

Optimized Video Delivery for Organizations

A Riverbed Solution Brief

As enterprises grow globally, the most cost-effective way to run marketing, training, or internal communications is via video. Video solutions for the enterprise consist of two major parts: content management, which includes the recording, capturing, and storing of video; and content delivery, which as the name suggests, is making sure the video content is being delivered to the end user as efficiently as possible.

Riverbed® works with technology partners like Polycom and Adobe to provide a complete, end-to-end enterprise video solution for its customers. Polycom, as an example, delivers products to deal with video content management, reporting, and the preposition of video, and provisioning a logical content delivery network.

Delivering video within the enterprise comes with its own challenges. First off, video traffic tends to be very bandwidth intensive, nowadays, even more so with the advent of high-definition (HD) video. Secondly, for live video to be delivered efficiently across the enterprise, a well-defined content delivery network needs to be established. Riverbed Steelhead® appliances, with their optimization features including quality of service, as well as their strategic location at the edge of a customer's premise, perfectly fit both these requirements.

In the rest of this document we will examine all the different use cases for an enterprise video solution, and how Riverbed and Polycom can help deliver optimized video for the enterprise.

Live Video or High Scale Webcasting

Examples of use cases for live video include company earnings calls, a CEO's live broadcast to their employees, or even a special, company-wide announcement. In the live video context, the biggest requirement to easing congestion and ensuring stability of the video is "stream-splitting". Stream splitting is where a single stream is sent downstream from the origin to the edge (branch), where it is "split" into as many individual streams as there are users at that location. For example, if there are 200 users at a branch location, a single stream traverses the WAN and is split into 200 streams on the LAN, where bandwidth is not constrained. Benefits for this use case include:

- Native stream-splitting for Microsoft Silverlight video over HTTP
- Native stream-splitting for Adobe Flash video over HTTP
- Latency-aware QoS for video traffic
- Riverbed Services Platform (RSP) partner packages for legacy video formats

Large Scale Video On Demand

Video on demand is preferred for content that is pre-recorded and delivered to the end user whenever they request it. A good example of

BENEFITS

- Native stream splitting for Microsoft Silverlight video over HTTP
- Native stream splitting for Adobe Flash video over HTTP
- Latency aware QoS for video content traffic
- CIFS and HTTP pre-population for on-demand video content
- Best-of-breed technology partnerships for an end-to-end video solution

this type of content is employee training videos. Such content may be accessed on demand from the central repository, or may even be prepositioned to the edge when a large amount of consumption is expected. Benefits for this use case include:

- Latency-aware QoS for on demand video traffic
- CIFS pre-population for video content files
- HTTP pre-population for video content files
- Data deduplication for previously viewed content
- Riverbed Services Platform (RSP) partner packages for media server functionality at the edge

Video Conferencing

Video conferencing is a popular strategy for collaboration as organizations grow globally with more users spread across multiple geographic locations. This is a great way for organizations to save on travel expenses, and stay “green” with respect to the environment. However, video conferencing does place additional strain on the network as it competes for the same resources as other enterprise applications. Benefits for this use case include:

- Latency-aware QoS for video conferencing traffic
- The ability to reduce bandwidth utilization for all other traffic types
- Data deduplication to eliminate redundant data

Enterprise YouTube

Content management products typically offer a “YouTube-like” interface, in which users have access to a portal where they can search for specific content. In certain cases, users may also have privileges to upload content into the portal for distribution to the rest of the organization. Benefits for this use case include:

- Latency-aware QoS for video conferencing traffic
- The ability to reduce bandwidth utilization for all other traffic types
- Data deduplication to eliminate redundant data
- End-to-end solution with content management technology partners

About Riverbed

Riverbed delivers performance for the globally connected enterprise. With Riverbed, enterprises can successfully and intelligently implement strategic initiatives such as virtualization, consolidation, cloud computing, and disaster recovery without fear of compromising performance. By giving enterprises the platform they need to understand, optimize, and consolidate their IT, Riverbed helps enterprises to build a fast, fluid, and dynamic IT architecture that aligns with the business needs of the organization. Additional information about Riverbed (NASDAQ: RVBD) is available at www.riverbed.com.



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