

Issue: LAN Infrastructure Architecture for ITU Supported Systems

Abstract: The current Novell LAN architecture has provided basic file/print support to the University for many years, but it is in need of a major upgrade to take advantage of new desktop support methodologies. Before spending time and money on upgrading the existing infrastructure, we should bring the decision of whether to upgrade Novell or replace it with another platform to the Technology Council for review. The council can identify user needs and contribute an objective, thoughtful evaluation of the available methodologies for providing desktop PC support. Then the council, through consensus, could recommend appropriate LAN architecture(s) for the ITU to support centrally to meet the needs of users.

Detail: The existing Novell LAN currently provides four major services: Authentication to the LAN structure, private area file storage, public/private shared file storage, and printer queue management. There are many desirable new features available in the latest version of Novell's operating system. These enhancements include, among several others, electronic software delivery, web access to data storage areas, and electronic patch management for the desktop operating system. However, for us to take advantage of these new features, it would require three major tasks: upgrade the Novell core operating systems, redo the Netware Directory Service (NDS) data structure, and upgrade the Novell client on every desktop supported by ITU at George Mason University. Each one of these tasks would be large project. Taken together, the project would be challenging. We need to carefully consider the effect of taking on a project of this magnitude on other issues and projects, such as staff coping with the ongoing support for Novell and Microsoft servers, and the imminent Banner roll-out. Therefore, the ITU should solicit the Technology Council's investigation of and recommendation for the appropriate desktop management technology.

Process: The ITU will request that four workgroups be created:

1) **Requirements Analysis Workgroup** – Discuss with selected units of George Mason University, with special attention given to those that have migrated away from Novell:

What functionalities are required or desired by users, system administrators? Examples of functionalities that are now possible are: Electronic Software/Patch delivery, web access to data stored on file servers, automated network printer support, and native fileserver access (no local client required).

Why did the unit migrate away from Novell? Which requirements are not met (by either Novell or their local LAN)?

As we move towards full implementation of Banner, what requirements will need to be considered?

What support issues are important? Is training for support personnel readily available? Is the product stable, reliable?

2) **Open Source Workgroup** – Analyze the open source LAN options (such as Unix/Linux, Samba, Sun Ray, among others) and make recommendations as to whether any of these are feasible. Analyze the more feasible ones in depth.

3) **Windows Workgroup** – Analyze enterprise-wide Microsoft Windows based LANs in light of requirements within GMU.

4) **Novell Workgroup** – Analyze enterprise-wide Novell based LANs in light of requirements within GMU.

Each workgroup will have between 3-5 volunteers, and an engineer from the LAN/Desktop Support Services unit. Joe Hutchison will serve as a resource to all workgroups, providing research reports, recommending experts to give presentations, and recommending site visits.

All workgroups should begin their investigations immediately. However, the Requirements Analysis Workgroup must finish first, as their results are required for the other three teams to develop the strengths and weaknesses of the LAN technology under investigation. After the research is concluded, the workgroups will present their findings to the entire Technology Council. Based on these findings, the Technology Council will then reach a consensus and recommend a LAN technology the ITU should support.

For more information on the issue or the process, contact Joe Hutchison, 993-3358 or hutch@gmu.edu.

Timeline for completion of the LAN Architecture project:

<u>Week Of</u>	<u>Task</u>
7 Jan 02	Start Requirements Workgroup (5 weeks total)
4 Feb 02	Preliminary Report to Technology Council
11 Feb 02	Final Requirements Report to Technology Council (written)
18 Feb 02	Begin Technical Workgroups (7 weeks total)
8 Apr 02	Final Reports presented to Technology Council