

## **Information Technology Advisory Structure**

Walt Milligan, Chief Information Officer

February 1, 2007

The advisory structure described in this document has been developed with broad input from campus faculty, staff, and administration.

The structure consists of a main advisory body dubbed the Technology Leadership Council, as well as a number of committees that have been convened to address specific issues on campus. Committees may come and go as issues are identified and resolved.

Committee appointments will be initially for the 2006/2007 academic year. They may be renewed by mutual agreement for future years. Should the chair of one of the working committees change, the new chair will join the Technology Leadership Council.

Committee charges and memberships are addressed individually.

### ***Technology Leadership Council (TLC)***

This council will be the main strategic planning body for IT on campus, and will consider the immediate issue of IT organization on campus. This council will not be an advisory committee; it will have the ability to set up sub-committees to address issues that come up, and will have some decision-making ability.

#### Council Members:

Walt Milligan, CIO, ***Chair***

Scott Ackerman, Chair, Funding Model Committee

Jim Friendewey, Chair, Wireless Networking Committee

Pat Hopp, Chair, Software/Hardware Coordination Committee

Jarrold Karau, Director, IT Services

Robert Landsparger, Chair, Campus Standards and Security Committee

Mary Jane Lowney, Director, Administrative Information Services

Patty Lins, Director, Educational Technology Services

Linda Ott, Chair, Computer Science

Warren Perger, Professor, Electrical Engineering and Physics

Christopher Plummer, Chair, Classroom Technology Committee

Steve Seidel, Chair, Research Computing Committee

## *Funding Model Committee*

### Committee Members:

Scott Ackerman, Director, Central Engineering Computer Network, *Chair*  
Jim Oliver, Director, Instructional Technologies, Humanities  
Sue Laajala, Director, General and Auxiliary Accounting  
Brenda Helminen, Director, IT Telcom  
Tom Van Dam, Professor, Civil and Environmental Engineering  
Dave Kraus, Director, Center for Experimental Computation  
Kevin Raber, Senior System Administrator, Biological Sciences

### Committee Charge:

The Central Computing Funding Practices Review Task Force submitted a report to President Mroz on January 30, 2006 (commonly known as the “Van Dam” report). The report recommended elimination of IT-related chargebacks as much as possible. However, the report did not address the mechanisms for eliminating these chargebacks.

Related budget issues include how we fund student and faculty computing, and how we equitably support small academic departments.

This committee will benchmark other universities and study our own system to present a very clear picture of how we fund computing, and how other universities do it. Issues addressed should include student computing “basic access fees”, computing-related course fees, central funding, chargebacks, student “technology fees”, and others. Allison Hein has spent a fair amount of time studying the student computing funding model across campus, and she will be available as a resource. This study of our current practices and benchmark universities should be submitted as an interim report, with a target report date of February 1, 2007.

Next, the committee will explore different funding models that make sense for the future of Michigan Tech, with a target report date of April 1, 2007. This final report could conceivably present several possible funding models, discussing their strengths and weaknesses. These models could be discussed by the TLC or the entire group. The committee will be responsible for assessing the performance of the new models and ensuring continuous improvement.

## *Classroom Technology Committee*

### Committee Members:

Christopher Plummer, Assistant Professor, Fine Arts, *Chair*  
Scott Amos, Dean, School of Technology  
Dave Chard, Manager, Instructional Resources, Educational Technology Services  
Mike Meyer, Laboratory Coordinator, Physics  
Martyn Smith, Professor, Biomedical Engineering; Director, Online Learning  
Chuck Van Karsen, Associate Professor, ME-EM

### Committee Charge:

Classroom technology and “learning spaces” currently exist in a highly distributed network on campus. Some are maintained by ETS (but without a maintenance budget), while most are maintained by individual departments. Serious issues include: maintenance, amortization, and financial support for technology; access by faculty outside the department to the network, their home directories, and the technology in the classroom; adding technology to additional classrooms; consistency in technology from department to department (from faculty or user perspective).

Two AQIP (accreditation-related) committees currently exist that are studying some aspects of this problem. Chelley Vician is chairing a committee looking at the sustainability of classroom technology and learning spaces. Walt Milligan is chairing a committee on space databases. These committees can be leveraged to avoid re-inventing the wheel. This committee will address issues of more immediate importance to the campus.

The first task is to prepare an interim report that inventories our classroom space on campus in a complete and clear way. The report should include, for each room, what technology is present, how old it is, and who maintains it. This data surely exists but is not in one convenient, clear place. A target date for this interim report is February 1, 2007 or earlier.

The next task is to develop a strategic plan for maintaining classroom technology on campus. Issues to address include ongoing cost for maintenance and amortization, as well as organization of the classroom technology. (e.g. Should this function be centralized? If so, where does it fit in?) The committee should study costs in a serious manner but not worry about where the funding is going to come from. A target date for this second report is April 1, 2007.

## ***Wireless Networking Committee***

### Committee Members:

Jim Friendewey, Associate Dean, School of Business and Economics, ***Chair***  
Shane Crist, Senior System Administrator, Chemistry  
Shane Godmere, Senior Telecommunications Engineer, IT Telcom  
Justin Izzard, System Administrator, System Administration Services  
Josh Myles, System Administrator, Central Engineering Computer Network

### Committee Charge:

Similar to classroom technology, wireless on campus is highly distributed, with some access points supported by Telcom and others supported by individual departments or network clusters. Campus wireless coverage is (by fraction of space) far below that of other campuses. Students expect wireless coverage, and this will become a recruiting and retention problem if it is not fixed. On the other hand, some faculty members are not in favor of wireless in the classroom because students will be surfing the web during lecture. Other faculty members are demanding wireless in the classroom so they can do interactive computer-based learning.

The first task is to come up with a clear, concise picture of the current state of wireless coverage. What areas are covered, and who is maintaining/paying for the coverage? An interim report summarizing this would be very helpful, with a target date of February 1, 2007.

The next task is to propose the future of wireless networking at Michigan Tech. Questions that have been raised include, but are not limited to, the following. Should we investigate newer technologies? Should all wireless be centrally administered? If not, how can it be better coordinated? Should the wireless network be secure? What are the anticipated costs of new coverage and maintenance of the existing and new hardware? What areas should be covered that are not currently? While a clear picture of costs should be a goal, the committee should not address where the funding is going to come from. A target date for this report is April 1, 2007. Student and faculty input will be absolutely critical for a credible report.

## *Campus Computing Standards and Security Committee*

### Committee Members:

Robert Landsparger, Director, East Engineering Computer Network, *Chair*  
Dan deBeaubien, Director, IT Distributed Computing Services  
Javier Fernandez, System Administrator, West Engineering Computer Network  
Kent Frazier, System Administrator, System Administration Services  
Amy Hughes, Internal Auditor  
Pat Krogel, System Administrator, Center for Experimental Computation  
Todd Piket, Senior Programmer/Analyst, Distributed Computing Systems

### Committee Charge:

Authentication and authorization are not uniform across campus. There are several major advantages to a unified campus authentication and authorization system, including active directory. This function could be automated, pushing and receiving data from Banner, similar to the authorization system currently in use in the College of Engineering ("The Abyss"). Advantages would include: the ability for students taking courses in different department to automatically be given the proper privileges; the ability for faculty, staff and students to get their home directories and Windows environment no matter where they log in; the ability to automatically and promptly delete user privileges should they be lost (for example students dropping out of school); and finally, it sets the groundwork for universal access if we choose to grant it at some time in the future, and it would facilitate implementation of a portal.

Privacy and security of campus and personal data are also huge issues. Some security issues are simply results of system administration practices including patching networked machines in a timely manner. Others have not been addressed on campus before, for example, what happens if a university PDA or laptop is lost or stolen? Should our data on mobile devices be encrypted? What policies do we have for protecting personal data? What campus policies should we implement and enforce regarding security of networked machines?

The first task is to prepare an interim report describing the current state of affairs for authentication and authorization on campus, as well as a survey of our current security/privacy practices and vulnerabilities. A target date of February 1, 2007, is proposed for this interim report.

The second task is to come up with a strategic plan for campus authentication, authorization, security and privacy. This is a huge task, so it may not be reasonable to accomplish this all by April 1. Identity management will also be a topic of interest. However, a report would be very helpful on April 1, 2007, which summarizes the issues that have been clarified and those that remain to be studied.

## *Campus-Wide Software and Hardware Coordination Committee*

### Committee Members:

Pat Hopp, Senior System Administrator, System Administration Services, ***Chair***  
Steve Camps, Senior System Analyst, Distributed Computing Services  
Judy Foreman, Bookstore Specialist, Campus Store  
Mike Hyslop, Systems Analyst, Forest Resources and Environmental Science  
Ken Palosaari, System Administrator, East Engineering Computer Network

### Committee Charge:

There are two related and critical issues that this committee is being asked to address. First, how can we better coordinate our licensing and purchases to save money and increase access? Second, how do we pay for research computing, including shared software licenses and sharing of computational hardware capability?

The first task is to prepare a report summarizing the current state of software licensing on campus. Who has what, who is paying for it, and how much does it cost? Pat Hopp already has much of this data from the survey work done in advance of the MTRI acquisition. A target date for this report is February 1, 2007. Included in this interim report could be a discussion of issues related to research computation and a survey of the available resources, along with benchmark information about how other campuses pay for research computing.

The next task is to propose a sensible campus model for better coordinating our purchases, site licenses, and hardware. If the Campus Computing Standards and Security Committee is successful at proposing a uniform campus model for authorization, this would facilitate sharing resources across multiple departments, so some coordination with this committee would be appropriate.

A proposal for how to pay for and share research computing, within the limits of our audit standards, will also be expected. Coordination with the Funding Model Committee would also be helpful for the research computing aspect of this committee charge.

One or two reports, as the committee deems appropriate, should be prepared with a target deadline of April 1, 2007.

## ***Research Computing Committee***

### Committee Members:

Steve Seidel, Associate Professor, Computer Science, ***Chair***  
Don Beck, Professor, Physics  
Spandan Maiti, Assistant Professor, Mechanical Engineering-Engineering Mechanics  
Mary Peed, Director, West Engineering Computer Network  
Julie Seppala, Director, Research Accounting

### Committee Charge:

There are several pressing issues that hinder our ability to conduct computation-based research at Michigan Tech.

- How do we purchase interdisciplinary research software that is shared across department boundaries, now that E-accounts cannot be direct-billed for these charges unless there are exceptional circumstances?
- How do we share or bill unused computing cycles across departmental boundaries?
- Can we utilize the unused computing cycles in the student laboratories when they are mostly vacant?
- How do we fund high performance computing in a way that optimizes the campus resources?
- Should there be a campus-wide high performance computation effort and facility? If so, how should it be funded and administered?

A target deadline of April 1, 2007 is set for a report summarizing progress on these issues and recommendations for further action.