

# CMU PROJECT OUTCOMES ASSESSMENT

**PROJECT:** Network Infrastructure Assessment

**REPORT DATE:** 02/21/2006

**PROJECT TIME RANGE:** October – November 2000      **SUBMITTED BY:** Chad Gaines

**GROUP CONDUCTING STUDY:** Alexander Open Systems (AOS)  
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**REASON FOR PROJECT:** To provide an assessment of the current network infrastructure, network traffic patterns and security vulnerabilities and make specific recommendations to support anticipated future growth.

**CONSTITUENTS DIRECTLY INVOLVED:** Alexander Open Systems, CMU Board Chair for the Technology Committee, Office of Campus Computing

**OUTCOME OF PROJECT:** A thorough analysis was done on the CMU network, including an inventory of equipment which started with an overview at the campus level, then an overview at the building level, and then down to the individual University server level. This resulted in the creation of a current picture of the University network layout, an inventory of all network components, information about network utilization and recommendations for moving forward.

As a result, the following items have been implemented since that report:

- New fiber network infrastructure for campus which can now support data, voice, and video
- Centralization of over 90% of the server backup and storage methods
- Adequate server-level power management
- Upgrade and increase of bandwidth on our University router which provides internet access
- Installation of a campus firewall
- Continued movement toward manageable Ethernet switching devices
- Migration from two separate University phone systems to one unified system supporting new technologies such as voice-over-IP (VoIP)

The growth of our I-TV dual-credit program (high school students taking courses for college credit) can be directly attributed to the items listed above.

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## NOTE:

Under the section **REASONS FOR PROJECT** it will be important to note:

- Specifics issues, problems, or challenges as to why the project or study was conducted (i.e. Concern over network reliability and stability)
- Funding source if applicable (i.e. Grants, operational funds, donation)

Under the last section of **OUTCOME OF PROJECT** it will be important to note:

- Specific results of the project (i.e. Discovered that the network was operating at 80% utilization)
- Changes that were made as a result of the project (i.e. A plan was developed as a result of the assessment and when funding became available, the plan was successfully executed resulting in a new robust network infrastructure with 100 times the capacity. Provided the foundation for the growth of our dual-credit population)
- Relevant statistical information
- Feel free to include relevant documents associated with project