

# SureWest Communications Launches HD-IPTV Service

This pioneer in IPTV launched high-definition service in January; here's how, and why

By Masha Zager ■ *Contributing Editor*

**S**ureWest Communications, an independent telco serving California's Sacramento region, became one of the nation's first fiber-to-the-home providers when it acquired the assets of bankrupt WINfirst in 2002. Since that time, SureWest (www.surewest.com) has doubled its FTTH infrastructure; the company now passes almost 90,000 homes with fiber, and has 25,000 active subscribers. Not content with being an FTTH pioneer, in 2004 SureWest became one of the first providers to launch an IPTV service. This January, it upgraded to HD-IPTV.

SureWest VP and chief technology officer Bill DeMuth shared his company's experience as an IPTV innovator in a presentation at the March, 2006 TelecomNext conference in Las Vegas, Nevada.

SureWest had been providing video over RF to its fiber customers since 2002, DeMuth said, but it wanted to be able to deliver more advanced video services than competitors were offering. A second reason for switching to IPTV was to extend video service to customers being served by copper infrastructure. Delivering the same video services to all of its customers over a converged network is more cost-effective than providing RF video to one group and IPTV to another group, DeMuth said.

## Meeting Customer Expectations

Providing the same services throughout its territory makes it easier for SureWest to use the same billing and customer care systems for all of its customers. This, in turn, means that customers can receive a single bill for all their services, and can get their problems resolved with a single phone call. Clear, consolidated billing, simple and understandable packages, and high-quality

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customer service are important for all customers.

IPTV also helps SureWest address another customer expectation: control over the video content customers receive. While customers still don't have complete flexibility regarding channel selection – contracts with content providers stand in the way of that – IPTV makes it technically simpler to give customers more control over content, and even for them to allow different packages of channels for each television in the household.

IPTV can also increase customer loyalty, Demuth said. Triple-play customers are less likely to switch providers than customers receiving only voice services, and the new interactive services that IPTV makes

possible will not only create new revenue streams but also make it even less likely for customers to seek out other competitors.

## Bandwidth and Other Challenges

As an IPTV pioneer, SureWest encountered challenges delivering IPTV. The company had to apply for cable franchises in every municipality it serves. In some places, it has gone through complex negotiations with local agencies in order to tear up the streets and replace plant. Because content providers were initially doubtful about IPTV, acquiring content has sometimes been a challenge, even though SureWest obtains some of its channel lineup through the National Cable Television Cooperative.

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Standards for IPTV architecture, quality of service, security, and digital rights management were woefully lacking a few years ago; DeMuth served on a national committee that has developed the necessary standards. Integrating products from different vendors also proved to be an enormous challenge. The network, middleware, video-on-demand service, encryption, and set-top boxes all needed to work together. Any time one of them was upgraded, the upgrade had to be tested with all the other components. SureWest created an interoperability lab where vendors could test their equipment and work out any difficulties in interfacing with each other.

DeMuth admitted to feeling some envy of telcos that are just starting down the path to IPTV, because they won't face the same set of challenges that SureWest did. The franchise issue is in the process of being addressed on both state and national levels. Vendors have made their products more interoperable, and industry-wide standards have emerged. The new generation of set-top boxes appearing this year and the MPEG4 compression standard have solved many technical problems.

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Quality of service, security, and interactivity have all made great strides. Content providers have been educated about IPTV and are now largely willing to accept that it provides the levels of quality and security they require.

Delivering high-definition TV this year presented SureWest with a new set of challenges: Providing enough bandwidth to meet consumer demand. Changing technology has helped make HDTV less of a bandwidth “hog.” IPTV allows providers to send only the selected channel, rather than the entire package of channels, to the television set. The MPEG4 compression standard also reduces the bandwidth required for each channel.

But still, even with the newest technology, ADSL – which SureWest uses to deliver IPTV over copper – barely provides enough bandwidth for HDTV, especially for houses with more than one television. SureWest is considering upgrading some of the infrastructure to VDSL, which is robust enough for what DeMuth called “a good-quality lineup” but requires short local loops. Fiber to the home, according to DeMuth, is ideal for HDTV and is also

the least expensive type of network to operate, but because it is so capital-intensive the company has not been able to install it everywhere.

Once the signal reaches the home, getting it to the television presents more challenges. SureWest works with builders to make sure that new houses in its service area are built with structured wiring that supports high-speed services. However, in delivering services to older homes, SureWest faces the choice of rewiring or using conversion devices to transmit over coaxial cable. (Wireless in-home transmission does not yet meet quality-of-service requirements for video, DeMuth said.) At present, the cost of installing these devices nearly equals the cost of rewiring, though rewiring is more time-consuming and disruptive.

#### **Interactivity in the Future**

DeMuth says the true benefit of IPTV lies in the interactive and convergent services that are just beginning to appear. He cited recent products that allow subscribers to see caller ID on the TV screen, control the digital video recorder from the wireless phone, and download Internet content to their set-top boxes. He said that he expects new products to appear in the second half of the year.

These new services, more than additional channels, differentiate IPTV from cable and satellite television, and will eventually draw new customers, DeMuth says. And because of its interactive capability, he says, IPTV opens up new sources of revenue that telcos haven't begun to explore. For example, IPTV makes it possible to gauge how many subscribers are watching any show at any time. So while telcos think today in terms of selling services to subscribers, in the future they may be able to sell data about aggregate viewing habits to content providers and advertisers.

In the meantime, SureWest has its hands full signing up new customers for HDTV, which has drawn an enthusiastic response. “People say the clarity is unbelievable,” DeMuth said. **BBP**

#### **About the Author**

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