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MULTI-SCREENING OPENS FAST TRACK TO FUTURE PROOFING PAY TV SERVICE

NSPs NOW HAVE THE MEANS TO BUILD
COMPELLING COMPANION-DEVICE APPS

JUNE 2011

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1. INTRODUCTION

At a moment of unprecedented challenges to the pay TV business, network service providers (NSPs) have an opportunity to greatly strengthen the appeal of subscription service by turning consumers' multi-screening habits to their advantage.



This "TV first" strategy maximizes the personalized side of advanced features and applications by directing detailed information to a specific viewer on a second screen, allowing everyone else in the room to view what's on the big TV screen without interruption. Moreover, this flexibility to leverage IP-connected devices to continually add features and applications tied to TV programming positions the NSP to maintain a competitive edge without expending capital on major network upgrades.

Subscribers want to be able to navigate and select NSP programming as readily as they browse the Web for video. They want to be able to choose companion applications that tie in with what they're watching on TV, share their viewing experiences with friends through social networks and perform many other tasks that bring together all the media options available in the home for access on either the personal device or the TV. But they also want to be able to enjoy what's on the big screen without having to sit through interruptions caused by each others' personal activities.

Technicolor has made all this possible with MediaNavi, a platform that allows operators to create a companion-device experience that's precisely tuned to their market needs and opportunities.

NSPs can implement such a service without making big infrastructure changes, migrating to all-IP TV services, investing in expensive set-tops and gateways or undertaking any of the other capital-intensive measures which most providers assume they eventually will have to implement to keep consumers

engaged. Instead, they can simply add TV-related applications and services as Web-delivered options for users to access on their tablets, smartphones or laptops while they're watching TV over legacy distribution and display platforms.

MediaNavi supports a completely integrated holistic experience that far exceeds the enhanced remote-control and navigation functions on offer from other companion-device solutions. Consumers with legacy digital set-tops can access a highly personalized, feature-rich range of media, social networking, interactive applications and streamlined navigation features on their tablets and other CE devices in parallel with what's being viewed on the TV screen. In instances where set-tops are equipped with IP connectivity and decoding capabilities appropriate to streaming content from the Internet, they can actually transfer whatever they're viewing on the personal device directly to the TV.

In other words, operators who deploy MediaNavi can mount a compelling cost-effective companion-device service over the infrastructure and CPE they have in place today. And they can do so with assurance that they'll be able to enhance that service over time as they add more capabilities to the network and in the home.

Multi-Screening Opens Fast Track to Future Proofing Pay TV Service

2. NEW TRENDS IN CONSUMER BEHAVIOR

NSPs have every reason to be concerned about the impact of connected-device access to Internet-based entertainment. Researchers are reporting growing use of the Internet as an alternative outlet for TV programs and movies amid mounting consumer dissatisfaction with the costs and inconvenience of traditional pay TV.

Even when people are watching traditional TV, alternative options are competing for their attention as never before. With multi-screening, devices of every description are drawing viewers' attention away from TV programs and advertising as they access personal media, network with friends, play games and complete homework.

For example, the European Interactive Advertising Association's Media Multi-tasking Report, issued in 2009, said 53 percent of all European multi-taskers used social networks and that 38 percent consumed some form of Internet video while watching TV. In the U.S. simultaneous TV viewing and Web surfing is now a regular activity among 42 percent

of the population, according to Deloitte's 2011 "State of the Media Democracy" report. AC Nielsen's most recent report of 12,000 connected device owners stated that, 70 percent of tablet owners and 68 percent of smart phone owners said they use their devices while watching television.



3. THE CONNECTED TV CHALLENGE: STRENGTHS & VULNERABILITIES

Paralleling these trends is the emergence of the connected “smart TV” and specialized connected set-tops from suppliers like Apple, GoogleTV, Roku and many others where Web-originated features and content vie for attention against NSP and off-air programming.

There’s no arguing with the fact that the ability of these devices to bring Web video to the TV, especially premium content from the likes of Netflix and Hulu, represents a challenge to premium service providers. However, it remains to be seen what impact the presumed appeal of the bells and whistles associated with smart TV apps will be. After all, TV viewing is a shared experience not suited to accommodating the personalized apps and activities that are supposed to attract consumers.

Social networking communications from a viewer to friends not only are likely to be annoying to other viewers; the social network user may not want to share those communications with the other viewers in the room. Interactive apps, from TV program-related polls, games and T-commerce options to “backstage” program enhancements, may not draw the participation providers are looking for when such activity occurs on the big TV screen and therefore intrudes on others’ viewing experiences.

The same dichotomy between the shared and personal experiences applies to many highly touted advanced navigation features.

Personalized recommendations tied to individual user preferences and usage patterns are better suited to access on individually used screens. The same goes for options that allow users to learn more about a program they may be interested in watching.

Moreover, all of these features represent some kind of disruption to the clean, full-screen viewing experience that motivated people to buy big flat-screen HD sets in the first place. In some cases, guides and browsers overlay the screens. In others the program on view is relegated to a small window to make room for the feature options. And some advanced-feature solutions simply take over the screen with no picture-in-picture capability.

4. THE CASE FOR THE COMPANION DEVICE EXPERIENCE

NSPs stand to do a far better job of putting such capabilities to use by capitalizing on the multi-screening behavior of end users. Indeed, notwithstanding all the efforts centered on enhancing the TV experience in the connected-TV domain, there may be nothing more in tune with consumers' interests than a personalized connected device experience that complements rather than conflicts with TV viewing.

Already, forward-thinking program suppliers have begun making use of the companion device application concept to provide viewers an Internet-enhanced experience in sync with popular programming. These applications, offering unique content for viewing on laptops and tablets, go well beyond earlier companion-device initiatives tied to use of cell phones for voting and polling.

For example, NBC Universal has employed online program enhancements and interactive response apps with a wide range of programming, including the 2008 Summer Olympics, the 2010 Winter Olympics and regularly scheduled shows on NBC, MSNBC, Oxygen, Bravo and CNBC. For its Winter Olympics coverage the network through its NBCOlympics.com site offered an Enhanced Olympics Package of online coverage to distribution partners that included 300 hours of live event coverage and 400 hours of on-demand content feeds.



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This year ABC and the Academy of Motion Picture Arts and Sciences teamed to offer viewers of the Academy Awards second-screen access to expanded coverage of the red carpet arrivals and online-only views of celebrities attending the Governors Ball. A follow-up survey focused on how people used the AppCast mobile application that was among the second-screen options found that 92 percent of respondents would be more likely to watch live TV events if such apps were available.

5. THE MEDIANAVI SOLUTION

5.1 BENEFITS TO NETWORK SERVICE PROVIDERS

The key to exploiting this new opportunity successfully, of course, lies in doing it right. Several conditions must be met to ensure the user experience and the operator's results are optimized to the fullest extent possible.

These start with assuring the operator can maintain a "TV first" approach where the personal applications can be explored by the user on the personal device with no disruption to what's being viewed on the TV screen. This also means the operator must be able to readily enhance the appeal of branded TV service with specialized apps and navigation features as opportunities arise, ensuring that the benefits of viewing the subscription

programming are well highlighted on the second screen. And the operator must also be able to prioritize any third-party over-the-top content that the operator has contracted to promote.

NSPs must have access to a companion-device service platform that makes it easy to deliver their Web-hosted features and applications in formats appropriate to the digital rights management, encoding, screen resolution and adaptive streaming requirements of targeted devices. And they must be able to support the companion-device service in the legacy set-top environment.

NSPs can satisfy these criteria with implementation of Technicolor's MediaNavi platform. They can bridge their existing live TV and VOD service with MediaNavi's personalized navigation, search and discovery functions, and rich metadata interactivity. By doing so they create an environment for innovation that allows them to continually bring new applications to bear as a means of maintaining the differentiation advantage against competitors.

5.2. BENEFITS TO END USERS

Specifically, NSPs will find MediaNavi provides them all the tools and functionalities they need to maximize the appeal of the connected-device service. With MediaNavi subscribers can use their personal device to:

- Navigate subscription linear and on-demand content on a touch-enabled interface without interrupting what's showing on the TV;
- Search for content to watch from one unified system without having to conduct separate searches from multiple sources (broadcast, Internet, in-home network)
- View personal media and DVR options in situations where home networking connections to personal media are in operation;
- Select for TV viewing any option from the guide that displays on the device;
- Access information about any program, including profiles and professional histories of cast and director;
- Be directed to other programming options that might be of interest because they are relevant to the viewer's habits and preferences;
- View "backstage" content and outtakes from the currently viewed TV program;
- Interact with supplementary content to vote, register opinions, request advertising information, make purchases and play games;
- At any time choose to transfer to the TV screen what's being viewed on the second-device screen, as might be done, for example, if a viewer wants to show other viewers a movie trailer to determine others' interest in watching that film;
- Share experiences with social networking contacts through applications designed specifically for the TV service environment as well as through the usual modes of interaction on social sites.

With MediaNavi, NSPs can provide subscribers with personalized and streamlined media choices that complement their existing in-home technology. Over time, with installation of ever more sophisticated set-tops and other devices, operators will be able to add more choices, ensuring that the TV first companion device experience remains a force for adding and retaining subscribers.

5.3 THE MEDIANAVI ARCHITECTURE

Technicolor has designed MediaNavi as a cloud-based service that minimizes costs and complexities of operations. The platform provides operators the means to dynamically add features and adjust functionalities across all the service parameters with point-and-click simplicity and robust service assurance.

MediaNavi leverages existing DLNA infrastructure but if that's not available, MediaNavi employs Technicolor's simple C3 (Command, Control and Communication) client software on the user's personal device to talk to set-top middleware, whether that middleware is running in an IP or RF network environment. Thus, in the U.S. MediaNavi will allow tablets and laptops to interact with EBIF user agents now deployed across tens of millions of RF set-tops to trigger channel changes and other applications on the TV. In Europe, the same thing can happen on set-tops equipped to run DVB-MHP.

Over time, as operators migrate to IP set-tops and media gateways such as cable, operators might deploy with delivery of premium content over DOCSIS 3.0 bonded channels, they can bring over-the-top options or other IP-enabled applications such as whole-home DVR and media management into the companion-device service domain. For example, if there's an Internet VOD service the operator wants to offer, that option can be brought into the catalog and activated on all the personal device application features with no changes in the core MediaNavi system.



Operators also need to be able to bring end user devices into the companion-device service on a plug-and-play basis. MediaNavi-enabled applications run on the operating systems and video streaming platforms associated with iPad, Android and Win7 tablets (and other forthcoming operating systems) as well as the OS environments of PC and MAC laptops. Critically, whatever the device platform might be, MediaNavi is designed to monitor and deliver to operator back offices subscriber usage data essential to defining customer preferences, recording their responses to advertising and ITV prompts and much else.

One of the unique attributes of MediaNavi is that while supporting the separation of personal device usage from what's happening on the TV, it can also support the transfer of whatever consumers are viewing on the device to the TV screen. The platform will allow operators to implement this capability wherever households are equipped with IP-connected set-tops that can support the streaming of content viewed on the companion device to the TV.

6. CONCLUSION

Technicolor, with over 100 million set-tops and another 100 million plus broadband gateways deployed with 250 NSPs worldwide, has leveraged its long experience working with operators to create a companion-device service solution precisely suited to their needs. As a result, operators have tremendous flexibility for innovation and customization to accommodate virtually any set of network operating and market conditions.

A well-conceived companion-device service greatly increases the value of NSP offerings by enabling the supplementary content, navigational flexibility and social communications of a personalized experience in a shared TV viewing environment. At the same time, the service dovetails perfectly with NSPs' new revenue-generating strategies by enabling the personalized activities and usage data that are essential to advanced advertising, enhanced programming, interactivity, and viral marketing can be accelerated into the mass consumer market on the rising tide of multi-screening behaviour.

By embracing the state-of-the-art companion-device service now made possible by MediaNavi, operators not only will have the opportunity to establish this new entertainment experience as a must-have benefit for subscribers. They will open the door to new revenue opportunities that can help to shore up the mutually beneficial relationships between programmers and operators for years to come.

ABOUT TECHNICOLOR

Technicolor is home to industry-leading creative and technology professionals committed to the creation, management and delivery of entertainment content to consumers around the world.

Propelled by a culture of innovation and underpinned by a dedicated research organization, the company's thriving licensing business possesses an extensive intellectual property portfolio focused on imaging and sound technologies. Serving motion picture, television, and other media clients, the company is a leading provider of high-end

visual effects, animation, and postproduction services. In support of network service providers and broadcasters globally, Technicolor ranks among the world's leading suppliers of digital content delivery services and home access devices, including set-top boxes and gateways. The company also remains a large physical media service provider, being one of the world's largest film processors and independent manufacturers and distributors of DVDs and Blu-ray™ discs.

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WP-008-V01-1107