UPTIME BULLETIN

DELL EMC

A Newsletter from CEE, a Division of Dell EMC   *Unity/SC/PowerScale/ME4/ME5*

Q4

Two very rare issues with certain SLIC models on Dell EMC Unity with OEs < 5.2.1

A rare SLIC issue is discussed in LKB 205324 "Dell Unity: I/O Module ports may unexpectedly become unresponsive, fail to pass traffic, or report as down (Dell Correctable)" This KB discusses a very rare Firmware assertion issues for some SLIC models. Affected hardware includes ClearskyX 4 Port 25GbE/iSCSI Xcede and Lightblade 4-port 10G/25G Optical OCP. This issue can occur very rarely and unexpectedly.

If the issue occurs, ports could become unexpectedly unresponsive, failing to pass traffic, or reporting Links as down. Storage objects such as NAS Servers may report errors and be unreachable by end users. Performance degradation could occur as a result of some ports no longer responding to I/O requests.

Should this very rare issue occur, a reboot of the storage processor will restore access. Alternatively, affected objects may be failed over. This issue is fixed in Dell EMC Unity OE 5.2.1.x. Dell EMC Unity engineering is still interested in investigating individual instances of this issue so a customer opening a ticket for this issue may be asked to provide logs and manual dumps to help isolate the trigger conditions for this very rare issue. In some instances, customers have been asked to replace the affected hardware as well.

A second SLIC related issue which has been very rarely seen can cause a customer to lose access to SMB/NFS shares if the NIC FW hangs (asserts). The workaround is to reboot the SP. This problem occurs due to an application or hardware peripheral in the SAN sending large packets (greater than 9K) to the array. The NIC FW has been updated in Dell EMC Unity OE 5.2.x and later to avoid this issue (drop packet/not assert). This problem has been observed on the ClearskyX 4 Port 25GbE/iSCSI Xcede IOM and may also be possible on the Lightblade 4-port 10G/25G IOM. If you think you may have encountered this issue, please gather logs and open a ticket with Dell EMC technical support for further investigation.

SNMP may stop responding after upgrading to the latest OE versions for ME4 and ME5

SNMP services may stop responding after approximately 24 hours following an upgrade to GT280R010-01 firmware (for ME4) or ME5 1.0.1.0 (for ME5). The bug appears to be due to a security fix added to the snmp-net library. Further investigation is being done by one of our partner/vendors. Currently the only available work-around is to restart SNMO services daily, either manually or by script. Restarting both MCs also temporarily fixes the issue. Alternatively you can use non-SNMP solutions, such as OME. SMI-S is also impacted, as is the API.

Fixes are in progress and may be available in the next software releases for each platform. For the latest information on the issue and the expected fix releases and availability, please see LKB 000203521 for ME4 or PSE-18611.

COMMENTS? IDEAS?

WE'D LIKE YOUR FEEDBACK ABOUT THE UPTIME BULLETIN. SEND US YOUR IDEAS FOR FUTURE TOPICS AT : dan.gauthier@dell.com

Unity Customer Documentation

https://www.dell.com/support/home/en-us/product-support/product/unity-all-flash-family/docs

You can always access the latest *Uptime Bulletin* by Support for Dell EMC Unity Family | Overview | Dell US, then select "Monthly Support Highlights" within "Featured Content."

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Date that customers running Unity OE 5.0.3 or earlier and using eVE will lose SRS connectivity moved to Jan, 2023

In order to maintain SRS/CIQ connectivity after January, 2023:

- If using a VE (centralized gateway): Customers need to upgrade their VE if they are running less than 3.38 to a supported version. Note: 3.40 and lower is EOSL. Please upgrade to the latest SRS VE code 3.52. (SRS VE code is independent of the Unity OE version).

- If using the eVE (the SRS component 'gateway' that's part of the Unity OE): Customers will need to upgrade their Dell EMC Unity OE if they are running less than 5.0.4. The eVE uses the VE codebase with some features removed and limits greatly reduced to cut down on memory requirements.

Once connectivity is lost, Dell will be unable to remotely monitor your system or remediate issues. Until the affected system is upgraded, be sure to diligently watch for alerts and open cases as needed. CloudIQ will not be available until the OE is upgraded. See KB 183761 for further information.

Dell EMC Unity XT Storage Processors running Unity OE 5.1.x or 5.2.0.x code could unexpectedly reboot after ~275 days of uptime

Unity XT 480, 680 or 880 SP may experience an unexpected storage processor reboot after being up for 275 - 300 days. This is due to a known integer overflow calculation issue leading to a 64 bit result being stored in 32 bit variable.

This issue is most likely to be seen on a Unity XT 480, 680 or 880 array running 5.1.0.0.5.394 and newer code due to changes in that code and SP hardware used in those models. Older codes and Unity models are much less likely to see this issue.

Please refer to KB 200921 for more information about this issue which is currently fixed in Unity OS 5.2.1.0.5.013.

Protect your replicas after cache loss

Cache loss scenarios on Dell EMC Unity storage arrays are extremely rare. If such a situation does occur, synchronous replication can allow for rapid recovery and restoration of production services to the untainted replica, as long as the integrity of the replicas are properly protected after the initial data loss event. One important step that customers sometimes forget is that all replications should be "admin fractured" before any recovery related troubleshooting is attempted. The moment a cache loss event is experienced on a production array, the pool and associated LUNs will go offline and will be marked for recovery. All replicas will become "system fractured."   What sometimes gets overlooked is that if support is allowed to perform "recoveries" on the impacted cache loss LUNs without first "admin fracturing" the replicas, then replication will automatically resume on those LUNs after the recovery is completed. If the replication is allowed to resume in such a manner after a recovery, then the replication software will copy over the changes to the data performed by the recovery operation itself, thereby also corrupting the replica. If there is the possibility that you may wish to promote and use the replicas in such a scenario, it is important to "admin fracture" those replications prior to any recovery operations taking place.

Did you know?

- You can find answers to common Dell EMC Unity NDU related questions in knowledge base article https://www.dell.com/support/kbdoc/en-us/000204308

- You can get to both the midrange Uptime Bulletin as well as the Unity monthly newsletter by clicking on this link: Support for Dell EMC

Unity Family | Overview | Dell US, then select "Monthly Support Highlights" within "Featured Content."

- The allowable correctable errors threshold per day on DIMMs has increased from 5k to 50k in Unity OE 5.2.1.x. This threshold will more closely align with PowerStore and will result in fewer DIMMs failures.

- If you have auto-tiering enabled on a Dell EMC Unity storage system, it can be good practice to disable it prior to performing an NDU.

Dell EMC Unity/SC/PowerScale/ME4/ME5 target versions

DELL EMC has established target revisions for each product to promote more stable and reliable environments. As a best practice, DELL EMC recommends that you operate at target code levels or above to benefit from the latest enhancements and fixes available. Search using the term "adoption rates" in http://support.emc.com for current Dell EMC Unity/SC/Isilon target code adoption rates.

Dell EMC UNITY OE VERSION	RELEASE DATE	STATUS
5.2.1.0.5.013	07/28/2022	Target
5.2.1.0.5.013	07/28/2022	Latest Release
SCv20x0, SCv30x0, SC4020, SC5020, SC7020,SC8000, SC9000 SCOS VERSION	RELEASE DATE	STATUS
07.05.02	11/17/2021	Target
07.05.10	11/10/2022	Latest Release
DSM 20.1.10.79	08/19/2022	Latest Release
PowerScale OE VERSION	RELEASE DATE	STATUS
9.4.0.x	10/12/2022	Target
9.4.0.10	12/15/2022	Latest Release
ME4 OE VERSION	RELEASE DATE	STATUS
GT280R009-02	07/01/2021	Target
GT280R010-01	07/01/2022	Latest Release
ME5 OE VERSION	RELEASE DATE	STATUS
1.0.0.0	02/02/2022	Target
1.0.1.0	08/29/2022	Latest Release

See Product Release Notes for a full list of enhancements per new code release.

Dell PowerScale OneFS OE enhancements in release 9.4.0.3

- Continuation of STIG Requirements
- FED/Security Enablement
- Data mobility (SmartSync v1)
- APEX enhancements
- IB to Ethernet migration

Dell ME5 OE enhancements in release 1.0.1.0

- Added support for ECO Lot 9 compatibility
- Optional auto-map and auto-unmap fields are added to the CLI set advanced setting command. These settings are disabled by default
- When enabled, auto-map will automatically map the host or initiators to the volumes or volume groups that are associated with the host group to which the hosts or initiators are being added

- When enabled, auto-unmap will automatically remove the mapping from a host or initiators when they are removed from the host group or initiator. This applies to mappings removed using the CLI or using PowerVault Manager

PowerScale latest code releases

- The latest code releases for PowerScale can be found here: https://www.dell.com/support/manuals/en-us/isilon-onefs/ifs_pub_current_releases/powerscale-onefs-current-software-releases?guid=guid-dcb04cf4-42db-4cd0-a0ae-3be10a4d1910&lang=en-us
- The Latest Monthly Rollup (RUP) is typically recommended for PowerScale customers trying to stay the most up to date with their code. The latest recommend RUP is the August package

SCOS enhancements in release 07.05.10

- Fixes a bug in 7.5.x where a snapshot could get stuck and might cause a controller reset or volume accessibility issues because of IORPs with a null pointer
- Fixes a bug in 7.5.x where a snapshot could get stuck and cause replication and volume accessibility issues mostly with Live Volumes when there is an IncompleteWriteRepair process that is stuck

Recent enhancements in CloudIQ
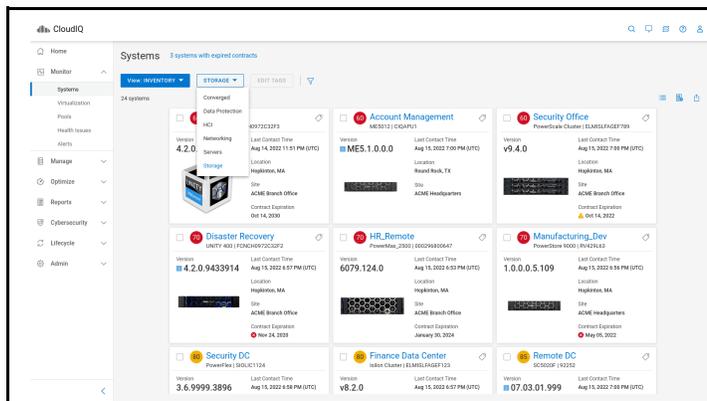
Consolidated Systems View

We've consolidated the various Systems pages into a single view for quicker navigation. You can now use the Systems page to switch between views for Health, Inventory, Configuration, and Performance for each of your products. Your selection within this view will persist between sessions. The current filter options are also cached to facilitate the navigation between the multi-systems view and details pages. We've also updated the Left Navigation bar to consolidate all of the multi-system views into an easy-to-navigate view.
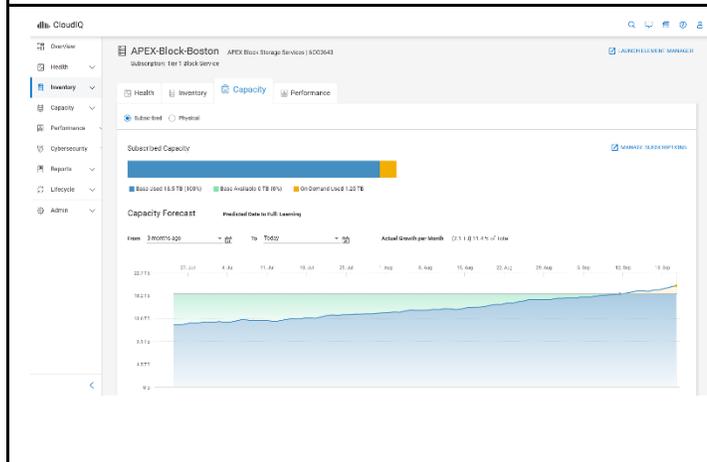
APEX Data Storage Services Capacity views updates

We've enhanced the Capacity views for APEX systems to allow you to switch between subscribed capacity for your APEX Service, or Physical capacity for actual capacity consumed on the storage system. You can toggle between these views through a radio button in the system details capacity view. In the Subscribed capacity view, we have streamlined the capacity metrics to show Base Used and Available, and where applicable, On-Demand Used. The Physical capacity view corresponds to the capacity displayed in the Element Manager for the storage system.
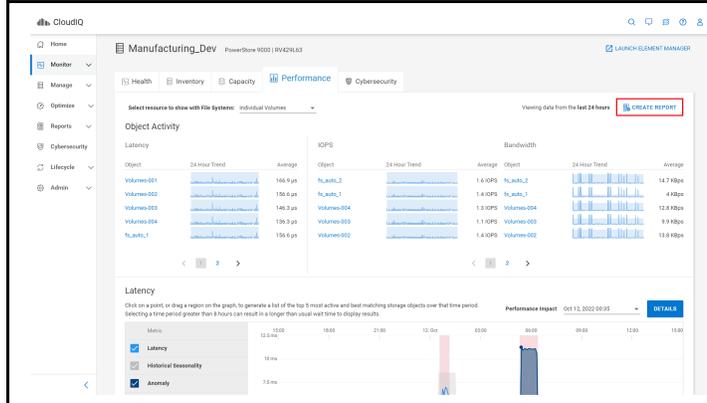
'Create Report' Button Replacing 'Go To All Metrics' Button

We've replaced the 'Go To All Metrics' button in Performance details pages with the 'Create Report' button, which allows you to create a custom report with detailed performance data. You can quickly create custom performance reports and manipulate them by adding other content, including tables, and also schedule and export reports. Existing 'Go To All Metrics' buttons have been replaced, with the exception of PowerVault LUN, XtremIO system, and SC Series system pages where the buttons have been removed for now.