

# SHOWING THE VALUE OF NETWORK MANAGEMENT



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## Introduction

In the June 2005 IT Impact Brief I stated my belief that the value a company's business and functional managers perceive they get from IT lies primarily in the key applications they use to run their businesses and achieve their strategic objectives. In contrast, I regard network management as the Rodney Dangerfield of IT, meaning that network management does not get the respect it deserves from the senior managers at most companies. As one CIO I talked to put it, "We have spent a lot of money on network management. I am not at all sure what I am getting for that investment, but I am reluctant to pull the plug on it."

When I think of the value of network management, it reminds me of the oft-told story of the president of a company that manufactures small tools for the consumer market. The way the story goes, the president was addressing the company's sales force and stunned them when he said, "I have very reliable research that indicates that our customers do not want to buy our drills." As you might guess, his comment silenced the room. After several seconds the president spoke again and said, "What our clients want is to make holes."

This IT Impact Brief will discuss the value of network management and will explain the relevance of the preceding story. This brief will also discuss the dynamics of the relationship between the typical application development organization and the network organization. In order to gain insight into these topics, I interviewed three members of the NetScout community. Table 1 depicts the title of each of the interviewees, the industry that they work in, as well as how they will be referred to in this brief.

Job Title	Industry	Reference
Project Leader	Transportation	The Project Leader
Assistant Director of Network Communications	Medical	The Assistant Director
Senior Consultant	Pharmaceutical	The Senior Consultant

**Table 1**  
The Interviewees

## The Value of Network Management

I explored with the three interviewees the issue of how much respect is afforded to the network management organization. The Assistant Director stated that he and his team individually get a reasonable amount of respect. He added, however, that the network is the "whipping boy". By that he meant that if there is a problem with the performance of an application, the implicit assumption both inside and outside of the IT organization is that it is the network that is at fault. As a result, there is pressure on the network management organization to identify and solve the issue, whether or not it was a network issue. There is also the lingering question of why wasn't the network management function able to eliminate the problem before it occurred.



The Project Leader stated that until relatively recently networks within his company were designed "with a white board approach." The network engineers designed networks based primarily on theoretical considerations because they did not have access to detailed information about the network or the applications that ran on the network. The Project Leader stated that the planning component of network management is gaining more traction within his company's IT organization because they are able to provide information, based on evidence collected from their own network traffic, which can be used to improve processes such as network design and capacity planning. He added, however, that if I were to ask his company's business unit managers about the value of network management that I would get blank stares.

When asked about the perceived value of network management, The Senior Consultant described a situation that was somewhat the reverse of what was described by The Project Leader. He said that within his IT organization network management was "definitely the dirty child". He went on to say that the only time network management is important is when there is a problem that network management can help to resolve.

In contrast to how network management is perceived within the IT organization, The Senior Consultant pointed out that some of his company's business managers regard network management

highly. What these managers value, however, is not traditional functionality such as fault and configuration management. The network management organization has deployed tools that allow them to model how an application will perform before it is deployed. It is the information from these tools that the company's business managers value.

- Discover the applications running over the network and identify how they are being used.
- Gather the appropriate management data on the performance of the applications and the infrastructure that supports them.
- Provide end-to-end visibility into the ongoing performance of the applications and the infrastructure.
- Identify the sources of delay in the performance of the applications and the infrastructure.
- Automatically identify performance issues and resolve them.
- Gain visibility into the operational architecture and dynamic behavior of the network.

### The Importance of Application Delivery

We recently surveyed the NetScout community on a number of topics. Throughout this IT Impact Brief, the respondents to this survey will be referred to as The Survey Respondents. One of the questions on the survey asked the respondents to rate the impact that various projects will likely have on their IT resources during the next year. The 15 projects listed in the survey question were wide ranging and included data center consolidation, redesign of key business processes, as well as the integration of network and security operations.

For each project, The Survey Respondents were given six possible answers: don't know, not installed, in maintenance mode, little impact, moderate impact, and significant impact. The project with the highest percentage of The Survey Respondents who answered with either moderate or significant impact was improving the ability to ensure acceptable application performance. Referring back to the story of the president of the tools manufacturer, most senior managers do not want to invest in network management. They are, however, willing to invest in application delivery. With that thought in mind, the February 2007 IT Impact Brief identified some of the network management tasks that are associated with application delivery.

When asked how important it was within his company to be able to ensure acceptable application performance, The Senior Consultant stated that, "It is critical at this point." He added that over the last few years his company has deployed a number of global applications and that if these applications are not running well, "it impacts your ability to get the product out the door."

When asked how his organization leverages network management to better ensure acceptable application performance, The Senior Consultant had two answers. One of these answers was already mentioned - they profile key applications prior to their deployment. The second answer is that they continually provide end-to-end visibility into the performance of the application. This visibility is used by both the network and the applications development organizations to resolve application degradation problems.

The Project Leader stated that his organization is continually striving to get more involved with ensuring acceptable application delivery. He noted that this is a change and that until recently the focus on his organization was just on the network and not on the applications that transit the network. He pointed out that within his company, however, that no one organization owns the end-to-end performance of applications.

When asked how important it was to be able to ensure acceptable application performance within his company, The Assistant Director stated, "It is absolutely critical." He pointed out that the phrase that gets thrown around a lot within the hospital is that if there is poor application performance "patients could die." He added that while in many cases that is not likely, it could indeed happen. The Assistant Director was also able to provide a historical perspective on the topic. He said that as recently as 5 years ago, roughly 10% of the hospital's applications were deemed to be critical. In contrast, today 80% of their applications are deemed critical.

### The Organizational Dynamics

We asked The Survey Respondents how they would characterize the current relationship between their company's application development organization and the network organization. Their responses to that question are shown in Table 2.

Response	% Respondents
Highly Adversarial	0.0%
Moderately Adversarial	7.7%
Slightly Adversarial	17.9%
Neutral	32.4%
Slightly Cooperative	13.5%
Moderately Cooperative	24.6%
Highly Cooperative	3.9%

**Table 2**  
The Relationship between the Applications and Network Organization

While it was extremely positive that none of The Survey Respondents indicated that there was a highly adversarial relationship between the two organizations, it was somewhat discouraging to see that only a relatively small percentage of The Survey Respondents indicated that the relationship was highly cooperative. In addition, a quarter of The Survey Respondents indicated that the relationship was either slightly or moderately adversarial.

We also asked The Survey Respondents to indicate how the relationship between their company's application development organization and the network organization has changed over the last six months. Their answers to that question are shown in Table 3.

Response	% Respondents
Become significantly more cooperative	3.9%
Become moderately more cooperative	15.0%
Become slightly more cooperative	21.7%
Neutral	54.1%
Become slightly more adversarial	2.9%
Become moderately more adversarial	1.4%
Become significantly more adversarial	1.0%

**Table 3**  
The Change in the Relationship

One encouraging observation that can be drawn from the data in Table 3 is that in a large percentage of instances (40.6%) the relationship between the two organizations has become more cooperative and, that in only a very small percentage of instances (5.3%), has the relationship become more adversarial.

The Assistant Director stated that his organization had the ability to do end-to-end monitoring of the performance of the network. He described the relationship between the application development groups and the network organization as currently being “semi-cooperative” and getting a little bit better over time. He credited the improvement in the relationship to his group’s ability to provide the application development organizations with credible information on application performance

The Senior Consultant described the relationship between the application development groups and the network organization as being “informal”. He said that his organization is trying to get involved in the application development cycle - preferably as early as possible in that cycle. One of his reasons for wanting to get involved early is to be able to ensure that the necessary bandwidth is in place.

The Project Leader described the relationship between the application development groups and the network organization as being “cordial” and felt that there is a growing desire to work together as partners on a going forward basis. He added that the reality of cost restrictions and scheduling (i.e., not enough lead time) often make the task of working together difficult. He did say that the more information they bring to the application development groups, the more those groups trust the network organization. The Project Leader highlighted some of the difficulties associated with developing the kind of information that is helpful to the application development groups when he noted that although they have acquired tools to help them plan for the

deployment of new applications, they are limited in their ability to use these tools because “nobody accurately knows what the inputs to those tools should be.”

## Summary and Conclusions

After writing this brief I have modified my belief that network management does not get the respect that it deserves. The situation is more complex than that. As shown in this brief, the old adage that the network is the source of all performance problems is still alive and well in some companies. It is also still true that in many situations, the only time that the network management function is noticed is when there is a problem

Some organizations, however, have made strides in improving the perceived value of network management by linking network management to other tasks deemed important to either the IT organization or to the company’s business and functional managers. For example, The Project Leader discussed how his organization had linked network management to network design and capacity planning. The Senior Consultant discussed how his organization had linked network management to what has become a very important topic - ensuring acceptable application performance.

The survey data presented in this brief shows that in too many companies there is still somewhat of an adversarial relationship between the network organization and the application development organizations. However, the survey data also shows that within many companies this relationship is becoming more cooperative. In most instances, the reason the relationship is becoming more cooperative is that network organizations are increasingly able to go to the application development organizations with creditable insight into the factors that impact application performance.

It would be easy to end this brief with a statement to the affect of “if you want to increase the perceived value of network management or improve the relationship with the applications development groups, all you need to do is to focus on ensuring acceptable application performance.” A simple statement like that would ignore the fact that network management organizations cannot stop doing traditional network management tasks as they develop new capabilities. A simple statement like that would also hide the fact that as The Project Leader pointed out, developing the insight necessary to ensure acceptable application performance is not an easy task.

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