

UrBackup Appliance Change Log

Appliance version 12.4 (2025-03-30)

Changes:

- Fix two rare cache corruption issues with RAID/cloud storage if background compression is enabled
- Don't try to recover without cache reset if cache is corrupted during startup
- Improve RAID/cloud storage performance by using better data structures and doing less runtime checks
- Upgrade to Linux kernel 5.10.235

Appliance version 12.1 (2025-02-09)

Changes:

- Fix removing client discovery hint with only one connected app
- Ensure proper object deletion in rare cases with cached RAID
- Fix rare RAID/cloud storage corruption with low amount of available RAM
- Upgrade to Linux kernel 5.10.234

Appliance version 11.43 (2024-11-11)

Changes:

- Do not consider mac address naming when migrating to new Linux network interface naming scheme
- Fix issue with getting root device with multiple NVMe
- Improve performance of object deletion step when rebuilding cache device

Appliance version 11.35 (2024-10-31)

Changes:

- Improve functionality to preload btrfs delayed refs
- Improve number of simultaneous requests cloud/raid drive to improve performance
- Fix off-by one error in hasBitmapRangeNarrow causing image backup issues while trimming
- Fix memory leak in cloud drive to default/build-in storage
- Fix issue where RAID drive was blocked while syncing disks in checkpoint
- Fix issue where appliance configuration data got deleted when space of system volume was exhausted
- Migrate to new Linux network interface naming scheme
- Upgrade to Linux kernel 5.10.226
- Include Linux patch to allow more than about one million backups

Appliance version 11.28 (2024-07-29)

Changes:

- Add switch to not throttle files in /var/tmp

- Add switch to use /var/tmp more (e.g. for patches)
- Add switch to use `ssd_spread` mount option
- Improve startup call performance improving speed with which the login page is available
- Write something after mount to make ext4 pre-cache improving RAID startup speed
- Extend `ignore_etag_error` to upload when uploading to S3
- Ignore etag mismatch permanently if it mismatches during initial check
- Use `ioctl` directly to get btrfs device stats improving commit performance
- Make number of metadata cache second chances configurable
- Add function to preload btrfs delayed refs
- Bring back old postprocessing replication postprocessing, with an internal setting to switch to it
- Make file list parsing more resistant against file list corruption
- Update Linux kernel to 5.10.216
- Don't stop zip file creation on encountering a symlink loop
- Fix issue in error handling with linking object to base version

Appliance version 11.25 (2024-03-27)

Changes:

- Fix issue in first login wizard
- Improve cloud/raiddrive checkpoint performance
- Reduce cloud/raiddrive resize frequency
- Cloud/raiddrive performance optimizations
- Make client rename more robust
- Make RAID more corruption resistant if one of the disks has corrupted data on it (will be able to still read data from it in more cases)
- Fix discovery hint removal on status screen
- New more aggressive file system throttling (disabled by default for now)
- Fix switching to next stage when moving clients to different appliance
- Use CR LF instead of just LF to end lines in mails
- Update Linux kernel to 5.10.213

Appliance version 11.21 (2024-01-13)

Changes:

- Add UEFI support/update (in testing)
- Set `/home/admin/.ssh` dir permissions correctly on update
- Fix archive settings migration
- Add configuration of apache allowed TLS versions
- Fix issue with archival not archiving properly and archive settings items not being able to be deleted
- Fix resizing root partition to max size
- Update Linux kernel to 5.10.206

Appliance version 11.18 (2023-11-30)

Changes:

- Disable cloud-init from resizing the root partition and from locking the admin account

- Update to Linux kernel 5.10.202
- Fix potential performance issue in RAID with many disks
- Don't have error events on operation timeouts with hosted cloud storage
- Improve stopping replication on error
- Fix creation race causing spurious error
- Scale amount of min free space on cloud/raid cache with total size
- Fix issue with resetting RAID disks after error
- Don't reset internet authkey use value when resetting all setting use values
- Only disable backup replication if error return was not caused by stopping backup
- Fix RAID repair issue that caused mismatched cached metadata
- Don't log successful logins to db by default, only to syslog
- Disable locking session to user-agent and IP

Appliance version 11.16 (2023-10-15)

Changes:

- Update to Linux kernel 5.10.198
- Pull in changes from UrBackup 2.5.32
- Use ext4 instead of XFS for RAID disks
- RAID/cloud cache performance improvements
- Fix RAID crash issue caused by third-party code
- Fix cbt key display on branch
- Fix RAID rebuild bug
- Improve RAID cache submission performance
- Keep shared memory files completely in memory
- Start new RAID/cloud storages without 8KB offset, with larger btrfs node size and with big endian names for blocks
- Fix file index replication failing recovery
- Fix cloud cache resize to device size on startup
- Retry waiting for balance on exception
- Mount btrfs with ssd mount option for improved allocation patterns

Appliance version 11.13 (2023-08-18)

Changes:

- Fix crash issue with new instances when running file backup

Appliance version 11.11 (2023-08-16)

Changes:

- Disable switching to system cloud cache from specific device use screen
- Simplify cloud/raid startup to fix a startup issue

Appliance version 11.10 (2023-08-05)

Changes:

- Fix web interface JavaScript issue caused by archival settings

Appliance version 11.7 (2023-06-18)

Changes:

- Update to Linux kernel 5.10.172
- Based on UrBackup server 2.5.x
- Base system updated to Debian bullseye
- Improve speed of iterating over objects when recovering from S3/RAID
- Replication bug-fixes
- Improve performance of large S3/RAID storages
- Auto-layout RAID robustness improvements

Appliance version 10.22 (2022-07-03)

Changes:

- Update to Linux kernel 5.10.128
- Fix crash: Protect against corrupted file lists
- Add ability to add RAID device notes
- Add reset RAID disk error counter button
- If a disk is missing put RAID into a read_degraded mode where it ignores read timeouts and error thresholds are increased

Appliance version 10.19 (2022-03-27)

Changes:

- Update to Linux kernel 5.10.103
- Security: Disable older SSL versions in apache web server when using SSL
- Security: Send HSTS header in apache web server when using SSL

Appliance version 10.16 (2022-01-30)

Changes:

- Update to Linux kernel 5.10.93 and include a patch that fixes a btrfs ENOSPC issue

Appliance version 10.14 (2022-01-02)

Changes:

- Update to Linux kernel 5.10.89
- Fix waiting for balance/scrub/rebuild to finish (to display it correctly)
- Fix import from simple RAID
- Balance simple RAID after startup to rebuild it after it was mounted degraded
- Update admin password with login password after login fails with stored credentials
- Fix adding iSCSI disk
- Mask and unmask ssh, nmbd, smbd systemd services so they don't get started on security upgrade
- Up-to-date with UrBackup server 2.4.14
- Fix directory creation race causing RAID/cloud storage error

Appliance version 10.13 (2021-09-30)

Changes:

- Update to Linux kernel 5.10.70
- Fix rare hang with RAID/cloud backup storage
- Check if backup storage and cache is writable/without errors before committing it as additional safeguard against corruption
- Add button to locate disk enclosure (beta)
- Fix hang with large RAID backup storage with high fragmentation
- Fix manually setting HTTPS cert files
- Disable firmware reset on EC2, Azure and generic cloud
- Fix performance issue in rare cases where RAID storage has to free up space while deletion is running
- Fix rare issue with interrupted RAID backup storage rebuilds that can cause corruption
- Improve RAID/cloud scrub memory usage
- Fix resetting cloud/raid cache when cache is e.g. on system disk
- Disallow importing from disk when appliance already has cloud/raid storage
- Update letsencrypt root CA fixing connectivity to online service

Appliance version 10.12 (2021-08-09)

Changes:

- Update to Linux kernel 5.10.57
- Include Paragon ntfs3 for more NTFS performance when reading images and for supporting new NTFS compression
- Disable Linux zram compaction

Appliance version 10.11 (2021-07-10)

Changes:

- Mount cache with btrfs compression heuristics
- Advanced setting to turn off CPU SPECTRE and co. mitigations
- Fix waiting for web shell/netdata to start
- Fix issue where log rotation during boot would cause the backup server to not start
- Fix issue with totally empty image backups
- Fix mail (alert etc.) send retries
- Fix mounting image backups via guestfs
- Replace Linux kernel btrfs ENOSPC work-around with back-ported btrfs ENOSPC fixes. This improves performance
- Work-around rare Linux btrfs issue that causes cache/storage to fail

Appliance version 10.9 (2021-06-17)

Changes:

- Hide space usage panel for non-admins
- Fix downloading files/ZIP when logged in as user restricted to one client

Appliance version 10.8 (2021-06-14)

Changes:

- Fix Ipv6 netmask web UI issue

Appliance version 10.7 (2021-06-11)

Changes:

- Decrease kernel (io-ring) memory usage further to prevent out-of-memory issue on cloud/raid startup
- Don't sync database while waiting for long running active query to prevent unnecessary IO
- Disable multi trans delete for cloud/raid drive per default (again)
- Throttle raid/cloud drive cache object deletion after submission to prevent cache metadata operation spikes
- Flush raid/cloud drive cache database more often to prevent long flush wait times
- Backport fix to allow “.” characters in in ZIP files
- Fix generating smb config for restricted users

Appliance version 10.6 (2021-05-25)

Changes:

- Decrease kernel (io-ring) memory usage to prevent out-of-memory issue on cloud/raid startup
- Automatically rebalance cache (meta-)data if there is too much (meta-)data used
- Increase work-around for btrfs ENOSPC issue
- Set advanced cloud drive settings properly in web UI
- Increase cloud/raid database memory usage in some cases to speed it up
- Limit cloud/raid drive multi trans delete to max 20 transactions
- Don't sync while waiting for long running active database query to speed up those long running database queries

Appliance version 10.5 (2021-03-31)

Changes:

- Fix issue w.r.t. to timezone handling that made old AWS appliances on update 10.4 fail to start up

Appliance version 10.4 (2021-03-29)

Changes:

- Fix crash w.r.t. search index creation with empty file names
- Fix issue in raid/cloud drive when RAM is configured as cache
- Prevent multiple cloud/raid drives from using the same cache location
- Fail all disks for free space in RAID group simultaneously to prevent explosion of the number of header mappings
- Fix reading number of RAID chunks when header is mapped
- Updated Linux kernel to 5.10.26
- Work-around for btrfs ENOSPC issue in Linux
- Reset system cache before mounting it if reset was requested

- Make sure configuration is changed when switching between cloud and RAID cache mode

Appliance version 10.3 (2021-03-18)

Changes:

- Fix crash bug in RAID/cloud drive in connection with eviction of compressed items

Appliance version 10.2 (2021-03-12)

Changes:

- Fix update issue when updating from 9.25-9.32 beta versions
- Updated Linux kernel to 5.10.22
- Use 2.4.x branch of client per default
- Fix rare cloud/raid cache issue where it is throttled to zero and deletes most items on cache
- Fix Linux and samba user removal when user is removed via web interface
- Improve RAID config durability

Appliance version 10.0 (2021-03-08)

Changes:

- Updated Linux kernel to 5.10.20
- Updated Debian to buster
- Use new Linux technology (io_uring) to significantly improve cloud/raiddrive performance
- Option to have in-memory cloud/raiddrive cache compressed
- Option to postpone background cloud/raiddrive deletes till after cleanup
- Add button to ack all messages if there are more than four messages
- Fix replication cancelling after error
- Fall back to full replication if incremental replication fails
- Check if file exists when looking up files for deduplication during replication
- Wait for raid/clouddrive background worker in emergency cleanup
- Fix an issue with startup cleanup: Delete .startup-del file backups on startup
- Add more client version selection options
- Improve memory usage of cloud/raiddrive
- Improve client list cleanup
- IPv6 network configuration support
- Support overriding s3 region
- Fix setting internet_mode to construct correct capabilities
- Fix issue where interrupted background task would cause scrub errors after restart
- Update alert script after it has been changed via web interface
- Fix sending clients new settings after group settings have changed
- Significantly speed up raid/clouddrive free space cache generation
- Delete objects of multiple raid/clouddrive transactions at once
- Option for low IOPS cache disk tuning
- Improved Linux disk queue tuning
- Improved RAID metadata performance on hard (spinning) disks
- Improved cache eviction when a lot of metadata cache entries are present
- More aggressive throttling when waiting for commit
- Increase free space disk timeout if appropriate

- Run all background tasks before continuing scrub/mirror
- Prevent race that adds a client twice when replicating client
- Add client with alternative name as option so one can install two clients connecting to different appliances on one machine
- Increase time full RAID disks are retried for free space
- Download new client immediately after the client type is changed on the web interface

Appliance version 9.24 (2020-11-26)

Changes:

- Update Linux kernel to 5.4.76
- Wait for startup cleanup to completely finish before starting replications
- Fix image replication issue that caused replications to not start
- Fix domain validation when setting up HTTPS, e.g. for example.co.uk.
- Retry replication without parent/skip when replication fails
- Add database indices to make the replication manager more efficient
- Set non-flushed replicated backups to flushed after a db backup after system restart

Appliance version 9.21 (2020-09-14)

Changes:

- Fix DNS setup on AWS
- Update Linux kernel to 5.4.72
- Improve RAID/cloud drive Linux memory management
- Fix race when setting up RAID/cloud drive
- Disable (non-working) option to archive to cloud when already using cloud drive for backups
- Improve RAID/cloud drive performance
- Fix VM creation issues/Update VM emulation (qemu)
- Add more last error lines to cloud/RAID error event if startup fails

Appliance version 9.19 (2020-09-14)

Changes:

- Make enabling swap on external system disk more robust
- Fix removing CIFS/SMB RAID disks
- Fix RAID metadata device removal interrupted by reboot
- Improve SSL setup (via letsencrypt)
- Fix Linux memory balancing edge-case
- Fix SSL redirection issue on upgrade
- Fix manual network config
- Fix file/zip download from partition mounted images
- Don't sync subvol removes if not necessary (improves performance of backup removals)
- Log header mappings instead of putting them into the config file (improves performance of RAID in some cases)
- Fix S3 with multiple buckets
- Add S3 sharding with multiple buckets

- Fix JavaScript issue if timezone is not present in server response
- Use tmpfs (RAM) at /tmp as replication buffer (improves replication performance if system volume bottlenecks replication)
- Fix getting file extents if file has no extents. This was causing image backup statistics calculation to be stuck in an infinite loop.
- Read backup window setting when set by client
- Fix RAID crash if RAID disk becomes corrupted in a certain way
- Reset exponential back-off if backup wasn't tried for double the amount of time of the current back-off time
- Update Linux kernel to 5.4.63

Appliance version 9.15 (2020-07-13)

Changes:

- Improve search query syntax when searching in file backups
- Add support for external free space cache db for RAID metadata (system disk or cache disk)
- Don't use single disk in RAID if its failure probability is greater than target probability in an out of free space situation
- RAID metadata performance improvement
- Throttle during cloud drive flush
- Cached RAID performance improvement
- Allow different domain when setting up SSL
- Improve cloud drive error handling when syncing cache device fails
- Keep track of all RAID disk layouts in transaction and abort if any of them doesn't have the required parity
- Fix issue with RAID recovery after cache failure
- Fix progress display of RAID cache recovery
- Add settings to re-attach/reboot after RAID disk goes offline
- Improve cloud drive btrfs metadata handling
- Reduce UrBackup file index memory usage
- Improve automatic scrub after disk gets re-added to RAID
- Add button to use system disk as RAID cache even if no disks are attached
- Show correct metadata failure probability in storage settings
- Fix memory issue with cloud drive mount daemon
- Added different defrag mode (for SMR disks)
- Added RAID metadata read cache
- Added option to burn in (one read and write pass) new RAID disks
- Don't reset RAID disk read-only status of disks marked for removal
- Warn once about S3 etag error then ignore it
- Prevent race in cleanup leading to file backups being not cleaned up in some cases
- Adjust throttle and critical sizes with small RAID/cloud cache
- Reduce size of RAID metadata
- Use fast write retries when writing to RAID
- Don't pre-select any cloud storage location during setup
- Update Linux kernel to 5.4.49
- Fix S3 with Scaleway
- Improve handling of cloud-init network devices in cloud images

Appliance version 9.11 (2020-03-24)

Changes:

- Do file level deduplication during appliance to appliance file backup replication
- Improve file backup replication performance
- Ability to move variable system data to a separate disk
- Fix saving monitoring settings
- Improve RAM usage when replication is interrupted by freeing buffers faster
- Add hint about waiting for password update when a wrong admin password is entered
- Fix backup size calculation with changed files
- Fix log file display with non-all log permissions
- Use main client setting for correct max_running_jobs_per_client value
- Sync (parent) backup folder as well on backup completion
- Increase number of spare replication connections (performance)
- After password reset, update password from internet server more often (every 5 min) till it receives a new password
- Resize cloud cache in db after cloud cache size change
- Update Linux kernel to 4.19.108
- Reduce memory usage for compressed connections
- Fix SSL setup web interface issue
- Add checkbox to redirect http to https
- Add setting to enable/disable smbdc/nmbdc in system settings
- Ability to add cifs folder as RAID storage

Appliance version 9.9 (2019-12-11)

Changes:

- Fix search database creation crash bug
- Fix search database cleanup/freeing

Appliance version 9.8 (2019-12-03)

Changes:

- Remove space used column in storage settings
- Improve kernel update error handling
- Add functionality to change theme (e.g. to dark mode) in system settings
- Retry RAID repairing infinitely if repair fails because of being out of space in scrub/balance (wait for space to become available)
- Remove non-working page close buttons on help page etc.
- Fix crash issue in search database initialization
- Fix issues that caused replications to fail
- Output used space of RAID disks in storage settings

Appliance version 9.7 (2019-11-27)

Changes:

- Fix upgrade for generic cloud instances

Appliance version 9.6 (2019-11-26)

Changes:

- Fix status/alert if incremental image backups are disabled
- Check if parent exists on source file system when archiving to cloud. This fixes some archival to cloud falling back to a full archive
- Improve some internal error login with local cached RAID
- Fix issue when retiring RAID device cache and system is rebooted suddenly
- Fix removal of scrub/balance progress display when scrub/balance is stopped
- Increase RAID total file system size faster in some cases
- Fix RAID defrag never running again after it was stopped because of timeout once
- Fix import from cloud erroneously assuming objects have no prefix causing cloud storage not to mount after import. Make detection of object name prefixes more robust
- Don't restore file backup search databases from backup storage that don't exist anymore after reboot
- Cleanup search database backups on backup storage on startup
- Improve database error logging
- Fix search database syncing before finishing backups
- Add raid and cloud cache reset functionality
- Add setting to compress raid and cloud cache (ZSTD/LZO)
- Fix check if image backup is already queued
- Handle "ALL_NONUSB" setting in image snapshot group
- Fix showing S3 setup errors
- Scale min free metadata space with cache size to fix ENOSPC issues with cloud/raid cache
- Improve raid/cloud cache performance
- Fix raid/cloud cache issues with newer Linux kernels (>4.19)
- Disable throttling of RAID rebuilds
- Use backup storage as temporary storage for appliance update if necessary (low amount of free space on system disk). This will be active for updates after this one
- Only wait for max. 5min for submissions before starting RAID defrag
- Handle RAID metadata corruption during startup by ignoring/ejecting the disk from RAID
- Improve RAID erasure code error handling
- Fix restore with simple backup storage (not cached RAID or cloud storage)
- Fix issue with showing the ident error on the status screen
- Start emergency cleanup if there is less then 100GB free space in raid/cloud cache mode
- Improve trimming free space in cloud/raid cache mode
- Allow deletion of raiddevcache devices
- Save metadata objects with different RAID layout if appropriate
- Fix RAID layout calculation caching
- Improve handling of RAID disk configuration failure
- Improve RAID disk configuration output
- Limit amount of time waiting for sync before flushing RAID
- Destroy old replication services for a while for old name after rename to fix replication not starting
- Fix search database replication
- Delete previous minor system updates after update
- Properly stop sending events if monitoring is disabled

- Fix issues with disk name if there are a lot of disks (RAID)
- Improve disk detection and mounting (made asynchronous)
- Set iSCSI disks to write-back caching
- Fix VM starting on AWS Marketplace instances
- Fix NAT network setup for VMs
- Use ZSTD compression instead of zlib for simple backup storage
- Restart system scrub after reboot if it was determined to have failed previously
- Write system updates ZSTD compressed to use less space on system disk

Appliance version 9.2 (2019-10-7)

Major changes:

- Ability for appliance to remote control each other (federation) via replication channels
- Proper used space calculation for image backups
- Support for sharing RAID disks with other appliances and support for using iSCSI disks
- Startup cleanup now finishes partially, allowing backups to start without the cloud archive being available
- Web interface security improvements (Strict Content Security Policy)
- Improved dynamic RAID disk space management
- Support multiple network adapters
- Added ability to mirror RAID asynchronously to S3 storage and ability to convert from s3 storage to RAID storage
- Added ability to remove (without taking them offline first) and replace RAID disks
- Support ZSTD transport compression and as use ZSTD instead of zlib compression for RAID and cloud storage
- Made RAID and cloud storage compression configurable in the advanced settings
- Parallel hashing improvements
- Calculate and display total sizes of image and file backups
- Ability to configure CBT client (add CBT key) and to configure CBT branch to be used/updated to
- Major improvements to cloud archive throttling and cache sharing with RAID cache
- Added ability to manually preload an image and use Linux kernel ntfs to browse images when insecurely mounted
- Added Google Cloud Storage support (in S3 compatibility mode)
- Added ability to use system disk as cache disk (for RAID and cloud storage)
- Added (configurable) RAID disk defragmentation
- Added ability to compare file backup contents. List added, deleted or modified files. Comparison to last file backup or between any two file backups
- Clients can now connect via https proxy to server. The appliance is pre-configured to be able to act as https proxy for clients (to localhost Internet port only). Appliances can replicate via https proxy
- Throttle scrub/balance/rebuild if RAID disks are used more than 50% of the time by backup/restore operations
- Added ability to search for files/directories in file backups (search database creation)
- Improved cloud upload progress display, as well as progress display of RAID scrubs, rebuilds and reshapes (now has speed and ETA information)
- Update to Linux kernel 4.19.72

Appliance version 8.25 (2019-07-01)

- Timeout for cloud drive connectivity checking during setup
- Microsoft Azure support
- Generic Cloud Provider support
- Linux kernel 4.19.56

Appliance version 8.20 (2019-05-30)

- Fix image mounting with non Hyper-V volumes
- Fix updating on new Amazon AWS images

Appliance version 8.17 (2019-05-21)

- Fix cloud cache rebuild from S3/Azure in some cases

Appliance version 8.16 (2019-05-17)

- Linux kernel 4.19.43
- Disable firmware reset on AWS ec2
- Jump to correct login screen after initial setup/when restoring from data on backup storage
- Allow setting license key when appliance has no account
- Lock root account after setup/if admin account exists and allow login via “root”/”urbackup” before that
- Fix root partition detection on AWS ec2