BackBox® E4.12 Release Notes

Abstract

This Release Notes document is for E4.12

BACKBOX®

Legal Notice

Version E4.12 – DECEMBER 2023

New Features and Improvements

- Support of Window Server 2022 Standard.
- Enhanced the response of the VTC to volume tape deletion failure.
- New VOLUMEs list filter by catalog status.
- Enhancement of the OBB017 Cleanup Job to be more resilient and to allow updating catalog status without attempting to release the storage space.
- Enhanced the Cloud Tier functionality by introducing support for various cloud tier providers.
- Branding change on all BackBox occurrences with BackBox in UI, VTC MC and Guardian interfaces.
- Improved the display of the Cloud Tier connection to show "Cloud Tier Connecting".
- Modified the fields of the scripting parameters, depending on the type of script used.
- Supporting QoreStor 7.2.1.140 version.
- Supporting RapidCIFS 4.0.4 version.
- Improved VTC Management Console to display a new field for iSCSI connections - **Initiator IP** – that links the selected iSCSI target to a specific CLIM. If assigned with CLIM IP address, the target device answers only to that specific CLIM storage.
- QoreStor OL8 bundle of errata and securities fixes.
- Improved support of the DataDomain Retention Lock policy.
- Improved AutoScratch configuration for "DataDomain Retention Lock" and for QoreStore Cloud Tier containers.
- Improved the display of the embedded QoreStor node on VTCMC with a link button to QoreStor interface.
- Introduced WORM Compatibility feature for a better integration with the "DataDomain Retention Lock".

Resolved Defects

- Resolved a defect in the Copy Sync function when invalid share paths were defined in the configuration.
- Allowing TMF catalog configuration on QoreStor Cloud Tier containers Data Store.
- Backup fails when the compression algorithm doesn't process the received buffers.
- Fixed a defect related to adding a route to a QoreStor data store that was automatically creating a copy storage path, even with the copy pool policy disabled.
- Resolved a defect related to volume Materialization/Virtualization function when inputs fields are missing or invalid.
- Fixed a defect related to input value format when defining the volume creation quantity.
- Resolved a defect related to cleanup job that stopped when first error encountered.
- Fixed an error generated by path selection when DataStore is set with 2 VTC-QS routes.
- Fixed an error that prevented QS target replication DNS name to be resolved.
- Resolved a minor defect related to the QS Update button that remains available even after the updating process has been started.
- Fixed a defect related to diagnostic file download following a QS upgrade.
- Resolved a defect that prevents changing the QoreStor replication target when replicating to a different QoreStor server.

Security Updates

- Improved SSL Lib messages when error reporting
- Upgraded OpenSSL to 3.0 to support VTC Key Manager's client TLS communication.
- Upgraded OpenSSL to 3.0 for BackBox NonStop components for TLS communication.
- VTC components now use native Windows Schannel for TLS communication with certificates store.
- Improved security by refreshing libraries: lz4, zlib, Crypto++, PuttyTel, See BackBox H4.12 Third Party Components manual complete versioning implemented in BackBox.
- Improved security by fixing various OpenSSL-related CVE: CVE-2023-0464, CVE-2023-0465, CVE-2023-0466, CVE-2023-2650, CVE-2023-4807
- Improved security by fixing Expat-related CVE: CVE-2012-0876
- Improved security by fixing various DataTables-related CVE: CVE-2020-28458, CVE-2021-23445
- Improved security by fixing RestSharp-related CVE: CVE-2021-27293
- BackBox minimal .Net Framework is now .Net 4.6.2

Known Issues

- Creating unlabeled volumes is not supported with lock-protected storage, such as Data Domain, QoreStor Cloud Tier, StoreOnce, etc.
- Spare Move mechanisms could fail to retry moving files, if one of the virtual volume files has been locked by DataDomain, before all the files (IND or DAT or HDR with BoostFS) had been transferred.
- The Secure Connect option for RapidCIFS is not working with default naming convention used by QoreStor Data Store Storage pool path.

Version E4.11 – MAY 2023

New Features and Improvements
- Improved the display of the QoreStor-generated diagnostic.
- Modified Stand Alone Load functionality to allow volume selection based on volume label.
- Improved Stand Alone Load page to display in a drop-down list the available FC connections based on their serial number.
- Integrated HPE Bare-Metal backup and recovery process.

Resolved Defects
- Fixed an error generated when setting up QoreStor replication.
- Resolved a defect related to DataStore with two VTC routes - QoreStor type - that was writing data on the same QoreStor storage.
- Fixed a security identifier (SID) issue at Samba server restart after having changed the QoreStor host name.

Security Updates
- Updated OpenSSL to library version to 1.1.1u. CVE-2023-0464, CVE-2023-0465, CVE-2023- 0466, CVE-2023-2650, CVE-2022-4450, CVE-2022-4304, CVE-2023-0215, CVE-2023-0286

Version E4.11 – OCTOBER 2022

New Features and Improvements
- Improved updating process for both QoreStor and OS.
- New feature that allows various migration options, such as migration with conversion and migra- tion as is.
- Implemented new functionality to allow changing job status (suspend/running/resume) directly on the Job Status page.
- Improved Job Status page to display details on running and completed jobs, such as processing rate on the total number of files and errors information.
- New feature for Automatic Scratch capability.
- Improved license importing process on VTC Management Console.
- Implemented network subnet new format for embedded QoreStor displayed information.
- Copy-Non-Copy file process cannot be started while other processes are running (Migration and/or Spare Move).

Security Updates
- Update of the OpenSSL library that implements TLS secure communication over the BackBox con- trol path. Several Critical and High CVE has been discovered on the current OpenSSL library use including CVE-2022-0778, CVE-2021-3711 and CVE-2022-1292.
- CVE-2014-4715 compliance when using Light Compression (LZ4).
- CVE-2016-9843, CVE-2016-9841, CVE-2016-9840 and CVE-2018-25032 compliance when
- using Strong Compression (ZLIB)

- The reactivation of the Run interactive processes under the sign on user ID option can pre- vent the full authentication on the BackBox UI and allow unauthorized access under certain con- ditions. CVE-2021-33895.

Resolved Defects

- Fixed an error related to Copy Pool Sync that was preventing running proper backups.
- Resolved a defect related to the domain address configuration
- Fixed an error that was preventing QoreStor DataStore cross-replication for DataDomain optim- ization.
- Resolved a defect on SPACE-6 SCSI command with Virtual Cartridge format 2 (RAW format) that was causing a backup failure for BoostFS or StoreOnce optimization
- Resolved a defect on LOCATE1-10 SCSI command with Virtual Cartridge format 1 (GENERIC format) that was generating an error when appending data at the end of tape VOLUMES for DataDomain optimization
- Fixed a bug that was preventing cross-replication of QoreStor DataStore
- Resolved a defect related to serial numbers in invalid format of signed licenses for VMware vBackBox
- Fixed a login issue that was generating password errors due to a string parameter
- Fixed an error related to the license validation key (case sensitivity)
- Resolved a defect on orphan .DAT file in spare path that was deleted when re-used as SCRATCH.

Version E4.10 – JANUARY 2022

New Features and Improvements

- New replication functionality for embedded QoreStor
- Implemented QoreStor event forwarding functionality for embedded QoreStor
- New User Management page for legacy security implementation
- Improved the diagnostic generation feature
- New license functionality for VTC
- Improved the VMware license loading for Virtual BackBox. Due to serial number format the license wasn't recognized as valid.
- Implemented SUPER.SUPER user capabilities to have access to pre-4.09 administration features
- Improved the Storage Administration page with a new layout and new features for running jobs details (real-time information, job completion, files size details)
- Improved the User Management page, user permissions and profile capabilities to allow access to various functionalities (materialize, virtualize, delete media, etc.) based on profile permissions
- Improved some Guardian tools related to the script controller
- New License Portal with features for license requests and signature validation
- Improved peripheral node licensing based on domain version and BackBox version
- BackBox Ticket Collection filtering capability has been removed from both VTC and System Event logs.
- Improved the behavior of password error message when log in password exceeds the maximum length (80 characters)
- New feature that allows various migration options, such as migration with conversion and migration as is.
- Implemented new functionality to allow changing job status (suspend/running/resume) directly on the **Job Status** page.

Resolved defects

- Fixed an error related to Copy Pool Sync that was preventing running proper backups.
- Resolved a defect related to the domain address configuration
- Fixed an error that was preventing QoreStor DataStore cross-replication for DataDomain optimization.
- Resolved a defect on SPACE-6 SCSI command with Virtual Cartridge format 2 (RAW format) that was causing a backup failure for BoostFS or StoreOnce optimization
- Resolved a defect on LOCATE1-10 SCSI command with Virtual Cartridge format 1 (GENERIC format) that was generating an error when appending data at the end of tape VOLUMES for DataDomain optimization
- Fixed a bug that was preventing cross-replication of QoreStor DataStore
- Resolved a defect related to serial numbers in invalid format of signed licenses for VMware vBackBox
- Fixed a login issue that was generating password errors due to a string parameter
- Fixed an error related to the license validation key (case sensitivity)
- Resolved a defect on orphan .DAT file in spare path that was deleted when re-used as SCRATCH.

Version E4.09 – JUNE 2021

Resolved Defects

- Resolved a major security issue CVE-2021-33895 related to Installer SUPER user authentication from BackBox UI.

Version E4.09 – APRIL 2021

New features & Improvements

- A new Datastore type (QoreStor) is now available for the embedded dedicated QoreStor server. The new Datastore type automatically creates storage pools based on data management policies by naming them according to the naming convention.
- For QoreStor Datastores or for Winstore storage set as Rapid CIFS (QoreStor), all virtual volumes belonging to a given volume group are automatically stored in sub-folders named to match the specified volume group.
- VTC Management Console displays now QoreStor server node with parameter settings for configuration and replication.
- Improved the event list and associated messages forwarded to NonStop EMS to include QoreStor events.
- QoreStor VM system clock and time zone are automatically set up to match the VTC time parameters.
- New and improved access control using User Management interface feature to allow setting up customized permissions and creating profiles with associated roles.
- SecurID is now supported (MFA) by Sign-In screen to allow authentication by security token (PIN), when required
- Implemented a batch Datastore password-change program (OBB004/ OBB004B) that validates the access to Datastores.

Deprecated / Decommissioned Features

- Run interactive processes under the sign on user ID is no more needed to limit wide-ranging access using Guardian/Safeguard ACL on BackBox configuration files (replace using User Management profile feature)

Resolved Defects

- Resolved a defect related to Data Store paths created for StoreOnce.
- Fixed an error that generated an application hang while unloading with BoostFS.
- Resolved an ABEND issue (abnormal end) related to the CatSync Import process.

Version E4.08 – JANUARY 2021

Resolved Defects

- Fixed various display bugs related to DataStore configuration.
- Allow adding iSCSI device(s) in BackBox Domain; configuring three iSCSI devices on a single sCLIM is not necessary anymore.
- For DataDomain BoostFS CIFS clients, resolved a defect to terminate TAPE session after network error to avoid lagging of the UNLOADING status.

Version E4.08 – DECEMBER 2019

- The UI now displays the definition of a Management Class (TSM Management Class) when running a TSM script
- Added new field in the Volume List page: Last Update Timestamp
- New feature has been implemented to support Datastore optimization for client storage (BoostFS)
- BackBox allows now up to 12 iSCSI devices per NIC
- Improved the materialization function
- Parallel encryption with both iSCSI and FC is now available.
- Improved the refresh rate of the Refresh Status page.
- New ATTO tool version is now available: version number 432, using OpenJDK 11.

⚠️ H4.08 is working with SPP 2019.09.

Deprecated / Decommissioned Features

- Removed an obsolete function on the DataStore advanced configuration page when datastore type is SECONDARY: Backup Method field

Resolved Defects

- Fixed a browser-related popup prompting right after reserving a Volume Class on the Volume Class List page.
- Resolved a defect that prevented the installation of a SSL key on a NON SSL BackBox environment.
- Fixed a bug that prevented updating a reserved Volume Class.
- Resolved an issue related to license load function.
- Resolved a defect related to Write/Read Bytes information in the VTC Tape Devices table on the Status for NonStop Node page.

- Fixed an issue that prevented a flawless CATSYNC import process with large amount of volumes.

Version E4.07 – MARCH 2019

- BackBox uses now OpenSSL version 1.1.0hResolved a defect that prevented the import of a volume to a different volume type through the Catalog Sync option. The defect has been fixed and the volume can be now imported to the new specified type.
- **BBOX_COPY_IOPACING** parameter has been removed from **Advanced Data Store** page for "Copy Pool Sync With Customized Script" when in Edit Mode.
- Any invalid license info will not be accepted or confirmed by the **Load License** page. The **Confirm** button becomes available only if the license info is correct.
- The auto-refresh timer on the **System Status** page allows the following values: 5, 10 or 15 (seconds). The system is refreshed every 5,10 or 15 seconds, depending on the input value.
- iSCSI can be set now as port type for the **Stand Alone Load** option.
- The layout of the iSCSI description page on the VTC Management Console has been improved.

VERSION E4.06 – FEBRUARY 2018

- New Advanced Customized Script option.

VERSION E4.05 – DECEMBER 2017

- iSCSI - It is now possible to connect a Virtualized NonStop to a physical BackBox when set up with a proper license.
- iSCSI - iSCSI connection can be used in parallel with FC devices (on a physical BackBox).
- FC/iSCSI - Support for LARGEBLOCK mode is now available. The LARGEBLOCK option is by default activated in the BackBox and it does not impact system(s) not using this feature (prior to L17-08).

VERSION E4.04 – JULY 2017

- Edit Mode message has been moved to the left sidebar.
- The SSLCFG file has been updated for new certificate files.
- Fixed a bug that prevented the deletion of an expired volume in DSM/TC.
- The installation macros, such as INSH404, can be run by the SUPER.SUPER account, bypassing the security parameters.
- Fixed a bug that prevented the non SSL programs to be copied in the target sub-vol if the sub- vol was not tagged as current sub-vol. The macro output issued a "File not found" error message.
- ISCSI - new option have been implemented for the Virtual NonStop. The ISCSI configuration is done through the VTC MC that displays the available NIC cards as nodes. A maximum of 3 (three) ISCSI devices can be added under each node. The limitation on the number of devices is given by the license in the Domain Manager of the vNSK.

VERSION E4.03 – MAY 2017

- When installing or upgrading to H4.03 AAH, the Domain installation package file code has been modified to properly function for all systems.
- New open SSL certificate(s) are now included in the installation/upgrade package.
- Delete function has been improved to avoid manually force-deleting expired tape(s).

VERSION E4.03 – FEBRUARY 2017

The layout of the user interface has been changed as follows:
- The color theme has been changed.
- The button Switch to Edit Mode has been moved on the left-side panel.
- When in edit mode, a highlighted message right below the main tabs notifies that the Save but- ton has to be clicked to make the changes effective.
- A pop-up window prompts the user when exiting the edit mode without saving the changes.
- Save and Cancel buttons have been moved to the left-side panel, right below the Configuration tab.
- The NSK Nodes page has been redesigned to match the UI theme.
- The License Update procedure has been modified.
- The UI pages' display have been improved to fit different screen resolutions.
- The layout of the UI has been improved to keep the main tabs on display at all time, even when scrolling.

VERSION E4.02 – AUGUST 2015

The PROGID attribute is set at installation time to the BBSV and BBEXT programs, in order to avoid running automatic processes under SUPER.SUPER

The volume deletion confirmation UI page gives two more detailed controls:
- The volume expiry date stored in the HDR1 tape header is now tested. If the volume has not expired according HDR1, the deletion is rejected – even if the volume is cataloged in DSM/TC and SCRATCH. The volume deletion UI page allows skipping this new validation.
- The volume deletion can be tailored to differ from the default "Delete all: in storage, in the domain and in the potential associated DSM/TC pool."

BackBox Collecting Ticket Information script on the VTC server now outputs the zip file under the current logged user "Document" folder. There is no more "Support" under the "BackBox Default Folder".

VERSION E4.02 – MARCH 2015

No functional changes. This release contains only bug fixes.

VERSION E4.02 – DECEMBER 2014

- VTC is supported under MS-Windows 2012 R2, in addition to MS-Windows 2008 R2. A new utility,
- **VTC Management Console** or VTCMC, has been added; it handles the VTC internal configuration.

- Support of LTO6 emulation and media type, without Encryption, has been added.
- There are now three choices for volume compression on the VTC: "None", "Low" and "High".
- SSL is available in the BackBox components; tunneling is no longer required. On NonStop, it is provided by the ComForte SecurLib/SSL library. On Windows, SSL is provided by Microsoft frame- work and by OpenSSL.
- BackBox components are distributed with SSL disabled. On the NonStop, SSL is configured through the ComForte file SSLCFG, with a small number of parameters being configured through the BackBox TACL macro BB053_SSL. On the VTC, SSL is configured through the VTCMC and in the BackBox UI.
- **CPU affinity** has been added as a new option in the tape drive selection. BackBox prefers tape IOPs that run on the same CPU. This option can be disabled in the NonStop profile, accessible via the NSK Nodes tab in the BackBox UI.
- The file BBEXTCFG has been removed.
- The EMS Extractor is now configured through the NSK Nodes tab in the BackBox UI.
- A new NonStop program (OBB055) has been added for cloning physical tapes to virtual tapes without changing any of the associated DSM/TC information. When replicating backup, BB055 is equivalent to BACKCOPY, but with no change in the copied volume, and volume label and backup dates remaining identical. It can also be used to clone a virtual media to become a physical media.
- A new functionality, **Copy Pool Sync** option, is now available in the **Windows Advanced Pool Management.** It copies a volume from the **Storage Pool** to the **Copy Pool** of the same Data Store. The copy is either done through the regular backup script, automatically submitted after a backup, or executed on demand through the UI for a single volume or an entire Data Store. Although it is not configured as a script, execution is reported in EMS as a regular backup script. Copies are made on the remote path only and will be chosen from among available paths in the **Copy Pool**.
- EMS messages are now highlighted for all alert messages, and for alert messages only. The replication of alert message to message#3171 is now optional.
- In data store scripts configuration, the user has now the choice to:

  1. Continue the usual manual configuration of user-defined scripts (**Generic" scripts**)
  2. Select pre-defined scripts to use "as is" (**TSM** and **Manual Restore** scripts).