The new media paradigm: TV and Internet as a single service, on any screen, over any network

Nokia Siemens Networks

The launch of Nokia Siemens Networks Ubiquity Multiscreen TV Platform takes media and network convergence to the next level. The soluton allows people to watch Internet TV and broadcast TV via a single, consistent user interface – anywhere, at any time, on virtually any device that has a screen.

Too good to be true? Check out the answers to the questions that Communications Service Providers are already asking about the new offering, and see for yourself how Nokia Siemens Networks is mapping out the future of global media delivery.

What is Ubiquity Multiscreen TV Platform?

Nokia Siemens Networks Ubiquity Multiscreen TV Platform is a complete end-to-end solution for **Telco operators and other Multi-Service Providers (MSPs)** that allows them to bundle together regular TV content, Internet media content and downloadable software applications, and deliver them as a single seamless service to any TV, desktop computer or portable consumer device.

Isn't that just IPTV with a different name?

No. Traditional IPTV services such as live TV, time shifting and VOD are just the beginning for Ubiquity Multiscreen TV Platform. With Ubiquity Multiscreen TV Platform operators can also:

- seamlessly integrate premium TV content with Internet services such as YouTube, Facebook etc via a single UI
- add value to their content inventory by easily and cost-effectively delivering it to any user device, including mobile devices, over any network
- add new functionality to set-top boxes (STBs) and other existing assets
- develop and deploy new services and applications via an open source software framework with a well established worldwide developer community.

With built-in Digital Rights Management, Ubiquity Multiscreen TV Platform can also protect content across various devices. And, depending on permissions, it can allow users to share video content via its integration with web apps and social networks.

What benefits does this bring for the operator?

Firstly, significant new revenues. Ubiquity Multiscreen TV Platform enables easy and rapid development of new services, and delivers huge added value for end users. We already know from our MSP customers that regular IPTV can increase ARPU by up to 23 euros, and we believe the additional value of Ubiquity Multiscreen TV Platform can only drive that number higher.

Secondly, brand differentiation. If you're the first in your market with this kind of total TV and Internet offering, and you can deliver locally relevant, easy-to-use services that consumers love, you're going to stand head and shoulders over your competition in terms of both customer acquisition and customer loyalty.

And thirdly, cost savings. With Ubiquity Multiscreen TV Platform, MSPs can minimize the Total Cost of Ownership by enabling content delivery and service management for all types of end-user device from a single back office system. Also, Ubiquity Multiscreen TV Platform client software is backwards-compatible with a wide

range of existing STBs, which means that established IPTV providers won't have to re-invest in what is typically the largest single capital asset required to deliver this type of service.

Putting all this together, Ubiquity Multiscreen TV Platform means a significant increase in profitability. Plus, it leverages key operator assets such as current customer and partner relationships, and provides a powerful new way to strengthen those relationships for the future.

And what's in it for the consumer?

Mobility, choice and convenience. With Ubiquity Multiscreen TV Platform, you get a completely personalized service experience where media consumption is no longer dependent on the type of device you're watching it on, or tied to particular times or places – in other words, you can watch what you like, when you like, and where you like.

This includes things like session continuity, where you can start watching a show on your regular TV, pause it when you leave your house, pick it up again on your mobile as you sit in the train, and finish it on a PC when you reach your destination. And it enables the social consumption of media, so for example you and your friends can watch the same show in different places and chat on screen at the same time.

Ubiquity Multiscreen TV Platform makes all this possible via a single, consistent interface for all media and device types, and with a single subscription and bill.

Do you think consumers are ready for this kind of functionality?

Absolutely. Research tells us that in markets with high broadband and mobile penetration, large numbers of consumers – especially the younger demographic - already consume Internet and TV media simultaneously. Many of them already view a high proportion of their TV content from Internet sources, and even with regular TV there is a trend away from traditional schedule-based viewing toward time-shifted viewing and other Personal Video Recorder functionality.

We also know that internet-capable smartphones are the fastest growing segment in mobile devices, driven mainly by social networking and media applications, and that 'buddy' recommendations are becoming an important driver of viewing intentions. So it's not as if Ubiquity Multiscreen TV Platform is asking people to do something totally new – in many ways, it's just helping them ride a wave that's already there.

So how does Ubiquity Multiscreen TV Platform work?

The big thing about Ubiquity Multiscreen TV Platform is that it's a complete end-to-end media solution that works over any network and can scale from hundreds to millions of subscribers. This is why it takes an organization with truly global reach and scale to deliver it. On the server side, it uses Nokia Siemens Networks' expertise in systems architecting and integration to create a single development and delivery system for multiple high-quality services across multiple network and device types. And on the client side, it uses Qt, Nokia's proven open source application and UI framework, to provide a consistent, customizable user experience.

For the MSP, this removes the traditional silos between premium TV content, Internet content and applications, and handles all the interoperability issues and low level administrative functions such as content subscription, device authentication and DRM. This leaves the operator free to focus purely on developing the services their customers want.

For the consumer, it also means users can also focus on what they want without worrying about managing different systems or technologies. Back end or front end, TV or Internet, Set Top Box or PC or mobile: it doesn't matter. All the consumer sees is one simple interface that makes it easy to consume content and integrate it with other applications such as social networking, any time, anywhere.

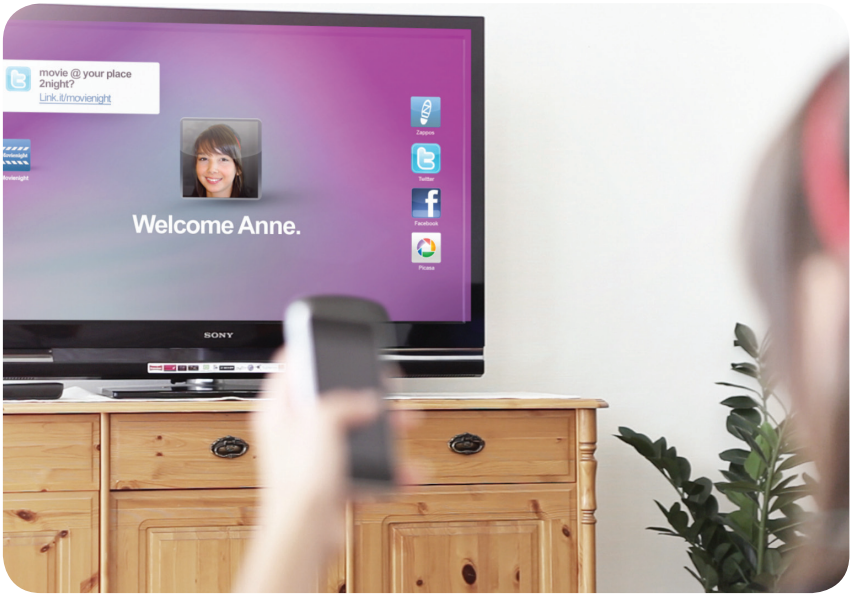
Doesn't this mean that everyone is tied into a closed ecosystem?

No, far from it. The Ubiquity Multiscreen TV Platform solution is designed specifically to give MSPs maximum choice and maneuverability, and if you look at competitor offerings you will find that none of them provide the same level of openness or flexibility.

For example, the Nokia Qt software development framework can be – and has been, for over 15 years – used on consumer devices from virtually any manufacturer, and will work with a wide range of operating systems including Windows, MacOS, Linux, WebOS, Android and Windows Mobile. This means that almost any existing STB can be enhanced with full Ubiquity Multiscreen TV Platform client functionality with a simple software upgrade. Qt also provides a complete spectrum of tools for Java, C++, HTML4/5 and Javascript-based graphics, so that MSPs are free to work with the widest possible range of 3rd party developers to create exciting new services and applications.

On the MSP side, this multiplicity of client devices is supported by multi-technology application servers, and we offer a range of APIs so that operators can integrate Ubiquity Multiscreen TV Platform with existing OSS/BSS and CRM systems. In addition, our Consulting and SI skills are available to help MSPs make the most of their existing systems and processes as part of the end-to-end Ubiquity Multiscreen TV Platform solution.

Put all this together and you have a completely open environment that allows individual MSPs to develop whichever services they need for their local markets, working with whichever content, application and delivery partners they choose.



What are the key challenges facing MSPs who want to add Ubiquity Multiscreen TV Platform to their current offering, and how can Nokia Siemens Networks help?

Every Ubiquity Multiscreen TV Platform solution is built around the MSP's individual needs and assets, and these can vary significantly according to the company's size, market and strategic priorities. Again, this is where the scale and depth of Nokia Siemens Networks' expertise comes into its own, because we can deliver anything from small, centralized solutions to fully distributed architectures supporting millions of users.

A typical Ubiquity Multiscreen TV Platform relationship might start with business consultancy, so we can work out both business and technology feasibility and to propose the most profitable end-to-end solution. At the Systems Integration level, we could also look at the best way of utilizing the operator's existing assets as part of the overall solution, or perhaps use our Service Delivery Framework to enable more efficient interworking between existing or new IP Multimedia Systems, Subscriber Data Management systems or other operational domains.

At the network level, we could deploy our technology to optimize the MSP's 3G network for smartphone signal handling. Earlier this year, an independent study by Signals Research Group showed that a Cell PCH-enabled network generated an average of 40% fewer signals from high-signaling applications, with a consequent increase in device battery life of 30%. For a service like Ubiquity Multiscreen TV Platform, this will clearly deliver massive improvements both in network performance and quality of experience.

So how soon will Ubiquity Multiscreen TV Platform be available, and what functionalities can operators expect at launch?

Our Ubiquity Multiscreen TV Platform solution is available already today. The commercial release of Ubiquity Multiscreen TV Platform client is planned for Q1 2011, at which point we expect to offer:

- Home media sharing – i.e. DLNA-based content sharing, display and control on any Ubiquity Multiscreen TV Platform STB, plus personal content management on TV, PC and mobile devices including personal video, movies, pictures and MP3 music files.

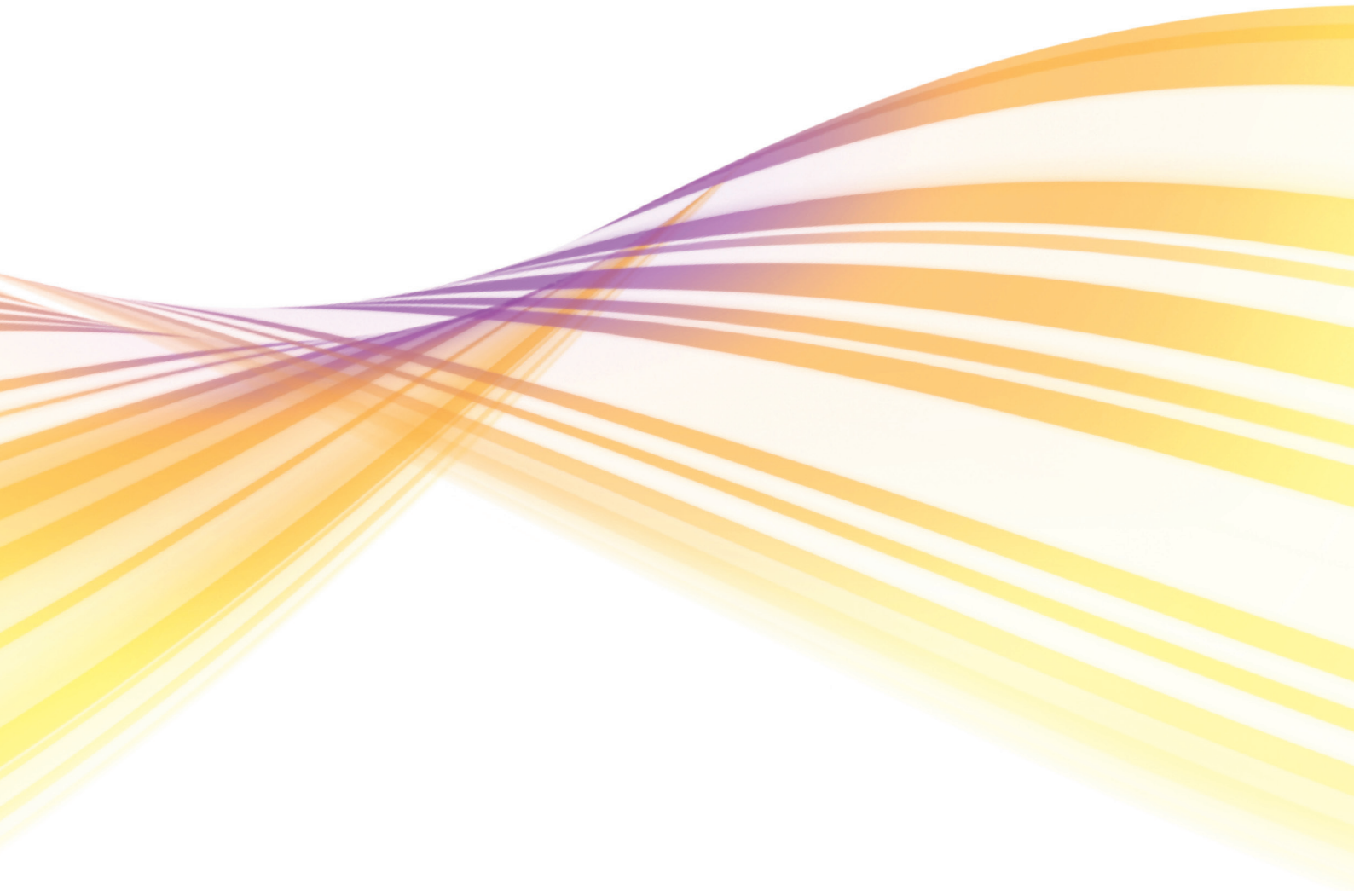
- Multi-room PVR – i.e. the ability to record content on one STB and play it back on another
- QoE and dynamic resource control – i.e. advanced QoE clients and dynamic resource control mechanisms to ensure optimum user experience at all times

Other features such as operator-controlled Internet services, multimedia search, content recommendation and App Store functionality will follow through 2011 and beyond, according to individual operator demand.

One final question: With the technology and media landscape changing so fast, why would a MSP choose to invest in this particular solution, right now?

One of the major benefits of Ubiquity Multiscreen TV Platform's openness and flexibility is precisely its ability to deal with the widest possible range of future developments. It works with multiple hardware and software platforms. It enables rapid development and easy deployment of new services. And it gives MSPs the freedom to innovate in ways that are most appropriate to local market demand.

With Ubiquity Multiscreen TV Platform, the whole point is that MSPs don't have to foresee the future - they can simply be confident that they now have a competitive answer to Internet-based content and service providers, and will be among the first to take advantage of whatever the future brings.



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