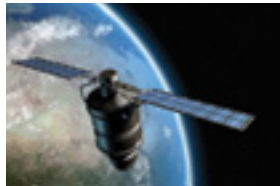




PICTURE THE PASSION

VIDEO COMPRESSION



SUPERIOR QUALITY



EXPERTISE

RELIABILITY

BANDWIDTH PERFORMANCE



INNOVATION





желанный

VÄLKOMMEN

BENVENUTO

歡迎

BIENVENIDO

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WILLKOMMEN

BIENVENUE

欢迎光临

WELCOME

BEM-VINDO

“ Picture the Passion ”

Recognized as the leader in delivering outstanding digital television compression systems and services, **Thomson Video Networks** is an industry pioneer with many firsts to its name, including the roll-out of HD and mobile TV systems worldwide. As the market leader in professional-grade MPEG-2/4 and JPEG 2000 compression and content processing, as pioneers of MPEG testing, and as active participants in digital television standards bodies, Thomson has a long-term history of innovation that maintains our customers' competitiveness through rapidly changing media landscape.

Thomson is a trusted partner of leading broadcasters around the world – a unique supplier with an exceptional commitment

to quality at every stage: from R&D, through professional services for our customers, to the picture on the viewer's screen. Our complete compression systems, from digital terrestrial to hybrid networks, solutions for advanced digital video processing, 3D video technologies, and in everything we do, reflects that wholehearted commitment.

Above all, it is our technology and expertise in video compression that is at the heart of our business. Our non-stop, no-compromise drive to develop the tools for delivering tomorrow's digital television is truly expressed in the words: Picture the Passion.

Christophe DELAHOUSSE
PRESIDENT, THOMSON VIDEO NETWORKS



▶ VIDEO COMPRESSION SOLUTIONS: IN-DEPTH QUALITY

VIDEO COMPRESSION



BANDWIDTH PERFORMANCE

SUPERIOR QUALITY



SYSTEM EXPERTISE

BEYOND INNOVATION

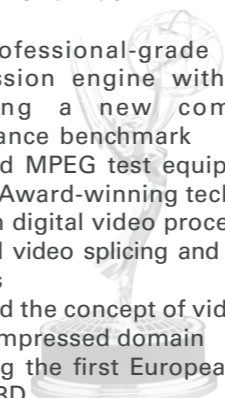


AWARD WINNING TECHNOLOGY

Our products and services are synonymous with innovation, superior quality, and reliability, and we work regularly with many of the world's leading broadcasters. Since delivering the world's first large scale direct-to-home satellite system, our philosophy has always been the same: to provide the best possible picture quality across any network, to any device. Applauded by industry experts, our approach has won numerous awards over the years in recognition of our commitment to innovation and the continuous development and launch of products that our customers use to provide the

best possible viewing experience to audiences worldwide.

- First professional-grade MPEG-2/4 compression engine with Mustang delivering a new compression performance benchmark
- Pioneered MPEG test equipment with Emmy® Award-winning technology
- Leader in digital video processing with advanced video splicing and transrating solutions
- Pioneered the concept of video servers in the compressed domain
- Delivering the first European sporting event in 3D



MARKET LEADING PORTFOLIO

- The **ViBE** video compression family - the industry standard for encoding and delivering superior video quality in all formats across all networks.
- The **NetProcessor** video processing platform - a flexible, modular MPEG content processing solutions for handling valuable content.
- The **Sapphire** broadcast server - a unique ingest, playout and insertion MPEG server with advanced video and audio processing features.
- The **XMS™** Network Management system - a powerful view of all technology and content-flows to manage on-air operations, and for monitoring and troubleshooting.
- The **Amethyst** redundancy switcher - a scalable and intelligent way to monitor and control the final output multiplex.
- The **test and monitoring** solutions - an advanced portfolio of products ranging from high-end analyzers to monitors, and test equipment for field engineers.



A GLOBAL NETWORK TO SUPPORT CUSTOMERS WORLDWIDE

Thomson Video Networks employs over 400 highly-skilled people in the Americas, Asia, Australia, Europe, the Middle East, and Africa. The company's global headquarters is in France with additional sales, systems and services locations in the US, Brazil, UK, the Netherlands, Spain, Italy, Russia, India, China, Singapore, Taiwan, Malaysia, and Australia.

Thomson Video Networks has a strong international service organization delivering highly-professional, tailored systems to every part of the world including 24/7 support, augmented with a network of valuable business partners to complete our reach to nearly every corner of the globe.

Thomson Video Networks is a market leader in video delivery systems that provide a premium viewing experience across all networks, to all devices. For more than 15 years, we have driven the digital television revolution forward with our advanced compression and content delivery platforms. Our award-winning product range is used by the world's major broadcasters and is prized for the superior video and audio quality it provides.

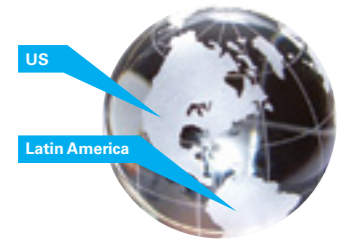
Every day, media distribution systems from Thomson deliver crystal clear video to millions of homes all over the world. Our innovative media solutions let customers deliver content in any format, to any device — from large 3D screens to handheld mobile TV devices. Our solutions cover all video applications, from

high-quality contribution networks for professional content exchange to large multichannel, multinet network direct-to-home systems.

In addition to best-in-class compression products, we offer you a complete range of highly professional services including systems integration, commissioning, service agreements, and training. When you invest in our video compression solutions, you are investing in the best technology and the most knowledgeable support team in the industry. Whether it's installing new equipment, training your technical staff, or helping you reduce your long-term maintenance costs, you can count on our experienced engineers to offer you a full range of comprehensive services.

CLIENT DIRECTV

- **PROFILE**
DIRECTV is one of the most important and influential service providers in the world and delivers satellite-based television services to U.S. customers in homes and businesses, as well as throughout Latin America.
- **MARKET**
SATELLITE DIRECT-TO-HOME (DTH)
- **SOLUTIONS**
Turn-key satellite DTH MPEG-2 compression system
- **BENEFITS**
DIRECTV first turned to Thomson and the ViBE MPEG encoder range in 2003, and has remained a long-time and loyal customer of Thomson compression systems because of the quality, proven system reliability, and flexibility they provide.
As part of their rolling program of increasing their channel lineup, DIRECTV selected the ViBE MPEG-2 SD encoders which allowed them to add additional channels per transponder. With this latest phase of infrastructure, DIRECTV has created a strong platform for meeting its business objectives, with the capacity and flexibility to launch new service offerings quickly and easily.



“As our customers demand more choice, including high-definition programming and other services, DIRECTV continues to upgrade its systems to accommodate this significant growth,” said Don Jones, Vice President, Broadcast Operations, DIRECTV, Inc. “The Thomson ViBE platform allows us to do that while maintaining and even improving our picture quality.”



CLIENT TELEFONICA

- **PROFILE**
Telefónica is one of the world’s largest telecommunications companies operating in 25 countries with a strong foothold in Spain, Europe, and Latin America.
- **MARKET**
IPTV, SATELLITE & CONTRIBUTION
- **SOLUTIONS**
Large multinational, IP network video compression system to exchange real-time video content across multiple Spanish broadcasters.
- **BENEFITS**
Thomson provided the complete digital TV headend for Telefónica’s IPTV service in a long-term turnkey contract, and has been a key partner helping Telefónica become one of the world’s largest multinational broadcasters and content providers in both Europe and across South America. With a large IP infrastructure for moving voice, video, and data, Telefónica wanted to capitalize on its network by offering external broadcasters the ability to move their content over contribution links between locations. In addition, Telefónica wanted a compression codec with minimal latency, to enable two-way interviews when needed. Again, Telefónica turned to Thomson for the complete range of equipment they needed, as well as a strong foundation for telco contribution deployments.

“Audiences are used to good quality television, whether it is standard- or high-definition, regardless of how it is delivered,” said Christophe Delahousse, president of Thomson Video Networks. “It is obvious that viewers will turn away from any delivery platform that does not provide the best viewing experience. That is why we developed our own unique approach to digital compression, to ensure the best possible quality in the right bandwidth, whatever the application.”



CLIENT SIEMENS

- **PROFILE**
Siemens IT Solutions and Services is an internationally leading provider of IT solutions and services and has supplied terrestrial broadcasters in the UK with HD coding and multiplexing to enable viewers to watch TV channels in high-definition on digital terrestrial TV (DTTV) for the first time.
- **MARKET**
DIGITAL TERRESTRIAL TV
- **SOLUTIONS**
Far-reaching DTTV MPEG-4 HD compression system as part of the country-wide digital switchover.
- **BENEFITS**
In association with a number of broadcasters, Freeview launched four new high-definition channels for their expanding DTTV services delivered using a full complement of statistical multiplexing, transmission, and compression technologies from Thomson. The equipment and systems installed by Siemens IT Solutions and Services enable their client to provide new HD services within their existing bandwidth using MPEG-4/AVC compression technology.



“ We chose the Thomson encoding platform due to the exceptional image quality it provides after encoding and decoding, and for its audio capabilities,” said Graham Whiting, Project Director at Siemens IT Solutions and Services. “The technology is also easily implemented into the overall system for our client so we are assured of a tight integration that is reliable and cost-effective to deploy. We’re also using the technology in our own facility to pre-test systems before they are deployed.”



CLIENT RELIANCE BIG TV

- **PROFILE**
Rated among “Asia’s Top 5 Most Valuable Telecom Companies,” Reliance Communications is India’s foremost and truly integrated telecommunications service provider. Reliance Communications has established a pan-India, next generation, integrated (wireless and wireline), convergent (voice, data, and video) digital network. Reliance BIG TV is a new venture of India’s largest private company, Reliance.
- **MARKET**
SATELLITE DIRECT-TO-HOME & IPTV
- **SOLUTIONS**
Large hybrid DTH and IPTV compression system including 300 high-definition and standard-definition channels, as well as 50 radio channels.
- **BENEFITS**
Thomson has supplied Reliance with a complete video compression system for a hybrid distribution network of satellite DTH and IPTV over broadband, for high-definition and standard-definition video services throughout India. Using Thomson’s video compression systems, Reliance was able to optimize its distribution network to launch a large number of channels, ensure excellent quality of service, and reach more viewers.

“ This is an ambitious project and launching such a large bouquet of channels, including HD channels, over a dual-distribution network is a challenging proposition which Reliance BIGTV is uniquely qualified to meet. Viewer quality expectations are high and satellite bandwidth over India is limited,” said Mr. Arun Kapoor, Chief Executive Officer, Reliance BIG TV. “We selected Thomson’s video solutions as they indisputably offer best-in-class performance for picture quality and compression capacity.”



BRINGING 3D CONTENT TO THE HOME

2010 has certainly been the year of 3D. From the release of films like Avatar and the marketing push from all major LCD manufacturers, 3D has become the most talked-about subject in the media industry, with every Tier-1 broadcaster planning to roll out some form of 3D service. With more than 50 service launches anticipated over the next two years, the biggest challenge is going to be filling those channels with high-quality content. To support the growing interest in stereoscopic 3D television, Thomson is using its leadership in video compression and content processing technologies to offer transport solutions for both backhaul (contribution link) and delivery to the home.

It is anticipated that sports is likely to be a major driver for 3D TV, so there is a need for a reliable and bitrate-efficient contribution link to backhaul the content from the sports venue to the broadcast center. The new Thomson ViBE VA5004 contribution encoder with its 3 Gb/s input capabilities simultaneously accepts both left-eye and right-eye views, and uses JPEG 2000

to achieve the highest-possible quality and compression efficiency. By using a single compression engine, processing is matched across the two channels, and synchronization is ensured with minimum transmission latency. This integrated dual-channel solution guarantees perfect temporal synchronization and image matching, preserving the 3D effect from the action to the home.

To deliver 3D to the home, Thomson has introduced a new version of its ViBE encoder family. The EM3000 MPEG-4 HD encoder is set up to encode the "side-by-side" stereoscopic signal preferred by some pioneering broadcasters to deliver 3D via a standard set-top box. Thomson is working with a number of leading companies in the field of 3D video, to optimize the H.264 algorithms to ensure that premium quality is maintained during broadcast to the home. The ViBE EM3000 HD encoder has already been used in a number of 3D trial broadcasts and was recently used by a pan European premium sports channel for the coverage of this year's French Open tennis tournament.



"The industry is very much in the experimental phase for stereoscopic 3D television broadcasting, and it is really important that these trials and early launches can use existing, proven technology to minimize the capital outlay," said Christophe Delahousse, president of Thomson Video Networks. "With our technological and market leadership in compression and digital video processing, we are providing the tools for bringing high-quality 3D content back from sports stadiums and delivering it over today's existing infrastructure, with guaranteed image quality and 3D-sync, with the best use of bandwidth."



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