

## **Minutes of the EDUCAUSE Constituent Group on Network Management**

**EDUCAUSE 2000 Meeting  
Thursday, October 12, 2000  
Opryland Hotel, Nashville  
4:45 – 6:00 p.m.**

About 20 attendees convened for the NETMAN Group at Educause 2000 in Nashville.

### **BANDWIDTH**

By far this was the hot topic of the entire conference for participants in this meeting. The group acknowledged that the newer peer-to-peer applications are bandwidth hogs. While some schools have simply increased bandwidth by purchasing more pipe and others have attempted to block certain PTP applications (Napster, Scour, Aimster, etc), the consensus solution is to prioritize packet uses (packet shaping). Unfortunately the tools to accomplish packet control remain fairly pricey. Network managers understand that the issue is quality of service and no amount of education or policy / sanction setting will "fix" the problem.

### **NETWORK MANAGEMENT TOOLS**

A wide variety of tools have been tried/evaluated and none approach "nirvana." There are freeware tools to examine bandwidth yet few talk to one another. They still have some value if only to suggest what questions to ask. CiscoWorks has improved but requires RMON agents and still can not be considered an enterprise complete solution. Sniffers at the gateways can give a high overview. MRTG can check at each subnet but requires time to collect and analyze information. Yet, as QOS issues become more important, the requirement for tools - and even a full time staffer - to monitor become much more of a requirement.

### **SECURITY**

Network Management tools can also be helpful with security on a network - particularly with denial of service issues. One should look for peaks because traditional clues may be forged. Cisco does have a recipe list of locking down your router. Of the 17 attending the group meeting 6 schools have added new security positions. Other schools outsource their security analysis and resolutions. Certainly security audits should be conducted and it was felt that if an outside vendor is making the "fix" recommendation, the chances of adopting and implementing those recommendations is greater than if suggested from in house audits. The biggest holes are almost always dial-in connections directly to servers.

### **TECHNOLOGY DIRECTIONS**

Most schools continue to use a variety of delivery protocols as needed or required by specific users. Some decisions will be determined by what you may be connecting to.

Cache servers can help with bandwidth; and Cache Flow can be used to increase the performance of those servers. There are some vendors who can deliver the cache streaming material; but the content tends to be the less dynamic material from the site you're attempting to reach. And there are some items that don't cache well yet caching is considered a good and useful tool.

Wireless is being used in a supplemental way and not as a complete replacement for network connections. What services are being provided should be a strong factor when considering wireless since they are shared devices. Wireless can be a good short term, quick build solution. An RF study is almost always mandatory before committing to the implementation.

### **CONVERGENCE**

There seems not to be a big jump to moving to voice over IP and the group doesn't not see great movement in the next three years. Many suggest taking current PBX budget money (when

there is any) and holding it in a bucket for potential future migration. An anticipated problem for the future is support - is the call a network problem or a phone problem?