Quick Start Guide - Oracle RAC iDataAgent

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Overview - Oracle RAC iDataAgent

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Introduction

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Terminology

INTRODUCTION

The Oracle RAC *i*DataAgent works in conjunction with the Oracle RAC database to provide simplified end-to-end backup and recovery solutions for Oracle databases in your enterprise without using multiple subclients and storage policies. This Product allows you to load-balance Oracle backups and restores across multiple database nodes. The product can be used to perform both full system rebuilds and granular recovery of the data and logs.

KEY FEATURES

FULL RANGE OF BACKUP AND RECOVERY OPTIONS

The Oracle RAC *i*DataAgent provides the flexibility to backup the Oracle database in different environments. This is very essential since the Oracle database is always subject to constant changes.

You can perform a full or incremental backup of the entire database or individual datafiles/ tablespaces, or archive logs at any point of time. The following section describes the backups that can be performed in different environments.

OFFLINE BACKUP

When the database is shutdown and not available for use, you can perform a full backup of the database without the logs. This is especially used when the data is consistent and there are no transactions in the database.

ONLINE BACKUP

In cases, when you cannot bring down the database to perform an offline backup, you can use the online backup method. Here, you can perform full or incremental backups when the database is online and in ARCHIVELOG mode. This is very useful when you want to perform a point-in-time restore of the database.

You also have the facility the backup only the archive logs when the database is online. These logs can be applied to an online backup to recover the database to the current point-in-time.



You can also protect the non-database files and profiles using the appropriate File System iDataAgent.

SELECTIVE ONLINE FULL BACKUP

This *i*DataAgent allows you to backup and store copies of valid data from a source copy of a specific storage policy to all or one active secondary copy within a storage policy providing for a better tape rotation. An online full backup job is copied to a selective copy, if the full backup job cycle completes successfully thereby allowing you to select, store and protect your valuable data on a secondary copy for future restores in a more viable and economic mode.

EFFECTIVE MANAGEMENT OF BACKUPS AND RESTORES

This *i*DataAgent allows you to group any desired number of Oracle *i*DataAgent instances under one or more Oracle RAC database logical entities. As such, Oracle backups and restores as well as other job types and functions (including Data Aging, Scheduling, Job Management) are all consolidated and easy to manage. This allows you to maintain your data irrespective of whether you add or remove Oracle *i*DataAgent instances from the RAC database.

WHERE TO GO NEXT

Install the Oracle RAC iDataAgent

Walks you through the process of installing the Oracle RAC *i*DataAgent.

RESOURCE ENHANCEMENT ON NODES FOR ACCELERATED BACKUPS AND RESTORES

You can configure various resources on your RAC nodes to enable specific node strengths. For example, you can configure a specific RAC node to involve multiple processors and therefore use more streams for a backup or restore.

BACKUP AND RECOVERY FAILOVERS

In the event that a MediaAgent used for the backup or recovery operation fails, it is automatically resumed on alternate MediaAgents. In such cases, the backup or restore job will not restart from the beginning, but will resume from the point of failure. This is especially useful for backups and restores of large amount of file system data.

In the event, that a network goes down, the backup and recovery jobs are resumed on alternate data paths. Similarly, in the event of a device failure, the jobs are automatically switched to alternate disk and tape drives.

Also, this *i*DataAgent automatically checks the status of each Oracle instance during a backup or restore and allocates RMAN channels only for the instances that are active. Therefore, even if a specific instance fails, the backup or restore will continue.

EFFICIENT JOB MANAGEMENT AND REPORTING

You can view and verify the status of backup and recovery operations from the Job Controller and Event Viewer windows within the CommCell Console. You can also track the status of the jobs using Reports, which can be saved and easily distributed. Reports can be generated for different aspects of data management. You also have the flexibility to customize the reports to display only the required data and save them to any specified location in different formats. For example, you can create a backup job summary report to view at-a-glance the completed backup jobs.

In addition, you can also schedule these reports to be generated and send them on email without user intervention.

BLOCK LEVEL DEDUPLICATION

Deduplication provides a smarter way of storing data by identifying and eliminating the duplicate items in a data protection operation.

Deduplication at the data block level compares blocks of data against each other. If an object (file, database, etc.) contains blocks of data that are identical to each other, then block level deduplication eliminates storing the redundant data and reduces the size of the object in storage. This way dramatically reduces the backup data copies on both the disk and tapes.

TERMINOLOGY

The Oracle documentation uses the following terminology:

RAC	A Real Application Cluster environment which allows multiple nodes in a clustered system to access a single database that resides on a shared storage location.
CLIENT	The computer in which the <i>i</i> DataAgent is installed and contains the data to be secured.
INSTANCE	The Oracle database to be used for the backup and restore operations.
SUBCLIENT	The Oracle data to be backed up.

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.

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System Requirements - Oracle RAC iDataAgent

System Requirements Supported Features

The following requirements are for the Oracle RAC *i*DataAgent:

APPLICATION/OPERATING SYSTEM

PROCESSOR

ORACLE 1	.0G/11G (R1, R2 OR HIGHER) RAC DATABASES ON:	
AIX	AIX 7.1	Power PC (Includes IBM System p)
	AIX 6.1	Power PC (Includes IBM System p)
	AIX 5.3	Power PC (Includes IBM System p)
HP-UX	HP-UX 11i v3 (11.31)	PA-RISC
	HP-UX 11i v3 (11.31)	Itanium
	HP-UX 11i v2 (11.23)	Itanium
	HP-UX 11i v2 (11.23)	PA-RISC
LINUX	ORACLE LINUX	
	Oracle Linux 6.x with glibc 2.12.x	Intel Pentium, x64 or compatible processors
	Oracle Linux 5.x with glibc 2.5.x	Intel Pentium, x64 or compatible processors
	Oracle Linux 4.x with a minimum of glibc 2.3.4	Intel Pentium, x64 or compatible processors
	RED HAT ENTERPRISE LINUX/CENTOS	
	Red Hat Enterprise Linux/CentOS 6.x with glibc 2.12.x	Intel Pentium, Itanium, x64, Power PC (Includes IBM System p) or compatible processors
	Red Hat Enterprise Linux/CentOS 5.x with glibc 2.5.x	Intel Pentium, Itanium, x64, Power PC (Includes IBM System p) or compatible processors
	Red Hat Enterprise Linux/CentOS 4.x with a minimum of glibc 2.3.4	Intel Pentium, Itanium, x64, Power PC (Includes IBM System p) or compatible processors
	SUSE LINUX (SLES)	
	SuSE Linux 11.x with glibc 2.9.x and above	Intel Pentium, Itanium, x64, Power PC (Includes IBM System p) or compatible processors
	SuSE Linux 10.x with glibc 2.4.x	Intel Pentium, Itanium, x64, Power PC (Includes IBM System p) or compatible processors
SOLARIS	Solaris 11.x	x64, Sparc5 (or higher recommended)
	Solaris 10.x	x64, Sparc5 (or higher recommended)
WINDOWS	WINDOWS 2008	
	Microsoft Windows Server 2008 Editions with a minimum of Service Pack 1* *Core Editions not supported	All Windows-compatible processors supported
	WINDOWS 2003	
	Microsoft Windows Server 2003 Editions with a minimum of Service Pack 1	All Windows-compatible processors supported

HARD DRIVE

See System Requirements - Oracle iDataAgent

MEMORY

See System Requirements - Oracle iDataAgent

ORACLE EXADATA DATABASE MACHINE SUPPORT

Oracle Exadata Database Machine is supported on the following Oracle Database versions:

- Oracle 11g (11.1.0.7)
- Oracle 11g R2 (11.2.0.1 or higher)

SOLARIS ZONES/CONTAINERS SUPPORT

Data Protection of data residing on global and non-global zones is supported.

For a comprehensive list of supported components, see Unix Virtualization.

AIX LPAR/WPAR SUPPORT

Data protection on Logical Partitioning (LPAR) and Workload Partitioning (WPAR) is supported.

PERIPHERALS

DVD-ROM drive

Network Interface Card

MISCELLANEOUS

NETWORK

TCP/IP Services configured on the computer.

The Oracle *i*DataAgent must be installed and configured prior to configuring the Oracle RAC *i*DataAgent. For System Requirements and install information specific to the Oracle *i*DataAgent, refer to System Requirements - Oracle *i*DataAgent.

SELINUX

If you have SELinux enabled on the client computer, create the SELinux policy module as a root user before performing a backup. The SELinux Development package must be installed on the client.

To create an SELinux policy module, perform the following steps as user "root":

1. Create the following files in the /usr/share/selinux/devel directory:

File Name	Content of the File
<directory>/<file_name>.te</file_name></directory>	The content of the file should be as follows:
where:	policy_module(<name>,<version>)</version></name>
<directory> is /usr/share/selinux/devel</directory>	#######################################
<file_name> is the name of the Unix file, created to save the</file_name>	where:
policy module statement. It is a good idea to use the same name for policy module and the file.	<name> is the name of the policy module. You can give any unique name to the policy module, such as a process or application name.</name>
For example: When you are creating a policy module for backup_IDA application, you can use the following file name:	<version> is the version of the policy module. It can be any number, such as 1.0.0.</version>
backup_IDA.te	For Example: While creating a policy module for the backup_IDA application, you can use the following content.
	policy_module(backup_IDA,1.0.0)
<directory>/<file_name>.fc</file_name></directory>	The content of the file should be as follows:
where:	Note that the following list of files is not exhaustive. If the process fails to launch, check /var/log/messages. Also, if required, add it to the following list of files.
<pre><file_name> is the name of the Unix file, created to save the</file_name></pre>	<pre>/opt/<software directory="" installation="">/Base/libCTreeWrapper.so gen_context (system_u:object_r:texrel_shlib_t,s0)</software></pre>
policy module statement. It is a good idea to use the same name for policy module and the file.	<pre>/opt/<software directory="" installation="">/Base/libCVMAGuiImplgso gen_context (system_u:object_r:texrel_shlib_t,s0)</software></pre>
For example: When you are creating a policy module for backup_IDA application, you can use the following file name:	/opt/ <software directory="" installation="">/Base/libdb2locale.so.1 gen_context (system_u:object_r:texrel_shlib_t,s0)</software>
200x0p_10.110	/opt/ <software directory="" installation="">/Base/libdb2osse.so.1 gen_context (system_u:object_r:texrel_shlib_t,s0)</software>
	/opt/ <software directory="" installation="">/Base/libDb2Sbt.so gen_context (system_u:object_r:texrel_shlib_t,s0)</software>
	<pre>/opt/<software directory="" installation="">/Base/libdb2trcapi.so.1 gen_context (system_u:object_r:texrel_shlib_t,s0)</software></pre>

/opt/ <software directory="" installation="">/Base/libDrDatabase.so gen_context (system_u:object_r:texrel_shlib_t,s0)</software>
/opt/ <software directory="" installation="">/Base/libIndexing.so gen_context (system_u:object_r:texrel_shlib_t,s0)</software>
/opt/ <software directory="" installation="">/Base/libSnooper.so gen_context (system_u:object_r:texrel_shlib_t,s0)</software>

2. Create the policy file from command line. Use the following command. Ensure that you give the following commands in the /usr/share/selinux/devel directory.

[root]# make backup_IDA.pp Compiling targeted backup_IDA module /usr/bin/checkmodule: loading policy configuration from tmp/backup_IDA.tmp /usr/bin/checkmodule: policy configuration loaded /usr/bin/checkmodule: writing binary representation (version 6) to tmp/backup_IDA.mod Creating targeted backup_IDA.pp policy package rm tmp/backup_IDA.mod tmp/backup_IDA.mod.fc [root]# semodule -i backup_IDA.pp [root]#

3. Execute the policy module. Use the following command:

[root] # restorecon -R /opt/<software installation directory>

SELinux is now configured to work with this application.

DISCLAIMER

Minor revisions and/or service packs that are released by application and operating system vendors are supported by our software but may not be individually listed in our System Requirements. We will provide information on any known caveat for the revisions and/or service packs. In some cases, these revisions and/or service packs affect the working of our software. Changes to the behavior of our software resulting from an application or operating system revision/service pack may be beyond our control. The older releases of our software may not support the platforms supported in the current release. However, we will make every effort to correct the behavior in the current or future releases when necessary. Please contact your Software Provider for any problem with a specific application or operating system.

Additional considerations regarding minimum requirements and End of Life policies from application and operating system vendors are also applicable

Supported Features - Oracle RAC iDataAgent

System Requirements Supported Features

The following table lists the features that are supported by this Agent.

FEATURE	SUB-FEATURE	SUPPORT	Comments
	Data tab - Catalog		
ADVANCED BACKOF/ARCHIVE OF HONS	Data tab - Create New Index		
	Data tab - Verify Synthetic Full		
	Job Retry tab	~	
	Media tab - Allow other Schedule to use Media Set	~	
	Media tab - Mark Media Full on Success	~	
	Media tab - Reserve Resources Before Scan		
	Media tab - Start New Media	✓	
	Startup tab	 ✓ 	
	VaultTracking tab	✓	
	Comments	~	Includes several additional options in the Backup Archive Logs, Delete Archive Logs, Custom RMAN Script, and Oracle Options tabs.
ADVANCED FILE SYSTEM IDATAAGENT OPTIONS	Automatic File System Multi- Streaming		
	On Demand Data Protection Operation		
	Restore by Jobs		
	Restore Data Using a Map File		
	Comments		
ALERTS AND MONITORING	Global Alerts	×	
	lob-Based Alerts*	~	
	Comments		
	Automatic Updates	~	
AUTOMATIC UPDATES			
	Comments		
BACKUP/ARCHIVE OPTIONS	Differential Backup		
	Full Backup	~	
	Incremental Backup	✓	
	Other Backup Types		
	Synthetic Full Backup		
	Comments		
BACKWARD COMPATIBILITY	Version 7	~	
	Version 8	~	
	Version 9		
	Comments	•	Automatically upgraded with the Oracle iDataAgent. See: Upgrade Oracle RAC iDataAgent for more
BROWSE	Browse from Copy Precedence	~	
	Browse the Latest Data	✓	
	Exclude Data Before	~	
	Find		
	Full Backup Transparent Browse		
	Image Browse		
	No Image Browse		
	Page Size		
	Specify Browse Path		
	Specify Browse Time	✓	
	Subclient Browse		
		✓	

	Use MediaAgent		
	View All Versions		
	Comments		
CLUSTERING	Netware cluster		
	Unix Cluster		
	Windows - Microsoft Cluster		
	(MSCS) Windows - Non-Microsoft Cluster		
	Comments	~	
	comments		Oracle RAC uses its own clustering technology; therefore, it does not depend on operating system- level clusters.
COMMAND LINE INTERFACE	Command Line Interface	~	
	Comments		
COMMAND LINE INTERFACE - SPECIFIC COMMANDS	Qcreate - Backup set/SubClient		
	Qcreate - Instance		
	Qdelete - Backup set/Subclient	~	
	Olist globalfilter		
	Qmodify - instance		
	Qoperation - Backup		
	Qoperation - move		
	Qoperation - Restore		
	Comments		
COMMCELL MIGRATION			
	Comments		
CONTENT INDEXING	Offline Content Indexing		
	Comments		
DATA AGING	Basic Retention Rules	~	
	Extended Retention Rules	✓	
	Unique Data Aging Rules		
	Comments	~	Extended Retention Rules are supported for offline/selective online fulls.
DATA CLASSIFICATION ENABLER	Data Classification Enabler		
	Comments		
	Client Compression	~	
DATA COMPRESSION	Hardware Compression	~	
	MediaAgent Compression	~	
	Comments		
DATA ENCRYPTION	Data Encryption Support	~	
	Third-party Command Line	~	
	IEDCRVDTION SUDDOFT		
	Comments		
DATA MULTIPLEXING	Comments Multiplexing	~	
DATA MULTIPLEXING	Comments Comments Comments	~	
DATA MULTIPLEXING DEDUPLICATION	Comments Comments Comments Multiplexing Comments MediaAgent Deduplication	× ×	
DATA MULTIPLEXING DEDUPLICATION	Comments Comments Comments Comments Source Deduplication	✓ ✓ ✓	
DATA MULTIPLEXING DEDUPLICATION	Comments Comments MediaAgent Deduplication Source Deduplication Comments	✓ ✓ ✓	
DATA MULTIPLEXING DEDUPLICATION ERASE BACKUP/ARCHIVED DATA	Comments Comments Comments Multiplexing Comments MediaAgent Deduplication Source Deduplication Comments Erase Data by Browsing	✓ ✓ ✓	
DATA MULTIPLEXING DEDUPLICATION ERASE BACKUP/ARCHIVED DATA	Comments Comments Comments MediaAgent Deduplication Source Deduplication Comments Erase Data by Browsing Erase Stubs Comments	✓ ✓ ✓	
DATA MULTIPLEXING DEDUPLICATION ERASE BACKUP/ARCHIVED DATA	Comments Comments Comments Multiplexing Comments MediaAgent Deduplication Source Deduplication Comments Erase Data by Browsing Erase Stubs Comments Global Filters	✓ ✓ ✓	
DATA MULTIPLEXING DEDUPLICATION ERASE BACKUP/ARCHIVED DATA GLOBAL FILTERS	Encryption Support Comments Multiplexing Comments MediaAgent Deduplication Source Deduplication Comments Erase Data by Browsing Erase Stubs Comments Global Filters	✓ ✓ ✓	
DATA MULTIPLEXING DEDUPLICATION ERASE BACKUP/ARCHIVED DATA GLOBAL FILTERS	Encryption Support Comments Multiplexing Comments MediaAgent Deduplication Source Deduplication Comments Erase Data by Browsing Erase Stubs Comments Global Filters Comments	✓ ✓ ✓	
DATA MULTIPLEXING DEDUPLICATION ERASE BACKUP/ARCHIVED DATA GLOBAL FILTERS INSTALLATION	Encryption Support Comments Multiplexing Comments MediaAgent Deduplication Source Deduplication Comments Erase Data by Browsing Erase Stubs Comments Global Filters Custom Package	✓ ✓ ✓	
DATA MULTIPLEXING DEDUPLICATION ERASE BACKUP/ARCHIVED DATA GLOBAL FILTERS INSTALLATION	Encryption Support Comments Multiplexing Comments MediaAgent Deduplication Source Deduplication Comments Erase Data by Browsing Erase Stubs Comments Global Filters Custom Package Decoupled Install	✓ ✓ ✓	
DATA MULTIPLEXING DEDUPLICATION ERASE BACKUP/ARCHIVED DATA GLOBAL FILTERS INSTALLATION	Encryption Support Comments Multiplexing Comments MediaAgent Deduplication Source Deduplication Comments Erase Data by Browsing Erase Stubs Comments Global Filters Comments Custom Package Decoupled Install Remote Install	✓ ✓ ✓	
DATA MULTIPLEXING DEDUPLICATION ERASE BACKUP/ARCHIVED DATA GLOBAL FILTERS INSTALLATION	Encryption Support Comments Multiplexing Comments MediaAgent Deduplication Source Deduplication Comments Erase Data by Browsing Erase Stubs Comments Global Filters Comments Custom Package Decoupled Install Remote Install Restore Only Agents Silent Install	✓ ✓ ✓	

	Comments		No software installation is required. See Deployment - Oracle RAC <i>i</i> DataAgent for more information.
INSTALLING 32-BIT COMPONENTS ON A MICROSOFT WINDOWS X64 PLATFORM	Install 32-bit On x64		
	Comments		
IOB PESTART - DATA PROTECTION	Not Restartable		
JOB RESTART - DATA PROTECTION	Pestarts from the Beginning		
	Restarts from the Beginning of the		
	Database		
	Restarts from the Point-of-Failure	~	
	Comments	~	Third-party command line operations and selective online full backup jobs are Not Restartable .
			Offline backup jobs Restart from the Beginning.
100 DESTART DATA DECOVERY	Not Restartable		
JOB RESTART - DATA RECOVERY	Pestarts from the Beginning		
	Restarts from the Beginning of the Database		
	Restarts from the Point-of-Failure	~	
	Comments		
	List Media Associated with a	~	
	Specific Backup Set or Instance		
	List Media Associated with Index		
	List Media Associated with Specific		
	List Media Associated with Specific		
	Jobs		
	Comments		
	Multi Instance		
MULTI INSTANCING			
	Comments		
PRE/POST PROCESSES	Pre/Post Process with Data Protection and Recovery		
	Comments		
	Cross-Application Restores		
RESTORE/RECOVER/RETRIEVE DESTINATIONS	(Different Application version)		
	Cross-Platform Restores - Different Operating System		
	Cross-Platform Restores - Same Operating System - Different Version	• 	
	In-place Restore - Same path/ destination - Same Client	×	
	Out-of-place Restore - Different path/ destination	×	
	Out-of-place Restore - Same path/ destination - Different Client	•	
	Restore Data Using a Map File		
	Restore to Network Drive /NFS-		
	Comments		See Advanced Restore - Oracle RAC iDataAgent for
			this iDataAgent.
RESTORE/RECOVER/RETRIEVE OPTIONS	Automatic Detection of Regular Expressions		
	Filter Data From Recover Operations		
	Rename/ Redirect Files on Restore	✓	
	Restore Data Using Wildcard		
	Expressions Restore Data with Pre/Post	~	
	Processes Pestore from Copies	~	
	Skin Errors and Continue	•	
	Use Exact Index		
	Use MediaAgent	~	
	Comments	-	
RESTORE/RECOVER/RETRIEVE OVERWRITE	Overwrite Files		
	Overwrite if file op media is newor		
	overwrite ir nie on meula is newel		-

	Restore only if target exists		
	Unconditional Overwrite		
	Unconditionally overwrite only if target is a DataArchiver stub		
	Comments		
SCHEDULE POLICY	Agent Specific Data Protection Schedule Policy	~	
	All Agent Types Schedule Policy	~	
	Comments		
STORAGE POLICIES	Incremental Storage Policy*	~	
	Standard Storage Policies	✓	
	Comments	~	Incremental Storage Policy does not support Transaction Log backups for this agent.
STORAGE POLICY COPIES	Data Verification	~	
	Job Based Pruning	✓	
	Manual Retention	~	
	Mark Job Disabled	✓	
	Selective Copy	✓	
	Comments	~	Selective Copy is supported for Selective Online and Offline Fulls.
SUBCLIENT POLICIES	SubClient Policy		
	Comments		
UPGRADE	Netware - Local		
	Unix - Remote (Push)		
	Unix/Linux/Macintosh - Local		
	Unix/Linux/Macintosh - Silent		
	Upgrade from CommCell Console		
	Windows - Local		
	Windows - Remote (Push)		
	Windows - Silent		
	Comments	✓	See Upgrade Oracle RAC iDataAgent
USER ADMINISTRATION AND SECURITY	Backup Set/Archive Set		
	Subclient		
	Comments		

Additional features are listed below:

Activity Control	Auxiliary Copy
CommCell Console	Deconfiguring Agents
GridStor	Languages
Log Files	MediaAgent
Operation window	QR Volume Creation Options
Robust Network Layer	Scheduling
SnapProtect Backup	Snapshot Engines
VaultTracker Enterprise	VaultTracker
Report Output Options	Restore/Recover/Retrieve - Other Options
Cloud Storage	Job Restart - Data Collection

Getting Started Deployment on Windows - Oracle RAC *i*DataAgent

WHERE TO INSTALL

Install the Oracle *i*DataAgent software on all the nodes of Oracle RAC which satisfy the minimum requirements specified in the System Requirements.



BEFORE YOU BEGIN

Download Software Packages Download the latest software package to perform the install.

Verify System Requirements

Make sure that the computer in which you wish to install the software satisfies the System Requirements.

INSTALLATION

- 1. Log on to the client computer as Administrator or as a member of the Administrator group on that computer.
- Run Setup.exe from the Software Installation Package.
 If you are installing on Windows Server Core editions, navigate to Software Installation Package through command line, and then run Setup.exe.
- 3. Select the required language.

Click Next.

	English (United States)	
	<u>N</u> ext >	Cance
4	Install Software on this computer Advanced options	

4.	Select the option to install software on this computer.

The options that appear on this screen depend on the computer in which the software is being installed.

5. Select I accept the terms in the license agreement. Click Next.

Inst	iller 🛛	×
Lic P	ense Agreement ease read the following License Agreement. Press a PAGE DOWN key to view the entire agreement.	
	End User License and Limited Warranty Agreement	
	Software Release 9.0.0 (including Microsoft® SQL Server™ 2008 Enterprise Edition, SQL Server™ 2008 Express Edition and Windows Pre-Installation Environment)	
	Fud Hoove Agronoment	
	 I accept the terms in the license agreement. 	
	C I do not accept the terms in the license agreement.	
	Installer	

 Expand Client Modules | Backup and Recovery | Database and then click Oracle iDataAgent.
 Click Next.

If this computer and the CommServe is separated by a firewall, select the Configure	Installer
firewall services option and then click Next.	Firewall
For firewall options and configuration instructions, see Firewall Configuration and	Configure

If firewall configuration is not required, click **Next**.

8.	Enter the fully qualified domain name of the CommServe Host Name .
	Click Next.

Do not use space and the following characters when specifying a new name for the CommServe Host Name:

\|`~!@#\$%^&*()+=<>/?,[]{}:;'"

9. Click Next.

7.

Installer	X
Select Platforms	
Select the platforms ;	you want to configure.
🗆 🖴 Client Mod	dules Move the pointer over a
🖃 🖨 Backu	up & Recovery platform name to see a description of the platform and
	e System reasons why it may be
	DB2 iDataAgent
V	Oracle DataAgent
	SQL Server iDataAgent
	SAP for Oracle [Heq/Hecommended]
	Subase Datagent 560 MP / 919 MP
E E	MvSQL DataAgent
	xchange Temporary on C: drive:
🕀 🖿 La	otus Notes 483 MB/ 483 MB
	harePoint
Installer	
Install Agents for R	lestore Only < Rack Next > Cancel
Installer	
Firewall Configu	ration
Configure firewall ser	vices
If there is a firm of the	active and the CourseCourse Course Course Course
II there is a firewall b	verveen was machine and the commonly, configure mewail services below.
Configure firewa	Il services
Please specify hov	wWindows Firewall is limiting network traffic. Whether it is possible to open
connection from he CommServe are bl	ere to a wommberve's tunnel port, whether all connections toward ocked, and setup should instead expect Commberve to connect back to this
machine, or wheth	er there is a Proxy in between.
C This machine os	
C	
C CommServe car	
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Installer CommServe Nam Specify the CommServe CommServe CommServe CommServe CommServe CommServe Installer Installer Communication I Setup will configure to Installer Installer	Pervice computer name and host e Client Name e Host Name did, full-qualified, IP host name; for example: surpcorago con example: company.com eter.mycompany.com eter.mycompany.com communication paths. Select a client name Example Select a nitterface name that this computer will use to communicate with the CommServe aud.mycompany.com IP Address(es) for the selected host.
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Installer CommServe Nam Specify the CommServe CommServe CommServe Installer Installer Communication I Setup will configue to Installer Installer	Pervice computer name and host e Client Name e Host Name e Host Name (July qualified, IP host name; for example: recompany.com eter.mycompany.com eter.mycompany.com communication paths. Select an interface name that this computer will use to communicate with the CommServe guid: mycompany.com IP Address[es] for the selected host. Select an interface name that this computer will use to communicate with the CommServe guid: mycompany.com IP Address[es] for the selected host. Select an interface name that this computer will use to communicate with the CommServe guid: mycompany.com IP Address[es] for the selected host. Select an interface name that this computer will use to communicate with the commServe guid: mycompany.com IP Address[es] for the selected host. Select an interface name that this computer will use to communicate with the commServe guid: mycompany.com IP Address[es] for the selected host. Select an interface name that this computer will use to communicate with the commServe guid: mycompany.com IP Address[es] for the selected host.

Select Add programs to the Windows Firewall Exclusion List, to add CommCell 10. programs and services to the Windows Firewall Exclusion List.

Click Next.

This option enables CommCell operations across Windows firewall by adding CommCell programs and services to Windows firewall exclusion list.

It is recommended to select this option even if Windows firewall is disabled. This will allow the CommCell programs and services to function if the Windows firewall is enabled at a later time.

11.

12.

13.

	Windows Firewall Exclusion List Allow programs to communicate through Windows Firewall
	Windows Firewall is DN
	Add programs to the Windows Firewall Exclusion List
	If you plan on using Windows Firewall, it is recommended to add the software programs to the exclusion list.
Verify the default location for software installation. Click Browse to change the default location. Click Next .	Installer Cancel Installer Destination Folder Select the destination folder to install the program files.
Do not install the software to a manned network drive	
 Do not use the following characters when specifying the destination path: 	Click Next to accept the default location, or click Browse to choose an alternate location. Destination Folder
/:*?"<> #	EXProgram Files\
It is recommended that you use alphanumeric characters only.	Drive List C: 928 MB Installer Kext> Cancel Space Required / Recommended I 394 MB / 1670 MB Cancel
Select a Client Group from the list.	Installer Client Group Selection
Click Next.	Select a client group for the client.
This screen will be displayed if Client Groups are configured in the CommCell Console.	The Clent Group is a logical grouping of clent machines which have the same associations at various levels like Schedule Policy, Activity Control, Security and Reports.
	Client group: None Selected client_group
	Installer Kext> Cancel
Click Next.	Installer
	Schedule Install of Automatic Updates Choose when you want to schedule an install of the downloaded updates.
	✓ Schedule Install of Automatic Updates C Once Time: 08 31.12 PM → ···· ··· ···· ··· ···

Installer

14. Click Next. Cancel

< Back

Next >

X

15. Select a Storage Policy from the drop-down list. Click Next.

If you do not have Storage Policy created, this message will be displayed. Click \mathbf{OK} .

You can create the Storage Policy later in step 22.

16. Click Next.

Stop the Oracle services by clicking the $\ensuremath{\mathsf{Service}}$ $\ensuremath{\mathsf{Control}}$ $\ensuremath{\mathsf{Manager}}$ button.

17. Click Next.

Click **Search ORASBT.dll** button to search for any existing ORASBT.dll file. If found, rename or delete the ORASBT.dll file.

Global Filters pro protection operal	vides the ability to set exclusions within a CommCell to filter out data from data tions on all agents of a certain type.
	 Use Cell level policy
	Always use Global Filters
	O Do not use Global Filters
Installer	(Deal) Nexts Convert
Installer	
Storage Policy	y Selection
Select a storage	policy for the default subclient to be
backed up.	
🔲 Configure	for Laptop or Desktop Backup
Select a s	storane policy from the pull-down list
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Installer	/ Back Nexts Cannel
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Select a storage backed up.	policy for the default subclient to be
Configure	for Laptop or Desktop Backup
Installer	< Back Next > Cancel
	×
Oracle Instanc	e Shutdown
Shutdown the Or install Oracle Mec	acle database instances to properly dia Library
Please : advised	shut down all Oracle database instances before setup copies files. Be 1. that if you do not stop the Oracle services, the Oracle Media
Manage	ement library will not be installed until you reboot.
You car button b	n stop the Oracle services by clicking the Service Control Manager below.
After yo	u have stopped the Dracle services click Next to continue with the
Installati	ion.
	[
	Service Control Manager
	<u>N</u> ext> Cancel
Oracle Cleanu	
Delete or Rename the system	e any instances of ORASBT.DLL on
Setup w environ	ill now search all the locations specified in the SYSTEM PATH ment variable to find any occurrences of ORASBT.dll.
Please (can use	either rename or delete these occurrences so that Oracle iDataAgent the correct ORASBT.dll.
lorasht	dl' was not found on this system. Please clink
NEXT b	Search ORASBT.dll

Installe

Select Global Filter Options Select the Global Filter Options for the Agent.

Delete All ORASBT.dll Rename All ORASBT.dll Confirm

Cancel

<u>N</u>ext>

< <u>B</u>ack

19. Click OK.

20. Click Next.

21. Click Finish.

Installe Summary Summary of install selections Setup has enough information to start copying the program files. If you are satisfied with the install settings, click Next to begin copying files. Destination Path = C:\Program Files\ CommServe Host = mycomputer.mycompany.com Interface Name = audi.mycompany.com Client = audi Job Results Path = C:\Program Files\JobResults Global Filters = Use Cell level policy Installer < Back Next> etalle Before starting any software services, this computer will require a reboot after completion of Setup. 0<u>K</u> nstalle Schedule Reminder Job schedule creation reminde Please note: You still need to create a Job Schedule for each iDataAgent that has been installed on this client computer. Job Schedules are required to allow the iDataAgents to perform automated backup and restore operations. Job Schedule creation can be accomplished through the CommCell Console administration interface. Installer Installer **Completion Report** Setup complete

Software installation completed successfully * Visit the website below to download latest Updates and Service Packs. Click Finish to complete Setup. -Installer Technical Support Website Einish

×

Cancel

Next>

÷	21
сно	ICE

If you already have a storage policy selected in step 15, proceed to the Configuration section.

If you do not have Storage Policy created, continue with the following step.

- 22. Create a Storage Policy:
 - 1. From the CommCell Browser, navigate to Policies.
 - 2. Right-click the Storage Policies and then click New Storage Policy.
 - 3. Follow the prompts displayed in the Storage Policy Wizard. The required options are mentioned below:
 - $\circ~$ Select the Storage Policy type as $\ensuremath{\text{Data}}$ $\ensuremath{\text{Protection}}$ and $\ensuremath{\text{Archiving}}$ and click Next.
 - Enter the name in the Storage Policy Name box and click Next.
 - $\circ~$ From the ${\bf Library}$ list, click the name of a disk library to which the primary copy should be associated and then click Next.

Ensure that you select a library attached to a MediaAgent operating in the current release.

- From the **MediaAgent** list, click the name of a MediaAgent that will be used to create the primary copy and then click **Next**.
- $\circ\;$ For the device streams and the retention criteria information, click Next to accept default values.
- $\circ~$ Select Yes to enable deduplication for the primary copy.
- From the **MediaAgent** list, click the name of the MediaAgent that will be used to store the Deduplication store.

Type the name of the folder in which the deduplication database must be located in the Deduplication Store Location or click the Browse button to select the folder and then click **Next**.

 $\circ\;$ Review the details and click Finish to create the Storage Policy.



Getting Started Deployment on a UNIX Computer - Oracle RAC *i*DataAgent

< Previous Next >

SKIP THIS PAGE IF YOU ARE NOT INSTALLING THIS AGENT ON A UNIX COMPUTER

WHERE TO INSTALL

Install the Oracle *i*DataAgent software on all the nodes of Oracle RAC which satisfy the minimum requirements specified in the System Requirements.

BEFORE YOU BEGIN

Download Software Packages Download the latest software package to perform the install.

Verify System Requirements

Make sure that the computer in which you wish to install the software satisfies the System Requirements.

INSTALLATION

- Logon to the client computer as **root** or as a sudo user.
 If you are installing the software using a sudo user account, make sure that sudo user account is configured on this computer. For more information, see FAQ Install.
- 2. On Unix machine, run the following command to mount the cd:

mount -t iso9660,udf /dev/cdrom /mnt/cdrom

Run the following command from the Software Installation Package or mount point:

If you have only one network interface, press Enter to accept the default network

If you have multiple network interfaces, enter the interface name that you wish to use

The interface names and IP addresses depend on the computer in which the software is installed and may be different from the example shown.

./cvpkgadd

- 3. The product banner and other information is displayed.
 - Press **Enter**.
- 4. Read the license agreement. Type **y** and press **Enter**.
- 5. Press Enter.

6. Press Enter.

interface name and continue.

as default, and then press Enter.

7.

Please select a setup task you want to perform from the list below:

Advance options provide extra setup features such as creating custom package, recording/replaying user selections and installing External Data Connector software.

1) Install data protection agents on this computer

2) Advance options

3) Exit this menu

Your choice: [1]

Certain Calypso packages can be associated with a virtual IP, or in other words, installed on a "virtual machine" belonging to some cluster. At any given time the virtual machine's services and IP address are active on only one of the cluster's servers. The virtual machine can "failover" from one server to another, which includes stopping services and deactivating IP address on the first server and activating the IP address/services on the other server.

You now have a choice of performing a regular Calypso install on the physical host or installing Calypso on a virtual machine for operation within a cluster.

Most users should select "Install on a physical machine" here.

1) Install on a physical machine

2) Install on a virtual machine

3) Exit

Your choice: [1]

We found one network interface available on your machine. We will associate it with the physical machine being installed, and it will also be used by the CommServe to connect to the physical machine. Note that you will be able to additionally customize Datapipe Interface Pairs used for the backup data traffic later in the Calypso Java GUI.

Please check the interface name below, and make connections if necessary:

Physical Machine Host Name: [angel.company.com]

- 8. Press Enter.
- 9. Type the number associated with the **Oracle** *i***DataAgent** and press **Enter**.

A confirmation screen will mark your choice with an "X".
 Type d for Done, and press Enter.

11. Press Enter.

- 12. Type the appropriate number to install the latest software scripts and press Enter.
 - Select **Download from the software provider website** to download the latest software scripts. Make sure you have internet access.
 - Select Use the one in the installation media to install the software scripts from the package or share from which the installation is currently being performed.
 - Select **Use the copy I already have by entering its unix path**, to specify the path if you have the software script in an alternate location.
- 13. Press Enter.

14. Press **Enter** to accept the default path.

- If you want to specify a different path, type the path and then press **Enter**.
- If you want to install the software binaries to an NFS shared drive, specify the directory on which you have mounted the NFS file system and then press **Enter**.

In order to make sure that the client computer has ${\tt read/write}$ access to NFS shared drive, review the steps described in Installing Software Binaries to an NFS Shared Drive.

Do not use the following characters when specifying the path:

!@#\$%^&*():/?\

- 15. Press Enter to accept the default location.
 - Enter a path to modify the default location and press **Enter**.
 - All the modules installed on the computer will store the log files in this directory.
- **16.** Type **Yes** and press **Enter**.

Please specify the client name for this machine.

It does not have to be the network host name: you can enter any word here without spaces. The only requirement is that it must be unique on the CommServe.

Physical Machine Client name: [angel]

Install Calypso on physical machine 172.19.99.62

Please select the Calypso module(s) that you would like to install.

[] 1) MediaAgent [1301] [CVGxMA]

[] 2) UNIX File System iDataAgent [1101] [CVGxIDA]

[] 3) Oracle iDataAgent [1204] [CVGxOrIDA]

[a=all n=none r=reverse q=quit d=done >=next <=previous ?
=help]</pre>

Enter number(s)/one of "a,n,r,q,d,>,<,?" here:3

Install Calypso on physical machine 172.19.99.62

Please select the Calypso module(s) that you would like to install.

[] 1) MediaAgent [1301] [CVGxMA]

[] 2) UNIX File System iDataAgent [1101] [CVGxIDA]

[X] 3) Oracle iDataAgent [1204] [CVGxOrIDA]

[a=all n=none r=reverse q=quit d=done >=next <=previous ?
=help]</pre>

Enter number(s)/one of "a,n,r,q,d,>,<,?" here:d</pre>

Do you want to use the agents for restore only without consuming licenses? [no]

Installation Scripts Pack provides extra functions and latest support and fix performed during setup time. Please specify how you want to get this pack.

If you choose to download it from the website now, please make sure you have internet connectivity at this time. This process may take some time depending on the internet connectivity.

1) Download from the software provider website.

3) Use the copy I already have by entering its unix path

Your choice: [1] 2

Keep Your Install Up to Date - Latest Service Pack

Latest Service Pack provides extra functions and latest support and fix for the packages you are going to install. You can download the latest service pack from software provider website.

If you decide to download it from the website now, please make sure you have internet connectivity at this time. This process may take some time depending on the internet connectivity.

Do you want to download the latest service pack now? [no]

Please specify where you want us to install Calypso binaries.

It must be a local directory and there should be at least 176MB of free space available. All files will be installed in a "calypso" subdirectory, so if you enter "/opt", the files will actually be placed into "/opt/calypso".

Installation Directory: [/opt]

Please specify where you want to keep Calypso log files.

It must be a local directory and there should be at least 100MB of free space available. All log files will be created in a "calypso/Log_Files" subdirectory, so if you enter "/var/log", the logs will actually be placed into "/var/log/calypso/Log_Files".

Log Directory: [/var/log]

Most of Software processes run with root privileges, but some are launched by databases and inherit database access rights. To make sure that registry and log files can be

written to by both kinds of processes we can either make such files world-writeable or we can grant write access If you do not want to assign a group to software, type **no**, press **Enter** only to processes belonging to a particular group, e.g. a and proceed to step 18. "calypso" or a "oinstall" group. We highly recommend now that you create a new user group and enter its name in the next setup screen. If you choose not to assign a dedicated group to Software processes, you will need to specify the access permissions later. If you're planning to backup Oracle DB you should use "oinstall" group. Would you like to assign a specific group to Software? [ves] Please enter the name of the group which will be assigned 17. Type the **Group name** and then press **Enter.** to all Software files and on behalf of which all Software processes will run. In most of the cases it's a good idea to create a dedicated "calypso" group. However, if you're planning to use Oracle iDataAgent or SAP Agent, you should enter Oracle's "oinstall" group here. Group name: oinstall REMINDER If you are planning to install Calypso Informix, DB2, PostgreSQL, Sybase or Lotus Notes iDataAgent, please make sure to include Informix, DB2, etc. users into group "oinstall". Access Permissions for Other Users.Installer will assign Type **d** for done with the selection and press **Enter**. 18. full access rights to root user and its belonging group for all installed Calypso files and its processes.For any This screen is displayed if you do not assign any group to the software and type **no** in other users, you can specify the access permissions now. step 16. However, since you chose not to assign a dedicated group in previous step, make sure you specify sufficient access rights for other users if you are also planning to install Calypso agents involving third party software protection. [X] 1) Allow read permission to other users [X] 2) Allow write permission to other users [X] 3) Allow execute permission to other users a=all n=none r=reverse q=quit d=done >=next <=previous ? =help] Enter number(s)/one of "a,n,r,q,d,>,<,?" here: d</pre> 19. This prompt is relevant only when you install on Solaris. Press Enter to accept the Number of Streams default value for Number of Streams. IMPORTANT : Please read install document "Configure Kernel Parameters - Unix/Macintosh" from "Books Online" before You can type the Number of Streams that you plan to run at the same you start configuring kernel parameters. Please enter the time and then press Enter. total number of streams that you plan to run at the same time. We need to make sure that you have enough semaphores and shared memory segments configured in /etc/system. Number of streams [10] We now need to modify the /etc/system configuration file 20. Press Enter if you do not want the changes to be updated automatically. on this computer. It is done to make sure that there will be enough shared memory and semaphores available for Calypso programs. Please review the changes below and answer "yes" if you want us to apply them to the /etc/system file. Otherwise, the installation will If you want the changes to be made automatically, type Yes and then press Enter. You will come across this prompt when you install the software on the proceed, the changes will be saved to some other file, and earlier versions of Solaris. you will have to apply them manually. set shmsys:shminfo_shmmni=8570 (was 7930)
set shmsys:shminfo_shmseg=8420 (was 7780)
set semsys:seminfo_semmns=10320 (was 9680)
set semsys:seminfo_semmni=8570 (was 7930)
set semsys:seminfo_semmsl=8570 (was 7930) Do you want us to apply these changes now? [no] Press Enter. 21. Changes saved into /etc/system.gal.1744 Press <ENTER> to continue. 22. Press Enter. Although a 'no' answer can be selected to this question during install, the user should make sure the min requirements (below) for shared memory are met, otherwise the backups may fail (the message in logs is 'could not You will see this prompt if you have accepted the default no and pressed Enter in step 20. start the pipeline'). set shmsys:shminfo_shmmax=4199304 set shmsys:shminfo_shmmin=1
set semsys:shminfo_shmmin=640
set semsys:seminfo_shmseg=640
set semsys:seminfo_semnn=640 set semsys:seminfo_semmsl=640 set maxusers=256 Press <ENTER> to continue.

Every instance of Calypso should use a unique set of

23.	Type a network TCP port number for the Communications Service (CVD) and press Enter .	network ports to avoid interfering with other instances running on the same machine.
	Type a network TCP port number for the Client Event Manager Service (EvMgrC) and press Enter .	The port numbers selected must be from the reserved port number range and have not been registered by another application on this machine.
		Please enter the port numbers.
		Port Number for CVD : [8400]
		Port Number for EvMgrC: [8402]
24.	If you do not wish to configure the firewall services, press Enter .	Is there a firewall between this client and the CommServe? [no]
	If this computer is separated from the CommServe by firewall(s), type Yes and then press Enter .	
	For firewall options and configuration instructions, see Firewall Configuration and continue with the installation.	
25.	Type the fully qualified CommServe host name and press Enter .	Please specify hostname of the CommServe below. Make sure the hostname is fully qualified, resolvable by the name
	Ensure that the CommServe is accessible before typing the name; otherwise the installation will fail	services configured on this machine.
		CommServe Host Name: mycommserve.company.com
26.	Press Enter .	Commcell Level Global Filters are set through Calypso GUI's Control Panel in order to filter out certain directories or files from backup Commcell-widely. If you turn on the Global filters, they will be effective to the default subclient. There are three options you can choose to set the filters.
		1) Use Cell level policy
		2) Always use Global filters
		3) Do not use Global filters
		Please select how to set the Global Filters for the default subclient? [1]
27.	Type the number associated with the Client Group and press Enter .	Client Group(s) is currently configured on CommServe cs.company.com. Please choose the group(s) that you want
	This screen will be displayed only if Client Groups are configured for the CommCell	to add this client client.company.com to.
	connicial	[] 1) UNIX
		[] 2) DK
		=help]
		<pre>Enter number(s)/one of "a,n,r,q,d,>,<,?" here: 1</pre>
28.	A confirmation screen will mark your choice with an "X". Type d for done with the selection, and press Enter to continue.	Client Group(s) is currently configured on CommServe cs.company.com. Please choose the group(s) that you want to add this client client.company.com to.
		[X] 1) Unix
		[] 2) DR
		[a=all n=none r=reverse q=quit d=done >=next <=previous ? =help]
		<pre>Enter number(s)/one of "a,n,r,q,d,>,<,?" here: d</pre>
29.	Enter the number associated with the storage policy you want use and press Enter.	Please select one storage policy for this IDA from the list below:
		1) SP StandAloneLibrary2 2
		2) SP_Library3_3
		3) SP_MagLibrary4_4
		Storage Policy: [1]
	If you do not have Storage Policy created, this message will be displayed.	There seem to be no Storage Policies configured on the CommServe. Before you can run any backups of this IDA, you will need to install a MediaAgent, create a Storage Policy
		and assign it to all subclients
	You can create the Storage Policy later in step 31.	Adjusting modes and permissions of files
		Successfully installed Calypso
30.	Type 3 to the Exit option and press Enter . The installation is now complete.	Certain Calypso packages can be associated with a virtual IP, or in other words, installed on a "virtual machine" belonging to some cluster. At any given time the virtual machine's services and IP address are active on only one of the cluster's servers. The virtual machine can "fail- over" from one server to another, which includes stopping services and deactivating IP address on the first server and activating the IP address/services on the other server. Currently you have Calypso installed on physical node
		angel.company.com.

SCHOIC

31.

Now you have a choice of either adding another package to the existing installation or configure Calypso on a virtual machine for use in a cluster.

- 1) Add another package to angel.company.com
- 2) Install Calypso on a virtual machine

3) Exit

Your choice: [1] 3



If you do not have Storage Policy created, follow the procedure given below.

- 1. From the CommCell Browser, navigate to **Policies**.
- 2. Right-click the Storage Policies and then click New Storage Policy.
- 3. Follow the prompts displayed in the Storage Policy Wizard. The required options are mentioned below:
 - Select the Storage Policy type as Data Protection and Archiving and click Next.
 - $\circ~$ Enter the name in the Storage Policy Name box and click Next.
 - From the **Library** list, click the name of a disk library to which the primary copy should be associated and then click **Next**.

Ensure that you select a library attached to a MediaAgent operating in the current release.

- From the MediaAgent list, click the name of a MediaAgent that will be used to create the primary copy and then click Next.
- For the device streams and the retention criteria information, click Next to accept default values.
- Select **Yes** to enable deduplication for the primary copy.
- From the **MediaAgent** list, click the name of the MediaAgent that will be used to store the Deduplication store.

Type the name of the folder in which the deduplication database must be located in the Deduplication Store Location or click the Browse button to select the folder and then click **Next**.

 $\circ~$ Review the details and click Finish to create the Storage Policy.



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Getting Started Configuration - Oracle RAC iDataAgent

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CREATING A RAC CLIENT

After installing the Oracle iDataAgent on the nodes of the RAC, configure the Oracle RAC client using the following steps:

- From the CommCell Console, right-click the Client Computers and then click New Client.
- 2. Select RAC Client from the client list and then click OK.

- In the **Pseudo-client Name** box, type a name for the RAC client.
 - In the **Database Name** box, type the name of the Oracle RAC database to which you are assigning this client.
 - From the **Storage Policy** list, select the storage policy used for the data of the default subclient.
 - Click OK.

To create a RAC client for Windows, go to step 6.

To create a RAC client for Unix, go to the next step.

Select Client: RAC Client
OK Cancel Help
Create RAC Client
General Details Storage Device Encryption
Pseudo-cient Name
DataAgent Orade RAC
Database Name
ORACLE Version
Storage Policy used for the data of default subclient:
Description
OK Cancel Help

Add New Client

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Add Instance				
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TNS_ADMIN Folder (not require	ed)		Brow	se
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		\subseteq	OK Canc	el Help
		C	ок са	ncel Help

- 4. On Unix:
 - Click the **Details** tab.
 - Click **Add** to add an instance for RAC client.
 - From the **Instance Physical Client** list, select an Unix instance client containing the Oracle *i*DataAgent instances that you want to include in the Oracle RAC node.
 - In the **Instance (ORACLE SID)** box, type the name of the instance that you want to include in the Oracle RAC node.
 - In the **ORACLE HOME** box, type or click **Browse** to locate the Oracle application install path.
 - In the **Connect String** box, type the credentials to access the Oracle RAC database. Use SYS login i.e., sys/password@Service for Oracle RAC client. For example, sys/pwdl2@orcl4.
 - In the **TNS_ADMIN** Folder, type or click **Browse** to specify the path for TNS_Admin directory. Not that the TNS_admin path is automatically appended to the path of the \$ORACLE_HOME directory even if you do not specify the path.
 - Click OK.

Repeat this step for each Oracle *i*DataAgent instance that you want to include.

Once you have added the instances, go to step 6.

- 5. On Windows:
 - Click the **Details** tab.
 - Click Add to add an instance for RAC client.
 - From the **Instance Physical Client** list, select an Windows instance client containing the Oracle *i*DataAgent instances that you want to include in the Oracle RAC node.
 - Click **Change User Account** and type the Oracle user name and password credentials.
 - In the **ORACLE HOME** box, type or click Browse to locate the Oracle application

install path.

- In the Connect String box, type the credentials to access the Oracle RAC database. It is recommended to use SYS login i.e., sys/password@Service for Oracle RAC client. For example, sys/pwd12@orcl4.
- In the **TNS_ADMIN** Folder, type or click Browse to specify the path for TNS_Admin directory. Not that the TNS_admin path is automatically appended to the path of the \$ORACLE_HOME directory even if you do not specify the path.
- Click OK.

Repeat this step for each Oracle *i*DataAgent instance that you want to include.

- 6.
- Click the Storage Device tab.
 - In the Storage Policy used for user command backup of data box, select a storage policy name.
 - Click the Logs Backup tab.
 - In the **Storage Policy used for all Archive Log backups** box, select a storage policy name.
 - Click OK.

If you do not have a storage policy created, go to step 9 to create a storage policy.

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- 7. Click **Encryption** tab, if the encryption is enabled.
 - Type the Passphrase value.
 - Click OK.
- 8. After you configure all your instances as appropriate, click **OK**.
- 9. Create a Storage Policy:
 - 1. Click Create Storage Policy.
 - 2. Follow the prompts displayed in the Storage Policy Wizard. The required options are mentioned below:
 - Select the Storage Policy type as Data Protection and Archiving and click Next.
 - $\circ~$ Enter the name in the Storage Policy Name box and click Next.
 - From the Library list, click the name of a disk library to which the primary copy should be associated and then click Next.

Ensure that you select a library attached to a MediaAgent operating in the current release.

- From the MediaAgent list, click the name of a MediaAgent that will be used to create the primary copy and then click Next.
- $\circ\;$ For the device streams and the retention criteria information, click Next to accept default values.
- $\circ~$ Select Yes to enable deduplication for the primary copy.
- From the **MediaAgent** list, click the name of the MediaAgent that will be used to store the Deduplication store.

Type the name of the folder in which the deduplication database must be located in the Deduplication Store Location or click the Browse button to select the folder and then click **Next**.

 $\circ~$ Review the details and click Finish to create the Storage Policy.



Quick Start Guide - Oracle RAC iDataAgent

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Getting Started Backup - Oracle RAC iDataAgent

	< Previous (Next)
WHAT DOES NOT GET BA	CKED UP
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	WHAT DOES NOT GET BA Oracle application files associa Use the File System components. omputers <rac client=""> te. ontroller window of the e Backup History. Right-click job.</rac>

Getting Started Restore - Oracle RAC iDataAgent

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As restoring your backup data is very crucial, it is recommended that you perform a restore operation immediately after your first full backup to understand the process. The following section explain the steps for restoring a database.

- 1. From the CommCell Browser, navigate to **Client Computers** | *<RAC Client>*.
 - Right-click the <Instance>, point to All Tasks, and then click Browse Backup Data.
- 2. Click OK.

- In the right pane of the Browse window, click the <Instance> and select all the entities.
 - Click Recover All Selected.
- 4. Click Advanced.

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- Click the Options tab.
 - In the Reset Logs box, select None.
 - Select the Switch Database mode for Restore checkbox.
 - Click OK.

6. Click OK.

- 7. You can monitor the progress of the restore job in the **Job Controller**.
- Once the restore job has completed, right-click the <Instance> and click View | Restore History.

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Reset Logs
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OK Cancel Help
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Cetalon Connects
Restore Control File Restore Archive Log Restore SP File
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9. Click **OK**.

🗪 Restore History Filter for: ORCL × Destination Client Computer: pseudo1 -🔲 Specify Time Range (GMT-08:00) Pacific Time (US & Canada) \mathbf{T} -End Time--Start Timeue 07/12/2011 on 07/11/2011 08:51 AM 08:51 AM Ē Job Type 🔽 Recovery/Retrieve 🛛 🔽 Stub Recall Job Status 💿 All C Failed C Killed ОК Cancel Advanced Help 🗵 pseudol × 👋 Restore Job History of Or... × over Jobs | Stub Recall Jobs | View Job De Paths View Events View Logs Send Logs Resubmit Job Total records found: 1 💽 Job Controller 🗙 N Job Controller Flags Job ID Operation Client Com... Agent Type Subcli Close Previous Next
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10. You can view the following details about the job by right-clicking the job:View Restore Items

- You can view them as Successful, Failed, Skipped or All.
- View Job Details
- View Events of the restore job.
- View Log files of the restore job
- View Paths
- View RMAN Logs
- 11.

Once the database is restored, verify that the restored database and log files are available in the original location.

CONGRATULATIONS - YOU HAVE SUCCESSFULLY COMPLETED YOUR FIRST BACKUP AND RESTORE.

If you want to further explore this Agent's features read the **Advanced** sections of this documentation.

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