Date: September 3, 2008

To: Acting Executive Vice Chancellor Scott Waugh

From: Associate Vice Chancellor Jim Davis

Re: Progress Report on the TIER (Technology Infrastructure for Education and Research) Campus Networking Initiative - Formerly called the Repositioning Initiative

With principles and direction established in FY 06/07, the TIER (Technology Infrastructure for Education and Research) network initiative has produced significantly measurable and directional impact in FY 07/08. It has (1) established a cross-campus working group that is defining implementation specifications for the redesign of the campus network, (2) developed and demonstrated the framework for a new model of operational support and (3) progressed with deployment of a more consolidated network structure within several major campus areas. TIER is funded by a 16% slice of the Technology Infrastructure Fee. These funds have been used as matching funds on cross unit projects that meet Next Generation Network specifications and operate according to principles set out by TIER.

This work has proceeded this year through the Office of Information Technology under Karen Ribback’s project management leadership and Mike Van Norman’s architectural leadership but has involved a large collective effort by many within various units across campus, and within CTS and MCCS (Medical Center Computing Services). The ITPB through a TIER Functional Oversight Committee has provided the oversight on direction and principles. And, both the Office of Finance and Budget and the Office of Information Technology have provided oversight on the funding and management of these projects.

The combined efforts of TIER and its own projects along with other key network initiatives within the Medical Enterprise, Administration, Student Affairs and Murphy Hall coordinating with TIER are significant. The campus is moving toward an enterprise-level model with a more consolidated design which will result in substantial savings by reducing the expenditures needed to keep the network up-to-date and has produced a growing, critical mass of buy-in and support
Re: TIER Progress Report

for the directions that are now being pursued to form UCLA’s next generation enterprise network. Specific milestones include:

1. In terms of the overall vision, the campus has now progressed strongly since the 2005 network review in reconfiguring an estimated 60–70 independently operating edge networks (departments’ networks connected to the campus backbones) into coordinated, regionally-deployed and regionally-supported facilities and services that are connected to the CTS and Medical Enterprise backbones. Considerable network structural consolidation and support consolidation had already taken place within the largest units – namely, Medical Enterprise, Administration and Student Affairs. The TIER initiative has produced the configuration, security and operating principles that are being deployed in these unit initiatives; and the TIER and Murphy Hall projects are addressing cross-unit consolidation requirements and practices. At this point, well over half of the campus networks have been, or are being, upgraded and are moving into a more strongly coordinated network services architecture (since the External Campus Network Review in April 2005.)

2. With respect to the TIER projects, the following edge networks have moved into the new campus deployment model:

   • A Medical Sciences region is bringing Dentistry, Nursing, Public Health, the NPI/Semel Institute and some areas of the School of Medicine together with David Snow as regional network coordinator.
   • Several offices of the Libraries and the Office of Research Administration now located in Kinross have joined Administration’s region under Mark Bower.
   • The Chancellor’s office, Academic Affairs, Academic Senate and Student Affairs have integrated to form a second large administrative network region under Mitra Ashtari.
   • The Physical Sciences networks, particularly strong research-intensive networks, have come together into a single physical infrastructure under Max Kopelevich.
   • The CNSI building has successfully deployed and demonstrated how a single, high-performance research network infrastructure can be supported to meet the research needs of five different disciplinary areas with Chris Thomas as the network coordinator.

3. FY 07-08 equipment purchases for all initiatives were bundled under a coordinated effort and produced a leveraged savings of $356,000 compared to the purchases going forward separately (as had been done in the past.)

4. With Administration, the Medical Enterprise and Student Affairs having formed larger edge-network regions in themselves, the Chancellor’s Organization (a.k.a. COnet), Academic Affairs, the Senate, and Student Affairs have integrated as the initial phase of the Murphy Hall project to extend a campus network region roughly oriented toward faculty and student administrative services. The TIER and Murphy Hall Network initiative have themselves grown into cross-unit demonstrations of reconfiguring independently operated edge networks into coordinated, regionally deployed and
supported facilities/services that are connected to the CTS or Medical Enterprise backbones – physical facilities and staff support form an enterprise network operation.

5. As the campus has moved toward fewer edge networks, we have begun to see department network coordinators able to shift efforts toward local service needs, retaining the ability to be optimally responsive to end user network support and needs while there is consolidation of the physical layer of the network. This separation of services on the network and the operation of the physical network facilities is an important principle called service layering, which has proved especially important for the research areas.

6. Two important operating MOUs (memo of understanding) have been produced:

   a. Building on the TIER principles established by the ITPB Functional Oversight Committee, funding, operating, support and maintenance principles and agreements have been developed and combined into MOUs that participating units agree to.

      <http://www.oit.ucla.edu/tier/ucla_tier_program_funding_mou_sample.pdf>

   b. The technical and operational foundation of all initiatives is based on the network design, operational management and technical support specifications by a cross-campus next generation network (NGN) design team that are being vetted and documented at:

      <http://www.ucla.net/wiki>

Looking forward to FY 09-10, we are planning a new TIER RFP for additional cross-unit initiatives and are planning to consider the enterprise design, operation and support of campus wireless as a new TIER initiative.

Sincerely,

Jim Davis
Associate Vice Chancellor IT & CIO