

Smart Solution: Oracle Database Appliance X5-2 & StorageTek SL150 Modular Tape Library

Optimized for Maximum Data Protection

Exponential data growth, the “keep everything forever” mindset, backup and recovery requirements, and business continuity drive the need for maximum data protection. Yet high costs and increasing complexity often impact a company’s ability to effectively protect its data for the long-term. The combination of Oracle Database Appliance X5-2 (“ODA X5-2”) and Oracle StorageTek SL150 Modular Tape Library (“SL150”) offers cost effective data protection and, when combined with Oracle Secure Back-up (“OSB”), provides an end-to-end solution that is fully integrated and optimized to work together.

Solution Overview

The ODA X5-2 is a fully redundant engineered system, built with the world’s most popular database – Oracle Database – that saves customers time and money by drastically simplifying deployment, maintenance, and support of high availability solutions. The fully integrated system of software, servers, storage, and networking delivers high availability database services for a wide range of custom and packaged online transaction processing (OLTP) and data warehousing applications. The ODA X5-2 consists of two nodes for high availability and offers double or triple mirrored redundancy using Automatic Storage Management Software. With the addition of Oracle VM, the ODA X5-2 is the perfect clustered solution for Oracle Databases, Middleware, and various Applications.

ODA’s high level of redundancy means the chances of a physical failure are remote but still possible. Natural disaster, fire, logical corruption, accidental deletions, and programming errors can still damage your data. Thus, the SL150 modular tape library provides an efficient backup solution for the ODA and offers maximum data protection.

Oracle’s StorageTek SL150 modular tape library provides simple and scalable data storage. The SL150 is the first scalable tape library designed for growing, small- and medium-sized businesses, as well as large enterprises with remote sites. Built from Oracle software and StorageTek library technology, the SL150 delivers an industry-leading combination of ease of use and scalability, making it ideal for data protection



STORAGETEK



DATABASE APPLIANCE

KEY SOLUTION FEATURES

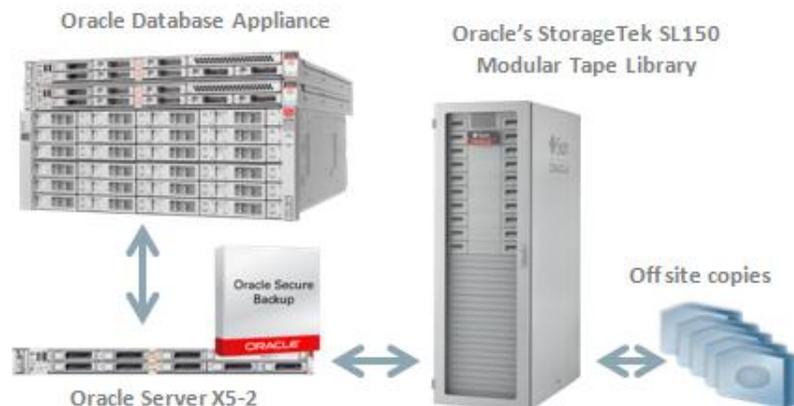
- Scalability – ODA and SL150 can scale to keep up with your data growth (up to 72 cores and up to 750TB native storage capacity, respectively)
- High Availability built in – double or triple mirroring storage redundancy and redundant, hot swappable parts
- Fully integrated system of hardware and software

KEY SOLUTION BENEFITS

- Full Protection – Eliminates all risks from disk-based only solutions
- Simplicity – OSB and the SL150 are designed to be easily installed with ODA
- Performance – OSB is 25%-40% faster than other backup software applications for Oracle Database
- Cost efficient – Best TCO on the market and low licensing costs
- Single-vendor support

applications.

Solution Architecture



ODA DATA PROTECTION CONFIGURATION

The following components provide a maximum data protection solution:

- **Oracle Database Appliance X5-2**
- **Oracle Server X5-2** (or any media server) to host the Backup Software application
- Any **Backup Software application** that supports Oracle Linux and Real Application Clusters, such as:
 - Oracle Secure Backup
 - EMC Networker
 - Symantec Netbackup
 - Commvault Simpana
- **StorageTek SL150 Modular Tape Library** with LTO-6 tape drives

Secure, High Performance, Scalable, and Cost Efficient Data Protection

Fast and Secure

When the Oracle Database Appliance is combined with an SL150, it provides fast backup and restore rates. The speed of each tape drive in the SL150 allows the library to meet and in many cases exceed the speed and performance of comparable disk based solutions. The ODA Data Protection Solution adheres to the 3-2-1 rule of data protection and fully protects the ODA against all types of potential data loss.

High Performance

The ODA is a fully redundant integrated system that reduces the element of risk and uncertainty to help customers deliver higher availability for their databases. Also, OSB is tightly integrated with Oracle Recovery Manager (RMAN) and delivers fast, efficient backup to and from tape. While the ODA Data Protection solution works best with OSB, hosted on an Oracle Server X5-2, the solution also works with any backup software that is Oracle Linux based and supports real application clusters. OSB has low TCO licensing and is 25%-40% faster than other backup software for Oracle Database.

Scalable

Both the ODA and SL150 scale capacity and performance as needed. With the ODA, customers can start with a minimum of 2 core licenses and scale to a maximum of 72 core licenses. The SL150 is the only entry-level tape library with scalability, which scales 10x its base capacity. The library can keep up with data growth and multiple ODAs by scaling from 30 to 300 slots (from 75TB to 750 TB native capacity LTO6). Add performance to the library by increasing tape drives from 2 to 20. The library can sufficiently store full and incremental backups for a single ODA in most situations, thus providing a long term storage retention repository for company critical data. The ODA Data Protection solution is ready for future and long-term growth.

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Hardware and Software, Engineered to Work Together

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Low TCO

For a fraction of the overall ODA cost, the SL150 offers full data protection. The ODA Data Protection solution minimizes costs because it does not require integration to a complex Enterprise Backup infrastructure and avoids any costly backup software upgrades. Additionally, the ODA has capacity-on-demand licensing, which means customers only pay for what they need, making it an affordable solution. The SL150 minimizes the data center footprint with best-in-class scalability and density – up to 1900 TB (LTO 6 compressed) and 20 tape drives in 21U.

Smart Backup Solution

By utilizing the SL150 as a backup solution for the ODA X5-2, return on investment and total cost of ownership are improved. Only Oracle provides fully-integrated, engineered tape solutions that are designed to simplify management and maximize performance. The smart combination of ODA X5-2 and StorageTek SL150 with Oracle Backup Software provides a high-performance backup and restore system to protect your data and business.

Contact Us

For additional details on Oracle's StorageTek data protection solutions or Oracle Database Appliance, please visit us at <http://www.oracle.com/goto/tape> or <http://www.oracle.com/engineered-systems/database-appliance/index.html>. Alternatively, call +1.800.ORACLE1 to speak to an Oracle representative.

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