Reinventing television

ZapMyTV delivers innovative social broadband video portal using the Adobe® Flash® Platform and Adobe LiveCycle® ES solutions

The Internet reinvented the way the world communicates, and now—via Internet television—it is dramatically changing the entertainment industry. Today, TV watchers are transforming from passive observers into active participants who interact through text and video chat, share remote controls, and view and comment on the TV experience together in real time.

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Steven Turner, chief executive officer, ZapMyTV

ZapMyTV (ZMTV) is one of the companies leading the charge by delivering a social broadband video portal with live cable TV, social networking, picture-in-picture video chat, interactive advertising, and more through the company's online Integrated Cyber Environment (ICE) and the downloadable ICE Player. ZapMyTV worked with systems integrator and Adobe partner Twin Technologies to build and offer the innovative new service using the Adobe Flash Platform, including Adobe Flex® Builder™ and Flash Media Server, along with Adobe LiveCycle Data Services ES (Enterprise Suite) and ColdFusion® software.

According to Ashley King, chief technology officer of ZapMyTV, Adobe technologies were pivotal to bringing ZapMyTV to market. "Adobe technologies let us develop and deliver the powerful experience our customers demand," say King. "Adobe Flex Builder, ColdFusion, and LiveCycle ES provided a rapid application development model to quickly develop a sophisticated, elegant solution. The H.264 encoding supported by Adobe Flash Media Interactive Server 3.5 software lets us provide a video stream far superior to what could be delivered using any other solution available today."

TV reinvented
Today, the majority of TV content available on demand is pre-recorded for viewing on a computer or mobile device. Most live streams are owned and managed by broadcast organizations, and users must visit multiple different sites to find content. Viewers don't have options such as chatting or social networking, and their experience might require a specific operating system or browser. ZapMyTV's goal is to change that.

The company is quickly becoming a premier family-friendly web portal offering premium television programming and social networking over the Internet from virtually any device. Through one site, "Zappers" can watch television, search the Internet, e-mail each other, chat, videoconference, blog, and more. More than 20 television networks are already providing quality programming through ZMTV. Paramount Digital Entertainment has also agreed to license its full library of feature film content.

Zappers also can share their television viewing experience with their friends in real time. They can extend invitations within their existing social networks to help them build up their ZapMyTV friends network. To get started building a network of Zappers, users simply click the Connect with Friends icon in the ICE Player bar.

"Adobe solutions enabled ZapMyTV to deliver on the next generation of television," says Steven Turner, chief executive officer of ZapMyTV. "Viewers expect more control, more flexibility in how and where content is consumed, and the option to share content and discuss it during the experience."

A tall order

Creating, integrating, and delivering the infrastructure to support all of ZMTV's features was a formidable task. ZapMyTV needed to build a robust, end-to-end media delivery architecture as well as a breakthrough player. The digital media player had to be intuitive while also enabling connections to social networks such as Facebook and Twitter and allowing viewers to import, tag, share, post, and interact with content. ZapMyTV also wanted to enable viewers to chat while watching TV and see picture-in-picture videos of their friends as they experience the programming together.

"There are many third-party digital media players available, but none provide the kind of integrated functionality that ZapMyTV required to stand up under multiple live streams while also gathering detailed metrics, serving advertising content, and providing the high levels of security that the many content providers involved with ZapMyTV require," says Turner. "The solution we built using the Adobe Flash Platform met all of these requirements."

An end-to-end digital media delivery platform

To meet these requirements, Twin Technologies leveraged Adobe Flex Builder software to build the innovative ICE Player, based on Adobe Flash technology. "When we meet with content providers, the first thing they ask us

is whether or not users will have a seamless, high-quality viewing experience," says Turner. "When we tell them ZapMyTV is based on the Adobe Flash Platform, they are immediately at ease. They know they will be able to reach audiences worldwide with a high quality experience on virtually any computer platform or device—without a learning curve or technical hurdles."

In addition to the ICE Player, Twin Technologies used Adobe ColdFusion software to create a powerful middle layer that manages communications and transactions between ZapMyTV's back-end systems and cable TV broadcasters, as well as social media sites. Another vital part of the middle layer is LiveCycle Data Services ES, which allows ZapMyTV to synchronize and connect a variety of services and devices. For instance, users can connect a laptop to a television set for large-screen viewing, and use an iPhone as a remote control device to view the program guide and change channels.

"With Adobe ColdFusion, Flex Builder, and LiveCycle Data Services, we literally had a working solution in one or two days that linked the program guide information to all of ZapMyTV's back-end services," says Nicholas Tunney, director at Twin Technologies. "The speed of development, which is exponentially faster than when we were using other alternatives, speaks to the integration among all of Adobe's tools and technologies."

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Challenge
- Blend social media, live cable TV, and theatrical motion picture content into one environment
- Offer exceptional user experience with rich interactivity
- Reach a vast audience, with no technical hurdles or software downloads
- Enable users to interact with each other and use multiple devices
- Safeguard valuable content online or offline

Solution
- Deliver an end-to-end media delivery solution based on the Adobe Flash Platform and Adobe LiveCycle Data Services ES

Benefits
- Created family-friendly web portal with live cable programming, theatrical content, and integration across social networking sites
- Delivered features such as chat and picture-in-picture for user interaction
- Provided superb video quality
- Extended reach to virtually any platform or device with seamless, instant-on experience
- Helped safeguard content of top providers such as Paramount Digital Entertainment

Toolkit
- Adobe ColdFusion
- Adobe Flash Media Rights Management Server 1.5
- Adobe Flash Media Interactive Server 3.5
- Adobe Flash Media Streaming Server 3.5
- Adobe Flex Builder 3
- Adobe LiveCycle Data Services ES

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>
> **Ashley King, chief technology officer, ZapMyTV**

The solution also ties in to back-end systems to collect key metrics such as network performance or the number of "buddies" that subscribers invite to share the ZapMyTV experience. This information helps ZapMyTV continually improve the service and tailor it to customer demands.

Maximizing quality, safeguarding valuable content

Adobe Flash Media Interactive Server 3.5 and Flash Media Streaming Server 3.5, hosted by a content delivery network, transcodes and routes content to and from various sources such as satellite feeds. The software provides Dynamic Streaming to automatically detect and switch among different bit rates, allowing ZapMyTV users with variable network bandwidth to enjoy a superb viewing experience without pauses or disruptions. "With Adobe Flash Media Interactive Server, ZapMyTV subscribers are immersed into an integrated content environment that optimizes video streams based on bandwidth and network traffic to ensure that the user has the best experience possible," says Turner.

In the future, ZapMyTV plans to expand its distribution model by developing an Adobe AIR® application that will enable viewers to consume content outside the browser and

Adobe Flash Media Rights Management Server to control how, when, and where content can be experienced—a prerequisite for content owners doing business with ZapMyTV.

"We chose Adobe Flash Media Server technology for video delivery because of its flexibility and picture quality, as well as strong encryption and rights management capabilities," says King. Adds Turner, "We've heard from content providers that the quality we deliver is indistinguishable from what comes directly off the satellite. That's important for media companies that require the highest quality content delivery."

An end-to-end platform for rapid evolution

For ZapMyTV, Adobe technologies are ideal because they encompass everything required to build and evolve a next-generation Internet television solution. "From rapid application development and services deployment to streaming media and content protection, Adobe covers all the bases while giving us what we need to rapidly evolve ZapMyTV," says Turner. "I can honestly say that we would not have been able to make ZapMyTV what it is today without Adobe software solutions."