DIVA Content Storage Management and Oracle Storage Systems for Media and Entertainment

Managing digital assets in broadcast and production environments can be extremely complex without intelligent software applications and powerful, yet flexible, hardware platforms. As higher resolution digital formats drive exponential growth in file sizes, the supporting digital archives and workflow solutions need to scale to support the requirements of today and the future. Oracle's storage hardware and Oracle's Front Porch Digital DIVA content storage management (CSM) software work together to deliver an integrated solution that provides the performance, scalability, and flexibility that today's production and broadcast environments demand.

Solution Overview

Oracle's digital storage solutions for media and entertainment lead the industry in performance, scalability, availability, and total cost of ownership (TCO). When these storage systems are combined with DIVA CSM software, they deliver an enterprise storage solution designed to meet the needs of the most-demanding media and entertainment environments.

The solution provides CSM for broadcast and production and integrates with common platforms. DIVA CSM software—with Oracle's Front Porch Digital DIVArchive as its core component—is suitable for mission-critical applications and large-scale operations, and is enhanced by Oracle's highly scalable, high-performance digital storage systems.

Integration

This solution for content storage management is interoperable with a wide range of broadcast applications and video devices, including systems from Avid, Grass Valley, Pebble Beach, and many more.

Rapid Access

Video is quickly delivered from the Oracle storage content repository to multiple applications or clients on the network. Partial restoration based on timecodes allows frame-accurate retrieval of video clips from larger segments, improving workflow performance.

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FLASH STORAGE
SYSTEMS

DIVA CONTENT STORAGE MANAGEMENT SOFTWARE AND ORACLE STORAGE SYSTEMS

DIVA CSM software and Oracle storage systems provide an end-to-end digital asset management solution for broadcast, production, and rich media distribution organizations.

ORACLE

Hardware and Software, Engineered to Work Together

Content Protection and Long-Term Preservation

This complete solution for media and entertainment continuously verifies digitized content by generating, storing, and verifying checksum values when transferring data between a source and a storage medium. Included with every DIVArchive system, Oracle's Front Porch Digital DIVAprotect constantly monitors DIVArchive to gather detailed information about the movement of content through the file infrastructure, logging statistics, and the success and failure of operations, providing a method for proactive content and storage management.

Policy-Based Storage Engine

Redundant systems protect your data while an intelligent policy-based engine provides user-defined settings that manage video access and archiving, pushing infrequently used content to different storage tiers.

Inline Transcoding

Digitized content can be transcoded on the fly to the desired format while it is being moved to or from DIVArchive. Any number of transcode engines can be deployed in a single DIVArchive instance providing infinitely scalable transcoding throughput.

Serviceability

DIVArchive supports replaceable components without operation disruption; has SNMP connectivity to existing facility monitoring systems; and is supported with 24/7 phone service and secure virtual private network (VPN) access.

Key Features and Benefits

DIVA CSM software combines with Oracle's storage hardware to revolutionize digital archiving. Key features and benefits include:

» **Digital file-based workflows.** Store, replicate, access, transcode, restore, or perform a timecode-based partial restoration of any digitized asset encoded in any format. A policy-based engine automates these tasks.

» **Reliability and scalability.** Oracle storage hardware and DIVA CSM software are architected for mission-critical environments.

» **Multisite support.** Distribute content across multiple sites and manage content from a central location for easy and fast access, as well as for disaster recovery planning.

» **Ability to preserve and secure content.** Ensure that content is protected, secure, intact, and highly available.

» **Fast access to content.** Perform high-performance search and retrieval of media assets or any subset of media assets, regardless of whether they are local or remote.

» **On-premise and cloud storage support.** Oracle disk-based and tape-based storage plus Oracle's Front Porch Digital LYNX cloud-based storage are supported.

» **Media management.** Authorized users can retrieve, track usage for, and manage access to specific content.

» **Integration.** Oracle storage hardware and DIVA CSM software integrate with existing broadcast and video management applications such as media asset management (MAM), non-linear-editing (NLE), traffic, automation, and other newsroom systems, including existing production and post-production shared storage systems.

Hardware and Software, Engineered to Work Together

Solution Architecture

In the joint solution, DIVA CSM software—including DIVArchive—is deployed directly into existing workflows, easing content management and digital asset movement throughout the broadcast and production environment.
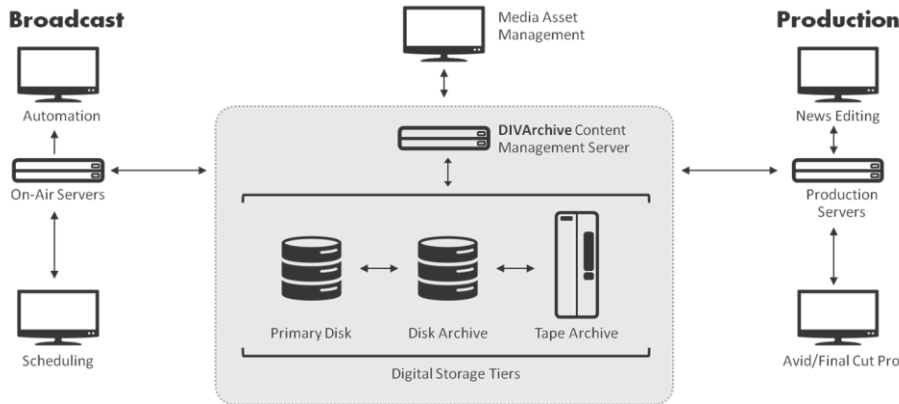

Figure 1. DIVA CSM software and Oracle storage hardware architecture

Archive Infrastructure

Enabled by innovations in archive software that simplify hardware management, media and entertainment organizations are adopting tiered storage solutions for archiving rich media assets (see Figure 1) in order to reduce costs, take advantage of high-performance disk storage, and leverage digital tape for long-term archiving and asset preservation.

First, a tiered storage architecture may reduce your overall TCO by as much as 87 percent over an all-disk infrastructure, according to the industry analyst The Clipper Group. Second, Oracle's high performance NAS or SAN storage provides the middle tier, storing more frequently accessed data and serving up higher performance retrieval requirements. Third, Oracle's StorageTek digital tape offers industry leading availability, reliability, and TCO for the preservation and future access of high resolution digital assets, bringing about unequaled economics for large content repositories. All this is enabled and made easy to use by DIVArchive which manages the automated movement of data between Oracle's NAS, SAN and digital tape storage based on user defined policies.

Performance, Scalability, and Efficiency

Oracle storage systems are engineered for digital archiving. The advanced hardware and software architecture of Oracle ZFS Storage Appliance and Oracle FS1 Flash Storage System delivers extreme performance for streaming rich media content, while Oracle's StorageTek digital tape libraries offer the world's most scalable and cost-effective solution for long-term retention of rich media assets. DIVA CSM software and Oracle storage systems seamlessly work together to provide a powerful content management solution to keep you ahead of the competition.

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CAPABILITIES OF ORACLE'S STORAGE SYSTEMS

NAS Storage

Oracle ZFS Storage ZS4-4	• 3.5PB capacity • 120 CPU-cores, 3TB DRAM cache 12TB Read Flash cache
Oracle ZFS Storage ZS3-2	• 1.5PB capacity • 32 CPU-cores, 1TB DRAM Cache 12TB Read Flash cache
Oracle ZFS storage software	• Compression, cloning, analytics, encryption, replication, etc. • NFS, CIFS, FC, Infiniband, FTP, HTTP, etc.

SAN Storage

Oracle FS1 Flash Storage System	• 912 TB of flash; up to 2.9PB combined flash and disk • 24 CPU cores; 384 GB RAM cache/32 GB NV-DIMM
Oracle FS1 Flash Storage System Software	• QoS Plus with auto-tiering, application profiles, storage domains, replication, cloning, thin provisioning, management, etc. • Supports major operation systems and virtualization environments

Digital Tape Libraries

StorageTek SL8500 modular tape library system	• LTO4, LTO5, or LTO6 tape drives from HP or IBM • StorageTek T10000C or T10000D tape drives
StorageTek SL3000 modular tape library system	• LTO4, LTO5, or LTO6 tape drives from HP or IBM • StorageTek T10000C or T10000D tape drives
StorageTek SL150 modular tape library system	• LTO5 or LTO6 tape drives

ORACLE ZFS STORAGE APPLIANCEAND ORACLE FS1 FLASH STORAGE SYSTEM

Oracle NAS and SAN storage provide high-performance, highly efficient disk storage for digital workflows, media asset archiving, and video serving.

Contact Us

For additional details on Oracle storage solutions, please visit oracle.com/goto/tape or oracle.com/goto/zfs or call +1.800.ORACLE1.

For additional details on Oracle's Front Porch Digital DIVA content storage management software, please visit fpdigital.com or call +1.303.440.7930 in the Americas or +33.4.50.88.37.67 in EMEA or ASIA.

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