

Dell DR Series System Release Notes For Release 3.1



Notes, Cautions, and Warnings



NOTE: A NOTE indicates important information that helps you make better use of your computer.



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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Dell DR Series System Release Notes

The Release Notes for 3.1 are intended to supplement the Dell DR Series system documentation. For the complete list of available DR Series system documentation, see [Other Information You May Need](#).

The Release Notes contain details about the pre-installed system software on the Dell DR Series systems. It also documents the latest updates, known issues, resolutions, and other information.

 **NOTE:** For instructions on configuration of DR Rapid devices, see the *Dell DR Series System Administrator Guide*. The guide is available at dell.com/powervaultmanuals.

 **NOTE:** It is recommended that you check for the latest versions of the DR Series system documentation available from Dell.

Upgrade Notes

This topic contains important information for users who are upgrading to version 3.1.

- If you use NetVault Backup (NVBU) 9.2, **do not** upgrade your RDA with NVBU standalone package. This is because NVBU 9.2 is compatible with the 2.1 RDA with NVBU plug-in, but not the 3.0.0.x RDA with NVBU plug-in. If you use NVBU 10.0 you can continue to use the 3.0.0.2 plug-in; there is no need to upgrade the plug-in. For details on RDA with NVBU compatibility, see NetVault Backup (NVBU) Compatibility in the *Dell DR Series System Interoperability Guide*.
- If you use NetBackup, you must set the optimized synthetic attribute flag on the disk pool if you want to implement optimized synthetic backups. This applies to containers created in 2.1 only. For details, see Configuring NetBackup for Optimized Synthetic Backups in the *Dell DR Series System Administrator Guide*.
- If you are running the 3.0.x driver for Rapid NFS and Rapid CIFS, you must update to the 3.1 driver for replication to work properly.

The following information is for users who are upgrading from software version 2.1.

- If you have the 2.x RDA with OST plug-in installed, you **must** uninstall it and then install the 3.x version of the plug-in. This is because the name of the plug-in has changed since version 3.0.0.1.

Checking System Information

Before troubleshooting issues with any DR Series system, ensure that the installed DR Series system software is up to date. The related drivers, software, and firmware are available at dell.com/support.

To download the latest drivers and firmware for your system, follow the steps below:


1. Go to dell.com/support and enter your service tag or browse to your product.
2. Click **Drivers and Downloads**.
3. Click **View All Drivers**.
4. Confirm that you have the correct product to begin the search for all the related drivers, software, and firmware.

For information about how to check the current version of the DR Series system software installed, see the *Dell DR Series System Administrator Guide* or the *Dell DR Series System Command Line Reference Guide* at dell.com/powervaultmanuals.

DR Series System: Drive And System Capacities

The DR Series system comes in the following types:

- DR4000 system** Consists of preinstalled DR Series system software on a modified Dell PowerEdge R510 appliance platform.
- DR4100 system** Consists of preinstalled DR Series system software on a modified Dell PowerEdge R720xd appliance platform.
- DR6000 system** Consists of preinstalled DR Series system software on a modified Dell PowerEdge R720xd appliance platform.

 **NOTE:** DR6000 differs from the DR4100 by including a higher level of included system hardware. The DR4100 hardware configurations would not meet the hardware requirements for the DR6000 platform.

- DR2000v system** A Virtual Machine (VM) template of the DR Series system. For details on the virtual platforms supported, see the *Dell DR Series System Interoperability Guide*.

The following table, Table 1, defines the internal system drive capacity and available physical capacity in decimal and binary values for the physical DR Series hardware appliances. The capacity values listed represent the internal drive and available physical capacities that have been adjusted for the associated overhead in the DR Series system releases. The capacity values listed in Table 2 represent the available capacities per virtual machine OS for the DR2000v.



 **NOTE:** In the following table, TB and GB represent terabytes and gigabytes in decimal values, and TiB represents tebibytes in binary values. Tebibytes are a standards-based binary multiple of the byte, a unit of digital information storage.

Table 1. Drive and Available Physical Capacities

System Drive Capacity	9 Drive Capacity (12 DRV RAID6 with Hot Spare) (Decimal)	9 Drive Capacity (12 DRV RAID6 with Hot Spare) (Binary)	Total Logical Capacity at 15:1 Savings Ratios (Decimal)	Total Logical Capacity at 15:1 Savings Ratios (Binary)
4 TB (DR6000 system only)	36 TB	32.74 TiB	540 TB	491.1 TiB
3 TB (DR4100, DR6000 systems only)	27 TB	24.56 TiB	405 TB	368.4 TiB
2 TB	18 TB	16.37 TiB	270 TB	245.55 TiB
1 TB	9 TB	8.18 TiB	135 TB	122.7 TiB
600 GB (DR4x00 system only)	5.4 TB	4.91 TiB	81 TB	73.65 TiB
300 GB (DR4x00 system only)	2.7 TB	2.46 TiB	41 TB	36.9 TiB

 **NOTE:** 300 GB DR4x00 Series systems do not support external expansion shelf enclosures.

For information about external data storage capacity in the expansion shelf enclosures, see DR Series Expansion Shelf in the *Dell DR Series System Administrator Guide* at dell.com/powervaultmanuals.

The capacity values listed in Table 2 represent the available capacities per VM platform for the DR2000v.

Table 2. Available Capacities and Virtual Machine Operating System Support for the DR2000v

Platform	1TB	2TB	4TB
ESX 5.0	Yes	Yes	N/A
ESX 5.1	Yes	Yes	N/A
ESX 5.5	Yes	Yes	Yes
Hyper-V 2012 R2	Yes	Yes	Yes
Hyper-V 2012	Yes	Yes	Yes

Supported Software and Hardware

For a complete list of the supported hardware and software for the Dell DR Series system, see the *Dell DR Series System Interoperability Guide* at dell.com/support/manuals.

What Is New In This Release

The following is the list of major enhancements in this release:

- DR2000v virtual appliance—A virtual machine (VM) template in various capacities that can be deployed on an existing VM infrastructure. A physical DR Series system running the 3.1 release will serve as a license server for the DR2000v virtual appliance. A DR2000v must register with a physical DR Series system running 3.1 to get a license. For details on the VM platforms supported, see the *Dell DR Series System Interoperability Guide*.
- Cascaded Replication—A target replica can now be cascaded optionally to a third location called a Cascaded Replica for an additional copy. Cascaded replication allows a single or multiple containers to be replicated from a source system to a primary target and then to a secondary target. Three systems are currently supported in a cascaded configuration, so there can be two copies of the source data, one on the primary target and another on the secondary target.
- Replication Seeding—This is a process on a source DR Series system that collects all of the unique data chunks from the containers and stores them on the target device. This is helpful if you have a new replication target DR Series system to set up, the amount of data to be replicated is very large, and/or the network bandwidth is low. You can seed the target replica with the source data saved on a third party device, such as, a CIFS-mounted share. This share can also span multiple USB drives for easy transport. You could then transport the device to the target location and give the target access to the same device; thus, seeding the target with a copy of the data from the source. Once the seeding is complete, replication is enabled between source and target, and replication re-synchronization is done to complete any pending data transfers. Thereby, continuous replication is performed, which reduces network traffic significantly; and, data can be replicated and synced with the target in a short amount of time.
- SSL Certificate installation support in the GUI — For additional security, you can now replace the self-signed, factory-installed Dell certificate with another certificate; for example, with one that is signed by a third-party CA.
- Restore Manager — This feature has been updated to include the functionality needed to restore to 3.1.
- Time Navigator is now supported.
- Rapid NFS and Rapid CIFS are qualified with Oracle RMAN for the DR6000.
- Support has been added to allow sub-directory mounts for NFS within a container.
- DR Rapid encryption is now supported.

- Encryption for RDA with OST driven op-dup replication is now supported.
- RDA with vRanger is now supported. For details, see the *vRanger Integration Guide for Dell DR Series Systems* at:<http://documents.software.dell.com/vRanger/>.

Open Issues

ID	Issue	Workaround
21194	There are issues with using Windows Computer Manager to access local users and group info.	The Windows Computer Manager snap-in is supported only with the Shared Folders feature to manipulate specific user and group access to shared container folders. Other snap-in features within Windows Computer Manager are not supported.
21181	In the GUI, after a successful registration, license registration details do not appear to be updated when you try to edit and save registration details.	You can use the CLI command, <code>virtual_machine --update</code> , to update registration details.
20870	RPC replication errors may be seen during replication from source DR Series system to target DR Series system.	The primary and secondary replication target should have the same MTU setting. Replication proceeds once the MTU is set to the same as the replica target.
20553	Specific amount options do not work for Rapid NFS.	The -l and -f options are not supported in the <code>rdnfs unmount</code> procedure.
20539	After installing Rapid CIFS Filter Driver, an incorrect driver version is displayed.	If at the end of successful installation, the version of the driver loaded (which can be checked using <code>rdcifsctl.exe driver -q</code>) is lower than the version of the installed package (listed under Control Panel > Installed products), then you should restart the machine. This issue can occur if the system fails to rename/delete driver files under the system folder.
20456	Installation of SSL Certificate file in the GUI failed on Internet Explorer (IE) when using Remote Desktop.	When uploading the certificate file, the GUI uses the file name with the whole path, which works when uploading on a local system. When using RDP, in the IE browser settings, you need to disable the "Include local directory path .." setting, as follows. <ol style="list-style-type: none"> 1. Under Internet Options > Security, in the "Internet" or "Intranet" area, click Custom Level. 2. In the Security settings, scroll down to Include local directory path when uploading files to a server and ensure it is not selected. 3. Click OK and then refresh the browser.
20426	Replication traffic that is configured to go through an assigned bond may still run through the default bond (bond0).	If you want to run replication traffic through another bond interface, contact Technical Support to update the route.
20424	The following message may appear on the console: "vx_nospace..." even if the system still has space.	This message is a result of trying to allocate a large contiguous block. The allocation of the contiguous block might fail, in which case, allocation continues without

ID	Issue	Workaround
20188	When using cascaded replication for a large number of files (1M+), it may appear to take some time to see the actual files on the secondary target.	trying to keep the file contiguous. The vx_nospace error may appear, and this message can be safely ignored. Namespace resync has to complete on the source and primary target and then data transfer has to start on both before transferring to the secondary target. Once the namespace resync completes on the first replication pair, resync then starts on the second replication pair. Until the namespace resync completes on the second pair, no data is transferred. This ensures the namespace resync completes faster and the snapshot can be deleted faster.
20009	User is able to create/write a file/directory in the share/container even though the user has only read permissions (file-level/security-level) on the share.	You can block write/create operations for a particular domain user by adding an extra 'Deny' 'write' acl for that user. (This issue occurs on the Windows 2008 client.)
19975	There needs to be an ability to shutdown the DR Series system using a UPS after a power loss.	Refer to the following article for information on how to do this using the shutdown command in the IPMI interface: http://www.dell.com/downloads/global/power/ps4q04-20040204-murphy.pdf
19552	When there is no data to replicate (for example, replication state is INSYNC), replication statistics might indicate a target is running out of disk space even though the target has enough space.	This occurs because the replication process detected target space full condition when there is pending data to be replicated, but, at a later time, that pending data was removed and replication was insync. We do not query target disk state when replication is idle. On a similar note, we might not indicate target space full condition when there is no data to replicate as well. An error state in the replication statistics makes sense only when replication is not in sync.
19485	Adding a host name does not work if you use a FQDN and the host name has letters in it.	You can add names as long as the name is made only of numbers and it is not a FQDN where a period is used in the name string.
19186	If you change the hostname or the domain name after setting up the DR Rapid plug-in, then you may get the wrong backup mode passthrough or de-dupe.	Uninstall and then reinstall the DR Rapid plug-in for this information to be set correctly.
18848	In the Internet Explorer 9 and 10 browsers, when you navigate to a DR Series system from within Global View , and then log out of that system and return to Global View , you are logged out of the machine running the Global View .	This issue does not occur with any other supported browser. For browser information, see the <i>Dell DR Series System Interoperability Guide</i> .
18837	Manual modifications made to the Rapid NFS rdnfs.cfg file are not preserved between plug-in updates.	Manually modify the rdnfs.cfg again after upgrading the plug-in. This will be corrected in a future release.

ID	Issue	Workaround
18178	The AIO-Stress tool fails when using Rapid NFS.	Rapid NFS, which uses FUSE, does not support AIO.
18501	Rapid NFS performance drops significantly with parallel NFS ingest from same client.	When using Rapid NFS on your client, it is suggested that you do not run NFS from the same client to the DR Series system in parallel as this will affect your overall performance.
18459	System replication traffic affinity is set to bond0 by default. If the affinity is configured to a different interface (for example, bond1), the <code>network --show</code> command continues to show replication affinity for both the default bond0 and newly configured interface (for example, bond1). This is incorrect representation for the default interface, bond0.	The actual traffic will be configured internally to use only the new interface (for example, bond1) to transfer data.
18144	A <code>File name too long</code> error is displayed after trying to create a directory structure that exceeded 522 directories.	The limit on a path within a mount point is 4096 bytes.
18022	Windows 2008 and newer servers cannot assign local users (other than administrator) to Access Control Lists (ACLs). Windows 2008 and later does not query the local users on the DR Series platform.	Assign ACLs to the built-in Administrator user on the DR Series platform if using Windows 2008 and later.
17661	If the cable is removed from a network interface and the network is restarted, the interface does not get an IP. If you then reinsert the cable, you must restart the network to get an IP.	Ensure that the interfaces that you want to add or modify are connected when making Advanced Networking changes. To restart the network, type <code>network --restart</code> at the CLI command line.
17437	During a DR Rapid datacopy operation if optimized duplication-replication fails, a non-optimized replication is performed when the devices are available again.	To perform the data copy using optimized replication, cancel the non-optimized replication and start a new datacopy operation.
17294	An NVBU backup will stop if the DR Series system goes into maintenance mode as it moves into a read-only condition when this occurs.	Restart the datacopy operation after the DR Series system enters the operational mode.
17206	Advanced networking allows you to change the IP of an interface that is part of a replication link.	Understand your current configuration before adding new advanced networking configuration so that you do not impact the current system configuration.
17193	DR Rapid critical message <code>Alert RDS Restore failed</code> reported on DR4x00 system. In addition to the error, an event is generated internally in the DR Rapid plug-in when the read operation fails	The DR Rapid plug-in generates events for any kind of read failures.

ID	Issue	Workaround
17076	The NetVault GUI crashes if the datacopy operation fails due to a network error.	Restart the GUI.
16745, 17621	<p>If you have the same client for OST and RDS operations and you manually update the client connections, unexpected messages are displayed as:</p> <pre>[root@swwsys-49 ~]# stats -- clients --type RDA RDA Client(s) Type plug-in OS Backup Software Last Access Connection(s) Mode r310-sys-39 RDS -- -- -- -- 0 Default [root@swwsys-49 ~]# ost -- update_client --name r310- sys-39 --mode auto Client is connected with default values. Please update to non-default values.</pre> <p>In Linux systems, the RDS plug-in installation fails if the OST plug-in is already installed in the system</p>	To work around the issue, use a different client for OST and RDS rather than sharing the same machine for both protocols.
16660	When BE has an issue connecting to the server, it may not return detailed errors to the OST plug-in.	See the client log files for the detailed information on the connection failure.
16427	When upgrading your system using the iDRAC, if the upgrade package also contains new iDRAC firmware, the upgrade fails to complete.	Upgrade the DR code using the CLI or GUI using the normal network interface and not the iDRAC.
16280	When you try to get replication statistics, the system displays the <code>Software error: Use of uninitialized value in division (/) at helper.pl line 3548 error.</code>	This is due to the replication target not being in an operational state. Correct the replication target and refresh or use the CLI. The information is available by using the command line. We will correct this error in a future release.
16053	<p>After you install the Rapid CIFS plugin and replication operations are performed, you receive a blue screen and the following error:</p> <pre>STOP 0x00000027 (parameter1, parameter2, parameter3, parameter4) RDR_FILE_SYSTEM</pre>	This is a Microsoft bug that occurs on shared network resources on a computer that is running Windows Server 2008 R2 or Windows 7. To fix, see MS KB2584874.
14950	Single stream passthrough ingest throughput is less by 30% on Linux compared to Windows.	<p>You can modify the <code>/etc/sysctl.conf</code> file to correct this behavior. Use the following settings:</p> <ul style="list-style-type: none"> <code>filenet.core.rmem_default = 262144</code> <code>net.core.wmem_default = 262144</code> <code>net.core.rmem_max = 134217728</code> <code>net.core.wmem_max = 134217728</code>

ID	Issue	Workaround
12595	Our GUI allows a seven-character password; however, the RDA with OST requires an eight-character password.	If you want the RDA with OST user and GUI passwords to match, then use an eight-character password as required for the RDA with OST user.
9433	Global hot spare is not automatically configured after replacing the GHS drive in slot 0.	If the global hot spare is replaced, run maintenance by using the <code>--make_standby</code> command to make the drive a global hot spare. Contact Dell Technical Support for this action.

Known Issues and Their Resolutions

ID	Issue	Resolution
21075	After running advanced networking commands, the <code>--show output</code> displays incorrect MAC.	Corrected in version 3.1.
20177	Global View does not work if a group name contains the "\$" character.	Corrected in version 3.1.
20832	The RDA plugin details tab displays as a plugin for Symantec OST. It should be updated to show as a plugin for NetVault.	Corrected in version 3.1.
20767, 18176	When a DR Series system is part of the Global View database and you change the DR Series system's name by using the <code>system --setname</code> command (and not from the GUI), the new name is not reflected.	Corrected in version 3.1.
20763	System configuration screen displays DHCP although it is set to static.	Corrected in version 3.1.
20762, 20626	While performing recovery using USB, it is not possible to recover with the payload on the DR Series system. The payload on the USB is used; and, if the version on the USB is higher, the recovery process upgrades the DR Series system. The recovery process should use the payload on the DR Series system such that system is restored to the same version.	Corrected in version 3.1. Now, the recovery operation will only use the payload on the DR Series system. The reset operation will pick up the payload on the USB.
20755	Extra entries are displayed in Global View after a hostname is changed for a managed unit.	Corrected in version 3.1.
20705	Need to enable DR2000v as replication target.	Corrected in version 3.1.

ID	Issue	Resolution
20689	Need to handle overwrites of old format blockmaps remaining after an upgrade to 3.x.	Corrected in version 3.1.
20627	Under certain conditions, "replication is disconnected" error occurs when running replication between two systems with no scheduling.	Corrected in version 3.1.
20565	After direct upgrade from 1.1.0.x or lower to 3.0.x, replication does not work if the upgrade occurred before the containers were in sync.	Corrected in version 3.1.
20284	Dell OpenManage Server Administrator contains a cross-site scripting vulnerability.	Corrected in version 3.1. Now, port 1311 used by Dell Open Manager is blocked.
20067, 20036	DR Series system upgrade process may fail due to an error condition on the server LifeCycle Controller - Unified Server Configurator.	These packages are optional in version 3.1, so if they fail to load it will not stop the unit from operating.
20064	Incorrect or out of date statistics may be displayed when replication is stopped or a connection is disconnected in a cascaded replication.	Corrected in version 3.1.
19851	CIFS container paths display incorrectly with advanced networking.	Corrected in version 3.1.
19848	OST installer does not work with NBU 7.6	Corrected in version 3.1.
19791, 19775	The incorrect IP address displays on the system configuration screen in the GUI.	Corrected in version 3.1.
19762	Add the ability to mount subdirectories.	Added in version 3.1.
19756	CLI Online Help shows "RDA" in a few places where it should show "RDS"	Corrected in version 3.1.
19655	smbd fix for unique corner case that causes a core	Corrected in version 3.1.
19614	Need to remove error reporting on the following errors: OST images not found and vRanger errors	Corrected in version 3.1.
19576	If you set up two bond interfaces with two different subnets but use the	Corrected in version 3.1.

ID	Issue	Resolution
19233	<p>same static IP address, the configuration service fails.</p> <p>Need to clear the error, "file system is corrupt and please run consistency checker," after a system --init</p>	Corrected in version 3.1.
19184	During container delete, cleaner does not start.	Corrected in version 3.1.
19091	Cannot collect diagnostics if an upgrade fails.	<p>Corrected in version 3.1.</p> <p>Using the "diagnostics --start --service" command can start the diagnostic service if it is down after upgrade failure. Once the service is up, diagnostics can be collected.</p>
18833	The Reboot link is enabled after a DR Series system software upgrade.	<p>Corrected in version 3.1. The Reboot link is enabled during upgrade and has now been disabled during upgrade. It can be selected once the upgrade is complete.</p>
18742, 18629	With CIFS, backups are failing, with error "The specified network name is no longer available..." after upgrade.	Corrected in version 3.1.
18664	On the DR Series system log on page, if you enter an invalid user name, the <code>Your password was not correct</code> error displays.	Corrected in version 3.1. The correct error message is now displayed.
18661	If you power on a new MD1200 expansion enclosure (that is cabled in) while the base DR Series system is operational, the machine may go into maintenance mode with the following reason error code: <code>One of the storage enclosure has become offline, please power-off the appliance, fix the connectivity issues and power-on the appliance.</code>	Corrected in version 3.1.
18154	Include racadm in DR image so that the DRAC settings can be managed from inside of the OS instead of lifecycle controller.	Corrected in version 3.1.
18124	Ability to get encryption on OST replication op-dup traffic.	Added in version 3.1.

ID	Issue	Resolution
17586	After the DR Rapid device is created, you cannot change the number of streams supported for the device.	Corrected in NVBU 10.0.
17355	The Dell PowerVault MD1200 Expansion Shelf Setup Guide displays incorrect configurations for the DR Series system.	Corrected in version 3.1.
17076	The NetVault GUI crashes if the datacopy operation fails due to a network error.	Corrected in NVBU 10.0.
15573	Need to address potential vulnerability prone to cross-site scripting attacks.	Corrected in version 3.1.
15570	Need to disable SSLv2 on port 443.	Corrected in version 3.1.
13271	Ability to provide observable data on cleaner production	Added in version 3.1.

Resolutions For Earlier Releases

The following table lists the issue, description, and the solution or workarounds for the DR Series system 3.0.0.2 release and prior releases.

ID	Issue	Description	Workaround/Solution
20111	Intermittent timeouts on OST backup, OST OPDUP replication and native DR replication.		Corrected in the 3.0.0.2 release.
19984, 19979	After upgrade to 3.0.0.1 some replication disconnection errors are seen.		Corrected in the 3.0.0.2 release.
19773	If you install the 3.0.0.1 RDA plugin from the DR Series system and then try to uninstall in Windows 2008 R2, you get an error.		Corrected in the 3.0.0.2 release.
19759	After creating or deleting a container, the CLI		Corrected in the 3.0.0.2 release.

ID	Issue	Description	Workaround/Solution
19491	command <code>stats --system</code> and the GUI are not responding.	Error occurs when replicating a large file (1 TB+) along with 10 million+ small files. Scatter_repl_io error under a very specific ingest pattern mixing very large and very small write operations.	Corrected in the 3.0.0.2 release.
19528, 8049	Cannot create a container starting with a number.		Container names must start with a letter. Container names starting with a number are not supported.
19250	When using the CLI to create a container, this container is created with a marker setting of none.		If you are using a backup application that requires a marker, set the appropriate marker using the CLI command. If this is not done, then the savings level will not be optimal. You can set the marker in the GUI at the same time you are creating the container.
19087	In daily statistics, we report that the compression savings is 0 percent. This is simply a reporting issue.		This is correct behavior, as option has been removed from daily report. Use the following workaround to get the deduplication and compression percentage: Use <code>stats --system</code> or use Global View Savings (mouse over the Savings column).
18857	When replicating between a large number of containers using a many to one relationship, some replication machines are displayed as Disconnected in the Peer Status screen.		This is simply a display issue and the replications eventually go into an Online or Replicating status.

ID	Issue	Description	Workaround/Solution
18865	In some rare instances, changing the time and timezone at the same time caused the system to go into maintenance mode.		Corrected in the 3.0.0.1 release.
18833	The Reboot link is enabled after a DR Series system software upgrade.		Corrected in the 3.1 release. The Reboot link is enabled during upgrade and has now been disabled during upgrade. It can be selected once the upgrade is complete.
18664	On the DR Series system log on page, if you enter an invalid user name, the <code>Your password was not correct</code> error displays.		Corrected in the 3.1 release. The correct error message is now displayed.
18712	OST plug-in failure occurred using BE2010 and BE2012.		Corrected in the 3.0.0.1 release.
18706	Improve ingest performance during the cleaner compaction phase for situations in which ingest and cleaner are running at the same time.		Corrected in the 3.0.0.1 release
18540	The OST plug-in was not seen in the Windows Media server Add-Remove Programs.	When you had multiple users for a Backup Exec server, they were able to run jobs while logged in as a different user. However, the only person that could see if the OST plug-ins were installed and what version was running, or were able to uninstall the plug-in, was the original user who was logged on	Corrected in the 3.0.0.1 release

ID	Issue	Description	Workaround/Solution
18453	The error message that resulted from executing the container -- delete --name [container_name] command when the container was not empty needed more information.	when the plug-in was installed.	Corrected in the 3.0.0.1 release
18452	Update the GUI help menu to include other DR Series system documents in addition to the DR Series Administrator Guide.		Corrected in the 3.0.0.1 release.
18451	A wrong message displayed when you entered the wrong container name in the connection -- disable command. When you issued a connection -- disable --name [name of container that does not exist on the DR] --type OST the following message appeared: Failed to update connection entry - Container "use a container name that is not a container on the DR" is not configured with OST connection type.		Corrected in the 3.0.0.1 release. The message more accurately describes the error condition.
18393	When the machine was down or rebooted,		Corrected in the 3.0.0.1 release.

ID	Issue	Description	Workaround/Solution
18375	<p>the usage graph information was not collected and you saw a blank in the usage graphs upon reboot.</p> <p>When you widen the scope to over ten hours or more, the maximum CIFS connections reduced, and the usage graph statistical output was not accurate.</p>		<p>Corrected in the 3.0.0.1 release. The graph now uses MAX aggregate instead of AVERAGE to calculate max values. This change was implemented for all graphs (not only for CIFS connections).</p>
18338	<p>A Windows server within a domain to which it had joined could not access DR containers.</p>	<p>After naming a DR and successfully joining the domain, a Windows server within the domain using domain credentials could not access DR containers. DR containers are configured to allow access to that client; however, you could only access the container by using DR local administrator credentials. This was caused by you renaming the DR during configuration or changing the name in the GUI or CLI by issuing the #system --setname --name <with a name exceeding 15 characters>.</p>	<p>When changing the DR host name, the GUI will display a message that no more than 15 characters are allowed as a host name.</p>
18325	<p>When using Advanced Networking and configuring 2 bonds it showed the same host name for both IP addresses.</p>		<p>Corrected in the 3.0.0.1 release.</p>
18275	<p>After upgrading your system, backup jobs failed and containers became inaccessible due to the DR Series system leaving the domain.</p>		<p>Corrected in the 3.0.0.1 release.</p>

ID	Issue	Description	Workaround/Solution
18215	If you created a CIFS user named root or service, you could not delete it.		Corrected in the 3.0.0.1 release.
18151, 17997, 14534	Addition of additional DMA markers and changes to marker code for the DMAs that need marker detection.	The BridgeHead, Networker and Unix_Dump markers must be set explicitly on a container and are not part of the Auto marker option.	Corrected in the 3.0.0.1 release. The Auto setting (default) will recognize markers for the 2.X supported DMACommVault TSM ARCserve HP_DataProtector. Newer Markers must be explicitly set using the appropriate selection BridgeHead, Networker or Unix_Dump.
18070	The command - system -- show --hardware grep -i NIC does not list 1 Gb NICs if you have 10 Gb in the system.		Corrected in the 3.0.0.1 release.
18001	The .bashrc is missing rda from the complete -F line.		Corrected in the 3.0.0.1 release.
17999	During a system upgrade, the software upgrade stopped because it exited the CLI shell.		A message has been added instructing you to not interrupt the upgrade process.
17863	After upgrading your system, you are prompted to reboot. The GUI will indicate that the reboot takes up to 10 minutes, which is the best case scenario. It can actually take up to 30 minutes, during which time your user interface can appear frozen.		Corrected in the 3.0.0.1 release.
17796	When the total number of Domain		Corrected in the 3.0.0.1 release.

ID	Issue	Description	Workaround/Solution
17702	Controllers is very large, issues can occur when you try to add the machine to the domain.		Corrected in the 3.0.0.1 release.
17672	The RDS plug-in download page does not list the hybrid installer for the Windows operating system. It only lists the individual installers for the 32-bit and 64-bit platforms.		Corrected in the 3.0.0.1 release.
17660	You are unable to change default NetVault RDA password from the GUI when you use the system for the first time and no clients are connected.		Corrected in the 3.0.0.1 release.
17637	You get a platform not supported error when you upgrade the SUSE 11 NVBU plug-in from 32-bit to 64-bit on the same system.		Use the command <code>maintenance – remote_access –enable – device lomX</code> .
17586	Ability to move the Integrated Dell Remote Access Controller (iDRAC) from the built-in device to the LOM devices.		After the RDA device is created, you cannot change the number of streams supported for the device. In release 3.1, for NVBU 10.0, this issue has been corrected. For NVBU 9.2, Tech Support has a process to change the streams.

ID	Issue	Description	Workaround/Solution
17622	In Linux systems, the RDS standalone plug-in uninstalled and removed shared libraries under oca-libs making RDA devices unusable on the NVBU server.	If the RDS standalone package is uninstalled, NVBU will stop working unless you install another RDA standalone package of different version or upgrade NVBU again (if new NVBU version is not present, upgrade to the same NVBU version already installed on the machine).	Corrected in the 3.0.0.1 release.
17440, 16835, 14516	Experienced various browser issues.	You were unable to select a row properly in Chrome. IE10 with Document Mode IE7 Standards did not display the Capacity chart. Chrome displayed a Request unsuccessful message when you tried to fix a password issue in the wizard.	Corrected in the 3.0.0.1 release.
15609, 17349, 18558	Improvements on savings between SRC and TGT for some specific backup workflows.		Corrected in the 3.0.0.1 release.
15492	Would like the GUI to show savings factor on the dashboard in addition to just showing percentage savings.		Corrected in the 3.0.0.1 release.
15267	Improvements to the file system consistency checker for some rare corner case scenarios.		Corrected in the 3.0.0.1 release.
14727	Compression in the Best savings mode has been improved.		Corrected in the 3.0.0.1 release. The Compression option has been removed from the GUI and is now modified by using the command line interface only.

ID	Issue	Description	Workaround/Solution
12362	If the unit was booted with only one PS and then a second PS was plugged in, the state was not shown as being changed.		Corrected in the 3.0.0.1 release.
8520	Make other documentation available by using the GUI Help menu.		Additional documentation, such as the CLI and Interop guides, are now available in Help.
8490	The usage graph legends were long and had similar colors, which could be confusing.		Corrected in the 3.0.0.1 release. Filters have been added to allow you to choose one or more options to be shown.
7041	You could not complete an NFS mount on a Solaris client.		Corrected in the 3.0.0.1 release.
18218	Under certain failure scenarios, the DR Series system entered maintenance mode every few minutes when using Auto markers.		Corrected in the 2.1.0.2 release.
18189	Intermittently during upgrade, certain firmware components reported the firmware version improperly. This caused the upgrade code to report a failure.		Corrected in the 2.1.0.2 release.
17821	Cannot configure an individual interface in the GUI.		This is expected behavior; the CLI must be used for advanced networking operations. In release 2.1.0.1, the GUI was updated to prevent usage of Edit Interface when an

ID	Issue	Description	Workaround/Solution
17820	ARCserve 16 support not documented in <i>Dell DR Series System Interoperability Guide</i> .		interface is disabled. Upgrade the DR code using the CLI or GUI using the normal network interface and not the iDRAC. Corrected in the 2.1.0.1 release.
17791	"Warning: No loadable sections found in added symbol-file system-supplied DSO" error occurs when data deletion and the cleaner are running simultaneously.		Corrected in the 2.1.0.1 release. Upgrade the DR code using the CLI or GUI using the normal network interface and not the iDRAC.
17790	"Warning: No loadable sections found in added symbol-file system-supplied DSO" error occurs during deduplication.		Corrected in the 2.1.0.1 release. Upgrade the DR code using the CLI or GUI using the normal network interface and not the iDRAC.
17788	Restore Manager fails during init mode if Mac address changed.		Corrected in the 2.1.0.1 release. Upgrade the DR code using the CLI or GUI using the normal network interface and not the iDRAC.
17772	Backup Exec 2010 crashes in libstpidell.dll.		Corrected in the 2.1.0.1 release. Upgrade the DR code using the CLI or GUI using the normal network interface and not the iDRAC.
17766	"Program terminated with signal 6, Aborted" error occurs during replication.		Corrected in the 2.1.0.1 release. Upgrade the DR code using the CLI or GUI using the normal network interface and not the iDRAC.
17765	The <code>alerts --email</code> commands fail to		Corrected in the 2.1.0.1 release. Upgrade the DR code using the CLI or GUI using the normal network interface and not the iDRAC.

ID	Issue	Description	Workaround/Solution
17515	write to the database. The command <code>stats --clients --type</code> does not work in the CLI.		Corrected in the 2.1.0.1 release.
17329	Correct the race condition in monitoring the subsystem that can place the unit in maintenance mode.		Corrected in the 2.1 release. Race condition is identified.
17371	There is an error with the web server response code under a special condition.		Corrected in the 2.1 release.
14751	The UI can sometimes show all the interfaces at 10 G or 1 G specification depending on the network ports that are connected and active.		Corrected in the 2.1 release. This interface is redesigned.
17315	SMBD core in security inheritance handling on upgraded container.		Corrected in the 2.1 release.
17226	The GUI wizard displays an error when configuring static IP.		Corrected in the 2.1 release.
17216	Security SSL is updated.		Corrected in the 2.1 release.
17070	HP Data Protector Marker support is added.		Corrected in the 2.1 release.

ID	Issue	Description	Workaround/Solution
10552	The GUI and CLI must allow the user to see the files that are getting replicated.		Corrected in the 1.1 release. Added active files tables to the statistics container pages.
15758	Ability to edit the hosts file using the CLI.		Corrected in the 2.1 release. Provided a method to update the hosts file via the CLI using the <code>network --host --add</code> command.
15908	All 6 interfaces for 1G option on the DR4100 system are not shown in GUI.		Corrected in the 2.1 release. All interfaces are now displayed in the GUI for various configuration options.
15943	The contact information does not display in the GUI after the submit button is clicked if mail relay host is not configured.		Corrected in the 2.1 release. Corrected the logic to not send the notification if the email relay host is not set.
15947	The wrong error message is displayed when removing all the NTP servers from the GUI.		Corrected in the 2.1 release.
16262	A wrong command syntax is seen for the <code>ost --limit</code> command		Corrected in the 2.1 release.
16322	For better support capability, ocafsd dumps on diagnostics must be allowed.		Corrected in the 2.1 release.
16515	Pending bytes for replication must be displayed.		Corrected in the 2.1 release. Provided pending bytes in the <code>stats --replication</code> output.
16516	Extracting stack trace in the diagnostics bundle		Corrected in the 2.1 release. The functionality has been added to the diagnostic gathering routine.

ID	Issue	Description	Workaround/Solution
		functionality must be added for better support diagnostics.	
16916	Replication fails due to the firewall packet inspection and modification.		Corrected in the 2.1 release. Added replication checksum to all packets. The firewall vendor can be engaged if necessary to modify inspection parameters for replication traffic.
16963	Functionality required to change the behavior on update to disable the root user if it is enabled.		During any upgrade, the root user login is disabled (if it is enabled) which is an interface only Technical Support uses.
17167	The title in a few of the disk usage graphs must be made consistent with the others.		Corrected in the 2.1 release.
17184	Cannot install the BUE 32-bit plugin.		Corrected in the 2.1 release.
10849, 11520, 11636, 7752, 14892, 15297, 15667, 15945	Required support for Advanced Networking feature to allow configuration of multiple networks on a single unit.		Corrected in the 2.1 release.
14228, 16165	Service mode ocafsck reports only the first error in that stream.		Corrected in the 2.1 release. Improved the ocafsck logic to report all errors that occur in a stream.
15058, 15956	FS cache modifications and improvements are required.		Corrected in the 2.1 release.
15967, 16005	The core directories are not cleaned up after the diagnostic cleanup routine.		Corrected in the 2.1 release.

ID	Issue	Description	Workaround/Solution
16441, 17067	On a specific container, replication appears to stop at 99 percent and then restarts.		Corrected in the 2.1 release. Corrected the race condition in the code that caused the issue.
16707, 13296	Unable to add a domain name that contains an underscore.		Corrected in the 2.1 release.
16937, 16904, 16806	Replication fails in a specific scenario when trying to decompress a file created in 1.x and replicated in 2.x.		Corrected in the 2.1 release. Resolved the issue in the decompression logic that caused the issue.
7752, 14697, 15925	Advanced Networking support replication over other interfaces required.		Corrected in the 2.1 release. Support for Advanced Networking feature to allow configuration of multiple networks on a single unit.
16144	Critical event shows "Datacheck detected potential namespace inconsistency. Run file system scan as soon as possible."	Maintenance mode alarm falsely triggered due to code returning enoent instead of ebusy.	Corrected in the 2.1 release.
16679	File system stat call consumes more cycles than expected.	Performance enhancement for file system stat call.	Corrected in the 2.1 release.
16670	Deduplication failure in a specific ingest workflow.	Failure during inline deduplication when accessing many offsets. This results in a system core.	Corrected in the 2.0.1.1 release.
16655/16486	Relay server does not work when using an IP instead of a name.	When setting the relay server you were limited to using only its name.	Corrected in the 2.0.1.1 and 2.1 releases, respectively. You can now use a name, IP or FQDN.

ID	Issue	Description	Workaround/Solution
16498	32-bit OST plugin for NBU is missing from 2.0.1.0 build. GUI URL pointing to 64-bit plugin.	When using release 2.0.1.0, the 32-bit OST plugin is missing. The URL for this plugin points to the 64-bit version.	Corrected in the 2.1 release. You now have access to both plugins.
16425	GUI incorrectly displaying DNS suffix as none.	GUI incorrectly displaying DNS suffix as none. In the CLI this is displayed correctly.	Corrected the issue in the script file that was parsing this information.
16420	Unable to install plugin on specific 32-bit Windows2013 NBU server.	Was unable to install a new driver over the top of an existing driver in some cases.	Corrected in the 2.1 release with updates to the package installer.
16381	Cleanup of log file messages referencing sdb5.	In some situations, lots of messages were added to the log files.	Corrected in the 2.1 release.
16247	<code>scatter_repl_io</code> time out experienced during replication.	During replication, the system showed a <code>scatter_repl_io</code> error.	Corrected the issue in the replication code.
16426	After upgrade from 1.x to 2.x, the GUI prompted for reboot but reboot did not occur on the first try.	When upgrading from 1.x to 2.x from the UI, the reboot does not appear to reboot the system.	Before clicking the reboot button in the UI, refresh the browser and to resolve the issue. You can also do the upgrade from the CLI if you wish to work around this issue.
16083	Dell DR4100 system comes up in an error state due to additional power supply sensors that are discovered with newer iDRAC firmware.	This was caused by a new version of the iDRAC firmware which discovered additional sensors.	Corrected the issue in the Hardware Monitor code.
15795	There is no message instructing user to upgrade the Client OST plugin when DR4X00 FW is upgraded.	Added messaging to the UI so that during the upgrade the user is told to also upgrade the OST plugin if OST is being used.	Added messaging to inform the user to upgrade the plug also.
15695	GUI "Usage" page doesn't show any	If the client machine and the DR are not in the same	We now use the time zone of the server rather than the client running the browser.

ID	Issue	Description	Workaround/Solution
	stats graphs in a special case.	time zone, then the usage graphs may not show the stats for some period.	
15275	Windows OST plug-in install fails on a DC.	Installing the OST plug-in on a DC fails.	The code now supports this option.
15067	Handle the '.' as part of the NETBIOS name.	<p>Domain join to the AD domain controller is ok but access to DR4000 share fails. Handle/allow '.' in NETBIOS name.</p> <p>Access from windows client using test.com \administrator.</p> <pre>smb.conf: workgroup = TEST.COM realm = ad.test.com administrator@swsy s-84 > authenticate -- show Domain: ad.test.com Login group: test.com \domain users administrator@swsy s-84 ></pre>	Corrected the code path to allow '.' for domain login groups.
14959	System did not come to operational state after upgrade due hardware monitor failing to start.	Intermittently after an upgrade the unit does not come into an operational state and remained in maintenance mode.	Added code to check the status of the SNMPD before starting the hardware monitor which resolves this issue.
14957	Support bundles can be large. We need to support options to gather more specific info in these special situations.	<p>Add following new options for diagnostics collection.</p> <ul style="list-style-type: none"> • <code>--logs</code> — Collect only logs and system configuration. • <code>-cores</code> — Collect only cores • <code>--auto_diags <#></code> — Collect only specified number of previous auto diagnostics. • <code>--tcp_dump</code> — Collect tcp dump report. 	<pre>diagnostics --help collect Usage: diagnostics --collect [--name <name>] [--reason <reason>] [--force] [--dset] [--logs] [--cores] [--tcp_dump] [--all]</pre>

ID	Issue	Description	Workaround/Solution
14949	CLI expansion license was showing up as "In Use: No" even though the expansion license was installed.	The <code>auto_diags</code> option is hidden since this is a very special use case. Corrected the CLI command <code>system -- show --license - verbose</code> to display the license in the correct state.	<pre>[root@swsys-221 ~]# system -- show --license --verbose Feature ID: 3 Description: 27TB Status: Enabled Entitlement ID: Start Date: End Date: Is Eval: No In Use: Yes</pre>
14897	OST limiter throughput below the set value.	The throttling speed limits that can be set using the DR Series system CLI commands (<code>replication -- limit --speed</code>) would not match the set replication bandwidth limits.	Corrected some minor issues with the OST limits to correct this issue.
14889	Add the option to the CLI to show if the SNMP Trap's email is on or off.	Added additional option to <code>alerts -- show - email</code> command. <pre>Email SNMP Trap's : Yes or No</pre>	Added additional option to <code>alerts -- show -email</code> command to show status of Trap's e-mail.
14845	<code>system -- upgrade</code> command fails with an error message: Upgrade image not found.	After replacing a hardware CRU or FRU, the DR may come up in support mode with a request to upgrade the hardware.	The GUI and CLI now place the uploaded SW package into the same directory so upon HW replacement this same image can be utilized to upgrade the new component when necessary with no special user action required.
14724	Replication speed limits not throttling as expected.	The throttling speed limits that can be set using the DR Series system CLI commands (<code>replication -- limit --speed</code>) would not match the set replication bandwidth limits.	Corrected some minor issues with the replication limits to correct this issue.
13537	Dell DR4100 system enclosure	Attempting to perform a "hot add" of an external	The workaround is to observe the following best practice for connecting an external

ID	Issue	Description	Workaround/Solution
	hot add fails in Release 2.0.	expansion shelf enclosure in a DR4000 or DR4100 system fails because this is not a supported method of operation in the 2.0 product release. To prevent this error/failure condition from occurring, observe the following best practice: Ensure that before an external expansion shelf enclosure is cabled to and powered on to a Release 2.0 DR4000 or DR4100 system only after the DR Series system has been powered down.	expansion shelf enclosure to a Release 2.0 DR4000 or DR4100 system: <ul style="list-style-type: none">• Power off the DR4000 or DR4100 system (this is a requirement for 2.0 with Dell OpenManage 7.1).• Connect the cabling between the external expansion shelf enclosure and the DR4000 or DR4100 system.• Power on the external expansion shelf enclosure.• Power on the DR4000 or DR4100 system.
13580	User intervention is required when booting up a system that was rebooted due to a shelf going offline.	This condition can occur when an external expansion shelf enclosure goes offline, which requires that the DR Series system be rebooted. During the DR Series system boot up, it halts in the PowerEdge RAID Controller (PERC) H800 configuration process, and prompts you to press <F> to import the Foreign Disks .	To resolve this issue, press <F> to import the Foreign Disks , and allow the boot up process for the DR Series system to complete and boot normally. Once the process completes normally, the DR Series system will come up, and enter its Operational mode.
13790	DR Series system performance drops when background initialization runs on an external expansion shelf.	Whenever an external expansion shelf enclosure is added to the DR Series system, this causes a one-time only impact to the DR Series system performance. The impact is a result of the background initialization (BGI) process running for an external expansion shelf (the system RAID disks require such initialization). BGI can take approximately 2 hours for a 3 Terabyte (TB) external expansion shelf enclosure to complete.	There is no workaround for BGI. This is a one-time only process that occurs when an external expansion shelf enclosure is added. During BGI that is associated with the addition of an external expansion shelf enclosure, you should expect that performance for the DR Series system will be slower than usual.

ID	Issue	Description	Workaround/Solution
14126	Do not connect an external expansion shelf enclosure to a DR Series system prior to upgrading to the 2.0 release.	<p>System issues occur if any DR4000 systems running the pre-2.0 release system software connect and power on any external expansion shelf enclosure, and then upgrade to the DR Series system 2.0 release software. To prevent this condition, observe the following best practice:</p> <ul style="list-style-type: none"> • An expansion shelf enclosure should only be powered on and connected to a DR4000 system after the system has been upgraded to the 2.0 release software. • Follow the recommended sequence of operations listed in the Workaround/Solution section. 	<p>To resolve this issue, observe the following best practice for upgrading earlier DR4000 systems to the 2.0 release software (this must be done prior to connecting and powering on an external expansion shelf enclosure):</p> <ol style="list-style-type: none"> 1. Upgrade the DR4000 system with the release 2.0 system software. 2. Power off the DR4000 system (required for 2.0 with Dell OpenManage 7.1). 3. Connect the external expansion shelf (or shelves) with cabling to the DR4000 system. 4. Power on the external expansion shelf (or shelves). 5. Power on the DR4000 system.
14427	The Google Chrome browser reports that the upgrade page is unresponsive during a file upload.	<p>The Google Chrome browser displays a Page(s) Unresponsive dialog, which indicates it is in a "waiting" mode when uploading the DR4000 system software payload needed for the upgrade. The Page(s) Unresponsive dialog allows only two options:</p> <ol style="list-style-type: none"> 1. Click the DR4000 system software upgrade in the dialog list box, and click Kill pages. 2. Click Wait. 	<p>There is no workaround at this time. Dell recommends that you click Wait and allow sufficient time for the uploading of the DR4000 system software upgrade to complete.</p>
14895	Restore Manager needs to add a message to remove the USB key after the operating system installation completes.	<p>The USB key used during the Dell DR Restore Manager operating system installation process can be overwritten if it is not removed after successfully installing the operating system.</p>	<p>To prevent the overwriting of the USB key, when the operating system installation is successful, it is recommended that you observe the following best practices:</p> <ol style="list-style-type: none"> 1. Remove the USB key. 2. Reboot the system.

ID	Issue	Description	Workaround/Solution
14920	Kernel panic due to soft lockup after killing power to the enclosure.	<p>A softlock error condition can occur if an active data ingest is in progress and any active external expansion shelf enclosure loses both of its power supplies.</p> <p>Because an error associated with inflight write data is detected, the DR Series system performs a "kernel panic" and reboots.</p> <p>During the reboot, if the external expansion shelf enclosure was already powered on and there was active inflight data in the PERC controller cache, the DR Series system remains in the BIOS window.</p>	<p>The workaround to resolve this issue is to perform the following:</p> <ol style="list-style-type: none"> 1. Follow the instructions displayed on the BIOS console or contact Dell Support for assistance. 2. Import the Foreign Configuration. 3. Accept the Configuration. 4. Do not run the configuration utility (as this will clear the configuration). 5. Ensure that you follow these instructions explicitly or you will lose your data.

Getting Help


Other Information You May Need

 **WARNING:** For more information, see the safety and regulatory information that shipped with the DR Series system. Warranty information may be included within this document or as a separate document.


All documents listed are available at dell.com/support/manuals.

Document	Description
<i>Dell DR Series System Getting Started Guides</i>	Provides an overview of setting up the applicable physical DR Series system and technical specifications.
<i>Dell DR Series System Owner's Manuals</i>	Provides information about the applicable physical DR Series system features, troubleshooting the DR Series system, and installing or replacing the DR Series system components.
<i>Dell DR2000v Deployment Guides</i>	Provides information about deploying the virtual DR Series system, DR2000v, on applicable virtual platforms.
<i>Dell DR Series System Administrator Guide</i>	Provides information about managing backup and replication operations using the DR Series system GUI.
<i>Dell DR Series System Interoperability Guide</i>	Provides information on supported hardware and software for the DR Series systems.
<i>Dell DR Series System Command Line Reference Guide</i>	Provides information about managing DR Series system data backup and replication operations using the DR Series system command line interface (CLI).

 **NOTE:** Always check for documentation updates at dell.com/support/manuals and read the updates first because they often supersede information in other documents.

 **NOTE:** Read the release notes first, because they contain the most recently documented information about known issues with a specific product release.

Contacting Dell

 **NOTE:** If you do not have an active Internet connection, you can find contact information on your purchase invoice, packing slip, bill, or Dell product catalog.

Dell provides several online and telephone-based support and service options. Availability varies by country and product, and some services may not be available in your area. To contact Dell for sales, technical support, or customer service issues:

Go to dell.com/contactdell.

Locating Your System Service Tag

Your system is identified by a unique Express Service Code and Service Tag number. The Express Service Code and Service Tag are found on the front of a physical DR Series system by pulling out the information tag. This can also be found on the support tab in the GUI. This information is used by Dell to route support calls to the appropriate personnel.

Documentation Feedback

If you have feedback for this document, write to documentation_feedback@dell.com. Alternatively, you can click on the **Feedback** link in any of the Dell documentation pages, fill out the form, and click **Submit** to send your feedback.