given list?

Provide the number shown in front of the update as an option, it gets selected (if already not selected).

### How can I cancel an update already selected in the given list?

It works like a toggle button. For example, say if update number 7 is already selected (an asterisk (\*) is there in front of 7th update in the list), and now if you choose 7 as an option, it gets cancelled.



## **After I select the required updates, how to start the update process?**

Provide `c` option to start the update procedure.

## **Can I select more than one update?**

Yes, you can select more than one update at a time. You can provide update numbers one by one as an option to select multiple updates.

## **How will I come to know whether an update is selected or not?**

An asterisk (\*) appears in front of every selected update.

## **Can I select all updates at the same time?**

Yes, you can select all updates at a time. Select option `a` and press enter, all the updates get selected.

## **Can I cancel all updates at the same time?**

Yes, you can cancel all updates at a time. Select option `n` and press enter, all updates will get deselected.

## **Can I select multiple updates at the same time?**

No, you cannot select multiple updates (less than selecting all updates) in one shot option. But you can select multiple updates by providing numbers one by one.

## **DSU Inventory displays update for a component that is installed is newer than what is available.**

DSU Linux Repository is refreshed on a monthly basis, at the next refresh of the DSU Linux Repository the newer version will be carried.