

ROI for Network Performance Management

Introduction

Besides being technically savvy, today's network professionals must be aware of the business factors surrounding their department's activities and responsibilities. This means two things – becoming aware of the way in which the networking team supports the business directly, and understanding how to characterize your infrastructure equipment and management technology investments in terms of business value. Commonly, that means building a business case for any technology investment. This ENTERPRISE MANAGEMENT ASSOCIATES® (EMA™) brief focuses on the elements you'll need to build a business case for investing in application-aware network performance management technology, and the ways in which Network Instruments® solutions align to help you to achieve returns.

Building the Case

Once you've embraced the need to deploy application-aware performance management tools, you'll need to secure funding, set expectations, and ultimately measure the results of your project. The business case should accommodate a couple of major items: the cost of the solution, the qualitative and quantitative benefits that will be realized, and the timeframe over which all of this will take place.

Finding the Treasure

Implementing application-aware performance management tools should yield savings in two general categories: more efficient problem resolution, often referred to as reduced Mean Time to Repair/Restore (MTTR); and better avoidance of problems in the first place, often referred to as extended Mean Time Between Failures (MTBF).

MTTR reduction is usually the number one reason performance management solutions are deployed. There are several elements to consider, all of which help to shorten the time it takes you and your team to recognize issues, get to the bottom of problems, and get applications and services restored. You will need detailed and comprehensive visibility into what's happening on the network, powerful analysis tools to help you interpret what you see, a tightly integrated workflow, and easy ways to share data and collaborate with peers and end users.

Second, extending MTBF is achieved by recognizing and proactively avoiding problems before they happen. One area of such savings will be the use of historical trending reports to analyze traffic growth, allowing network engineers to better execute informed capacity planning. An important side benefit is the opportunity to avoid costly and labor-intensive network (and especially WAN) upgrades by revealing the mix of critical and non-critical traffic. Another area of MTBF advantage is the recognition of early indicators of non-network problems that can be gathered with a network-facing performance management solution. In this case, you should look for key indicators, like application response time or VoIP call quality, that show possible problems worthy of proactive investigation by other IT teams.

Finally, to justify your investment you'll need to estimate some key current factors: the cost in lost business or productivity your organization suffers (or could suffer) when applications are not available or are degraded (often in \$ per hour), and the current frequency and average length of outages and degradations. If you have no idea of the cost of downtime for a critical application, you can start with common industry benchmarks. EMA estimates average enterprise downtime to be \$50,000/hour. Your total projected benefits will come from estimating reduced MTTR and extended MTBF multiplied by the cost of downtime for your shop.

The Price of Passage

Now let's look at the other side of the equation – the cost of the technology solution you are considering. Make sure you include all potential costs when you build this side of the business case. You'll need to account for software licenses, hardware platforms, maintenance and support subscriptions, training, and the cost of deployment including required services or consulting. Look for opportunities to save with quicker deployment, shorter learning curves, and pre-integrated solutions that avert custom implementations.

Closing the Case

Now that we have the two sides of the equation, cost and benefit, all that's left is doing the math. We mentioned earlier that timeframe is important, and here is where it comes into play. Organizations use a wide variety of metrics, but some of the most common are Return on Investment (ROI), Internal Rate of Return (IRR), Time to Payback, and Total Cost of Operations (TCO). Another item to consider is that – if your purchase is going to be classified as a capital expenditure, you may not need to account for all of the upfront equipment or licenses costs in the first year due to multi-year depreciation schedules, which spread capital cost over a period of time, typically 3 or 5 years.

If you don't want to get into the complex accounting, you can get a quick idea of the potential payback by simply dividing the three-year total benefits by the three-year total costs. If the number is greater than one, then you're not costing the organization money. If it's bigger than three, your payback is less than one year. If it's bigger than six, your payback is less than six months.

EMA Perspective

EMA has long been an advocate for integration of management disciplines, tools, and practices, which in the case of infrastructure performance management means becoming application-aware by moving your focus up the stack. There are many options for achieving such awareness, and it is essential to build your business case in order to secure funding and support from the broader organization.

EMA has reviewed the Network Instruments solution and believes its product features and capabilities align well with the savings objectives outlined above. For example, when considering MTTR reduction, the deep real-time and historical visibility provided by their Observer[®] and GigaStor[™] instrumentation products brings application awareness via packet-based monitoring across a broad range of domains including voice, video, wireless, LAN, and WAN. Efficient top-down troubleshooting workflows via tight integration between Link Analyst[®], Observer, GigaStor, and the Observer Reporting Server shorten isolation time and improve collaboration. And perceptive analysis and presentation features such as Application Transaction Analysis, Conversation Analytics, Expert Analysis, and Stream Reconstruction accelerate the data interpretation process. Relevant to extending MTBF, Observer Reporting Server and its NetLive real-time NOC reporting provides the current information to quickly act on early problem indicators, as well as the detailed long-term reports essential for well-informed capacity planning and asset optimization. Finally, Network Instruments solutions scale well to all sizes of managed environments, both in terms of entry cost and scalability.

On the cost side of the equation, products like the Network Instruments suite that deploy rapidly, with little or no services required and low learning curves due to intuitive graphical user interface designs, help keep costs down. Further, their products come in a tightly integrated, bundled appliance form which can also substantially reduce total solution cost and deployment resource demands.

In conclusion, Network Instruments, given their breadth of capabilities, tight cross-product integration, and compelling cost/benefit balance, should be on your list for consideration as you build your ROI business case for performance management.

Written by [Jim Frey](#), EMA Senior Analyst