IBM Faculty Partnership Nomination, submitted 04/06/2000
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DISCIPLINE: Internet Applications
AWARD CATEGORY CODE: Multimedia Applications

AREA OF TECHNICAL INTEREST: accessibility for people with disabilities; broadband media access; video on demand; video conferencing; quality of service

PROJECT DESCRIPTION:

This project is a continuation of the Gallaudet-IBM Video Showcase first funded in Fall 1998. In the past two years, we have successfully demonstrated the power of (a) the IBM Videocharger solution for delivering video on demand across campus and (b) the IBM ATM solution for broadband video conferencing and video on demand. We addressed many instructional issues related to video on demand and video conferencing for classes, but were not able to do off-campus video because of delays in getting a connection to Internet2. We also were not able to solve the accessibility issues for the Videocharger.

In the near future, Gallaudet will be connected to Internet2 through the MAX (Mid-Atlantic Crossroads) project. Also, we are getting close to having a solution for captioning both Quicktime and MPEG files. A third year of funding will allow us to complete these objectives.

PROJECT OBJECTIVES AND GOALS:

- conduct comprehensibility studies of sign language--both synchronous (conferencing) and asynchronous (on demand)--transmitted over broadband networks
- work with IBM engineers in making the Video Charger streaming video solution accessible to people with disabilities with closed captions and video descriptions
- facilitate linguistic studies of American Sign Language among researchers and students at different universities

LONG TERM IMPACT TO THE INFORMATION/COMPUTING INDUSTRY AND IBM:

Gallaudet University has more than 125 years experience working with people who rely extensively or solely on vision as a means of communication. We have much to offer the computing industry--in terms of both experience/expertise and need. Studies of sign language video, which has much higher demands than talking heads, will provide important data about the capacity of Internet2 to provide useful networked video solutions. The accessibility portion

http://academic.gallaudet.edu/LThehome.nsf/ID/0b...8e54852568b9004c56c3/$file/IBM_UPP_042000.html (1 of 2) [11/21/2007 11:02:22 PM]
of this project will also have a significant impact on the industry. As television captioning and sidewalk curb cuts have shown, accessibility aids created for people with disabilities often are useful for everyone. Also, it is important that those building Internet2 and other next generation solutions are proactive in addressing universal design considerations.

**CASH REQUESTED AND PLANNED USE:**

$40,000 Total

$10,000 Faculty Stipends
$5,000 Student Workers
$6,000 Travel (Internet2 Conferences, Meetings at Kent State and other Universities)
$6,500 Media Cleaner Power Suite (compression of Quicktime video for Videocharger streaming)
$700 RAID controller for NT-based Videocharger Server
$3,600 Media Creation and Captioning Software
$8,200 Maintenance on IBM Network Switches, RS/6000 F50, and SSA Subsystem

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Equipment required for this project should be discussed with your IBM technical colleague who supports this nomination. They are responsible for providing IBM equipment if required for a particular project. However, IBMers can apply for an IBM equipment award if this project has additional value to IBM beyond this specific project. Would you like to discuss an equipment award with your IBM technical colleague?  YES

We also need two media creation stations and additional disk storage for the NT-based Videocharger server.

Avid Xpress DV on IBM IntelliStation, 2 x $8,750 = $17,500

Ultrastar 36ZX, 3 x $969 = $2907