

Streaming Digital Video: Cool Toy or Productive Business Solution?

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INFORMATION OVERLOAD

The World Wide Web and the advancement of network technology have put an information warehouse at our finger tips. Unfortunately, too much information is as unproductive as not enough. Today's corporations face an information overload problem. More and more data in the same old formats is actually restricting productivity instead of increasing it.

This paper introduces digital streamed video and explains how it can be used to solve today's pressing business problems.

Business Scenario

A sales rep sits at her desk, searching for information to support the proposal she has prepared for the biggest deal of her career. Her web browser returns 1,400 hits for her search criteria, and she refines her search again and again until the meeting. She closes her browser having found nothing relevant and heads down the hall for the meeting. Ten minutes later, the senior executive across the table asks about the product her company announced this morning. Dazed by the fact that she knows nothing of the announcement, she back-peddles, trying to save face and the deal. The meeting ends with "I'll get back to you on that issue" instead of a signed contract.

What went wrong? Too much information, presented in an unwieldy fashion, made it difficult for the sales rep to hone in on what was truly important to her meeting.

Corporations today require a technology that will package information in a way that leverages their employees' time.

DIGITAL VIDEO ENTERS THE MAINSTREAM

The effect of the personal computer on the 1970s glass house computing business model is being duplicated in the video industry of the 1990s. If the wave of multimedia production use has not reached your company yet, it won't be long. Never has the phrase "If a picture is worth a thousand words, a moving picture is worth ten thousand" offered more fiscal promise than in today's business climate.

Analog video is commonplace today as a communication medium. Consumers and corporations use televisions and video for entertainment, information, advertising, employee training, and corporate communications.

However, our experience with analog video has built a perception that video is an expensive, linear medium. People are accustomed to waiting through one program to get to another or fast forwarding to the part they wanted to see.

In contrast, digital video production tools are becoming so inexpensive and easy to use that many people with no formal training shoot, edit and produce their own videos. Digital editors allow producers to off-line their shows without using a high-priced editor—cutting thousands of dollars in production costs.

Corporations can produce training videos for a lower cost than delivering traditional classroom training. One example is a training program at Oracle called Course In A Box™, which was produced with digital production tools for 91% less than the industry average. These business dynamics are exponentially increasing the volume of video production and video assets. Overnight, the biggest problem for the video industry has changed from one of cost of production to asset management and video distribution.

Distribution and Digital Asset Management

Multimedia information is "rich" data—that is, it is more than just numbers or text strings that may be delivered by a relational database. It consists of unstructured information, like large pieces of text, documents, and images. It also includes real-time data, such as audio and video streams.

This diverse composition of information and the exponential increase in multimedia creation has created a need for a dramatically new class of business applications. These applications are powered by servers, networks, and clients that can deliver larger volumes of information than ever before, in a synchronized manner, in real time, to many concurrent users.

For example, the Course In A Box™ training program calls for a distribution method other than VHS tape. The producers create courseware from start to finish in 3 days, but it takes 21 days to duplicate and distribute video tapes throughout the company. A infrastructure of video servers is solving this problem by making courses available to Oracle employees within hours of completion. The products

used to deliver the courses are Oracle Video Server, Oracle Web Server and Oracle8.

Today, corporate marketing departments and entertainment companies have millions of dollars of video assets that sit unusable because they cannot locate the clips in an efficient manner. In most cases, finding the clip takes longer than recreating it. Advanced production methods such as blue screens are not taken advantage of because reuse is not a practical alternative.

Many corporations now film executives' speeches against a blue screen and store clips with the Digital Asset Management application. Producers can use Oracle Context to search for clips based on keywords or themes. They can then view the matching clips remotely using the Oracle Video Server and order the original tape for an upcoming edit. Because the executive was shot against a blue screen, they can add the background of their choice during the edit. This means the same sound bite can be reused without re-shooting. In addition to saving shooting time, this process saves time for senior executives.

Using the Oracle Video Server and Oracle8, Oracle and its many Media Asset Management partners are solving this business problem. As a result, companies are able to use more efficient production methods.

Benefits of Streaming Digital Video

Streaming digital video is a fast, efficient, and scaleable way to deliver pertinent information to internal LAN users and external web site visitors. If you are not sure whether streaming digital video will benefit your company, ask yourself the following questions:

- Is information timeliness of paramount importance to your business?
- Is video a major asset of your company?
- Could video become a major asset in your company?
- Do you have a central library that stores and loans videotapes to employees?
- Do you need to access different video content frequently?
- Have you ever requested a videotape and found it checked out?
- Are your executive presentations, training classes, and product announcements videotaped?
- Do you have employees located at remote sites who require training?
- Are your travel budgets for training affecting your bottom line?

If you have answered yes to any of these questions, your company can benefit from streaming digital video technology.

KEY FEATURES OF STREAMING DIGITAL VIDEO

Streaming digital video alone is more than just cool technology. When integrated with a web server and database technology, it becomes a productivity-enhancing tool for creating interactive multimedia applications. Such integrated applications are flexible and easy to scale and manage as your business needs change.

Look for these key features as you search for a streaming digital video solution:

- Integration with database and web server
- Streaming video that can be viewed by users at their desktops
- Concurrent viewing by many users
- Video content that can be easily updated and managed
- A full suite of application development tools
- Digital video that can be indexed
- Multiple platform support
- Multiple bit rate and codec support from modem to broadband
- Scalable from tens of users to thousands of users

ABOUT ORACLE VIDEO SERVER

Oracle Video Server is used by companies to store, manage and deliver streaming video and audio over the corporate network. The Oracle Video Server enables a new generation of client/server business applications that incorporate rich multimedia data—including corporate repositories, interactive training, and digital asset management systems.

With Oracle Video Server, users have full control of the video playback, including play, stop, seek, and pause. Users can also bookmark sections of the content and return to the bookmarked section at any time. This enables quick and easy reviewing of specific content without the repeated fast-forward and rewind used to cue videotapes.

Oracle Portability, Scalability, and Reliability

Like all Oracle software, Oracle Video Server is portable across a wide range of server hardware platforms, operating systems, and networking environments. It is available for platforms from single-processor PCs capable of delivering tens of streams to massively parallel systems capable of delivering tens of thousands of concurrent streams. Oracle Video Server supports broadband and standard corporate networks, enabling you to deploy applications beyond the boundaries of your internal networks. This extends the benefits of digital video to customers across the country and around the world.

Because Oracle Video Server enables application developers to write to a uniform set of interfaces, applications don't need to be rewritten when larger, more capable servers are added to the network. Corporations can write applications once and deploy them again and again using more powerful servers as their business needs increase. The same applications that run on a switched Ethernet network will also run on an end-to-end ATM network.

Develop Video Applications with Your Favorite Tools

You can use your favorite development tools to create new applications for Oracle Video Server, or video-enable applications you already have.

The easiest way to get started is to develop an intranet web-based application that incorporates streaming video. The Oracle Video Client includes a plug-in that enables you to stream video into a web browser. The Oracle Video Client also supports tools that can embed ActiveX controls, such as Oracle Power Objects®, Oracle Forms™, and Microsoft Visual Basic.

HOW VARIOUS INDUSTRIES USE ORACLE VIDEO SERVER

The following examples show how a wide variety of companies have used streaming video to solve their business problems.

- **Sports Franchise:** A professional sports team has created an extensive video archive of college and professional games. Using the Oracle Video Server, the coaching staff and players now have interactive access to this archive. Coaches and players can review games and easily locate specific plays or analyze their opponents' tactics. Interesting plays can be indexed with a bookmark and saved as reference points for team discussions and strategy sessions.
- **Manufacturing Company:** A company with manufacturing facilities around the world has placed video kiosks at all its sites. These kiosks give employees up-to-date reference information on product assembly and quality control. The content includes reference information, product schematics, and video assembly demonstrations. Using video for demonstrations ensures higher quality and consistency than written instructions. The kiosks are maintained and updated centrally. If a problem is found, updated content can be created and distributed worldwide within three days.
- **Advertising Department:** The advertising group in a leading consumer-products company creates, distributes, and manages the company's commercial advertisements. They work with advertising agencies around the world, and have accumulated a large video library. They have encoded and loaded this library into the Oracle Video Server. Team members and company executives now have interactive, on-demand access to the

company's video assets to enable faster approval of new advertisements, and better evaluation of ad performance in different markets.

- **Financial Services Company:** A fast-moving financial company believes information access is the key to its competitive position. It has created an application that allows employees to choose the types of news information they want sent to their desktops. TV news from around the world is scanned and pertinent news is streamed to each employee.

CONCLUSION

Video continues to grow in popularity and acceptance as a medium for corporate communications. But traditional video deployment methods—videotapes and CD-ROMs—do not meet the needs of today's corporations. Streaming digital video is a fast, efficient, and inexpensive way to deliver video content for leading-edge multimedia applications.

Oracle Video Server, combined with the Oracle database and Oracle Web Server, enables you to develop and deploy innovative multimedia applications. It provides concurrent delivery of full-motion, full-screen video and audio to multiple clients. Users have full control of video playback and the ability to insert bookmarks. And the applications are very scaleable. You can initially develop applications for your local-area corporate network, then scale those applications across wide-area networks. Oracle Video Server is part of the complete information management solution from Oracle.

Let's take another look at the business scenario described at the beginning of this paper. This time we'll add an Oracle Video Server to the story.

A sales rep sits at her desk searching for information to support the proposal she has prepared for the biggest deal of her career. Her NC is broadcasting the latest news and information from corporate headquarters. The news has been filtered through her personal profile, so only stories that apply to her job are shown. As she searches with her web browser for information related to the deal, she hears that her company has announced a new product. She clears the 1,400 hits for her previous search criteria, and links to a URL included with the video story. Confident that nothing has really changed, she heads down the hall; her deal is ready to close. Ten minutes later the senior executive across the table asks about the product her company announced this morning. She confidently explains why it doesn't affect this deal. The reassured executive signs the contract and calls his secretary to cancel his next meeting, which just happens to be with her competition.

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