

## SeaChange Pools Tech Assets To Create Next-Gen Back Office

*Multi-Screen Service Support Is Already Underway at Multiple Service Provider Locations*

**S**eaChange International has taken the wraps off its long-evolving multi-screen back-office system with the intention of bringing to bear a wide range of functionalities vital to supporting monetization around new business models through a single operations environment.

As SeaChange president Yvette Kanouff notes, many components of its new Adrenalin system, a service-oriented architecture (SOA)-based successor to the firm's Axiom On Demand back office, are already in play worldwide supporting multi-screen initiatives by the likes of Virgin Media in the U.K., Singapore's StarHub and Three's mobile broadband networks in the U.K. and elsewhere. "This real-world experience has given us a unique advantage in creating Adrenalin," Kanouff says. "Its introduction sets the path forward for cable operators who represent the world's largest on-demand footprint to launch integrated multi-screen video services from a single, cost-efficient platform."

The complexities of processes and integration associated with that mandate are enormous, which is why it has taken the company two years to pull everything together in a single product offering. Adrenalin includes business applications such as an offer manager to execute multi-screen promotions; content management (publishing, asset management, session and resource management for on-demand and broadcast to all screens); Web-based management and monitor-

ing; and advanced client publishers supporting third-party search, recommendation and t-commerce applications.

"We've brought together a lot of experience doing video on demand with different platforms into a single platform that can manage all three screens based on the latest Web technologies," says Steve Davi, senior vice president of software at SeaChange. The blending incorporates components of Axiom, the widely used VOD back office developed in house several years ago, Aventis, the European on-demand back office technology SeaChange acquired last year, and Mobix, a mobile back-office suite acquired in 2008.

Virgin Media's new multi-screen service, targeting PCs, mobile and other IP devices, is a working example of some of the resulting capabilities, Davi notes. Virgin is leveraging the SeaChange multi-screen technology and managed service infrastructure to deliver a TV Everywhere-type experience to subscribers with premium content from ITV, Disney, National Geographic, Discovery, MTV and other providers, marking one of the first instances where mobile has been activated as part of an MSO's TV Everywhere service.

The SeaChange managed service infrastructure supports the service on an outsourced basis today and will facilitate eventual migration to in-house deployments. Its content management capabilities include content transcoding and processing in nine video formats for adaptive streaming to targeted devices.

"Usage is growing by the day, and we continue to add new content," says Alex Green, executive director of commercial, TV and online at Virgin. "SeaChange has been a great partner, with proven end-to-end skills in multi-screen service creation, deployment and management."

Adrenalin, which can work with third-party content management systems as well as SeaChange's Asset-Flow platform, sits at the center of all the systems, network and premises components that go into activating, provisioning and delivering services in a multi-screen environment. The system assumes the multi-screen paradigm will entail delivery of on-demand content in IP mode through CDN (content delivery network) architectures, now widely in deployment by MSOs worldwide (see story, p. 1).

Along with allowing operators to support the power of adaptive streaming over HTTP (Hypertext Transfer Protocol), the CDN mode allows SeaChange to incorporate multiple advanced IP-based capabilities into the Adrenalin platform, Davi notes. "The SOA architecture permeates the whole platform," he says.

For example, Adrenalin supports RESTful (Representational State Transfer), an Internet communications standard that simplifies setting up and scaling distribution of applications and content over client-server arrays by allowing the elements to adjust to whatever state a particular communication requires based on the resources represented in a transmission. "You can take an off-the-shelf server and tell it it's a business applications server, and it will automatically pull down the appropriate operations template, handle the configuration and start



Steve Davi, SVP, software, SeaChange International

running the service," Davi explains.

Support for advertising in all device domains is an integral part of the back-office system, Davi adds. He says the company's goal is to eventually leverage the management capabilities to support a multi-screen ad inventory environment that allows operators to sell avails on a clustered basis, registering ad views wherever they occur.

"The business applications side is all about separating asset and metadata management from the offers and the navigational tools that are published to the subscriber," Davi says. "You can enable search across on demand and linear on all devices but filter the results so that the user only sees options that are appropriate to the device."

Maintaining and applying rights policies, keeping track of subscribers' identities across all devices and much else go into the multi-screen back-office process as well, he adds. Adrenalin's first release for as an Axiom on Demand software upgrad is scheduled for early 2011. ◀