Framework for assessing the ROI of network monitoring

How to close the network management gap

Gauging the value of decreased downtime and increased efficiency

At IBM, we view the network as much more than a line item in an organization's spreadsheet of operational expenses. In our view, network infrastructures are critical enablers of successful operations, growth and success. For this reason, this ROI framework considers more than just the cost savings that result from more efficient network management. It also encompasses the upsides that companies gain when their networks go down less often, and when outages are fixed faster when they do occur.

A next-generation network management system such as IBM® SevOne® delivers value that varies widely across industries, business models and organizational sizes. For this reason, using a single spreadsheet with stock formulas is ineffective. Simply put, one size doesn't fit all.

Every organization is different, as is the role the network plays in its business and the potential ROI it can deliver. It's best left to each organization to establish its own calculus for measuring network management ROI. Therefore, rather than putting forth a hard-coded, traditional ROI calculator, IBM offers a general framework. It is intended as a tool to help organizations develop their own ROI models based on the unique characteristics of their businesses and how their networks support their operations.

IBM®

Network monitoring and troubleshooting

Benefits
Reduce operating costs by enabling proactive avoidance of network downtime.

Provide full visibility and advanced analytics that reduce mean time to repair (MTTR).

Increase operational insight, which enables reduction or elimination of service level agreement (SLA) violation penalties.

How it is enabled

Overall: Broad data collection; integrated metrics, flows and logs; unified end-to-end visibility across hybrid multivendor networks; advanced analytics; intuitive dashboards and reports

Avoid downtime: Real-time insights about performance status anywhere in the network help teams identify and address issues before they cause network outages.

Reduce MTTR: IT and NetOps teams find and fix problems much faster when they have end-to-end network visibility with real-time status maps, unified views of traditional and next-gen environments, and advanced analytics.

Avoid SLA violation penalties: Similar to MTTR reduction, the combination of end-to-end network visibility, sophisticated analytics and intuitive reports gives network operations the information and time they need to address issues and manage compliance.

Suggested ROI calculations

Value of downtime avoided: Begin with the number of network outages experienced during the prior year and their average duration. Then multiply that number by either a revenue run rate or employee productivity number to arrive at an amount for the business value lost during those outages. Track the reduction in number of outages after deployment of the new network management system and recalculate the business value—or business opportunities—preserved.

Value of lower MTTR: This is similar to the above calculation but begins with the historical MTTR number—in days, hours or minutes—prior to deployment of the new system. Track reductions in MTTR enabled by the new system and multiply those reductions by a per day, hour and minute business value rate determined by the company. Add the fully loaded costs of headcount reductions enabled by the new system in areas such as IT, NetOps and the help desk.

Value of avoided SLA penalties for communication service providers (CSPs) and managed services providers (MSPs): This is similar to the MTTR calculation above. Begin with violation history, including dollar amounts. Track SLA violation reductions after the deployment of the new system. Calculate savings and include them in the overall ROI.

Tool consolidation

■

Benefit
Reduce operating expenses by enabling the elimination of overlapping and redundant network monitoring and management tools.

How it is enabled

Overall: Organizations can replace myriad siloed monitoring and management tools with a next-gen network and infrastructure management system that consolidates those functions onto a single, unified platform. This unification involves combining and streamlining the separate workflow operations required with the consolidated tools.

Suggested ROI calculations

Value of network management tool consolidation: To determine the savings provided by network management tools consolidation, an organization would add up the licensing, maintenance and equipment costs of its collection of existing tools. Then it would compare that sum to the total costs of the next-gen network management platform.

SLA reporting for MSPs and CSPs

■

Benefits
Increase incremental revenues by delivering enhanced reporting that can shorten sales cycles with new customers.

Providing complete and timely SLA performance reports reduces customer churn.

How it is enabled

Overall: Flexible and scalable monitoring of service providers' multi-tenant, multi-service environments enables more comprehensive, accurate and timely SLA reporting.

Shorten sales cycles: Showing prospects that they can quickly and accurately document their SLA performance helps CSPs and MSPs close new business faster.

Reduce customer churn: Documenting performance and proving when problems weren't of their making help MSPs and CSPs increase customer satisfaction and decrease churn.

Suggested ROI calculations

Value of shortened sales cycles: Using sales pipeline data, establish an average for how long it takes to close sales with the existing system and its reporting capabilities. After incorporating new reporting capabilities in the sales process, track reduction in sales closure times and anecdotal feedback from sales. Calculate value of acceleration of those new revenues.

Value of lower customer churn: Use historical data on customer defections after SLA-related issues to produce an estimate of average customer losses per issue. Assume a 40% reduction in the number of issues. Multiply that number by the organization's average lifetime value for a customer, times the estimated number of SLA issues avoided.

Capacity planning

■

Benefit
Reduce operating costs by maximizing infrastructure efficiency and effectiveness.

How it is enabled

Overall: Thorough and effective monitoring of infrastructure elements gives organizations a clearer picture of the network resources required.

Reduce infrastructure costs through optimization: Full infrastructure visibility enables more efficient provisioning of resources, opens up more efficient deployment options and reduces the tendency to use over-provisioning as the answer to every infrastructure challenge.

Suggested ROI calculations

Value of infrastructure optimization: Start with existing annual network and infrastructure spending and budget amounts. Track reductions in hardware and software licensing and maintenance costs and any related cost reductions, such as data center consolidations or headcount reductions made possible by operational efficiencies and enhanced monitoring, respectively. Compare the prior spending to new savings to get the amount or percentage of savings on the infrastructure's annual operating costs.

New service rollout

■

Benefit
Increase incremental revenues by boosting agility to speed the rollout of new services.

How it is enabled

Overall: With next-gen monitoring, the discovery of and resulting data collection from new network resources happens instantly and automatically upon creation or deployment. By eliminating delays in monitoring coverage, organizations can immediately and reliably use new resources to support new services.

Suggested ROI calculations

Value of more agile, faster service rollouts: Start with a baseline of how many new services are typically rolled out during a year, and an average of how long, on average, it takes to roll them out. Looking at revenue streams created or some other financial metric, estimate the average daily, weekly or monthly value a new service delivers to the business. After deploying the new system, track the reduction in average new service rollout times. Then multiply that reduction by the time/value figure for the estimated ROI for accelerated service rollouts.

Infrastructure automation

■

Benefit
Reduce operating expenses by providing infrastructure elements and management capabilities automatically and with less human intervention, freeing up valuable resources to work on other strategic projects.

How it is enabled

Overall: Next-gen infrastructures reduce OpEx costs by using virtualized networking, cloud architectures and other software-driven technologies to automate the provisioning of network resources—dynamically and at scale. Equally dynamic and scalable network management capabilities are required for these environments.

Suggested ROI calculations

Value of automated infrastructure and network management: Next-gen network management is a must-have for effective network and infrastructure automation because automation can reduce overall networking costs. Organizations should develop their own estimated rate for each group or division to approximate the cost reductions enabled by automation. Applying the across-the-board percentage or sum total of the anticipated group or divisional cost reductions to existing networking budgets yields a dollar amount that is in addition to the above ROI elements.

Sample use case

To illustrate the use of this model, imagine a company that provides web hosting services. This company can calculate the ROI of its NPM solution by tracking the value of the uninterrupted services enabled by its network. More specifically, the company tracks the value of the downtime reduction that's directly attributable to its NPM solution.

The company can first establish a baseline of downtime—number and average duration of outage incidents—that it experiences prior to deploying a replacement NPM solution. After deploying a next-generation NPM solution and tracking the same performance metrics, the company can reduce its lost service hours.

Key performance indicators (KPIs) to measure ROI

– Time to gather data about an incident
– Time to analyze data and diagnose the problem
– Time to remediate the issue
– Average response time per incident

For this "composite" company, next-gen network management capabilities can enable downtime reductions and hours of uninterrupted operations. By preserving revenue opportunities, new systems can pay for themselves over time.

Conclusion

The network is the foundation of operations for every organization today. With reliable, high-quality network services, organizations can pursue their business goals efficiently. Without those services, operations grind to a halt, which is why network management is such a critical function.

With more organizations pursuing digital transformation and using the cloud, virtualized networking and other next-gen technologies to get there, network management requirements have grown tougher and a lot more complex. Simply put, tracking the performance of a mix of physical and highly dynamic virtual devices in hybrid multi-vendor environments is a far cry from watching over mostly physical resources in data centers.

For their digital transformations to succeed, organizations must close this network management gap. That means having network management capabilities that are just as dynamic, flexible and scalable as the new environments they need to watch over.

Gaining such capabilities requires an investment and the accompanying financial justification. This ROI framework was designed to help organizations build the ROI-based business cases they need to move forward and ensure the success of their digital transformation initiatives.

Why IBM?

IBM SevOne provides a single source of truth to help assure network performance across multivendor, enterprise, communication and MSP networks.

Learn more about IBM SevOne and how it can help your organization monitor and manage the performance of both your existing and next-gen network and infrastructure resources more effectively.

Framework for assessing the ROI of network monitoring

IBM