CDP 3.14.0 Release Notes

CDP 3.14.0 (Stable) Release Notes

This release includes 4 product editions: CDP Standard Edition, CDP Advanced Edition, CDP Enterprise Edition, and Data Center Console.

IMPORTANT NOTE(S)

This release contains the following important update(s):

Reminder: Full Block Scans Required on Agent Upgrade:

- A Full Block Scan will be initiated after an agent upgrade due to a restart of the agent service/daemon. This ensures replicas are consistent even after a server crash or reboot. For more information or to better understand backup types see Benefits of CDP.

Upgrading Windows Agent from 2.x to 3.14 or later:

- Customers upgrading Windows agents from 2.x to 3.14 or later no longer require a manual uninstall of the 2.x windows agent. Users running the 3.14 installer will be prompted during installation to remove the 2.x agent (if detected). The installer will remove all 2.x binaries and require a reboot and re-run of the 3.14 installer to complete the installation process.

Archiving Schedules Upgrading from CDP 3.10:

- Customers upgrading from version 3.10 with Archiving Limits set prior to upgrade will need to reset archive limits post upgrade. This can be easily accomplished using the bulk edit feature which can be accessed via the Policy tab.

Customers Upgrading with Customized Heap Settings:

- The upgrade will change the java heap size to 50% of physical memory if the server.conf file has been customized with a higher value. Reserving more than 50% of a system's memory for the Java Heap can result in situations where not enough memory is available for non-heap memory to the CDP server, or for other applications running on the system.

Upgrading customers (3.10 or earlier) may experience a delay when starting the WebUI:

- Please be patient as important updates are in progress. The log file will display "CDP Started" when all database updates are complete.

> Windows customers can watch their logs using Wordpad but will need to close

> and reopen the log file to see progress (example default path for Enterprise Install on Windows: C:\Program Files\R1Soft CDP Server Enterprise\log\server.log).

> Linux customers can watch their server log file using the following command: tail --f /usr/sbin/r1soft/log/server.log

NEW FEATURES IN THIS RELEASE

Product Stability and Performance Improvements

- Reduce fragmentation in new disk safes on Windows CDP Servers
- Improved performance on Linux when a large number of files are excluded
- Driver enhancements to increase overall performance and reduce I/O wait times

User/Group Enhancements - Includes New Product Configurations (accessed via Configurations tab).

A CDP administrator can now configure the interface of the product to make it more accessible and easy to use. This is done by hiding some menu options and product features that are not required by some users. For more information on configuring Product Configurations visit: Product Configurations

- Only Administrators
  - All users logging into the CDP Server will be administrator (CDP super user)
  - No Power Users, Sub- Users, Groups, or Volumes
- Multi-Tenant w/ Group
  - Group based administration - not recommended for service providers
  - No Sub-Users
  - Group permissions only
- Multi-Tenant
  - User based administration
  - No Sub-Users or Groups
- Tiered Reselling
  - User based administration - customers can create their own users
  - No Groups

Volume Limits

- Allow File Excludes, Recovery Point Archiving and Control Panels to be enabled/disabled
- Limits can be defined for Replication, Recovery Points and Archive Points

Policy Bulk Edit and Merge Improvements

- Bulk Edit - volumes and Disk Safe limits are enforced. For more information on bulk editing a policy see Policy Bulk Edit

- Option to merge recovery points separate from policy schedule. See Merge Recovery Points for more information
- Option to "Merge Recovery Points after Every Replication" or "Merge on Schedule"
- Allows user to select frequency when merging on schedule
- Merge is a separate task in Task History
- Queuing - Task are queued, not rejected, if Agent is busy
- Verify encrypted or unencrypted block checksums on the CDP Server allowing user to triple check the integrity of a backup
- Linux only: specify alternate backing file location to support backups of devices with low free space

Disk Safe Enhancements

- Encryption AES-256

> Note: Configured at create, cannot be turned on/off. For more information see: Encryption

- Bulk Merge - Multiple recovery points may be merged at once via manual or scheduled merge
- Transactions committed periodically to increase performance during merge
- Allow File Excludes, Recovery Point Archiving and Control Panels to be enabled/disabled
- Limits can be defined for Replication, Recovery Points and Archive Points

Agent UI Workflow Improvements

- New tabbed design allows user to easily manage agent details
- Create and manage Disk Safes and Policies from the Agent Details view
- Power User may be specified as Agent owner
- Power User creating an Agent is owner by default
- Only a Super User may change an Agent's owner

> Note: For more information on Agent UI Workflow improvements see Accessing Agent

Task History

- Rerun most tasks directly from Task History
  - Cannot rerun queued, running, successful merges or task for deleted policies

Control Panel Updates

- cPanel Auto Login redirects and logs user into the CDP Server

> Note: Must upgrade the cPanel plugin to use this feature. See Setting up cPanel Plugin for more information.

- Control panel restore now available for Interworx and DirectAdmin

MySQL Improvements

- Customers with both 3.14 Server and Agent can use localhost for their MySQL instance hostname and the CDP Server will no longer connect directly to MySQL and instead connect directly to MySQL through the agent connection.
- Changes to the MySQL backup process:
  - MySQL schema backup is performed during replication in a separate thread. This improves overall backup times.
  - Schema backup only obtains a list of tables using two queries using MySQL INFORMATION_SCHEMA. This reduces the time frame spent in MySQL schema backup or discovery to the smallest possible amount and should reduce backup times for most environments with very large table counts (e.g. over 50,000 tables). These changes may also help round trip times on the WAN by using only two queries with batched result sets.
- We have found a number of customers have corrupt MySQL MyISAM tables in their running environment that they were not aware of. Previous versions of CDP 3 would generate a failure or Alert as queries fail during schema discovery on corrupt MySQL tables. Because of the reduced number of queries sent to MySQL during the backup process in this new version to speed up the backup process you will no longer receive alerts when queries fail on corrupt tables because those queries are no longer executed. Do not rely on CDP to detect your corrupt MySQL tables during the backup, please monitor your MySQL error logs and start-up messages for messages from MySQL on start-up and during normal operation for indications of corrupt tables.
- Individual tables can no longer be selected for restore (entire database only)
- Stored procedures, triggers, and views are no longer visible when browsing a recovery point however they are backed up and will be automatically restored with the database

> Note: See updated MySQL documents for additional help below:
>
> - Enabling MySQL Add-on
> - Adding MySQL Instance to Policy

Data Center Console (DCC) Updates

- Users can create and edit Volumes, Disk Safes, and Agents in DCC

FEATURES COMING SOON

CDP Enterprise and Advanced Edition Features Coming Soon

- Automatic backup and restore for Linux LVM. Currently, on 3.0, you can perform a BMR manually with LVM but you must create the logical volumes using standard LVM utilities

before performing the BMR.
- cPanel direct file restore

Issues/Enhancements Fixed in this Release

Issue	API - Closing a disk safe fails
Issue	API - Add user to a volume causes an exception
Issue	API - Setting frequencyValues fails
Issue	API - updateUser updates users password and triggers an exception
Issue	API - setEmail does not work
Issue	API - agentID and userID are reversed when using getUserById
Issue	API - createDiskSafeOnVolume fails on windows
Issue	API - policy.PolicyService.frequencyValues returning wrong value for minute and hour
Issue	API - volume.VolumeService.createVolume fails to create volume if directory path does not exist
Issue	Control Panel - Large number of cpanel-listuser defunct processes
Issue	Core - Task takes 2 hours to timeout after lost connection
Issue	Core - Windows Configuration Utility GUI not restarting CDP Host Agent service
Issue	Core - Full backups every time with MDADM config on RHEL & CentOS 6
Issue	Core - Backup attempted for 3 hours when HCP driver not loaded
Issue	Core - Agent out of sync with server causing indefinite wait times
Issue	Core - Agent Async disk reads broken on some machines
Issue	Core - Deltas reporting inaccurate quota on Volume Details tab
Issue	Core - Power Users without appropriate permissions can assign volumes
Issue	Core - Descriptive IO error reporting to CDP needed for OS/SQL Lite
Issue	Core - Fragmentation in 3.0 disk safes
Issue	Core - Error received "Unable to make snapshot writeable for device '\\?\SymantecSnapshot0':" backing up a machine that's uses Symantec System Recovery 2011
Issue	Dashboard - Alerts not clearing
ENH	Dashboard - Ability to drill into Policy to view alerts and warnings

Issue	DCC - DB communication issue causes error logging in to DCC
Issue	Group - Edit group window not scrollable
Issue	Install - Agent install requiring reboot when driver updates are not required
Issue	Install - Key stores containing custom ssl certificates are being overwritten at upgrade
Issue	Logging -Description of policy is logged instead of name
Issue	Logging - Root exception on disk safe errors not passed to task logs
Issue	Module - 4.1.1-13785 not compiling for RHEL 4
Issue	Module - 2.6.9-100.ELsmp and 2.6.9-101.ELsmp module compile issues
Issue	Module - Kernel Module support for 2.6.18-028stab093.2 Virtuozzo 2.x x64
Issue	Module - Kernel panics on Cloud Linux 6.1 when taking a snapshot
Issue	Module - Agent fails on iSCSI
Issue	Module - Module causes server to crash when under high stress
Issue	MySQL - Null Pointer Exception restoring database files
Issue	MySQL - Replication fails with db containing 150,000 tables
Issue	MySQL - Out of memory java heap during MySQL discovery
Issue	MySQL - Restore requiring federated. Remove all federated requirements
Issue	MySQL - Fails to connect with special characters $ and _ in password
Issue	MySQL - Windows MySQL add-on temp instance not stopping after restore
Issue	MySQL - Plug-in fails if there is a % sign in the password
Issue	MySQL - Unable to close temporary instance after MySQL restore completes
Issue	MySQL - Tables have time date stamps in them where null is 0000 00 00 00:00:00 affects Zen customers
Issue	MySQL - Detect and warn when InnoDB data and log file are on different file systems
Issue	MySQL - Restore to alternate agent uses MySQL version of source agent instead of destination agent
Issue	Policy - Null pointer error received including sub-folders of an excluded parent folder
Issue	Policy - Archive task keeps running after policy has been removed
Issue	Policy - Exclude patterns not working when using * on a mount point

Issue	Policy - CDP Server should queue a policy when another policy on the same agent is running
Issue	Recovery Points - Empty zip and tar archive
Issue	Recovery Points - Error displays after merge stating recovery point no longer available
Issue	Recovery Points - Browsing a sub-set of files in a directory selects the entire folder for exclude
ENH	Recovery Points - Archiving UI improvements and "Yearly" added to archive schedule
Issue	Reports - UI error received when agent count reaches 20
Issue	Reports - Edit window scroll bar missing when list contains large number of agents
Issue	Task History - Out of memory on Task History Cleanup
Issue	Task History - Re-run a completed task from Task History
Issue	Task History - Queued task not working properly and re-queuing a cancelled task logs as duplicate task
Issue	Task History - Canceling Merge Recovery Points task does not always work

KNOWN ISSUES

Windows Restoring to Alternate Locations at Drive Level

We have discovered an issue in Windows where restoring to an alternate location at drive level (e.g. C:\ to G) causes a restore failure. The work-around is to drill down one level, select ALL, then restore to an alternate location.

Policy SOAP API Archiving Support

At this time Archiving is not supported in the Policy API however there are plans to add support in a future version.

Linux Agents

We have discovered that many versions of the utility 'fdisk' are broken and do not correctly create the embedded partition ID in the partition table (it is all zeros).CDP 3 uses this partition ID to correctly locate partition tables on your server and is required for backing up partition tables.

If you see something like the following message: "Cannot back up /dev/xxx partition since /dev/xyz partition has the same identifier"; Then you will need to manually create a partition id. Please see the following knowledge base article:
http://wiki.r1soft.com/display/kb3/Creating+a+unique+partition+id+with+fdisk

Linux Kernels with Severely Broken Ext4

There was an issue with Ext4 introduced in "vanilla" Kernel.org kernel 2.6.32 and has been patched and released "down stream" into various Linux distributions. When any Ext4 file system snapshot is performed on an effected kernel the file system can deadlock causing a hung or crashed operating system.

This is a Linux kernel bug completely out of the control of R1Soft

Do not use the following Linux kernel versions with Ext4:

- Ubuntu Lucid (10.04) Betas and Release Candidates - we have reports that Ubuntu Lucid 2.6.32-24.41 and greater are fixed
- Ubuntu Maverick (10.10) Betas and Release Candidates
- Debian 6 (Squeeze) Betas and Release Candidates
- Fedora Core 12 Betas and Release Candidates
- Xen (4.0 / 4.1) - Do Not use Ext4 on 2.6.32-5-xen - 2.6.32-35-xen_02

More Information:

Kernel.org Bug Report
https://bugzilla.kernel.org/show_bug.cgi?id=16278

Ubuntu Bug Report
https://bugs.launchpad.net/ubuntu/+source/linux/+bug/595489;

What To Do If You Find An Issue in This Release

1. Log on to the support portal http://support.r1soft.com
2. Create a new issue. Enter CDP 3 for the version.

Documentation

You can access CDP 3 documentation here: http://wiki.r1soft.com/display/CDP3/