Opportunities and Challenges for the Global IPTV and VoD Market, Managing Quality from the Mobile Device to the Contact Centre
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Industry Overview, IPTV and VoD

While IPTV and Video on Demand have differing characteristics and employ somewhat different technologies, the rapid pace of technological change, consumer options and preferences is creating huge market opportunities. Whether content is consumed live or time-shifted and in the customer’s living room (IPTV) or streamed to PCs or other mobile device via the internet (VoD) some industry experts have proclaimed that consumer expectations are already exceeding the ability of industry to meet those expectations.

Major telecommunications firms, cable operators and other content providers are exploring options to successfully monetize content and build out successful business models. Consumers with advanced smartphones, tablets and digital video recorders have dramatically changed the ways in which customers consume content. The ability to access content anywhere and at any time seems to be the consumer expectation trajectory.

According to information consulting and market research firm SNL Kagan, “Over the next five years, the global IPTV subscriber base will grow at 9.1% from 2012 to 2017 in terms of compound annual growth rate (CAGR), reaching 100.5 million homes by 2017, equating to an 11.5% pay TV subscriber share. IPTV video service revenues are expected to reach $41.2 billion by 2017, accounting for 13.9% of global total pay TV revenues”.

“As with most high growth markets characterized by rapid technology change, there are both significant opportunities as well as daunting business and technology challenges. A successful business model requires meeting or exceeding customer expectations across multiple content delivery modes.

Other market research firms estimate that the total IPTV market may grow even faster, to nearly $57 billion in service provider revenue by 2016. More importantly, the IPTV market is truly global. For example, China has the most IPTV subscribers and the fastest growth is occurring in emerging markets such as Latin America and the Middle East/Africa.

According to Devoncroft’s 2013 Big Broadcast Survey (BBS), a global study of broadcast industry trends, technology purchasing plans and benchmarking of broadcast technology vendor brands “The fact that multi-platform content delivery (MPCD) is considered by respondents to be the industry trend that is most important commercially to their business jumps off the page, and is perhaps not surprising, given the rise of on demand video platforms, consumer mobility, and sales of smartphones and tablets. Indeed, across multiple studies, research participants have repeatedly told us that multi-platform content delivery is the trend that is most commercially important to their business over the next several years”. The rapidly changing technology landscape has media industry leaders pointing to a variety of trends that they feel will be crucial for growth and success.

In an article from Streaming Media magazine in the December 2012/January 2013 issue titled: Streaming Media Predictions: What’s in Store for 2013, business leaders were asked about the top trends in streaming video. A short summary of some of their responses follow.

**Ran Harnevo, SVP of the AOL On Network:** “The rise of connected TV: In the coming year, we can expect to see connected TV really take off and become a threat to mainstream TV with a surge in consumer adoption and premium Web publishers’ integration of these devices”.

**Kelly Day, CEO, Blip Networks, Inc.:** “The 2013 theme for original web series will be “go big or go home.” Big media companies will get more serious about original web video”.

“ITV is the fastest-growing pay TV platform from a global perspective, increasing by 29 per cent year-on-year growth,” said Julija Jurkevic, SNL Kagan media and communications analyst.
Eduardo Henrique, head of U.S. operations, Movile
“I think the value chain, the business model and the logistics to distribute content need to change in 2013. Everything needs to be more on demand and users will pay only for what makes sense to them”.

Alex Wellen, VP of Video Products and Business, CNN: “Personalization and portability lie at the heart of future video products and business models”.

As with most high growth markets characterized by rapid technology change, there are both significant opportunities as well as daunting business and technology challenges. A successful business model requires meeting or exceeding customer expectations across multiple content delivery modes. As previously noted, those customer expectations are already high. Consumers have come to expect high quality video and audio based on their experience with traditional broadcast models. While they are quite forgiving with free content delivered over the web, the same does not hold true for a paid service.

Industry statistics from CDN World indicate that 75% of customers who receive poor quality IPTV service will either not return or will seek out a different provider. These figures do not bode well for providers who cannot consistently meet consumer quality expectations and meet them on multiple devices.

The technical hurdles are indeed daunting. Building out a consistently high quality IP platform requires managing a massive number of video assets and being able to deliver that content in dozens of formats for different devices. Unlike a traditional TV infrastructure, IP assets require differing encoding, compression and digital rights management (DRM) to reach a variety of mobile devices.

The assets must be available to a geo-targeted audience, accurately tracked, secure and also be compliant with differing DRM rights windows and schedules.

Compounding the technical challenges, various entities across the often disparate delivery platforms require adherence to SLA’s and advertisers increasingly demand more detailed information as their media buys span vast amounts of content.

With a large, complex network delivery structure imbued with inherently complex business logic, large inventories and consumer driven quality mandates the challenges would seem best addressed through enterprise automation.

However, the majority of telecommunication and media companies still utilize manually intensive engineering and quality control processes. Network engineers routinely watch videos and manually record problems for quality control.

*Source CDN World Forum, London 2012*
Manual processes are highly prone to human error, expensive and even the most skilled staff can only manage what they can access and control. Manual processes are also exceedingly difficult to scale. Yet scaling up new, high quality services to meet customer demand is required for success in this emerging market.

The majority of telecommunications and media companies do have some service delivery automation tools in place. Unfortunately, the majority of these automation tools were not purpose-built for a fast growing and rapidly evolving IP delivery platform, until now. Having real-time visibility of large volumes of dynamically changing assets over increasingly evolving delivery methods with stringent DRM restrictions requires a high level of automation, intelligence and flexibility.

The most forward thinking enterprises today are deploying suites of intelligent software robots and probes across their networks in order to automate asset management and delivery workflow. These software robots can automate quality, workflow and delivery from head-end to the network edge to the agent desktop in the contact center.

The PSS nTelligence Solution Suite

The PSS nTelligence suite is the single most comprehensive, intelligent end-to-end media, data and voice workflow and automation toolset on the market today. Purpose built for large global enterprises, nTelligence was developed based on PSS’ 10 years of industry experience as specialized systems integrators designing and developing fully integrated enterprise-class communications solutions. No other solution comes close to the full range of capabilities, including SLA/OLA management, asset management, quality control, analytics, reporting, compliance management, scheduling, workflow automation and more. nTelligence is already deployed at the UK’s largest TV company and other large enterprises around the globe.

Quality

Using the PSS nTelligence toolsets, each asset can be checked during each stage of its delivery, from transcoding all the way through to a user requesting and consuming the content. Optionally delivered as a managed service, these suites preserve investments in existing automation systems and provide a single unified view of the entire network.

Monitoring

PSS’s nTelligence solution supports a complete range of modes including IPTV, VoD, mobile, adaptive streaming and the ability to integrate with multiple delivery platforms to provide a comprehensive end-to-end monitoring solution for IP media. By automating data collection, asset tracking and quality testing, all results can be correlated and displayed on a service dashboard in the NOC or the call centre. The dashboard view provides the ability to drill down to the service by asset, by play-out time, by rendition type, by geographical area or by performance exception.

Workflow

Probes can be distributed across the delivery network, at various stages of delivery or at diverse geographical locations. nTelligence is able to correlate results along an entire dynamic process or workflow.

Feeding these results into the nTelligence workflow server allows problems such as degradation, bottlenecks and staging issues to be rapidly highlighted and identified.

Analytics

The concept behind Big Data is the ability to aggregate terabytes or petabytes of data and efficiently analyze it in order to identify trends or patterns correlated to business problems or opportunities.

It’s also worth noting that because nTelligence is a modular solution suite encompassing voice, data and video, it can be deployed by PSS as a custom solution for a variety of enterprises. For example, a major financial institution uses nTelligence to automate a manual testing process of voice, data and video assets. By utilizing nTelligence as an automated test platform, they were able increase efficiency, lower costs and reduce headcount by 100 FTE’s.
nTelligence uses non-relational database technology to ensure that it scales efficiently to analyze massive test structures. nTelligence utilizes powerful rule-sets, flags and classification to present data quickly and accurately via the nTelligence dashboards. That dashboard data is actionable and the appropriate teams can be assigned for issue resolution.

The PSS nTelligence suite is the only solution on the market today that addresses the entire range of technical challenges faced by large cable operators, media companies and other content providers. Unlike point solutions or legacy, passive monitoring systems, nTelligence is highly configurable, hardware agnostic and delivers a rapid ROI.

With the pace of change so rapid, the entire industry is exploring new ways to future proof their businesses. nTelligence is the choice of innovative market leaders who are successfully rolling out new, high quality video services and creating new revenue streams.

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A call centre service provider for a major a UK mobile company utilized nTelligence to increase compliance and reduce the SLA credits when they determined that calls were being routed to the wrong departments. The problem was due to an incorrect configuration of the IVR call flow but the call center service provider had no visibility into the system and no documentation to defend the charges.

nTelligence was deployed with internal and external probes to monitor all calls in order to understand the cause and frequency that created the conditions leading to incorrectly routed calls.

nTelligence quickly determined the root cause and allowed the service provider to make changes to the call routing design, reduce costs and improve the customer experience.

nTelligence represents the newest addition to the PSS’s innovative product line and with PSS’ full portfolio of professional services is quickly demonstrating success for major global enterprises.

About PSS Help

PSS also offers an extensive portfolio of professional services and innovative products with consultants, technology specialists, business analysts and systems architects who utilize their in-depth expertise and experience to define and implement solutions designed to meet your business requirements.

PSS is committed to helping global enterprises, carriers and service providers deliver world-class customer service, affordably and effectively. These solutions help contact centers become true multi-media centers to meet the growing demand for a superior customer experience, across all channels.

Privately owned and founded in 2002, PSS has been profitable since its inception and has been recognized by the prestigious Inc-500 magazine as one of the fastest growing companies in the US. PSS provides custom solutions for the telecommunications, healthcare, banking, credit card, utilities, government, service providers, insurance, transportation and travel markets.

PSS has UK offices in Coventry and international offices in the US in Illinois, Colorado and California, Melbourne and Sydney, Australia and Singapore. PSS serves 150 clients in 19 countries, supporting thousands of sites across the globe.

PSS can deliver best-in-class support, custom solutions and innovative products wherever your business is done.

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