

Technical Note

Asigra Cloud Backup™: Agentless Backup of Oracle on Windows, Linux and Unix Servers



Oracle Database Enterprise Data Protection

Today the amount of data in small and enterprise environments is continuing to grow exponentially year over year. The complexity of managing large and growing amounts of production data can be daunting. Securing and protecting that data can be challenging, requiring the right software as well as short and long-term planning. An overall Oracle Database data protection strategy begins with the determination of backup and recovery requirements as backup policies for onsite and offsite.

Oracle database backup and recovery challenges include:

- Oracle DBA Knowledge
- Oracle Recovery Manager (RMAN) backups are typically performed and managed separately from a larger centralized data protection solution

Defining the right Asigra Backup Strategy for Your Oracle Database

Asigra offers 2 types of backup policies for Oracle Database Servers.

- 1 **“Oracle Server” Backup set type** in DS-Client (Windows or Linux) offers easy and fast usage to backup and restore Oracle Databases. It is not required to be an Oracle DBA when using this backup set type. All the scripts are created automatically by the DS-Client in order to make it user friendly and easy to use. All the administration, schedules, retentions, validations, logs, trigger backup and restore are done directly using the DS-User GUI. The data is transferred from the Oracle Server to the DS-Client in order to be processed, deduplicated and compressed before transmission to the DS-System.
- 2 **“Oracle-SBT” Backup set type** is available in DS-Client Linux. It is an Enterprise level approach, which offers the ability to customize all RMAN scripts in order to backup and restore the Oracle Database. It is recommended that an Oracle DBA is consulted when using this backup set type. The backup and restore procedures are done using RMAN advanced scripts in order to take advantage of Oracle Incremental backup functionality as well as multichannel functionality. All the administration, schedules, retentions, validations, logs, trigger backup and restore are done directly using Oracle Enterprise Manager or using RMAN directly through the command line. The data could be deduplicated (using oracle backup incremental functionality of RMAN) and compressed in the Oracle Server before being transmitted to the DS-Client, or if it is preferable the data could be transmitted from the Oracle Server to the DS-Client in order to be processed, compressed and encrypted before transmission to the DS-System.

Key Business Benefits:

- Supports Oracle 11g, 10g, 9i databases running on Windows, Linux or Unix Operating Systems (x86 & x64 Platforms)
- Offers flexible restore options such as individual tablespace, point in time restore or to a specific system change number (SCN)
- Single point management for all Oracle protection operations

Platform Support:

- Microsoft Windows Server 2003/2008 Family (Including R2 versions) on x86 and x64 platforms
- Red Hat Enterprise Linux 6, 5, 4, and 3 (on x86 & x64 platforms)
- SUSE Linux Enterprise Server 11, 10 and 9 (on x86 & x64 platforms)
- UNIX Solaris 10 and 9, AIX 7, 6, and HP-UX 11.23 and 11.3

Key Features and Benefits

Agentless Technology

Asigra Cloud Backup™ doesn't require the installation of any agent on the Oracle Server.

Fast and Hot Backups

Being a mission critical application, your Oracle implementation cannot afford downtime windows for maintenance and backup. Asigra has the ability to backup Oracle quickly while it is online and can be configured to eliminate the use of scripts and manual procedures to reduce administration costs.

Application Consistency and Granularity

Asigra provides a flexible level of data protection and ensures fast, simple data recovery. Application consistency is achieved by quiesce requests that pause the state of the Oracle databases to ensure an accurate point in time data capture. Granularity is achieved by backup and restore of tablespaces, control files, and logs separately or as an entire database.

Restore and Recovery Assurance

Asigra provides restore and recovery assurance to ensure data is not only backed up, but more importantly always recoverable. Autonomic self-healing provides a constant data health check on backed up data and fixes problems that arise. Restore validation automatically tests recoverability of data on the backend of the cloud and exercises disaster recovery plans without impacting Oracle.

“Oracle Server” Backup Set Type

Automatic RMAN Scripting

Asigra DS-Client automatically creates all the RMAN scripts while executing the backup set.

Easy To Use and User Friendly

Asigra DS-User offers the ability to create the backup set using the Asigra New Backup Set Wizard. One click to backup, and a simplified procedure to restore.

Data Reduction, WAN Optimization, and Security

Enterprise data volumes are rapidly growing and so are the size of Oracle databases. Minimizing storage capacity and WAN usage is critical to reducing overhead and costs as well as ensuring backup windows and recovery time objectives (RTO) are met. Asigra provides data compression, data de-duplication, and incremental forever backup as well as data encryption to minimize and secure data sent over the WAN for cloud backup. Asigra Cloud Backup is NIST-FIPS 140-2 certified and has in-flight and at-rest AES 256 encryption.

Use Maximum Backup Channels

DS-Client can advise RMAN to open and use multiple channels during the database dump (1 to 32 channels). Multiple channels can only be used for multiple datafiles of a tablespace but not for multiple tablespaces. That means if a tablespace has more than one datafile then these datafiles can be simultaneously backed up using multiple channels but tablespaces are still dumped and backed up one by one.

“Oracle-SBT” Backup Set Type

Customizable RMAN Scripting	Ability to create and customize your own scripts depending on your backup policy requirements.
RMAN and SBT Integration	Oracle RMAN provides a familiar and native interface to initiate backup and restore procedures that capture and restore relevant data to and from the Oracle database. Asigra also provides an Oracle Serial Backup Tape (SBT) compliant interface that tightly integrates RMAN with Asigra backup and restore features ensuring fast and reliable data protection.
Oracle Enterprise Manager	Ability to use Oracle Enterprise Manager as a GUI in order to setup schedules, retention and administration of the Oracle backups.
Oracle RAC Support	Asigra Cloud Backup supports Oracle RAC Environments increasing database availability and recoverability.
Work with existing RMAN Scripting	Asigra provides the ability to use existing RMAN scripts to reduce time consuming scripting operations.
Oracle (CBT) Feature	Asigra provides the ability to use the incremental functionality from RMAN in order to take only the blocks changed between backups operations.

Should you have any further questions please contact us at info@asigra.com or speak with your dedicated Asigra Sales Manager.

About Asigra

Trusted since 1986, Asigra provides organizations around the world the ability to recover their data now from anywhere through a global network of partners who deliver cloud backup and recovery services as public, private and/or hybrid deployments. As the industry’s first enterprise agentless cloud-based recovery software to provide data backup and recovery of servers, virtual machines, endpoint devices, databases and applications, SaaS and IaaS based applications, Asigra lowers the total cost of ownership, reduces recovery time objectives, eliminates silos of backup data by providing a single consolidated repository, and provides 100% recovery assurance. Asigra’s revolutionary patented Recovery License Model provides organizations with a cost effective data recovery business model unlike any other offered in the storage market. Asigra has been recognized as a Gartner Cool Vendor and has been included in the Gartner Magic Quadrant for Enterprise Backup and Recovery Software since 2010.

More information on Asigra can be found at www.recoveryiseverything.com

