

View Point



Infosys Product Engineering services

is helping drive the convergence of professional services and digital technologies in the Digital Media space

Convergence has finally arrived

Convergence in Communications, Media and the Internet is pitting the giants of industry against one another. Two key aspects of converged competition are video distribution and content aggregation. Let's look at convergence in distribution and assess how the "Triple Play" (offering of video, voice and high speed data) and "Quad Play" bundles (triple play plus mobile) may evolve between media content players, communication service providers and content end points and how professional service firms such as Infosys can help in making the market.

Media Content Players, Communication Service Providers and Content End Points

Today, most Media companies are limited in their control of content distribution. Content is broadcast from a hardware system in a broadcast studio to a fixed location in the home, office, hotel, airport or theatre. Although Media companies frequently own both content and distribution networks, Service Providers such as cable and satellite companies own the delivery networks. Thus, a “control gap” exists between the starting and the end point.

Technology is changing this dynamic. Given the advances of broadcasting and distribution technologies, there is no reason why Media companies today can't distribute both local and global content to authenticated devices somehow connected to the Internet or cellular channels and transform themselves and their businesses using digital technology.

Infosys Product Engineering is helping Media companies face this challenge head on with technology services that cover content creation and management, the transmission using digital standards over an IP (Internet Protocol) converged network and integration of delivery end points to the IP network.

We see two major themes developing in the industry:

- As the Consumer Digital Media Ecosystem is in a constant state of evolution, hardware, software and service providers are required to work together in an integrated way. This ensures that Media companies are able to move content across channels, while allowing consumers to interact with it across devices.
- Beyond technical convergence there is an “experiential” convergence that is occurring. We are moving into an era where discreet concepts of media are giving way to a broader notion of the media experience. Soon, all forms of media and communication will move effortlessly and seamlessly across devices, no matter what device a user owns and irrespective of whether the device is in the home, auto, office or on a person. The user also expects a single universal experience from all form factors whether its TV, PC or mobile.

In this context, Infosys Product Engineering is helping Media companies in several key ways:

1. Streamline the automation of business processes
2. Streamline the automation of data feeds inventory, authentication and billing for payper- view and subscription-based content
3. Streamline the distribution of the content.
4. Assemble the content management and distribution networks as well as test the networks and their access all the way to the end point.
5. Help guide the technology selection of either a best of breed or an integrated solution. For example, we helped one of the largest Telcos to go through a similar process for their Triple Play service delivery.
6. Facilitate the definition of the business and technical requirements and interface agreements between all vendors that need to be brought together to provide an integrated service. Infosys becomes a single point of contact for resolving issues with the integrated solution.

Further, Infosys has broad expertise to help Media companies create a universal and consistent content experience for consumers. From a technical point of view, web search sites such as Google are facilitating access to personalized email, files, digital radio and even services (word processing, spreadsheet, and so on) through a single sign-on mechanism. The next evolution would be for digital content to be delivered through a similar mechanism extending IPTV, voice, pay-per view shows, subscription audio & video to a registered and certified mobile device (phone, laptop etc.) There are several hurdles in the transmission and delivery of the web media content any time anywhere, on any device.

Infosys can help enterprises overcome all the key hurdles such as authentication through a single window or a single sign on mechanism, integration and delivery of media to devices based on their form factors (TV Screen, PC, Mobile) and resolution to the expected formats (Standard TV, HDTV etc.) on the screens. In other words a professional service company such as Infosys can help to resolve the technology hurdles in the way of a universal and uniform experience for media consumers who range from non-tech savvy to gadget savvy road warriors.

Infosys Product Engineering Capabilities in Digital Media technologies

Infosys Product Engineering (IPE) brings to client engagements deep expertise across all elements of the product/service/solution development value chain. IPE helps companies build products/services/solutions better, faster and cheaper – and truly makes them “user” centric. IPE consists of more than 4,000 people focused on building turnkey products and solutions in all areas of voice, video and data convergence across distribution networks, be they wire-line, wire-less or cable. With over 40 clients worldwide, IPE has a specific focus on optimizing the holy grail of broadcasting – high quality video on any device at any time, any where.

IPE services span across both play-out and consumption content elements:

Media, Editing, Storage and Broadcasting:

IPE helps broadcasters create programming that is not only interchangeable between file formats and viewing standards but deliverable over different and disparate networks. IPE has deep experience in digital content management, digital rights management, insertion and broadcast technologies with expertise on leading vendor equipment for linear and non-linear editing such as AVID Inc. This experience has been acquired through client engagements that included the design and development of a variety of products driving the creation, distribution and play-out of digital video for both high resolution full feature films and low resolution broadcast media.

Consumer and Customer Premise Electronics:

IPE has experience working with consumer premise equipment ranging from set-top boxes to MP3 players to mobile feature phones. We understand the complexities of a small footprint and low power device, the demands for application software, as well as the time-to-market constraints of Consumer Electronics companies.

Our Offerings & Capabilities

Driven by digital technologies, the Media industry is constantly striving to enhance consumer experiences while reducing the costs of production. Here, competitive advantage is defined by a company’s ability to rapidly leverage advances in technology and reduce the time it takes for its product to reach target audience and typically within razor-sharp margins. Concurrently, media operations must overcome challenges including the need for custom-built products and applications, the need to seamlessly cater to multiple devices, high infrastructure upgrade costs and piracy, to name a few.

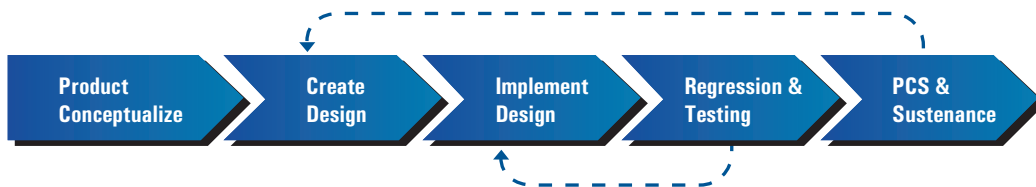
Leveraging the evolving digital media technologies, IPE has developed cost-effective, quality solutions to help companies address these challenges.

For the Digital Media industry, IPE has developed a comprehensive service delivery framework that spans across multiple areas, including:

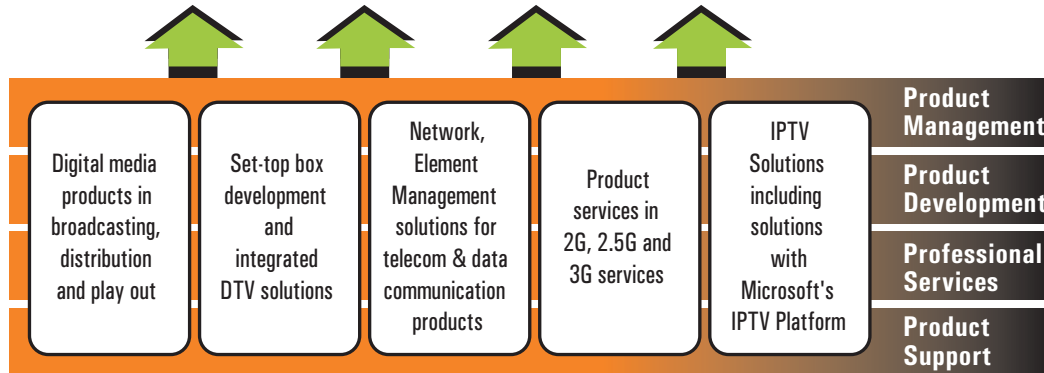
- Product Development
- Product Management
- Professional Services
- Product Support

IPE’s approach extends from concept to market and enables us to offer effective solutions in:

- Digital media products in broadcasting, distribution and play out
- Set-top box development and integrated DTV solutions
- Network and Element Management solutions for telecom and data communication products
- Product services in 2G, 2.5G and 3G services
- IPTV Solutions including solutions with Microsoft’s IPTV Platform



The Product Engineering (PE) approach covers solutions from concept to market



Product engineering expertise in digital media

<ul style="list-style-type: none"> • Strategic business consulting • Business process re-engineering • Custom application development & maintenance 	<ul style="list-style-type: none"> • Package selection, implementation and maintenance for ERP, CRM, SCM and EAI • Independent testing and validation 	<ul style="list-style-type: none"> • Specialized services <ul style="list-style-type: none"> - Business intelligence and data warehousing - IT architecture assessment & transformation roadmap - Performance Engineering
Infosys Services		

Portfolio Re-Rationalization

Helping a broadcast and video solutions provider drive new product sales

Overview

A leading provider of broadcast and video solutions to major production houses wished to optimize the cost of its product line and create workflow software and media solutions to bundle with its core product line. Ultimately, the client wished to re-deploy its engineering bandwidth to next generation development work and sought an efficient technology partner to transfer its legacy work.

The client enlisted Infosys' expertise and achieved its goals quickly.

Infosys Solution

Drawing from its rich experience of working with digital media technologies, Infosys' PE Group developed a comprehensive solution that involved creating software to capture and play-out video streams from a device while storing it in various formats. The solution also includes a workflow manager, a DAM system as well as an editing software. The group employed the following technologies to ensure a robust solution:

- MPEG-2 (low res)
- Sony IMX
- DV 25
- DV 50
- SDI Video storage

Benefits

Apart from the cost and effort savings that Infosys predictability ensures, the client was able to

- Enhance its product portfolio owing to a DAM and asset management systems created by Infosys.
- Provide end-to-end solutions from content creation to re-purposing to format conversion.

Quality Unleashed

Accelerating time-to-market for a non-linear editing solutions provider

Overview

The client is a leading provider of non-linear editing solutions. The client wished to improve the quality of its products while accelerating the time-to-market of its non-linear editing solutions.

The client partnered with Infosys to deftly negotiate business challenges and achieve market supremacy through superior product quality.

Challenges

The company operates in a highly competitive market where customers have innumerable choices hence low loyalty. The company was beset by delays in product releases that threatened to diminish its business competitiveness. It needed to enhance the quality of its products immediately.

Infosys Solution

As a technology partner to the client, Infosys was involved in the development, sustenance, QA & testing of the following applications:

- Media Capture Box
- Media Manager
- Media Transcoding Manager
- Editing application
- Storage software

Leveraging its extensive experience and proficiency in multiple technologies, Infosys successfully redesigned product features and functionality, optimized, ported and migrated the software and developed the drivers.

Benefits

The client, in addition to leveraging a trusted partner with a global reach and cost advantage, witnessed significant improvement in quality of its editing solutions and accelerated time to market.

Accelerated Innovation

Reducing Total Cost of Ownership for a Digital Video Home Networking solution provider

Overview

The client is a leading digital video home networking applications and home access solutions provider. The company wished to develop a desktop management tool to supplement its core product and was interested in help with sustaining engineering, QA & testing required of DVS products.

Challenges

In order to keep pace with market demands and introduce innovative products to sustain market leadership, the client needed to re-deploy its engineering resources from sustaining digital video systems (DVS) to innovating new video products for Cable MSOs.

The client partnered with Infosys to tackle technology challenges and fuel business competitiveness.

Infosys Solution

The Infosys team of experts established robust processes resulting in more efficient code merges, which prevented memory leaks. It facilitated migration to a stable SNMP reference architecture and also helped the client improve its Java performance on the box.

In addition to a proprietary OEM platform, Infosys employed other technologies such as C, Java, MPEG, Power PC architectures & x86 and Pentium architectures to ensure a robust, flexible solution that the client could exploit.

Benefits

Infosys, with its intrinsic strengths of delivering cutting-edge technology solutions to fuel business competitiveness, helped the client reduce the Total Cost of Ownership, TCO of its DVS products. Infosys also provided innovations around media streams and video quality to its client.

For more information, contact PE@infosys.com



For more information, contact askus@infosys.com

About Infosys

Many of the world's most successful organizations rely on Infosys to deliver measurable business value. Infosys provides business consulting, technology, engineering and outsourcing services to help clients in over 30 countries build tomorrow's enterprise.

For more information about Infosys (NASDAQ:INFY), visit www.infosys.com.