

# Managed Network Services

Beyond Cost Savings and Uptime

June 2008



## Executive Summary

Aberdeen surveyed 143 organizations between April and May of 2008 to examine best practices for using managed network services. These findings should serve as guidelines to other end-user organizations that are looking to outsource network management to third party service providers for enabling seamless access to corporate data while reducing operational cost and improving network up-time.

### Best-in-Class Performance

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Aberdeen used three key performance criteria to distinguish Best-in-Class companies: 1) improvements in response times for business critical applications; 2) improvements in Mean Time to Repair (MTTR) issues with network performance; 3) average improvements in application availability. Best-in-Class organizations reported:

- All improved application response times for business critical applications
- All decreased Mean Time to Repair (MTTR) issues with network performance
- 88% average improvement in application availability

### Competitive Maturity Assessment

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Survey results show that the firms enjoying Best-in-Class performance shared several common characteristics:

- Two times more likely to have services and tools for WAN acceleration as compared to all others
- Nearly two times more likely to have services and tools for analyzing packet flow data as compared to Laggards
- 65% more likely to be using integrated portal for visibility into all network services as compared to Laggards.

### Required Actions

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In addition to the specific recommendations in Chapter Three of this report, to achieve Best-in-Class performance, companies must:

- Use application response times to evaluate quality of managed network services
- Develop capabilities for analyzing packet flow data and collecting trending information on network performance
- Measure success in managing application performance beyond availability of business critical applications

### Research Benchmark

Aberdeen's Research Benchmarks provide an in-depth and comprehensive look into process, procedure, methodologies, and technologies with best practice identification and actionable recommendations

"Ongoing network management requires process, knowledge and experience. Just like in gastronomy, you need excellent raw material, tools and skill sets to not only create excellent meals but to obtain optimal repetitive results on an ongoing basis."

~ CEO, Consulting Company

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## Chapter One: Benchmarking the Best-in-Class

### Business Context

Building and managing enterprise networks is a costly and challenging undertaking for IT departments, particularly as new technologies and services have emerged to provide expanded network capabilities. As managing network and application performance becomes increasingly challenging, organizations are attempting to reduce operational costs while improving network and application performance. This trend requires a new combination of tools for managing network performance, and it changes end-users' expectations as they relate to services now in use.

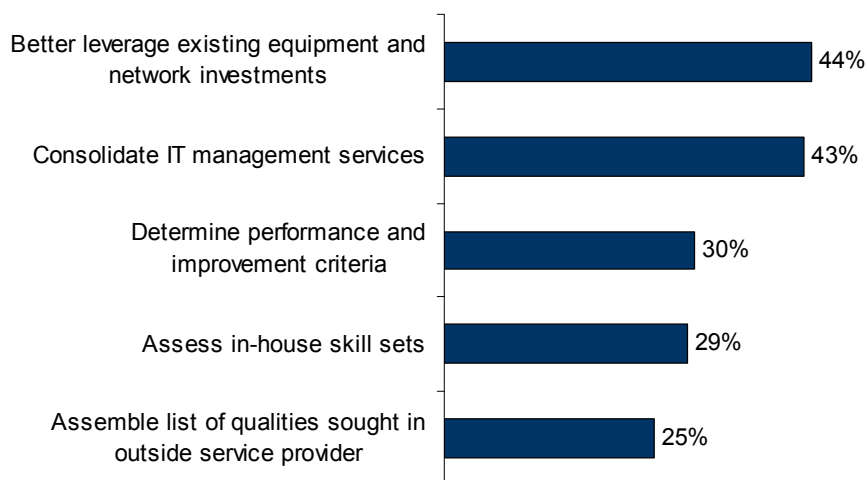
### Top Pressures and Strategic Actions

Aberdeen's research shows that the top pressures driving the adoption of managed network services are:

- Need to reduce operational expenses (44% of survey respondents)
- Lack of internal resources for managing network performance (42%)
- Need to reduce complexity of network management (35%)

Aberdeen also identified strategic actions that organizations are taking to address these pressures, as shown on Figure 1.

**Figure 1: Top Strategic Actions Taken**



Source: Aberdeen Group, May 2008

From the list of the top strategies taken, it is clear that organizations are trying to get better returns from their existing network performance management projects. It is also apparent that organizations are trying to

### Fast Facts

- ✓ 54% of organizations reported that they are "satisfied" or "very satisfied" with quality of managed network services currently in use
- ✓ Best-in-Class organizations are 3 times more likely to be satisfied with the level of managed network services they are currently using as compared to Laggards

improve their processes for choosing service providers who can help them improve effectiveness of managing overall enterprise infrastructure and improve satisfaction with services that are currently being used. Aberdeen's research shows that only 54% of organizations reported that they are "satisfied" or "very satisfied" with quality of managed network services currently in use.

## The Maturity Class Framework

Aberdeen used three key performance criteria to distinguish the Best-in-Class from Industry Average and Laggard organizations. These Key Performance Indicators (KPIs) are:

- Improvements in response times for business critical applications
- Improvements in Mean Time to Repair (MTTR) issues with network performance
- Average improvements in application availability

**Table 1: Top Performers Earn Best-in-Class Status**

Definition of Maturity Class	Mean Class Performance
<b>Best-in-Class:</b> Top 20% of aggregate performance scorers	<ul style="list-style-type: none"> <li>▪ All improved application response times for business critical applications</li> <li>▪ All decreased Mean Time to Repair (MTTR) issues with network performance</li> <li>▪ 88% average improvement in application availability</li> </ul>
<b>Industry Average:</b> Middle 50% of aggregate performance scorers	<ul style="list-style-type: none"> <li>▪ 62% improved response times for business critical applications</li> <li>▪ 34% decreased Mean Time to Repair (MTTR) issues with network performance</li> <li>▪ 52% average improvement in application availability</li> </ul>
<b>Laggard:</b> Bottom 30% of aggregate performance scorers	<ul style="list-style-type: none"> <li>▪ 0% improved response times for business critical applications</li> <li>▪ 0% decreased Mean Time to Repair (MTTR) issues with network performance</li> <li>▪ 3% average decline in application availability</li> </ul>

Source: Aberdeen Group, May 2008

## The Best-in-Class PACE Model

Using managed network services to achieve corporate goals requires a combination of strategic actions, organizational capabilities, and enabling technologies that can be summarized as shown in Table 2.

**Table 2: The Best-in-Class PACE Framework**

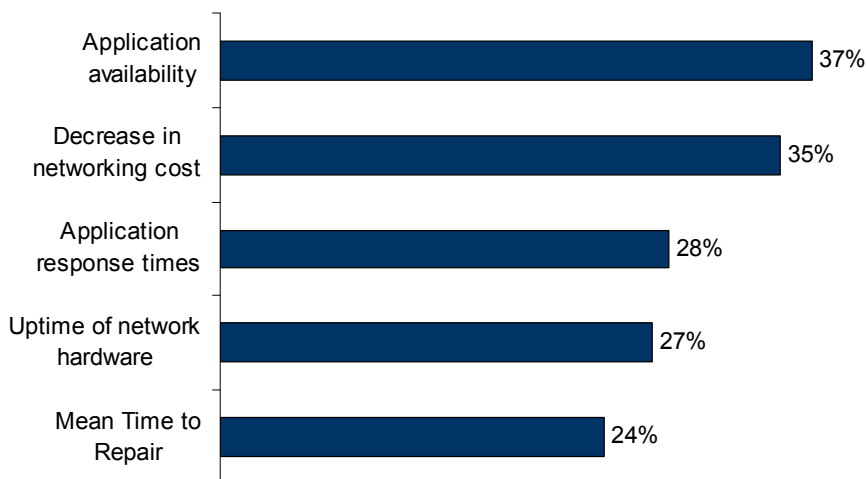
Pressures	Actions	Capabilities	Enablers
<ul style="list-style-type: none"> <li>Need to reduce operational expenses</li> </ul>	<ul style="list-style-type: none"> <li>Better leverage existing equipment and network investments</li> <li>Consolidate IT management services</li> </ul>	<ul style="list-style-type: none"> <li>Real-time tracking of trouble tickets</li> <li>Rules-based root cause analysis</li> <li>Dedicated headcount to work with outside provider</li> <li>Ability to collect trending information on network performance</li> <li>Provider with ITIL process improvement tools and methodologies</li> </ul>	<ul style="list-style-type: none"> <li>Tools for analyzing packet flow data</li> <li>Tools for remote management of network assets</li> <li>Tools for automated comparison of network performance to SLAs</li> <li>Integrated portal for visibility into all network services</li> <li>Tools for WAN acceleration</li> </ul>

Source: Aberdeen Group, May 2008

### Goals Are Clear, But Where Does Application Performance Fit Into SLAs?

Even though the need to optimize operational cost is the top driver for adoption of managed network services, organizations are evaluating the quality of these services predominantly based on the need to improve application availability, as shown in Figure 2.

**Figure 2: Top Performance Indicators Used to Evaluate Quality of Managed Network Services**

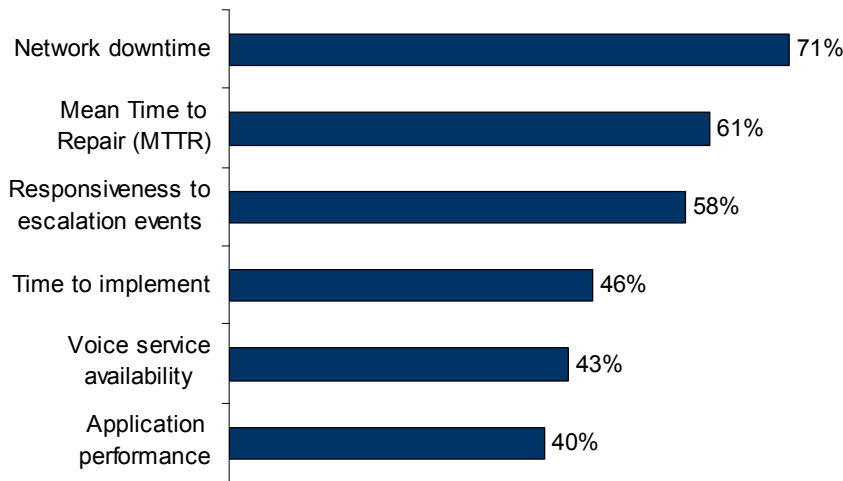


Source: Aberdeen Group, May 2008

Aberdeen's recent benchmark report, [The Roadmap to the Next Generation Branch Office Networks](#), revealed that on average,

organizations spend \$2.4 million annually on rolling out new enterprise applications. The size of these investments is driving organizations to change their approaches to deploying managed network services and to expand their expectations beyond merely the need to reduce operational expenses and reduce network downtime. Figure 2 shows that the majority of organizations are asking their managed network service providers to go beyond network uptime and to enable optimal performance of business critical applications. However, Figure 3 shows that end-user organizations are still struggling to adjust the management of Service Level Agreements (SLA) to reflect their new expanded goals for deployment of managed network services.

**Figure 3: SLAs Currently Employed**



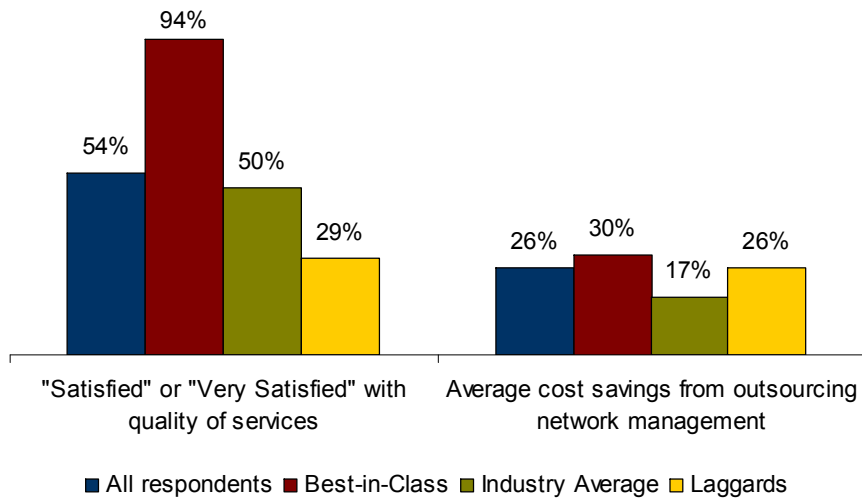
Source: Aberdeen Group, May 2008

Aberdeen's research indicates that 46% of organizations are unsatisfied with the quality of managed network services currently being provided to them. Figures 2 and 3 show a disconnect between goals that organizations are trying to achieve and SLAs that they are currently using; this is one of the main reasons for sub-optimal level of end-user satisfaction. Managing application performance has become the top goal for leveraging managed network services, but 60% of organizations surveyed are currently not deploying SLAs for application performance.

Figure 4 shows that Best-in-Class organizations are 3 times more likely to be satisfied with the level of managed network services they are currently using. However, it also shows that there is no direct correlation between level of satisfaction with managed network services and the amount of cost savings from these products. End-user organizations are increasingly looking for benefits from outsourcing management of their networks that go beyond cost savings and network up-time. This pressures service providers to offer solutions that would enable end-user organizations to achieve each

of their top 3 goals for outsourcing management of their networks: improved application performance, cost savings, and network uptime.

**Figure 4: End-user Satisfaction Goes Well Beyond Cost Savings**



Source: Aberdeen Group, May 2008

The challenge facing end-user organizations is how to get their service providers to guarantee the levels of application performance that they expect. Deployment of SLAs for application performance would allow end-user organizations to effectively address this challenge, but this deployment is associated with some additional challenges. The most commonly used metrics for evaluating application performance are application response times and application availability, but using either of these metrics would create additional challenges of which end-users should be aware. Using application availability as an indicator of application performance would not allow organizations to have full control over application performance, as this indicator would only show application up-time but not the actual speed and responsiveness of applications. Deploying application response times as a metric would solve this problem, but it would also require a set of technology enablers for measuring response times for each transaction, a capability that is not now being offered by all major providers of managed network services.

Aberdeen's research shows that even though 60% of organizations are reporting that their managed service providers are not offering SLAs for application performance, 73% of these enterprises plan to adopt this capability in next 2 years. This will put additional pressure on service providers to offer guarantees for level of service that go beyond network up-time and responsiveness and move toward issues with network performance.

### Aberdeen Insights — Strategy

Aberdeen's research shows that even though organizations are able to achieve, on average, 26% cost savings from outsourcing network management to a third party, almost a half of these organizations are not fully satisfied with the quality of service that they are receiving. This is mostly due to the fact that organizational goals for network management are rapidly changing and organizations are expecting more than just cost savings and network up-time, while some service providers are still struggling to provide SLAs that would enable organizations to achieve these goals.

Aberdeen's recent benchmark report, [The Next Generation Branch Office Networks](#), reveals that, on average, organizations are expecting the percentage of their workforce that are working outside of their corporate headquarters to reach 61% by the end of 2008. Additionally, estimated average increases of bandwidth capacity for the remainder of the year were 108%. As workforces are becoming increasingly dispersed and the amount of corporate data that is being transferred over the WAN is increasing, end-user organizations should be moving to service providers that will allow them to support their remote workforce by delivering corporate data in a seamless and cost effective way.

“I make sure that on a monthly basis I am looking at the trending of individual circuits; utilization and availability. Ensure that I am aware of new applications that are being planned for the network and that testing has been done to verify any impact that may have.”

~ IT Manager ,  
Professional Services

In the next chapter, we will see what the top performers are doing to achieve these gains.

## Chapter Two: Benchmarking Requirements for Success

The selection of managed network service providers and integration with business intelligence and business process management systems plays a crucial role in the ability to turn these strategies into profit.

### Case Study — Sensata Technologies

Sensata Technologies is a designer and manufacturer of sensors and controls. The company is headquartered in Massachusetts and has manufacturing operations in Netherlands, Brazil, China, Mexico, Malaysia, Japan, Korea, and Dominican Republic. Sensata was spun off from Texas Instruments in 2006 and they were faced with taking over the management of their network and the support of their remote locations in a short timeframe. The company turned to Virtela Communications for a managed global network solution. As part of the implementation, Sensata adopted Virtela managed WAN acceleration service to help them optimize their WAN traffic and bandwidth cost.

Tom Connors, IT Manager for Sensata Technologies had this to say:

"We were looking to enable seamless delivery of business-critical data to our location in the Dominican Republic at optimal cost. The cost of bandwidth for this location was two times higher as compared to that in our location in Mexico, and we needed a solution that would allow us to improve bandwidth utilization and optimize cost of data communications. This network location is leveraging several business-critical applications such as ERP, VoIP, email (Exchange), and business Web applications, and the performance of these applications is critical for continuity of business processes. Through Virtela's WAN acceleration service we deployed two locations, one in the Dominican Republic and one in our data center in Massachusetts. Since we started leveraging these solutions we experienced a lift of 1.5 times at 1/12th of the cost. Also, this solution enabled us to gain a full visibility into application and network performance through built-in capabilities for analyzing packet flow data. That allows us to get a better understanding of how bandwidth is being used and to be more proactive when managing network and application performance.

The next step in optimizing our corporate WAN is deployment of a similar solution in our China location. We rely on Virtela to enable this project and we are confident that technical expertise and the quality of customer support that they demonstrated in the previous engagement will make this project a success for us."

### Fast Facts

- √ Best-in-Class are 4 times more likely to report an improvement in the level of SLA achievements as compared to Laggards
- √ Best-in-Class are 5 times more likely to report decreases in the amount of unplanned network downtime as compared to Laggards

### Competitive Assessment

Aberdeen Group analyzed the aggregated metrics of surveyed companies to determine whether their performance ranked as Best-in-Class, Industry

Average, or Laggard. In addition to having common performance levels, each class also shared characteristics in five key categories: (1) **process** (rules-based root cause analysis; ability to collect trending information on network performance); (2) **organization** (dedicated headcount to work with outside provider); (3) **knowledge management** (real-time tracking of trouble tickets); (4) **technology** (the selection of appropriate tools and effective deployment of those tools); and (5) **performance management** (capabilities for capacity monitoring of data traffic). These characteristics (identified in Table 2) serve as a guideline for best practices, and correlate directly with Best-in-Class performance across the key metrics.

**Table 3: The Competitive Framework**

	Best-in-Class	Average	Laggards
<b>Process</b>	Ability to collect trending information on network performance:		
	47%	31%	23%
	Provider with ITIL process improvement tools and methodologies		
	39%	32%	18%
<b>Organization</b>	Rules based root cause analysis:		
	76%	56%	44%
	Dedicated headcount to work with outside provider:		
<b>Knowledge</b>	65%	37%	26%
	Real-time tracking of trouble tickets:		
<b>Technology</b>	76%	47%	41%
	Network management technology currently in use:		
	<ul style="list-style-type: none"> <li>▪ 76% tools for remote management of network assets</li> <li>▪ 65% tools for analyzing packet flow data</li> <li>▪ 53% tools for automated comparison of network performance to SLAs</li> <li>▪ 51% integrated portal for visibility into all network services</li> <li>▪ 47% tools for WAN acceleration</li> </ul>	<ul style="list-style-type: none"> <li>▪ 50% tools for remote management of network assets</li> <li>▪ 45% tools for analyzing packet flow data</li> <li>▪ 40% tools for automated comparison of network performance to SLAs</li> <li>▪ 39% integrated portal for visibility into all network services</li> <li>▪ 27% tools for WAN acceleration</li> </ul>	<ul style="list-style-type: none"> <li>▪ 38% tools for remote management of network assets</li> <li>▪ 34% tools for analyzing packet flow data</li> <li>▪ 19% tools for automated comparison of network performance to SLAs</li> <li>▪ 31% integrated portal for visibility into all network services</li> <li>▪ 19% tools for WAN acceleration</li> </ul>
	<b>Performance</b>		
	Capabilities for capacity monitoring of data traffic		
	76%	57%	54%

Source: Aberdeen Group, May 2008

## Capabilities and Enablers

Based on the findings of the Competitive Framework (above) and interviews with end users, Aberdeen's analysis of the Best-in-Class reveals a strong correlation between capabilities and technology enablers that organizations have in place and their levels of network and application performance.

### Process

Table 3 shows that, as compared to Laggards, Best-in-Class organizations are 73% more likely to have capabilities for rules-based root cause analysis of issues with network performance. This capability allows organizations to reduce time needed for identifying and analyzing issues with network performance and improves their ability to prevent these issues from happening in the future as well. Having this capability in place contributed to Best-in-Class organizations being 4 times more likely to report decreases in time needed to troubleshoot network performance issues as compared to Laggards.

Aberdeen's research also shows that Best-in-Class organizations are twice as likely to have the ability to collect network performance trending data as compared to Laggards. Having this capability allows organizations to be more proactive when dealing with increasingly complex network management. The ability to collect historic data on network performance also enables organizations to make better decisions about network updates needed to support rollouts of new technologies and applications. By having this capability in place Best-in-Class are 9 times more likely to report decreases in end-user complaints due to application performance issues as compared with Laggards.

### Knowledge Management

Table 3 shows that Best-in-Class organizations are 85% more likely to have the capability of real-time tracking of trouble tickets as compared to all others. This capability enables organizations to reduce time needed to process and resolve performance issues related to managing their networks. As a result, Best-in-Class are 5 times more likely to reduce Mean Time to Repair (MTTR) issues with network performance as compared to all others. It should be noted that Aberdeen's recent benchmark report, The Real Value of Network Visibility revealed that on average organizations lose \$69,000 for each minute of network downtime. The ability to resolve network performance issues in a timely manner enables organizations to mitigate these revenue losses and to more effectively support their business processes.

### Technology

Best-in-Class organizations are nearly two times more likely to use services and tools for analyzing packet flow data as compared to Laggards. Having this capability enables organizations to gain a better understanding of types of network traffic they are experiencing and to take a proactive approach by

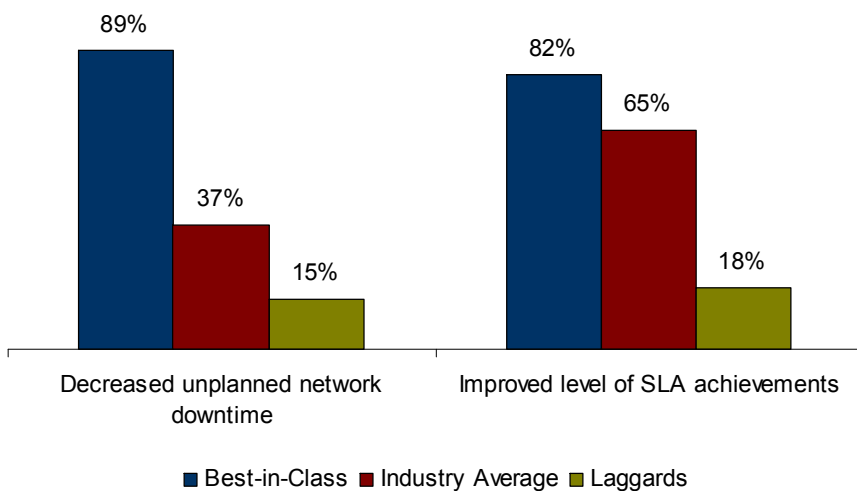
“With respect to network performance and troubleshooting, I would recommend the selection of one of the tools that provides visibility of traffic by protocol and by well known application. Most useful is a tool that will indicate graphically transaction times divided into network time, platform (server) time, and application time. If such a tool is adopted by support teams responsible for these different areas, incident and problem related downtime can be reduced. Such tools are, of course, expensive. A business case needs to be built based on the value of improved uptime.”

~ Network Manager,  
Professional Services

identifying potential performance bottlenecks before they impact end-users. As a result, Best-in-Class are 3 times more likely to report improvements in visibility into network performance as compared to Laggards.

Best-in-Class are nearly 3 times more likely to have tools for automated comparison of network performance to SLAs as compared to Laggards. This enables organizations to be more successful when managing relationships with their service providers by gathering actionable data about levels of service being provided to them. It also allows them to improve their success rates in achieving their network management goals by identifying performance discrepancies from Service Level Agreements in a timely manner and working with their service providers to resolve these issues. This contributed to Best-in-Class being 4 times more likely to report an improvement in the level of SLA achievements as compared to Laggards.

**Figure 5: Performance Improvements Since Deploying Managed Network Services**



Source: Aberdeen Group, May 2008

Aberdeen's research also shows that Best-in-Class organizations are 65% more likely to use an integrated portal for visibility into all network services as compared to Laggards. As the complexity of managing enterprise networks increases, being able to leverage a single interface for monitoring and analyzing all network services allows organizations to have full control of network performance. Being able to manage performance of business critical applications, emerging technologies such as VoIP and video, and the overall health of the network through a single platform allows end-user organizations to effectively identify the impact of different technologies and network elements on overall network performance and to take actions to resolve any potential issues before they impact end-users. Having this capability available contributed to Best-in-Class being 5 times more likely to report decreases in the amount of unplanned network downtime as compared to Laggards.

Best-in-Class are twice as likely to have services and tools for WAN acceleration as compared to all others. This capability is becoming increasingly important as organizations centralize more of their servers and applications while the percentage of total workforce outside of corporate headquarters increases. Aberdeen's recent benchmark report, [The Next Generation Branch Office Networks](#), reveals that, on average, 52% of the total workforce works outside of corporate headquarters while 61% of servers have been centralized. In order to effectively deal with these issues and deliver business critical data to a remote workforce, Best-in-Class organizations are deploying technology enablers for accelerating and reducing network traffic. These solutions are enabling end-user organizations to improve application performance while mitigating the need for upgrades in bandwidth capacity. As a result, Best-in-Class were 3 times more likely to report improvements in response times of business critical applications as compared to all others. And Best-in-Class organizations are 66% more likely to improve bandwidth utilization as compared to all others.

Aberdeen's research shows that Best-in-Class organizations have developed capabilities that enable them to improve in each of the top areas of deploying managed network services: application performance, cost reduction, and network uptime. This sheds a new light on information presented in Figure 4 and shows that cost savings are not the main reason Best-in-Class are more satisfied with quality of their managed network. This level of satisfaction of Best-in-Class organizations is due to the fact that their service providers offer them the capabilities they need to achieve all of their key goals for network management.

### Aberdeen Insights — Technology

Aberdeen's research shows that end-user expectations from using managed network services are increasing, since their goals are getting more complex and cost savings and network up-time are no longer enough. However, 94% of Best-in-Class organizations are reporting that they are satisfied with managed network services that they are using, which is mostly due to the fact that these organizations have deployed a mix of solutions that allow them to take full control over network and application performance. As investments in enterprise applications are increasing and managing network performance is becoming more of a strategic task for end-user organizations, the mix of functionalities needed to support initiatives for outsourcing network management has to include additional capabilities.

In order to be fully prepared for the upcoming challenges of managing network and application performance, organizations need to work with service providers that will enable them to use each of the following capabilities: tools for visibility into network and application performance, tools for optimizing and accelerating network traffic, and functionalities for managing business processes around issues such as effectively dealing with trouble tickets or comparing current levels of performance to SLAs.

## Chapter Three: Required Actions

Whether a company is trying to move its performance in using managed network services from Laggard to Industry Average, or Industry Average to Best-in-Class, the following actions will help spur the necessary performance improvements:

### Laggard Steps to Success

- **Deploy services and tools for WAN acceleration.** Aberdeen's research shows that 81% of Laggard organizations do not have tools for accelerating WAN traffic. The research also shows that 53% of these organizations have network locations in more than one country. WAN acceleration services allow organizations to improve the performance of applications delivered to remote office locations without increases in network capacity. Deployment of these services would allow Laggard organizations to effectively address their top 2 goals for using managed network services: improve application performance and reduce cost.
- **Develop capabilities for analyzing packet flow data and collecting network performance trending information.** Aberdeen's research shows that 77% of Laggard organizations do not have capabilities for collecting and storing trending information on network performance. Additionally, 66% of these organizations do not have the capability to analyze packet flow data. Developing these capabilities would allow Laggard organizations to improve visibility into network performance as well as to gain better understanding of how network changes are impacting network health and performance of enterprise applications. That would also allow these organizations to make better decisions when planning new technology rollouts.
- **Use application response times to evaluate quality of managed network services.** Aberdeen's research shows that 94% of Laggard organizations do not use information about response times of business critical applications when evaluating their managed network services. Aberdeen's research also shows that Best-in-Class organizations are 8 times more likely to be using this performance indicator as compared to Laggards. As organizations invest more resources in rolling out new applications, the ability to monitor, analyze, and optimize application performance becomes increasingly important. Therefore, these organizations should develop capabilities for collecting information on response times of enterprise applications and then use this information to evaluate the quality of managed network services.

### Fast Facts

- √ 81% of Laggard organizations do not have tools for accelerating WAN traffic
- √ 60% of Industry Average organizations do not have tools for automated comparison of network performance to SLAs

## Industry Average Steps to Success

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- **Use a single portal for visibility into all network services.** Aberdeen's research shows that 61% of Industry Average organizations do not have this capability. This functionality allows organizations to have visibility into interdependencies between different network elements and technologies running on the network enabling higher success rates in preventing network performance issues and reducing Mean Time to Repair (MTTR). Also, having this functionality in place would allow Industry Average organizations to address some of the top drivers for deploying managed network services such as the need to reduce operational expenses and the need to reduce network management complexity.
- **Deploy technology tools for automated comparison of network performance to SLAs.** Table 3 shows that 60% of Industry Average organizations currently do not have this capability. And Figure 4 shows that only 50% of Industry Average organizations are "satisfied" or "very satisfied" with the quality of managed network services that are currently in use. Developing this capability would allow Industry Average organizations to improve visibility into levels of SLA achievements and enable them to collect information about discrepancies between current performance and SLA in timely manner. They would then be able to make better decisions about additional support they might need from their service providers.

## Best-in-Class Steps to Success

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- **Work with service providers who can provide SLAs for managing application performance.** Fifty-eight percent of Best-in-Class organizations currently deploy SLAs that do not include guarantees for an acceptable level of application performance. These organizations are now able to effectively deal with the complexity of managing application performance, but as they continue to add new technologies on their networks this task will become more challenging. Therefore, Best-in-Class organizations should be taking a proactive approach and request from their service providers the inclusion of application performance indicators in SLAs. If their current providers cannot offer this type of service, they should consider evaluating other service providers and prepare themselves for the upcoming challenges of managing network and application performance.
- **Measure success in managing application performance beyond availability of business critical applications.** Even though Best-in-Class organizations are 41% more likely to use application response times as the top performance indicator when evaluating managed network services, 44% of these organizations still use application availability as one of the key metrics to evaluate network performance. As end-user expectations for managed

network services increase and organizations roll out more and more enterprise application, evaluating network performance simply by determining up-time of enterprise applications cannot guarantee an optimal level of end-user satisfaction. Best-in-Class organizations should be using a combination of application availability and application response times per application and per transaction to determine the success level of their initiatives for outsourcing management of their networks.

### Aberdeen Insights — Summary

Aberdeen's research reveals that network management is the top IT component that organizations are outsourcing to third party providers. Additionally, Aberdeen's research also shows that 93% of organizations reported that managing network performance has become more complex over the last 2 years. It is apparent that the toolsets that organizations have been using in the past are no longer sufficient enough to help control network and application performance. It is also apparent that end-user organizations need more help from third party service providers so they can achieve their goals for network performance management.

The good news for end-user organizations is that some of their peers have figured out how to deal with these challenges by selecting third party service providers that are offering them all of the capabilities they need to deal with these challenges. Their experiences are paving the path for other end-user organizations that are looking to achieve similar results. The bad news for these organizations is that the complexity of managing network and application performance will continue to increase and as organizations continue to deploy bandwidth-intensive, complex technologies and applications, the tools that Best-in-Class organizations currently have in place will no longer be sufficient. Capabilities that Best-in-Class organizations currently have in place will enable them to prepare themselves for these changes and make educated decisions around updates of enterprise networks to support new technology rollouts. All other organizations could catch up with Best-in-Class only if they can find the alignment between the network services they are currently using, capabilities of service providers that are available to them, and competencies that they need to support their plans for business growth in the near future.

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## Appendix A: Research Methodology

Between April and May 2008, Aberdeen examined the use, the experiences, and the intentions of more than 140 enterprises using managed network services in a diverse set of enterprises.

Aberdeen supplemented this online survey effort with telephone interviews with select survey respondents, gathering additional information on strategies, experiences, and results around managed networks services.

Responding enterprises included the following:

- *Job title / function:* The research sample included respondents with the following job titles: IT Manger (26%); IT Director (21%); senior management (21%); consultant (16%); IT staff (14%).
- *Industry:* The research sample included respondents from 14 industries. Some of the largest industry segments were: high technology / software (15%); manufacturing (14%); finance / banking (9%); and retail (6%).
- *Geography:* The majority of respondents (53%) were from North America. Remaining respondents were from Europe (28%) and the Asia-Pacific region (12%) and the rest of the world (7%).
- *Company size:* Thirty-three percent (33%) of respondents were from large enterprises (annual revenues above US \$1 billion); 31% were from midsize enterprises (annual revenues between \$50 million and \$1 billion); and 36% of respondents were from small businesses (annual revenues of \$50 million or less).
- *Headcount:* Thirty-nine percent (39%) of respondents were from large enterprises (headcount greater than 1,000 employees); 32% were from midsize enterprises (headcount between 100 and 999 employees); and 29% of respondents were from small businesses headcount between 1 and 99 employees).

Solution providers recognized as sponsors were solicited after the fact and had no substantive influence on the direction of this report. Their sponsorship has made it possible for Aberdeen Group to make these findings available to readers at no charge.

### Study Focus

Responding executives completed an online survey that included questions designed to determine the following:

- √ The degree to which managed network services are deployed in their operations and the financial implications of the technology
- √ The structure and effectiveness of existing implementations of managed network services
- √ Current and planned use of managed network services to aid operational and promotional activities
- √ The benefits, if any, that have been derived from managed network services initiatives

The study aimed to identify emerging best practices for deploying managed network services, and to provide a framework by which readers could assess their own management capabilities.

**Table 4: The PACE Framework Key**

Overview
<p>Aberdeen applies a methodology to benchmark research that evaluates the business pressures, actions, capabilities, and enablers (PACE) that indicate corporate behavior in specific business processes. These terms are defined as follows:</p> <p><b>Pressures</b> — external forces that impact an organization’s market position, competitiveness, or business operations (e.g., economic, political and regulatory, technology, changing customer preferences, competitive)</p> <p><b>Actions</b> — the strategic approaches that an organization takes in response to industry pressures (e.g., align the corporate business model to leverage industry opportunities, such as product / service strategy, target markets, financial strategy, go-to-market, and sales strategy)</p> <p><b>Capabilities</b> — the business process competencies required to execute corporate strategy (e.g., skilled people, brand, market positioning, viable products / services, ecosystem partners, financing)</p> <p><b>Enablers</b> — the key functionality of technology solutions required to support the organization’s enabling business practices (e.g., development platform, applications, network connectivity, user interface, training and support, partner interfaces, data cleansing, and management)</p>

Source: Aberdeen Group, May 2008

**Table 5: The Competitive Framework Key**

Overview	
<p>The Aberdeen Competitive Framework defines enterprises as falling into one of the following three levels of practices and performance:</p> <p><b>Best-in-Class (20%)</b> — Practices that are the best currently being employed and are significantly superior to the Industry Average, and result in the top industry performance.</p> <p><b>Industry Average (50%)</b> — Practices that represent the average or norm, and result in average industry performance.</p> <p><b>Laggards (30%)</b> — Practices that are significantly behind the average of the industry, and result in below average performance.</p>	<p>In the following categories:</p> <p><b>Process</b> — What is the scope of process standardization? What is the efficiency and effectiveness of this process?</p> <p><b>Organization</b> — How is your company currently organized to manage and optimize this particular process?</p> <p><b>Knowledge</b> — What visibility do you have into key data and intelligence required to manage this process?</p> <p><b>Technology</b> — What level of automation have you used to support this process? How is this automation integrated and aligned?</p> <p><b>Performance</b> — What do you measure? How frequently? What’s your actual performance?</p>

Source: Aberdeen Group, Month 2008

**Table 6: The Relationship Between PACE and the Competitive Framework**

PACE and the Competitive Framework – How They Interact
<p>Aberdeen research indicates that companies that identify the most influential pressures and take the most transformational and effective actions are most likely to achieve superior performance. The level of competitive performance that a company achieves is strongly determined by the PACE choices that they make and how well they execute those decisions.</p>

Source: Aberdeen Group, May 2008

## Appendix B: Related Aberdeen Research

Related Aberdeen research that forms a companion or reference to this report include:

- [\*The Roadmap to the Next Generation Branch Office Networks\*](#); February 2008
- [\*Benchmarking VoIP Performance Management\*](#); March 2008
- [\*The Real Value of Network Visibility\*](#); December 2007
- [\*Optimizing WAN for Application Acceleration\*](#); December 2007

Information on these and any other Aberdeen publications can be found at [www.Aberdeen.com](http://www.Aberdeen.com).

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