About SeaChange International

Ranked among the top 250 software companies in the world, SeaChange International (NASDAQ: SEAC) enables transformative multi-screen video services through an open, cloud-based, intelligent software platform trusted by cable, IPTV and mobile operators globally. Personalized and fully monetized video experiences anytime on any device, in the home and everywhere, are the product of the Company’s superior back office, advertising and in-home offerings.

SeaChange’s hundreds of customers are many of the world’s most powerful media brands including all major cable operators in the Americas and Europe, and the largest telecom companies in the world. Headquartered in Acton, Massachusetts, SeaChange is TL 9000 certified and has product development, support and sales offices around the world.

Visit www.schange.com

Monetizing Multiple Screen Deployments Through Personalized Social Applications

SeaChange® Nitro™ delivers a unified multi-screen experience to engage subscribers and provide increased revenue opportunities.
Executive Summary
The world of multi-screen video has brought subscribers closer to their content and rekindled relationships with operators. Realizing the need to deliver a TV Everywhere experience, many operators have taken the necessary steps to provide subscribers with access to their favorite content across multiple platforms and devices. In doing so, they’ve had to overcome significant obstacles. The shift to multiple screens has presented new monetization opportunities in the form of targeted advertising, tailored pricing promotions and social media personalization. Meanwhile, operators need to pay attention to the shifts taking place in the social media landscape. They have created a bevy of revenue opportunities that have brought subscribers closer to their content and increased content sales. SeaChange International has taken recent market findings and incorporated them into a personalized application that integrates social media capabilities on multiple screens and provides operators the tools they need to maximize revenue opportunities from subscriber’s social interactions.

subscribers; while subscribers have access to a variety of new user-friendly features that connect them to their online communities and enhance their viewing experience. With multi-screen support, subscribers can take the experience on-the-go or use mobile devices as a second screen in the home to interact with friends or serve as a remote.

SeaChange Nitro currently supports HTML5 platforms and devices such as IP set-top boxes, tablets, iPhones, Android devices and PCs. The application supports a number of DRMs (including Microsoft Play Ready, Widevine, Verimatrix, Apple HLS, Adobe Flash Access 2.0) and adheres to privacy and data protection standards. Nitro is designed to work in conjunction with the SeaChange Adrenalin V5.7 or later back office software, but is not required.

Conclusion
As operators continue the expansion into multi-screen, it will be a challenge to monetize these additional screens. It is important for operators to explore targeted advertising, price promotions and personalized social applications to increase revenue opportunities. Operators actively using personalized social applications that incorporate social media functionality can entice subscribers to purchase additional content and make it fun through interaction with online communities. SeaChange Nitro can provide the necessary tools to easily guide subscribers to content and use several types of recommendations to increase sales while providing a number of benefits for operators.

SEACHANGE NITRO PERSONAL EXPERIENCE

Anything
Content available for viewing across multiple sources and devices requires a consistent user experience but also needs to leverage the inherent capabilities of each device.

Anywhere
Once the consumer has located relevant content, In-Home products allow access wherever they are, on the device of their choice, solving the problems of interoperability and rights management.

Aware
Video is inherently social. Content is shown based on recommendations from friends and the operator. Consumers will select video for their connected, video-enabled devices like they select news on the web today.

Interact
2-way interactions and transactions are possible with multiple screens and devices. In-Home enables an ecosystem of connected and complementary devices to personalize the viewing experience.
The incorporation of social media into the SeaChange multi-screen video user interface (UI) provides subscribers additional functionality they need to interact with their content and their online community at the same time. The Nitro UI delivers a number of subscriber features that enhances the viewing experience including:

- **Facebook/Twitter integration** – Import your online community into the application to connect with others while watching content
- **Virtual parties** – Invite friends to watch movies or shows together from any device regardless of location; Share the viewing experience with friends in different locations and have the ability to comment on the content while watching
- **Social wall** – Post updates, messages and comments, interact with your online community and share your thoughts on the latest movies
- **Social recommendations** – See what content your friends liked; Choose your content based on the recommendations of friends who have similar tastes

While the Nitro UI is very user friendly, it provides a number of features that can increase revenue opportunities for operators:

- **Operator channels** – Display popular content and group into categories (i.e. new release, top 10 movies, award winning, etc. to promote content sales
- **Targeted promotions** – Nitro can connect with the SeaChange Adrenalin® Business Management Suite (BMS) to provide targeted price promotions and offers for content
- **Themes** – Users can subscribe to themes that interest them which allows operators to directly market to individual interests (i.e. 50% off Vince Vaughn movies on Monday for all fans who have subscribed to that theme)
- **Content recommendations** – Recommend content to subscribers in a number of effective ways throughout the application
  - **Personal Recommendations** – If you watched "Harry Potter and the Deathly Hallows," we recommend the similar movie "Harry Potter and the Chamber of Secrets"
  - **Collaborative Recommendations** – Customers that watched "Harry Potter and the Deathly Hallows" were also interested in "Harry Potter and the Chamber of Secrets"
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Providing features that benefit subscribers as well as operators makes Nitro a powerful monetization tool that increases revenue opportunities and offers new ways for subscribers to enjoy content. Operators can fully customize the UI and take advantage of a number of features that promote targeted content towards

**Introduction**

The path to providing subscribers with multi-screen support has generally been challenging and arduous for operators. While most have had to overcome numerous obstacles to support a variety of new devices and platforms, they are now focusing on how to maximize revenue from these new screens through targeted advertising, social media personalization, and tailored pricing promotions.

Although SeaChange International provides a full suite of integrated products that can maximize all of these monetization opportunities, this white paper will focus on the use of personalized social applications. It will explore the current social media landscape as well as trends which operators should take notice of. The paper will then discuss the opportunities currently available, as well as the SeaChange application that addresses operator needs.
The Social Media Landscape
Over the last few years, the growth of social media has been staggering and now represents the top activity on the web with a global user base that will exceed 1 billion in 2011. Facebook alone is the single most visited site on the Internet as it has now surpassed Google. Businesses have taken note of these trends and are expected to spend $3.08 billion in 2011 to reach consumers on social networking sites. While social media provides a number of opportunities and can be a valuable area of focus, operators need to ensure they are concentrating on the right areas in order to increase revenue.

Important Recent Trends

Facebook – The largest social networking site in the world currently consists of over 750 million users. The average user logs in more than once a day and accesses the site an average of 15½ hours/month. Over 200 million users access the site from a mobile device every day and more than 30 billion pieces of content are shared each day. The site recently launched the ability for users to stream movies through the site. The 2009 blockbuster hit “The Dark Knight” was the first movie made available and cost users 30 Facebook credits ($3). The initiative received favorable results and Facebook has since announced that it will be releasing up to 3,000 additional movies for users to purchase for streaming.

Twitter – The quick-growing micro-blogging platform now has over 200 million registered users who account for on average 110 million tweets per day. The site is now adding 15 million new users per month and serves as a popular platform for users to comment or discuss the content they are watching. According to a recent study, 59% of Americans are using the Internet simultaneously (70% of tablet owners and 68% of smartphone owners reported using their device while watching TV). The use of a second screen to access sites like Twitter is a growing trend especially for live TV events:

- 2011 Oscars had 1.26 million tweets sent by 388,000 users
- 2010 MTV Video Music Awards had over 1.3 million tweets
- 2011 Super Bowl XLV (most-viewed TV event in history) broke records with more than 4,000 tweets per second during the final moments of the game

Amazon – In addition to the price promotions and site recommendations they provide, the popular online shopping site is now incorporating social recommendations to help guide potential buyers with help from their online community. Shoppers can now link their Facebook account with Amazon to see what their friends have recommended and purchased. The feature will also allow users to see friend’s upcoming birthdays, wish lists within Amazon, find gift ideas based on Facebook profiles or find ideas from profiles based on friends with similar interests.

The Opportunity for Operators
With the expanding social media landscape and new trends emerging, operators are strongly positioned to capitalize on new revenue opportunities. Within the next four years, Millennials (Gen Y, age 18-33) will be 1/3 of the workforce. They want constant connectivity to friends, colleagues and family to discover new content and share their opinions and information about their content. In order to cater to this audience, operators will need to explore three main areas:

1. Social Viewing – Operators should entice individuals with the ability to engage with others during the viewing experience, see the latest activity of connected friends and share what subscribers like on social platforms (i.e. Facebook, Twitter, etc.). Also, subscribers want the ability to set up “virtual parties” to watch VOD and linear content with friends, regardless of location.

2. Measurement – With the increased use of a second screen while watching TV, subscribers are actively using social networks to comment on the content they are watching. As viewers post comments online this creates a gold mine of information that can be used to understand how people react to different parts of a show or movie. This type of data can then be used to see when audiences are the most engaged to determine the placement of high-value advertising or promotions. Operators can also use the second screen to interact with the viewers and get them to engage.

3. Commerce – Close to 90% of social network users have consumed music, books, TV programs or movies in the last six months because of the recommendation of a social network friend. Social recommendations are an impactful tool to help connect friends with similar likes and use their opinions to drive revenue. Operators using a mix of price promotions, dynamic bundling offers and social recommendations to entice subscribers to purchase content could see a significant increase in content sales.

SeaChange Personalized Social Applications
SeaChange Nitro™ is a next-generation multi-screen user experience application that enables operators to provide a seamless presentation of linear and on-demand content across mobile, PC, tablet and TV screens. Nitro leverages HTML5 to give users intuitive features and functionality to navigate and manage video content on any screen – including support for linear and on-demand video viewing, TV listings, bookmarking, search and recommendation, social media features, and handheld-as-a-remote capability.

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