



# Product of the Year Awards 2007

The CSI Product of the Year Awards are now in their fifth year, judged by a panel of highly respected industry figures, and designed to celebrate technical excellence. This year we had some 160 entries from over 80 companies, making the awards more competitive than ever. Below, we publish the 16 category shortlists, whose technical innovation in their respective fields has made them stand out for the judges. The winners

will be announced at IBC on Monday evening, 10 September in Room O at the RAI Centre, Amsterdam. Do join us between 6pm and 7.30pm; the ceremony begins at 6.30pm. We look forward to seeing you on the night.

Goran Nastic  
Editor, CSI

## Awards shortlist 2007

### Best outside broadcast technology or service

#### **Evertz Microsystems** **XRF1-16x16 RF Router**

Evertz XRF1-16x16 is an RF signal routing matrix for L-Band and IF satellite communications signals. Housed in a 1RU chassis, the XRF1-16x16 is a full-featured routing matrix with automatic or manual gain control and RF power meters on each input channel, as well as optional LNB power supplies. The XRF1-

16x16 may be expanded from a 16x16 matrix to a 32x32 matrix by connecting multiple frames in conjunction with Evertz SRF series passive RF splitters/combiners.

#### **Tandberg** **EN8040**

The EN8040 is Tandberg's second generation MPEG-4 AVC HD DSNG. It provides a multi-format

encoding platform combined with an advanced satellite modulator. The EN8040 supports a variety of formats including MPEG-2 SD, MPEG-4 AVC SD and MPEG-4 AVC HD. The encoders can be used simultaneously and supports low latency modes. Gigabit Ethernet outputs are also provided for streaming.

### Best playout/connectivity service/solution

#### **Allot Communications** **Subscriber Management Platform**

The Allot SMP builds intelligent, subscriber-aware networks. The per-subscriber visibility, policy enforcement and quota management provided by Allot SMP is the key to customising service offerings and maximising service revenues. This modular platform can be seamlessly deployed at peering points and at access points to effectively manage subscriber-based services.

#### **ATX** **MAXNET II**

MAXNET II is an integrated RF and optical signal management solution. This dense MCX-connector and mini-coax based 3RU platform offers greater than 200% rack space savings over legacy solutions. Module offerings (any combination within chassis) include splitter/combiners, directional couplers, power supplies, amplifiers, RF switches, optical receivers, and optical transmitters.

#### **Omneon** **MediaDeck**

MediaDeck is a media server system based on the company's Spectrum server. It integrates media storage, system management, GigE connectivity, and SD or HD video I/O modules in one package two RUs high. MediaDeck storage consists of eight 500-GB SATA disk drives with dual-parity RAID, providing 3 Tb of storage and protection in the event of two drive failures.

### Best digital video processing technology

#### **Harmonic** **Electra 7000**

The first multi-channel, multi-service HD MPEG-4 AVC (H.264) encoder, DiviCom Electra 7000 supports up to four full resolution HD channels and can simultaneously create low resolution services for PiP or multi-channel mosaic applications. A solution for satellite, telco/IPTV and cable operators, the IP-based Electra 7000 delivers high quality video in the range of 3-8 Mbps depending on the type of content and resolution selected.

#### **RGB Networks** **Broadcast Network Processor**

RGB's BNP delivers high density digital video processing solution for grooming, statistical multiplexing, transrating and digital program insertion (DPI). Based on RGB's VIA platform, the BNP simplifies and expedites deployments of advanced video services, simplifies operation and management, and reduces costs. The solution is aimed at any cable or IPTV operator wanting to improve efficiency, launch SDV and obtain new revenue streams from localised services.

#### **Tandberg** **iPlex**

The iPlex combines broad choice of density and enhanced features with high picture quality performance through bandwidth improvements of up to 50% over previously deployed MPEG-4 AVC units. It includes MPEG-2 SD encoding, MPEG-4 AVC HD and SD encoding, MPEG-2 to MPEG-4 AVC transcoding, MPEG-2 transrating and PiP service generation for IPTV operators.



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## Best satellite contribution/distribution/transmission solution

### Evertz Microsystems 7772MFX-HD

The Evertz 7772MFX-HD is a JPEG2000 SD and HD encoder and decoder card. It offers variable JPEG2000 compression rate on SDI or ASI. It can be reconfigured on the fly to be used as a JPEG2000 encoder or decoder. The 7772MFX-HD also supports pass through of up to 4 AES groups (8 pairs) of audio embedded or can do the embedding of the audio. It is ideal to backhaul or archive high quality contribution video with low end-to-end delay.

### ND SatCom SkyRAY Light



SkyRAY Light is ND SatCom's mobile VSAT antenna subsystem for real-time IP-based communication via satellite supports mobile IP based VSAT and SNG applications. The lightweight mobile antenna system can be mounted quickly without modifications. The operational plug and play and automatic pointing system allow non-technical users to be on

air within minutes. It enables all antenna control functions to operate without an additional external controller.

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### Tandberg SM6620 PREKOR

The SM6620 PREKOR satellite modulator is an open standards, transmission system for HD video carriage over satellite. The product achieves increased bit rate efficiency without additional RF degradation on the satellite link and without changes to the implementation of DTH or professional receivers.

## Best monitoring or network management solution

### Pixelmetrix DVStation-IP

DVStation-IP presents greater user-centric capabilities, enhanced performance and the ability to help service providers proactively identify the root cause of a problem before it becomes a disruptive force to their service provisioning. Features include MDI, on-air content validation (OCV), full Gigabit line rate monitoring for all service, as well as HD and SD support for H.264 and MPEG-2 that cover the deployment technologies of most IP video delivery networks.

### Proxilliant CAMS

The Cable Access Management System is a complete system for real-time active management, monitoring, analysis, correlation, and reporting of the HFC network and advanced services. With intelligence deployed deep in the cable access network combined with managed ingress suppression technology, CAMS provides comprehensive, precise and actionable information about network and service health and actively reduces quality-eroding ingress.

### Tektronix PQA500 Picture Quality Analyzer

The PQA500 is a new generation picture quality analysis tool incorporating embodying the most comprehensive Human Vision Model implemented. It provides a suite of measurement and diagnostic tools for picture quality analysis, including full support of HD formats. Video developers and broadcasters can quantify subjective video responses enabling them to produce an optimal customer viewing experience through tuning video offerings for differences in format and delivery means.

## Best customer premise technology

### BSkyB Sky HD

Sky HD brings a cinema-like experience at home. With 12 channels, Sky HD offers the widest choice of HD programming in the UK. There is around 5,000 hours of HD shows a month across sport, movies, entertainment, drama and documentaries. Sky HD has all the functionality of Sky+ and up to double the storage capacity, plus customers can also watch HD and SD shows on demand via Sky Anytime TV. With 292,000 customers, Sky HD is Sky's fastest-selling additional TV product.

### Pace HR20

The HR20 is the HD MPEG-4 PVR set-top box platform deployed by DIRECTV. Its key differentiator is that it has been designed to provide DIRECTV with a foundation for even more advanced technologies, including home networking, multi-room and interactive services.

MTA with integrated DECT for the delivery of advanced Internet-based services to consumers. Conceived as an entertainment and communications hub, it enables operators to deliver wired and wireless broadband Internet access, and voice services such as cordless multiple line service, HD sound for IP telephony calls and personal information management services. At the heart of the digital home, it can connect to and control multiple devices, including PCs, IP set-top boxes, printers and Thomson's wireless Music Box.

### Thomson Advanced Cable Gateway

Thomson's Advanced Cable Gateway is an e-

## Best terrestrial wireless contribution/distribution/transmission solution

### Net Insight Time Transfer for SFN networks

Time Transfer is an integrated solution for high-accuracy distribution and synchronisation of real time. It can be used to distribute a common



reference time to enable SFN capabilities in DTT and mobile TV networks. The timing information is sent over the same infrastructure that provides distribution of video/audio signals to transmitters.



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## Tandberg

### Mobile TV ecosystem including mPlex

Mobile TV ecosystem including mPlex is a head-end for mobile TV that encompasses a new video processing platform combining the mPlex, with content acquisition, mobile TV multiplexing for DVB-H, and secure content distribution, all under the nCompass Control and Monitoring management system. Operators can now easily manage a

broadcast proven architecture. Operators can now easily manage a broadcast proven architecture that makes the introduction of mobile TV simpler and with carrier-grade robustness.

### T-VIPS CP510 and CP520 cProcessor

T-VIPS designed the cProcessor range for operators and channels owners that have increasing

requirements for intelligence built into their backhaul networks. Unique features of the cProcessors include one-stop solution for MIP insertion for SFN networks and regional adaptation; flexible and powerful PSI/SI handling; efficient service filtering and re-multiplexing; user friendly GUI, input/output monitoring and advanced remote control features.

## Best workflow/asset management solution

## Harmonic

### StreamLiner 2000

The Harmonic StreamLiner 2000 video server provides a solution for delivering personal television services to a variety of distribution platforms. StreamLiner is a software architecture that transforms standard server hardware by HP and IBM into specialised, high-performance video servers that ingest, store and stream video programming on demand.

Modular design and cluster architectures allows scalability from tens of streams on a single server to millions of streams across hundreds of distributed servers.

### MSA Focus ForeTV

ForeTV is an automated system for TV revenue management. As a next-generation traffic and billing suite, ForeTV manages income from all broadcast

sources, including advertising, sponsorship, iTV, PPV, VOD, NVOD, IPTV, SVOD and related merchandise. In addition, ForeTV works as an automatic scheduler for content such as ads, movies and sports content with a complete audit trail, including revenues owing and owed. The solution also manages revenues for promotions, interactive elements and secondary events such as sponsors' logos.

## Best content protection technology

## Harmonic

### ProStream 1000

The processing platform with ProCipher scrambling technology includes support for AES scrambling and real-time bulk descrambling of up to 128 services simultaneously for distribution of video services. The ultra-dense platform lowers cost of ownership by reducing rack space requirements and power consumption. It is the first 1-RU platform that can be configured to provide a range of digital video stream processing functions, including multiplexing, re-encoding and SFN transmission over IP.

OpenTV's Core 2.0 and PVR 2.0 middleware. The solution is secured by Irdeto's Zeta smart card, which contains new technology specifically designed for the protection of stored content. A pre-configured solution from three companies simplifies the process, while also shortening time-to-market and reducing overall integration and project costs.

### Thomson NexGuard

NexGuard video watermarking is a streamlined, open architecture, forensic marking solution for set-top boxes that works with MPEG-2, MPEG-4 AVC (H.264) and VC-1. Integrated directly into Thomson's IP STB, the DBI200 embeds information (eg subscriber ID) into the output video stream to prevent copying and illegal distribution of content.

The detection and recovery system pinpoints the source of the leak by extracting the identifying information from illicitly redistributed materials.

### Widevine Cypher for the PC

Cypher for the PC is a multiplatform, multiformat solution for securing multimedia content delivery across managed/closed networks and open Internet networks to PCs/PC-based consumer devices. It combines renewable client security and digital copy protection to secure content post decryption, thus enabling emerging business models including ad revenue generation for internet distributed video and monetisation of premium broadcast, VOD, progressive downloads and streaming media.

## Best fibre contribution/distribution/transport solution

## C-COR

### GAMP3 headend amplifier

The CHP Max 5000 1GHz GAMP3, the first 3-input forward path RF amplifier, promotes flexible headend design and efficient support of advanced services. This port design was created in response to the needs of service providers to increase efficiency and to optimise system isolation performance in supporting SDV, VOD, and high-speed data. The product gives operators a cost-effective way to overcome network signal losses and

minimises the impact on system performance.

### Evertz Microsystems 7707ADVT-HD

The 7707ADVT-HD fibre transmitter extends one analogue or digital video (HD-SDI or SD-SDI) over a single fibre optic link, accompanied by two stereo channels of high-quality analogue audio, or four channels of digital AES audio. SD-SDI and/or analogue video and audio signals are encoded into a single 270Mbps signal for optical transport. HD-

SDI signals are encoded into a single 1.485 Gbps signal for optical transport. DVB-ASI is transported transparently across the fibre, without audio.

### Network Electronics DWDM-40C

The DWDM-40C is a 40-channel DWDM multiplexer and de-multiplexer, with sensitivity that maximises fibre backhaul distances without boosting or amplification. It is ideal for broadcasters having adopted DWDM backhaul



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technology, and for network owners providing backhaul services. It reduces fibre requirements and is signal/bit-rate transparent, supporting SDI, HD-SDI, GigE and SDH/SONET run on separate wavelengths.

### T-VIPS TVG 415/TVG430

The JPEG2000-based TVG430 (for HD) and TVG415 (for SD) are from T-VIPS' range of video gateways. The T-VIPS Video Gateway product range is designed for real-time contribution and distribution

of professional video over IP networks. Both the TVG430 and TVG415 utilise JPEG2000 compression to offer high error-resiliency and high picture-quality. The TVG430 reduces the bit-rate required for an HD-SDI signal from 1.485 Gbps to between 50-200Mbps.

## Best content-on-demand solution

### C-COR Unified Video Delivery Platform

This solution integrates scalable on-demand and ad insertion servers into a common and interoperable hardware and software platform. It provides complete delivery and content management of on-demand, time-shifted TV, SDV, linear and advanced advertising capabilities. By removing platform silos, service providers can stream content and advertising to any device from a single server and better integrate ads to video services.

### Irdeto Irdeto/Pace/OpenTV Push VOD HD PVR

See product description in Best content protection category.

The SmartVision service management platform is at the heart of the Thomson IPTV solution for managing and delivering live television, VoD, and interactive services such as triple-play delivery over high-speed networks. In a single, centralised application, operators can track content, manage subscribers and introduce value-added services. Sapphire is designed to support large numbers of concurrent users for VoD and related services such as network PVR and time-shifting.

### Thomson Sapphire VoD Server with SmartVision Service Platform

## Best cable video/data/voice last mile transmission technology

### Arris C4 CMTS Release 5.1

The C4 CMTS with release 5.1 is capable of supporting 52,000 cable modems and 32,000 primary line VoIP subscribers. It enables cable operators to provide the throughput of four bonded DOCSIS channels in each direction to transport data at Euro-DOCSIS speeds of up to 168Mbps downstream and 120Mbps upstream. It can support all legacy modems on the same channels as the pre-DOCSIS 3.0 wideband modems and offers flexible channel bonding ratios to boost bandwidth speeds.

can lower the equipment cost of increasing broadband speeds by as much as 75%. Cuda is designed to support downstream channel bonding via software upgrade only to enable downstream bandwidth of 100Mbps or more, and can support both DOCSIS 3.0 downstream channel bonding modems and existing DOCSIS modems on the same channels.

applications simultaneously within the same chassis. It features designed-in redundancy on all inputs, hot-swap modulator cards, low power consumption and built-in options for encryption and DTI.

### Teleste AC3000 amplifier

The new breed of broadband amplifiers is designed to turn operators' life simpler. The completely new AC3000 amplifier with Onlign technology is resilient and easy to operate. With features like continuous electrical adjustments, automatic gain adjustments, downstream spectrum analyser, upstream signal quality monitoring with automatic ingress control and integrated microprocessor control that provides fully automated operation with single push button alignment, these amplifiers deliver performance, reliability and ease of use.

### Tandberg Edge QAM EQ8096

The Tandberg Edge QAM is a next-generation QAM device that offers density with up to 96 QAMs in a single 2RU chassis, high reliability, low power consumption, and designed-in redundancy features. The Edge QAM is based on open-standards and incorporates Cable labs DOCSIS 3.0 (including DRFI and M-CMTS) specifications. It is able to operate in broadcast, VOD, SDV and high-speed data

### BigBand M-CMTS for DOCSIS 3.0

BigBand's Modular CMTS solution, based on its Cuda CMTS platform, enables functions of the CMTS hardware to be shared with edge QAMs. It

## Best interactive TV technology or application

### BSkyB Remote Record

Sky+ and Sky HD customers can record their favourite TV programmes from a mobile phone or online, wherever they are in the world. Sky's Remote Record service is on three platforms – making it a world first. Remote Record makes it easier to fit TV around people's increasingly busy lifestyles.

### Ensequence Blu-ray Disc authoring solution

Ensequence's authoring solution enables programmers and studios to deliver customised, fully interactive content to viewers via Blu-ray Disc. The on-Q Create software suite gives advertisers, programmers and operators a toolset for building, testing and distributing interactive video content across TVs, PCs and mobile devices.

### Harmonic ProStream 2000 Digital Mosaic

ProStream 2000 is a multi-service HD and SD MPEG-4 AVC (H.264) digital splicer that supports real-time and seamless splicing of multiple compressed video and audio services. This is the first splicer featuring multi-channel and multi service capabilities within a compact 1-RU chassis, and supports multiple SD or HD streams (up to 24 HD H.264 or 64 SD H.264 streams in 1-RU).



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## Best IPTV technology or service

### Amino AmiNET125



The AmiNET125 is the first multi-codec STB used by telecom companies and ISPs to offer advanced IPTV and Internet TV applications. The AmiNET125 supports the use of Internet video

formats, best-of-breed internet browser integrations, enabling advanced HTML-based interfaces for a richer user experience, and the device can provide video telephony services.

### Microsoft TV Xbox 360 with Microsoft Mediaroom

The Xbox 360 with Microsoft Mediaroom is an advanced product for the digital home, offering next-generation gaming and TV on a single device, an industry first. Key features include the ability to play Xbox games and record TV shows at the same time and integration into the Xbox Live community.

### Packet Vision IPVY Addressable Advertising Service

Packet Vision provides a targeted and addressable advertising service within IPTV. The service consists of an IP delivery platform, and allows generic commercials to be replaced with specific, targeted advertisements, achieving a high level of granularity. It supports local ad insertion, and enables advertisers to select their audience according to demographic or geographic profile. The same ad avail can then be sold many times over, substantially increasing its value per home.

## Best Mobile TV technology or service

### Envivio 4Caster M2 Mobile TV Encoder



Envivio 4Caster M2 is a real time multi-standard H.263/H.264 mobile TV encoder supporting multiple rates, resolutions and protocols. M2

can output and manage up to eight subscriber profiles simultaneously from a single input and features IP statistical multiplexing, WM9 support, IP input and CAS integration capabilities. It can deliver video to any cellular, mobile broadcast, Wi-Fi and WiMAX network.

### Tandberg Mobile TV ecosystem including mPlex

See product description in Best terrestrial wireless category.

### Thomson End-to-end mobile TV solution

Thomson offers an end-to-end-mobile TV solution that includes a content repurposing system, headend, carrier-class interactive service platform and transmitter technology. On the management side, Thomson offers a single point of management and control through the SmartVision service platform for live, on-demand, interactive and push-VoD services.

## Best HDTV technology or project

### BSkyB Sky HD

See product description in Best CPE category.

### Conexant Systems CX2427x decoder



dual-channel video decoder that is capable of decoding two HDTV programs simultaneously in any dual stream combination of

MPEG-2, H.264 and VC-1 formats, and supporting PVR applications on up to two televisions. This integrated solution eliminates the need for a dedicated set-top box receiver for each TV.

### TechniSat HD Vision PVR



Being an "all-in-one" LCD TV, this combines all reception options, ranging from digital TV and radio to analogue broadcasts via cable or antenna. It's equipped with an integrated HDD enabling time-shift viewing and recording, a

CONAX CA system, a CI slot as well as two HDMI sockets. A bouquet of various software modules including automated updates and program finders is included.

### Thomson ViBE EM3000 HD encoder

The ViBE EM3000 HD encoder takes HD content from the broadcaster and compresses it into a digital transport stream for delivery - via terrestrial broadcast, cable, satellite or IPTV - to the consumer's set-top box. The ViBE EM3000 preserves the quality of HD services while delivering them at bitrates comparable to today's SD MPEG-2 transmissions: HD can be delivered in 6 Mb/s or less for broadcast applications, and down to 4 Mb/s or less for IPTV.