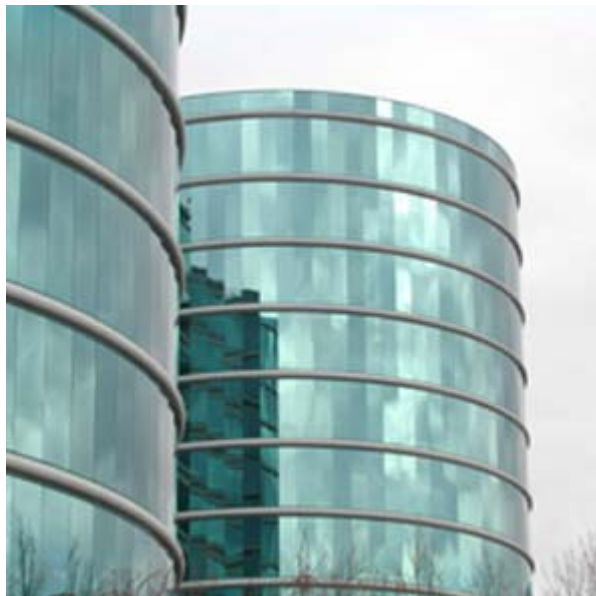


Waters

THE SCIENCE OF WHAT'S POSSIBLE.™



Embedding Oracle Secure Backup

Oracle OpenWorld, Session ID -298774

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Enterprise Software Solutions Group



- The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions. The development, release, and timing of any features or functionality described for Waters Data products remain at the sole discretion of Waters Corporation.

Facts and Figures

- Waters is a Separations Technologies company, Designing and manufacturing Instrumentation, Chemistries and Software for the Laboratory
- Established in 1958
- \$1.47 billion in annual revenue
- Multiple manufacturing and distribution centers worldwide
 - All facilities cGMP-compliant and ISO 9001-2000 certified
- > 5,000 employees with an average of 10 years of service (>16 yrs in field)
 - Many of whom were once customers
- > 1500 Direct sales/service in 97 offices serving 54 countries

Scientific Software Solutions

- Develop analytical scientific applications;
 - Real time control for Laboratory instruments
 - Data Acquisition, Data Reduction, Knowledge and intellectual property Management
- Customers -- Food and Beverage, Food Safety, BioTech, Chemical, Environmental
- Components of the Waters Laboratory Informatics Suite are in all of the top 50 global Pharmaceutical companies
- Waters provides complete solutions from deployment to ongoing service and support

About Waters

As a Software Developer

- Software development and service centers:
 - Americas (US), EMEA (UK, Germany, Romania) APAC (Japan)
- Two major production product offerings
 - *Empower* - An OLTP Instrument Control and Data Reduction Package
 - *SDMS / VP* - A Data Mart that maintains file and print data from a verity of Laboratory Instruments and Printers. Additionally, it has an Electronic Laboratory Notebook and Work Flow engine for managing Intellectual Property and business processes in the laboratory
- Metrics for the Software group
 - > 400 employees
 - > 250,000 Named Users licenses deployed
 - > 2,500 Enterprise Empower networks installed
 - > 60,000 Empower databases instantiated
 - > 500 Data Warehouse environments

Embedding Oracle Technologies

- Oracle Database 10gR2 provides backbone for current Laboratory Informatics applications
- Data amount in typical customer deployment:
 - <100GB within Oracle database (OLTP)
 - < 10TB with in Oracle database (DSS)
 - > 10TB file system data (images outside the database)
- End-users are scientists not DBAs or system administrators
 - Customers can't access database directly (per Oracle embedded license agreement)
- Primary Platforms:
 - Windows (32-bit) – Initial release: Oracle 6
 - Solaris SPARC (64-bit) – Initial Release: Oracle Database 10gR2

Customer Backup Procedures

Current Application Releases

- Backup of Water's applications include both database and non-database files
 - Oracle Database backup to disk managed via the application using
 - Recovery Manager (RMAN) – Solaris
 - Custom scripts - Windows
- Most larger customers utilize tape backup
 - Oracle database is backed up to disk (via application), then disk backup location backed up to tape via customer's backup software
 - Non-database files usually backed up to tape only
- Database restore from tape now a 2-step process:
 - End-user restores tape backup to disk location
 - Database then restored / recovered from disk location through Water's embedded application procedures

Data Protection Requirements

Customer Requested Enhancements

- Ease of management with a more integrated database and file system backup solution
 - Direct restoration from media management software
- Networked backup solution
 - Preferred network interface so backup track could be directed over separate network
- Optimized application backup insuring consistency between database and file system backup
- Tape vaulting (rotation) between multiple sites
- Support for Backup Operations
 - Eliminate need for 3rd party backup utility to backup Waters applications.
 - Prefer Waters to provide complete out-of-the-box solution for their applications: database and file system data

Solution: Oracle Secure Backup

New Revenue Opportunity

- Embed Oracle Secure Backup in Water's applications
 - Expands license and professional services revenue opportunities
- Oracle Secure Backup will be licensed as an application option
- Anticipate about 5000 Waters customers will initially deploy OSB
 - Larger deployments are primary OSB prospects
- Waters will offer full professional services relating to OSB:
 - Onsite installation / deployment / Configuration
 - Ongoing support
- Roll-out strategy for Oracle Secure Backup:
 - Phase 1 – Introduce OSB as the "*recommended*" backup solution
 - Phase 2 (next application versions) – OSB is the "*preferred*" solution and only Waters supported solution

Upcoming Enhancements

Empower and SDMS – Next Versions

- Waters deploys consistent Oracle product versions across all Applications
- The next version cycle will be upgraded Applications to Oracle Database 11gR2 taking advantage of new technologies:
 - Secure Files
 - Real Application Testing
 - Active Data Guard
 - Advanced Compression
 - Database Vault
 - Business Intelligence Enterprise Plus

Upcoming Enhancements

Empower and SDMS – Next Release Cycle

- Oracle Secure Files will be leveraged moving files now outside database to within database
 - Oracle database size will increase from <100Gb to up to 40Tb
 - Decreases requirements for a separate external File System
- Other 11g R2 capabilities will be included as application options
- Oracle BI EE will be offered as an option for both Current and Next generation products
- Oracle ILM tool for long term data management

Empower and SDMS – Next Release Cycle

- Backup / recovery enhancements
 - Applications will utilize RMAN eliminating custom scripts
- Oracle Secure Backup environments:
 - Integrated tape backup solution for all Water's Laboratory Informatics applications both database and non-database files
 - Oracle databases backups will utilize RMAN and OSB
 - Eliminates 2-step backup / restore of Oracle database to and from tape
 - Waters will provide all service / support for data protection of their applications
- Non-OSB environments:
 - Water's applications will backup the database to disk via RMAN
 - Tape backup process unchanged – 2-step non-integrated process

Summary - Waters Corporation

Leveraging Oracle Secure Backup

Oracle Secure Backup provides:

- **A Long Term Archive (LTA) solution integrated with our Management tool set that provides out-of-the-box data protection solution for Waters customers**
 - Integrated backup / restore of the Oracle database and LTA components to tape
 - Integrated Catalog
 - Simplifies backup and restore process eliminating manual step moving disk backup to / from tape
- **Improves scalability of database backups / restores**
 - Shrink Backup Window Requirements
 - Size of database backups will exponentially increase with next application releases
 - Files outside database will decrease by same amount
- **Additional revenue opportunities**
 - Licensing and professional services

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