The Business Value of Riverbed SteelHead

Sponsored by: **Riverbed**

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Business Value Highlights

497%
three-year ROI

7 months
to breakeven

70%
reduction in network-related unplanned downtime

9%
average organizationwide productivity gain

33%
fewer physical servers

19%
more efficient WAN management

EXECUTIVE SUMMARY

Long a market leader in WAN optimization, Riverbed's flagship product, SteelHead, has accrued a formidable installed base of customers by providing substantive business value in areas such as application and network performance, end-user productivity, WAN management efficiencies and cost savings, and IT staff productivity.

Now, as companies pursue digital transformation (DX) and increasingly adopt cloud computing, SteelHead is adding further value by helping enterprises optimize SaaS and IaaS applications across the WAN at branch offices and remote locations worldwide. Indeed, Riverbed SteelHead is adapting to cloud requirements while continuing to provide quantifiable benefits and value through the reliable delivery of business-critical enterprise applications.

IDC conducted detailed interviews with nine organizations to understand the impact of optimizing the delivery of business applications with Riverbed SteelHead. These organizations reported that SteelHead provided significant value by cost effectively improving network and application performance, which bolsters their business operations and results. IDC calculates that these organizations will realize benefits worth an average of $27,014 per 100 users ($7.23 million per organization) per year over three years, which translates to a projected three-year return on investment (ROI) of 497%, by:

- **Improving application performance**, which increases employee productivity and helps address business opportunities
- **Reducing downtime**, by minimizing the impact of network-related outages on users and business operations

- **More efficiently operating their WANs from datacenters to branch locations**, through avoiding bandwidth upgrades and other WAN and by consolidating and retiring servers across their environments
- **Making IT staff more efficient,** by centralizing management of WAN operations and spending less time on server and user support

Situation Overview

Enterprises worldwide have made digital transformation a critical business priority. IDC defines digital transformation as the application of 3rd Platform technologies — cloud, mobility, data analytics, and social business — to fundamentally change the nature and value of business models, processes, products, and services.

What's more, enterprises understand that digital transformation is imperative rather than optional. Eschewing the need for digital transformation can result in falling behind the competition, loss of revenue and market share, and even business irrelevance. Indeed, IDC predicts that by 2018, one-third of the top 20 market leaders in most industries will be significantly disrupted by new competitors that use the 3rd Platform to create new services and business models.

The 3rd Platform, on which DX depends, has become an undeniable technological foundation for business process improvement and also for improved business outcomes. Cloud and mobility have been key pillars of the 3rd Platform and have generated both opportunities and challenges for enterprise customers as well as for the vendors that serve them.

WAN Is Critical to Digital Transformation and Cloud

In fact, the WAN is an increasingly critical element in the realization of hybrid cloud for enterprises worldwide.

Although much discussion has ensued regarding the datacenter implications of cloud computing, the consequences for the WAN also are hugely significant. As public and private cloud continue to grow, WAN performance becomes critical for a range of latency-sensitive workloads as well as for inter-datacenter business continuity.

Accordingly, as enterprises plan and implement comprehensive cloud strategies, WAN architectures and capabilities need to be considered alongside, and in conjunction with, datacenter infrastructure. In fact, the WAN is an increasingly critical element in the realization of hybrid cloud for enterprises worldwide.

As enterprises move mission-critical (e.g., ERP/CRM and UC&C) workloads and business processes to the cloud, there is a greater need to fully integrate cloud-based services into WAN environments to ensure application availability, control, performance, and security. Unfortunately, enterprises often lack WAN visibility into these hybrid application environments. As such, there is a pressing need for enterprise IT to analyze the nature and volume of incoming and outgoing application traffic flows to determine how best to improve application performance and to provide better end-user experience for both legacy applications and cloud-based SaaS offerings such as Microsoft Office 365 and salesforce.com.

Indeed, even as enterprise IT embraces cloud and mobility, new challenges have emerged at branch offices and remote locations. They include little or no control in areas such as network visibility (QoS, bandwidth, latency), ensuring that applications are reliably and securely delivered across a hybrid WAN, and the need for improved application delivery optimization. These challenges stand in the way of delivering better end-user experience and greater overall productivity.

Cloud Presents New WAN Challenges

Ultimately, the overall objective is optimization of application performance for all users, regardless of where the application is consumed or where it resides.

The hybrid WAN is undeniably critical to enterprises looking to derive full value from hybrid clouds, especially for distributed enterprises across a broad range of vertical markets for which branch and remote sites are invaluable links in the value chains of their businesses. In these WAN environments, enterprise IT requires end-to-end visibility and control over applications (including long-established business-critical applications in the enterprise datacenter as well as SaaS applications and applications resident at IaaS cloud providers) so that it can effectively address performance issues as they arise. Ultimately, the overall objective is optimization of application performance for all users, regardless of where the application is consumed or where it resides.

To be sure, enterprises adopting hybrid cloud must give careful consideration to a WAN strategy that offers the same sort of operational efficiencies and business agility that they seek to derive from software-defined networking (SDN) in the enterprise datacenter — hence the rise of the software-defined WAN (SD-WAN), which leverages the principles of SDN and adapts them to the needs of enterprises seeking to optimize next-generation application delivery to the enterprise branch. Indeed, SD-WAN provides the complementary capstone for hybrid cloud application delivery.

SD-WAN

SD-WAN is a relatively recent development, preceded by the existence of hybrid WANs. Whereas a hybrid WAN includes at least two WAN connections from each branch office, leveraging two or more different access technologies (MPLS, broadband Internet, 3G/4G, and others), an SD-WAN leverages hybrid WANs but includes a centralized, application-based policy controller; analytics for application and network visibility; a software overlay that abstracts underlying networks; and an optional SD-WAN forwarder (routing capability) that together provide intelligent path selection across WAN links, based on the application policies defined on the controller. SD-WAN's business benefits can include cost-effective delivery of business applications, meeting the evolving requirements of the modern branch/remote site, accommodating SaaS and cloud-based services, and improving branch IT efficiency through automation.

Increased adoption of SaaS applications, in particular, has had significant ramifications on the WAN. For example, while it might make sense to backhaul all business-critical legacy application traffic over MPLS, it is neither a desirable nor a cost-effective approach for SaaS applications delivered from the public cloud. For public cloud applications, policy-based utilization of broadband Internet connectivity might be favored for reasons of cost and efficiency.

SD-WAN gained increasing mindshare in 2015, and IDC predicts SD-WAN revenue will ramp strongly in 2016 across a range of vertical markets. IDC believes that SD-WAN's value proposition — predicated on growth of cloud computing and the business imperative of reducing MPLS costs — will be compelling for a growing number of enterprise customers seeking to provide cost-effective networking to branch offices and remote sites.

Many enterprises, however, will not want to stop at SD-WAN. Instead, they'll be inclined to extend cloud-managed automated control throughout branch offices and remote locations, encompassing remote LANs, the provision of platform-based virtualized network and security services, and direct connectivity to popular SaaS and IaaS cloud services.

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Riverbed SteelHead

Responding to the Branch Requirements of the Hybrid Enterprise

For its part, Riverbed has been closely following and responding to the requirements spawned by digital transformation on the 3rd Platform, especially as it relates to the impact of cloud and mobility at branch offices and remote sites.

Long established as the market leader in WAN optimization, Riverbed has evolved its flagship SteelHead product portfolio to ensure optimal performance of applications between datacenters,

branch locations, cloud networks, and end users. Riverbed understands that hybrid enterprise environments mean applications can reside anywhere — in enterprise datacenters, at branch offices and remote sites, and increasingly in SaaS and IaaS public clouds.

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SteelHead now includes new capabilities for the hybrid enterprise, notably SaaS enhancements that provide for additional application optimizations and simplified control. For example, SteelHead SaaS has been extended to support a wider portfolio of SaaS applications, accelerating their delivery while reducing bandwidth. In terms of simplified control, SteelHead SaaS offers SaaS optimization on a subscription basis for all key business-relevant SaaS applications, with provision also made for optimization of new SaaS applications that will be added to the optimization portfolio in the future.

SteelHead can also be leveraged in hybrid cloud environments such as Microsoft Azure, Amazon Web Services, VMware ESX hosted clouds and vCloud Air environments. This offers the freedom to ensure application performance in nearly any cloud and move between cloud providers with ease.

In response to the increased proliferation of video traffic in business environments, SteelHead offers a single-ended Web Proxy solution that allows caching of HTTP/HTTPS traffic for reduced WAN utilization and improved performance of video, software upgrades, and other large file applications.

This paper previously mentioned that as cloud applications proliferate, analytics and visibility will become increasingly important to application performance and end-user experience. With that consideration in mind, SteelHead's analytics and visibility capabilities comprise metrics relating to application and network performance as well as to end-user experience criteria. Insights from such visibility enable enterprise IT to troubleshoot and address problems before they affect user experience. In addition, SteelHead's application awareness affords business agility and operational control through intelligent path selection and network services based on intent-based, business-driven policies. Many of SteelHead's hybrid WAN capabilities are being carried forward and expanded in Riverbed's SteelConnect, which was recently introduced as the company's official foray in SD-WAN.

Riverbed cites SteelConnect's application-defined approach to networking, as well as its ubiquitous connectivity & orchestration capabilities that span the broadening perimeter of the hybrid enterprise.

To that end, Riverbed points to SteelConnect's capabilities that include management and connectivity across WAN, remote LAN, and cloud networks; policy-based business language orchestration rather than CLI-based commands; cloud-based management with zero-touch provisioning; and pervasive visibility that extends across all users and devices connected to the distributed network.

Clearly, Riverbed's ultimate ambitions extend beyond SD-WAN and include comprehensive designs on the cloud-managed branch office for the distributed enterprise. This market transition from "pure play" WAN optimization to a broader SD-WAN value proposition will be a significant milestone, where Riverbed's success will depend on how well the company has anticipated and responded to the enterprise need to embrace cloud while reducing the complexity and cost of WAN application delivery and connectivity.

The Business Value Of Riverbed SteelHead

Study Demographics

IDC interviewed nine organizations using Riverbed SteelHead to optimize the delivery of business applications across their operations. Interviews covered quantitative and qualitative topics about the impact of SteelHead on areas such as network and application performance, WAN management and costs, and business operations. These organizations included two very large organizations with tens of thousands of employees but were typically somewhat smaller, with an average employee base of 39,000 and a median of 2,600. Interviewed organizations represented a number of industries and conveyed experiences from North America, EMEA, and Asia/Pacific.

TABLE 1

Demographics of Interviewed Organizations Using Riverbed SteelHead

	Average	Median
Number of employees	39,000	2,600
Number of IT staff	740	100
Number of IT users	26,750	2,600
Number of business applications	687	100
Number of physical servers	759	188
Regions	United States, Australia, Sweden, France, and India	
Industries	Construction, retail, manufacturing, government, and natural resources	

n = 9

Source: IDC, 2016

"We also see SteelHead as being a good enabler if we talk about SaaS applications, and we have a number of ongoing internal discussions about where we can probably improve SaaS application performance with SteelHead."

Interviewed organizations are using Riverbed SteelHead to support business applications serving users and customers at disparate operations (126 offices and branches on average) (see Table 2). They reported common core use cases for SteelHead focused on improving application performance and user experience, including ensuring network QoS, optimizing the experience of mobile workers, streamlining data, and obtaining more visibility into applications. In addition, five organizations are using SteelHead to improve management of their hybrid WANs and to optimize encrypted applications, while several organizations reported use cases that include application streamlining, video support, Web Proxy, secure transport, and path selection.

Several organizations also noted that they are currently in proof of concepts regarding using Riverbed SteelHead to optimize SaaS and/or IaaS applications and resources. One interviewed organization commented that its experiences with Riverbed SteelHead led it to expect benefits from SaaS optimization with it: *"We also see SteelHead as being a good enabler if we talk about SaaS applications, and we have a number of ongoing internal discussions about where we can probably improve SaaS application performance with SteelHead."*

TABLE 2

Riverbed SteelHead Environments of Interviewed Organizations

	Average	Median
Number of datacenters	3	2
Number of offices and branch locations	126	75
Number of IT users on SteelHead	25,300	2,250
Number of business applications on SteelHead	295	61

n = 9
Source: IDC, 2016

Every interviewed organization reported increasing user productivity by improving application performance and delivery in the context of avoiding having to make costly network upgrades.

Business Value Analysis

Interviewed organizations articulated a common core value proposition for Riverbed SteelHead: Every interviewed organization reported increasing user productivity by improving application performance and delivery in the context of avoiding having to make costly network upgrades. As a result, SteelHead has enabled employees and business operations while helping organizations maintain cost-effective WAN environments.

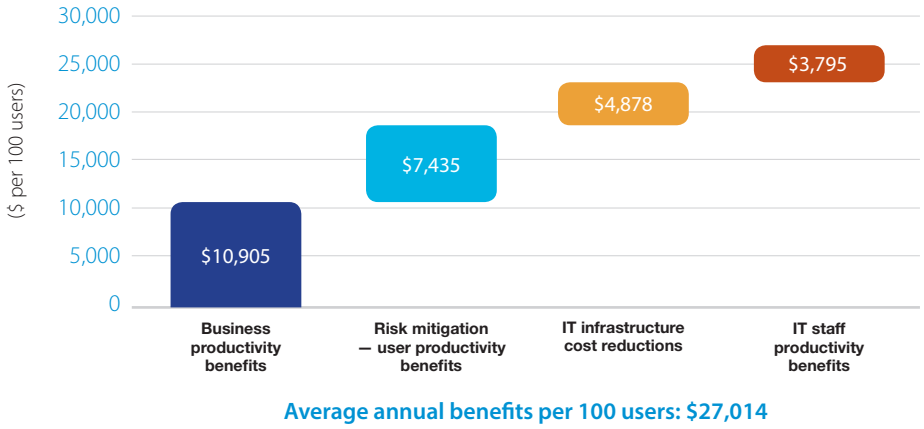
IDC calculates that these organizations will realize average annual business benefits worth $27,014 per 100 users over three years

IDC's analysis demonstrates that these organizations are translating these efficiencies and operational improvements with Riverbed SteelHead into substantial business value. IDC calculates that these organizations will realize average annual business benefits worth $27,014 per 100 users ($7.23 million per organization) over three years in the following areas (see Figure 1):

- **Business productivity benefits.** Improving application performance translates to higher employee productivity and being able to better address business opportunities. IDC puts the value of increased productivity and higher revenue at an annual average of $10,905 per 100 users ($2.92 million per organization) over three years.
- **Downtime reduction and user productivity benefits.** Reducing the frequency and duration of unplanned network-related outages means a better user experience and higher application availability. IDC calculates that interviewed organizations will realize user productivity benefits worth an annual average of $7,435 per 100 users ($2.00 million per organization) over three years.
- **IT infrastructure cost reductions.** Enabling improved network and application performance without needing to make costly investments in bandwidth and network hardware supports efforts to build cost-effective WANs. In addition, server consolidation, especially at branch locations, enables further hardware and operating expense savings. IDC projects that interviewed organizations will reduce and avoid costs with an average annual value of $4,878 per 100 users ($1.30 million per organization) over three years.
- **IT staff productivity benefits.** Centralizing management of WANs, consolidating server environments, and responding to fewer network-related problems mean that supporting WANs require less IT staff time. IDC calculates that IT staff time savings and efficiencies will have an average annual value of $3,795 per 100 users ($1.02 million per organization) over three years.

FIGURE 1

Average Annual Benefits per 100 users



Average annual benefits per 100 users: $27,014

Source: IDC, 2016

Interviewed IT managers described how they have reduced latency, improved bandwidth availability, and accelerated data delivery, all of which have contributed to improving end-user experiences.

Business Productivity Benefits

Every interviewed organization attributed improved application performance to their use of Riverbed SteelHead. Interviewed IT managers described how they have reduced latency, improved bandwidth availability, and accelerated data delivery, all of which have contributed to improving end-user experiences. For users of applications, these improvements mean having business applications that move at the speed at which they work and support business operations. An IT manager at one interviewed organization described the extent to which the user experience at his organization depends on SteelHead as follows: *"Our users tell us everything is the same, until we turn off SteelHead, and [then] they tell us we broke the network."* Not surprisingly, improved application performance means higher user satisfaction; across the board, interviewed organizations reported that user satisfaction with IT services has increased markedly.

Improved application performance has a real impact on the user experience and, ultimately, business operations. Every interviewed organization attributed substantial increases to employee productivity levels to their deployment of SteelHead:

- *"Our users are definitely experiencing an increase in productivity — I'd say 50% on average, but there are some groups that have higher productivity gains — for example, the teams using the supply chain heavily are getting 100% improvement, or even more."*
- *"Our users are improving productivity by 20–30% on average. But we targeted a certain customer-facing application. So that department, which has thousands of employees, has seen a pretty high improvement — in some use cases, they went from a 10-second delay entering a command to 1.5 seconds."*
- *"All of our end users are experiencing an increase in productivity ... I'd say in the vicinity of 10–15% higher productivity on average."*

These employees accomplish more in less time and contribute more value to their businesses with SteelHead supporting the business applications they use to do their jobs at branch office locations or even in mobile environments by installing SteelHead user instances on laptop devices.

Interviewed organizations attributed an average productivity increase of 9% to Riverbed SteelHead for all users of IT services. However, for purposes of this study, IDC considered productivity gains for only specific groups of users described during interviews: Interviewed organizations highlighted average productivity improvements of 5% for over 700 users. These employees accomplish more in less time and contribute more value to their businesses with SteelHead supporting the business applications they use to do their jobs at branch office locations or even in mobile environments by installing SteelHead user instances on laptop devices. For instance, one organization attributed the higher productivity of mobile workers to optimizing their experience with Riverbed SteelHead: "*Our compliance team can now work from any of our sites and [does] not have to worry about the performance or having a slower connection.*" Productivity improvements of this scale serve as an operational efficiency by enabling employees

to do more and can translate into better business results as organizations are able to better address business opportunities and meet demand from customers.

Several interviewed organizations reported that improved performance and delivery of applications contributed to their achieving higher revenue.

Several interviewed organizations reported that improved performance and delivery of applications contributed to their achieving higher revenue. They attributed additional average annual revenue of $16,368 per 100 users ($4.38 million per organization) to SteelHead (see Table 3). One organization described how it has overcome performance challenges with an application supporting sales of a particular product line. Another organization described how improved scalability with SteelHead supports its business: *"It's much quicker to roll out a new site with SteelHead because we don't need to build out servers .... Now, we can pretty much go into a site within a couple of days, where previously, we'd be waiting for servers for two weeks."*

TABLE 3

User and Business Operations Impact: Riverbed SteelHead

	Per Organization	Per 100 Users
User productivity		
Average organizationwide productivity gain	9%	
Number of specific users identified as more productive	738	
Average productivity increase of specific users	5%	
Average additional productive hours per year	69,325	259
Business impact		
Additional revenue per year	$4.38 million	$16,368
Operating margin assumption	15%	15%
Operating margin increase	$656,800	$2,455

Source: IDC, 2016

Downtime Reduction and User Productivity Benefits

Several interviewed organizations have significantly reduced the impact of unplanned network outages on their operations and businesses with Riverbed SteelHead. Interviewed organizations were able to limit the frequency of outages by being able to better control the robustness and quality of application delivery and to minimize downtime by leveraging SteelHead's enhanced visibility and centralized control. Organizations with distributed environments, in particular, can

"We've gone from having downtime at various sites on almost a daily basis to maybe once per month. These outages typically last for three to four hours, so reducing downtime has helped us run a robust ERP."

find application availability to be an operational challenge. The impact of unexpected outages can quickly add up and negatively impact employee productivity and business operations.

As shown in Table 4, employees at interviewed organizations where Riverbed SteelHead has been deployed have reduced unproductive hours due to unplanned outages on average by 70%.

The ability to minimize the impact of outages was especially important for several organizations that have historically experienced relatively frequent network outages. One organization explained the scale of SteelHead's impact in terms of outages: *"We've gone from having downtime at various sites on almost a daily basis to maybe once per month. These outages typically last for three to four hours, so reducing downtime has helped us run a robust ERP."*

TABLE 4

Risk Mitigation: Riverbed SteelHead

	Before Riverbed SteelHead	With Riverbed SteelHead	Difference	% Change
Unplanned downtime productivity impact				
Number of instances of unplanned downtime per year	24.8	12.1	12.7	51
MTTR (hours)	3.3	2.0	1.3	39
Productive hours lost per 100 users per year	335	100	235	70

Source: IDC, 2016

IT Infrastructure Cost Reductions

Interviewed organizations benefit with SteelHead from optimizing network and applications without needing to make additional costly investments in bandwidth and network infrastructure and by consolidating their physical server environments. These cost efficiencies are especially notable in the context of network and application performance improvements discussed in this study. Interviewed organizations reported reducing and avoiding IT infrastructure costs worth an annual average of $4,878 per 100 users over three years. Examples include:

» **Avoiding additional bandwidth costs.** One organization commented on SteelHead's impact as follows: *"We didn't want to have to increase bandwidth and pay for it at remote sites. I think we would have had to pay an additional $20,000 per month, just for bandwidth, without SteelHead."* Another organization attributed the reduction in its bandwidth requirements by 10% to SteelHead's Web Proxy capability by *"speeding up delivery of unencrypted video and large file Web applications."*

"We've been able to save 20% overall on opex spending by not needing to upgrade and by being able to retire servers at some branch locations — we're saving millions of dollars over seven years."

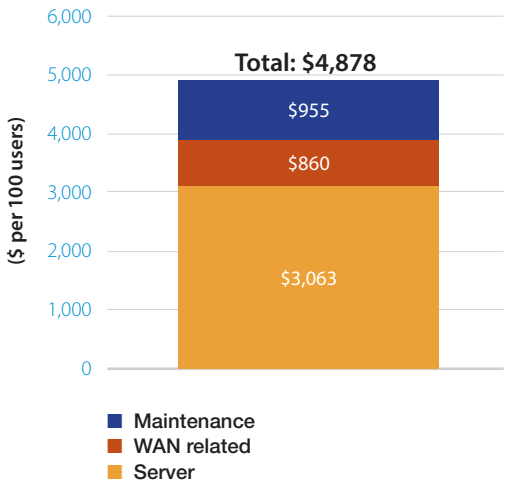
"We don't need to deploy servers and storage to sites. We've reduced 26 servers to 11 servers by being able to base everything in the central datacenter."

- **Servers and server-related opex.** As one organization reported: *"We've been able to save 20% overall on opex spending by not needing to upgrade and by being able to retire servers at some branch locations — we're saving millions of dollars over seven years."*
- **Branch server consolidation.** As one organization commented: *"We don't need to deploy servers and storage to sites. We've reduced 26 servers to 11 servers by being able to base everything in the central datacenter."*

WAN and other infrastructure cost efficiencies were core drivers for several organizations' choice of SteelHead, and these organizations view cost savings and efficiencies as central benefits. One organization said that it has been able to "get its ROI [with SteelHead] in a matter of months" by not needing to double its network environment, including increasing spending on bandwidth and associated additional network-related costs (see Figure 2).

FIGURE 2

Annual IT Infrastructure Cost Reductions: Riverbed SteelHead



Source: IDC, 2016

IT Staff Productivity Benefits

Interviewed organizations also benefit with Riverbed SteelHead from needing less time to manage their WANs, even as they substantially improve the performance of business applications. Riverbed SteelCentral Controller for SteelHead was mentioned as contributing to efficiencies by more than half of interviewed IT managers. One organization noted that SteelCentral Controller for SteelHead made recovering from problems easier and made it unnecessary to log in to all units for reports and also cited efficiencies from centralized

configurations, backups, and enhanced alerting capabilities. One interviewed organization attributed about one-third of IT staff time savings being achieved with Riverbed SteelHead to its use of SteelCentral Controller, while several other organizations cited discrete time savings each time the SteelHead device is deployed or configured.

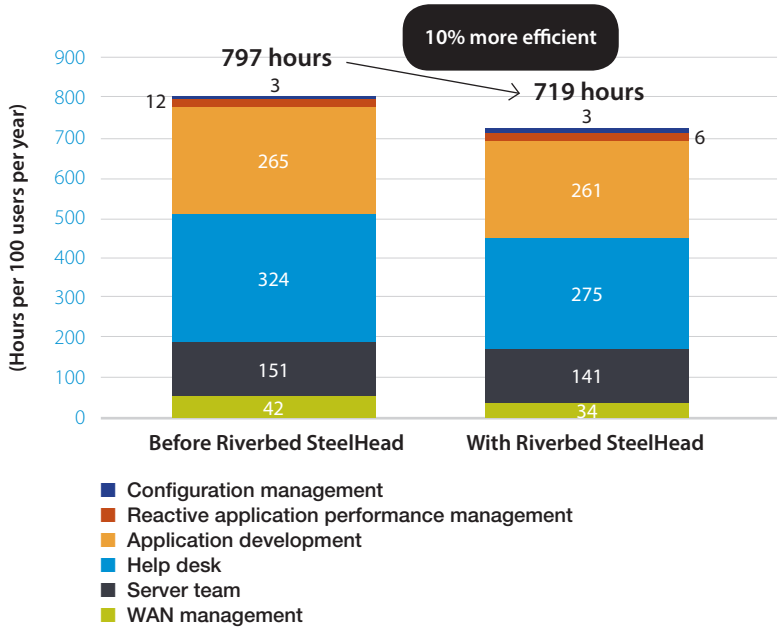
The efficiencies attributable to SteelCentral Controller for SteelHead are a significant contributor to efficiencies for WAN management teams, which IDC calculates are 19% more efficient with SteelHead. One interviewed organization emphasized the theme of enabling IT staff to be more proactive with Riverbed SteelHead, commenting: *"It has allowed us to stop fielding multiple calls for performance issues, and [we're] starting to be a bit more proactive on our service. I would say staff are 20–30% more productive."* Similarly, another interviewed organization explained: *"We've been able to move five people to do other things because of SteelHead's centralized management, which means that our team can be more proactive in supporting our operations."*

In addition to efficiencies in managing their WAN environments, interviewed organizations reported that Riverbed SteelHead has enabled IT staff time savings and efficiencies in terms of (see Figure 3):

- **Server management**, by allowing consolidation and recommissioning of physical servers
- **Help desk and reactive application performance management**, by reducing the number of network performance–related tickets
- **Application development**, by supporting faster delivery of business applications

FIGURE 3

IT Staff Efficiencies: Riverbed SteelHead



Source: IDC, 2016

ROI Analysis

IDC interviewed nine organizations to understand the impact of Riverbed SteelHead on their WAN environments and business operations. Based on information collected in these interviews, IDC used the following three-step method for conducting the ROI analysis:

1. **Gathered quantitative benefit information during the interviews using a before-and-after assessment of the organizations' operations.** In this study, the benefits included IT staff and user productivity gains, increased revenue, and IT infrastructure cost reductions.

2. **Created a complete investment (three-year total cost analysis) profile based on the interviews.** Investments go beyond the initial and annual costs of deploying Riverbed SteelHead and can include additional costs related to migrations, planning, consulting, configuration or maintenance, and staff or user training.

3. **Calculated the ROI and payback period.** IDC conducted a depreciated cash flow analysis of the benefits and investments for these organizations' use of Riverbed SteelHead over a three-year period. ROI is the ratio of the net present value (NPV) and the discounted investment. The payback period is the point at which cumulative benefits equal the initial investment.

Table 5 presents IDC's analysis of the average discounted investment costs and benefits for interviewed organizations. IDC calculates that these organizations will invest a discounted average of $10,724 per 100 users ($2.87 million per organization) over three years in Riverbed SteelHead, incurring costs for Riverbed SteelHead hardware, annual maintenance costs, IT staff time costs for deployment and management, and training and consulting costs. In return, IDC projects that these organizations will realize discounted benefits worth an average of $63,980 per 100 users ($17.11 million per organization) over three years. This would result in an average three-year ROI of 497% for these organizations, with breakeven on their investment in Riverbed SteelHead occurring in an average of seven months.

TABLE 5

User and Business Operations Impact: Riverbed SteelHead

	Per Organization	Per 100 Users
Benefit (discounted)	$17.11 million	$63,980
Investment (discounted)	$2.87 million	$10,724
Net present value (NPV)	$14.24 million	$53,256
Return on investment (ROI)	497%	497%
Payback period	7 months	7 months
Discount rate	12%	12%

Source: IDC, 2016

Challenges And Opportunities

Based on the detailed interviews conducted for this study, it is clear that WAN optimization continues to be a foundational element for enterprise IT departments seeking to cost effectively, reliably, and securely deliver applications to branch offices and remote sites.

Yet new challenges have emerged with the rise of cloud computing. Increased adoption of SaaS applications and IaaS offerings has created additional hurdles in terms of ensuring application performance for today's organizations, including the need for end-to-end visibility of application performance for cloud-based applications (SaaS and IaaS) as well as the need for agile, efficient, and secure management of complex hybrid WAN topologies. Riverbed SteelHead solutions have evolved to support these broader requirements, bolstered through integration with Riverbed's broader Application Performance Platform, including:

- Riverbed SteelCentral, which provides unified network performance management (NPM) and application performance management (APM) for on-premises and cloud-based applications
- Riverbed SteelFusion, a hyperconverged edge compute platform that enables centralization of remote storage and servers
- Riverbed SteelConnect, an SD-WAN solution that unifies connectivity and orchestration across WAN, remote LAN, and cloud-based networks

In the SD-WAN space, Riverbed meets well-established competitors and new entrants in the form of SD-WAN start-ups. The competition in this new market will be fierce.

Despite those challenges, Riverbed is well placed to consolidate its market leadership in WAN optimization while making a sustained incursion into the higher-growth but relatively nascent market for SD-WAN. Leveraging its broad base of WAN optimization customers and its technological acumen in WAN optimization and adjacent areas, including application performance management and network performance management, Riverbed already has a platform that can be extended not only into SD-WAN but also into cloud-based management of a range of network and security services that will be essential to the success of the next-generation enterprise branch.

Summary And Conclusion

Organizations are increasingly seeking ways to leverage the potential benefits of cloud computing in the context of needing to continue to support business operations with robust and reliable access to enterprise applications. As a result, IT organizations are being called upon to make greater use of cloud-delivered infrastructure and services while meeting the demand to deliver their growing application bases across their WANs cost effectively and with the highest possible performance levels.

IDC's research demonstrates that Riverbed SteelHead provides significant value by cost effectively improving network and application performance even as it enables organizations to reduce WAN-related costs. As a result, organizations interviewed for this study articulated a common core value proposition for SteelHead: achieving higher user productivity and better business outcomes while making their WAN operations more efficient and cost effective. With these baseline benefits and the capability to enable SD-WAN as well as SaaS and IaaS application optimization, Riverbed SteelHead can serve as a network optimization platform for both the present and the future as organizations move deeper into digital transformation.

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Appendix

IDC's standard ROI methodology was utilized for this project. This methodology is based on gathering data from nine organizations currently using Riverbed SteelHead as the foundation for the model. Based on these interviews, IDC performs a three-step process to calculate the ROI and payback period:

- Measure the savings from reduced IT costs (staff, hardware, software, maintenance, and IT support) and increased user productivity over the term of the deployment compared with their previous infrastructure environments.

- Ascertain the investment made in deploying Riverbed SteelHead and the associated migration, training, and support costs.
- Project the costs and savings over a three-year period and calculate the ROI and payback for the deployed solution.

IDC bases the payback period and ROI calculations on a number of assumptions, which are summarized as follows:

- Time values are multiplied by burdened salary (salary + 28% for benefits and overhead) to quantify efficiency and manager productivity savings.
- Downtime values are a product of the number of hours of downtime multiplied by the number of users affected.
- The impact of unplanned downtime is quantified in terms of impaired end-user productivity and lost revenue.
- Lost productivity is a product of downtime multiplied by burdened salary.
- The net present value of the three-year savings is calculated by subtracting the amount that would have been realized by investing the original sum in an instrument yielding a 12% return to allow for the missed opportunity cost. This accounts for both the assumed cost of money and the assumed rate of return.

Because every hour of downtime does not equate to a lost hour of productivity or revenue generation, IDC attributes only a fraction of the result to savings.

Because every hour of downtime does not equate to a lost hour of productivity or revenue generation, IDC attributes only a fraction of the result to savings. As part of our assessment, we asked each company what fraction of downtime hours to use in calculating productivity savings and the reduction in lost revenue. IDC then taxes the revenue at that rate.

Further, because IT solutions require a deployment period, the full benefits of the solution are not available during deployment. To capture this reality, IDC prorates the benefits on a monthly basis and then subtracts the deployment time from the first-year savings.

Note: All numbers in this document may not be exact due to rounding.

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About IDC

International Data Corporation (IDC) is the premier global provider of market intelligence, advisory services, and events for the information technology, telecommunications and consumer technology markets. IDC helps IT professionals, business executives, and the investment community make fact-based decisions on technology purchases and business strategy. More than 1,100 IDC analysts provide global, regional, and local expertise on technology and industry opportunities and trends in over 110 countries worldwide. For 50 years, IDC has provided strategic insights to help our clients achieve their key business objectives. IDC is a subsidiary of IDG, the world's leading technology media, research, and events company.

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