Ten New Year's Resolutions

Jim Metzler
Ashton, Metzler & Associates
jim@ashtonmetzler.com

When I used to live in Boston, I could always tell that the year was coming to an end when all of the leaves were off the trees and the first snow hit the ground. Now that I live in South Florida, I know that the year is coming to an end when hurricane season is officially over.

So with all of the spare time that I now have because I don't check NOAA's (National Oceanographic and Atmospheric Administration's) hurricane site three times a day, I decided to look forward to next year. In particular, I decided to create a set of New Year's resolutions for all of my colleagues who want 2006 to be a banner year for network management.

My suggested set of resolutions is:

I will make my network and my network organization more applications aware

It is difficult to disagree with this resolution. As was described in a previous IT Impact Brief, a company's business managers care far more about applications than they do about the IT infrastructure. Since these are the people that either set or heavily influence the IT budget, we need to make sure that they are satisfied with IT.

Making your network management or network engineers more applications aware is clearly a good news/bad news situation. The good news is that virtually every vendor is now talking about how they enable you to better monitor, manage and control applications. The bad news is that means there are a lot of vendor claims to work through.

An example of the applications management challenge is that it is possible to have the network perform well, and yet have some of the applications that run on that network not perform well. In order to eliminate these situations you need to deploy tools and processes that can identify how your company's key applications are performing and then if necessary modify the performance of the various components of the IT infrastructure (i.e., LAN, WAN, SAN, servers) in order to improve the performance of those applications.

Deploying the tools and processes to effectively manage applications will take more than one year. My guess is that this will make my list of New Year's resolutions again next year.

I will develop a better understanding of web services

In 2005 we conducted a survey focused just on Web services and wrote a couple of IT Impact Briefs on the topic. I believe that the movement to Web services is here to stay and that the use of Web services based applications will greatly increase the difficulty associated with IT management in general, and of security in particular.

The good news here is that while the movement to web services is here to stay, it is also relatively slow in part because all of the necessary standards are not yet completed. What that means is that 2006 is a really good year for all of us to get a better understanding of Web services in general, and what they mean to network management in particular. With that in mind, we should all resolve to spend some time each week reading about Web services. A wealth of helpful information can be found at SearchWebServices.com

I will learn to manage the complexity associated with MPLS

For the last few years the trade magazines have been hyping MPLS (Multi-Protocol Label Switching). However, the number of articles devoted to MPLS has been sharply reduced in the last few months. Typically when the trade magazines stop writing about a technology that means one of two things: that either the technology has died, or just the opposite - that we are now actively deploying the technology.

In the case of MPLS it is clear that we are now in the process of active deployments. The vast majority of these deployments involve implementing an MPLS service from a service provider. Everyone that I have talked to that has deployed MPLS has complained of the complexity associated with implementing MPLS services. This complexity comes from a number of sources including the need to understand the differ-

ences in the various service provider offerings, whether it is how they manage QoS end to end or the various ways they price their services. The complexity also comes from trying to assign traffic to classes of service and then manage those classes.

The reason that it is important to manage MPLS service classes is that most service providers charge for MPLS services in part based on how much traffic is assigned to each service class. The effective management of MPLS service classes allows IT organization to be able to minimize cost and to simultaneously ensure that delay sensitive applications get the network resources they need.

However, in many cases after implementing MPLS services IT organization loose visibility into what applications have been assigned to each class of service and hence loose their ability to effectively manage MPLS services classes. As a result, these IT organizations may well end up paying more for MPLS services than is necessary and may also have some delay sensitive applications that perform badly.

Regrettably, the complexity that is associated with MPLS is not going away any time soon. So 2006 is a good year to learn how to better plan for and manage MPLS based networks with application awareness.

I will introduce better management processes

Early in 2005 I did a consulting project for a Fortune 500 company that had deployed VoIP. Their network had crashed three times in six months, each time bringing down a medium sized call center. Suffice to say, neither the users nor senior management was very happy about this.

I believe that when I was hired the company wanted me to come back with some alternative network design complete with another layer of redundancy that would keep their network from crashing. However, the reason that their network kept crashing had little to do with their already redundant network design. Their network kept crashing primarily because they had horrible change management practices.

I will admit that this client is a bit of an extreme example. However, they do exemplify the fact that most IT organizations don't spend enough energy ensuring that they have efficient and effective processes. While certainly not a panacea, a previous IT Impact Brief discussed the value that ITIL (IT Information Library) offers to organizations that want to improve their key processes.

I will rethink my security architecture

Security used to be relatively simple. In the not too distant past, companies implemented security through a 'perimeter model' that involved little more than implementing firewalls on the WAN links that connected the company to entities external to the company. Today it is widely accepted that the perimeter model is inadequate and that we need 'defense in depth'. The problem is that there is little agreement as to how to design or implement defense in depth.

One of the interesting trends emerging in the security space is linking security and QoS. The rationale is that in order to do either effective security or effective QoS requires deep packet inspection and it is inefficient to do this two or more times. On the surface, this argument has merit and should be looked at in 2006.

I will implement more proactive network management

For years we have been talking about becoming more proactive with network management and actually deploying the ability to anticipate and fix problems before they impact the user. The good news is that the tools exist to allow IT organizations to be more proactive. The bad news is that most organizations use these proactive tools in a reactive way, meaning that they typically only use their proactive management tools to troubleshoot a problem once it has impacted users.

Becoming truly proactive will take more than one year. My guess is that this will make my list of New Year's resolutions again next year.

I will sort through all the hype surrounding server consolidation

We all know the advantages of server consolidation are numerous, including reducing cost and enabling IT organizations to better comply with myriad regulations such as Sarbanes-Oxley. While these benefits are compelling, for the last year or two we have been hearing horror stories about how some applications, most notably Microsoft applications, don't run well once the servers have been centralized. However, more recently we have begun to read stories that say that based on Microsoft's new operating system (called R2) most, if not all, of these problems are going away.

So, it seems as if consolidating servers in a centralized data center is definitely going to cause tremendous performance problems, unless of course, it doesn't. 2006 is a good year to cut through these contradictory claims and determine if this is indeed a situation you need to worry about.

I will make the most out of my existing management tools

A few years ago I did a capacity planning project for a large company. At the end of the project, my client wanted to acquire the same tool that I had used so that they could continue to do capacity planning themselves. However, their request for funding was summarily dismissed by their management who categorized their request as just my client seeking more “toys for boys” - which they explained to me meant that they had the reputation for acquiring network management tools and not fully utilizing them.

One of the insights that comes from this experience is that it will be difficult for any IT organization to get funding for new management tools until they can demonstrate that they are making the most out of the tools that they already have.

I will deploy more automation

This resolution is based on two observations and a widely held theory. The first observation is that most IT organizations see the benefits of automation. The second observation is that the majority of network availability issues have less to do with a network outage than they have to do with poor configuration management. The widely held theory is the 'most pain theory". That theory roughly states that you should focus your attention where there is the most pain.

Pulling all of this together suggests that IT organizations need to implement more automation and that a good place to start is an area of IT that clearly causes a lot of pain - configuration management.

I will respond to all of Jim Metzler's surveys

Ok, this resolution may appear to be self-serving. That's because it is. However, it only takes a few minutes to fill out one of these surveys. That is such a small investment for how good you will feel helping yourself and your colleagues gain invaluable insight intothe thorny problems that we face daily in our jobs.

New Year's resolutions are always easy to make and tough to keep. At the end of 2003, I made the resolution that in 2004 I would run a 10K road race. That never happened. At the end of 2004 I resolved that in 2005 I would grow hair. Enough said. Even with that non-distinguished track record I feel strongly that the resolutions described in this IT Impact Brief are important, both for the success of our companies as well as our own personal success. Best of luck to all of you in the new year!!!!