

CECS Proposal No. 5

Beginning 2005-2006

Title: UPDATE OF UNIX / OPEN SYSTEMS LABORATORY

Unit Submitting Proposal: College of Engineering and Compute Science (CECS)

Summary of the Proposed Project.

The continually changing landscape of computer technology in areas of interest to computer science students as they look for their first post baccalaureate position necessitates their exposure to multiple types of operating systems and network technology. The UTC Computer Science Department, as part of an engaged metropolitan university, needs to provide our students with experience that extends beyond Microsoft products running on wired networks. This project will augment both our masters and bachelors students with hands-on experience in three new technologies using UNIX-based Macintosh computers wireless networked with existing Windows Computers in our CS Design laboratory. Further, in order to insure a successful; start-up and on-going support, the project seeks funding for a graduate student to support the improved lab.

Goals and Objectives

The overall goal is to provide a more diverse computing environment for all computer science students. The main objective is to establish a robust UNIX laboratory that will enable students to develop an understanding of Open Systems that are typically based on UNIX platforms. Approximately 240 computer science students will use the UNIX/OPEN SYSTEMS LABORATORY.

A secondary objective is integrate Macintosh Computers running UNIX with the existing PCs that are running Windows based applications.

A third objective is to make this laboratory available to the members of the metropolitan technical community who need a neutral place to evaluate mixed hardware/software systems.

A fourth objective is to provide a meaningful work experience for the graduate student assistant who will support the integration of new hardware and software with existing equipment.

Method for Achieving Goals

CS faculty members, working in consultation with existing CECS support staff, will identify the necessary hardware and software configurations for the new computers and wireless network equipment. The CS Department Head, in consultation with Karl Fletcher, will identify key areas of responsibility for the graduate student assistant. The graduate student assistant will work with CECS support staff to setup and install the new equipment. Appropriate course offerings will be identified and scheduled to run in the upgraded lab as soon as the lab is ready to support such courses.

Evaluation Method

The completion of the installation will be evaluated by a demonstration of the capability of the new computers to share files and remote procedure calls with the existing PC based systems.

Faculty and student evaluations from classes offered in the improved laboratory will have a question added to assess the usefulness of the new equipment.

The performance of the new graduate student assistant will be performed by the supervisor of the CECS support staff.

Previous grant(s): N/A

Proposed location: Describe the proposed location of the equipment, software, etc.

The technical support personnel will be housed in CS Laboratory now located in EMCS 312

Requested Budget:

Summary of projected costs

Equipment (hardware and software)

a. ORiNOCO AP-2000b/g Wireless Access Point	\$520
b. Macintosh Poer Server, 17" monitor, Airport card Unlimited Server License Pre-installed	\$4,300
c. Macintosh eMac Computer with Airport Card and Superdirve 22 @ \$1,200 each	\$26,400
d. Software (est.)	\$3,780
Total for hardware and software	\$35,000

Graduate Student Tuition @ 6 hours/semester	\$3,252
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Graduate Student Stipend	\$8,720
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Total project one-time costs	\$35,000
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Estimated recurring costs per year	\$11,972
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Offsetting Revenue

Graduate Student Tuition paid to UTC	\$3,252
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Formula Funding Generated by GSA's @ \$7,747 each	\$7,747
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Subtotal of Offsetting Revenue	\$11,000
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Net Recurring Costs to UTC	\$972
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Identify the area(s) responsible for operating and maintaining the equipment.

CECS Technical Support Staff reporting to Karl Fletcher

Approval by Dean or Vice Chancellor: _____

Individual responsible to complete proposal if funded: Karl Fletcher_____

Priority established by Dean or Vice Chancellor: _____