Report to the University Planning Council Programs and Resources Committee

Concerning the Activities of the UPC Information Technology Committee

April 6, 2001

Michael Dieckmann, Chair, UPC-IT Committee

From the UPC Information Technology Committee charter:

PURPOSE
To recommend and review goals, objectives, and action plans related to the use of information technology resources and the development of the University's information technology infrastructure. Specific Partnership Strategic Plan Goal responsibilities include Goal A, B.

SPECIFIC RESPONSIBILITIES
1. Review divisional priorities for the use of information technology resources as identified in the annual divisional planning process, and make recommendations for specific goals, objectives, and action plans in support of the University's Partnership Strategic Plan.

2. Monitor and make recommendations for maintaining the quality and effectiveness of University information technology resources.

3. Review, on an annual basis, the status of information technology resources development with respect to objectives established in the University's Strategic Plan, and make recommendations for the continuance or modification of the objectives.

4. Review annually the strategic plan of the information Technology Services department, and the University Technology Plan.

5. Recommend and review University policy on matters relating to information technology resources.

Major activity: Defining University priorities for information technology; issuing funding proposals related to those priorities; and monitoring the ongoing status of achieving those priorities.

Overlapping membership with the Programs and Resources Committee:
- Dr. Wesley Little
- Dr. Jerry Norris
- Dr. Ed Ranelli
- Roger Rowe
- Dr. Martha Saunders
- Aaron Wade
**Chair’s Goals for 2001:**

- Establish principles for prioritizing technology needs.
- Establish a small set of high-priority targets for near-future accomplishment.
- Increase awareness of looming “crises” in information technology.
- Keep the Committee well-informed of the priorities and activities of Information Technology Services (ITS).

### Status of 1999-2000 and 2000-2001 Information Technology Priorities

<table>
<thead>
<tr>
<th>Item</th>
<th>Completed</th>
<th>Nearing Completion</th>
<th>Significant Progress</th>
<th>Ongoing</th>
<th>Unresolved</th>
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<tbody>
<tr>
<td><strong>2000-2001 Priorities:</strong></td>
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<tr>
<td>Technology equipping classrooms.</td>
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<tr>
<td>Continuing to improve the data network and Internet connectivity.</td>
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<tr>
<td>Automated student services.</td>
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<td>Improving local computing support.</td>
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<td>Support the technology needs of students with alternative needs.</td>
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<tr>
<td>Acquire a University site license for Adobe Acrobat.</td>
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<td>Provide better support for Macintosh computer users.</td>
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<td>Encourage student computer ownership.</td>
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<td><strong>1999-2000 Priorities:</strong></td>
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<tr>
<td>Deploy web-based course registration.</td>
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<td>Deploy web-based admissions application.</td>
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<td>Continue COMPASS development.</td>
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<td>Insure all new classroom construction and renovation includes technology.</td>
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<td>Develop comprehensive plan for classroom technology improvement.</td>
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<tr>
<td>Insure all new construction or renovation includes full cost of networking.</td>
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<td>Develop multi-year plan for expansion of the data network.</td>
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<td>Provide network connectivity to student residence halls.</td>
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<td>Develop and fund comprehensive plan for local computing support.</td>
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<td>Begin planning for additional videoconferencing studios.</td>
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<td>Increase connectivity to the University’s videoconferencing network.</td>
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<td>Develop data warehouse.</td>
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<td>Develop information systems for academic department chairs.</td>
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1 Cost, in excess of $50K annually, determined to be too excessive. ITS is investigating other solutions.
Looming IT Crises

**Network infrastructure.** On the Pensacola campus, the University's network backbone infrastructure consists of approximately 80 building hubs, of which only a dozen are operating at switched 100 Mbps connectivity. Thirteen buildings have seventy or more users sharing a non-switched 10 Mbps Ethernet hub infrastructure: Buildings 74, 76, 79 (Computer Science wing), 77, 53, 41, 70, 52, 18, 50, 36, 86, 85. (Listed in order from worst infrastructure to best.) Sixteen buildings have infrastructures just slightly better than these worst cases. The cost of switch upgrades for the first thirteen buildings alone will exceed $.5 million.

Further, the University should be planning now for migrating the network backbone to gigabit Ethernet (1000 Mbps), which would be the next upgrade level of backbone bandwidth. However, this requires single-mode fiber optic cabling between buildings, of which the University fiber plant has almost none. The cost of upgrading the fiber plant has yet to be estimated, but will run to several million dollars.

The Fort Walton Beach campus network (consisting of seven main switches), while generally in better shape than the Pensacola network, requires some core switch upgrades as well. Further, inter-campus circuits between the Pensacola campus, the Fort Walton Beach campus, and other branch sites also require upgrading, which incurs ongoing annual operating costs for the circuits.

**Sustainable life-cycle funding models for information technology.** Most technology purchases at UWF still occur from non-recurring funding sources. In most cases, the up-front purchase price is funded, but not ongoing operation and maintenance costs, nor life-cycle replacement costs. Thus, we lurch from one funding crisis to the next, and find it impossible to sustain consistent levels of technology across the University; rather, technology is unevenly distributed between those receiving the most recent upgrades and those suffering from the most outmoded equipment. Information technology costs today are annual operating expenses, not one-time special investments. Forward-looking Universities are migrating their technology funding models to renewable life-cycle-based investment plans. Until UWF can accomplish such a business model, we will continue to lurch from one technology crisis to the next.

**Funding technology services for students.** Students at UWF, like most universities, receive a host of technology services at bargain rates. All UWF students have access to dial-in Internet service that would cost at least $20/month from commercial providers. Residence hall students receive network service via ResNet that would cost $40/month or more in their homes. Application software can be made available to students at literally 1/10 to 1/100 the cost of commercial licenses. These and a host of other technology services can be provided to students at amazingly cheap per-student rates; yet, UWF does not have a mechanism such as a technology fee to pass these costs on to students who would be happy to pay reasonable rates for such valuable services. Our inability to have students share in these costs severely limits our ability to provide such service options to students. As just one such example, the Microsoft Campus Agreement can be extended to students for as little as $18/student annually; yet, without a mechanism to assess students a fee for technology services, it is not feasible for the University to absorb these licensing costs.
Significant IT Problems

While perhaps not yet at the level of “crises,” these issues remain crucial to the strategic use of information technology to further the University’s core mission:

**Putting access to information technology resources where it matters most to the University – in the hands of students and faculty, in classrooms and other academic spaces, accessible from their homes, and in the “common spaces” of the University.** The University’s most strategic investments in information technology remain those that provide the most direct benefits to our core educational mission. Thus, we must struggle to continue making information technology services and resources accessible to students and faculty engaged in the core teaching, learning, and research activities of the institution. Most technologically-leading universities are pursuing those imperatives through initiatives such as the following:

- Ensuring that all faculty have powerful and up-to-date laptop computers.
- Ensuring that all classrooms, labs, and learning spaces are network-accessible and technology-equipped.
- Providing for the modernization of computer lab facilities.
- Ensuring that software site-licensing and other mechanisms make required software tools universally available.
- Encouraging or requiring student computer ownership.
- Ensuring that information technology is accessible to those with disabilities and special needs.
- Extending the reach of the network as broadly as possible, including using wireless technologies to cover large expanses of common University spaces and supporting the use of portable computing devices.
- Making electronic information resources easily accessible both on campus and off.

**Respond to information technology requirements and changes imposed from outside the University, while still managing to address strategic University priorities.** Many technology requirements are imposed on us from the outside. As just one example, we are now forced to change our financial management information systems because of changes in educational governance in the State of Florida. These costly imperatives often detract from efforts that are more strategically important to the University – for example, the administrative systems conversion effort will detract from our efforts to deploy document imaging technology because of the drain on technical staff resources. We must struggle to find ways to maintain progress on items of true importance to the University while responding to external mandates.

**Protect and preserve the University’s information and information technology assets.** The threats to our information technology resources and infrastructure multiply each year, whether from computer viruses, hacker attacks, environmental disasters, or equipment malfunctions. Each year, more resources in terms of both staff effort and money must be expended on protection, security, and ensured survivability of our information technology assets. As the information technology infrastructure becomes ever more crucial to the ongoing operations of the University, preservation of these resources becomes more vital to the institution, and investments and efforts to ensure this security must increase.
Chief Information Technology Officer

“Hot Issues”

- Responding to administrative information systems changes imposed by the Florida Educational Governance Transition.
  - Implementing new financial systems for UWF.
  - Preparing to conduct full payroll operations at UWF.
  - Future of the Payroll System Consortium.
  - Becoming more independent of the Northwest Regional Data Center.

- Improve the University's data network infrastructure to full gigabit service on the backbone and switched 100 mbps service to the desktop, and improve wide-area network connections to branch campuses and centers.

- Technology-equip and network-equip all classrooms, and provide all faculty with powerful notebook computers.

- Establish a culture of life-cycle funding for technology, and improve the process for acquisition of information technology resources.

- Establish a student technology fee to fund IT services provided to all UWF students.
  - Electronic mail licensing.
  - Extend Microsoft Campus Agreement to students.
  - Support printing in open-access computer labs.
  - Support other services of open-access computer labs.
  - Support adequate dial-in service.
  - Internet access.

- Establish a comprehensive University plan for student computer labs, and standardize open-access computer labs.

- Improve the reliability and scalability of enterprise information services.
  - Electronic mail for students and faculty/staff.
  - Web sites.
  - File storage services and ArgoNet environment.

- Equip the University with a robust electronic course delivery and distributed learning platform, highly integrated with the ArgoNet environment, using Prometheus.

- Equip UWF with a robust E-Business environment.
  - Establish an enterprise-wide messaging service, with electronic forms capability.
  - Complete Report Navigator project (E-Paper phase 1).
  - Establish Document Imaging capability (E-Paper phase 2).
  - Establish electronic signature authority and workflow capability (E-Paper phase 3).

- Continue to deploy E-Services to UWF prospective students, current students, faculty, and staff using NAUTICAL, Crew's Control, COMPASS, LightHouse, and FirstMate.