

## Integrating Online and Pay TV Experiences

The increased quantity, quality and ease of use of online video content has altered video service providers' relationships with customers, increasing broadband usage and reducing perceived value of video bundles. While pay-TV has responded by launching multiscreen TV Everywhere services, the ultimate goal—delivery of online video with pay-TV quality of experience to the television—remains elusive. Differences between both content delivery and content security as well as the inability of existing set-top boxes to support online video user experiences have prevented pay-TV operators from offering online video on the television at scale.

## Virtualizing Online Experiences on Pay TV

ActiveVideo® CloudTV StreamCast virtualizes STB functionality, enabling delivery of advanced online video user experiences to entire pay-TV subscriber footprints, using the already available set-top boxes in subscribers' homes. By shifting execution and rendering of HTML5 applications to the cloud and delivering the existing web UI and online content as a single MPEG2 or H.264 stream, StreamCast enables:

- Subscriber access to infinite libraries of online video
- Seamless integration of Linear TV, on-demand and online video
- Rich web UIs and consistent user experience across the subscriber base, irrespective of STB limitations

## Designing For Multi-Source, Multi-Format and Multi-DRM Content

The vast array of online content sources leads to varying media formats and Digital Rights Management (DRM) solutions. StreamCast's cloud virtualization:

- Converts online video formats to MPEG2/H.264 streams for delivery to pay-TV STBs
- Secures premium content by terminating the online video DRM and re-encrypting using pay-TV conditional access or third party DRM that is supported by the STB
- Supports online video delivery from any source via QAM or IP networks



Figure 1. StreamCast Integrates Online and Pay TV Experiences



Figure 2. Online Video Applications on StreamCast

## Rapidly Scaling for Premium Content Experiences

StreamCast quickly expands onboarding of premium online video content across entire pay-TV markets:

- **Service Differentiation:** Exceeds subscriber expectations by bringing a rich pipeline of premium online video content applications to a big-screen environment
- **Fast Deployment:** Stitching and hardware accelerated real time transcoding of streaming content in the cloud brings state-of-the-art performance to existing and new STBs, with the ability to scale
- **Reduced Complexity:** Cloud rendering allows apps written once to be available on existing and new STBs, dramatically reducing operator CapEx and OpEx

### Benefits:

StreamCast's virtualization of STB functions allows operators to combine Online Content and its rich User Interface with pay-TV's unparalleled Quality of Experience (QoE)—regardless of STB or CPE limitations—resulting in:

- **Accelerated Time-to-market:** Moving application rendering to the cloud limits development to a single platform thereby enabling faster service and deployment velocity at the pace of the Web.
- **Valuable new Business Models:** Expanded, diverse online content libraries unlock opportunities for subscriber upsell and open revenue from online content providers, and can drive subscriber acquisition—without exponentially higher programming costs.
- **Preservation of Pay-TV Bundles:** Seamless navigation, content discovery and intuitive viewing experience across both Linear and Online content can reduce subscriber churn while enhancing the value of existing pay-TV services. In active deployments, subscribers engage up to an hour with StreamCast-powered services.

### About ActiveVideo

ActiveVideo is the developer of CloudTV, the only software platform that enables service providers, content aggregators and CE manufacturers to *virtualize CPE functions* in the cloud for the purposes of delivering online content, advanced user interfaces and interactive advertising for TV to all generations of set-top boxes and connected devices. CloudTV delivers consistent, branded video experiences from the cloud, eliminating the cost and time to market of writing content for multiple device makes and models. ActiveVideo is a joint venture of ARRIS Group, Inc. (NASDAQ: ARRS) and Charter Communications (NASDAQ: CHTR). For more information and contacts, please visit [www.activevideo.com](http://www.activevideo.com)