

## Evaluating the ROI of Riverbed® Steelhead® Products: A How-To Guide

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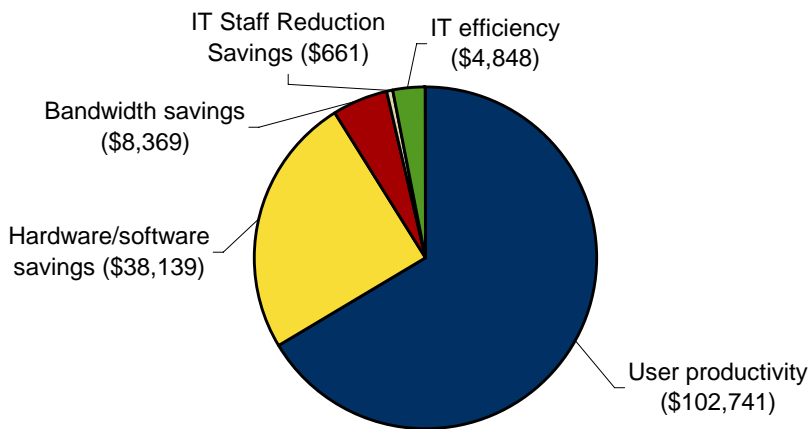
### Introduction

Return on Investment (ROI) is a complex, but necessary challenge when validating technology purchases. ROI often involves the analysis of hard-cost trade-offs and soft-cost benefits. Every company analyzes ROI slightly differently – depending on their own priorities and their own interests.

Steelhead products have proven their ROI in many different scenarios. This document gives an overview of these results and some helpful considerations when conducting an ROI analysis of Steelhead products.

### IDC ROI Analysis

IDC recently did a multi-customer, multi-industry ROI study of Steelhead products. Using their own methodology, they determined that many factors play into ROI.



*IDC: Adding Value with Wide-Area Data Services. The above results show the average benefits per 100 users. While results will vary by enterprise and by the focus of any project, these results show returns in all major areas.*

IDC summarized the ROI of Steelhead appliances as follows:

On average, the surveyed companies achieved IT budget savings of \$46,719 per 100 users in hardware, software, and bandwidth costs, while IT operations costs reductions contributed a further savings of \$661 per 100 users.

IDC found that improved user productivity accounted for the greatest benefits from deploying the Riverbed Steelhead appliances. On average, users increased their productive time by 7.4%, saving 10.6 hours annually. These savings averaged \$102,741 per 100 users per year.

After deploying Riverbed Steelhead appliances, the companies were able to increase the number of users supported by each IT full-time employee by 5%. This resulted in average savings of \$4,848 per 100 users over three years. Additionally, companies benefited from the ability to grow revenue through previously impossible business strategies and to pursue new projects that could be geographically dispersed, as well as the ability to share work more effectively across offices around the world. This revenue growth averaged \$3,219 per 100 users over three years, resulting in average total benefits from the deployment of \$157,889 per 100 users over three years.

From these benefits, IDC deducts the opportunity cost of not having the initial investment in some other instrument yielding 12%. For the surveyed companies, this results in a net present value (NPV) of the benefits of \$103,321 per 100 users.

For more information, download the report from [www.riverbed.com](http://www.riverbed.com), or request document #208052 from IDC.

Let's examine each of these areas in detail to understand what the benefits are.

## Bandwidth

Originally, enterprises focused mainly on bandwidth upgrade avoidance as the primary benefit from Steelhead products. While this in and of itself is a valuable benefit – many companies have justified a payback period of just a few months on this comparison alone – organizations have come to realize that there are many other benefits to the product as well, as described later in this paper.

GeoEngineers, a Riverbed customer, noted that they added 155 Mbps of throughput without adding any additional bandwidth to its 3 Mbps corporate WAN link. This resulted in a savings of about \$500,000 per month<sup>1</sup>.

Typically, customers consider both initial capital expenditures and ongoing expenses when comparing bandwidth costs to the purchase of Steelhead products. Initial costs cover router and switch upgrades as well as service provider one-time fees<sup>2</sup>. These can often be very significant (\$10,000 - \$20,000 per site), and often equal 60% - 80% of the cost of a Steelhead appliance anyway.

Ongoing bandwidth savings are often measured by taking the 95<sup>th</sup> percentile of throughput with Steelhead appliances and then examining the cost of buying that much bandwidth. *Note that this is strictly a bandwidth comparison. Additional bandwidth does not necessarily accelerate applications, because it cannot overcome the latency between any two locations.* However, if applications are not delay sensitive (e.g. not chatty), then the 95<sup>th</sup> percentile is a reasonable means of estimating the size of circuit required to a remote site in order to avoid additional delays associated with network queuing for bandwidth. The 95<sup>th</sup> percentile represents a fair number to use because it also parallels how most service providers charge enterprise customers today.<sup>3</sup> By using the 95<sup>th</sup> percentile of throughput, enterprises can do an apples-to-apples comparison of the 'virtual throughput' provided by Steelhead appliances and buying an equivalent amount of bandwidth.

Enterprises may have to modify this comparison if they have a different arrangement with their service provider. For example, they may have a flat rate (with a bandwidth ceiling) or be charged based on the amount of data actually transferred.

## Productivity

One of the benefits that more bandwidth cannot necessarily provide is the ability to make users more productive. Steelhead appliances do this by improving latency at the transport and application layers, making many applications perform as if they were local. That means all users can have fast, reliable access to the files and applications that they need. This provides a number of benefits:

- Less time spent waiting – a raw savings in time
- Ability to collaborate more easily – resulting in a better end product
- Access to better information – the right data at the right time

Evaluating time savings can be done at a most basic level by timing applications and how much faster they run with Steelhead products in place. This time savings can then be multiplied across the employee base, and also by the number of times that action is completed. The end result is almost always stunning – even a 3 second savings multiplied across a user base can result in a 3 month payback period for a common activity.

Improving the ability to collaborate and access to better information are best evaluated on a company-by-company basis. What is the value of sharing work across offices? How is work more efficient if users have access to better information?

## Hardware/Software Savings

Many companies today are engaged in consolidation of storage and application infrastructure, and find that products like Steelhead appliances are necessary to ensure that the project is successful.

Consolidation allows organizations to eliminate much of the infrastructure at remote locations. This results in significant amounts of hardware and software savings, though these savings are often one-time savings.

Recurring savings also result from consolidation. Support and licensing costs for hardware is often dramatically reduced, because consolidated infrastructures can more efficiently use the resources at hand. IT resources are dramatically streamlined, as management and patching efforts are simplified. Finally, organizations can perform much more accurate planning since

<sup>1</sup> Riverbed GeoEngineers Case Study

<sup>2</sup> From actual ROI Analyses presented by Ruden, McClosky LLP and Allen Matkins LLP

<sup>3</sup> [http://anyhosting.com/service\\_info/95th\\_percentile-explanation](http://anyhosting.com/service_info/95th_percentile-explanation)

resources can be easily reviewed.

Analyses of these topics are generally straightforward: hardware, software, and support costs can quickly be determined. Some time with storage or application managers will quickly illuminate the amount of time spent on management and maintenance of remote infrastructure, which can then be included as a productivity benefit.

## IT Efficiency

Improving IT operations comes in a number of different ways. As described above, it may come from streamlined operations due to consolidation. It may also result from:

- Fewer support desk calls
- Accelerated data backup and restores
- Simplified rollout of new offices
- Eased network design
- Deferred upgrades, resulting in time to focus on new initiatives

This wide range of benefits means that highly compensated IT personnel can spend more time on strategic, forward-looking projects and less time on routine maintenance, management, and upgrading of remote office IT infrastructure. This enables IT to react faster to business needs, plan ahead of business requirements, and potentially accomplish more with fewer resources.

As with many complex IT projects, some of these benefits may be hard to systematically analyze. Individuals doing an ROI assessment should take the time to meet with knowledgeable individuals within the company who can best determine the relevant benefits and their respective values.

## Summary

There are many hard and soft cost benefits to Riverbed Steelhead products. Enterprises can typically expect a payback period of a few months on an investment in these devices, but that is dependent on how they evaluate the ROI of a deployment. Typical financial benefits include productivity benefits, bandwidth savings, hardware consolidation savings, and accelerated backup for disaster recovery.

## About Riverbed

Riverbed Technology is the performance leader in wide-area data services (WDS) solutions for companies worldwide. By enabling application performance over the wide area network (WAN) that is orders of magnitude faster than what users experience today, Riverbed is changing the way people work, and enabling a distributed workforce that can collaborate as if they were local. Additional information about Riverbed (Nasdaq: RVBD) is available at [www.riverbed.com](http://www.riverbed.com).

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