

## Business Case for Site2Site Optimization

### Executive Summary

XRoads Networks during the Summer of 2007 conducted detailed financial analysis with our customers; documenting the return on investment they are experiencing. The results were startling. All the companies generated annualized after tax rates of return of 60% or more with paybacks in less than one year. Benefits took the form of telecommunications cost savings, service outage reduction and/or elimination as well as business productivity enhancements. These returns are above average for IT investments, and all the companies surveyed are planning to increase their use of XRoads solutions.

### Introduction

When it comes to increasing profit, a dollar saved is as valuable as \$5 in new revenue. XRoads offers a simple network optimization solution that reduces telecommunication expenses significantly while improving reliability and automating redundancy with minimum effort and capital. The purpose of this white paper is to outline a framework and analyze the financial performance and return on investment that real world customers have derived from using XRoads' network optimization appliances.

### What Is Return on Investment (ROI)?

ROI is a ratio of financial return to investment. It is the fundamental basis for comparing the relative performance and attractiveness of corporate investments and determining whether or not a project meets the benchmark for financial performance. Specifically, IT projects are particularly well suited to ROI analysis because they:

- Impact a variety of cost and profit centers
- Often represent significant investment of time, capital and other resources
- Enable greater operational efficiencies, increased customer satisfaction and employee productivity
- Are expected to have rapid impact on business process and the bottom line

For this study, XRoads Networks undertook an annualized approach to ROI, meaning that the financial calculations generate the average annual return over the duration of the project. The components of ROI are after tax return, or the net value of all the quantifiable costs and benefits, and investment, or the resources utilized to deploy the XRoads Site2Site solutions.

### ROI Calculation Model

XRoads Networks used a financial model that analyzed the costs to implement the XRoads Site2Site solution and all of the benefits that were derived from the product. The goal was to represent the project in terms of annualized return on investment and to show the amount of time it takes to payback the initial capital investment. On the cost side, we considered the capital cost of the XRoads Site2Site solution as well as on-going maintenance and support costs.

On the benefits side we looked at three main categories.

- Reduced telecom expenses. These can be either reducing real network costs that are incurred today or deferring the increase of network costs in the near future.
- Increased telecom reliability. Through the implementation of multiple network paths, the XRoads solution is able to ensure over 99.999% uptime reliability for customers deploying our solutions.
- Productivity cost savings. XRoads Site2Site solutions significantly increase network throughput and decrease network response time for users on congested links.

ROI is a widely accepted management accounting ratio, intended to describe financial returns generated as a result of a particular investment over a specified period of time. It is typically presented in percentage format. In this paper, XRoads Networks calculates ROI on an annualized after tax basis (the average one-year return generated over the duration of a given project). User projects are analyzed over a three-

year period. Costs and benefits were discounted at 15% per annum to account for the time value of money and they were subject to an imputed tax rate of 40% after depreciation. All the business cases showed a **payback of less than one** year, which is a key decision criterion in today's economic environment. Also all projects demonstrated **excellent ROI metrics**. Typically an after tax return above 20% is acceptable. In all the following business cases where the Site2Site solutions were deployed, the after tax return was at least double the industry benchmark of 20%.

## **The Business Case (Reduction of Bandwidth Costs)**

When companies need bandwidth, they add expensive telecommunications services. Companies today spend approximately \$100 billion per year on data services and the Internet does not provide relief because it still is not used for mission critical data communications. Companies of all sizes, from Fortune 1000s to small, medium enterprises, are faced with a gamut of challenges when provisioning their networks. These challenges are exacerbated when companies increase the number of employees and locations or add new applications that increase overall network data traffic. Now is the time for these companies to think outside the box and not just throw more bandwidth to address network performance, growth and congestion issues. Companies need to investigate other innovative solutions to solve their network transmission needs where:

- The organization is rolling out bandwidth-intensive applications such as Citrix, Siebel, Oracle, SAP, Microsoft Exchange and Lotus Notes

- Where connectivity is needed for new sites to handle expansion and growth

- When mission critical applications MUST be up and available 24x7

Today, the way most companies handle these problems is to place more transmission capacity into the network. This approach is costly in terms of lost time, extra cost, and decreased productivity.

## **Site2Site Solutions: The WAN Optimization Alternative**

As an alternative to continually adding expensive lines and hardware to acquire more bandwidth, XRoads Networks has developed a unique, yet customer proven set of technologies called Site2Site optimization. Site2Site optimization is based on a patented approach; this technology has been validated in enterprise networks across various industries with various networked applications.

This alternative to standard WAN optimization is essentially the idea that organizations look to utilizing broadband as a secondary method of connectivity in order to increase both performance and reliability. By utilizing broadband connectivity organizations can obtain the following benefits:

- Decreased congestion due to increase bandwidth resources

- Increase reliability thru multiple paths and the ability to automatically failover in the event of a network outage and/or high congestion rate on the existing primary path

- Reduce monthly recurring costs which are typically 2 to 3 times that of broadband access

## Analysis Results

The combination of the above mentioned benefits resulted in cost savings and productivity increases that culminated in ROIs of over 60% and paybacks in 3 to 6 months.

These financial benefits translate into:

### Cost Reduction

- Significant reduction in telecommunications costs either by reducing the cost when upgrading
- Reductions in both present day as well as future spending for network expansion

### Performance

- Increased overall network throughput and transmission speed
- Improved response time and latency on existing congested networks

### Productivity and Efficiency

- Ability to meet capacity requirements for project deadlines required for application rollouts
- Improved productivity of professional and production staff through faster application response times
- Offload low-priority application traffic to secondary links during peak loading

## Banking / Financial Institution

**Background:** This Company is a leading banking institution with operations in more than 10 locations. One of the key issues for the company is the ability to keep up with its growing operations and bandwidth requirements. The focus of this case study is on the company's HQ operations and how it handles network expansion using the XRoads Site2Site solutions. Over 1000 workers resident in ten locations across the US with more than 100,000 customers use this banking corporation's network.

**Networking environment:** The Company has T1/private line links between each branch and its U.S. corporate headquarters. The IT department was required to consider urgent link upgrades of all international links as there were incessant complaints about network overloads bottlenecks, and poor application performance.

**The problem:** Additional private line MPLS links were reaching a 60% average with 100% peak utilization during business hours in all their international links, which contributed to significant network performance degradation resulting in longer response times. Growth in network traffic continued to be substantial, averaging a dramatic 20% plus per year due to increase in Internet-based applications. This traffic combines both internal traffic like e-mail as well as customer traffic such as automated teller applications. Challenges faced are application performance issues (i.e., slow response times from ATM machines by consumers and slow daily cash clearance transactions by employees), coupled with the high costs and limited availability of cost effective bandwidth. The company has an on-going program to deploy Site2Site solutions in order to keep recurring bandwidth costs flat and save the bank millions of dollars per year.

**The rationale:** This Company decided to deploy the XRoads Site2Site solutions primarily for two reasons:

- Telecommunications line upgrade cost avoidance
- Improve reliability between the HQ and branches
- Reduce time to implement capacity upgrades

XRoads provides an overall lower cost solution compared to pure link upgrades. In addition, it provides a much faster upgrade cycle time compared to ordering and installing new international links. XRoads Site2Site solutions can be up and running in one or two weeks (the time it takes to order and install the equipment) versus months for line upgrades.

**The analysis:** The specific financial analysis of this company is as follows. The company has 10 branch office links connecting. Speed ranges from 256 kbps to T1. The company was faced with the prospect of having to double the capacity of all of these links based on growing traffic requirements raising the overall cost of each link by 50%. The average cost per line today is \$500 per month, and the company was facing the prospect of the cost increasing to \$1,000 per month - a \$500 per month increase. With over 10 lines, the increase would total \$60,000 per year. With the XRoads Site2Site solutions, the cost for the extra capacity was approximately \$150 per backup link, thereby totaling only \$1,000 across the whole network. The calculated cost of the Site2Site solutions includes the cost of the XRoads hardware plus the cost of installation and maintenance on each line. The overall savings over three years is six times the size of the investment. This equates to an 85% after tax return on investment with a payback of 3 months on a pre tax basis. This is a very favorable return for a telecommunications capital investment, where the average investment has a return of 20% to 30%.

The following shows the key financial metrics:

- Capital Investment \$9,000
- Telecom Savings \$42,000 per year
- ROI – 78.5%
- Payback 3-4 months after tax
- 2 Months pre tax
- Number of Locations 10

Additional savings could also be added for the automated network reliability provided by the additional link and the failover capabilities of the solution. Based on an average of \$70/h per user of lost productivity during an outage, the additional savings based on 250 branch office employees is equal to over \$70,000 per year.

## **Conclusion**

In all cases, our customers achieved extremely attractive ROI rates that carry little implementation or financial risk. The benefits we delineated are hard transmission cost savings. However, in all cases, we can also point to significant line of business productivity savings. XRoads Networks offers a low cost, high return solution for companies that want to reduce existing network costs or slow down the growth of new network capacity spending.