

# Alive and Interactive through Streaming Media

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## INTRODUCTION

The advent of new technologies in organizations has created unprecedented challenges for professionals and managers alike to explore several cost-effective technology solutions aimed at improving communications among their target audiences. One such technology, which is gaining popularity, is streaming media. Streaming media has been around for approximately 10 years, but only now is becoming the fastest growing IT sector, with real revenues and a bright future (Alanko, 2004).

Streaming media is a delivery technology that has great potential for enhancing the way people communicate and share information. The evolution of streaming media has made huge strides in the world of the Internet, from a medium which delivered unstable video streamed very slowly through inadequate networks, to one today that rivals the reach in some cases of small cable television channels and local market radio stations.

The use of streaming media is becoming a mainstream communications tool in the public sector. It has the ability to enhance communications both internally and externally (i.e., important announcements, bulletins, community outreach, online learning, training, etc.). Many government departments have started offering live and archived Webcasting of numerous government meetings and programs via the Internet. Whereas outreach has previously been strictly limited to certain individuals, information is now being made available to a wider audience through the use of streaming media.

## BACKGROUND

In general, the terms Webcast and streaming media are used interchangeably. Webcasting covers all the steps in producing an online broadcast from capture and encoding of content through to delivery. A Webcast is a presentation in which a live event is recorded and streamed over the Internet, or archived for viewing at a later time. Streaming media refers to the software that actually delivers the Webcast to the user's desktop media player over the Web. Streaming media was developed to compress and transfer video and/or audio data through a computer in such a way that the file could start to play while downloading (Improvement and Development Agency &

Xpedita Limited, 2003). Similar to a live newscast, a live Webcast has the capability to dynamically communicate information and ideas in real time. Unlike media files that are downloaded as large units and saved to your hard drive where they take up disk space, streaming media is sent in a continuous "stream" and played piece by piece as it arrives.

Streaming media as a delivery method allows people across the country and around the world with Internet access to participate in an event. The vast majority of new model PCs come equipped with everything required to view a Webcast. Users require an Internet connection, a sound card and speakers, and a media player program which is downloadable from the Internet. A media player program enables viewers to see and hear streaming media content. These players stream prerecorded and live media over the Internet, and can play back media that has been saved to disk.

## HOW DOES STREAMING WORK?

Although streaming media may seem quite complex to those who are not technologically savvy, it is all really based on these four simple steps (Adobe Dynamic Media Group):

1. The end user selects a media file, causing a request to be sent to the Web server.
2. The Web server relays the request to the media server.
3. The media server streams the media file back to the end-user's computer.
4. The client, or "player," decodes and plays back the media file.

## WHO IS USING STREAMING MEDIA?

Demand for Webcasting has increased widely in the past 2 years from government departments to large private sector corporations wishing to reach shareholders and organizations over vast areas. With the development and growth of the Internet, media delivery has been revolutionised making distance and location irrelevant.

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Government departments are faced with the considerable task of communicating important policy, program and security information to internal and external clients. As a result, many government departments have started to Webcast key presentations, speeches and conferences on their Internet and intranet sites. This is possible largely due to boosts in broadband connections across government departments, organizations, educational establishments and households, along with advances in digital compression and video production technology.

Indian and Northern Affairs Canada (INAC) implemented streaming media as an in-house service for departmental employees in early 2002. Prior to implementation the department profiled target audience members to determine application needs and quality requirements. The profile showed a strong growth potential for streaming media within the department.

INAC projects have been aimed at conveying messages to both internal and external audiences. Messages from senior management, national workshops and training sessions are a few of the internal Webcast projects that have been undertaken. Connecting Youth in Canada was a Webcast project targeted for external audiences, specifically high schools, educators and other government departments. It encompassed a series of four, 30 minute live Webcasts streamed from Aboriginal communities across Canada (some remote). The project was aimed at getting Aboriginal and non-Aboriginal youth talking about issues and concerns that matter to them. Viewers were able to interact and express their thoughts with students in real time via e-mail.

From a market that was nonexistent, huge strides have been taken to make streaming media a success within INAC. The latest advances in audio and video streaming technology have been utilized to deliver conferences, seminars, speeches, corporate meetings and other business presentations over INAC's departmental Intranet and corporate Internet sites.

In August 2004, an online survey was posted to the departmental Intranet Web site to help determine the perceptions and experiences that INAC employees have towards Webcasting. Survey responses show that Webcasting is a tool that most INAC staff believes would be of benefit to them and their sectors/branches. Furthermore, many responded that Webcasting is an inevitable technology, which they would like to learn more about.

## BENEFITS

Streaming media is gradually emerging as the cornerstone of effective enterprisewide communication and knowledge sharing. There are several benefits of streaming media, one of which is the use of the technology as an e-learning tool. Streaming media has great potential value for creating interactive and engaging presentations, training applications and business communications. Users have the ability to capture and synchronize audio, video, slides and imaging to create rich-media presentations, which can be made available to the desktops of live target audiences.

Table 1. Benefits of streaming media

- Easy to understand and use
- Integrated and interactive
- Conducive to cooperative work environment
- Flexible
- Supportive of a large audience
- Improved information experience
- Unmatched knowledge sharing
- Consistent messaging delivered to multiple audiences
- Decreased travel, communication, and training costs
- Increased productivity
- Improved customer service
- Stronger, more developed corporate culture
- Direct transmission of communications to the desktops of targeted audiences
- Quick (do not have to wait for complete download of video)
- Continuous feed without interruption
- Video is not saved to hard drive
- Video and/or audio can be delivered live and archived simultaneously
- Video and/or audio can be delivered live and translated simultaneously

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