




ORACLE®

The Fastest & Most Cost-Effective Backup for Oracle: What's New in Oracle Secure Backup 10.2

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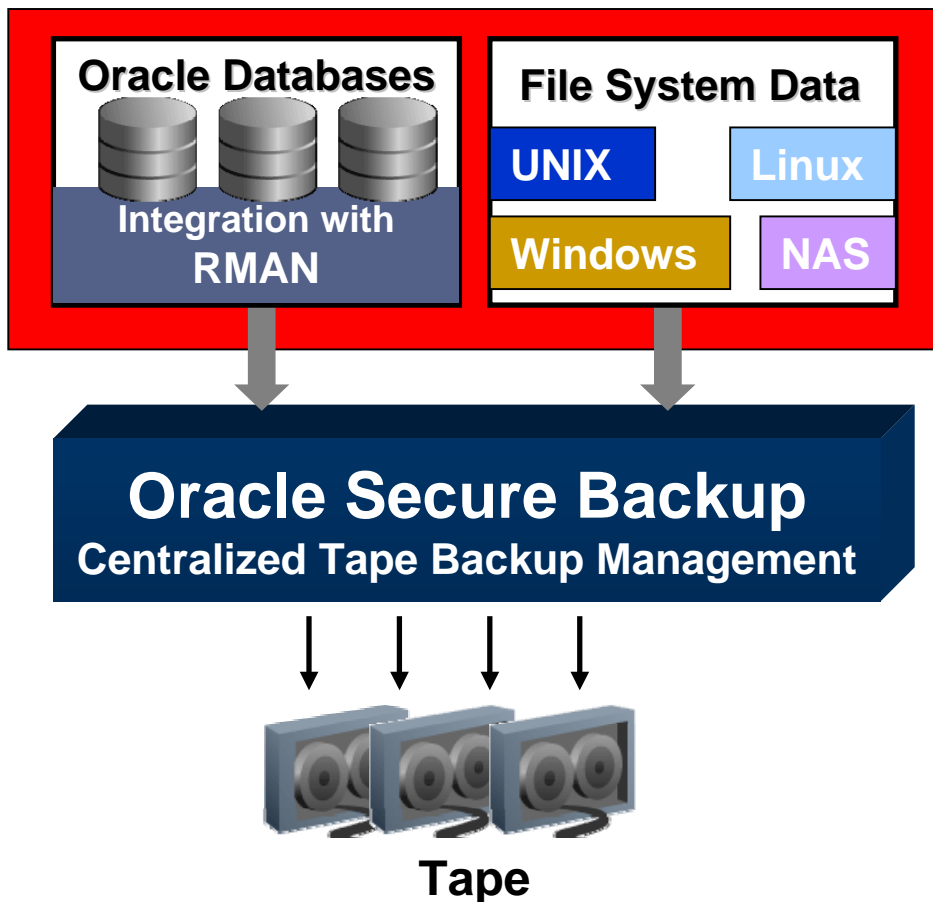
The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions. The development,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

Agenda

- Oracle Secure Backup Overview
- OSB 10.2 New Features
- Q&A

Oracle Secure Backup

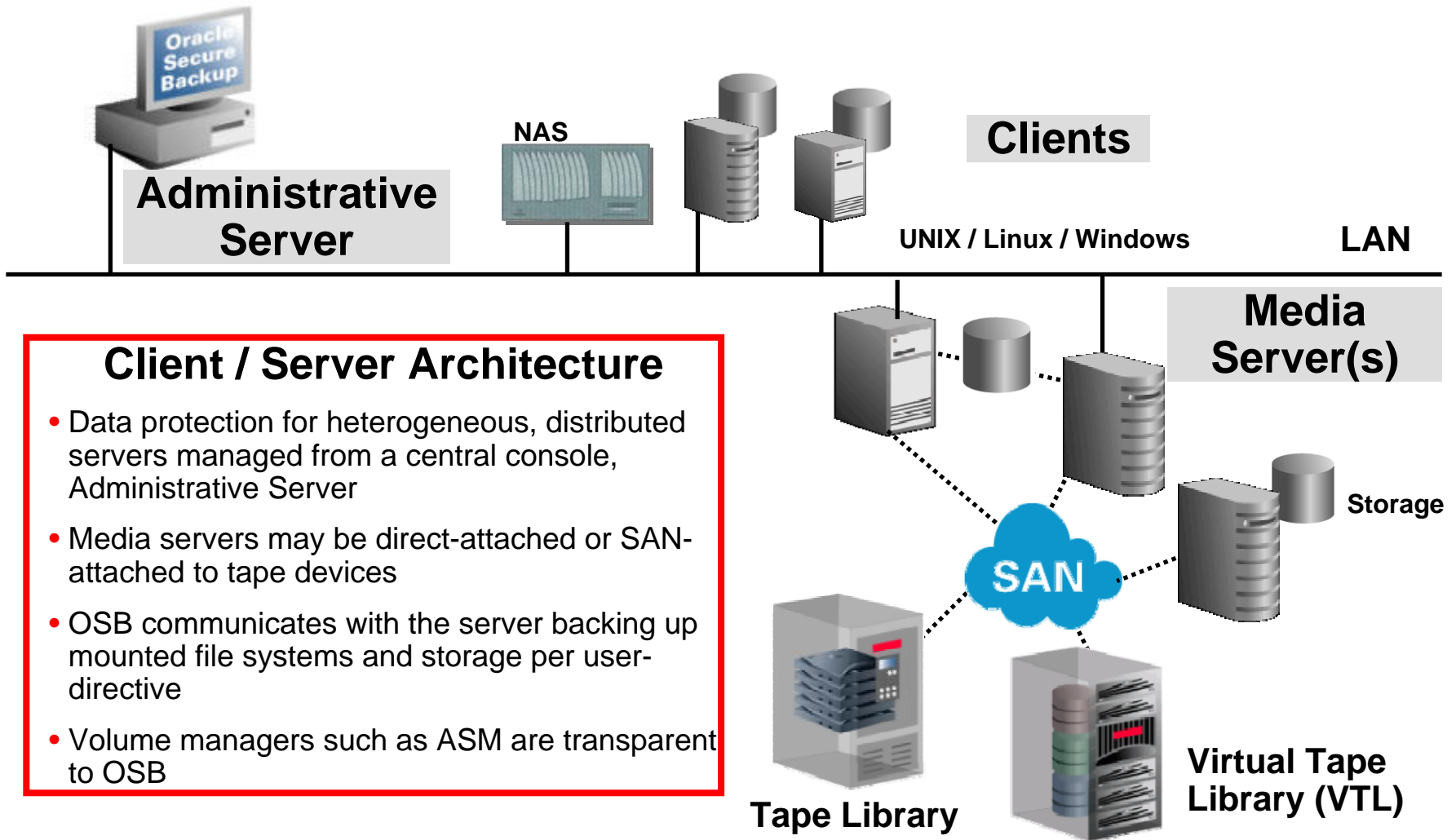
Integrated Tape Backup Management



- Protects entire environment
 - Oracle Database 11g, Oracle Database 10g, Oracle9i
 - Application files
- Built-in Oracle integration
 - Single-vendor advantage
- Fastest backup for Oracle
 - 25-40% faster than competition
- Lowest cost
 - \$3,000 per tape drive
 - Free Express version bundled with Oracle Database
- Product availability:
 - OSB 10.1, OSB 10.2

Oracle Secure Backup (OSB)

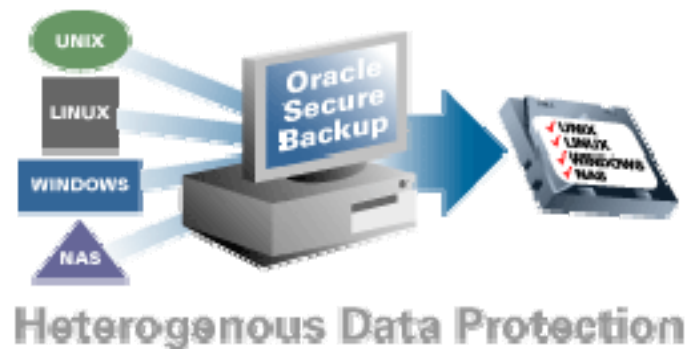
Centralized Tape Backup Software



Oracle Secure Backup 10.2

Enhancements

- **Increased Security for data and backup domain**
 - Backup encryption for file systems and Oracle database
 - Hardening of security architecture between client and media server
- **Advanced media management**
 - Vaulting
 - Tape duplication
 - StorageTek ACSLS support
- **Improved Manageability**
 - Automated backup of OSB catalog
 - Policy-based migration from VTL to tape
- **Improved Performance**
 - Tighter integration with the Oracle Database reduces data movement overhead
 - Eliminates backup (and reads) of committed undo



Advanced Functionality at NO Extra Cost!

Security: Data and Backup Domain

Policy-based management

- **Securing backup data on tape**



- Backup encryption protects data on tape while onsite, offsite or lost
- User-defined encryption algorithms AES128, AES192 or AES256
- Backup encryption policies at backup, host or domain level

- **Guarding access to the backup domain**

- User-level access control
- Direct access to tape devices restricted to “Trusted” hosts
- Embedded SSL technology provides secure transport of backup data and messages between two-way authenticated servers



Backup Encryption

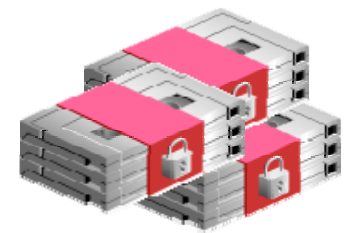
Host Policies & Key Management

- Backup encryption policies defined at host level or use global defaults
- Scheduled or “Backup Now” encryption leverages host encryption settings

Backup Encryption Policies

Encryption Key Policies

Host obe11g	
IP interface name(s):	obe11g.us.oracle.com
Status:	in service
Roles:	client admin mediaserver
Access method:	ob
Encryption:	<input type="radio"/> required <input checked="" type="radio"/> allowed
Algorithm:	<input type="radio"/> aes128 <input checked="" type="radio"/> aes192 <input type="radio"/> aes256
	<input checked="" type="radio"/> duration 1 month
	<input type="radio"/> never
	<input type="radio"/> system default
	<input type="radio"/> per backup
	<input checked="" type="radio"/> transparent
	<input type="radio"/> use passphrase <input type="text"/> verify passphrase <input type="text"/>
TCP/IP buffer size:	<input type="text"/> bytes
Key store:	<input type="radio"/> Add a key to the keystore without making it active
Certificate key size (in bits):	1024
	<input type="checkbox"/> Suppress communication with host



Managing Encrypted Backups

- Protecting backup encryption keys is critical
 - OSB Administrative Server manages and stores encryption keys for backup domain
 - Regularly backup the OSB catalog
 - Keys used for transparent mode RMAN encryption are stored in Oracle Wallet not OSB key stores
 - Oracle Wallet may be backed up to tape using OSB
- Transparent restoration of OSB encrypted backups within same domain
- Transient encryption option for restore at alternate location



Vaulting

Automates Rotation of Tapes Between Locations

- Rotation policy is associated with a media family
 - Tapes are moved between locations based on rotation policy
 - Rotation reports including pick and distribution list assist with physical tape movement

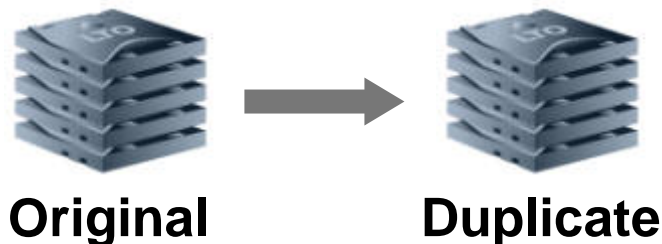
Media Family Full	
Volume ID used:	<input type="radio"/> System default
	<input checked="" type="radio"/> Unique to this media family
	<input type="radio"/> Same as for media family
	<input type="radio"/> From file <input type="text"/>
Volume expiration:	<input checked="" type="radio"/> Time Managed
	<input type="radio"/> Content managed
Write window:	1 week
Keep volume set:	3 weeks
Appendable:	<input checked="" type="radio"/> yes <input type="radio"/> no
Rotation policy:	Test
Volume duplication policy:	Two_copies

Rotation Policy Test	
Rotation rule(s)	vlib : windowclosed : 2 hours Demo : arrival : 6 months Media_Recycle_Bin : arrival : disabled
	Location: Demo Event: firstwrite Duration: disabled Insert into position: last
	<input type="button" value="Add"/> <input type="button" value="Remove"/>

Configured locations and associated duration.

Automated Tape Duplication

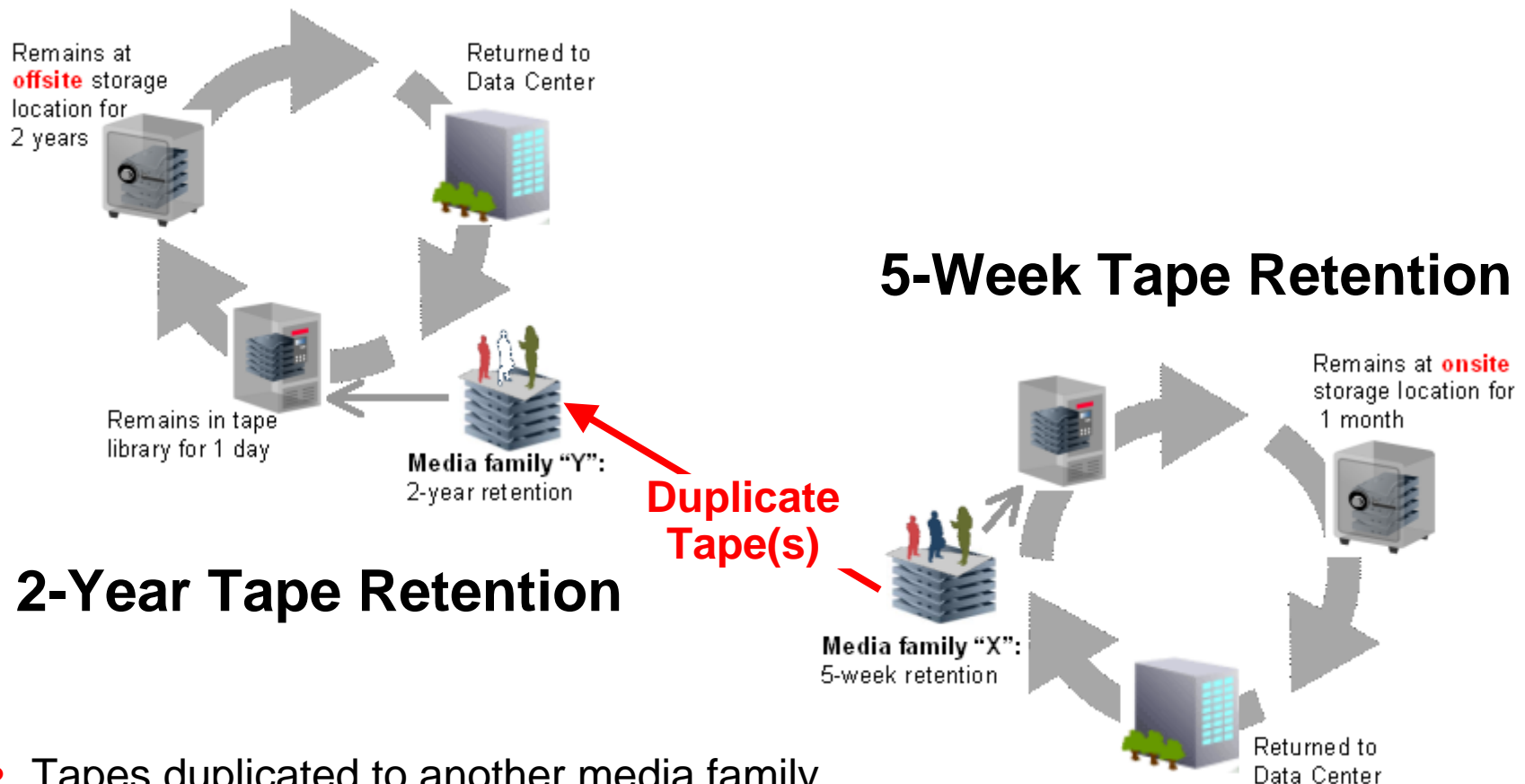
- Duplication policy associated one or more media families
- Tape duplication may be scheduled or on-demand
- Vaulting (rotation policy) operation automatically checks duplication policies to determine if duplication is required prior to tape movement



- Seamlessly restore from original or duplicate
- Duplicate copy may have different retention policy
- Migration from physical tape to Virtual Tape Library (VTL)

Policy-Based Media Management

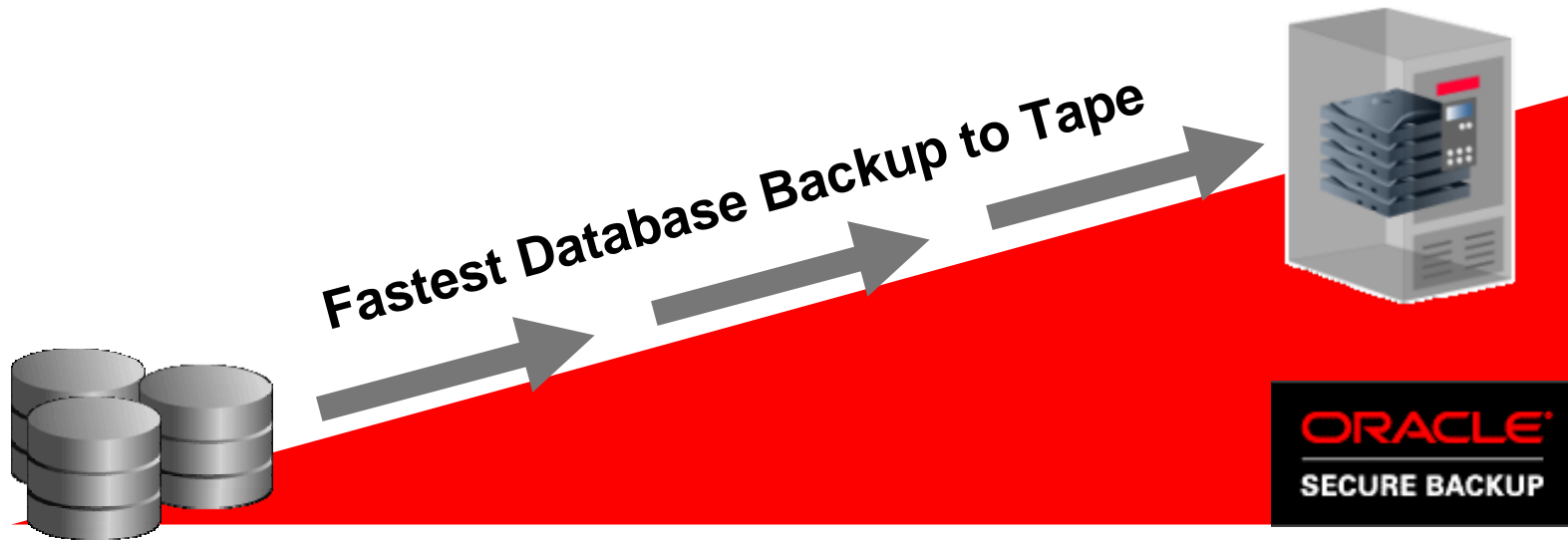
In Action...



- Tapes duplicated to another media family may have different retention and rotation schedule than original tape

Peak Backup Performance

ORACLE[®]
SECURE BACKUP



- Oracle Secure Backup and Recovery Manager (RMAN) provide exclusive integration points
- Fastest and most efficient tape backup for the Oracle Database:
 - Oracle Secure Backup 10.1- available now
 - Backup only currently used blocks
 - Oracle Secure Backup 10.2 – upcoming release
 - Eliminates backup of committed undo
 - Optimization of SBT-allocation buffers

ORACLE[®] **11g**
DATABASE

ORACLE[®]

Oracle Data Center

Oracle Secure Backup Deployments

- Oracle IT uses OSB in production
 - Migrating from 3rd party tape backup software
 - Over **80TB+** protected by OSB 10.1
 - Over **3PB+** planned deployments of OSB 10.2 in next 12 months
- Benefits obtained
 - 25% faster NAS backups
 - Better tape drive utilization in SAN environments



Over \$1.5 Million Savings!





Q & A

QUESTIONS
ANSWERS