

Microsoft Studios Implements Affordable, End-to-End Control and Playout System



Overview

Country or Region: United States
Industry: Media and Entertainment

Customer Profile

Microsoft® Studios—the Redmond, Washington-based internal studio and production facility for Microsoft—is a real-world test bed of products and services for the media and entertainment industries.

Business Situation

For years, Microsoft Studios wanted to create a cable channel through which it could distribute volumes of unused corporate and product communications, but was prohibited by the associated costs.

Solution

Microsoft Studios implemented iTX—a video automation system that runs on standard IT hardware and was built on the Microsoft .NET Framework, an integral component of the Windows® operating system.

Benefits

- Reduce hardware, production, and maintenance costs
- Control production with ease
- Streamline production of content

“iTX gives us a flexible way to reduce the costs and work associated with delivering content on cable.”

Mark Beauchamp, Engineering Group Manager, Microsoft Studios

Microsoft® Studios has production and post-production facilities that rival that of any other broadcast station. Despite its advanced systems, Microsoft Studios lacked a plausible way to deliver volumes of company communications to employees through a cable channel. The high cost of equipment was an impassable obstacle. But a revolutionary product from Microsoft Partner OmniBus Systems has altered the situation. iTX is an IT-based, end-to-end playout system that enables broadcasters to distribute content to viewers over any medium, including cable. Today, Microsoft Studios has a cost-effective, easy way to deliver media content to employees that, at the same time, streamlines the delivery process. As a result, Microsoft Studios is piloting Microsoft Studio Cast Channel 80—a network-quality cable channel dedicated to delivering corporate and product communications to the Microsoft community.



“iTX enables broadcasters to replace all of their customized hardware units that make up a master control room with a single, integrated software application.”

Ian Fletcher, Chief Technical Officer and Founder, OmniBus Systems.

Situation

Traditional and nontraditional broadcasters are bound by a common goal. Traditional broadcasters, both old and new, are searching for innovative ways to implement automated, sophisticated workflows in their production facilities, as well as for new ways to generate new income. Nontraditional broadcasters, such as businesses, spend large sums of money marketing their vision, value, products, and services to customers and employees. Together, both groups look for a rapid, cost-effective way to distribute high-quality media content through new distribution mediums.

From its 65,000-square-foot facility in Redmond, Washington, Microsoft® Studios faced a similar goal: deliver a constant stream of new information over a cable channel, in a cost-effective way. Microsoft Corporation produces thousands of hours of visual and audio media each year—content that includes executive interviews, television shows, retail spots, live meetings, and more. But the company lacked an inexpensive, efficient means to expose employees and Microsoft partners to this valuable information. Instead of reaching the more than 60,000 employees at Microsoft, the content frequently was locked in vaults or on servers.

“For several years, we’ve had the idea of taking advantage of our advanced production and post-production facilities and distributing the plethora of content produced at Microsoft through a cable channel,” says Chris Bien, Senior Producer at Microsoft Studios. “But technology has always been the major blocking point. In the past, we’ve had one of two options: create an expensive, hardware-intensive solution that mirrors a broadcast

station’s master control room, or create a simple solution that involves playing Windows Media® files through Windows Media Player.”

But according to Bien, neither option was appropriate. Instead, Microsoft Studios wanted to build a cable network at the lowest possible cost while protecting Microsoft’s brand and ensuring high-quality output. In addition, Microsoft Studios wanted a solution that would be compatible with a range of programming formats and provide the best possible access to programming for efficient, trouble-free manipulation and output.

Solution

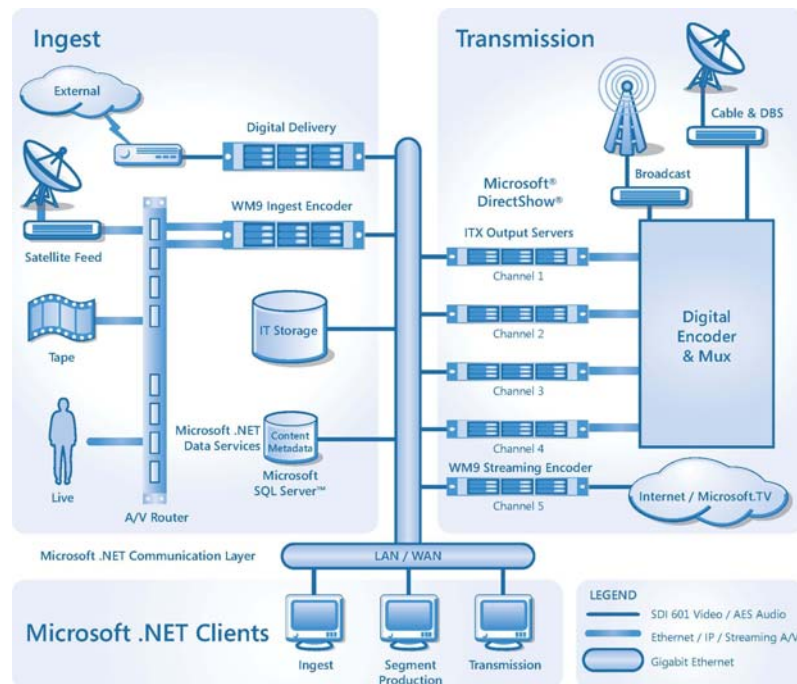
Microsoft Studios found a solution from Microsoft Partner, OmniBus Systems. OmniBus has been at the cutting edge of broadcast automation for the past 15 years. The company builds integrated solutions that connect the myriad of hardware systems within broadcast stations and enable an automated workflow. The company’s latest product offering, iTX, is a video automation system that runs on standard IT hardware and can play out any type of broadcast media format—an ideal solution for Microsoft Studios.

“iTX enables broadcasters to replace all of their customized hardware units that make up a master control room with a single, integrated software application,” explains Ian Fletcher, Chief Technical Officer and Founder for OmniBus Systems.

OmniBus designed iTX around an open software architecture, which enables the solution to support multiple media formats. The solution has been built on the Microsoft .NET Framework, an integral component of the Windows® operating system. iTX also

Microsoft®

Figure 1. Hardware and software architecture for a typical iTX system.



uses Microsoft SQL Server™ 2005 for content storage and integrates with Microsoft DirectShow® application programming interface. As a result, iTX supports high-quality capture and playback of multimedia streams and simplifies playback, format conversion, and content-capture tasks.

Figure 1 shows the hardware and software architecture for a typical iTX system.

With iTX in place, Microsoft Studios is building the cable channel it wants for distributing corporate communications. More specifically, the organization has created Microsoft Studio Cast Channel 80—a high-quality network programming experience that provides a branded delivery channel for all

the audio and video collateral produced at Microsoft over the company's broadband cable network.

“Using iTX, we can take collateral that we've already produced and ingest it directly into the platform,” says Mark Beauchamp, Engineering Group Manager for Microsoft Studios. “Because iTX is a file-based system, we can then take that collateral and program it a number of different ways, creating program lineups, without revisiting production and repackaging content through an editorial process.”

Moving forward, Microsoft Studios plans to expand content delivery beyond its cable network and will use iTX and Windows Media streaming infrastructure to stream audio and

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Chris Bien, Executive Producer, Microsoft Studios

video content directly onto the Microsoft network. Microsoft employees will be able to access media content directly through their computers.

Benefits

“Traditionally, most businesses and many broadcasters have been overwhelmed by the hardware costs associated with cablecasting, and the playing field has been limited to the largest broadcasters,” says Beauchamp. “But iTX integrates easily into our production and distribution processes and simplifies workflow and file-based production methods. We would not have even considered this expansion without iTX.”

Consequently, instead of continuing to wait to implement a cable channel, Microsoft Studios is achieving its goal with a solution that streamlines delivery of media content, cost-effectively and easily.

Reduce Hardware, Production, and Maintenance Costs

iTX dramatically reduces cablecasting costs by eliminating the need to purchase specialized hardware. “The implementation of iTX means we’re going to run an entire channel, using a 100-percent software-based solution running on standard IT hardware,” says Beauchamp. “iTX replaces equipment such as routers, digital video effects (DVE) boxes, and master control units.”

iTX also takes advantage of a very robust, flexible file-sharing environment in which content can be easily managed and accessed. “iTX very effectively leverages the power of IT file storage,” says Tim Mendoza, Vice President at OmniBus Systems. “An iTX content storage and retrieval system can be implemented at a third of the cost of traditional industry systems.”

iTX can also greatly reduce time spent preparing content for cable distribution. “iTX automation will reduce the cost of production through direct, multiple-format ingest capabilities and through the automated processing, scheduling, and rendering of media elements,” says Mendoza.

Maintenance expenses can also be comparatively reduced because iTX does not require any specialized replacement parts; it is standard hardware, available from IT sources.

Control Production with Ease

iTX controls are right where production teams need them: at their fingertips. iTX helps Microsoft Studios personnel to build program schedules and access and adjust programming using a single system, thereby allowing them to quickly preview and update

Figure 2. User interface at Microsoft Studios for the iTX system.



content. Production personnel can create and edit material, such as captions and subtitles, as well as create DVEs—all without ever leaving the iTX interface. Figure 2 shows the user interface for the iTX system.

“What’s cool about iTX is that it’s very easy to take all the content, build a playlist, and deliver the content so that viewers feel like they’re watching a regular cable channel,” says Bien. “We can take a half-hour show, add commercials, and create a true on-air look and feel. Or we can just as easily create an on-air programming guide. And, everything is done through a single computer.”

Streamline Production of Content

With iTX, Microsoft Studios can provide a robust mix of content for cablecast by using various qualities of source content, from low resolution “guerilla” programming (such as Internet-based content), to high-definition (HD), broadcast-quality media. Video in a variety of formats and resolutions, from Moving Pictures Experts Group (MPEG) and Audio Video Interleave (AVI) to HD, can be easily imported, then mixed into a single playlist. iTX fully automates the transcoding process during ingest or playback at real-time speeds and ensures smooth, high resolution, field-rate transitions between all formats, and can provide output as broadcast-quality 601 video.

The open architecture of iTX allows logos and graphics created in off-the-shelf applications, such as Adobe Photoshop, to be placed into the system fileshare and added to the program schedule in real time, for separate playout or insertion over other video. This capability ensures consistent branding on any content going out on the cable channel.

“iTX gives us a flexible way to reduce the costs and work associated with delivering content on cable. It’s a powerful solution that offers an expanded opportunity to affordably and confidently distribute valuable content via cablecast,” says Beauchamp.

For More Information

For more information about Microsoft products and services, call the Microsoft Sales Information Center at (800) 426-9400. In Canada, call the Microsoft Canada Information Centre at (877) 568-2495. Customers who are deaf or hard-of-hearing can reach Microsoft text telephone (TTY/TDD) services at (800) 892-5234 in the United States or (905) 568-9641 in Canada. Outside the 50 United States and Canada, please contact your local Microsoft subsidiary. To access information using the World Wide Web, go to: www.microsoft.com

For more information about OmniBus Systems products and services, visit the Web site at: www.omnibussystems.com

For more information about Microsoft Studios products and services, call 1-800-MICROSOFT (1-800-642-7676) or visit the Web site at: www.microsoft.com

Microsoft Windows Server System

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For more information about Windows Server System, go to: www.microsoft.com/windowsserversystem

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