New Features

TABLE OF CONTENTS

NEW FEATURES WITH EACH SERVICE PACK

SERVICE PACK 7

SERVICE PACK 6

COMMON TECHNOLOGY ENGINE

COMMSERVE

MEDIA MANAGEMENT

BACKUP & RECOVERY AGENTS

ACTIVE DIRECTORY /DATAAGENT

DB2 /DATAAGENT

DB2 DPF /DATAAGENT

DOCUMENTUM /DATAAGENT

EXTERNAL DATA CONNECTOR

IMAGE LEVEL /DATAAGENT

INFORMIX /DATAAGENT

LOTUS NOTES/DOMINO SERVER /DATAAGENTS

MACINTOSH FILE SYSTEM /DATAAGENT

MICROSOFT DATA PROTECTION MANAGER /DATAAGENT

MICROSOFT EXCHANGE SERVER /DATAAGENTS

MICROSOFT SHAREPOINT SERVER /DATAAGENT

MICROSOFT SQL SERVER /DATAAGENT

MICROSOFT WINDOWS FILE SYSTEM /DATAAGENT

MYSQL /DATAAGENT

NAS /DATAAGENT

NOVELL DIRECTORY SERVICES /DATAAGENT

NOVELL GROUPWISE /DATAAGENT

OES FILE SYSTEM /DATAAGENT

ORACLE /DATAAGENT

ORACLE RAC /DATAAGENT

POSTGRESQL /DATAAGENT

PROXYHOST /DATAAGENT

SAP FOR MAXDB /DATAAGENT

SAP FOR ORACLE /DATAAGENT

SYBASE IDATAAGENT

UNIX FILE SYSTEM /DATAAGENT

VIRTUAL SERVER /DATAAGENT

DATA ARCHIVER AGENTS DOMINO MAILBOX ARCHIVER AGENT **EXCHANGE ARCHIVER AGENTS** FILE ARCHIVER FOR UNIX AGENT FILE ARCHIVER FOR WINDOWS AGENT SHAREPOINT ARCHIVER AGENT **CONTENT INDEXING AND SEARCH OBJECT LINK** CONTINUOUSDATAREPLICATOR CONTINUOUSDATAREPLICATOR SRM SRM SERVER **SRM EXCHANGE AGENT SRM NAS AGENT SRM NETWARE PROXY AGENT** SRM ORACLE AGENT SRM SHAREPOINT AGENT SRM SQL AGENT SRM UNIX FILE SYSTEM AGENT SRM VIRTUAL SERVER AGENT

COMMNET

COMMNET SERVER

COMMNET BROWSER

SRM WINDOWS FILE SYSTEM AGENT

New Features - Service Pack 10

RSS

The following new features are available with Service Pack 10 or higher.

Ensure that this service pack is installed on all computers in which these features will be used.

TABLE OF CONTENTS

RELATED TOPICS

Deduplication

Updates and Service Packs

SnapProtect

Download this service pack and obtain comprehensive information on updates and release notes.

Media Management

FEATURE	DESCRIPTION	LICENSE	SUPPORT	NOTES		
MIGRATE COMMSERVE TO NEW HARDWARE WITHOUT SEALING DEDUPLICATION DATABASE (DDB)	During CommServe Hardware refresh, the sealing of the DDB after hardware refresh can now be prevented by performing the CommServe Disaster Recovery backup after disabling the Enable DDB Activity option and using this CommServe disaster recovery backup for the Disaster Recovery restore on the new CommServe.					
	Learn More					
SNAPPROTECT FEATURE	DESCRIPTION	LICENSE	SUPPORT	NOTES		
SUPPORT FOR VERITAS CLUSTER						
	For SnapProtect backups, VERITAS Cluster File System is now supported for HP-UX.					
System is now supported for the ox.						
	System is now supported for HP-UX.					
MEDIA MANAGEMENT	System is now supported for HP-UX.	LICENSE	SUPPORT	NOTES		
FILE SYSTEM ON HP-UX	System is now supported for HP-UX. Learn More		SUPPORT	NOTES		

New Features - Service Pack 9

The following new features are available with Service Pack 9 or higher.

Ensure that this service pack is installed on all computers in which these features will be used.

TABLE OF CONTENTS

RELATED TOPICS

Exchange Database iDataAgent

SnapProtect

Reports

Media Management

Alerts and Monitoring

KLEATED TOFICS

Updates and Service PacksDownload this service pack and obtain comprehensive information on updates and release notes.

FEATURE	DESCRIPTION	LICENSE	SUPPORT	NOTES
SUPPORT FOR EXCHANGE SERVER 2013	You can now backup the Exchange Server 2013 database using the Microsoft Exchange Database iDataAgent.	iDataAgent for Exchange Database	Exchange Database iDataAgent	
	Learn More			
SNAP P ROTECT				
FEATURE	DESCRIPTION	LICENSE	SUPPORT	NOTES
SUPPORT FOR SOLARIS ZFS MIRRORED DISKS	You can now perform SnapProtect backups of ZFS mirrored disks on Solaris.	MediaAgent for Sun Solaris	SnapProtect for Solaris	
	Learn More	iDataAgent for Sun Solaris File System		
		Hardware Snapshot Enabler		
REPORTS				
FEATURE	DESCRIPTION	LICENSE	SUPPORT	NOTES
ENHANCEMENT TO RESTORE JOB	You can now track the age of the backup data during restore operations from the Restore Job			
SUMMARY REPORT	Summary Report.			
SUMMARY REPORT	Summary Report. Learn More			
MEDIA MANAGEMENT	Learn More		SUPPOPT	NOTES
MEDIA MANAGEMENT	DESCRIPTION You can now manually modify the retention	LICENSE WORM Media Support	SUPPORT	NOTES
MEDIA MANAGEMENT	DESCRIPTION You can now manually modify the retention period of retained jobs for WORM copy.	LICENSE	SUPPORT	NOTES
MEDIA MANAGEMENT FEATURE WORM COPIES	DESCRIPTION You can now manually modify the retention	LICENSE	SUPPORT	NOTES
MEDIA MANAGEMENT FEATURE WORM COPIES STORAGE POLICY COPIES	DESCRIPTION You can now manually modify the retention period of retained jobs for WORM copy. Learn More You can now view the list of all retained jobs	LICENSE	SUPPORT	NOTES
MEDIA MANAGEMENT FEATURE WORM COPIES STORAGE POLICY COPIES	DESCRIPTION You can now manually modify the retention period of retained jobs for WORM copy. Learn More You can now view the list of all retained jobs for a specific Storage Policy Copy. Learn More You can now manually set the priority for jobs to be copied to secondary storage during an	LICENSE	SUPPORT	NOTES
MEDIA MANAGEMENT FEATURE WORM COPIES STORAGE POLICY COPIES	DESCRIPTION You can now manually modify the retention period of retained jobs for WORM copy. Learn More You can now view the list of all retained jobs for a specific Storage Policy Copy. Learn More You can now manually set the priority for jobs to be copied to secondary storage during an Auxiliary Copy operation. Learn More	LICENSE	SUPPORT	NOTES
MEDIA MANAGEMENT FEATURE WORM COPIES STORAGE POLICY COPIES AUXILIARY COPY ALERTS AND MONITORII	DESCRIPTION You can now manually modify the retention period of retained jobs for WORM copy. Learn More You can now view the list of all retained jobs for a specific Storage Policy Copy. Learn More You can now manually set the priority for jobs to be copied to secondary storage during an Auxiliary Copy operation. Learn More	LICENSE	SUPPORT	NOTES
FEATURE WORM COPIES STORAGE POLICY COPIES AUXILIARY COPY	DESCRIPTION You can now manually modify the retention period of retained jobs for WORM copy. Learn More You can now view the list of all retained jobs for a specific Storage Policy Copy. Learn More You can now manually set the priority for jobs to be copied to secondary storage during an Auxiliary Copy operation. Learn More	LICENSE WORM Media Support		

RSS

•	Backup jobs that are in suspended, pending, or running state for more than 'n' hours		
-	MediaAgent is offline for more than 'n' hours		
-	Library is offline for more than 'n' hours		
•	Number of failed objects in a job exceeds the specified percentage or threshold count		
•	Deduplication store of a MediaAgent is corrupted		
L	earn More		

New Features - CommServe

2

This release of the software includes the following new features:

ALERTS AND MONITORING

ROMS AGENT INTEGRATION

ROMS is an external software component that works with your CommCell. It uses configured alerts to inform ROMS users of conditions occurring within a
CommCell that may have otherwise gone undetected. With this, ROMS users are able to monitor the CommCell without accessing the CommCell itself
possibly interfering with data protection operations. For more information, see Remote Operations Management Service (ROMS).

ALERT NOTIFICATIONS

- Alert notification messages are (by default) sent in the same language as the CommCell Console used to configure the alerts. However, alerts can be
 displayed in a language other than that of the CommCell Console, which is useful if the alerts recipients reside in a different region than where the alert was
 configured. For more information, see Alert Locale.
- Alert notification messages can be sent in additional formats, they are:
 - o Save to Disk output method, which is a text file of the message enabling users to quickly obtain a listing of the failed items in an operation.
 - o RSS Feed, which can be automatically linked to your Web browser.

For more information, see Notification Types.

JOB MANAGEMENT ALERTS

- A Job Management Data Protection alert can be configured to only send notification when jobs contain failed objects. This is useful in identifying issues with your CommCell. If necessary, jobs can be resubmitted.
- The Job Management Media Refreshing alert can be configured to notify users when specific thresholds are met during Media Refreshing operations. See Alerts and Monitoring: Job Management.

GENERAL

 An alert can be tested to verify that the e-mail server is configured correctly so that all intended recipients of the alert are receiving the notification messages. For more information, see Test Alerts.

AUTOMATIC UPGRADE

Upgrade Software feature now includes a new option to automatically shutdown Internet browser applications on client computers during upgrade operations, which ensures a successful upgrade.

For more information, see Automatic Upgrade.

AUTOMATIC UPDATES

Automatic Updates support the CommNet Server. During installation of the CommNet Server software, you must specify the CommCell with which the CommNet Server will be associated. This enables the CommNet Server to act as a client computer in the CommCell, which allows for the CommNet Server computer to support automatic updates and automatic upgrades. These features allow for the quick and easy installation of update and upgrade packages in your CommCell.

For more information, see Automatic Updates.

AUXILIARY COPY

- When auxiliary copy, data verification, and content indexing operations are initiated, they will all utilize the same single auxiliary copy manager process, thus reducing the load resources on the CommServe computer.
- Auxiliary Copy operations can be configured to:
 - o Use a LAN Free MediaAgent (drive pool), which reduces network load because data is not transferred across a network.
 - o Throttle network bandwidth, which reduces (control) the backup throughput so that the entire network bandwidth is not consumed.

For more information, see Auxiliary Copy Considerations: Network Load.

BOOKS ONLINE

Several enhancements have been made to Books online in this release. This includes:

- New look and feel to simplify and enhance navigation.
- Redesigned documentation all new features have been written using a 'Basic' and 'Advanced' approach to address the needs of first-time and advanced
- Improved documentation for Virtual Server iDataAgent and SAP for Oracle iDataAgent with simple table of contents, logical flow to the product and based on use cases. Also includes a Quick Start and an Administration Guide.
- More screen shots with simple easy-read steps and videos for more complex configurations.
- Improved **Getting Started** documentation powered by diagrams designed for first-time users.
- Email and Print links in each page for easy, user-friendly transfer of information.
- New **Popular Features** list, powered by tag cloud, displays the top 20 most used features.
- New **How Do I** sections provide end-to-end solutions for common tasks.
- CommNet documentation is now integrated with the Calypso documentation.
- Listings of features support for each product in addition to the previous listings of products supported for each feature.

BROWSE DATA

Browsing can now be executed at the subclient level, which is extremely useful for troubleshooting and restoring purposes. You can browse directly from the subclient or when viewing backup job history, where all the associated subclients will be available for browsing. For more information, see Browse Subclients.

COMMAND LINE INTERFACE

The qlist dataagent qcommand now supports the -all option to get the static list of all available dataagents.

COMMCELL CONSOLE

The CommCell Console has been enhanced with a new look-and-feel, including the following:

- New summary tabs for selected CommCell Browser components.
- New Agents browser, which provides a listing of all Agents in the CommCell and their corresponding clients.
- Several new customizable look-and-feel preferences.
- A new RSS Feed , which is accessible in the **What's New** option in the CommCell Console's **Help** menu, detailing the new features available in the software.

 This RSS Feed is also accessible in Books Online's **New Features A to Z** list through the

COMMNET PRODUCT INTEGRATION WITH CALYPSO

CommNet is a component of the CommServe software installation removing the need for independent installation of the CommNet components. When installing the CommServe software, by default, the CommNet components are automatically installed. Furthermore, this registers the CommServe computer with the CommNet Server for data collection and reporting services.

Though still maintaining its own user interface, the product integration enables CommNet to act as a client computer within the CommCell, thereby inheriting the following CommServe features:

- Automatic Updates: The CommNet Server computer supports automatic updates.
- Licensing: The CommNet software licenses are now administered from its associated CommCell License Administration utility. The following CommNet licenses are now License Types on the CommServe Computer:
 - o CommNet Server
 - o CommNet Agent
 - CommNet Advanced Reporting
- CommNet Books Online: CommNet Books Online documentation is merged with the CommServe software documentation to make it easier for you to quickly find desired topics in one location.

For new feature information for the CommNet software, see New Features - CommNet.

CONTENT INDEXING OPERATIONS

When auxiliary copy, data verification, and content indexing operations are initiated, they will all utilize the same single auxiliary copy manager process, thus reducing the load resources on the CommServe computer.

DATA AGING

- Oracle RAC iDataAgent supports Data Aging Basic Retention Rules.
- If a job of the last cycle that has occurred is pruned or deleted, by default, the next job is forced to be a full backup operation. However, you can change the next job to be differential rather than a full backup. This can save media since a full backup can contain large amounts of data and consume more media. For more information, see Data Aging Based on Basic Retention Rules.

- Ability to set retention rules at the job level removes the need to redefine Data Aging rules at the associated storage policy. Learn more...
- A grace period can be specified for each defined extended retention rule. With grace days defined, if the full backup designated to be retained by the rule can not be retained due to a job failure, an alternate full backup job will be retained if it occurred within the grace period. This feature ensures that all data is included in the backup retained. For more information, see Extended Retention and Grace Days.
- Data Aging can be configured to prune the intermediate incremental and differential copies preceding a new differential copy. This is useful to minimize
 wasted disk space. For more information, see Incremental and Differential Copies under Data Aging and Storage Policy Copies.
- The CommServe computer's defined time zone is the default setting for a storage policy. Subsequently, all associated storage policy copies will inherit the CommServe's time zone as their default setting. Data is aged according to the associated storage policy's defined time zone. If necessary, this time zone can be changed to suit your environment. The following time zones can be designated for a storage policy:
 - o CommServe's Time Zone, which indicates the jobs will be aged according to the CommServe computer's designated time zone.
 - o Client Computers' Time Zones, which indicates the jobs will be aged according to each associated client computer's designated time zone.
 - o Storage Policy Time Zone, which indicates the jobs will be aged according to the storage policy's designated time zone.

For more information, see Data Aging and Storage Policy Time Zones.

DATA PROTECTION OPERATIONS

In specifying the data path during data protection operations, you can now specify the drive to which the data protection operations are performed. See Change the Data Path for a Backup/Backup Schedule for more information.

DATA RECOVERY OPERATIONS

In specifying the data path during data recovery operations, you can now specify the drive from which the data recovery operations are performed. See Browse and Restore/Recover/Retrieve Data From a Specific Data Path for more information.

DATA VERIFICATION

When auxiliary copy, data verification, and content indexing operations are initiated, they will all utilize the same single auxiliary copy manager process, thus reducing the load resources on the CommServe computer.

DEPLOYMENT

INSTALL SOFTWARE FROM THE COMMCELL CONSOLE

Agents and package distributions can now be installed — both scheduled and on-demand — from the CommCell Console. With the CommCell Console-based install capability, software can now be quickly and efficiently rolled out in large data centers and distributed WAN environments.

When used in conjunction with the Custom Packages and Automatic Updates features, WAN bandwidth can be drastically reduced during remote site installations. Learn more...

COMMNET

The CommNet software installation is a component of the CommServe software installation removing the need for the separate installation. When installing the CommServe software, you have the option to install the CommNet software components, which includes the CommNet Server, CommNet Browser, and CommNet Explorer. Additionally, during the installation of the CommServe software, the CommNet Agent is automatically installed. The CommNet Agent no longer requires an independent install on the CommServe computer. For more information, see:

- Deployment CommNet Server
- Deployment CommNet Browser

UNINSTALL SOFTWARE USING THE COMMCELL CONSOLE

Software packages can be uninstalled from client computers and MediaAgents in your CommCell using the CommCell Console interface. The Uninstall Software utility allows you to quickly see a list of the software packages installed on the selected computer, from which you can then select the components to uninstall. With this, you can easily manage removing software components from client computers and MediaAgents in your CommCell without having to directly access each computer. Fore more information, see Uninstall Components using the CommCell Console.

DISASTER RECOVERY

Pruned and deleted data can now be easily recovered from the CommCell Console in disaster recovery scenarios instead of using Media Explorer. Learn more...

DISASTER RECOVERY BACKUP

• During a Disaster Recovery Backup, the database(s) can be marked for backup compression, which will compress the database backup file (*.dmp). This is useful if free space on the CommServe computer is an issue.

- Disaster Recovery Backup includes the ability to backup up log files from specified client(s) within the CommCell. With log files providing the processing
 details of operations that have occurred on your system, this is especially useful for troubleshooting. For more information, see Phases of Disaster Recovery
 Backups.
- During a Disaster Recovery Backup, the CommNet and SRM Server databases can be marked for protection, which will backup these databases in addition to
 the CommServe database. This is important for CommNet and SRM users who want to protect their databases so they can be restored, if necessary.
 Additionally, the databases can be restored using the CommServe Disaster Recovery Tool.

EZ OPERATIONS WIZARD

You can now create deduplication-enabled EZ backups. EZ Operations Wizard allows you to configure deduplication-enabled backup targets on disk libraries and use the targets to create deduplication-enabled EZ Backups. See EZ Operations for details on using EZ Operations Wizard.

FIREWALLS

- CommCell Communication across firewalls is enhanced as follows:
 - You can configure CommCell components to communicate across port-forwarding gateways, HTTP proxies, NAT configurations, and combinations of these firewall scenarios.
 - o You can set up your own proxy by designating a CommCell component as the Calypso proxy and defining the routing details.
 - o Communication through firewalls is supported in HTTP and HTTPS protocols.

See Firewalls for more information.

- The CommCell Lockdown feature provides security to CommCell communication across firewalls by enforcing HTTPS connections authenticated with CommCell-specific certificate only. See Lock Down the CommCell for more information.
- On Windows computers, you can bind all Calypso services to open ports in the firewall. See Bind all Services to Open Ports Only for more information.

GLOBAL FILTERS

Offline Content Indexing now supports Global Filters in order to exclude specific file types from all offline content indexing operations within a CommCell. You can also include or exclude the gloabl filters for a specific offline content indexing operation from the storage policy level in the CommCell Console.

GLOBAL REPOSITORY CELL (GRC)

Global Repository Cell (GRC) is a Remote Office Backup solution that automatically copies the data from a remote/branch office to a central CommServe. This feature provides you the ability to consolidate data in a centralized location for disaster recovery purposes and also serves as an alternate source for data recovery. Learn more...

JOB HISTORY

You can resubmit a job from the job history windows. This is useful if a job has failed, and you want to run it again. It removes the need to reconfigure a job with the same options. For more information, see Resubmit Jobs.

JOB MANAGEMENT

- For the SAP for MAXDB iDataAgent, a single job ID for both data and configuration backups and log and configuration backups is now generated and displayed in the Job Controller.
- For SAP for Oracle command line backups, a single job ID for data backups and log backups is now generated and displayed in the Job Controller.
- You can configure jobs for granular restartability using the transaction log feature. When enabled, the transactions of the job are maintained in a log, and when the job has to be restarted due to index cache issues, the log is replayed to start the job from the point of failure. See Use transaction logging for more information.
- Jobs can be resubmitted from the Job History list using the job's original settings and attributes. Failed jobs can also be resubmitted with specific
 modifications to the original settings to ensure that the job gets proper coverage. This ability simplifies job management for operators and removes the
 potential for Agent configurations to be accidentally modified. Learn more...

NETWORK BANDWIDTH THROTTLING

Network Bandwidth Throttling provides the facility to throttle network traffic for Clients and MediaAgents based on the network bandwidth in your environment. This is useful if you want to limit the network bandwidth usage.

Learn more...

REGISTRY KEYS AND PARAMETERS

MANAGING REGISTRY KEYS USING THE COMMCELL CONSOLE

Registry keys can be managed (added, edited, deleted) on a CommServe, MediaAgent or client level using the CommCell Console for Windows or Unix client computers. This provides the benefit of using the CommCell Console to manage the registry keys for new clients, as opposed to manually editing them in files or with Regedit. For more information, see Registry Keys and Parameters.

REPORTS

GENERAL ENHANCEMENTS:

- All Calypso reports can now be:
 - Uploaded to a File Transfer Protocol (FTP) server. The credentials specified for the FTP server only need to be configured once and will apply to the entire CommCell. Many individuals now have access to the report from the FTP server.
 - o Saved to a local or network location. This provides a portal for enhancing access and sharing of reports. If saving to a local folder on a client machine, a username and password is not required. For network locations, you may need to specify a username and password.
 - Saved in the universally accepted PDF format.
- Job options and client properties can now be optionally collapsed in a report. Typically, the options and properties are expanded in the report. When
 collapsed, the length of the report is reduced and they are exposed only when the link is selected in the report. This is available in Job Schedule Report and
 Job Summary Reports and CommCell Configuration Reports .

For more information, see Reports -Overview.

BACKUP JOB SUMMARY REPORT ENHANCEMENTS:

- This report can now display jobs that backed up System State information. If the job included backing up System State information, then an S appears next to the Job ID as explained in the Legend. This applies only to Windows File System iDataAgents. For more information, see Backup Job Summary Report.
- For Backup Job Summary reports, jobs that deleted media can be included in the report. This is useful for media capacity planning. For more information, see Backup Job Summary Report.

DATA AGING JOB SUMMARY REPORT ENHANCEMENTS

The Data Aging Job Summary Report will display information pertaining to the data aging jobs' associated time zone as well as whether the job is configured for extended retention with Grace Days enabled. This makes it easier to quickly obtain the accurate status of the data aging jobs. For more information, see Data Aging Job Summary Report.

COMMCELL CONFIGURATION REPORT ENHANCEMENTS:

- Backup data that has been configured for block level Deduplication is now flagged in the report and explained in the Legend as follows: DC indicates that block level deduplication has been configured on the Client; DM indicates that block level deduplication has been configured on the MediaAgent; DEDUP indicates that block level deduplication has been configured in the Storage Policy. For more information, see CommCell Configuration Report.
- If a sublicent has more than one schedule assigned to it, the report will now display "Duplicate Schedule" above the schedule list and it will be purple. This is useful to eliminate overlapping schedules. For more information, see CommCell Configuration Report.

COMMCELL GROWTH REPORT ENHANCEMENTS

The CommCell Growth Report table now includes scale and performance information for CommCells such as Total Data Protection and Collection Jobs, Total Data Size Backed Up, Number of Reservations, jobs completed, jobs in the queue, maximum number of streams transfer data, chunks closed etc., for the last 24 hours. For more information, see CommCell Growth Report.

DATA MANAGEMENT REPORT ENHANCEMENTS:

- When specifying the computers involved for backup, content indexing jobs, you can now select individual subclients. This is useful if subclients are monitored
 by a particular group of personnel who are only interested in generating a report for their area of responsibility. In addition to subclients, other granular
 components such as agents, instances, and backup sets can also be selected. Prior to this enhancement, reports could only be generated with entire client
 configurations, with all its associated subclients. For more information, see Job Summary Report.
- Previously, the legend of a Job Summary report displayed jobs with No Protection as one type of job. In this release, it has been split into No Run and No Schedule job types, as explained and separately color-coded in the report legend. No Run jobs are jobs that have failed due to: 1) another job is running;
 2) activity is disabled;
 3) schedule is disabled. No Schedule jobs have subclients that are not data protected. This is useful to now accurately and quickly identify failed jobs, such as critical servers, that are not getting backed up daily. For more information, see Data Management Reports.

LIBRARY AND DRIVE REPORT ENHANCEMENTS

The Library and Drive Report now includes the scale and performance information for CommCells. The Report includes two new tables. The Library and Drive table shows the list of drives along with their usage, throughput and the total number of Job occurrences such as backups, restores and errors (if any) for the

last 1 hour and 24 hours. The MediaAgent table shows list of Media Agents used along with the number of mounts, maximum streams transferred and number of reservations made. For more information, see Library and Drive Report.

MEDIA PREDICTION REPORT ENHANCEMENTS

- This report will now display Media Refresh Jobs jobs that replaced the media associated with an existing storage policy copy. For more information, see Media Prediction report.

RESTORE JOB SUMMARY REPORT ENHANCEMENTS

The Restore Job Summary Report now includes the files, which were in use or were locked at the time of the restore process. These files are displayed with "Needs Reboot" tag and are restored when the computer is restarted.

STORAGE POLICY REPORT ENHANCEMENTS:

- The Deduplication Store Information table now includes three new columns: Silo Archived Data, which shows the amount of deduplicated data per store
 that has been moved to a Silo Store; Not Silo Archived Data, which shows the amount of deduplicated data per store to be moved to a Silo Store before it
 is moved offsite; Highest Retention Job, which shows the Job ID that is retaining a particular Silo Store from aging. For more information, see Storage
 Policy Report.
- This report now includes a Source Media for Secondary Copy table to provide information for the media used by the secondary copy. In particular, the **Uncopied Data** column is useful in that it displays the amount of data yet to be copied. For more information, see Storage Policy Report.

COMMCELL CONFIGURATION, JOB SCHEDULE AND BACKUP JOB SUMMARY REPORT ENHANCEMENTS

Upon selecting Allow Dynamic Content option in CommCell Console, comprehensive report summary will display the job details of a particular job. For more information, see following reports:

- CommCell Configuration Report
- Job Schedule Report
- Backup Job Summary Report

SCHEDULING AND SCHEDULE POLICY

SCHEDULING

TIME ZONES

Schedules and Schedule Policies can be configured to run jobs at a specific time according to a specified time zone. This is useful when your CommCell is spread across several time zones and the job being scheduled requires a specific time, e.g., close of business day. Learn more....

GENERAL

- When scheduling a backup job, the advanced job options include the ability to override the defined storage policy retention rules enabling new rules to be applied for this specific job. This is especially useful because it removes the need to redefine the data aging rules for the associated storage policy. The job will be manually retained based on the settings defined for this job option. For more information, see Data Protection Job Schedule.
- The job options of a job schedule can be edited. This is especially useful when the job schedule is no longer suitable for your environment. This removes the need to delete a schedule and create another. For more information, see Modify/Delete a Job Schedule.

SCHEDULE POLICIES

AGENT-SPECIFIC SCHEDULE POLICIES

Full granular support of Schedule Policies for all Agents, which eliminates the need to define client-specific Schedule Policies. Learn more...

CONTENT INDEXING SCHEDULE POLICIES

A Content Indexing Schedule Policy can be created to be associated with storage policies. When the Content Indexing Schedule Policy is run, Content Indexing operations are performed on all associated storage policies and the associate storage policy copies. For more information, see Content Indexing Schedule Policy.

REPORTS

The CommCell Configuration Report displays the configured data protection schedules and schedules policies per subclient. If a subclient is included in multiple data protection schedules, the report will identify the newer schedule as a duplicate schedule for that subclient. This information enables you to better manage data protection operations for the CommCell, whereby you can reduce unnecessary operations and save disk space. Though your environment may require this configuration, schedule and schedule policies can be edited to resolve this, if necessary.

GENERAL

- Data protection schedule policies configured to run backup operations for Windows File System Agents will include system protected files.
- When cloning a Data Protection or an SRM Data Collection Schedule Policy, the agent type can be edited. This is extremely useful if your environment
 requires a similar schedule policy for a different agent; it removes the need to create a new schedule policy where you would need to define the same
 schedule patterns. For more information, see Clone a Schedule Policy.
- Schedules of a schedule policy can be selected for immediate execution if it is necessary to run the scheduled operations at times other than defined in the schedule policy. For more information, see Run Schedules.
- When a user account is deleted, ownership of a schedule policy or report schedule can be transferred to another CommCell user account. Since only the user who created the schedule policy or report schedule can modify the defined schedule pattern, the transfer of ownership enables the new owner to quickly make necessary modifications. For more information, see Schedule Policy or Schedule a Report.

SERVICE CONTROL MANAGER

The Service Control Manager now includes CommNet Service, which is installed when the CommNet Server is installed. This service is responsible for communication between the CommCells and CommNet Server components. For more information, see Services.

STORAGE POLICIES

- Multiplexing is now supported on NAS attached storage policies containing non-NAS data.
 - o A storage policy can be marked as disabled for additional subclient associations. This will prevent you from inadvertently associating a new subclient to an inactive storage policy, potentially causing a loss of data. Additionally, you can opt to hide these storage policies so they are no longer displayed on the CommCell Console. For more information, see Disable Additional Subclient Associations with a Storage Policy.
 - o Inactive Storage Policies can be hidden from the CommCell Console to simplify management, report generation, and reduce overall clutter in large configurations. Storage Policies with infinite or long-term retention can be hidden using this feature, which reduces the risk of accidentally removing important information. Learn more...
- The CommServe computer's defined time zone is the default setting for a storage policy. Subsequently, all associated storage policy copies will inherit the CommServe's time zone as their default setting. Data is aged according to the associated storage policy's defined time zone. If necessary, this time zone can be changed to suit your environment. The following time zones can be designated for a storage policy:
 - o CommServe's Time Zone, which indicates the jobs will be aged according to the CommServe computer's designated time zone.
 - o Client Computers' Time Zones, which indicates the jobs will be aged according to each associated client computer's designated time zone.
 - o Storage Policy Time Zone, which indicates the jobs will be aged according to the storage policy's designated time zone.

For more information, see Data Aging and Storage Policy Time Zones.

UPDATES AND SERVICE PACKS

- Updates and service packs can be uninstalled from the components within your CommCell using the CommCell Console. This is especially useful if it is necessary to revert back to a previous update version that works more accurately with your environment. For more information, see Uninstall Updates.
- A software cache directory that has been manually populated, meaning update files have been manually copied to or deleted from the cache, can be
 designated as the baseline for all other CommCell components by simply committing the cache. This updates the CommServe database to reflect the same
 updates and service packs residing in the designated cache directory. This may be necessary to control the specific updates in your environment. For more
 information, see Automatic Updates.

USER ADMINISTRATION AND SECURITY

- You can create a user group with the View capability, which can be associated with specific entities within the CommCell. Members of this user group will only be able to view those entities associated with the user group. For more information, see Restrict Visibility in the CommCell Console.
- Members of the View All user group can see all entities in the CommCell Console as well as associated job schedules, regardless of the associations of their member user groups. This is useful so that duplicate schedules are not created. By default, all newly created users automatically are members of the View All user group. For more information, see View All User Group.
- You can now add a new domain controller for Domino Directory Services. This enables Domino users to login to the Search Console and perform end-user search. For more information, see Name Servers.

WEB ADMINISTRATION

When configuring web administration for an alternate IIS server, you can edit the default port numbers for the HTTP or HTTPS protocols. This is useful if your environment requires ports other than the defaults. For more information, see Configuring an Alternate Computer.

Back to Top

New Features - Media Management

2

This release of the software includes the following new features:

CLOUD STORAGE

Cloud Storage enables you to configure and use online storage devices — cloud storage devices — as storage targets. Cloud Storage reduces the need to maintain hardware resources, such as tape or disk storage devices, at onsite locations. It also provides the ability to easily increase your storage capacity as and when it is required. See Cloud Storage for more details.

DEDUPLICATION

- You can now perform deduplication on client side, at the source of the data. Eliminating redundant data at the source, rather than at the MediaAgent, reduces the data send over network and optimizes network usage. Source deduplication is an ideal option for remote office backup operations. See How Source Side Deduplication Works for more information.
- Global deduplication allows you to deduplicate data across storage policy copies. If you have multiple storage policy copies from one or more storage
 policies, you can use global deduplication to deduplicate the common data among the copies. Global deduplication improves the effectiveness of
 deduplication. See Global Deduplication for more details.
- When both primary copy and secondary copy are deduplicated, auxiliary copies can be created in a Read Optimized mode. In this mode, when a data block in secondary copy is identical to the data block in primary copy, the copy operation reads only the metadata to create the auxiliary copy. This results in faster auxiliary copy operations. See Read Optimized Copies for more information.
- When a storage policy copy is deduplicated, synthetic full backups can be created in an accelerated mode by identifying and transferring data signatures
 (instead of actual data) to the target. This results in faster synthetic full backup operations. See Accelerated Synthetic Full Backups (DASH Full) for more
 information.
- Deduplication enabled operations can be performed using the look-ahead reader feature. The look-ahead reader identifies the files required for data
 protection and reads the data ahead of the actual data protection job. This reduces the duration of restore and auxiliary copy operations. See Look-Ahead
 Reader for more information.
- Store Availability Options provides you option to recover or reconstruct the deduplication store in the event of a failure. See Deduplication Store Failover for more information.
- Deduplication now provides the ability to perform content alignment between two backups to allow for higher deduplication efficiency. Learn more...

DISK LIBRARIES

You can globally modify the access information for Static Shared Disk Devices on Windows. This is useful, for example, when you need to change the access credentials for the device if the credentials are changed in the Operating System. Previously this had to be done from each of the MediaAgents accessing the device. See Modifying the Access Information for a Shared Disk for more information.

INDEX CACHE SERVER

Index Cache Server is an index cache sharing mechanism that saves an additional copy of the index cache for sharing purposes in one of the MediaAgents, which also acts as an Index Cache Server. When an Index Cache is not available in a local MediaAgent, it will be downloaded from the Index Cache Server instead of restoring it from the media. Index Cache Server provides the following advantages:

- Eliminates failover conditions where entire jobs must restart from the beginning due to an infrastructure issue. For example, cluster failovers. In addition, failover conditions are not restricted to MediaAgent operating systems.
- Creates a resilient Index Cache for running jobs, including GridStor scenarios. Learn more...

MEDIA

- You can enable (or disable) multiple drives of a MediaAgent simultaneously. See Enable (or Disable) a Drive from a Specific MediaAgent for instructions.
- The List Media operation displays the content on the media such as data, index, or index and data. This enables to identify the media contents and select the
 appropriate media for media recalls.
- The List Media (Precise) feature has been renamed as List Media and Size.

MEDIAAGENTS

- ullet The Active Directory iDataAgent is now supported on Unix MediaAgents.
- MediaAgent Management capability enables you to perform the following:
 - o Use Library and Drive Configuration window to configure or deconfigure libraries and drives associated with the MediaAgent.
 - o Create, modify, and delete storage policies and storage policy copies using libraries associated with the MediaAgent.

- o Add data paths to the MediaAgent.
- O Add the user group (to which the user belongs) to the library.

MEDIA EXPLORER

The Media Explorer now automatically installs in the same instance as the MediaAgent.

MEDIA MANAGEMENT

MEDIA RECONCILIATION

You can now reconcile the differences between the backup statistics on the CommServe database and the actual backup data on the disk volumes. Jobs that do not have corresponding data and backup contents that do not have corresponding jobs can be identified and mitigated. See Disk Volume Reconciliation for more details.

MEDIA MANAGEMENT CONFIGURATION PARAMETERS

To provide easy identification and access, the Media Management configuration parameters for the following features are now available in their own separate tabs in the Media Management window of Control Panel:

- Service Configuration
- Auxiliary Copy Configuration
- Data Aging
- Silo Archive Configuration
- · Vault Tracker Configuration

GENERAL

- The Magnetic Library Maintenance feature has been renamed as Fragmentation Analysis.
- Accidentally deleting the contents of a disk mount path can be prevented. See Prevent Accidentally Deleting the Contents of a Mount Path for more
 information.

MEDIA REFRESH

Media Refresh is a tape reclamation service designed for extended retention media that may have been mixed with no extended retention jobs. This feature automates the Auxiliary Copying of data from one set of media to a new set of media — such as between LTO2 to LTO4 media — and provides a seamless way to refresh data onto new tapes. Learn more...

ORPHANED MEDIA

Orphaned media is a logical repository of all the assigned media which does not have any associated libraries. See Orphaned Media for more details.

PERFORMANCE

You can configure the size of application data fetched for data transfer during backup operations. Tuning the application read size in alignment with the source application's buffer allocation increases the rate of data transfer during backup. See Configure the Application Read Size for more information.

SILO STORAGE

- You can now retain the recently processed Silo(s) in the primary disk mount path. This eliminates the need to restore the data from the Silo Storage when a
 recently moved silo data is required for access. This results in faster silo restore operations. See Reclaiming Disk Space after Moving Data to Silo for more
 information.
- The details of data migration in silo storage, such as the size of the data already moved to silo storage and the size of the data yet to be moved, are
 displayed on the Silo Options tab of the Copy Properties. This provides useful information on silo data movement.
- You can select a specific MediaAgent to perform silo restore operations for a Storage Policy Copy. This feature enables you to streamline operations and/or balance the load on MediaAgents. See Select a Specific MediaAgent for Silo Restores for more information.
- To ensure uninterrupted operation, silo backups are now performed using dedicated data streams that are specific to silo backup jobs only. See Configuring
 Data Streams for a Silo Backup for more information.
- To ensure you have sufficient space on the primary disk to restore Silo Storage data, you can reserve a mount path to be exclusively used for silo restore operations. See Reserve a Mount Path for Silo Restores for more information.

New CommCell Features

The following CommCell features are also supported by MediaAgents in this release:

DEPLOYMENT

CUSTOM PACKAGE

The Custom Package feature is now extended to almost all products in the Calypso suite. Using Custom Packages, you no longer have to push the entire software DVD through a network, which is especially useful for reducing WAN/LAN payload while installing remote clients.

It is also possible to create Custom Packages using a customized .xml file.

When used in conjunction with the Install Software from the CommCell Console and Automatic Updates features, WAN bandwidth can be drastically reduced during remote site installations. Learn more...

The software installation for this component can be initiated and managed from the CommCell Console, which facilitates the building of your CommCell and eliminates the need to manually install the software. Additionally, the installation of this component can be scheduled to occur at a time suitable for your environment. For more information, see Install Software from the CommCell Console.

REGISTRY KEYS

MANAGING REGISTRY KEYS USING THE COMMCELL CONSOLE

Registry keys can be managed (added, edited, deleted) on a CommServe, MediaAgent or client level using the CommCell Console for Windows or Unix client computers. This provides the benefit of using the CommCell Console to manage the registry keys for new clients, as opposed to manually editing them in files or with Regedit. For more information, see Registry Keys and Parameters.

Back to Top

New Features - Active Directory iDataAgent



NEW FEATURES FOR ACTIVE DIRECTORY IDATAAGENT

DATA PROTECTION OPERATIONS

The Active Directory iDataAgent is now supported on Unix MediaAgents.

SUPPORT FOR ACTIVE DIRECTORY PARTITIONS

Active Directory iDataAgent now provides the ability to backup and restore the Configuration, Schema, and ForestDNSZones partitions with certain restrictions on restore capability. For more information, see What Gets Backed Up.

NEW COMMCELL FEATURES SUPPORTED FOR ACTIVE DIRECTORY IDATAAGENT

DEPLOYMENT

CUSTOM PACKAGE

The Custom Package feature is now extended to almost all products in the Calypso suite. Using Custom Packages, you no longer have to push the entire software DVD through a network, which is especially useful for reducing WAN/LAN payload while installing remote clients.

It is also possible to create Custom Packages using a customized .xml file.

When used in conjunction with the Install Software from the CommCell Console and Automatic Updates features, WAN bandwidth can be drastically reduced during remote site installations. Learn more...

INSTALL FROM THE COMMCELL CONSOLE

The software installation for this component can be initiated and managed from the CommCell Console, which facilitates the building of your CommCell and eliminates the need to manually install the software. Additionally, the installation of this component can be scheduled to occur at a time suitable for your environment. For more information, see Install Software from the CommCell Console.

UNINSTALL FROM THE COMMCELL CONSOLE

This component can be uninstalled using the CommCell Console. The Uninstall Software utility allows you to quickly see a list of the software packages installed on the selected computer, from which you can then select the components to uninstall. With this, you can easily manage removing software components from client computers and MediaAgents in your CommCell without having to directly access each computer. For more information, see Uninstall Components using the CommCell Console.

SCHEDULE POLICY

New Features - DB2 iDataAgent

20

NEW FEATURES FOR DB2 IDATAAGENT

SNAP BACKUP SUPPORT

Snap Backup is now supported by the DB2 iDataAgent on Unix. For more information, see Snap Backup.

NEW COMMCELL FEATURES SUPPORTED FOR DB2 IDATAAGENT

DEPLOYMENT

CUSTOM PACKAGE

The Custom Package feature is now extended to almost all products in the Calypso suite. Using Custom Packages, you no longer have to push the entire software DVD through a network, which is especially useful for reducing WAN/LAN payload while installing remote clients.

It is also possible to create Custom Packages using a customized .xml file.

When used in conjunction with the Install Software from the CommCell Console and Automatic Updates features, WAN bandwidth can be drastically reduced during remote site installations. Learn more...

INSTALL FROM THE COMMCELL CONSOLE

The software installation for this component can be initiated and managed from the CommCell Console, which facilitates the building of your CommCell and eliminates the need to manually install the software. Additionally, the installation of this component can be scheduled to occur at a time suitable for your environment. For more information, see Install Software from the CommCell Console.

UNINSTALL FROM THE COMMCELL CONSOLE

This component can be uninstalled using the CommCell Console. The Uninstall Software utility allows you to quickly see a list of the software packages installed on the selected computer, from which you can then select the components to uninstall. With this, you can easily manage removing software components from client computers and MediaAgents in your CommCell without having to directly access each computer. For more information, see Uninstall Components using the CommCell Console.

UPGRADES

After upgrading the underlying application of Sybase, Informix, or DB2 *i*DataAgent, the new version of the application will be updated in Instance Properties once a full backup is run. This provides the facility to track application versions from the CommCell Console as opposed to tracking them from each application. For more information, see Operating System and Application Upgrades.

SCHEDULE POLICY

New Features - DB2 DPF iDataAgent



NEW COMMCELL FEATURES SUPPORTED FOR DB2 DPF IDATAAGENT

DEPLOYMENT

CUSTOM PACKAGE

The Custom Package feature is now extended to almost all products in the Calypso suite. Using Custom Packages, you no longer have to push the entire software DVD through a network, which is especially useful for reducing WAN/LAN payload while installing remote clients.

It is also possible to create Custom Packages using a customized .xml file.

When used in conjunction with the Install Software from the CommCell Console and Automatic Updates features, WAN bandwidth can be drastically reduced during remote site installations. Learn more...

INSTALL FROM THE COMMCELL CONSOLE

The software installation for this component can be initiated and managed from the CommCell Console, which facilitates the building of your CommCell and eliminates the need to manually install the software. Additionally, the installation of this component can be scheduled to occur at a time suitable for your environment. For more information, see Install Software from the CommCell Console.

UNINSTALL FROM THE COMMCELL CONSOLE

This component can be uninstalled using the CommCell Console. The Uninstall Software utility allows you to quickly see a list of the software packages installed on the selected computer, from which you can then select the components to uninstall. With this, you can easily manage removing software components from client computers and MediaAgents in your CommCell without having to directly access each computer. For more information, see Uninstall Components using the CommCell Console.

SCHEDULE POLICY

New Features - Documentum iDataAgent



The Documentum iDataAgent is a new Agent for this software release.

The Documentum *i*DataAgent provides a data protection solution to protect and manage components (e.g., databases, storage areas, and full-text indexes) for EMC Documentum software. This iDataAgent will be able to protect Documentum data components installed on a single or multiple computers. Oracle or DB2 database on UNIX is supported. File level restores of documents, both in-place and out-of-place, are supported.

For an overview, see Documentum iDataAgent.

New Features - External Data Connector



The External Data Connector is a new Agent for this software release.

External Data Connector for NetBackup provides the facility to integrate NetBackup client information into a CommCell. You can use the client information to generate reports on previous NetBackup data protection and recovery operations.

Additionally, you can permanently migrate NetBackup clients into the CommCell to comprehensively manage new data protection and recovery operations

For an overview, see External Data Connector (NetBackup).

New Features - Image Level iDataAgent

3

NEW FEATURES FOR IMAGE LEVEL IDATAAGENT

DATA PROTECTION

Backups for this agent can use additional snapshots besides QSnap.

NEW COMMCELL FEATURES SUPPORTED FOR IMAGE LEVEL IDATAAGENT

DEPLOYMENT

CUSTOM PACKAGE

The Custom Package feature is now extended to almost all products in the Calypso suite. Using Custom Packages, you no longer have to push the entire software DVD through a network, which is especially useful for reducing WAN/LAN payload while installing remote clients.

It is also possible to create Custom Packages using a customized .xml file.

When used in conjunction with the Install Software from the CommCell Console and Automatic Updates features, WAN bandwidth can be drastically reduced during remote site installations. Learn more...

INSTALL FROM THE COMMCELL CONSOLE

The software installation for this component can be initiated and managed from the CommCell Console, which facilitates the building of your CommCell and eliminates the need to manually install the software. Additionally, the installation of this component can be scheduled to occur at a time suitable for your environment. For more information, see Install Software from the CommCell Console.

UNINSTALL FROM THE COMMCELL CONSOLE

This component can be uninstalled using the CommCell Console. The Uninstall Software utility allows you to quickly see a list of the software packages installed on the selected computer, from which you can then select the components to uninstall. With this, you can easily manage removing software components from client computers and MediaAgents in your CommCell without having to directly access each computer. For more information, see Uninstall Components using the CommCell Console.

SCHEDULE POLICY

New Features - Informix iDataAgent



NEW COMMCELL FEATURES SUPPORTED FOR INFORMIX IDATAAGENT

DEPLOYMENT

INSTALL FROM THE COMMCELL CONSOLE

The software installation for this component can be initiated and managed from the CommCell Console, which facilitates the building of your CommCell and eliminates the need to manually install the software. Additionally, the installation of this component can be scheduled to occur at a time suitable for your environment. For more information, see Install Software from the CommCell Console.

UNINSTALL FROM THE COMMCELL CONSOLE

This component can be uninstalled using the CommCell Console. The Uninstall Software utility allows you to quickly see a list of the software packages installed on the selected computer, from which you can then select the components to uninstall. With this, you can easily manage removing software components from client computers and MediaAgents in your CommCell without having to directly access each computer. For more information, see Uninstall Components using the CommCell Console.

UPGRADES

After upgrading the underlying application of Sybase, Informix, or DB2 *i*DataAgent, the new version of the application will be updated in Instance Properties once a full backup is run. This provides the facility to track application versions from the CommCell Console as opposed to tracking them from each application. For more information, see Operating System and Application Upgrades.

SCHEDULE POLICY

New Features - Lotus Notes/Domino Server iDataAgents



NEW FEATURES FOR LOTUS NOTES / DOMINO SERVER IDATAAGENTS

ERASE DATA

Additional agents (e.g., Lotus Notes Document /DataAgent, Domino Mailbox Archiver) now support the erasing of data. Erasing data allows you to permanently erase data from storage and make it inaccessible for data recovery. See Erase Backup/Archived Data for more information.

NEW COMMCELL FEATURES FOR LOTUS NOTES / DOMINO SERVER IDATAAGENT

DEPLOYMENT

CUSTOM PACKAGE

The Custom Package feature is now extended to almost all products in the Calypso suite. Using Custom Packages, you no longer have to push the entire software DVD through a network, which is especially useful for reducing WAN/LAN payload while installing remote clients.

It is also possible to create Custom Packages using a customized $.\,\mathtt{xml}$ file.

When used in conjunction with the Install Software from the CommCell Console and Automatic Updates features, WAN bandwidth can be drastically reduced during remote site installations. Learn more...

INSTALL FROM THE COMMCELL CONSOLE

The software installation for this component can be initiated and managed from the CommCell Console, which facilitates the building of your CommCell and eliminates the need to manually install the software. Additionally, the installation of this component can be scheduled to occur at a time suitable for your environment. For more information, see Install Software from the CommCell Console.

UNINSTALL FROM THE COMMCELL CONSOLE

New Features - Macintosh File System iDataAgent



NEW COMMCELL FEATURES SUPPORTED FOR MACINTOSH FILE SYSTEM IDATAAGENT

DEPLOYMENT

INSTALL FROM THE COMMCELL CONSOLE

The software installation for this component can be initiated and managed from the CommCell Console, which facilitates the building of your CommCell and eliminates the need to manually install the software. Additionally, the installation of this component can be scheduled to occur at a time suitable for your environment. For more information, see Install Software from the CommCell Console.

UNINSTALL FROM THE COMMCELL CONSOLE

New Features - Microsoft Data Protection Manager



NEW COMMCELL FEATURES SUPPORTED FOR MICROSOFT DATA PROTECTION MANAGER

DEPLOYMENT

CUSTOM PACKAGE

The Custom Package feature is now extended to almost all products in the Calypso suite. Using Custom Packages, you no longer have to push the entire software DVD through a network, which is especially useful for reducing WAN/LAN payload while installing remote clients.

It is also possible to create Custom Packages using a customized .xml file.

When used in conjunction with the Install Software from the CommCell Console and Automatic Updates features, WAN bandwidth can be drastically reduced during remote site installations. Learn more...

INSTALL FROM THE COMMCELL CONSOLE

The software installation for this component can be initiated and managed from the CommCell Console, which facilitates the building of your CommCell and eliminates the need to manually install the software. Additionally, the installation of this component can be scheduled to occur at a time suitable for your environment. For more information, see Install Software from the CommCell Console.

UNINSTALL FROM THE COMMCELL CONSOLE

New Features - Exchange Server iDataAgents



NEW FEATURES FOR EXCHANGE SERVER /DATAAGENTS

PREVENT LOG TRUNCATION DURING BACKUPS

Use the Copy Backup option to include full logs in database backups.

MAILBOX AUTO DISCOVERY

Auto discovered mailboxes can now be automatically assigned to subclient in the event of a change in the storage group affinity, Active Directory user group affinity, or wildcard pattern. This feature is supported for Exchange Mailbox and Exchange Mailbox Archiver. For detailed information, see Automatic Content Management.

SNAP MINING

To reduce load on a production Exchange server, snap mining allows a data protection job to be run from an offline copy of a database. For more information, see Snap Mining - Exchange Mailbox iDataAgent.

NEW COMMCELL FEATURES SUPPORTED FOR EXCHNAGE SERVER IDATAAGENT

INSTALL USING A CUSTOM PACKAGE

The custom package is ideal for mass deployment of the software. You can record the components to be installed along with the specific installation options and playback the recording with a single click.

INSTALL FROM THE COMMCELL CONSOLE

The software installation for this component can be initiated and managed from the CommCell Console, which facilitates the building of your CommCell and eliminates the need to manually install the software. Additionally, the installation of this component can be scheduled to occur at a time suitable for your environment. For more information, see Install Software from the CommCell Console.

UNINSTALL FROM THE COMMCELL CONSOLE

This component can be uninstalled using the CommCell Console. The Uninstall Software utility allows you to quickly see a list of the software packages installed on the selected computer, from which you can then select the components to uninstall. With this, you can easily manage removing software components from client computers and MediaAgents in your CommCell without having to directly access each computer. For more information, see Uninstall Components using the CommCell Console.

ADDITIONAL SNAP ENGINE SUPPORT FOR SNAPPROTECT

The following Snapshot Engines are now supported for SnapProtect:

- Data Replicator
- Dell EqualLogic
- HP StorageWorks EVA
- IBM XIV
- EMC Celerra

SNAP TEST TOOL

Snap Test tool is now available to test basic snap engine operations. See SnapProtect - Snaptest Tool, for more information.

MULTI-STREAMING FOR SNAPPROTECT

Multi-stream backups are now supported for SnapProtect. You can now use multi-stream when moving data to media.

VOLUME MANAGER SUPPORT

SnapProtect Volume Manager support has been extended to support more configurations for e.g., Multiple Physical Volumes containing one Logical Volume. See Supported Volume Managers, for a complete list of volume managers supported for SnapProtect.

SCHEDULE POLICY

A data protection schedule policy can now be created for the following agents:

- Microsoft Exchange Mailbox
- Microsoft Exchange Public Folder

For more information, see Agent-Specific Data Protection Schedule Policy.

Back to Top

New Features - Microsoft SharePoint Server iDataAgent



NEW FEATURES FOR MICROSOFT SHAREPOINT SERVER IDATAAGENT

DATA PROTECTION OPERATIONS

- The SharePoint Server iDataAgent supports backup and restore of Microsoft Office Forms Server 2007 data. For more information, see System Requirements Microsoft SharePoint Server iDataAgent.
- The SharePoint Server iDataAgent supports backup and restore of SharePoint 2010 Foundation, SharePoint 2010 (Standard and Enterprise), Project Server 2010, Search Server 2010 Express, Search Server 2010, and FAST Search Server 2010 for SharePoint. For more information, see restore procedures in Microsoft SharePoint Foundation 2010.
- The SharePoint Server iDataAgent supports backup and restore of Project Web Access (PWA) sites on a Microsoft Office Project Server. This includes Project Server databases, such as Archived, Draft, Published, and Reporting. For more information, see Microsoft Office Project Server 2007.
- The SharePoint Server iDataAgent supports backup and restore of Search Shared Databases, Shared Service Provider (SSP) Databases, and Search-Index Servers on Microsoft Search Server 2008 or Microsoft Search Server 2008 Express. For more information, see Microsoft Search Server 2008/Microsoft Search Server 2008 Express.
- Filters can now be applied to the content (URLs of site collections) of a subclient for database backup sets. A good backup filter is essential in achieving your backup and restore objectives and in keeping your protected storage usage to a minimum. A backup filter prevents unnecessary content from being backed up on a client. For more information on filtering URLs of site collections, see Filters.
- On Demand Backups are now supported for Database backup sets of the SharePoint Server iDataAgent. This allows you the flexibility of specifying content each time you perform a backup operation. Content for on demand backups is specified through the use of a Directive File, which will back up data for a subclient of an On Demand Backup Set. See On Demand Data Protection Operations for more information.
- A new backup option is now available that, if selected, will restore individual files directly into the database. Applicable for files that reside in Document backup sets, this will retain the IDs of the items so if they are being tracked separately, the IDs will not have to be manually updated or changed. See Use Direct Access to Restore Selected Entities for more information.

SNAP MINING

To reduce load on production SharePoint Front-End Web Servers and back-end SQL Servers, snap mining allows a data protection job to be run from an offline copy of a database. For more information, see Snap Mining - SharePoint Server iDataAgent.

NEW COMMCELL FEATURES SUPPORTED FOR MICROSOFT SHAREPOINT SERVER IDATAAGENT

DEPLOYMENT

CUSTOM PACKAGE

The Custom Package feature is now extended to almost all products in the Calypso suite. Using Custom Packages, you no longer have to push the entire software DVD through a network, which is especially useful for reducing WAN/LAN payload while installing remote clients.

It is also possible to create Custom Packages using a customized .xml file.

When used in conjunction with the Install Software from the CommCell Console and Automatic Updates features, WAN bandwidth can be drastically reduced during remote site installations. Learn more...

INSTALL FROM THE COMMCELL CONSOLE

The software installation for this component can be initiated and managed from the CommCell Console, which facilitates the building of your CommCell and eliminates the need to manually install the software. Additionally, the installation of this component can be scheduled to occur at a time suitable for your environment. For more information, see Install Software from the CommCell Console.

UNINSTALL FROM THE COMMCELL CONSOLE

New Features - SQL Server iDataAgent



NEW FEATURES FOR MICROSOFT SQL SERVER IDATAAGENT

DATA PROTECTION OPERATIONS

- For SQL backups, several new SQL settings are now available. Adjusting these parameters may improve performance and you can enable or disable log consistency checking. You can accept either the defaults or change the values for parameters such as Block Size, Buffer Count, Maximum Transfer Size, and Log Consistency Checking. For more information, see Enhancing Performance During Backups.
- Backups for SQL Server 2008 Enterprise or later can now be compressed by SQL Server before being backed up using Calypso. Backups will be smaller,
 which should significantly increase the backup speed. However, VSS-enabled and Snap backup types are not supported with this feature. For more
 information, see Compressing Backups with Native SQL Compression
- The SQL Server iDataAgent now can restore backups of replicated databases. With this feature, a published database can be restored to a server other than the server where the database was created. This is relevant only to Calypso full backups and if the database was part of a replication implementation. For more information, see Preserving Replication Settings
- A new backup conversion rule for SQL Server iDataAgent is now available that when configured, will not convert the log backup to a Full backup if the log backup was performed using software other than Calypso. For more information, see Setting Up Backup Conversion Rules
- You can configure the size of the application data fetched for data transfer during backup operations. Tuning the application read size in alignment with the source application's buffer allocation increases the rate of data transfer during backup. See Advanced - Microsoft SQL Server Configuration on configuring the application read size for more information.
- When SQL databases were automatically discovered but later deleted from an application (e.g., SQL Server), they will be automatically deleted from the
 content of the default subclient when the next backup is run. This alleviates having to delete the databases manually. Databases that are manually added
 and later deleted from an application are not automatically removed from the subclient when the next backup runs and the backup job will complete with
 errors. See Managing Databases Deleted from SQL Server for more information.
- By default, SQL databases are automatically discovered and assigned to the default subclient. You can disable this auto-discovery with a new subclient properties option if you need more control of the SQL databases data protection strategy and wish to manually assign them to subclients instead. For more information, see Enabling/Disabling Automatic Database Discovery.

DATA RECOVERY OPERATIONS

SQL databases can now be restored if they were backed up with the Change Data Capture property enabled. This is a useful SQL Server 2008 feature in that all change activity (insert, update, and delete) is captured and applied to SQL tables. The details of the changes are available in an easily consumed relational format. See Restoring the Captured Changes for more information.

NEW COMMCELL FEATURES SUPPORTED FOR MICROSOFT SQL SERVER IDATAAGENT

DEPLOYMENT

CUSTOM PACKAGE

The Custom Package feature is now extended to almost all products in the Calypso suite. Using Custom Packages, you no longer have to push the entire software DVD through a network, which is especially useful for reducing WAN/LAN payload while installing remote clients.

It is also possible to create Custom Packages using a customized .xml file.

When used in conjunction with the Install Software from the CommCell Console and Automatic Updates features, WAN bandwidth can be drastically reduced during remote site installations. Learn more...

INSTALL FROM THE COMMCELL CONSOLE

The software installation for this component can be initiated and managed from the CommCell Console, which facilitates the building of your CommCell and eliminates the need to manually install the software. Additionally, the installation of this component can be scheduled to occur at a time suitable for your environment. For more information, see Install Software from the CommCell Console.

UNINSTALL FROM THE COMMCELL CONSOLE

This component can be uninstalled using the CommCell Console. The Uninstall Software utility allows you to quickly see a list of the software packages installed on the selected computer, from which you can then select the components to uninstall. With this, you can easily manage removing software components from client computers and MediaAgents in your CommCell without having to directly access each computer. For more information, see Uninstall Components using the CommCell Console.

ADDITIONAL SNAP ENGINE SUPPORT FOR SNAPPROTECT

The following Snapshot Engines are now supported for SnapProtect:

- Data Replicator
- Dell EqualLogic
- HP StorageWorks EVA
- IBM XIV
- EMC Celerra

SNAP TEST TOOL

Snap Test tool is now available to test basic snap engine operations. See SnapProtect - Snaptest Tool, for more information.

MULTI-STREAMING FOR SNAPPROTECT

Multi-stream backups are now supported for SnapProtect. You can now use multi-stream when moving data to media.

VOLUME MANAGER SUPPORT

SnapProtect Volume Manager support has been extended to support more configurations for e.g., Multiple Physical Volumes containing one Logical Volume. See Supported Volume Managers, for a complete list of volume managers supported for SnapProtect.

Back to Top

New Features - Microsoft Windows File System iDataAgent



NEW FEATURES FOR MICROSOFT WINDOWS FILE SYSTEM IDATAAGENT

ADD-ON ARCHIVER

The OnePass Agent allows users to achieve back up, archive and SRM reporting functions in OnePass.

This agent enables you to move the data once to secondary storage and use the data to function as both backup and archive copy. During stubbing, the data is not moved again. Stubs point to the data that was already moved as part of the backup.

Learn more

SUBCLIENT CONTENT

Wildcard expressions can now be used to define the subclient content. It allows for the selection of files based on their extension types, negations or specified characters.

Example: *.doc or a *.dll will include all the files with .doc extensions together with files beginning with alphabet 'a' and .dll extension.

DATA TRANSFER

You can configure the size of application data fetched for data transfer during backup operations. Tuning the application read size in alignment with the source application's buffer allocation increases the rate of data transfer during backup. See Configure the Application Read Size for more information.

DESKTOP BROWSE

The Search Console now provides end users the ability to restore data without assistance from Backup/System Administrators. This feature includes the facility to browse and restore data between time frames, as well as the option to search for emails and file contents. End users can connect to the Search Console using a standard web browser. The following Agents support this feature in this release:

Learn more...

1-TOUCH OFFLINE RESTORE

The Offline Restore is a fast 1-Touch recovery of the Windows client. This is accomplished by starting the restore from WinPE instead of restoring the entire operating system.

Learn more...

NEW COMMCELL FEATURES SUPPORTED FOR MICROSOFT WINDOWS FILE SYSTEM IDATAAGENT

DEPLOYMENT

INSTALL FROM THE COMMCELL CONSOLE

The software installation for this component can be initiated and managed from the CommCell Console, which facilitates the building of your CommCell and eliminates the need to manually install the software. Additionally, the installation of this component can be scheduled to occur at a time suitable for your environment. For more information, see Install Software from the CommCell Console.

UNINSTALL FROM THE COMMCELL CONSOLE

This component can be uninstalled using the CommCell Console. The Uninstall Software utility allows you to quickly see a list of the software packages installed on the selected computer, from which you can then select the components to uninstall. With this, you can easily manage removing software components from client computers and MediaAgents in your CommCell without having to directly access each computer. For more information, see Uninstall Components using the CommCell Console.

ADDITIONAL SNAP ENGINE SUPPORT FOR SNAPPROTECT

The following Snapshot Engines are now supported for SnapProtect:

- Data Replicator
- Dell EqualLogic
- HP StorageWorks EVA
- IBM XIV
- EMC Celerra

SNAP TEST TOOL

Snap Test tool is now available to test basic snap engine operations. See SnapProtect - Snaptest Tool, for more information.

MULTI-STREAMING FOR SNAPPROTECT

Multi-stream backups are now supported for SnapProtect. You can now use multi-stream when moving data to media.

VOLUME MANAGER SUPPORT

SnapProtect Volume Manager support has been extended to support more configurations for e.g., Multiple Physical Volumes containing one Logical Volume. See Supported Volume Managers, for a complete list of volume managers supported for SnapProtect.

Back to Top

New Features - MySQL iDataAgent



NEW FEATURES FOR MYSQL IDATAAGENT

DATA PROTECTION OPERATIONS

If manually discovered databases are removed/missing from the MySQL server, the backup operation for the specific subclient completes with errors. Similarly, during backup of default subclient, if the auto discovered databases are removed/missing from the MySQL server, the backup operation completes successfully. For more information on configuring subclients, see Subclients - MySQL.

DATA RECOVERY OPERATIONS

Recurring Restore option is added to allow you to replicate the transaction logs from one server to another to be used in Fail over cases. If you schedule a recurring log restores to a second server, then after sometime both the servers should contain the data at the same level and second one should become exact replication of first server. You can even schedule the log restores in parts to two or more servers. Recurring restores feature facilitates you to use the replicated servers in any failover cases. For more information, see Recurring Restores of Logs.

NEW COMMCELL FEATURES SUPPORTED FOR MYSQL IDATAAGENT

DEPLOYMENT

INSTALL FROM THE COMMCELL CONSOLE

The software installation for this component can be initiated and managed from the CommCell Console, which facilitates the building of your CommCell and eliminates the need to manually install the software. Additionally, the installation of this component can be scheduled to occur at a time suitable for your environment. For more information, see Install Software from the CommCell Console.

UNINSTALL FROM THE COMMCELL CONSOLE

This component can be uninstalled using the CommCell Console. The Uninstall Software utility allows you to quickly see a list of the software packages installed on the selected computer, from which you can then select the components to uninstall. With this, you can easily manage removing software components from client computers and MediaAgents in your CommCell without having to directly access each computer. For more information, see Uninstall Components using the CommCell Console.

SCHEDULE POLICY

New Features - NAS iDataAgent

20

NEW FEATURES FOR NAS IDATAAGENT

DATA PROTECTION OPERATIONS

- Multiplexing is now supported on NAS attached storage policies containing non-NAS data.
- Support for EMC Celerra tape silvering has been added in this release. Tape silvering is the shipment of a physical copy of the source data to a destination site. Time and resources are saved with tape silvering, as opposed to transferring the file system over a network and potentially placing sensitive business data at risk. For more information, see Configure Subclients for Tape Silvering (Celerra).
- The number of tape drives in use on a particular NAS file server can now be limited. This is useful since some file servers have a limit to the number of concurrent backup or restore jobs that can be run.
- A SnapMirror to Tape (SMTAPE) is a block based backup method supported for NetApp file servers running ONTAP 8.0 or higher. SnapMirror to Tape enables
 faster block based backup for large storage systems. To use this method for backups, an Image Backup set needs to be created. For more information, see
 Configuring Block Based Backups (SnapMirror to Tape) (NetApp).
- List media has been enhanced to list specific NetApp files and folders that reside on the media. This is useful when a data protection spans across multiple media and you would like to know the exact media in which the files you wish to restore reside. For more information, see List Media (Media Prediction) Support.

SNAPPROTECT SUPPORT

SnapProtect is now supported by the NAS iDataAgent. Learn more...

NEW COMMCELL FEATURES SUPPORTED FOR NAS IDATAAGENT

DEPLOYMENT

INSTALL FROM THE COMMCELL CONSOLE

The software installation for this component can be initiated and managed from the CommCell Console, which facilitates the building of your CommCell and eliminates the need to manually install the software. Additionally, the installation of this component can be scheduled to occur at a time suitable for your environment. For more information, see Install Software from the CommCell Console.

UNINSTALL FROM THE COMMCELL CONSOLE

This component can be uninstalled using the CommCell Console. The Uninstall Software utility allows you to quickly see a list of the software packages installed on the selected computer, from which you can then select the components to uninstall. With this, you can easily manage removing software components from client computers and MediaAgents in your CommCell without having to directly access each computer. For more information, see Uninstall Components using the CommCell Console.

SCHEDULE POLICY

A data protection schedule policy can now be created for this specific agent. For more information, see Agent-Specific Data Protection Schedule Policy.

Back to Top

New Features - Novell Directory Services iDataAgent



NEW FEATURES FOR NOVELL DIRECTORY SERVICES IDATAAGENT

DEPLOYMENT

For deployment in an OES Linux Operating System environment, the following new features are supported for this agent:

INSTALL FROM THE COMMCELL CONSOLE

The software installation for this component can be initiated and managed from the CommCell Console, which facilitates the building of your CommCell and eliminates the need to manually install the software. Additionally, the installation of this component can be scheduled to occur at a time suitable for your environment. For more information, see Install Software from the CommCell Console.

UNINSTALL FROM THE COMMCELL CONSOLE

This component can be uninstalled using the CommCell Console. The Uninstall Software utility allows you to quickly see a list of the software packages installed on the selected computer, from which you can then select the components to uninstall. With this, you can easily manage removing software components from client computers and MediaAgents in your CommCell without having to directly access each computer. For more information, see Uninstall Components using the CommCell Console.

ERASE BACKUP/ARCHIVED DATA

Additional agents (e.g., Lotus Notes Document iDataAgent, Domino Mailbox Archiver) now support the erasing of data. Erasing data allows you to permanently erase data from storage and make it inaccessible for data recovery. See Erase Backup/Archived Data for more information.

New Features - Novell GroupWise iDataAgent



NEW COMMCELL FEATURES SUPPORTED FOR NOVELL GROUPWISE IDATAAGENT

DEPLOYMENT

For deployment in an OES Linux Operating System environment, the following new features are supported for this agent:

INSTALL FROM THE COMMCELL CONSOLE

The software installation for this component can be initiated and managed from the CommCell Console, which facilitates the building of your CommCell and eliminates the need to manually install the software. Additionally, the installation of this component can be scheduled to occur at a time suitable for your environment. For more information, see Install Software from the CommCell Console.

UNINSTALL FROM THE COMMCELL CONSOLE

This component can be uninstalled using the CommCell Console. The Uninstall Software utility allows you to quickly see a list of the software packages installed on the selected computer, from which you can then select the components to uninstall. With this, you can easily manage removing software components from client computers and MediaAgents in your CommCell without having to directly access each computer. For more information, see Uninstall Components using the CommCell Console.

SCHEDULE POLICY

New Features - OES File System iDataAgent



NEW COMMCELL FEATURES SUPPORTED FOR OES FILE SYSTEM /DATAAGENT

DEPLOYMENT

INSTALL FROM THE COMMCELL CONSOLE

The software installation for this component can be initiated and managed from the CommCell Console, which facilitates the building of your CommCell and eliminates the need to manually install the software. Additionally, the installation of this component can be scheduled to occur at a time suitable for your environment. For more information, see Install Software from the CommCell Console.

UNINSTALL FROM THE COMMCELL CONSOLE

This component can be uninstalled using the CommCell Console. The Uninstall Software utility allows you to quickly see a list of the software packages installed on the selected computer, from which you can then select the components to uninstall. With this, you can easily manage removing software components from client computers and MediaAgents in your CommCell without having to directly access each computer. For more information, see Uninstall Components using the CommCell Console.

SCHEDULE POLICY

New Features - Oracle iDataAgent



NEW FEATURES FOR ORACLE /DATAAGENT

SUPPORT FOR BACK UP AND RESTORE OF ORACLE 12C, INCLUDING CONTAINER AND PLUGGABLE DATABASES

Oracle 12c is now supported, including backing up and restoring container databases (CDB) and pluggable databases (PDB).

DATA PROTECTION OPERATIONS

- For Oracle and Oracle RAC iDataAgents, you can now assign tags to a specific backup operation in order to facilitate restore based on the assigned tag. For more information, Learn more...
- Oracle RMAN scripts for backup and restore operations can now be viewed and edited from the CommCell Console. Learn more...
- For archive log backups, you now have the facility to disable the log switch of current log files.

Learn more...

- Oracle instances can now be automatically or manually discovered for backups. Learn more....
- Multiple copies of data or log backups are now supported from the CommCell Console.

Learn more...

DATA RECOVERY OPERATIONS

- You can now restore the control file and SP file from a specific backup piece from the CommCell Console. Learn more...
- Oracle archive log files can be restored based on tags from the CommCell Console. Learn more...
- Oracle RMAN scripts for backup and restore operations can now be viewed and edited from the CommCell Console. Learn more...
- When performing table level restore, you now have the facility to select the dependent and referenced tables of the selected tables for the restore operation.
 You can also choose to include triggers, constraints, indexes, grants, stored procedures, or other external parameters (such as COMPRESSION or PARALLEL) on the selected tables for the restore operation. Learn more...
- You can resubmit Oracle restore jobs from the Job History window without the need to reconfigure the job with the same options. If required, you can also modify the existing configuration and resubmit the job. Learn more...
- During Oracle restore operations, the restore and recover processes are run as separate RMAN run blocks and hence when resumed, the job is restarted from the last failed RMAN run block. Learn more...

SNAPPROTECT

ADDITIONAL SNAPPROTECT SUPPORT FOR THE ORACLE IDATAAGENT

- SnapProtect can now be utilized to perform ASM (Automatic Storage Management) and RMAN backups.
 - In addition, SnapProtect now supports RMAN based Movement to Tape allowing you to use Recovery Manager (RMAN) for the movement to media operation.
- Table Level restores of SnapProtect data is now supported.

Learn more...

ADDITIONAL SNAP ENGINE SUPPORT FOR SNAPPROTECT

The following Snapshot Engines are now supported for SnapProtect:

- Data Replicator
- Dell EqualLogic
- HP StorageWorks EVA
- IBM XIV
- EMC Celerra

SNAP TEST TOOL

Snap Test tool is now available to test basic snap engine operations. See SnapProtect - Snaptest Tool, for more information.

MULTI-STREAMING FOR SNAPPROTECT

Multi-stream backups are now supported for SnapProtect. You can now use multi-stream when moving data to media.

VOLUME MANAGER SUPPORT

SnapProtect Volume Manager support has been extended to support more configurations for e.g., Multiple Physical Volumes containing one Logical Volume. See Supported Volume Managers, for a complete list of volume managers supported for SnapProtect.

ADDITIONAL SNAPPROTECT SUPPORT FOR UNIX

SnapProtect support on Unix has been extended to include the following platforms, file system, and volume manager types:

- HP-UX
- Sun Volume Manager
- Solaris Local Zones
- Zettabyte File System (ZFS)

COMMAND LINE INTERFACE

Oracle third party command line operations can now be executed from the Oracle Enterprise Manager application.

NEW COMMCELL FEATURES SUPPORTED FOR ORACLE IDATAAGENT

DEPLOYMENT

CUSTOM PACKAGE

The Custom Package feature is now extended to almost all products in the Calypso suite. Using Custom Packages, you no longer have to push the entire software DVD through a network, which is especially useful for reducing WAN/LAN payload while installing remote clients.

It is also possible to create Custom Packages using a customized .xml file.

When used in conjunction with the Install Software from the CommCell Console and Automatic Updates features, WAN bandwidth can be drastically reduced during remote site installations. Learn more...

INSTALL FROM THE COMMCELL CONSOLE

The software installation for this component can be initiated and managed from the CommCell Console, which facilitates the building of your CommCell and eliminates the need to manually install the software. Additionally, the installation of this component can be scheduled to occur at a time suitable for your environment. For more information, see Install Software from the CommCell Console.

UNINSTALL FROM THE COMMCELL CONSOLE

This component can be uninstalled using the CommCell Console. The Uninstall Software utility allows you to quickly see a list of the software packages installed on the selected computer, from which you can then select the components to uninstall. With this, you can easily manage removing software components from client computers and MediaAgents in your CommCell without having to directly access each computer. For more information, see Uninstall Components using the CommCell Console.

SCHEDULE POLICY

A data protection schedule policy can now be created for this specific agent. For more information, see Agent-Specific Data Protection Schedule Policy.

New Features - Oracle RAC iDataAgent



NEW FEATURES FOR ORACLE RAC /DATAAGENT

COMMAND LINE INTERFACE

Oracle third party command line operations can now be executed from the Oracle Enterprise Manager application.

DATA PROTECTION OPERATIONS

- For Oracle and Oracle RAC iDataAgents, you can now assign tags to a specific backup operation in order to facilitate restore based on the assigned tag. For more information, Learn more...
- For archive log backups, you now have the facility to disable the log switch of current log files.

Learn more...

• Multiple copies of data or log backups are now supported from the CommCell Console.

Learn more...

DATA RECOVERY OPERATIONSS

- You can now restore the control file and SP file from a specific backup piece from the CommCell Console. Learn more...
- Oracle archive log files can be restored based on tags from the CommCell Console. Learn more...
- Oracle RMAN scripts for backup and restore operations can now be viewed and edited from the CommCell Console. Learn more...
- When performing table level restore, you now have the facility to select the dependent and referenced tables of the selected tables for the restore operation.
 You can also choose to include triggers, constraints, indexes, grants, stored procedures, or other external parameters (such as COMPRESSION or PARALLEL) on the selected tables for the restore operation. Learn more...
- You can resubmit restore jobs from the Job History window without the need to reconfigure the job with the same options. If required, you can also modify the existing configuration and resubmit the job. Learn more...
- During Oracle restore operations, the restore and recover processes are run as separate RMAN run blocks and hence when resumed, the job is restarted from the last failed RMAN run block. Learn more...

NEW COMMCELL FEATURES SUPPORTED FOR ORACLE E RAC / DATAAGENT

DEPLOYMENT

INSTALL FROM THE COMMCELL CONSOLE

The software installation for this component can be initiated and managed from the CommCell Console, which facilitates the building of your CommCell and eliminates the need to manually install the software. Additionally, the installation of this component can be scheduled to occur at a time suitable for your environment. For more information, see Install Software from the CommCell Console.

UNINSTALL FROM THE COMMCELL CONSOLE

This component can be uninstalled using the CommCell Console. The Uninstall Software utility allows you to quickly see a list of the software packages installed on the selected computer, from which you can then select the components to uninstall. With this, you can easily manage removing software components from client computers and MediaAgents in your CommCell without having to directly access each computer. For more information, see Uninstall Components using the CommCell Console.

SCHEDULE POLICY

A data protection schedule policy can now be created for this specific agent. For more information, see Agent-Specific Data Protection Schedule Policy.

New Features - PostgreSQL iDataAgent



The PostGreSQL iDataAgent is a new Agent for this software release.

The PostGreSQL iDataAgent is designed to backup and restore PostGreSQL databases. This iDataAgent is particularly useful to recover an entire PostGreSQL database in the event of a complete system failure.

For information on the features supported by the PostGreSQL iDataAgent, see PostgreSQL iDataAgent.

New Features - ProxyHost iDataAgent



NEW COMMCELL FEATURES SUPPORTED FOR PROXYHOST /DATAAGENT

CUSTOM PACKAGE

The Custom Package feature is now extended to almost all products in the Calypso suite. Using Custom Packages, you no longer have to push the entire software DVD through a network, which is especially useful for reducing WAN/LAN payload while installing remote clients.

It is also possible to create Custom Packages using a customized .xml file.

When used in conjunction with the Install Software from the CommCell Console and Automatic Updates features, WAN bandwidth can be drastically reduced during remote site installations. Learn more...

INSTALL FROM THE COMMCELL CONSOLE

The software installation for this component can be initiated and managed from the CommCell Console, which facilitates the building of your CommCell and eliminates the need to manually install the software. Additionally, the installation of this component can be scheduled to occur at a time suitable for your environment. For more information, see Install Software from the CommCell Console.

UNINSTALL FROM THE COMMCELL CONSOLE

This component can be uninstalled using the CommCell Console. The Uninstall Software utility allows you to quickly see a list of the software packages installed on the selected computer, from which you can then select the components to uninstall. With this, you can easily manage removing software components from client computers and MediaAgents in your CommCell without having to directly access each computer. For more information, see Uninstall Components using the CommCell Console.

SCHEDULE POLICY

New Features - SAP for Oracle iDataAgent



NEW FEATURES FOR SAP FOR ORACLE

DATA PROTECTION

- When you backup archive logs, you now also have the facility to create a second copy of the archive logs and delete the original archive logs. For detailed information, see Creating Subclient for Log Backups.
- For archive log backups, you now have the facility to disable the log switch of current log files.

For more information, see Configuration - SAP for Oracle iDataAgent.

DATA RECOVERY

Data Recovery jobs for the SAP for Oracle *i*DataAgent can now be run from the CommCell Console besides from the SAP command line. See Restore – SAP for Oracle for more information.

ENHANCED DOCUMENTATION

SAP for Oracle *i*DataAgent documentation has been enhanced with 'Basic' and 'Advanced' sections to address the needs of first-time and advanced users. Also includes simple table of contents, logical flow to the product, and documentation based on use cases with more screen shots and simple, easy-to-read steps.

JOB MANAGEMENT

For SAP for Oracle command line backups, a single job ID for data backups and log backups is now generated and displayed in the Job Controller.

NEW COMMCELL FEATURES SUPPORTED FOR SAP FOR ORACLE

INSTALL USING A CUSTOM PACKAGE

The custom package is ideal for mass deployment of the software. You can record the components to be installed along with the specific installation options and playback the recording with a single click.

INSTALL FROM THE COMMCELL CONSOLE

The software installation for this component can be initiated and managed from the CommCell Console, which facilitates the building of your CommCell and eliminates the need to manually install the software. Additionally, the installation of this component can be scheduled to occur at a time suitable for your environment. For more information, see Install Software from the CommCell Console.

UNINSTALL FROM THE COMMCELL CONSOLE

This component can be uninstalled using the CommCell Console. The Uninstall Software utility allows you to quickly see a list of the software packages installed on the selected computer, from which you can then select the components to uninstall. With this, you can easily manage removing software components from client computers and MediaAgents in your CommCell without having to directly access each computer. For more information, see Uninstall Components using the CommCell Console.

ADDITIONAL SNAP ENGINE SUPPORT FOR SNAPPROTECT

The following Snapshot Engines are now supported for SnapProtect:

- Data Replicator
- Dell EqualLogic
- HP StorageWorks EVA
- IBM XIV
- EMC Celerra

SNAP TEST TOOL

Snap Test tool is now available to test basic snap engine operations. See SnapProtect - Snaptest Tool, for more information.

MULTI-STREAMING FOR SNAPPROTECT

Multi-stream backups are now supported for SnapProtect. You can now use multi-stream when moving data to media.

VOLUME MANAGER SUPPORT

SnapProtect Volume Manager support has been extended to support more configurations for e.g., Multiple Physical Volumes containing one Logical Volume. See Supported Volume Managers, for a complete list of volume managers supported for SnapProtect.

ADDITIONAL SNAPPROTECT SUPPORT FOR UNIX

SnapProtect support on Unix has been extended to include the following platforms, file system, and volume manager types:

- HP-UX
- Sun Volume Manager
- Solaris Local Zones
- Zettabyte File System (ZFS)

SCHEDULE POLICY

A data protection schedule policy can now be created for this specific agent. For more information, see Agent-Specific Data Protection Schedule Policy.

New Features - Sybase iDataAgent



NEW COMMCELL FEATURES SUPPORTED FOR SYBASE IDATAAGENT

DEPLOYMENT

CUSTOM PACKAGE

The Custom Package feature is now extended to almost all products in the Calypso suite. Using Custom Packages, you no longer have to push the entire software DVD through a network, which is especially useful for reducing WAN/LAN payload while installing remote clients.

It is also possible to create Custom Packages using a customized .xml file.

When used in conjunction with the Install Software from the CommCell Console and Automatic Updates features, WAN bandwidth can be drastically reduced during remote site installations. Learn more...

INSTALL FROM THE COMMCELL CONSOLE

The software installation for this component can be initiated and managed from the CommCell Console, which facilitates the building of your CommCell and eliminates the need to manually install the software. Additionally, the installation of this component can be scheduled to occur at a time suitable for your environment. For more information, see Install Software from the CommCell Console.

UNINSTALL FROM THE COMMCELL CONSOLE

This component can be uninstalled using the CommCell Console. The Uninstall Software utility allows you to quickly see a list of the software packages installed on the selected computer, from which you can then select the components to uninstall. With this, you can easily manage removing software components from client computers and MediaAgents in your CommCell without having to directly access each computer. For more information, see Uninstall Components using the CommCell Console.

UPGRADES

After upgrading the underlying application of Sybase, Informix, or DB2 *i*DataAgent, the new version of the application will be updated in Instance Properties once a full backup is run. This provides the facility to track application versions from the CommCell Console as opposed to tracking them from each application. For more information, see Operating System and Application Upgrades.

SCHEDULE POLICY

New Features - Unix File System iDataAgents



NEW FEATURES FOR UNIX FILE SYSTEM IDATAAGENT

ADD-ON ARCHIVER

The OnePass Agent allows users to achieve back up, archive and SRM reporting functions in OnePass.

This agent enables you to move the data once to secondary storage and use the data to function as both backup and archive copy. During stubbing, the data is not moved again. Stubs point to the data that was already moved as part of the backup.

l earn more

DATA PROTECTION OPERATIONS

- For the Unix File System iDataAgents, symbolic links can be included in the subclient content for backups. Learn more...
- You can configure incremental or differential backups to run if only the data contents have changed since the last backup. Learn more...
- Data protection and recovery support for virtual Linux guest operating systems hosted on IBM Z-Series mainframes. View support...

DESKTOP BROWSE

The Search Console now provides end users the ability to restore data without assistance from Backup/System Administrators. This feature includes the facility to browse and restore data between time frames, as well as the option to search for emails and file contents. End users can connect to the Search Console using a standard web browser. The following Agents support this feature in this release:

Learn more...

HP-UX SUPPORT FOR 1-TOUCH

1-Touch Recovery is now supported for HP-UX. For an overview, see 1-Touch for HP-UX.

REDESIGNED LINUX 1-TOUCH

- The Linux 1-Touch has been completely redesigned so that the 1-Touch server is no longer needed to recover the client. Also, a GUI based partition mapping tool is provided to facilitate an easy-to-use user-friendly recovery of asymmetric disk partitions.
- Multiple 1-Touch clients can be booted using a single boot media. The media can be a disk or a network share.

RESPONSE FILE BASED RESTORE FOR 1-TOUCH LINUX

Configuration information required during a 1-Touch client restore can now be easily provided using a pre-populated file. This eliminates the need to manually provide the information during the restore operation. In addition, these files can be easily created ahead of time from the CommCell Console and saved in a network location or in an easily accessible devise (such as thumb drive) to facilitate the client recovery.

Learn more...

SNAP BACKUP

ADDITIONAL SNAPPROTECT SUPPORT FOR UNIX

SnapProtect support on Unix has been extended to include the following platforms, file system, and volume manager types:

- HP-UX
- Sun Volume Manager
- Solaris Local Zones
- Zettabyte File System (ZFS)

ADDITIONAL SNAP ENGINE SUPPORT FOR SNAPPROTECT

The following Snapshot Engines are now supported for SnapProtect:

- Data Replicator
- Dell EqualLogic
- HP StorageWorks EVA
- IBM XIV
- EMC Celerra

SNAP TEST TOOL

Snap Test tool is now available to test basic snap engine operations. See SnapProtect - Snaptest Tool, for more information.

MULTI-STREAMING FOR SNAPPROTECT

Multi-stream backups are now supported for SnapProtect. You can now use multi-stream when moving data to media.

VOLUME MANAGER SUPPORT

SnapProtect Volume Manager support has been extended to support more configurations for e.g., Multiple Physical Volumes containing one Logical Volume. See Supported Volume Managers, for a complete list of volume managers supported for SnapProtect.

NEW COMMCELL FEATURES SUPPORTED FOR UNIX FILE SYSTEM IDATAAGENT

DEPLOYMENT

INSTALL FROM THE COMMCELL CONSOLE

The software installation for this component can be initiated and managed from the CommCell Console, which facilitates the building of your CommCell and eliminates the need to manually install the software. Additionally, the installation of this component can be scheduled to occur at a time suitable for your environment. For more information, see Install Software from the CommCell Console.

UNINSTALL FROM THE COMMCELL CONSOLE

This component can be uninstalled using the CommCell Console. The Uninstall Software utility allows you to quickly see a list of the software packages installed on the selected computer, from which you can then select the components to uninstall. With this, you can easily manage removing software components from client computers and MediaAgents in your CommCell without having to directly access each computer. For more information, see Uninstall Components using the CommCell Console.

UNINSTALL ALL MODULES

Option **All the above Module(s)** to uninstall all installed components from an Unix Computer. For more information, see Uninstall Components from a Unix Computer.

New Features - Virtual Server iDataAgent



NEW FEATURES FOR VIRTUAL SERVER IDATAAGENT

ADDITIONAL SUPPORT

- The Virtual Server *i*DataAgent now supports VMware vStorage APIs (vSphere).
- XEN virtual environments are now supported for Disk level backup and File level restore from Disk level backup. Learn more...
- Granular file-level recoveries are now supported for Linux-based VMware virtual machines.

DATA PROTECTION AND RECOVERY

You can configure the size of application data fetched for data transfer during backup operations. Tuning the application read size in alignment with the source application's buffer allocation increases the rate of data transfer during backup. See Configure the Application Read Size for more information.

ENHANCED DOCUMENTATION

Enhanced Virtual Server *i*DataAgent documentation is now vendor-based with 'Basic' and 'Advanced' sections to address the needs of first-time and advanced users. Also includes simple table of contents, logical flow to the product, and documentation based on use cases with more screen shots and simple, easy-to-read steps.

SNAPPROTECT SUPPORT

SnapProtect is now supported on the Virtual Server iDataAgent (VMware and Microsoft/Hyper-V). See SnapProtect - Virtual Server iDataAgent (Microsoft/Hyper-V) and SnapProtect - Virtual Server iDataAgent (VMware), for more information.

SNAP MINING SUPPORT

To reduce load on a production Exchange server, snap mining allows a data protection job to be run from an offline copy of a database. This feature is supported for VMware environments. Learn more...

NEW COMMCELL FEATURES SUPPORTED FOR VIRTUAL SERVER IDATAAGENT

DEPLOYMENT

CUSTOM PACKAGE

The custom package is ideal for mass deployment of the software. You can record the components to be installed along with the specific installation options and playback the recording with a single click.

INSTALL FROM THE COMMCELL CONSOLE

The software installation for this component can be initiated and managed from the CommCell Console, which facilitates the building of your CommCell and eliminates the need to manually install the software. Additionally, the installation of this component can be scheduled to occur at a time suitable for your environment. For more information, see Install Software from the CommCell Console.

UNINSTALL FROM THE COMMCELL CONSOLE

This component can be uninstalled using the CommCell Console. The Uninstall Software utility allows you to quickly see a list of the software packages installed on the selected computer, from which you can then select the components to uninstall. With this, you can easily manage removing software components from client computers and MediaAgents in your CommCell without having to directly access each computer. For more information, see Uninstall Components using the CommCell Console.

SCHEDULE POLICY

A data protection schedule policy can now be created for this specific agent. For more information, see Agent-Specific Data Protection Schedule Policy.

New Features - Domino Mailbox Archiver Agent



NEW FEATURES FOR DOMINO MAILBOX ARCHIVER AGENT

ERASE BACKUP/ARCHIVED DATA

Additional agents (e.g., Lotus Notes Document *i*DataAgent, Domino Mailbox Archiver) now support the erasing of data. Erasing data allows you to permanently erase data from storage and make it inaccessible for data recovery. See Erase Backup/Archived Data for more information.

NEW COMMCELL FEATURES SUPPORTED FOR DOMINO MAILBOX ARCHIVER AGENT

DEPLOYMENT

CUSTOM PACKAGE

The Custom Package feature is now extended to almost all products in the Calypso suite. Using Custom Packages, you no longer have to push the entire software DVD through a network, which is especially useful for reducing WAN/LAN payload while installing remote clients.

It is also possible to create Custom Packages using a customized $.\,\mathtt{xml}$ file.

When used in conjunction with the Install Software from the CommCell Console and Automatic Updates features, WAN bandwidth can be drastically reduced during remote site installations. Learn more...

INSTALL FROM THE COMMCELL CONSOLE

The software installation for this component can be initiated and managed from the CommCell Console, which facilitates the building of your CommCell and eliminates the need to manually install the software. Additionally, the installation of this component can be scheduled to occur at a time suitable for your environment. For more information, see Install Software from the CommCell Console.

UNINSTALL FROM THE COMMCELL CONSOLE

This component can be uninstalled using the CommCell Console. The Uninstall Software utility allows you to quickly see a list of the software packages installed on the selected computer, from which you can then select the components to uninstall. With this, you can easily manage removing software components from client computers and MediaAgents in your CommCell without having to directly access each computer. For more information, see Uninstall Components using the CommCell Console.

SCHEDULE POLICY

New Features - Exchange Archiver Agents



NEW FEATURES FOR EXCHANGE ARCHIVER AGENTS

EXCHANGE 2010 SUPPORT

Microsoft Exchange Server 2010 is now fully supported. This includes support for Snap Backup and Snap Mining operations as well as full DAG configurations.

ERASE BACKUP/ARCHIVED DATA

Additional agents (e.g., Lotus Notes Document iDataAgent, Domino Mailbox Archiver) now support the erasing of data. Erasing data allows you to permanently erase data from storage and make it inaccessible for data recovery. See Erase Backup/Archived Data for more information.

MAILBOX AUTO DISCOVERY

Auto discovered mailboxes can now be automatically assigned to subclient in the event of a change in the storage group affinity, Active Directory user group affinity, or wildcard pattern. This feature is supported for Exchange Mailbox and Exchange Mailbox Archiver. For detailed information, see Automatic Content Management.

SNAP MINING

To reduce load on a production Exchange server, snap mining allows a data protection job to be run from an offline copy of a database. For more information, see Snap Mining - Exchange Mailbox Archiver Agent.

RECALL ENTIRE MAILBOX MESSAGES

All archived messages in a mailbox or mailbox folder can now be recalled simultaneously. By default, stubs are overwritten and can also be used to perform out-of-place restores. Learn more...

NEW COMMCELL FEATURES SUPPORTED FOR EXCHANGE MAILBOX/PUBLIC FOLDER ARCHIVER

DEPLOYMENT

CUSTOM PACKAGE

The Custom Package feature is now extended to almost all products in the Calypso suite. Using Custom Packages, you no longer have to push the entire software DVD through a network, which is especially useful for reducing WAN/LAN payload while installing remote clients.

It is also possible to create Custom Packages using a customized $\tt.xml$ file.

When used in conjunction with the Install Software from the CommCell Console and Automatic Updates features, WAN bandwidth can be drastically reduced during remote site installations. Learn more...

INSTALL FROM THE COMMCELL CONSOLE

The software installation for this component can be initiated and managed from the CommCell Console, which facilitates the building of your CommCell and eliminates the need to manually install the software. Additionally, the installation of this component can be scheduled to occur at a time suitable for your environment. For more information, see Install Software from the CommCell Console.

UNINSTALL FROM THE COMMCELL CONSOLE

This component can be uninstalled using the CommCell Console. The Uninstall Software utility allows you to quickly see a list of the software packages installed on the selected computer, from which you can then select the components to uninstall. With this, you can easily manage removing software components from client computers and MediaAgents in your CommCell without having to directly access each computer. For more information, see Uninstall Components using the CommCell Console.

SCHEDULE POLICY

New Features - File Archiver for Unix Agent



NEW FEATURES FOR FILE ARCHIVER FOR UNIX AGENT

DESKTOP BROWSE

The Search Console now provides end users the ability to restore data without assistance from Backup/System Administrators. This feature includes the facility to browse and restore data between time frames, as well as the option to search for emails and file contents. End users can connect to the Search Console using a standard web browser. The following Agents support this feature in this release:

Learn more...

ERASE BACKUP/ARCHIVED DATA

Additional agents (e.g., Lotus Notes Document /DataAgent, Domino Mailbox Archiver) now support the erasing of data. Erasing data allows you to permanently erase data from storage and make it inaccessible for data recovery. See Erase Backup/Archived Data for more information.

NOVELL STORAGE SERVICES

As the File Archiver for Unix Agent supports the Novell OES2 Linux Operating System, data that resides on a Novell Storage Services (NSS) volume can be archived.

NEW COMMCELL FEATURES SUPPORTED FOR FILE ARCHIVER FOR UNIX AGENT

DEPLOYMENT

INSTALL FROM THE COMMCELL CONSOLE

The software installation for this component can be initiated and managed from the CommCell Console, which facilitates the building of your CommCell and eliminates the need to manually install the software. Additionally, the installation of this component can be scheduled to occur at a time suitable for your environment. For more information, see Install Software from the CommCell Console.

UNINSTALL FROM THE COMMCELL CONSOLE

This component can be uninstalled using the CommCell Console. The Uninstall Software utility allows you to quickly see a list of the software packages installed on the selected computer, from which you can then select the components to uninstall. With this, you can easily manage removing software components from client computers and MediaAgents in your CommCell without having to directly access each computer. For more information, see Uninstall Components using the CommCell Console.

SCHEDULE POLICY

New Features - File Archiver for Windows Agent



NEW FEATURES FOR FILE ARCHIVER FOR WINDOWS AGENT

DESKTOP BROWSE

The Search Console now provides end users the ability to restore data without assistance from Backup/System Administrators. This feature includes the facility to browse and restore data between time frames, as well as the option to search for emails and file contents. End users can connect to the Search Console using a standard web browser. The following Agents support this feature in this release:

Learn more...

NEW COMMCELL FEATURES SUPPORTED FOR FILE ARCHIVER FOR WINDOWS AGENT

DEPLOYMENT

CUSTOM PACKAGE

The Custom Package feature is now extended to almost all products in the Calypso suite. Using Custom Packages, you no longer have to push the entire software DVD through a network, which is especially useful for reducing WAN/LAN payload while installing remote clients.

It is also possible to create Custom Packages using a customized .xml file.

When used in conjunction with the Install Software from the CommCell Console and Automatic Updates features, WAN bandwidth can be drastically reduced during remote site installations. Learn more...

INSTALL FROM THE COMMCELL CONSOLE

The software installation for this component can be initiated and managed from the CommCell Console, which facilitates the building of your CommCell and eliminates the need to manually install the software. Additionally, the installation of this component can be scheduled to occur at a time suitable for your environment. For more information, see Install Software from the CommCell Console.

UNINSTALL FROM THE COMMCELL CONSOLE

This component can be uninstalled using the CommCell Console. The Uninstall Software utility allows you to quickly see a list of the software packages installed on the selected computer, from which you can then select the components to uninstall. With this, you can easily manage removing software components from client computers and MediaAgents in your CommCell without having to directly access each computer. For more information, see Uninstall Components using the CommCell Console.

SCHEDULE POLICY

New Features - SharePoint Archiver Agent



NEW COMMCELL FEATURES SUPPORTED FOR SHAREPOINT ARCHIVER AGENT

DEPLOYMENT

CUSTOM PACKAGE

The Custom Package feature is now extended to almost all products in the Calypso suite. Using Custom Packages, you no longer have to push the entire software DVD through a network, which is especially useful for reducing WAN/LAN payload while installing remote clients.

It is also possible to create Custom Packages using a customized $\tt.xml$ file.

When used in conjunction with the Install Software from the CommCell Console and Automatic Updates features, WAN bandwidth can be drastically reduced during remote site installations. Learn more...

SCHEDULE POLICY

New Features - Content Indexing and Search



NEW FEATURES FOR CONTENT INDEXING AND SEARCH

CONTENT INDEXING ENGINE

- The Content Indexing Engine provides faster indexing by temporarily staging the files to be content indexed in a local or network path prior to content indexing. For more information on configuring staging path location as well as other configurations, see Configuration Content Indexing and Search.
- When content indexing Exchange emails, the Content Indexing Engine also indexes the X header information for each email. You can later search for the emails based on these X headers from the Search Console or CommCell Console.

OFFLINE CONTENT INDEXING

- In order to efficiently manage the MediaAgent usage during content indexing, users now have the facility to choose the source Mediaagent to be used for
 offline content indexing operations.
- Offline Content Indexing is now supported for Rights Management Service (RMS) protected files. For more information on indexing RMS protected files, see Configuration Content Indexing and Search.
- Offline Content Indexing now supports Global Filters in order to exclude specific file types from all offline content indexing operations within a CommCell.
 You can also include or exclude the gloabl filters for a specific offline content indexing operation from the storage policy level in the CommCell Console.

DATA DISCOVERY AND SEARCH ENHANCEMENTS

The Search Console provides a new look and feel with the following new features:

- Ability to search on different content indexing engines.
- Advanced search options to search based on CI state, backup job date, and entities.
- Ability to search different forms of a word, such as run, running, ran, etc (i.e., lemmatization)
- · Reading pane to preview the search result items.
- Summary screen to display the selected search options.
- Sets/containers to hold the different components (such as review sets, queries, downloads, and legal holds)
- Ability to search components, such as Review Sets, Queries, Legal holds, Tags, Downloads, and ERM Connectors with other users with assigned security rights.
- Ability to share the sets (review set sets, query sets, download sets, and legal hold sets) with other users.
- Ability to search Lotus Notes emails and download them as .nsf files.
- Ability to use intra operators (AND,OR, NOT) against search criteria for advanced search options.
- Ability to search for synonyms.
- Ability to search for similar items.
- Ability to restore Exchange and Lotus Notes emails directly to a user's inbox.

The following advanced search options are available from the CommCell Console:

- · Ability to search on different content indexing engines.
- Ability to search different forms of a word, such as run, running, ran, etc (i.e., lemmatization)
- Ability to search for synonyms.
- Ability to search for similar items.
- Ability to search based on the entities associated with the search items.
- Ability to include multiple search combinations for files and emails in the advanced search.
- Ability to include custom queries in advance search.

For comprehensive information on performing search using CommCell Console, see Data Discovery and Search.

AGENT-SPECIFIC ENHANCEMENTS

• Lotus Notes users can now login as end-users to the Search Console using Domino Directory Services. For more information on using Domino Directory Services, see Overview - Content Indexing and Search.

USER ADMINISTRATION ENHANCEMENTS

The User Administration page now provides a new improved look and feel with following capabilities:

• Easy-to-use interface to view and add user preferences for each user.

- Ability to upload customized logos to the search console for both end-user and compliance search.
- Ability to view an analysis of search hits performed on the content indexing engine for the specified time range.

STREAMLINED AUXILIARY COPY MANAGER

• When auxiliary copy, data verification, and content indexing operations are initiated, they will all utilize the same single auxiliary copy manager process, thus reducing the load resources on the CommServe computer.

New Features - Object Link

Object Link is a new Agent for this software release.

Object Link provides an easy-to-use content management system in your CommCell. With the introduction of this Agent, large numbers of end-users can submit and store files and documents within the CommCell framework. In the current Beta release, the SAP Archive Link provides the ability to store and retrieve SAP content, such as scanned invoices, print links, lists, etc. In addition, the Object Link APIs are also provided. This can be used as an interface between the Object Link and any third-party applications like SAP to store and retrieve content.

For an overview, see Object Link.



New Features - ContinuousDataReplicator



NEW FEATURES FOR CONTINUOUS DATAREPLICATOR

DATA REPLICATION

GENERAL

- ContinuousDataReplicator (CDR) on Unix no longer requires snapshots to be created on the source computer.
- ContinuousDataReplicator on Windows now supports iSCSI LUNs as destination computer for NetApp filers. This provides the capability to use iSCSI LUNs as destination and protect data on it using Recovery Points or Fan-In Recovery Points. For more information, on using iSCSI LUNs, see iSCSI LUN.

OPTIMIZED BACKUP

Optimized Sync, which is used with ContinuousDataReplicator, compares data between the source and destination computers to determine if identical data exists on both computers. Such data is then excluded from transfers from the source to the destination, which in turn limits the need to perform full sync operations to cases where data is partially presented on the destination or was manually copied to the destination by a third party.

For a complete overview, see Optimized Sync.

SUPPORTED DATA TYPES

The following Unix File Systems are newly supported in this release:

- Logical volumes on Solaris operating system for destination computer.
- Root File System for source computer.
- XFS File System (XFS) on Linux operating system for both source computer and destination computer.
- Journaled File System (JFS) on AIX operating system for the source computer.
- VERITAS File System (VxFS) on HP-UX operating system for both source computer and destination computer.

NEW COMMCELL FEATURES SUPPORTED FOR CONTINUOUSDATAREPLICATOR

DEPLOYMENT

INSTALL FROM THE COMMCELL CONSOLE

The software installation for this component can be initiated and managed from the CommCell Console, which facilitates the building of your CommCell and eliminates the need to manually install the software. Additionally, the installation of this component can be scheduled to occur at a time suitable for your environment. For more information, see Install Software from the CommCell Console.

UNINSTALL FROM THE COMMCELL CONSOLE

This component can be uninstalled using the CommCell Console. The Uninstall Software utility allows you to quickly see a list of the software packages installed on the selected computer, from which you can then select the components to uninstall. With this, you can easily manage removing software components from client computers and MediaAgents in your CommCell without having to directly access each computer. For more information, see Uninstall Components using the CommCell Console.

New Features - SRM Server



NEW FEATURES FOR SRM SERVER

AGENTLESS SRM

Agentless SRM is a compact version of Storage Resource Management (SRM) where a SRM File System Agent collects data from remote computers (i.e., managed clients) and operates without having to install Agent software on the managed clients. From the SRM File System Agent, managed clients are configured either manually or automatically using an Agentless SRM Policy. For either method, you can import data from a flat file, Active Directory Server, OpenLDAP, and Network Information Service (NIS). A new Agentless Client Group is created when the Agentless SRM Policy is run. Summaries and reports are also provided for various entities (e.g., File Systems, Volume Groups, Shares) for the managed clients. It allows performing discovery level data collection without the need of installing an SRM agent thereby simplifying the use of deployment of SRM for monitoring storage and capacity utilization. For more information, see Agentless SRM.

ORACLE LOGICAL PHYSICAL MAPPING

SRM now supports the logical-physical mapping of Oracle data on non-Linux systems. This feature displays the disk information, such as name, serial number, capacity, etc., of Oracle components such as control files, REDO log files, ASM disks, log files, and data files.

REAL-TIME MONITORING

Critical information that rapidly changes is automatically collected and updated every 15 minutes by the Bull Calypso Communications Service. The information that is collected applies to summaries and a few select categories of a report for the SRM Windows and SRM Virtual Server Agents. For more information, see Real-time Monitoring.

NEW ENTERPRISE REPORTS

Several new out-of-the box templates are now available to provide a big-picture snapshot of the computers, software, and the storage being used across your enterprise. They are as follows:

COMPUTER INVENTORY REPORT

This report provides a view of the computers across your enterprise, such as its IP address, operating system, available and used memory, etc. For more information, see SRM Enterprise Reports.

DUPLICATE FILES REPORT

This report provides a view of duplicate files that exist across your enterprise, such as file size, name, modification time, access time, etc. For more information, see SRM Enterprise Reports.

SERVER CAPACITY REPORT

This report provides a view of all disk drives across your enterprise, such as used space, free space, available space, total space, etc. per server. For more information, see SRM Enterprise Reports.

SOFTWARE INVENTORY REPORT

This report provides a view on the type of software that is running on your computers across the enterprise, such as the name of the software package, vendor, the installed anti-virus, etc. For more information, see SRM Enterprise Reports.

STORAGE AGGREGATE REPORT

This report provides an inventory of entire storage across the CommCell in your enterprise, such as total used, free space, unallocated space, , etc. For more information, see SRM Enterprise Reports.

STORAGE INVENTORY REPORT

This report provides a view of the type and capacity of the storage being used across your enterprise, such as storage system type, disk name, total capacity, allocated space, etc. For more information, see SRM Enterprise Reports.

SCHEDULING REPORTS WITH SCHEDULE POLICIES

In addition to scheduling only one report, you can schedule several reports with Schedule Policy. In this release, you need to save a report to a template first before adding it to a schedule with Schedule Policy. For more information, see Scheduling Reports with Schedule Policy.

GENERAL REPORT ENHANCEMENTS

SRM Reports and Summaries now use a sleek, versatile, and easy-to-use reporting framework that enables you to easily view and analyze vital data. Enterprise and Application based reports can now be rapidly generated and customized. The following new features are available in this release:

- Reports can be filtered using filter criteria, such as client, client group, the columns to display in the report, etc. Report options to control how reports are
 displayed are also provided to control data size units, the number of rows to display, and sorting order.
- Templates of predefined columns are provided so that a report can be generated quickly. The columns are preselected but can be adjusted as needed.
- Filters can be applied to further refine and retrieve SRM information from the clients and client groups in your CommCell. These SQL based queries are useful if the provided report options (clients, columns) do not provide the necessary data required for your environment. Any SQL query that is supported by a SQL Server can be used in filters for SRM reporting. Additionally, you can retrieve the full SQL query for use in third-party applications once the conditions have been defined in the query. See Filters for SRM Reports for more information.
- Reports can now be saved and shared in various formats, such as HTML, Excel, and PDF.
- Ability to generate notifications from scheduled reports. Notifications can be sent to an email, pager, SNMP Trap, and RSS feed. Notifications replaces
 Thresholds and Actions that were supported in the previous release.
- Copy Chart is a report option that allows you to copy any chart in BMP format and use it in other applications like Microsoft Word.
- SRM reports no longer require Microsoft Reporting Services.

SRM VIEWS

SRM Views allow you to query information on the SRM Server directly from the SQL database in the same manner as CommServe Views and CommNet Views. These new views provide enterprise-wide information for file system utilization, inactive data via last access time distributions, etc. For more information, see SRM Views.

EXPRESS SOFTWARE SUPPORT

In addition to CommServe, CommCell Console, MediaAgent, etc., the SRM Server is a supported component for installation in the Express version of Calypso software. For more information, see Express Software Version Support in Express Quick Start Guide.

HIERARCHICAL FOLDER VIEWS

A graphical representation of the space being used by data per folder at the subclient level is now viewable in a chart. This view (View Folder Size) is available at the subclient level for the SRM NAS, SRM Windows File System, and SRM Unix File System Agents. For more information, see Folder Size.

FILE AND TIME CATEGORIES

For easy identification, System Files, Web page files, Temporary files are now classified as file categories by default. A user can now also define their own file categories. Clicking on these distribution charts from summaries and reports will give file level detail including exact location, size etc. For more information on File and Time Categories see File Categories.

FOLDERS AND SHARES SUPPORTED AS BILLABLE ENTITIES

The SRM Server now supports folders and shares as billable entities. This facilitates calculating the cost of storage at the folder or share level. Folders are supported for SRM NAS, SRM Windows File System, and SRM Unix File System Agents. In addition to folders and shares, other objects that can be associated with billable entities are databases, subclients, instances, etc. For more information, see Billable Entities.

SUMMARY ENHANCEMENTS

In this release, summaries have been cosmetically enhanced to render sharper charts and graphs for these SRM Agents:

- SRM Windows
- SRM Unix
- SRM NAS

INTEGRATED AGENTS AND ADD-ON FUNCTIONALITY

These agents and SRM functionality have been integrated in this release:

• SRM for Unix File System is an add-on feature for the Unix File System Agent. When SRM is enabled at the agent or subclient level of the Unix File System Agent, SRM reports can be generated for all backup data as soon as the first full backup job has completed.

NEW COMMCELL FEATURES SUPPORTED FOR SRM SERVER

DEPLOYMENT

CUSTOM PACKAGE

The Custom Package feature is now extended to almost all products in the Calypso suite. Using Custom Packages, you no longer have to push the entire software DVD through a network, which is especially useful for reducing WAN/LAN payload while installing remote clients.

It is also possible to create Custom Packages using a customized $\mbox{.}\,\mbox{xml}$ file.

When used in conjunction with the Install Software from the CommCell Console and Automatic Updates features, WAN bandwidth can be drastically reduced during remote site installations. Learn more...

The software installation for this component can be initiated and managed from the CommCell Console, which facilitates the building of your CommCell and eliminates the need to manually install the software. Additionally, the installation of this component can be scheduled to occur at a time suitable for your environment. For more information, see Install Software from the CommCell Console.

New Features - SRM Exchange Agent



NEW FEATURES FOR SRM EXCHANGE AGENT

REAL-TIME MONITORING

Critical information that rapidly changes is automatically collected and updated every 15 minutes by the Bull Calypso Communications Service. The information that is collected applies to summaries and a few select categories of a report for the SRM Windows and SRM Virtual Server Agents. For more information, see Real-time Monitoring.

NEW ENTERPRISE REPORTS

Several new out-of-the box templates are now available to provide a big-picture snapshot of the computers, software, and the storage being used across your enterprise. They are as follows:

COMPUTER INVENTORY REPORT

This report provides a view of the computers across your enterprise, such as its IP address, operating system, available and used memory, etc. For more information, see SRM Enterprise Reports.

DUPLICATE FILES REPORT

This report provides a view of duplicate files that exist across your enterprise, such as file size, name, modification time, access time, etc. For more information, see SRM Enterprise Reports.

SERVER CAPACITY REPORT

This report provides a view of all disk drives across your enterprise, such as used space, free space, available space, total space, etc. per server. For more information, see SRM Enterprise Reports.

SOFTWARE INVENTORY REPORT

This report provides a view on the type of software that is running on your computers across the enterprise, such as the name of the software package, vendor, the installed anti-virus, etc. For more information, see SRM Enterprise Reports.

STORAGE AGGREGATE REPORT

This report provides an inventory of entire storage across the CommCell in your enterprise, such as total used, free space, unallocated space, , etc. For more information, see SRM Enterprise Reports.

STORAGE INVENTORY REPORT

This report provides a view of the type and capacity of the storage being used across your enterprise, such as storage system type, disk name, total capacity, allocated space, etc. For more information, see SRM Enterprise Reports.

SCHEDULING REPORTS WITH SCHEDULE POLICIES

In addition to scheduling only one report, you can schedule several reports with Schedule Policy. In this release, you need to save a report to a template first before adding it to a schedule with Schedule Policy. For more information, see Scheduling Reports with Schedule Policy.

GENERAL REPORT ENHANCEMENTS

SRM Reports and Summaries now use a sleek, versatile, and easy-to-use reporting framework that enables you to easily view and analyze vital data. Enterprise and Application based reports can now be rapidly generated and customized. The following new features are available in this release:

- Reports can be filtered using filter criteria, such as client, client group, the columns to display in the report, etc. Report options to control how reports are displayed are also provided to control data size units, the number of rows to display, and sorting order.
- Templates of predefined columns are provided so that a report can be generated quickly. The columns are preselected but can be adjusted as needed.
- Filters can be applied to further refine and retrieve SRM information from the clients and client groups in your CommCell. These SQL based queries are useful if the provided report options (clients, columns) do not provide the necessary data required for your environment. Any SQL query that is supported by a SQL Server can be used in filters for SRM reporting. Additionally, you can retrieve the full SQL query for use in third-party applications once the conditions have been defined in the query. See Filters for SRM Reports for more information.
- Reports can now be saved and shared in various formats, such as HTML, Excel, and PDF.
- Ability to generate notifications from scheduled reports. Notifications can be sent to an email, pager, SNMP Trap, and RSS feed. Notifications replaces
 Thresholds and Actions that were supported in the previous release.
- Copy Chart is a report option that allows you to copy any chart in BMP format and use it in other applications like Microsoft Word.
- SRM reports no longer require Microsoft Reporting Services.

SRM VIEWS

SRM Views allow you to query information on the SRM Server directly from the SQL database in the same manner as CommServe Views and CommNet Views. These new views provide enterprise-wide information for file system utilization, inactive data via last access time distributions, etc. For more information, see SRM Views.

EXPRESS SOFTWARE SUPPORT

In addition to CommServe, CommCell Console, MediaAgent, etc., the SRM Server is a supported component for installation in the Express version of Calypso software. For more information, see Express Software Version Support in Express Quick Start Guide.

HIERARCHICAL FOLDER VIEWS

A graphical representation of the space being used by data per folder at the subclient level is now viewable in a chart. This view (View Folder Size) is available at the subclient level for the SRM NAS, SRM Windows File System, and SRM Unix File System Agents. For more information, see Folder Size.

FILE AND TIME CATEGORIES

For easy identification, System Files, Web page files, Temporary files are now classified as file categories by default. A user can now also define their own file categories. Clicking on these distribution charts from summaries and reports will give file level detail including exact location, size etc. For more information on File and Time Categories see File Categories.

FOLDERS AND SHARES SUPPORTED AS BILLABLE ENTITIES

The SRM Server now supports folders and shares as billable entities. This facilitates calculating the cost of storage at the folder or share level. Folders are supported for SRM NAS, SRM Windows File System, and SRM Unix File System Agents. In addition to folders and shares, other objects that can be associated with billable entities are databases, subclients, instances, etc. For more information, see Billable Entities.

NEW COMMCELL FEATURES SUPPORTED FOR SRM EXCHANGE AGENT

DEPLOYMENT

CUSTOM PACKAGE

The Custom Package feature is now extended to almost all products in the Calypso suite. Using Custom Packages, you no longer have to push the entire software DVD through a network, which is especially useful for reducing WAN/LAN payload while installing remote clients.

It is also possible to create Custom Packages using a customized $.\,\mathtt{xml}$ file.

When used in conjunction with the Install Software from the CommCell Console and Automatic Updates features, WAN bandwidth can be drastically reduced during remote site installations. Learn more...

INSTALL FROM THE COMMCELL CONSOLE

The software installation for this component can be initiated and managed from the CommCell Console, which facilitates the building of your CommCell and eliminates the need to manually install the software. Additionally, the installation of this component can be scheduled to occur at a time suitable for your environment. For more information, see Install Software from the CommCell Console.

UNINSTALL FROM THE COMMCELL CONSOLE

This component can be uninstalled using the CommCell Console. The Uninstall Software utility allows you to quickly see a list of the software packages installed on the selected computer, from which you can then select the components to uninstall. With this, you can easily manage removing software components from client computers and MediaAgents in your CommCell without having to directly access each computer. For more information, see Uninstall Components using the CommCell Console.

New Features - SRM NAS Agent

2

NEW FEATURES FOR SRM NAS AGENT

SUMMARY ENHANCEMENTS

In this release, summaries have been cosmetically enhanced to render sharper charts and graphs for these SRM Agents:

- SRM Windows
- SRM Unix
- SRM NAS

REAL-TIME MONITORING

Critical information that rapidly changes is automatically collected and updated every 15 minutes by the Bull Calypso Communications Service. The information that is collected applies to summaries and a few select categories of a report for the SRM Windows and SRM Virtual Server Agents. For more information, see Real-time Monitoring.

NEW ENTERPRISE REPORTS

Several new out-of-the box templates are now available to provide a big-picture snapshot of the computers, software, and the storage being used across your enterprise. They are as follows:

COMPUTER INVENTORY REPORT

This report provides a view of the computers across your enterprise, such as its IP address, operating system, available and used memory, etc. For more information, see SRM Enterprise Reports.

DUPLICATE FILES REPORT

This report provides a view of duplicate files that exist across your enterprise, such as file size, name, modification time, access time, etc. For more information, see SRM Enterprise Reports.

SERVER CAPACITY REPORT

This report provides a view of all disk drives across your enterprise, such as used space, free space, available space, total space, etc. per server. For more information, see SRM Enterprise Reports.

SOFTWARE INVENTORY REPORT

This report provides a view on the type of software that is running on your computers across the enterprise, such as the name of the software package, vendor, the installed anti-virus, etc. For more information, see SRM Enterprise Reports.

STORAGE AGGREGATE REPORT

This report provides an inventory of entire storage across the CommCell in your enterprise, such as total used, free space, unallocated space, , etc. For more information, see SRM Enterprise Reports.

STORAGE INVENTORY REPORT

This report provides a view of the type and capacity of the storage being used across your enterprise, such as storage system type, disk name, total capacity, allocated space, etc. For more information, see SRM Enterprise Reports.

SCHEDULING REPORTS WITH SCHEDULE POLICIES

In addition to scheduling only one report, you can schedule several reports with Schedule Policy. In this release, you need to save a report to a template first before adding it to a schedule with Schedule Policy. For more information, see Scheduling Reports with Schedule Policy.

GENERAL REPORT ENHANCEMENTS

SRM Reports and Summaries now use a sleek, versatile, and easy-to-use reporting framework that enables you to easily view and analyze vital data. Enterprise and Application based reports can now be rapidly generated and customized. The following new features are available in this release:

- Reports can be filtered using filter criteria, such as client, client group, the columns to display in the report, etc. Report options to control how reports are
 displayed are also provided to control data size units, the number of rows to display, and sorting order.
- Templates of predefined columns are provided so that a report can be generated quickly. The columns are preselected but can be adjusted as needed.
- Filters can be applied to further refine and retrieve SRM information from the clients and client groups in your CommCell. These SQL based queries are useful if the provided report options (clients, columns) do not provide the necessary data required for your environment. Any SQL query that is supported by a SQL Server can be used in filters for SRM reporting. Additionally, you can retrieve the full SQL query for use in third-party applications once the conditions

have been defined in the query. See Filters for SRM Reports for more information.

- Reports can now be saved and shared in various formats, such as HTML, Excel, and PDF.
- Ability to generate notifications from scheduled reports. Notifications can be sent to an email, pager, SNMP Trap, and RSS feed. Notifications replaces Thresholds and Actions that were supported in the previous release.
- Copy Chart is a report option that allows you to copy any chart in BMP format and use it in other applications like Microsoft Word.
- SRM reports no longer require Microsoft Reporting Services.

SRM VIEWS

SRM Views allow you to query information on the SRM Server directly from the SQL database in the same manner as CommServe Views and CommNet Views. These new views provide enterprise-wide information for file system utilization, inactive data via last access time distributions, etc. For more information, see SRM Views.

EXPRESS SOFTWARE SUPPORT

In addition to CommServe, CommCell Console, MediaAgent, etc., the SRM Server is a supported component for installation in the Express version of Calypso software. For more information, see Express Software Version Support in Express Quick Start Guide.

HIERARCHICAL FOLDER VIEWS

A graphical representation of the space being used by data per folder at the subclient level is now viewable in a chart. This view (View Folder Size) is available at the subclient level for the SRM NAS, SRM Windows File System, and SRM Unix File System Agents. For more information, see Folder Size.

FILE AND TIME CATEGORIES

For easy identification, System Files, Web page files, Temporary files are now classified as file categories by default. A user can now also define their own file categories. Clicking on these distribution charts from summaries and reports will give file level detail including exact location, size etc. For more information on File and Time Categories see File Categories.

FOLDERS AND SHARES SUPPORTED AS BILLABLE ENTITIES

The SRM Server now supports folders and shares as billable entities. This facilitates calculating the cost of storage at the folder or share level. Folders are supported for SRM NAS, SRM Windows File System, and SRM Unix File System Agents. In addition to folders and shares, other objects that can be associated with billable entities are databases, subclients, instances, etc. For more information, see Billable Entities.

NEW COMMCELL FEATURES SUPPORTED FOR SRM NAS AGENT

DEPLOYMENT

CUSTOM PACKAGE

The Custom Package feature is now extended to almost all products in the Calypso suite. Using Custom Packages, you no longer have to push the entire software DVD through a network, which is especially useful for reducing WAN/LAN payload while installing remote clients.

It is also possible to create Custom Packages using a customized .xml file.

When used in conjunction with the Install Software from the CommCell Console and Automatic Updates features, WAN bandwidth can be drastically reduced during remote site installations. Learn more...

INSTALL FROM THE COMMCELL CONSOLE

The software installation for this component can be initiated and managed from the CommCell Console, which facilitates the building of your CommCell and eliminates the need to manually install the software. Additionally, the installation of this component can be scheduled to occur at a time suitable for your environment. For more information, see Install Software from the CommCell Console.

UNINSTALL FROM THE COMMCELL CONSOLE

This component can be uninstalled using the CommCell Console. The Uninstall Software utility allows you to quickly see a list of the software packages installed on the selected computer, from which you can then select the components to uninstall. With this, you can easily manage removing software components from client computers and MediaAgents in your CommCell without having to directly access each computer. For more information, see Uninstall Components using the CommCell Console.

New Features - SRM NetWare Proxy Agent



NEW FEATURES FOR SRM NETWARE PROXY AGENT

DEPLOYMENT

The software installation for this component can be initiated and managed from the CommCell Console, which facilitates the building of your CommCell and eliminates the need to manually install the software. Additionally, the installation of this component can be scheduled to occur at a time suitable for your environment. For more information, see Install Software from the CommCell Console.

REDUCED PACKAGE

The Custom Package feature is now extended to almost all products in the Calypso suite. Using Custom Packages, you no longer have to push the entire software DVD through a network, which is especially useful for reducing WAN/LAN payload while installing remote clients.

It is also possible to create Custom Packages using a customized .xml file.

When used in conjunction with the Install Software from the CommCell Console and Automatic Updates features, WAN bandwidth can be drastically reduced during remote site installations. Learn more...

REAL-TIME MONITORING

Critical information that rapidly changes is automatically collected and updated every 15 minutes by the Bull Calypso Communications Service. The information that is collected applies to summaries and a few select categories of a report for the SRM Windows and SRM Virtual Server Agents. For more information, see Real-time Monitoring.

NEW ENTERPRISE REPORTS

Several new out-of-the box templates are now available to provide a big-picture snapshot of the computers, software, and the storage being used across your enterprise. They are as follows:

COMPUTER INVENTORY REPORT

This report provides a view of the computers across your enterprise, such as its IP address, operating system, available and used memory, etc. For more information, see SRM Enterprise Reports.

DUPLICATE FILES REPORT

This report provides a view of duplicate files that exist across your enterprise, such as file size, name, modification time, access time, etc. For more information, see SRM Enterprise Reports.

SERVER CAPACITY REPORT

This report provides a view of all disk drives across your enterprise, such as used space, free space, available space, total space, etc. per server. For more information, see SRM Enterprise Reports.

SOFTWARE INVENTORY REPORT

This report provides a view on the type of software that is running on your computers across the enterprise, such as the name of the software package, vendor, the installed anti-virus, etc. For more information, see SRM Enterprise Reports.

STORAGE AGGREGATE REPORT

This report provides an inventory of entire storage across the CommCell in your enterprise, such as total used, free space, unallocated space, , etc. For more information, see SRM Enterprise Reports.

STORAGE INVENTORY REPORT

This report provides a view of the type and capacity of the storage being used across your enterprise, such as storage system type, disk name, total capacity, allocated space, etc. For more information, see SRM Enterprise Reports.

SCHEDULING REPORTS WITH SCHEDULE POLICIES

In addition to scheduling only one report, you can schedule several reports with Schedule Policy. In this release, you need to save a report to a template first before adding it to a schedule with Schedule Policy. For more information, see Scheduling Reports with Schedule Policy.

GENERAL REPORT ENHANCEMENTS

SRM Reports and Summaries now use a sleek, versatile, and easy-to-use reporting framework that enables you to easily view and analyze vital data. Enterprise and Application based reports can now be rapidly generated and customized. The following new features are available in this release:

- Reports can be filtered using filter criteria, such as client, client group, the columns to display in the report, etc. Report options to control how reports are
 displayed are also provided to control data size units, the number of rows to display, and sorting order.
- Templates of predefined columns are provided so that a report can be generated quickly. The columns are preselected but can be adjusted as needed.
- Filters can be applied to further refine and retrieve SRM information from the clients and client groups in your CommCell. These SQL based queries are useful if the provided report options (clients, columns) do not provide the necessary data required for your environment. Any SQL query that is supported by a SQL Server can be used in filters for SRM reporting. Additionally, you can retrieve the full SQL query for use in third-party applications once the conditions have been defined in the query. See Filters for SRM Reports for more information.
- Reports can now be saved and shared in various formats, such as HTML, Excel, and PDF.
- Ability to generate notifications from scheduled reports. Notifications can be sent to an email, pager, SNMP Trap, and RSS feed. Notifications replaces Thresholds and Actions that were supported in the previous release.
- Copy Chart is a report option that allows you to copy any chart in BMP format and use it in other applications like Microsoft Word.
- SRM reports no longer require Microsoft Reporting Services.

SRM VIEWS

SRM Views allow you to query information on the SRM Server directly from the SQL database in the same manner as CommServe Views and CommNet Views. These new views provide enterprise-wide information for file system utilization, inactive data via last access time distributions, etc. For more information, see SRM Views.

EXPRESS SOFTWARE SUPPORT

In addition to CommServe, CommCell Console, MediaAgent, etc., the SRM Server is a supported component for installation in the Express version of Calypso software. For more information, see Express Software Version Support in Express Quick Start Guide.

HIERARCHICAL FOLDER VIEWS

A graphical representation of the space being used by data per folder at the subclient level is now viewable in a chart. This view (View Folder Size) is available at the subclient level for the SRM NAS, SRM Windows File System, and SRM Unix File System Agents. For more information, see Folder Size.

FILE AND TIME CATEGORIES

For easy identification, System Files, Web page files, Temporary files are now classified as file categories by default. A user can now also define their own file categories. Clicking on these distribution charts from summaries and reports will give file level detail including exact location, size etc. For more information on File and Time Categories see File Categories.

FOLDERS AND SHARES SUPPORTED AS BILLABLE ENTITIES

The SRM Server now supports folders and shares as billable entities. This facilitates calculating the cost of storage at the folder or share level. Folders are supported for SRM NAS, SRM Windows File System, and SRM Unix File System Agents. In addition to folders and shares, other objects that can be associated with billable entities are databases, subclients, instances, etc. For more information, see Billable Entities.

NEW COMMCELL FEATURES SUPPORTED SRM NETWARE PROXY AGENT

DEPLOYMENT

CUSTOM PACKAGE

The Custom Package feature is now extended to almost all products in the Calypso suite. Using Custom Packages, you no longer have to push the entire software DVD through a network, which is especially useful for reducing WAN/LAN payload while installing remote clients.

It is also possible to create Custom Packages using a customized . $\mathtt{xml}\ \mathsf{file}.$

When used in conjunction with the Install Software from the CommCell Console and Automatic Updates features, WAN bandwidth can be drastically reduced during remote site installations. Learn more...

INSTALL FROM THE COMMCELL CONSOLE

The software installation for this component can be initiated and managed from the CommCell Console, which facilitates the building of your CommCell and eliminates the need to manually install the software. Additionally, the installation of this component can be scheduled to occur at a time suitable for your environment. For more information, see Install Software from the CommCell Console.

UNINSTALL FROM THE COMMCELL CONSOLE

This component can be uninstalled using the CommCell Console. The Uninstall Software utility allows you to quickly see a list of the software packages installed on the selected computer, from which you can then select the components to uninstall. With this, you can easily manage removing software components from client computers and MediaAgents in your CommCell without having to directly access each computer. For more information, see Uninstall Components using the CommCell Console.

New Features - SRM Oracle Agent



NEW FEATURES FOR SRM ORACLE AGENT

ORACLE LOGICAL PHYSICAL MAPPING

SRM now supports the logical-physical mapping of Oracle data on non-Linux systems. This feature displays the disk information, such as name, serial number, capacity, etc., of Oracle components such as control files, REDO log files, ASM disks, log files, and data files.

REAL-TIME MONITORING

Critical information that rapidly changes is automatically collected and updated every 15 minutes by the Bull Calypso Communications Service. The information that is collected applies to summaries and a few select categories of a report for the SRM Windows and SRM Virtual Server Agents. For more information, see Real-time Monitoring.

NEW ENTERPRISE REPORTS

Several new out-of-the box templates are now available to provide a big-picture snapshot of the computers, software, and the storage being used across your enterprise. They are as follows:

COMPUTER INVENTORY REPORT

This report provides a view of the computers across your enterprise, such as its IP address, operating system, available and used memory, etc. For more information, see SRM Enterprise Reports.

DUPLICATE FILES REPORT

This report provides a view of duplicate files that exist across your enterprise, such as file size, name, modification time, access time, etc. For more information, see SRM Enterprise Reports.

SERVER CAPACITY REPORT

This report provides a view of all disk drives across your enterprise, such as used space, free space, available space, total space, etc. per server. For more information, see SRM Enterprise Reports.

SOFTWARE INVENTORY REPORT

This report provides a view on the type of software that is running on your computers across the enterprise, such as the name of the software package, vendor, the installed anti-virus, etc. For more information, see SRM Enterprise Reports.

STORAGE AGGREGATE REPORT

This report provides an inventory of entire storage across the CommCell in your enterprise, such as total used, free space, unallocated space, , etc. For more information, see SRM Enterprise Reports.

STORAGE INVENTORY REPORT

This report provides a view of the type and capacity of the storage being used across your enterprise, such as storage system type, disk name, total capacity, allocated space, etc. For more information, see SRM Enterprise Reports.

SCHEDULING REPORTS WITH SCHEDULE POLICIES

In addition to scheduling only one report, you can schedule several reports with Schedule Policy. In this release, you need to save a report to a template first before adding it to a schedule with Schedule Policy. For more information, see Scheduling Reports with Schedule Policy.

GENERAL REPORT ENHANCEMENTS

SRM Reports and Summaries now use a sleek, versatile, and easy-to-use reporting framework that enables you to easily view and analyze vital data. Enterprise and Application based reports can now be rapidly generated and customized. The following new features are available in this release:

- Reports can be filtered using filter criteria, such as client, client group, the columns to display in the report, etc. Report options to control how reports are
 displayed are also provided to control data size units, the number of rows to display, and sorting order.
- Templates of predefined columns are provided so that a report can be generated quickly. The columns are preselected but can be adjusted as needed.
- Filters can be applied to further refine and retrieve SRM information from the clients and client groups in your CommCell. These SQL based queries are useful if the provided report options (clients, columns) do not provide the necessary data required for your environment. Any SQL query that is supported by a SQL Server can be used in filters for SRM reporting. Additionally, you can retrieve the full SQL query for use in third-party applications once the conditions have been defined in the query. See Filters for SRM Reports for more information.
- Reports can now be saved and shared in various formats, such as HTML, Excel, and PDF.
- Ability to generate notifications from scheduled reports. Notifications can be sent to an email, pager, SNMP Trap, and RSS feed. Notifications replaces

Thresholds and Actions that were supported in the previous release.

- · Copy Chart is a report option that allows you to copy any chart in BMP format and use it in other applications like Microsoft Word.
- SRM reports no longer require Microsoft Reporting Services.

SRM VIEWS

SRM Views allow you to query information on the SRM Server directly from the SQL database in the same manner as CommServe Views and CommNet Views. These new views provide enterprise-wide information for file system utilization, inactive data via last access time distributions, etc. For more information, see SRM Views.

EXPRESS SOFTWARE SUPPORT

In addition to CommServe, CommCell Console, MediaAgent, etc., the SRM Server is a supported component for installation in the Express version of Calypso software. For more information, see Express Software Version Support in Express Quick Start Guide.

HIERARCHICAL FOLDER VIEWS

A graphical representation of the space being used by data per folder at the subclient level is now viewable in a chart. This view (View Folder Size) is available at the subclient level for the SRM NAS, SRM Windows File System, and SRM Unix File System Agents. For more information, see Folder Size.

FILE AND TIME CATEGORIES

For easy identification, System Files, Web page files, Temporary files are now classified as file categories by default. A user can now also define their own file categories. Clicking on these distribution charts from summaries and reports will give file level detail including exact location, size etc. For more information on File and Time Categories see File Categories.

FOLDERS AND SHARES SUPPORTED AS BILLABLE ENTITIES

The SRM Server now supports folders and shares as billable entities. This facilitates calculating the cost of storage at the folder or share level. Folders are supported for SRM NAS, SRM Windows File System, and SRM Unix File System Agents. In addition to folders and shares, other objects that can be associated with billable entities are databases, subclients, instances, etc. For more information, see Billable Entities.

NEW COMMCELL FEATURES SUPPORTED SRM ORACLE AGENT

DEPLOYMENT

CUSTOM PACKAGE

The Custom Package feature is now extended to almost all products in the Calypso suite. Using Custom Packages, you no longer have to push the entire software DVD through a network, which is especially useful for reducing WAN/LAN payload while installing remote clients.

It is also possible to create Custom Packages using a customized .xml file.

When used in conjunction with the Install Software from the CommCell Console and Automatic Updates features, WAN bandwidth can be drastically reduced during remote site installations. Learn more...

INSTALL FROM THE COMMCELL CONSOLE

The software installation for this component can be initiated and managed from the CommCell Console, which facilitates the building of your CommCell and eliminates the need to manually install the software. Additionally, the installation of this component can be scheduled to occur at a time suitable for your environment. For more information, see Install Software from the CommCell Console.

UNINSTALL FROM THE COMMCELL CONSOLE

This component can be uninstalled using the CommCell Console. The Uninstall Software utility allows you to quickly see a list of the software packages installed on the selected computer, from which you can then select the components to uninstall. With this, you can easily manage removing software components from client computers and MediaAgents in your CommCell without having to directly access each computer. For more information, see Uninstall Components using the CommCell Console.

New Features - SRM SharePoint Agent



NEW FEATURES FOR SRM SHAREPOINT AGENT

REAL-TIME MONITORING

Critical information that rapidly changes is automatically collected and updated every 15 minutes by the Bull Calypso Communications Service. The information that is collected applies to summaries and a few select categories of a report for the SRM Windows and SRM Virtual Server Agents. For more information, see Real-time Monitoring.

NEW ENTERPRISE REPORTS

Several new out-of-the box templates are now available to provide a big-picture snapshot of the computers, software, and the storage being used across your enterprise. They are as follows:

COMPUTER INVENTORY REPORT

This report provides a view of the computers across your enterprise, such as its IP address, operating system, available and used memory, etc. For more information, see SRM Enterprise Reports.

DUPLICATE FILES REPORT

This report provides a view of duplicate files that exist across your enterprise, such as file size, name, modification time, access time, etc. For more information, see SRM Enterprise Reports.

SERVER CAPACITY REPORT

This report provides a view of all disk drives across your enterprise, such as used space, free space, available space, total space, etc. per server. For more information, see SRM Enterprise Reports.

SOFTWARE INVENTORY REPORT

This report provides a view on the type of software that is running on your computers across the enterprise, such as the name of the software package, vendor, the installed anti-virus, etc. For more information, see SRM Enterprise Reports.

STORAGE AGGREGATE REPORT

This report provides an inventory of entire storage across the CommCell in your enterprise, such as total used, free space, unallocated space, , etc. For more information, see SRM Enterprise Reports.

STORAGE INVENTORY REPORT

This report provides a view of the type and capacity of the storage being used across your enterprise, such as storage system type, disk name, total capacity, allocated space, etc. For more information, see SRM Enterprise Reports.

SCHEDULING REPORTS WITH SCHEDULE POLICIES

In addition to scheduling only one report, you can schedule several reports with Schedule Policy. In this release, you need to save a report to a template first before adding it to a schedule with Schedule Policy. For more information, see Scheduling Reports with Schedule Policy.

GENERAL REPORT ENHANCEMENTS

SRM Reports and Summaries now use a sleek, versatile, and easy-to-use reporting framework that enables you to easily view and analyze vital data. Enterprise and Application based reports can now be rapidly generated and customized. The following new features are available in this release:

- Reports can be filtered using filter criteria, such as client, client group, the columns to display in the report, etc. Report options to control how reports are displayed are also provided to control data size units, the number of rows to display, and sorting order.
- Templates of predefined columns are provided so that a report can be generated quickly. The columns are preselected but can be adjusted as needed.
- Filters can be applied to further refine and retrieve SRM information from the clients and client groups in your CommCell. These SQL based queries are useful if the provided report options (clients, columns) do not provide the necessary data required for your environment. Any SQL query that is supported by a SQL Server can be used in filters for SRM reporting. Additionally, you can retrieve the full SQL query for use in third-party applications once the conditions have been defined in the query. See Filters for SRM Reports for more information.
- Reports can now be saved and shared in various formats, such as HTML, Excel, and PDF.
- Ability to generate notifications from scheduled reports. Notifications can be sent to an email, pager, SNMP Trap, and RSS feed. Notifications replaces
 Thresholds and Actions that were supported in the previous release.
- Copy Chart is a report option that allows you to copy any chart in BMP format and use it in other applications like Microsoft Word.
- SRM reports no longer require Microsoft Reporting Services.

SRM VIEWS

SRM Views allow you to query information on the SRM Server directly from the SQL database in the same manner as CommServe Views and CommNet Views. These new views provide enterprise-wide information for file system utilization, inactive data via last access time distributions, etc. For more information, see SRM Views.

EXPRESS SOFTWARE SUPPORT

In addition to CommServe, CommCell Console, MediaAgent, etc., the SRM Server is a supported component for installation in the Express version of Calypso software. For more information, see Express Software Version Support in Express Quick Start Guide.

HIERARCHICAL FOLDER VIEWS

A graphical representation of the space being used by data per folder at the subclient level is now viewable in a chart. This view (View Folder Size) is available at the subclient level for the SRM NAS, SRM Windows File System, and SRM Unix File System Agents. For more information, see Folder Size.

FILE AND TIME CATEGORIES

For easy identification, System Files, Web page files, Temporary files are now classified as file categories by default. A user can now also define their own file categories. Clicking on these distribution charts from summaries and reports will give file level detail including exact location, size etc. For more information on File and Time Categories see File Categories.

FOLDERS AND SHARES SUPPORTED AS BILLABLE ENTITIES

The SRM Server now supports folders and shares as billable entities. This facilitates calculating the cost of storage at the folder or share level. Folders are supported for SRM NAS, SRM Windows File System, and SRM Unix File System Agents. In addition to folders and shares, other objects that can be associated with billable entities are databases, subclients, instances, etc. For more information, see Billable Entities.

NEW COMMCELL FEATURES SUPPORTED FOR SRM SHAREPOINT

DEPLOYMENT

CUSTOM PACKAGE

The Custom Package feature is now extended to almost all products in the Calypso suite. Using Custom Packages, you no longer have to push the entire software DVD through a network, which is especially useful for reducing WAN/LAN payload while installing remote clients.

It is also possible to create Custom Packages using a customized $.\,\mathtt{xml}$ file.

When used in conjunction with the Install Software from the CommCell Console and Automatic Updates features, WAN bandwidth can be drastically reduced during remote site installations. Learn more...

INSTALL FROM THE COMMCELL CONSOLE

The software installation for this component can be initiated and managed from the CommCell Console, which facilitates the building of your CommCell and eliminates the need to manually install the software. Additionally, the installation of this component can be scheduled to occur at a time suitable for your environment. For more information, see Install Software from the CommCell Console.

UNINSTALL FROM THE COMMCELL CONSOLE

This component can be uninstalled using the CommCell Console. The Uninstall Software utility allows you to quickly see a list of the software packages installed on the selected computer, from which you can then select the components to uninstall. With this, you can easily manage removing software components from client computers and MediaAgents in your CommCell without having to directly access each computer. For more information, see Uninstall Components using the CommCell Console.

New Features - SRM SQL Agent



NEW FEATURES FOR SRM SQL AGENT

REAL-TIME MONITORING

Critical information that rapidly changes is automatically collected and updated every 15 minutes by the Bull Calypso Communications Service. The information that is collected applies to summaries and a few select categories of a report for the SRM Windows and SRM Virtual Server Agents. For more information, see Real-time Monitoring.

NEW ENTERPRISE REPORTS

Several new out-of-the box templates are now available to provide a big-picture snapshot of the computers, software, and the storage being used across your enterprise. They are as follows:

COMPUTER INVENTORY REPORT

This report provides a view of the computers across your enterprise, such as its IP address, operating system, available and used memory, etc. For more information, see SRM Enterprise Reports.

DUPLICATE FILES REPORT

This report provides a view of duplicate files that exist across your enterprise, such as file size, name, modification time, access time, etc. For more information, see SRM Enterprise Reports.

SERVER CAPACITY REPORT

This report provides a view of all disk drives across your enterprise, such as used space, free space, available space, total space, etc. per server. For more information, see SRM Enterprise Reports.

SOFTWARE INVENTORY REPORT

This report provides a view on the type of software that is running on your computers across the enterprise, such as the name of the software package, vendor, the installed anti-virus, etc. For more information, see SRM Enterprise Reports.

STORAGE AGGREGATE REPORT

This report provides an inventory of entire storage across the CommCell in your enterprise, such as total used, free space, unallocated space, , etc. For more information, see SRM Enterprise Reports.

STORAGE INVENTORY REPORT

This report provides a view of the type and capacity of the storage being used across your enterprise, such as storage system type, disk name, total capacity, allocated space, etc. For more information, see SRM Enterprise Reports.

SCHEDULING REPORTS WITH SCHEDULE POLICIES

In addition to scheduling only one report, you can schedule several reports with Schedule Policy. In this release, you need to save a report to a template first before adding it to a schedule with Schedule Policy. For more information, see Scheduling Reports with Schedule Policy.

GENERAL REPORT ENHANCEMENTS

SRM Reports and Summaries now use a sleek, versatile, and easy-to-use reporting framework that enables you to easily view and analyze vital data. Enterprise and Application based reports can now be rapidly generated and customized. The following new features are available in this release:

- Reports can be filtered using filter criteria, such as client, client group, the columns to display in the report, etc. Report options to control how reports are displayed are also provided to control data size units, the number of rows to display, and sorting order.
- Templates of predefined columns are provided so that a report can be generated quickly. The columns are preselected but can be adjusted as needed.
- Filters can be applied to further refine and retrieve SRM information from the clients and client groups in your CommCell. These SQL based queries are useful if the provided report options (clients, columns) do not provide the necessary data required for your environment. Any SQL query that is supported by a SQL Server can be used in filters for SRM reporting. Additionally, you can retrieve the full SQL query for use in third-party applications once the conditions have been defined in the query. See Filters for SRM Reports for more information.
- Reports can now be saved and shared in various formats, such as HTML, Excel, and PDF.
- Ability to generate notifications from scheduled reports. Notifications can be sent to an email, pager, SNMP Trap, and RSS feed. Notifications replaces
 Thresholds and Actions that were supported in the previous release.
- Copy Chart is a report option that allows you to copy any chart in BMP format and use it in other applications like Microsoft Word.
- SRM reports no longer require Microsoft Reporting Services.

SRM VIEWS

SRM Views allow you to query information on the SRM Server directly from the SQL database in the same manner as CommServe Views and CommNet Views. These new views provide enterprise-wide information for file system utilization, inactive data via last access time distributions, etc. For more information, see SRM Views.

EXPRESS SOFTWARE SUPPORT

In addition to CommServe, CommCell Console, MediaAgent, etc., the SRM Server is a supported component for installation in the Express version of Calypso software. For more information, see Express Software Version Support in Express Quick Start Guide.

HIERARCHICAL FOLDER VIEWS

A graphical representation of the space being used by data per folder at the subclient level is now viewable in a chart. This view (View Folder Size) is available at the subclient level for the SRM NAS, SRM Windows File System, and SRM Unix File System Agents. For more information, see Folder Size.

FILE AND TIME CATEGORIES

For easy identification, System Files, Web page files, Temporary files are now classified as file categories by default. A user can now also define their own file categories. Clicking on these distribution charts from summaries and reports will give file level detail including exact location, size etc. For more information on File and Time Categories see File Categories.

FOLDERS AND SHARES SUPPORTED AS BILLABLE ENTITIES

The SRM Server now supports folders and shares as billable entities. This facilitates calculating the cost of storage at the folder or share level. Folders are supported for SRM NAS, SRM Windows File System, and SRM Unix File System Agents. In addition to folders and shares, other objects that can be associated with billable entities are databases, subclients, instances, etc. For more information, see Billable Entities.

NEW COMMCELL FEATURES SUPPORTED FOR SRM SQL AGENT

DEPLOYMENT

CUSTOM PACKAGE

The Custom Package feature is now extended to almost all products in the Calypso suite. Using Custom Packages, you no longer have to push the entire software DVD through a network, which is especially useful for reducing WAN/LAN payload while installing remote clients.

It is also possible to create Custom Packages using a customized $.\,\mathtt{xml}$ file.

When used in conjunction with the Install Software from the CommCell Console and Automatic Updates features, WAN bandwidth can be drastically reduced during remote site installations. Learn more...

INSTALL FROM THE COMMCELL CONSOLE

The software installation for this component can be initiated and managed from the CommCell Console, which facilitates the building of your CommCell and eliminates the need to manually install the software. Additionally, the installation of this component can be scheduled to occur at a time suitable for your environment. For more information, see Install Software from the CommCell Console.

UNINSTALL FROM THE COMMCELL CONSOLE

This component can be uninstalled using the CommCell Console. The Uninstall Software utility allows you to quickly see a list of the software packages installed on the selected computer, from which you can then select the components to uninstall. With this, you can easily manage removing software components from client computers and MediaAgents in your CommCell without having to directly access each computer. For more information, see Uninstall Components using the CommCell Console.

New Features - SRM UNIX File System Agent



NEW FEATURES FOR SRM UNIX FILE SYSTEM AGENT

INTEGRATED SRM ADD-ON FUNCTIONALITY

SRM for Unix File System can now be used as an add-on feature for the Unix File System Agent. When SRM is enabled at the agent or subclient level of the Unix File System Agent, SRM reports can be generated for all backup data as soon as the first full backup job has completed.

AGENTLESS SRM

Agentless SRM is a compact version of Storage Resource Management (SRM) where a SRM File System Agent collects data from remote computers (i.e., managed clients) and operates without having to install Agent software on the managed clients. From the SRM File System Agent, managed clients are configured either manually or automatically using an Agentless SRM Policy. For either method, you can import data from a flat file, Active Directory Server, OpenLDAP, and Network Information Service (NIS). A new Agentless Client Group is created when the Agentless SRM Policy is run. Summaries and reports are also provided for various entities (e.g., File Systems, Volume Groups, Shares) for the managed clients. It allows performing discovery level data collection without the need of installing an SRM agent thereby simplifying the use of deployment of SRM for monitoring storage and capacity utilization. For more information, see Agentless SRM.

SUMMARY ENHANCEMENTS

In this release, summaries have been cosmetically enhanced to render sharper charts and graphs for these SRM Agents:

- SRM Windows
- SRM Unix
- SRM NAS

REAL-TIME MONITORING

Critical information that rapidly changes is automatically collected and updated every 15 minutes by the Bull Calypso Communications Service. The information that is collected applies to summaries and a few select categories of a report for the SRM Windows and SRM Virtual Server Agents. For more information, see Real-time Monitoring.

NEW ENTERPRISE REPORTS

Several new out-of-the box templates are now available to provide a big-picture snapshot of the computers, software, and the storage being used across your enterprise. They are as follows:

COMPUTER INVENTORY REPORT

This report provides a view of the computers across your enterprise, such as its IP address, operating system, available and used memory, etc. For more information, see SRM Enterprise Reports.

DUPLICATE FILES REPORT

This report provides a view of duplicate files that exist across your enterprise, such as file size, name, modification time, access time, etc. For more information, see SRM Enterprise Reports.

SERVER CAPACITY REPORT

This report provides a view of all disk drives across your enterprise, such as used space, free space, available space, total space, etc. per server. For more information, see SRM Enterprise Reports.

SOFTWARE INVENTORY REPORT

This report provides a view on the type of software that is running on your computers across the enterprise, such as the name of the software package, vendor, the installed anti-virus, etc. For more information, see SRM Enterprise Reports.

STORAGE AGGREGATE REPORT

This report provides an inventory of entire storage across the CommCell in your enterprise, such as total used, free space, unallocated space, , etc. For more information, see SRM Enterprise Reports.

STORAGE INVENTORY REPORT

This report provides a view of the type and capacity of the storage being used across your enterprise, such as storage system type, disk name, total capacity, allocated space, etc. For more information, see SRM Enterprise Reports.

SCHEDULING REPORTS WITH SCHEDULE POLICIES

In addition to scheduling only one report, you can schedule several reports with Schedule Policy. In this release, you need to save a report to a template first before adding it to a schedule with Schedule Policy. For more information, see Scheduling Reports with Schedule Policy.

GENERAL REPORT ENHANCEMENTS

SRM Reports and Summaries now use a sleek, versatile, and easy-to-use reporting framework that enables you to easily view and analyze vital data. Enterprise and Application based reports can now be rapidly generated and customized. The following new features are available in this release:

- Reports can be filtered using filter criteria, such as client, client group, the columns to display in the report, etc. Report options to control how reports are
 displayed are also provided to control data size units, the number of rows to display, and sorting order.
- Templates of predefined columns are provided so that a report can be generated quickly. The columns are preselected but can be adjusted as needed.
- Filters can be applied to further refine and retrieve SRM information from the clients and client groups in your CommCell. These SQL based queries are useful if the provided report options (clients, columns) do not provide the necessary data required for your environment. Any SQL query that is supported by a SQL Server can be used in filters for SRM reporting. Additionally, you can retrieve the full SQL query for use in third-party applications once the conditions have been defined in the query. See Filters for SRM Reports for more information.
- Reports can now be saved and shared in various formats, such as HTML, Excel, and PDF.
- Ability to generate notifications from scheduled reports. Notifications can be sent to an email, pager, SNMP Trap, and RSS feed. Notifications replaces
 Thresholds and Actions that were supported in the previous release.
- Copy Chart is a report option that allows you to copy any chart in BMP format and use it in other applications like Microsoft Word.
- SRM reports no longer require Microsoft Reporting Services.

SRM VIEWS

SRM Views allow you to query information on the SRM Server directly from the SQL database in the same manner as CommServe Views and CommNet Views. These new views provide enterprise-wide information for file system utilization, inactive data via last access time distributions, etc. For more information, see SRM Views.

EXPRESS SOFTWARE SUPPORT

In addition to CommServe, CommCell Console, MediaAgent, etc., the SRM Server is a supported component for installation in the Express version of Calypso software. For more information, see Express Software Version Support in Express Quick Start Guide.

HIERARCHICAL FOLDER VIEWS

A graphical representation of the space being used by data per folder at the subclient level is now viewable in a chart. This view (View Folder Size) is available at the subclient level for the SRM NAS, SRM Windows File System, and SRM Unix File System Agents. For more information, see Folder Size.

FILE AND TIME CATEGORIES

For easy identification, System Files, Web page files, Temporary files are now classified as file categories by default. A user can now also define their own file categories. Clicking on these distribution charts from summaries and reports will give file level detail including exact location, size etc. For more information on File and Time Categories see File Categories.

FOLDERS AND SHARES SUPPORTED AS BILLABLE ENTITIES

The SRM Server now supports folders and shares as billable entities. This facilitates calculating the cost of storage at the folder or share level. Folders are supported for SRM NAS, SRM Windows File System, and SRM Unix File System Agents. In addition to folders and shares, other objects that can be associated with billable entities are databases, subclients, instances, etc. For more information, see Billable Entities.

NEW COMMCELL FEATURES SUPPORTED FOR SRM UNIX

DEPLOYMENT

CUSTOM PACKAGE

The Custom Package feature is now extended to almost all products in the Calypso suite. Using Custom Packages, you no longer have to push the entire software DVD through a network, which is especially useful for reducing WAN/LAN payload while installing remote clients.

It is also possible to create Custom Packages using a customized .xml file.

When used in conjunction with the Install Software from the CommCell Console and Automatic Updates features, WAN bandwidth can be drastically reduced during remote site installations. Learn more...

INSTALL FROM THE COMMCELL CONSOLE

The software installation for this component can be initiated and managed from the CommCell Console, which facilitates the building of your CommCell and eliminates the need to manually install the software. Additionally, the installation of this component can be scheduled to occur at a time suitable for your

environment. For more information, see Install Software from the CommCell Console.

UNINSTALL FROM THE COMMCELL CONSOLE

This component can be uninstalled using the CommCell Console. The Uninstall Software utility allows you to quickly see a list of the software packages installed on the selected computer, from which you can then select the components to uninstall. With this, you can easily manage removing software components from client computers and MediaAgents in your CommCell without having to directly access each computer. For more information, see Uninstall Components using the CommCell Console.

New Features - SRM Windows File System Agent



NEW FEATURES FOR SRM WINDOWS FILE SYSTEM AGENT

INTEGRATED SRM ADD-ON FUNCTIONALITY

SRM for Windows File System can now be used as an add-on feature for the Windows File System Agent. When SRM is enabled at the agent or subclient level of the Windows File System Agent, SRM reports can be generated for all backup data as soon as the first full backup job has completed.

AGENTLESS SRM

Agentless SRM is a compact version of Storage Resource Management (SRM) where a SRM File System Agent collects data from remote computers (i.e., managed clients) and operates without having to install Agent software on the managed clients. From the SRM File System Agent, managed clients are configured either manually or automatically using an Agentless SRM Policy. For either method, you can import data from a flat file, Active Directory Server, OpenLDAP, and Network Information Service (NIS). A new Agentless Client Group is created when the Agentless SRM Policy is run. Summaries and reports are also provided for various entities (e.g., File Systems, Volume Groups, Shares) for the managed clients. It allows performing discovery level data collection without the need of installing an SRM agent thereby simplifying the use of deployment of SRM for monitoring storage and capacity utilization. For more information, see Agentless SRM.

SUMMARY ENHANCEMENTS

In this release, summaries have been cosmetically enhanced to render sharper charts and graphs for these SRM Agents:

- SRM Windows
- SRM Unix
- SRM NAS

REAL-TIME MONITORING

Critical information that rapidly changes is automatically collected and updated every 15 minutes by the Bull Calypso Communications Service. The information that is collected applies to summaries and a few select categories of a report for the SRM Windows and SRM Virtual Server Agents. For more information, see Real-time Monitoring.

NEW ENTERPRISE REPORTS

Several new out-of-the box templates are now available to provide a big-picture snapshot of the computers, software, and the storage being used across your enterprise. They are as follows:

COMPUTER INVENTORY REPORT

This report provides a view of the computers across your enterprise, such as its IP address, operating system, available and used memory, etc. For more information, see SRM Enterprise Reports.

DUPLICATE FILES REPORT

This report provides a view of duplicate files that exist across your enterprise, such as file size, name, modification time, access time, etc. For more information, see SRM Enterprise Reports.

SERVER CAPACITY REPORT

This report provides a view of all disk drives across your enterprise, such as used space, free space, available space, total space, etc. per server. For more information, see SRM Enterprise Reports.

SOFTWARE INVENTORY REPORT

This report provides a view on the type of software that is running on your computers across the enterprise, such as the name of the software package, vendor, the installed anti-virus, etc. For more information, see SRM Enterprise Reports.

STORAGE AGGREGATE REPORT

This report provides an inventory of entire storage across the CommCell in your enterprise, such as total used, free space, unallocated space, , etc. For more information, see SRM Enterprise Reports.

STORAGE INVENTORY REPORT

This report provides a view of the type and capacity of the storage being used across your enterprise, such as storage system type, disk name, total capacity, allocated space, etc. For more information, see SRM Enterprise Reports.

SCHEDULING REPORTS WITH SCHEDULE POLICIES

In addition to scheduling only one report, you can schedule several reports with Schedule Policy. In this release, you need to save a report to a template first before adding it to a schedule with Schedule Policy. For more information, see Scheduling Reports with Schedule Policy.

GENERAL REPORT ENHANCEMENTS

SRM Reports and Summaries now use a sleek, versatile, and easy-to-use reporting framework that enables you to easily view and analyze vital data. Enterprise and Application based reports can now be rapidly generated and customized. The following new features are available in this release:

- Reports can be filtered using filter criteria, such as client, client group, the columns to display in the report, etc. Report options to control how reports are
 displayed are also provided to control data size units, the number of rows to display, and sorting order.
- Templates of predefined columns are provided so that a report can be generated quickly. The columns are preselected but can be adjusted as needed.
- Filters can be applied to further refine and retrieve SRM information from the clients and client groups in your CommCell. These SQL based queries are useful if the provided report options (clients, columns) do not provide the necessary data required for your environment. Any SQL query that is supported by a SQL Server can be used in filters for SRM reporting. Additionally, you can retrieve the full SQL query for use in third-party applications once the conditions have been defined in the query. See Filters for SRM Reports for more information.
- Reports can now be saved and shared in various formats, such as HTML, Excel, and PDF.
- Ability to generate notifications from scheduled reports. Notifications can be sent to an email, pager, SNMP Trap, and RSS feed. Notifications replaces
 Thresholds and Actions that were supported in the previous release.
- · Copy Chart is a report option that allows you to copy any chart in BMP format and use it in other applications like Microsoft Word.
- SRM reports no longer require Microsoft Reporting Services.

SRM VIEWS

SRM Views allow you to query information on the SRM Server directly from the SQL database in the same manner as CommServe Views and CommNet Views. These new views provide enterprise-wide information for file system utilization, inactive data via last access time distributions, etc. For more information, see SRM Views.

EXPRESS SOFTWARE SUPPORT

In addition to CommServe, CommCell Console, MediaAgent, etc., the SRM Server is a supported component for installation in the Express version of Calypso software. For more information, see Express Software Version Support in Express Quick Start Guide.

HIERARCHICAL FOLDER VIEWS

A graphical representation of the space being used by data per folder at the subclient level is now viewable in a chart. This view (View Folder Size) is available at the subclient level for the SRM NAS, SRM Windows File System, and SRM Unix File System Agents. For more information, see Folder Size.

FILE AND TIME CATEGORIES

For easy identification, System Files, Web page files, Temporary files are now classified as file categories by default. A user can now also define their own file categories. Clicking on these distribution charts from summaries and reports will give file level detail including exact location, size etc. For more information on File and Time Categories see File Categories.

FOLDERS AND SHARES SUPPORTED AS BILLABLE ENTITIES

The SRM Server now supports folders and shares as billable entities. This facilitates calculating the cost of storage at the folder or share level. Folders are supported for SRM NAS, SRM Windows File System, and SRM Unix File System Agents. In addition to folders and shares, other objects that can be associated with billable entities are databases, subclients, instances, etc. For more information, see Billable Entities.

NEW COMMCELL FEATURES SUPPORTED FOR WINDOWS FILE SYSTEM

DEPLOYMENT

CUSTOM PACKAGE

The Custom Package feature is now extended to almost all products in the Calypso suite. Using Custom Packages, you no longer have to push the entire software DVD through a network, which is especially useful for reducing WAN/LAN payload while installing remote clients.

It is also possible to create Custom Packages using a customized .xml file.

When used in conjunction with the Install Software from the CommCell Console and Automatic Updates features, WAN bandwidth can be drastically reduced during remote site installations. Learn more...

INSTALL FROM THE COMMCELL CONSOLE

The software installation for this component can be initiated and managed from the CommCell Console, which facilitates the building of your CommCell and eliminates the need to manually install the software. Additionally, the installation of this component can be scheduled to occur at a time suitable for your

environment. For more information, see Install Software from the CommCell Console.

UNINSTALL FROM THE COMMCELL CONSOLE

This component can be uninstalled using the CommCell Console. The Uninstall Software utility allows you to quickly see a list of the software packages installed on the selected computer, from which you can then select the components to uninstall. With this, you can easily manage removing software components from client computers and MediaAgents in your CommCell without having to directly access each computer. For more information, see Uninstall Components using the CommCell Console.

New Features - CommNet

20

NEW FEATURES FOR COMMNET

COMMNET PRODUCT INTEGRATION WITH CALYPSO

CommNet is a component of the CommServe software installation removing the need for independent installation of the CommNet components. When installing the CommServe software, by default, the CommNet components are automatically installed. Furthermore, this registers the CommServe computer with the CommNet Server for data collection and reporting services.

Though still maintaining its own user interface, the product integration enables CommNet to act as a client computer within the CommCell, thereby inheriting the following CommServe features:

- Automatic Updates: The CommNet Server computer supports automatic updates.
- Licensing: The CommNet software licenses are now administered from its associated CommCell License Administration utility. The following CommNet licenses are now License Types on the CommServe Computer:
 - o CommNet Server
 - o CommNet Agent
 - CommNet Advanced Reporting
- CommNet Books Online: CommNet Books Online documentation is merged with the CommServe software documentation to make it easier for you to quickly find desired topics in one location.

COMMNET SERVER

The CommNet Server Database has been partitioned to enhance performance of CommNet operations.

SUPPORT FOR COMMSERVE FEATURES

Many new CommServe features are also supported by the CommNet software; they include:

- Data Protection/Data Recovery Report changes
- New iDataAgents
 - \circ External Data Connector (including NetBackup-related data)
 - o Documentum
 - o PostgreSQL
 - o Object Link
- New library and drive types

COMMNET USER ADMINISTRATION AND SECURITY

When a user account is deleted, ownership of a report schedule or alert can be transferred to another CommNet user account. Since only the user who created the report schedule or alert can modify it, the transfer of ownership enables the new owner to quickly make necessary modifications. For more information, see:

- CommNet Alerts: Important Considerations
- CommNet Reports: Feature Considerations

COMMNET EXPLORER

CommNet Explorer is now named CommNet Views in this release. This feature is no longer a separate installable package, but rather available with the CommNet Server software.

In addition, the **CNEClientInfoView** is a new view that displays client information such as the total number of jobs completed and the total number of jobs that have been pruned. For more information, see CommNet Views: CNEClientInfoView.

REPORTS AND SUMMARIES

HEALTH CHECK REPORT

Health Check Report has been renamed as Update Status Report. This report can be generated to only show specific update statuses for the CommCells (including the specific clients) in your CommNet environment. This can assist in quickly identifying those clients that require updates. It is necessary to maintain update consistency in your environment to prevent potential software conflicts.

DATA PROTECTION Q-FACTOR REPORT

Data Protection Q-Factor Report has been renamed as Data Protection SLA Report. This report can be generated to show the SLA (Service Level Agreement)

coverage average for all of the clients, applications, and subclients for selected CommCells, as compared against the admissible defined SLA. The performance ratings included in this report allow you to quickly determine if your CommCells, clients, applications, and subclients have adequate data protection coverage.

MEDIA MANAGEMENT MEDIA PREDICTION REPORT

Media Management Media Prediction Report has been renamed as Media Management Capacity Planning Report. This report can be generated to show the predicted rate of consumption for the libraries within a specific CommCell. This is especially useful for capacity planning for the media in your environment.

SRM JOB SUCCESS REPORT

This report can be generated to show trends of how jobs (related to SRM) are completing within a specified range of time (days) for selected CommCell(s). This is helpful to see if the success rate is increasing or decreasing. Furthermore, when data within the report is double-clicked, the SRM Detail Report is launched, which displays more details specific to the job, including reasons for job failure, if any.

SRM JOB ACTIVITY REPORT

This report can be generated to show SRM job activity for the selected CommCells and/or Cell-Client Groups. The report will displays those jobs that were completed, and/or failed or killed, which can assist in determining any issues with CommCells.

MEDIA MANAGEMENT TAPE SLOT AND MEDIA UTILIZATION REPORT

This report can be generated to show the tape slot and media utilization information for the selected CommCell. It should be generated periodically to fully understand how the media and tape slots are utilized in each CommCell, and to learn their current status. Knowing this information is useful in determining or troubleshooting any potential issues with the media in your CommCell.

BILLING CHARGE BACK REPORT

This report calculates the charges associated with the primary and secondary storage entities in the CommNet domain. The category costing generates the report based on the defined pricing for the primary or secondary storage entities. The costs for these storage entities can now be defined in:

- Megabytes
- Gigabytes
- Terabytes
- · Petabytes.

ADMIN JOB SUCCESS REPORT

This report displays a summary of all administration operations that were completed, failed and/or killed for the selected clients, client computer groups, and/or CommCells during the selected time range. It should be generated periodically to expose possible problem areas with the administration job activity within your CommCell.

DATA PROTECTION COVERAGE REPORT

This report can be generated to display the Subclient Status Table in text format, which is extremely useful when color recognition is not possible, e.g., when printing to a black-and-white printer. For more information, see Data Protection Reports.

PRIMARY STORAGE DATA GROWTH REPORT

This reports now generates predictive trending of data growth values, which is extremely useful for capacity planning. Predicted data growth values are interpolated from the actual data growth values over a period of days called the repetition pattern. For example, if you specify seven days, the data growth predictor will use the growth pattern from the last seven days to predict the future data growth.

SLA REPORT

This report can now be generated to quickly measure the overall performance of the data protection operations that have occurred with a specified client. This performance rating can let you know if data protection operations for the client are within acceptable levels or not. Based on this rating, you can then determine if you need to take any corrective action such as modifying the retention policies, schedule patterns, or by fixing problems that may exist in the network or hardware.

GENERAL

- Hardware Guidelines now reports the Amount of Protected Data for the selected CommCell, which is useful in capacity planning for your environment.
- When specifying a time range during your selection of filter options for reports and summaries, you can easily and quickly adjust the calendar by months or years from the enhanced calendar options making it easy to select the time range required for your report. For more information, see Report Features or Summary Features.
- Data displayed in tables generated in reports and summaries can now be sorted by columns, filtered by specific data, and exported into Excel. For more information, see Report Features or Summary Features.
- Reports can now be saved in MHTML format. For more information, see Report Features.
- Report time range filters may include the option Include current period, which when selected, generates results that include the most current data, e.g., a
 report configured with a time range of the last 7 days with this option enabled would include data from the current day as well, even though the 24-hour
 cycle has not completed. If the option is not selected, the results will exclude the current day (time range period). For more information, see Report
 Features.

- The following reports include data derived from Data Replication operations:
 - O Data Protection Job Activity Report
 - O Data Protection Coverage Report
 - O Data Protection Job Success Report
 - o Load Report
- Data Type Size can now be displayed in terms of Application or Media Sizes in the following reports and summaries:
 - o CommNet Data Protection Activity Overview
 - O Data Protection Job Activity Report
 - O Data Protection Data Growth Report
 - o CommCell Summary
 - o Cell-Client Group Summary

Application size indicates the amount of data protected during backup operations where Media Size is the amount of data written to the media; this includes backup, encrypted, compressed, and deduplicated data if applicable. Reporting in each method can be extremely useful for quickly determining amounts of backup data and media usage within your CommCell.

• Data Replication is the process of copying specified, file-level content from one computer, the source computer, to another, the destination computer. Having this data included in the reporting results is useful because the replicated copy on the destination computer provides on-going, nearly-real-time disaster recovery protection for the source computer, unlike most data protection solutions which require significant time to perform a complete data protection operation.

NEW COMMCELL FEATURES SUPPORTED FOR COMMNET

DEPLOYMENT

The software installation for this component can be initiated and managed from the CommCell Console, which facilitates the building of your CommCell and eliminates the need to manually install the software. Additionally, the installation of this component can be scheduled to occur at a time suitable for your environment. For more information, see Install Software from the CommCell Console.