

Considering a Network Management Service

Sandi Voykin
Hewlett-Packard
Customer Network Center
2000 South Park Place
Atlanta, Georgia

1987 was an exciting year for Wide Area Networks. Along with this new high level of interest, a new type of offering was made available to wide area networking customers: Network Management Services.

Choosing the right type of services enables you, the customer to:

- 1) decrease operational expenses
- 2) increase network reliability
- 3) enable internal movement of your staff to increase productivity in other areas

Failure in choosing the correct Network Management Service, or not choosing one at all could be very costly to your organization. Your network may 1) have more downtime than is acceptable to your company 2) have less than sound recommendations made on the future of your network and 3) be the reason behind a need to increase staffing, increasing your people costs. Making this decision could be critical to your organization.

To allow you to make a sound business decision while considering a Network Management Service, you need the answers to several questions. During the next half hour, we will cover questions in four distinct areas:

- 1) Operational procedures
- 2) Problem resolution
- 3) Customer (your own) participation
- 4) The Network Management Company

Operational Procedures:

Let's consider the actual offerings of this company. What hours are they willing to provide coverage for? If your organization is world wide, covering many different time zones, it is important that this Management Service provides 24 hour a day 7 day a week coverage. What about holiday coverage? In a world wide network, there will be many holidays that pertain to just a particular country and not to any others. Does this Management Service provide coverage 365 days a year? You may need that level of service, to handle the differences between country holidays.

Rarely is a wide area network based upon a single hardware vendor, so you must consider if this Management Service has understanding of a multi-vendor network. What type of working relationship have they implemented between themselves and other third party organizations? A worthwhile Management Service will have third party agreements in place, so the operational staff can take complete responsibility for problem resolution, without the customer having to place any calls to either party involved.

What type of monitoring equipment does the Management Service utilize? Is it considered state of the art? Do they actually manufacture this equipment, or is there an additional company involved? If it is an additional company, what type of response time can they guarantee this additional organization will provide in case of a hardware failure? You can not afford to have your network down due to a hardware problem on the monitoring equipment. While they are monitoring your network, is there the ability for you to also monitor the network? Perhaps in just a read only capability? You may have plans to take over the network operations in the future, and monitoring the network could be considered a training tool for your own staff.

Wide Area Networks are usually found in dynamic organizations, meaning network configuration changes must be done on a constant basis. How often is this Management Service willing to provide change management? Will this change impact your network uptime? Are the procedures documented, so you can review them? Also, is the change made, verified, documented and then the appropriate people notified (customer, local users, etc)? Is this all handled through the operations staff, even the mailings? To properly manage a network, it is crucial that the network map be accurate and kept up to date at all times.

How are you to judge if your network is running at it's peak performance? How will you determine an internal accounting structure for other divisions to reimburse you for the network time that they utilize? In other words:

What type of network statistical reports are available and how often will you receive them?

Do you pay extra for these reports, or are they part of the "operation package"? Review the reports that are provided before signing with any Management Service to be sure that they provide you with the type of data that you will need to run your business. If something is missing, can these reports be easily customized either by yourself, or by the Management Service? Is there a fee for this customization? Will you have an assigned consultant that will review these reports on a regular basis and will also come on-site for bi-monthly network review meetings? Is the consultant know-

ledgeable in X.25, so you will feel confident about taking his suggestions?

What type of data security is available? I realize that this can also be a hardware function, but it is important enough to be brought up here. Is the operational staff security conscious? Is the NCP (Network Control Processor) that is running your network, also running another customer's network? Or is there one NCP for a single customer?

Problem Resolution:

Now, what if you have a problem on your network? What is it you need to be aware of as far as problem resolution? First of all, is there an escalation path available? Are the procedures documented? Is there a written Disaster Plan and is it tested on a regular basis? If there is a network problem, you can not afford to have your network down while the operation staff is trying to decide what steps need to be taken. Are the lines backed up with a dial up mechanism, so your network can be running, while problem resolution continues? What is the documented response time, if you call in with a problem? Is it 2 hours, 8 hours, 24 hours, etc? How long can you afford to wait for a call back?

If the operations staff can not resolve the problem within a certain time frame, where is the second level of support? Are they physically located in the same building, so they can work together on the resolution, or are they miles apart and must deal with each other by telephone? Being separated can also add an additional time factor in the problem resolution. What if the Management Service is located in New York City and the network problem exists in Munich? What type of world wide support is available? Are there local people available, or will you have to deal with a language barrier? If on-site assistance is required, will it be local, no matter where in the world the problem is located?

Customer Participation

Now you will need to consider an area that is probably one of the most important for you: The area of Customer Participation. Let's talk about 1) cost and 2) involvement. What is this type of service going to cost you? How is it priced? Do you know up front what your monthly costs will be for the length of the contract, or will it depend on how much data you are sending? If you want to increase the size of your network, will you know before signing the original contract the approximate cost after the increase takes place? Or will you just be taking a chance?

What will be your daily involvement? None? If so, will you

only need one or two people on your staff familiar with the network to make decisions? To be cost effective, you should be able to decrease your current operational staff or not hire one if you do not have one currently in place. For problem resolution, will you need a technical person available? Or is the operations staff capable of dealing with all aspects of the problem management? If you have a current staff, can you move them to other areas in the organization, to help increase productivity in those areas? The highest cost for managing a network resides in people cost. To minimize this cost, take a detailed look at what your participation will have to be.

The Network Management Company:

Let's move onto the Network Management Organization itself. What is the reputation of the company? Have you dealt with them before or do you know someone who has? Are they known to be service oriented? You will be paying this organization a monthly fee to manage your network for you, so you want to be sure that this organization is not brand new to the field. You want a company that you know has been around for a long time and will be around for a long time in the future. Have they provided this type of service before? If not, consider what this may mean to your network reliability.

Even their geographical location is important. If the management service organization is located in a large city, they will probably have access to a more rapid line installation procedure. Due to the number of lines they will be dealing with, it is important they have a good working relationship with the link vendor. After all, a percentage of network problems requires the link vendor to get involved. What is the expertise of the operations staff and what do you know of the overall quality of the people? Does this company instill a level of confidence in you? This is extremely important.

What do the actual operational facilities look like? Can you tour them at any time? When you walk through, do they look organized? Notice the building security. Network operation rooms should have key access entering and exiting. Is the room surrounded by a wire mesh under the floor and over the ceiling so no one could gain access even by climbing under the raised floor or ceiling tiles? Were you issued a visitor's pass, by a security guard upon entering the area? Were you escorted through the area, or allowed to walk around freely? What amount of your data can be accessed from the operations facilities?

Last of all, who are their other customers? Are you encouraged to contact them as a means of providing a reference? Are they a small company or a Fortune 100 company? If you

do contact them, can you be positive that they will provide you with a totally unbiased account of the Management Service?

As you can see, choosing a Network Management Service is not an easy task, but making the right choice can be extremely beneficial to your organization. You can benefit by 1) lower costs 2) higher overall productivity and 3) higher network reliability and performance. I hope the questions I have mentioned will enable you to make a good solid business decision on what you need a Management Service to provide. I have also provided a handout of these questions in a format that you should find useful as a worksheet when the question of a Network Management Service arises in your organization.

