

Recovery-Series and UEB 8.1.0 Release Notes

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Recovery-Series and UEB 8.1 Release Notes

The 8.1 release delivers new enterprise-level capabilities and performance enhancements. These features are described in this document. For a of defects that have been addressed in this release, see the Customer Resolved Defects document.

References to version requirements state the minimum required Unitrends version. For example, *release 8.1* indicates the system must be running version 8.1 or higher.

8.1 features include:

UEB on VMware and Hyper-V. Radically simple disaster recovery.

For UEB appliances deployed with release 8.1 on VMware and Hyper-V, all system configuration settings and backup data reside on storage that can be attached to a new UEB. This enables you to recover your appliance in minutes with your backups, protected clients, and schedules intact. For details, see the UEB Deployment Guide for VMware and the UEB Deployment Guide for Hyper-V.

NDMP. Protect your NetApp clusters simply and efficiently.

With release 8.1, you can easily protect NetApp nodes configured in high availability C-mode clusters. Once you have configured your clusters for Unitrends protection, they can be backed up and restored using the standard Unitrends NDMP procedures.

For requirements and procedures used to protect NetApp clusters, see "Implementing NetApp cluster protection" on page 9.



Hyper-V. Faster incremental backups.

Release 8.1 introduces a new Hyper-V driver that tracks changes to virtual machines in real time at the hypervisor level. This increases incremental backup performance by as much as 50x, allowing more frequent backups to meet more aggressive RPOs.

This feature is available for Unitrends Enterprise Backup (UEB) and Recovery-Series appliances. To use the new Hyper-V driver:

- The Unitrends appliance must be running release 8.1.
- The Unitrends 8.1 Windows agent must be installed on the Hyper-V server hosting the VMs.

Download the Windows agent from the Latest Agent Releases page. For details on installing the agent, see Push installing the Windows agents or Manually installing the Windows agents in the Unitrends Recovery-Series and UEB Administrator's Guide.

VMware. Support for vSphere 6.

Release 8.1 extends VMware protection to support vSphere 6. You can now add a vCenter 6 or ESXi 6 server to your Unitrends appliance to protect hosted VMs.

In this release, vSphere 6 is supported for the same functionality as vSphere vCenter 5.5 and ESXi server 5.5, with the following exceptions:

- Backups using NBD and NBDSSL are supported. Other transport modes, such as SAN-direct and hot add, are not supported in ESXi 6 environments.
- Virtual devices that were introduced in vSphere 6, such as the Shared PCI Device, are not supported. If a VM configured with an unsupported virtual device exists in inventory, Unitrends is unable to discover any VMs on that FSXi server or vCenter.
- If a vCenter 6 VM migrates to a different vCenter, that VM is no longer protected on the original Unitrends schedule. You must manually add it to a new schedule to resume protection.

Features introduced in vSphere 6, such as VVOLs, will be supported in a future Unitrends release.

To protect your vSphere 6 environment, the Unitrends appliance must be running release 8.1 or higher. For details on protecting your VMware environment, see Protecting VMware Infrastructure in the Recovery-Series and UEB Administrator's Guide.



SQL. Complete protection of AlwaysOn Failover Clusters and SMB 3.0 shares.

Release 8.1 extends SQL protection to support SQL Server AlwaysON Failover Clusters and databases with disk storage located on SMB 3.0 shares. Unitrends enables you to protect and restore these complex high-availability configurations in just a few clicks.

For requirements and procedures, see these topics:

- "Implementing SQL AlwaysON Failover Cluster protection" on page 9.
- "Implementing protection of SQL on SMB 3.0 shares" on page 14

• Oracle on Linux. Complete protection for Oracle Automatic Storage Management (ASM).

Committed to ensuring enterprises can leverage a simplified all-in-one set of capabilities, release 8.1 enhances its existing support for mission-critical Oracle on Linux databases. Organizations leveraging the performance and availability benefits of Automatic Storage Management can rest assured that this critical data is protected both on-premise and off-site.

In addition to the requirements described in Requirements for Oracle protection in the Unitrends Recovery-Series and UEB Administrator's Guide, the following requirements must be met to protect Oracle on Linux ASM environments:

- The Unitrends appliance must be running release 8.1.
- The Oracle on Linux version must be 12c or 11g.
- The Linux server must be running the 8.1 agent.
- The Linux server must have the Linux Oracle dependency installed.
- Download the Linux agent and Oracle dependency from the Latest Agent Releases page.

For details on installing the agent and dependency, see Installing the Linux agent and Needed dependencies for Oracle in the Unitrends Recovery-Series and UEB Administrator's Guide. For a complete list of supported Linux versions, see the Unitrends Compatibility and Interoperability Matrix.

• Mac OS 10.10 protection.

Release 8.1 extends Mac OS support to include file-level protection of Mac OS 10.10. Note that hot bare metal protection is not supported.

To protect your Mac OS 10.10 environment:

- The Unitrends appliance must be running release 8.0 or higher.
- The Mac OS client must be running agent release 8.0 or higher. Download the agent from the Latest Agent Releases page.



For details on installing the agent and adding the Mac client to the backup appliance, see Mac OS X Protection in the Unitrends Recovery-Series and UEB Administrator's Guide. For a complete list of supported Mac OS versions, see the Unitrends Compatibility and Interoperability Matrix.

• Complete Ubuntu 14 protection.

Release 8.1 extends Ubuntu support to include Ubuntu 14. To protect your Ubuntu 14 environment:

- The Unitrends appliance must be running release 8.1.
- The Ubuntu client must be running Ubuntu agent release 8.1. Download the agent from the Latest Agent Releases page.

For details on installing the agent, see Installing the Linux agent for Ubuntu clients in the Unitrends Recovery-Series and UEB Administrator's Guide. For a complete list of supported Ubuntu versions, see the Unitrends Compatibility and Interoperability Matrix.

Complete Oracle Linux 6 and 7 protection.

Release 8.1 extends Oracle Linux support to include file-level protection of Oracle Linux 6 and Oracle Linux 7. Note that hot bare metal protection is not supported.

To protect your Oracle Linux 6 or 7 environment:

- The Unitrends appliance must be running release 8.1.
- The Oracle Linux client must be running Linux agent release 8.1. Download the agent from the Latest Agent Releases page.

For details on installing the agent, see To install the Linux agent for CentOS, Oracle Linux, and Red Hat clients in the Unitrends Recovery-Series and UEB Administrator's Guide. For a complete list of supported Oracle Linux versions, see the Unitrends Compatibility and Interoperability Matrix.

• UEB Installable Software. Deploy Unitrends to your own hardware.

With release 8.1, Unitrends enterprise-class backup software is even more flexible. You can now deploy Unitrends to your hardware using our installable Linux application. This is ideal in cases where you prefer to leverage your own hardware for tape archiving.

See the UEB Installable Software Deployment Guide to get started with this new software deployment option.



Implementing NetApp cluster protection

In addition to the requirements described in Prerequisites and considerations for NDMP in the Unitrends Recovery-Series and UEB Administrator's Guide, the following requirements must be met to protect NetApp clusters:

- The Unitrends appliance must be running version 8.1.
- NetApp ONTAP must be version 7.x or 8.x.
- NDMP must be enabled for both the cluster and the Vserver. See the NetApp configuration documentation and Unitrends KB 1889 for details.
- Volumes to protect must be exported through an LIF. We recommend assigning one IP to each volume you wish to back up.

In NetApp cluster environments, volumes may migrate over to a different node. If your NDMP schedule has the **Auto-include new NDMP Volumes** box checked, migrated volumes are automatically included in the backup schedule. Generally, adding a migrated volume to the schedule causes the next backup to run as a full backup, even though a full of this migrated volume may exist on the backup device. If desired, you can prevent a new full backup by migrating the volume back to the original node or by unchecking the **Auto-include new NDMP Volumes** box in the backup schedule.

Implementing SQL AlwaysON Failover Cluster protection

SQL Failover Clustering is a High Availability (HA) and Disaster Recovery solution. High Availability means that if one of the nodes in a SQL failover cluster fails, the secondary node is automatically promoted to the primary (active) node. There are some circumstances where a manual restart of the new primary database is required. See the following SQL documentation for details: Failover Policy for Failover Cluster Instances.

Unitrends provides seamless protection of your SQL environments in the event of a failover. Because the Unitrends backup schedule is attached to the cluster and not the individual nodes, the schedule can continue as planned; providing uninterrupted backups of your SQL instance. For details about the SQL side of failover, see the SQL document AlwaysOn Failover Cluster Instances. If your Unitrends backups begin failing after a failover, see the following SQL documentation: Failover Cluster Troubleshooting.



When utilizing SQL failover clusters, the databases are protected at the SQL instance level, where one set of database files is saved on a shared storage device. The failover process takes as long as necessary to write all dirty pages in the cache to disk. For information on cutting down on your SQL failover time, see the following SQL documentation: Indirect Checkpoints.

For SQL recommendations, see the Recommendations section of AlwaysOn Failover Cluster Instances (FCI).

See the following topics to begin protecting SQL AlwaysON Failover Clusters:

- "SQL AlwaysON Failover Cluster requirements" below
- "Running SQL cluster backups" on page 13
- "Restoring SQL cluster backups" on page 13

SQL AlwaysON Failover Cluster requirements

To protect SQL, the agent and system requirements described in these Unitrends Recovery-Series and UEB Administrator's Guide topics must be met: Agent prerequisites for Microsoft SQL and System requirements. In addition, the following are required to protect SQL clusters:

- The Unitrends appliance must be running release 8.1.
 All nodes in the SQL cluster must be running Windows agent release 8.1.
 Download the Windows agent from the Latest Agent Releases page. For details on installing the agent, see Push installing the Windows agents or Manually installing the Windows agents in the Unitrends Recovery-Series and UEB Administrator's Guide.
- Your cluster environment must be running in the SQL and Windows versions described in the following table:

Cluster type	SQL	Windows
Cluster Volume	2005	2003 SP1, 2008, 2008 R2, 2012, 2012 R2
	2008	2008, 2008 R2, 2012, 2012R2
	2012	2012, 2012 R2



Cluster type	SQL	Windows
	2014	2012, 2012 R2
Clustered Shared Volume	2012	2012, 2012 R2
	2014	2012, 2012 R2
AlwaysOn Cluster Volume	2012	2012, 2012 R2
	2014	2012, 2012 R2
SMB	2012	2012, 2012 R2
	2014	2012, 2012 R2
SQL Failover Clusters		2012, 2012 R2

Special considerations for adding SQL clusters

The Unitrends appliance must be able to resolve the name and IP address of every node in a SQL cluster. When adding a cluster node to a Unitrends appliance, you must enter the correct IP address and the exact name of the node. If you enter an incorrect IP address or a name that does not exactly match the name of the node, backups fail because the appliance cannot determine the owner of the database in the cluster configuration. Be sure to enter the correct hostname and IP address for every node in the cluster.

Before adding a cluster to the Unitrends appliance, you must install the agent on each cluster node and add it to the appliance. Follow these steps to add a cluster:

- Install the agent on each cluster node. For details, see Push installing the Windows agents or Manually installing the Windows agents in the Unitrends Recovery-Series and UEB Administrator's Guide.
- Add each node to the Unitrends appliance using the instructions in To add a client to the Unitrends appliance in the Unitrends Recovery-Series and UEB Administrator's Guide.
- **III** Add the cluster using the instructions in To add a client to the Unitrends appliance in the Unitrends Recovery-Series and UEB Administrator's Guide.



Special considerations for backing up SQL clusters

Consider the following before executing backups for databases hosted on servers configured in a cluster:

- To protect virtual machines residing on cluster shared volumes (CSVs), you must select the cluster in the Navigation pane before executing backups. You cannot protect these databases by selecting the owner node.
- To protect databases that are hosted on a cluster node but that do not reside
 on CSVs, you must create a backup schedule for the node that hosts the
 databases. You cannot protect them in the same schedule as the clustered
 databases.
- A Microsoft limitation prevents the Unitrends appliance from running concurrent backups of clustered databases hosted on Windows Server 2008 R2. You can work around this limitation by creating aliases for the cluster and creating a separate schedule for each cluster instance. For instructions, see "To create a client alias for a SQL cluster" below.
- When backing up SQL nodes, include all local volumes and exclude the system state. Because the system state must be excluded, Windows instant recovery and integrated bare metal recovery are not supported.

Creating an alias for a SQL cluster

To work around a Microsoft limitation that prevents the Unitrends appliance from running simultaneous backups of clustered databases hosted on a server running Windows 2008 R2, you can create a client alias for each cluster shared volume (CSV) using the procedure described below. After adding each client alias to the appliance, you can create a backup schedule for each cluster instance.

To create a client alias for a SQL cluster

- **1** Log in to the appliance to which the cluster is added.
- 2 Select Settings > Clients, Networking, and Notifications > Networks > Hosts.
- **3** Click on the client name in the table.
- Type a name in the **Alias Name** field. It is recommended that you include the CSV number in the name to help you remember which CSV you would like to associate with each alias.

Note: Do not enter spaces in the name. You are limited to 15 characters. It is recommended that you write down the alias name so you can enter the exact name when you add it as a new client.



5 Click **Add**. You see the alias name in the Alias List area.

Note: To remove an alias name from the Alias List area, click on the alias name and click **Remove**. To remove all alias names from the Alias List area, click **Remove All**.

- **6** Repeat to add more alias names, if necessary.
- 7 Click Confirm.

To add the alias name as a client

- **8** Go to Settings > Clients, Networking, and Notifications > Clients.
- **9** Click **Add Client**. You see the Add Client screen.
- **10** Select **Windows** from the Computer Type drop-down list.
- 11 Uncheck Establish trust in the Authentication area.
- 12 Uncheck Automatically create a backup schedule for this computer and apply it immediately in the Options area.
- 13 Enter one of your new alias names in the Computer Name field.

Note: There is no need to add an IP address, since this defaults to information from the host page.

- **14** Click **Setup**. You see a processing message, then a Reload Navigation window describing that you need to refresh the system.
- 15 Click Yes, reload the System or No, reload the System later.
- **16** After you reload the system, the new alias name displays in the Navigation pane in the list of clients protected by the system.
- **17** Repeat as needed to add additional client aliases.

Running SQL cluster backups

Use the Executing SQL backups procedures in th Unitrends Recovery-Series and UEB Administrator's Guide to protect your SQL cluster. When running the procedures, be sure to select the cluster node itself.

Restoring SQL cluster backups

Use the Restoring SQL backups procedures in the Unitrends Recovery-Series and UEB Administrator's Guide to restore your SQL cluster backups. When running the procedures, be sure to select the cluster node itself.



Implementing protection of SQL on SMB 3.0 shares

SQL Server 2012 and higher can host SQL instances with disk storage located on SMB 3.0 shares. Unitrends software releases 8.1 and higher can protect these databases with SQL backups. For details, see "Prerequisites and considerations" below.

Prerequisites and considerations

- The Unitrends appliance must be running release 8.1.
- The SQL server must be running Windows agent release 8.1. Download the Windows agent from the Latest Agent Releases page. For details on installing the agent, see Push installing the Windows agents or Manually installing the Windows agents in the Unitrends Recovery-Series and UEB Administrator's Guide.
- The File Server and the File Server VSS Agent Service roles must be installed on the server hosting the shares. For instructions on installing these roles, see KB 1776.
- The Windows agent installed on the SQL server must be granted read/write
 access to remote SMB 3.0 shares. For instructions on granting this access, see
 "Granting the Windows agent read/write access to remote SMB 3.0 shares"
 below.
- The SQL Server hosting the databases and the server hosting the SMB shares must belong to the same Windows domain.
- The database can contain one or more files located on SMB 3.0 shares. All files
 can reside on the same SMB 3.0 share or different shares hosted by one or
 more servers in the same domain. All servers participating in the database
 backup must belong to the same domain.
- For files located on remote SMB 3.0 shares, the Windows agent creates a VSS snapshot on the remote server and then exposes it to the SQL Server through the SMB share pathing. The agent then backs up the database files from the remote snapshot location. When the backup completes, all VSS snapshots created for the backup are removed from the server hosting the SMB share.

Granting the Windows agent read/write access to remote SMB 3.0 shares

The Windows agent installed on the SQL Server must be granted read/write access to remote SMB 3.0 shares. You can grant this access using one of the following methods:



- On the SQL Server, change the login account for the Unitrends Windows agent service bpagent to the domain administrator account. Using these credentials will provide all necessary access to the SMB shares. This is the most secure option for SMB access. Note, however, that file-level backups of the SQL Server may encounter files whose permissions do not allow domain administrator access. If successful file-level backups for the SQL Server cannot be created and SMB share security is less of an issue, then the method below is recommended.
- Run the agent as local system account on the SQL Server and grant it read/write permission for the SMB shares. For instructions, see KB 1777.

Running SQL backups

Once you've satisfied the SMB 3.0 prerequisites and have granted the Windows agent access to the SMB 3.0 shares, run backups using the Executing SQL backups procedures in th Unitrends Recovery-Series and UEB Administrator's Guide.

Restoring SQL backups

To restore SQL backups, use the Restoring SQL backups procedures in the Unitrends Recovery-Series and UEB Administrator's Guide.

Upgrading to version 8.1

See the following resources for details on upgrading to version 8.1:

- The Unitrends Recovery-Series and UEB Upgrade Guide for complete upgrade instructions and considerations.
- The video tutorial Upgrading the Unitrends Appliance.
- The video tutorial Troubleshooting the Unitrends Appliance Upgrade.

Note on legacy vaulting: Beginning in release 8.0, appliances use LZ4 compression by default. LZ4 is not compatible with legacy vaulting. If your appliance is a legacy vault that was imaged or deployed with version 8.0.0-2 or later, you must reconfigure compression settings by following these steps:

- 1 Select Settings > System Updates, and Licensing > General Configuration [Advanced].
- 2 Click to expand the **Disk2DiskDefaults** folder.

Select the row containing **CompressEngine**, enter *auto* in the Value field, and click **Confirm**.

