



What's New in Actifio VDP 10.0

This document provides a summary of new Actifio AGM/Sky/CDX/CDS 10.0 features and their benefits. Upgrading to the latest software version is strongly recommended to benefit from the new features, enhancements and fixes. Contact your Actifio Support representative for assistance in upgrading the software on your Actifio appliances.

What's New

The following are the new features, enhancements and changes in Actifio VDP 10.0 release:

- [Cloud VM snapshots](#)
- [CDX in mainstream code, with NFS and other 9.0 functionality](#)
- [Near-zero downtime recovery for SQL Server and file systems \(Mount & Migrate\)](#)
- [OnVault to multiple targets \(introduced in 9.0.2\)](#)
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[Upgrade Paths](#) are at the end of this tech brief.

Cloud VM snapshots

Highlights

- Customers can leverage native cloud snapshots to protect their AWS and GCP cloud instances. Operationally, the same SLA-based simplicity that customers have come to expect from Actifio is provided, in combination with using native cloud snapshots for easy and fast recovery. Customers can recover disks into existing instances as well as clone or restore the entire instance. No Actifio connector is required for these operations.

Benefits

- Simple protection of cloud instances, without needing to install a connector.
- Fast recoveries, as snapshots are available immediately for reads.

CDX in mainstream code, with NFS and other 9.0 functionality

Highlights

- CDX 10.0 is on the same code stream as Sky and CDS, meaning it has substantially all the functionality of 10.0 (and 9.0, since the previous CDX release was 8.1.2). This includes NFS support, multi-target OnVault, and the rest of the 10.0 features in this document.

Note: Data mounted over NFS does not remain available upon CDX node failure.

Benefits

- All the previous benefits of CDX, including high availability, FC support, performance, etc.

Near-zero downtime recovery for SQL Server and file systems (Mount & Migrate)

Highlights

- Further enhancing Actifio's leadership in recovery speed, customers can now recover SQL Server and file system data instantly using Actifio's existing capabilities and in addition migrate the data in real-time to production storage, while the application is up and running.

Actifio customers have always benefited from the ability to instantly mount their backups, regardless of data set size, and be able to get their applications up and running. However, if they needed to move recovered data into some other storage (local server or SAN storage), that required some downtime for the data migration period. The new capability in 10.0 eliminates that need and migrates the data while the applications are up and running, thereby allowing completion of the full recovery process with almost no downtime. Recovery can be back to the original location or to another server. This gives DBAs and backup admins the same capability that VMware admins have had for years by using Storage vMotion to move a mounted VM from Actifio to their production storage while the VM is running.

Benefits

- Provide a near-zero RTO for data recovery back to the final storage destination.
- Shorten downtime for server and storage migrations.

OnVault to multiple targets (introduced in 9.0.2)

Highlights

- Application data can now be sent to multiple OnVault targets, on-premise or in the cloud.
- Each OnVault target is controlled by separate policies so frequency of update and retentions can be different (e.g., frequent local updates with short retention, together with less frequent updates to cloud with long-term retention).
- Multi-target OnVault is supported with all application types, including Direct-to-OnVault with VMware VMs. In the latter case, the data is written directly to the first OnVault pool, bypassing the snapshot pool, and then read from the first OnVault pool and sent to the others.

Benefits

- Flexibility for multiple use cases. For example, customers can protect the data locally, keep it for long retention remotely in one cloud, and send data to another cloud for TDM purposes. Customers can also send the data to multiple clouds to avoid reliance on one cloud vendor.

OnVault rehydration performance & incremental options

Highlights

- The performance of a mount from OnVault has been enhanced by using any blocks that are currently available in the snapshot pool instead of reading them from object storage. This is similar to the incremental rehydration with dedup where only blocks that are not in the snapshot pool get rehydrated from dedup.
- When performing a mount from OnVault the user will have options to control how much they want to optimize for performance vs. storage consumption, by selecting from the following:
 - Storage-optimized: only keep writes in the local snapshot pool (writes are always kept locally).
 - Balanced: blocks that are read (from object storage) or written (to local snapshot pool) are kept in the snapshot pool, to serve as a "cache" for future reads.
 - Performance-optimized: bring the entire image to the local snapshot pool, in the background. Reads will become faster as more of the image is available locally.
 - Max performance: The entire image is rehydrated into the snapshot pool first, prior to the mount. This means that the host always works against local storage only.

Benefits

- Enhanced performance from object storage, enabling the use of applications that can benefit from, or require higher performance similar to that of local storage.

Streamlined support for SAP HANA, Db2, Sybase, MySQL

Highlights:

- Actifio enhanced its out-of-the-box support for SAP HANA, IBM Db2, SAP ASE (formerly Sybase ASE), SAP IQ (formerly Sybase IQ), MySQL, and Maria DB. Databases are discovered automatically, transactions logs are managed as part of the SLA associated with the databases, and recovery to any point in time and creation of virtual clones are done entirely from the UI, either on-demand or as part of automated workflows.

Note: Instant access and virtual clone creation is not supported for SAP IQ as it only supports dump based capture.

Benefits

- Faster deployment and operational simplicity.
- Automated discovery, backup/capture, and recovery of all these databases.
- Log roll forward option to recover databases to any point in time.
- Automated deployment of virtual clones (application aware mount) for TDM use cases.
- No need for using customized scripts – support is out-of-the-box.

OnVault to Dell EMC PowerProtect DD for long-term retention

Highlights

- Customers can use their Dell EMC PowerProtect DD (formerly Data Domain) infrastructure as OnVault targets for long-term retention. User defines an OnVault pool with a PowerProtect DD target and all other OnVault functionality is as usual.
- Direct to OnVault is supported (for VMware VMs) as well as OnVault replication (from one pool to another).
- Customer can set PowerProtect DD to replicate to another PowerProtect DD system. This is not controlled from Actifio, but images on the replication target system can be imported into an Actifio appliance, similarly to how it would be done with a regular OnVault pool. Before importing, the replication between the two PowerProtect DD systems must be stopped and the data on the target system must be designated as read/write.
- DD Boost technology is used to minimize the data sent from the Actifio appliance to PowerProtect DD.

Benefits

- Customers can leverage their investment in Data Domain infrastructure, combined with all Actifio's capabilities.

NAS Director support for SMB3

Highlights

- NAS Director now supports version 3 of the Server Message Block network communication protocol.

Enhanced support for SQL Server Always-on Availability Groups

Highlights

- User can specify dynamic rules for handling databases within the AAG, similar to existing functionality for SQL Server Instances (all, system, user, include/exclude specific databases).
- User can further control and define rules for the selection of AAG node to be used for backup (primary, secondary, etc.).

Benefits

- Enhanced automation and usability requires less admin work.

Fast replication of any snapshot image using StreamSnap

Highlights

- In addition to the existing StreamSnap policy that can replicate snapshot images according to a pre-defined SLA, user can now replicate on demand any snapshot image between two Actifio appliances. Replication is done from the local snapshot pool to the remote snapshot pool in an incremental fashion, relative to the latest dated remote snapshot image.

Benefits

- Enhanced data portability on demand.

Sky 128TB dedup pool

Highlights

- A Sky model is now available with a dedup pool capacity of 128TB.

Dedup performance enhancements (GC)

Highlights

- The dedup pool garbage collection process has been improved to run in the background with minimal impact on dedup throughput.

Enhanced Actifio Global Manager (AGM) functionality and usability

Highlights

- Actifio is transitioning to Actifio Global Manager for all appliance and data management. This version adds the following functionality and usability enhancements to AGM:
 - Revamped, consolidated menu structure to make it easier for users to carry out main tasks such as backup and recovery as well as TDM capture and access.
 - An interactive "guided tour" to acquaint users with the main UI sections.
 - Wizards for application onboarding and data recovery.
 - Streamlined support for SAP HANA, SAP ASE (formerly Sybase ASE), Db2, and MySQL.
 - Integrated Report Manager as part of AGM deployment - one VM to deploy, ease of launching RM from AGM, and synchronized users, organizations, and appliances to reduce redundant configurations.
 - Complete support for managing Hyper-V VMs
 - Enhanced handling of logical groups and organizations
 - Global prune paths for file system applications
 - Ability to clone SLA templates

Benefits

- AGM provides a single, simple to use interface to manage the entire Actifio environment.

Expanded support matrix

Highlights

- Support for RHEL 8.0
- NFS support for Oracle and File system applications on HP-UX
- Support for Linux on Power servers, including generic apps (e.g., SAP HANA & Db2)
- OnVault mounts with NFS (introduced in 9.0.2)

Upgrade Paths

Actifio CDS and Sky systems running 8.x or 9.x can be upgraded to 10.0.0 Older versions need to be upgraded first to one of these releases.

- CDS systems running versions prior to 8.1.3 will require double hop through 8.1.5 (then to 10.0.0).
- Sky systems running versions 8.1.1 & 8.1.2 will require the latest HF to avoid a double hop through 8.1.5.
- Sky systems running versions prior to 8.1.1 will require double hop through 8.1.5 (then to 10.0.0).

CDX systems running 8.1.x can be upgraded to 10.0.1 (10.0 SP1). Older versions need to be upgraded first to 8.1.2. New CDX installations are supported with 10.0.0.

CDS firmware upgrade to 7.8 is required with 10.0, and is supported on CDS generations 3 and above. The older 7.3 and 7.5 firmware versions are not supported with 10.0.0.