Oracle® Video Server for SGI™ Origin™ 200, SGI™ Origin™ 2000, and SGI™ 2100 Servers

Interactive Television and Digital Broadcast Video Serving Solutions

Oracle and SGI have joined forces to provide complete solutions for the residential digital video broadcasting and interactive television markets. The SGI™ video computing platform, including the Origin server line, is the most mature and successful hardware computing platform for video delivery. Oracle continues to provide the most advanced software solutions for the residential interactive TV market based on Oracle Video Server, Oracle Application Server, and Oracle8*i*™. Through joint development, partnering, marketing, sales, and delivery, Oracle and SGI aim to provide the dominant platform for residential video-based services.

These solutions range from enhanced digital broadcast television in which viewers get sophisticated on-screen TV program guides to fully interactive television providing the customer a range of services, including home shopping, home banking, and video-on-demand. Together, Oracle and SGI technologies deliver the best performing solutions for residential interactive television and digital broadcast markets.

End-to-End Video Solutions

Oracle provides a complete toolset for end-to-end video application development with the latest release of Oracle Video Server. Oracle Video Server offers greatly enhanced features such as simplified start-up and system management, full VCR controls, patented Visual Scan, integration with the Oracle8*i* database, patented real-time RAID, DVB support, and a robust distribution solution for delivering hundreds to thousands of concurrent video streams. Oracle's mature interactive solutions bring new, innovative ways to expand services offered by broadcasters, satellite providers, cable companies, and telcos. Video-on-demand and other high-end video applications all benefit from the power of the Oracle Video Server on the Origin server line. Oracle Video Server readily scales to support 5,000 3Mb-per-second streams, resulting in the most cost-effective video streaming solution.

No System Bottlenecks

Bandwidth and low system latency play a critical role in high-end video streaming applications for the convergence of media content delivery. No other computing platform in its price class outperforms the SGI server line for high-end video streaming applications. These applications typically include streaming several gigabits of video per second. The SGI Origin server line's unique, proven blend of performance and expandability delivers superior video streaming results compared with other computer platforms. The Origin ccNUMA architecture enables a system to be seamlessly scaled from two processors to 256 with up to 80GB per second of sustained I/O bandwidth. This means that you can install a trial system for tens or hundreds of streams and easily expand to a production system supporting thousands of digital video streams.

Worldwide Support

Oracle and SGI's comprehensive network of service and support personnel provides development assistance in 90 countries. Oracle and SGI's professional consulting organization has created commercially deployed applications worldwide, including customization and integration with legacy applications.
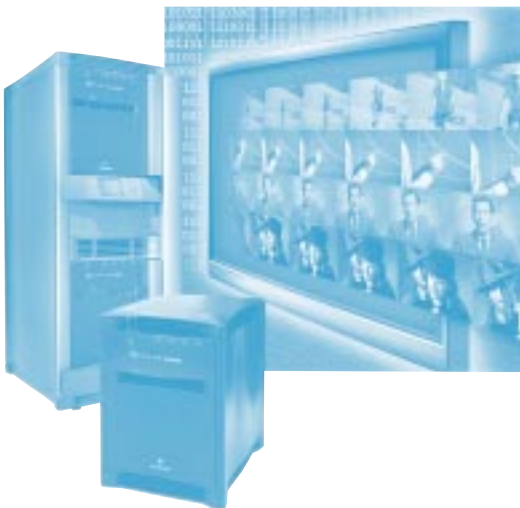
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Technical Specifications

Oracle Video Server Features

Full-Screen/Full-Motion Video and CD-Quality Audio
Oracle Video Server provides professional broadcast-quality video and audio, including HDTV support.

Full VCR Controls
Oracle Video Server provides end users with VCR-like control and functionality, including pause, play, fast forward, and rewind capabilities, over stored content and live broadcasts.

Real-Time Feeds
Oracle Video Server supports real-time feeds, making it possible for your users to watch live programs, such as sports and news events, with the ability to pause and rewind.

Flexible Network Support (Multiple Protocol Support)
Oracle Video Server gives you the freedom to deliver video over existing communications infrastructures, to deploy new network topologies, and to migrate—transparently—existing applications to future technologies.

Analog Network Support
Tape drives can be replaced with a digital video server while still supporting delivery into existing analog distribution systems.

DVB Multiplex Support
Integrated transport multiplexing of many Single Program Transport Streams (SPTS) into one or more Multi Program Transport Streams (MPTS) is supported. Digital Video Broadcast (DVB) compliant multiplex is delivered via DVB-ASI interface for direct transmission into satellite, cable, or terrestrial network.

Comprehensive Codec Support
System administrators can select a video and audio encoding method matched to the capabilities of the delivery network.

Broadcast Scheduler
Oracle Video Server contains a robust broadcast scheduler that allows you to play content on a defined channel on a defined schedule. Oracle Video Server also allows integrators to build simple or sophisticated applications for near video on demand, pay per view, and other scheduled services.

Event Tracking
Oracle Video Server provides detailed information on subscriber and system events to external monitoring programs or databases. This allows for interactive personalization as well as for offline analysis of user behavior.

Patented Real-Time RAID
In the event of disk failure, Oracle Video Server software provides data reconstruction in sufficient time to guarantee uninterrupted multimedia delivery, without requiring expensive RAID disk controllers.

Hot Disk Sparing
The system can begin data reconstruction after disk failure without operator intervention or system downtime.

Real-Time MPEG Encoding
This feature allows administrators to make content available from playback in a single, easy step. It saves time and eliminates errors.

Java™ Language-Based Graphical Management Tool
An intuitive, point-and-click Java language-based system administration tool allows online monitoring of clients, content clip and logical clip creation, scheduled playback, and file browsing.

Patented Visual Scan
Users can visually scan programs at multiple speeds without having to store content multiple times on the server.

Hierarchical Storage Management
HSM supports automated tape robots, allowing content to be stored on a low-cost medium.

Multivolume Support
System administrators can partition real-time content stores into multiple volumes, providing additional security and convenient management.

Support for ftp and tar
Distribution of digitally encoded content to remote servers using popular network and tape formats is supported.

Network Provisioning Support
In a complex network configuration, Oracle Video Server can assign playback requests to network interfaces appropriate for the client, and it can allocate or set up network resources to handle the traffic.

Traffic Management and Billing
Oracle Video Server provides facilities for integration with traffic and billing systems.

Origin Server Features
- SGI Origin 2000 provides scalability to 256 MIPS® R12000™ 64-bit RISC CPUs
- Optimized shared-memory parallel application support
- Integrated high-performance graphics
- Sustainable system bandwidth to 20.5GB/sec
- Shared physical memory up to 256GB
- Two-level cache for accelerated system performance
- 80GB/sec sustained, 102GB/sec peak I/O bandwidth
- Industry-standard Ethernet, Fast Ethernet, FDDI, ATM, and fiber network connectivity
- Hot-pluggable disks, redundant power and cooling, RAID high-availability storage options
- IRIX® 6.5 SVR4-compliant symmetric multiprocessing operating system
- IRIS FailSafe™ failover capability

Entry-Level Configuration for Broadcast Environment
- Origin 200 server
- 2xR10000®/225 MHz processor
- 256MB memory
- 4GB system disk
- IRIX 6.5
- Genroco PCI DVB-ASI interface

Entry-Level Origin 200 Configuration for Broadband Interactive Environment
- Origin 200 server
- 2xR10000/225 MHz processor
- 256MB memory
- 4GB system disk
- IRIX 6.5
- ATM or Ethernet network interface card (PCI)

Entry-Level SGI 2100 Configuration for Broadband Interactive Environment
- SGI 2100 server
- 2xR10000/250 MHz processor
- 256MB memory
- 4GB system disk
- IRIX 6.5
- ATM or Ethernet network interface card (XIO)