SaaS Accelerator Integration with Microsoft Stream, Teams for Live and On-Demand Video
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Microsoft Stream Support of Microsoft Teams

Microsoft Stream is an Enterprise Video service for people in your organization to upload, view, and share videos securely. Similar in approach to a YouTube repository for corporate-wide video sharing, Microsoft Stream also makes it easy to share comments on a video, tag timecodes in comments and descriptions to refer to specific points in a video and discuss with colleagues. Microsoft Stream works well with other Office 365 apps like Teams, SharePoint, OneNote, and Yammer. With these collaborations, customers get single sign-on (SSO) between Microsoft Stream leveraging Azure services (Azure CDN and Azure Media Player) making it easy to get the same great Stream experience across various solutions. Microsoft Stream acts as an application within the O365 suite but also as a video platform that delivers video in all the O365 applications. Whether you are using one or many of the components within the O365 portfolio, be assured that the Riverbed® SaaS Accelerator service has the ability to accelerate and optimize data intensive video delivery (and file sharing) over any network for Microsoft Teams and Microsoft Stream.

The best thing about the Riverbed SaaS Accelerator integration is that it can be running enterprise-wide in minutes, and it is extremely flexible, serving the needs of the largest enterprises in the world leveraging more SaaS apps for collaboration and video. With a small amount of configuration within an enterprise, VOD and broadcast video delivered in Microsoft O365 applications will be delivered via the Riverbed services cloud, ensuring your videos, no matter the source, are delivered to the edge, reaching your most remote employees. With the increasing number of use cases possible and the huge increase in the ability for users to self-serve video content on these platforms, market experience has shown that a company that starts to use video will see this usage grow over time. AppUnits purchased for use with other O365 applications (SharePoint, OneDrive, Office; Dynamics CRM), or non-Microsoft applications (Salesforce, ServiceNow, Box and more), can also be easily transferred to leverage these capabilities.
Stream Platform – Use Cases

Live Streaming for Executive Communications

When sharing a new corporate strategy, launching new products, or communicating regularly during a crisis, there is nothing more compelling for employees than hearing directly from the CEO, a department head or respected leader. The most cost-effective and engaging way to do that is via video. Seeing leaders on screen and being able to interact via Q&A helps build employee engagement and message comprehension. Attention spans for reading long overviews aren’t what they used to be. Employees also want to feel included. What better way to communicate business results or updated strategic plan or a new product release than via video?

Live events in Microsoft O365 applications like Microsoft Teams and Microsoft Stream enable enterprises to broadcast video and content to large online audiences. Microsoft 365 live events bring live video streaming to a new level, encouraging connection throughout the entire engagement lifecycle with attendees before, during, and after live events. You can create a live event wherever your audience, team, or community resides using Microsoft Stream, Microsoft Teams, or Yammer.

Pairing the Riverbed SaaS Accelerator Software-Defined Enterprise Content Delivery Network (eCDN) with Microsoft Teams Live Events allows your live events to reach the furthest endpoint with no network disruption. Employees can watch a “jitter-free” live stream of a CEO or division head, making for a great user experience for employees and better delivery for the executive on stage.

Riverbed SaaS Accelerator for Microsoft Teams and Stream seamlessly supports the demands of video on-demand by delivering the live streaming files to the endpoints without any additional physical infrastructure, without any impact on the corporate network and with minimal operational overhead. Delivery and a great user experience is ensured.

Delivery Insured with Microsoft Azure + Riverbed

Even with the Azure Content Delivery Network architectures and adding to it the remote and increasingly dynamic nature of today’s workforces, it’s not always possible to overcome the congestion issues associated with hosting events for thousands of viewers at scale. Addressing network congestion and performance is where Riverbed has always excelled. Now, Riverbed SaaS Accelerator provides a Software Defined Enterprise Content Delivery Network (eCDN) that easily integrates with Microsoft O365 applications supporting live and on-demand video (Microsoft Teams and Microsoft Stream) in addition to other supported O365 apps for file sharing (SharePoint, OneDrive, Office). With this stack in place, implementing an enterprise video strategy is easy.
Most enterprise users are already familiar with Microsoft’s suite of tools. In the instance that an organization must rapidly create a livestream, such as an urgent CEO message to the entire workforce, they can use Microsoft Teams to do so and then share the content on-demand via the Microsoft Stream platform. Riverbed SaaS Accelerator supports the entire solution making it possible to deliver content immediately to as many viewers as necessary, anywhere in the world. Ensuring capability to deliver a great user experience in remote areas of the world can be a challenge to reach even via the Azure CDN.

**Video on Demand for Learning and Development**

Video based learning and development systems act as the cornerstone for most onboarding and ongoing employee training programs in global enterprises. Creating and sharing videos in the services of O365 like Microsoft Stream and SharePoint make it easy for employees to access training videos. Using these services also ensures that Learning and Development (L&D), Marketing or HR teams can track important viewership metrics. Imagine that there is a required compliance training that all of your global employees need to complete by a specific date. Even if HR publishes the training video months in advance, the majority of employees wait until the very last minute to watch the video. If HR sends a final reminder email, and more than 50% of your employees try to access that video at the same time, what does that do to your network? In an instant your network is forced to move video files to thousands of employees at the same time. By enabling the eCDN on Riverbed SaaS Accelerator in addition to Microsoft Stream, you can be sure that no matter where or when your employees access any recorded videos, your network is protected. Employees can watch any recording, improving the adoption of video-based training and learning across your organization. Your networking teams need not worry about increasing video streaming traffic through the network and starving bandwidth needed for business-critical applications as a result.

**Riverbed SaaS Accelerator for (Microsoft Teams and Stream Live and on-Demand Video)**

The Software-Defined Enterprise Content Delivery Network (eCDN) built into the Riverbed SaaS Accelerator enables enterprises to distribute large content such as live streaming video and video on-demand to every employee device without impacting the network and without additional investment in physical infrastructure or servers. Riverbed SaaS Accelerator can be used to maximize the performance for variety of major collaboration platforms such as Microsoft O365 SharePoint, OneDrive and Office, and can be used with Teams and Stream as an alternative to the traditional, server-based mechanism for video distribution.

Through its cloud-based architecture, network efficiencies, ability to self-optimize, and streamlined management, SaaS Accelerator for Microsoft Teams and Stream live events and on-demand video provides the following additional benefits to the communications and networking teams:

- Easy video scaling capabilities; as more videos are created and shared, there’s no risk to the network
- No additional hardware or servers required, reduction in distribution points by up to 99%
- Role-based event and delivery dashboard
Let’s look at old models versus a Software-Defined model for video delivery.

Figure 1: With this older model, each endpoint will download the video file from the nearest distribution point server. With the size of a live streaming video, this needs to be done at each location to avoid excessive load on the WAN links. The traditional approach is not only expensive, both short term and long term, but imposes a significant maintenance and operational overhead on the enterprise.

Figure 2: With the Riverbed approach, there are no distribution point servers required. The agent intelligently creates a single virtual distribution point spanning all nodes such that content like video files are sent only once over a WAN link. The platform is highly resilient with very low operational overhead. The eCDN built into Riverbed SaaS Accelerator brings several benefits to an enterprise video communication strategy:

- Ability to support increasing video while reducing the impact on the network
- No additional hardware required, reduction in distribution points by up to 99%
- Event analytics and network analytics that are easy to access and immediately actionable
- Automatic adjusting to changes in traffic patterns and physical changes in the underlying network

Microsoft Teams and Stream Integration

The following illustrates the data flow of the Riverbed SaaS Accelerator integration with Microsoft Stream.
The Riverbed eCDN solution integrated on the SaaS Accelerator is comprised of a server and agent components. The agents are integrated directly (as a plug-in) with the media players of the Microsoft Teams web pages (browser) or the Microsoft Teams App. When the media player detects the eCDN agent running on the end-user device, it will stream live video directly from the agent. If an agent is not found, the video stream is sourced from the Microsoft Teams (leveraging the Azure CDN). If the eCDN agent is running, it will connect to the eCDN server, authenticate and then automatically recognize the local name/address for connection. It will then use it to get the Teams media player to retrieve the video stream from a local source.
Why Riverbed SaaS Accelerator + Microsoft Stream, Teams and Yammer

1: Flexibility

Leverage SaaS Accelerator to Accelerate additional Collaboration Apps for Users Anywhere

For large distributed organizations investing in other enterprise SaaS apps for collaboration, such as Microsoft O365 for SharePoint, OneDrive and Office, Microsoft Dynamics CRM, Salesforce, ServiceNow and others, AppUnits purchased for eCDN use with Microsoft Teams and Stream live and on-demand video can be easily transferred or augmented at any time to accelerate the performance of any Riverbed SaaS Accelerator supported app. Whether file sharing or using video, the growth in enterprise-wide collaboration only increases the data traversing networks, which along with network latency can seriously impact application performance. As enterprises invest heavily in these modern collaboration services, SaaS Accelerator removes up to 99% of application data from the WAN and mitigates application performance issues caused by latency. Eliminating these issues can dramatically enhance productivity to maximize enterprise investments in modern collaboration tools.
2: Accessible and Actionable Analytics

Understanding the impact of an event or on-demand video is a critical part of building a successful internal communications plan or training program. With the SaaS Accelerator Manager (SAM), customers can see what content is being consumed while knowing that all employees, no matter their location, have the same great experience. SAM delivers more actionable, role-based insights than any other eCDN provider in an easy to digest dashboard. With the Microsoft Stream integration, content creators are able to see a broad variety of metrics from within the video by clicking on the analytics link. From there, they will see the event summary dashboard and can easily navigate to any other reports on live or VOD content.

3: Scale Without Additional Effort

Microsoft is encouraging and enabling its enterprise customers to take advantage of more and more video creation across its O365 applications: Microsoft Stream, Microsoft Teams, Yammer, SharePoint, and Skype Meeting Broadcast. The proliferation of video across the enterprise will cause new strains on the network. The Riverbed EDCN on SaaS Accelerator will help scale that video and ensure that video curation and sharing grow within the organization without over-encumbering the network. By using the SaaS Accelerator for Microsoft Teams and Microsoft Stream integration, any video that’s shared can be accessed by as many employees without risk to the network. The technology is self-optimizing and will guarantee the most efficient delivery and engaging user experience of live and on-demand video company-wide.
4: Network Efficiency

As with Riverbed’s rich history in optimizing data over networks, the eCDN on SaaS Accelerator is aware of the network topology and delivers only one copy of a video to each office, regardless of the number of users, endpoints and subnets at that location. End-user topology information is maintained via a centrally managed virtual network map of all the available peers. Video content is distributed to/from the nearest peer and can exchange either parts of videos, or entire files depending on what is more efficient for the network.

Multi-Layer Security

The eCDN built on Riverbed SaaS Accelerator boasts robust security measures and authentication mechanisms. When integrated with Microsoft applications, the Riverbed eCDN also:

- Delivers video streams in a tunneled fashion which does not require decrypting the streams on transit. This guarantees the utmost level of security by having encrypted streams flow uninterrupted through the Riverbed delivery network.

- Conducts agent detection over SSL (Secure Socket Layer). This removes the reliance on Adobe Flash, which is now considered unsafe by many organizations.

Summary and Key Benefits

The Riverbed eCDN built on SaaS Accelerator for Microsoft Teams and Microsoft Stream offers an end-to-end delivery solution for live video events and on-demand corporate video sharing. This capability can be easily implemented to maximize network efficiency and user experience of video sharing today. It can be also used in conjunction with acceleration for other data-intensive collaboration apps supported by Riverbed SaaS Accelerator (Microsoft O365, Microsoft Dynamics CRM, Salesforce, ServiceNow, Veeva, Box and more). At scale, acceleration can drive massive productivity savings to distributed enterprises.
Benefits Summary

When it comes to delivering a corporate strategy for live and on-demand video, as well as data-intensive file-sharing via SaaS, Riverbed SaaS Accelerator easily solves some of the biggest network challenges in the enterprise, such as:

- Streaming a high quality, live video All-Hands or training meetings to all employees reliably without impacting the network
- Measuring the results of video communications via O365 enterprise applications like Microsoft Stream, Microsoft Teams, Yammer, and SharePoint or the corporate intranet with thousands of on-demand videos
- Quickly and reliably moving large files across a geographically distributed network with ease

Riverbed Technical Benefits

- **Software-Defined Technology**: the eCDN on Riverbed SaaS Accelerator acts as an intelligent network. Every computer automatically becomes a content server
- **Control Layer**: Network becomes highly configurable: characteristics of the network functions are configured via software to determine the key attributes of the network’s function
- **Adaptive Response**: Guaranteed most efficient, timely, and complete delivery; dynamically redistributes load based on network changes within the guidelines set by the backend controller
- **A highly extensible and robust API** enables integration with Microsoft Stream that scales video across the enterprise

Riverbed enables organizations to maximize performance and visibility for networks and applications, so they can overcome complexity and fully capitalize on their digital and cloud investments. The Riverbed Network and Application Performance Platform enables organizations to visualize, optimize, remediate and accelerate the performance of any network for any application. The platform addresses performance and visibility holistically with best-in-class WAN optimization, network performance management (NPM), application acceleration (including Office 365, SaaS, client and cloud acceleration), and enterprise-grade SD-WAN. Riverbed’s 30,000+ customers include 99% of the Fortune 100. Learn more at riverbed.com.