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# ACCELERATING MICROSOFT EXCHANGE ONLINE WITH RIVERBED STEELHEAD SAAS

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Microsoft® Exchange Online is available as a standalone email solution or as part of the Microsoft Office 365. Exchange Online provides enterprise class features including hosted email, calendar and contacts, and integration with Microsoft Office, SharePoint Online and Skype for Business. Moving on premise workloads to the cloud can add bandwidth, distance, and latency concerns outside the control of the hosted service. With Riverbed® SteelHead® SaaS optimization, you enjoy the same application acceleration, bandwidth reduction, and business benefits that Riverbed provides to on premise applications.

## Introduction

Riverbed SteelHead SaaS addresses cloud/software as a service (SaaS) performance challenges by providing an easy-to-deploy optimization solution that meets customer needs for application performance over WAN and Internet connections.

Combining private wide area network (WAN) and public internet optimization, SteelHead SaaS is a first-of-its-kind solution, which optimizes traffic across the public Internet with Riverbed's award-winning SteelHead optimization system (formerly RiOS or Riverbed Optimization System) technology to accelerate data and application protocols. SteelHead SaaS delivers optimized performance up to 20x for cloud services/SaaS applications, such as Exchange Online,

## Performance Improvements

SteelHead SaaS is a software add-on to existing SteelHead solution deployments and does not require changes in the way SteelHead solution is deployed. Once SteelHead SaaS is enabled, the SteelHead solution deployed within the enterprise network will communicate with a secured, dedicated cloud SteelHead CX instance hosted on an Internet optimization platform – the Akamai Intelligent Platform. The result is end-to-end optimization for your Exchange Online traffic – with a reduction in application latency and bandwidth consumption. The Akamai technology identified the fastest path from your location to the SteelHead CX device at a location closest to your Microsoft data center. In this way, efficient routing of your services traffic is improved resulting in increased network performance especially in geographies that experience routing latency.

## Benefits

### Improved productivity

By accelerating Exchange Online performance, users spend less time sending and receiving email. Collaboration via email requires less waiting. IT managers receive fewer notifications regarding email performance issues.

### Reduced WAN impact and costs

Other network applications perform better when the WAN is no longer congested by redundant email traffic. By dramatically reducing redundant traffic, IT managers can also avoid bandwidth upgrades or even reduce bandwidth costs to branch offices.

### Consolidated Exchange Servers

Improved email performance means IT managers can consolidate exchange servers, dramatically reducing infrastructure complexity and reducing both the capital and operational expenses associated with Exchange.

### Testing Parameters

- Outlook 2013 on Windows 8.1 client running Outlook Anywhere
- Riverbed SteelHead VCX755H running 9.1 at edge
- WAN simulated at 2 Mbps and 100ms RTT to Office 365
- 20 MB PPTX file attachment
  
- Exchange Online with Office 365
- Riverbed SteelHead SaaS

## Results

These graphs demonstrate the significant productivity and user experience benefits that are possible when using SteelHead SaaS with Exchange Online. The first graph shows the send mail with a 20MB file attachment accelerated 20x faster than without optimization. The second graph shows a 99% bandwidth reduction for the same send mail with file attachment. A “Cold” is defined as a first time send. A “Warm” is defined as the second and subsequent sends. SteelHead SaaS will also optimize Outlook Anywhere, Office Address Book downloads, as well as sending and receiving email with Outlook.

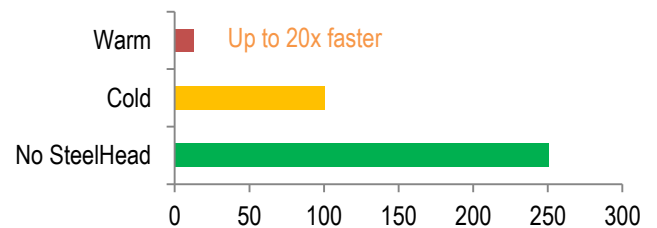


Figure 1 - Time (in seconds) to send 20MB file using MAPI-OA

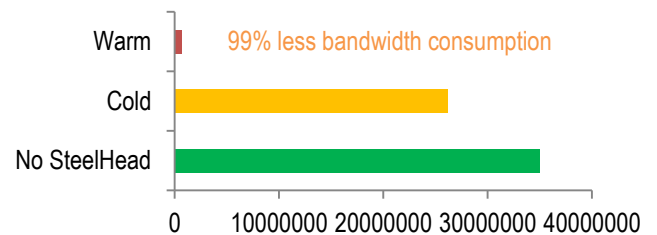


Figure 2 – Bytes sent over WAN with MAPI-OA

### About Riverbed

Riverbed, at more than \$1 billion in annual revenue, is the leader in application performance infrastructure, delivering the most complete platform for the hybrid enterprise to ensure applications perform as expected, data is always available when needed, and performance issues can be proactively detected and resolved before impacting business performance. Riverbed enables hybrid enterprises to transform application performance into a competitive advantage by maximizing employee productivity and leveraging IT to create new forms of operational agility. Riverbed's 26,000+ customers include 97% of the *Fortune* 100 and 98% of the *Forbes* Global 100. Learn more at [Riverbed.com](http://Riverbed.com).

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