

# IPTV World Forum



Andy Leach Vice President of Worldwide Field Operations for SkyStream

In early March, the IPTV World Forum 2006 at London's Olympia commenced exhibitors and conferences about the latest technologies into a three-day event.

The IPTV World Forum was developed as a direct response to the rapid growth in the marketplace, bringing together operators, technology partners and content providers to explore and define the IPTV evolution.

Internet protocol television (IPTV) uses IP as the transport platform to send video signals to the television via high-speed Internet connections to homes or businesses, such as fiber-to-the-x connections (FTTx) and/or digital subscriber lines (DSL).

Durga Iyer, a research analyst for Parks Associates who studies emerging technologies for delivering

quad-play services in the broadband market, asserts that service providers, including cable, satellite, and telecom operators, are getting very aggressive about pricing. Her most recent focus is on studying IPTV market and consumer dynamics. In that quest to increase their customer base, service providers are offering triple-play packages with a very thin profit margin.

"If telecom operators want to emerge as leaders in the video market, they have to identify compelling drivers for consumers to acquire their services beyond the price of the basic triple-play package," she argues.

**Quest for speed**  
Cable providers offer video services and high-speed Internet connections using a hybrid fiber coax (HFC) network.

Although HFC promises huge bandwidth for the downstream at 600 Mbps, its performance in upstream transmission is notably slower, mainly at around 128 Kbps.

"This limitation hinders the opportunity for service providers who want to offer more interactive advanced TV services and applications," she adds.

In a competitive environment where bandwidth speed no longer acts as a differentiator, telecom operators have to search for other options that will help them to distinguish themselves in the market.

As there is no definite standard established for the end-to-end IPTV backbone infrastructure, telecom operators have to partner with experienced providers for video head-end, middle-end, system integration, and other value-added services. Consumers typically associate

triple-play packages (which include voice, data, and video) with cable operators. Consumers are largely unaware that telecom operators can provide video in addition to voice and data.

**Acquisition**  
In February, Tandberg Television acquired SkyStream, headquartered in Ranuncolo, California. Founded in July 1996, SkyStream employs approximately 100 people across North America and in the UK, China and Korea.

"The assets are shifting in the digital media market and there is an inevitable level of industry consolidation taking place," says Eric Cooney, President and CEO of Tandberg Television.

SkyStream's Mediaplex 20 and iFlex switched digital video headends for MPEG-2/MPEG-4 AVC encoding and transcoding are by IPTV operators in Asia, Europe and the US.

These solutions will extend Tandberg Television's DTH head-end systems and its MPEG-4 AVC HDTV compression solutions.

In addition, SkyStream's eBand content delivery software for push-on-demand services is complementary to the Tandberg N2 On-Demand solutions.

Tandberg Television and SkyStream already share a number of common customers.

Andy Leach Vice President of Worldwide Field Operations for SkyStream, told *Televisions* magazine that Fastweb, operator of the largest IPTV service in Europe with more than 100,000 video subscribers, has deployed its Mediaplex 20 headend system.

Fastweb is using the SkyStream headends to provide 36 channels of Fastweb TV, its premium television and video-on-demand service in Milan.

"Fastweb's deployment uses the Mediaplex 20 to encode and deliver more than 36 channels of television using MPEG-2 compression over a mixed fiber and ADSL network," Leach explains.

"The deployment was facilitated by Omnia, an equipment integrator in Italy and one of SkyStream's key partners in Europe."

"Fastweb is a pioneer in IP television, with what is arguably the most successful IPTV deployment in the world to date," said Steve Wallbank, general manager of EMEA field operations for SkyStream.

Fastweb is Italy's second largest fixed telephony operator and the first player worldwide to develop an all-IP network for Triple Play service delivery (voice, data, video), currently operating in many Italian cities via a network of more than 17,000 km.

SkyStream's Mediaplex 20 is a carrier-class, complete video headend system in a single chassis that enables a new level of converged services over any last mile (ADSL, FTTH, and CATV).

Mediaplex 20 is the industry's first fully-integrated video headend to deliver MPEG-4 AVC encoding and transcoding.

With its highly-dense capacity of 48 MPEG-2 or MPEG-4 AVC encoders or transcoders, SkyStream's Mediaplex can distribute hundreds of high-quality video channels for large-scale video delivery in multiple formats and rates to millions of subscribers at the same time.

Mediaplex 20 also provides video multiplexing and de-multiplexing, routing, video non-blocking stream replication and ATM-to-IP conversion.

The Mediaplex 20 system has more than 140 field-proven deployments in the last 18 months.

**Interoperability**  
At the Forum, Amio announced interoperability with industry's leading H.264 encoder vendors.

The company confirmed that its H.264 AmioNET124 IP set-top box is fully compatible with the industry's leading H.264 (otherwise known as MPEG4-AVC) encoders.

By ensuring full interoperability and high quality video rendering via the AmioNET124 IPTV service providers can deploy advanced H.264 services using any of the major encoding technologies within a much shorter timeframe.

The AmioNET124 was launched in June 2005, and in September won the Broadband Engineering Park III Award at BEC for its innovative, single-chip design and advanced performance, which lowers the cost of IPTV deployment.

Prior to, and in the months following its launch, Amio has worked closely with both the leading middleware and encoder providers to ensure that the AmioNET124 is fully compatible with all elements of the IPTV system.

Amio announced that the set-top box has been certified to interoperate with H.264 encoded video from Harmonic, SkyStream, Tandberg

Television and Tet Systems.

"The AmioNET124's optimized software stack helps ensure that the picture quality of highly compressed digital video, such as that produced by Harmonic's DivCom MV 100, is preserved across the IPTV delivery chain," said Thierry Faucher, Director of Video Solutions Marketing at Harmonic Inc.

"Validating and optimizing interoperability between our DivCom MV 100 MPEG4-AVC-encoded video encoder and the AmioNET124 expands the range of top quality, ready-to-deploy solutions available to IPTV service operators."

The Singapore IPTV Business Development Director, EMEA and APAC for Tandberg Television, noted: "Advanced compression technology is crucial in enabling operators to launch new IPTV services over bandwidth constrained networks."

"To truly deliver with high quality, advanced compression solutions need to be optimized from the video head end all the way into the home and we are delighted to support Amio as it brings MPEG-4 AVC innovation to the set-top box sector."

"Amio has achieved a rapid time to market along with high quality with their AmioNET124 product," explained Mark Toddman, Vice President of Marketing for Tet Systems.

"The market for MPEG4-AVC IPTV is growing very rapidly and by closely partnering with Amio, we can provide the most advanced services to our customers."

**Triple-play test**

Last year, Shmick received Frost & Sullivan's Product Line Strategy Leadership Award in the European communications test equipment markets.

Baskara Jambulingam, Frost & Sullivan's research analyst, says: "The award is especially deserving, because Shmick was one of the first companies to anticipate and address the many new real-world deployment issues that the emergence of triple play brought to IP communications."

Established in 2000 and based in Dublin, with offices in San Francisco, Atlanta, the UK, Stuttgart and Singapore, Shmick has delivered its diverse test system throughout North America, Europe and Asia.

"Converged networks sharing one broadband connection is rapidly becoming a reality," says Alan Robinson, CEO of Shmick Network Systems.