

# Steelhead Cloud Accelerator

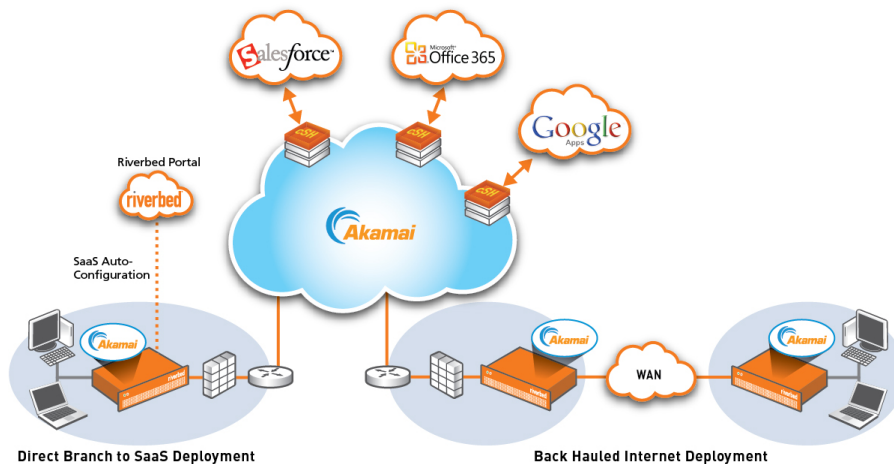
## Introduction

Software-as-a-Service (SaaS) is a software delivery method that provides access to software and its functions remotely as a Web-based service. SaaS enables organizations to access business functionality at a cost lower than paying for licensed applications since SaaS pricing is based on a monthly fee. Also, because the software is hosted remotely, users don't need to invest in or manage additional hardware. Software as a Service removes the need for organizations to handle the installation, set-up and often daily upkeep and maintenance.

With an increasing number of enterprise customers looking at deployment at providers such as Salesforce.com®, Google Apps, and Microsoft® Office 365, the question of performance over wide area networks becomes a driving factor. The Riverbed Steelhead Cloud Accelerator solution addresses customer needs for performance by providing an easy to deploy WAN acceleration solution for their specific needs. To solve this problem, Riverbed Technology and Akamai have partnered to deliver the Steelhead® Cloud Accelerator, a solution that combines the best of breed in public internet optimization with the best of breed in private wide area network (WAN) optimization. The Steelhead Cloud Accelerator is a first of its kind solution integrating Akamai's globally distributed Intelligent Platform, which optimizes traffic across the public internet, with Riverbed award winning RiOS® (Riverbed Optimization System) technology to accelerate data and application protocols.

## Performance Improvements

The network diagram below outlines a deployment setup.



This solution is an add-on to existing Steelhead appliance deployments and does not require any changes in the way Steelhead appliances are deployed today or any changes on the SaaS provider's infrastructure. RiOS will be installed on Akamai's SureRoute gateways to be

## TEST RESULTS

- File transfers completed up to **31 times faster** than when no Steelheads were present.
- **Up to 98% data reduction** or more for backhauled SaaS applications

## TESTING PARAMETERS

The testing covers performance acceleration and bandwidth savings for **Salesforce.com** and **Microsoft Office365**.

A WAN simulator is used to simulate a **1.5Mbps** WAN link and **100ms** RTT to the SaaS provider.

A local Steelhead appliance at the office is set up to optimize with automatically provisioned Cloud Steelheads at the edge of the Akamai network closest to the SaaS provider.

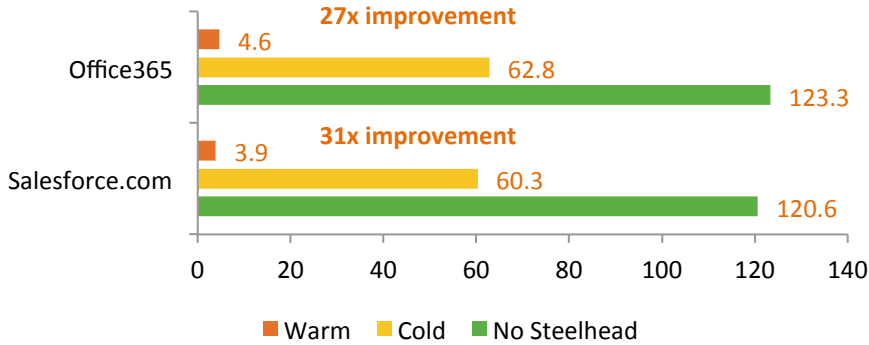
The same Microsoft Word document is downloaded from each SaaS provider. The size of the document is 20.8MB

The test calculates the time to download the file in seconds and the total WAN bytes seen in the WAN simulator in both directions in MB.

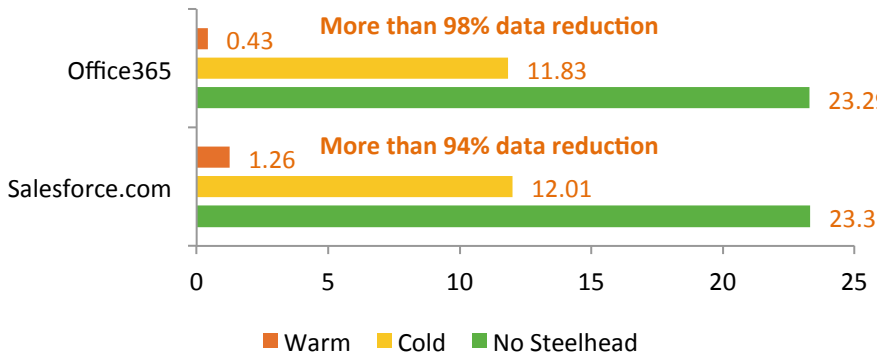
activated whenever a customer purchases a license. The RiOS instance on the Akamai gateway will then optimize content and applications to the Steelhead appliance deployed within the customer’s enterprise network. By hosting Riverbed RiOS technology on Akamai’s Intelligent Platform, the joint solution enables the seamless optimization of WAN and public networks, all the way to the front door of a SaaS application provider.

**Results**

The first figure below shows the improvement in time (in seconds) to perform the file transfer. In both SaaS provider cases, the time to transfer with the Riverbed Steelhead Cloud Accelerator were significantly improved. The results show an impressive 30X improvement.



Similar observations can be seen with bandwidth savings. The amount of data sent over the WAN (in MB) when optimized were 98% lower than when no Steelheads were installed.



**DEPLOYMENT BENEFITS**

The Riverbed Steelhead Cloud Accelerator solution for accelerating SaaS provides multiple benefits, including:

- **Improved productivity.** By accelerating remote applications, file transfers or email communication, end users are more productive and can collaborate in real time. IT ends up with fewer requests dealing with network slowness issues.
- **Reduced WAN impact and costs.** Other network applications perform better when the WAN is no longer congested by redundant traffic. By dramatically reducing traffic over the WAN, IT managers can also avoid bandwidth upgrades or even reduce bandwidth costs to branch or datacenter locations.
- **Automatic and Seamless Integration.** From a deployment standpoint, enabling SaaS acceleration is easy and completely seamless. A simple checkbox enables a licensed Steelhead to start optimization for SaaS applications and they do not have worry about remote Steelhead deployment or management.