UNIVERSITY OF MINNESOTA

Office of Information Technology

What's Inside

UMN

Information Technology

Gopher GigaNet: What Does it Mean to Me and the U?

Does Gopher GigaNet mean...

Blazing fast downloads? Voice over IP? Video on demand? Well, maybe. If you use a computer on the Twin Cities campus, you are probably aware that Network and Telecommunications Services (NTS) is upgrading the data network. The upgrade itself is going smoothly. We upgraded all of the St. Paul campus and most of the East Bank campus south of Washington Avenue before Christmas. The rest of the campus will be finished sometime this spring.

Will the network upgrade change computing as you know it at the University of Minnesota? That depends on how you use the network. Once the new network (a.k.a. the Gopher GigaNet) is in place, NTS will deliver 10/100/1000 Mbps service to the switch port. That means that under ideal conditions and with the appropriate hardware and wiring, you'll be able to connect to the network at speeds approaching one gigabit per second.

Hardware and wiring

How can you take advantage of the GigaNet? For starters, you need to make sure you're using a 10/100 /1000 Network Interface Card
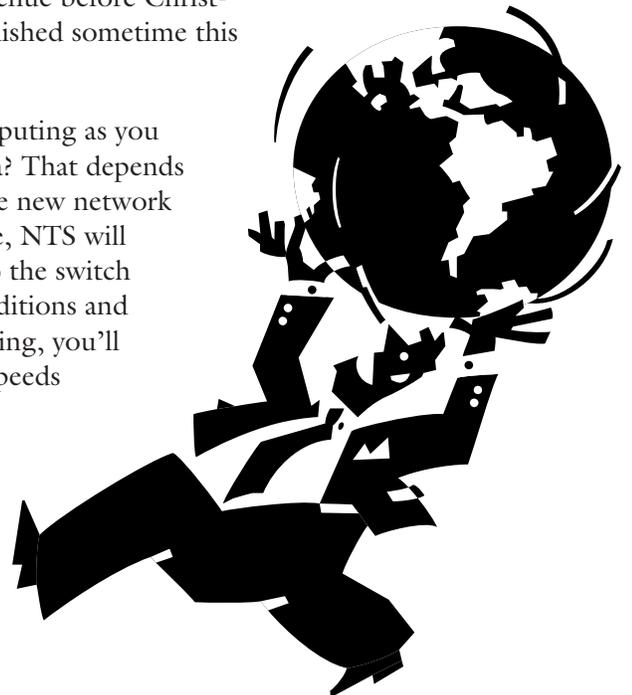
Q: Will the network upgrade change computing as you know it at the U?

A: That depends on how you use the network.

(NIC). You also need to be in a building with up-to-date wiring. Just over half of the buildings on campus can already support the GigaNet, and many departments are upgrading their wiring to take full advantage of this increase in speed.

A thousand uses for a billion bits (per second)

To celebrate the new network, you may want to go to the Academic and Distributed Computing Services (ADCS) web site and download the antivirus software that you should be using. There is no cost to you for this software: http://www.umn.edu/adcs/software /security/.

Whether your building has been switched over to the GigaNet or not, you'll get an idea of how network traffic can vary depending on your connection to the network, the originating web site's connection, and how many other people are clogging up the pipes downloading and uploading things.

What else will you be able to do with a gigabit connection? Again, that depends on how and when you use the Internet. If you are downloading from a web site with a slower connection, its slower speed will increase your download time. If you are moving large research files over equally modern networks, you should see a substantial improvement in transfer speeds.

Some users have told us they would like to have multiple gigabit service to their desktops. If you are one of these power users, please contact NTS to explore your options.

Work groups and segmentation

The GigaNet will also make it easier for us to network computers across the Twin Cities campus. If you work with colleagues in other buildings, you will be able to organize your LAN (Local Area Network) according to logical work groups. We will begin this segmentation after the network upgrade is complete.

Better security

The new network is for more than just surfing the net and wading through the forefront of research and academics. It will also provide the means to increase data security at the University. Many users are charged with keeping information private, and the new network will make it easier to set up departmental firewalls to do this.

If your department needs to comply with federal mandates such as HIPAA (the Health Insurance Portability and Accountability Act) or GLB (Gramm, Leech, Bliley), please contact NTS and the Office of Information Technology. You can start by calling 1-HELP.

Proactively detects errors

We're also using new network technology to keep the GigaNet running smoothly. In all, the network upgrade has gone well. The rate of trouble reports has been approximately 5% overall; 36% of these reported problems were initiated by NTS staff using the GigaNet's network management system, which proactively detects errors on the network. (If you have any problems with your new connection, call 1-HELP to report them.)

To take advantage of the GigaNet you need the right Network Interface Card and your building needs up-to-date wiring.

The future of Gopher GigaNet

We expect the new network to last up to five years. In that time, new technologies that take advantage of gigabit service will arise and eventually make it obsolete. But before that happens, we are looking into the possibility of using the GigaNet to deliver voice and video over the Internet. In the meantime, we hope you'll be able to make use of the network in your studies and your research.

Check out the latest on the network upgrade at http://www.umn.edu/nts/networkupgrade.

■ Joshua Welsh, Networking and Telecommunication Services

A Governance Center for IT

What is EAS doing?

During the course of January 2005, EAS-OIT will begin to deploy IT Governance Center, a new platform of applications from Mercury. Mercury's IT Governance Center provides an integrated and comprehensive transaction system for IT.

IT Governance

IT Governance represents a significant upgrade to the existing tools and capabilities already utilized within the Quality Assurance function and leveraged by the Project Management Office.

The implementation of IT Governance will allow IT managers to digitize and automate OIT business processes from demand (work requests) through production (change control). There are eight component offerings including those shown below.

Management offerings

- Demand Management: consolidate and manage the business demands and requests placed on IT.

- Portfolio Management: manage IT portfolios in real-time.

- Program Management: digitize complex Program Management Office (PMO) processes.

- Project Management: enable collaborative project management.

- Resource Management: manage resources for strategic projects as well as day-to-day activities.

- Financial Management: align IT budgets, activities, and costs.

IT Governance will enable OIT to realize the "holy grail:" a single interface to capture all work requests and provide complete status and resource reporting for all Enterprise sponsors and stakeholders.

- Change Management: automate software changes across all applications, systems, and lifecycle phases.

- Time Management: manage time and work, including project tasks and day-to-day activities.

Real-time visibility for all stakeholders

Together with the IT Governance foundation, these components will provide real-time visibility for all stakeholders into OIT priorities, spending, resources, projects, trends, status, and key deliverables via the integrated dashboard. Ultimately, this framework will help to ensure that the decisions made about IT issues are in fact aligned with the overall business strategy and culture of the enterprise.

IT Governance will provide real-time visibility and control over OIT initiatives and operations to increase productivity, lower costs, enhance OIT alignment with business priorities, and deliver business capabilities in decreasing time-spans.

How did we get here?

With the implementation of the new Financials system from PeopleSoft, there is an acute need to develop or buy a change control application that will support the

necessary migrations of patches, modifications and tools inherent to the support of PeopleSoft. Upon the analysis of the various software packages available, including the potential re-write of the existing TAPS (Technical Application Planning System) application, it was concluded that the greatest return on investment and speed-to-market would be achieved with the Mercury IT Governance Center.

Beyond PeopleSoft

Beyond just PeopleSoft change control, IT Governance will enable OIT to realize the ultimate "holy grail' of a single interface to capture all work requests and provide complete status and resource reporting for all Enterprise sponsors and stakeholders.

Additionally, IT Governance will allow OIT and its customers to extend the existing Quality Assurance processes and controls to all facets of IT delivery,

providing real-time visibility and control over all initiatives and operations.

More about Mercury's IT Governance

- IT Governance:
  http://www.mercury.com/us/business-technology-optimization/it-governance/

- Mercury press release:
  http://www.mercury.com/us/company/pr/press-releases/092203it-gov-center.html

- Information Week white paper:
  http://whitepapers.informationweek.com/detail/PROD/1100857723_73.html

▮ Mark Reiff, OIT, Enterprise Applications Maintenance
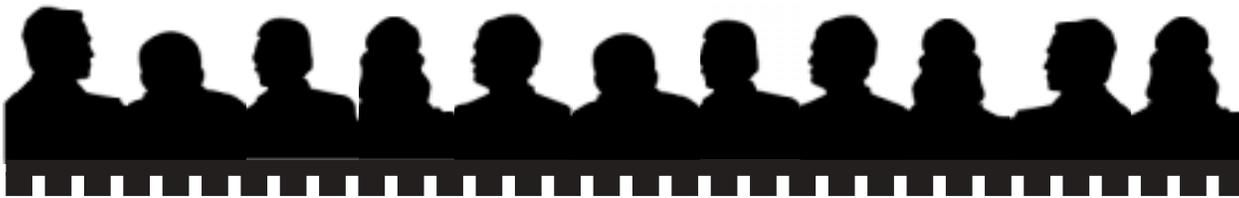
TEL Seminars: Spring 2005

Sponsors

The TEL Seminar Series is sponsored by the Office of Information Technology (OIT).

The seminars are organized by Academic and Distributed Computing Services (ADCS) and the Digital Media Center (DMC).

Sessions are co-sponsored by the Office of the Senior Vice President for Academic Affairs and Provost (OSVPP) and collegiate units.

TEL Seminars
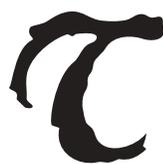
The Technology-Enhanced Learning (TEL) Seminar Series continues this spring. Univer-sity instructors and others will present their TEL work at a series of free seminars featur-ing a moderator and panel discussing broad technology and pedagogy issues related to specific topics. There is no charge for these events and they are open to the public.

Additional Resources

Digital Media Center staff members will publish background information, citations to research literature, and information about campus resources related to the session topic prior to each seminar. After the seminar, we will add a summary of the session, an expanded bibliography, and profiles of the panelists' related projects. See the *Spotlight Issues* section of our site at http://dmc.umn.edu/spotlight/.

Spring 2005: TEL Seminar Schedule

Date/Time/Place	Topic	Participants
February 1, 2005 Noon to 1:30 p.m. 274 McNeal Hall St. Paul, Twin Cities campus	**TEL Strategies in Large-Enrollment Classes** The panelists will discuss how they use technology to promote active learning, assess learning, and obtain feedback from students during class.	**Moderator:** • Robin Wright, biological sciences, Twin Cities campus **Panelists:** • Kate Briggs, psychology • Mary Jo Magnes, history • Laura Molgaard, veterinary medicine • Deb Olson, environmental health science • Ann Waltner, history All panelists are from the Twin Cities campus.
March 2, 2005 Noon to 1:30 p.m. 402 Walter Library East Bank, Twin Cities campus	**Using the MyU Portal: Building Community, Serving Students, and Supporting Faculty** The panelists will discuss how they have used the portal as an intranet for extension educators, to build community for the class of 2008, to deliver programming in greater Minnesota, and to support faculty teaching and research.	**Moderator:** • Scott Wilson-Barnard, DMC/OSVPP, Twin Cities campus **Panelists:** • Andy Howe, orientation/first-year programs • Rae Montgomery, extension • Bob Rubinyi, extension • Matt Sumera, University Relations/OSVPP All panelists are from the Twin Cities campus.
April 7, 2005 Noon to 1:30 p.m. 274 McNeal Hall St. Paul, Twin Cities campus	**TEL Faculty Development and Support** The panelists will discuss collegiate/departmental faculty TEL support and development strategies.	**Moderator:** • Brad Cohen, DMC, Twin Cities campus **Panelists:** • Paul Brady/Tonu Mikk, agricultural, food, and environmental sciences • Brad Hokanson, design/housing/apparel • Carl Rose/Jenni Swenson, soil/water/climate • Other panelists to be announced. All panelists are from the Twin Cities campus.
May 3, 2005 Noon to 1:30 p.m. 402 Walter Library East Bank, Twin Cities campus	**Faculty TEL Leadership** DMC faculty fellows will discuss their departments' TEL needs and the fall 2005 events they are planning in response.	**Moderator:** • Linda Jorn, DMC, Twin Cities campus **Panelists:** • Lee-Ann Kastman Breuch, rhetoric • Angela Carlson-Lombardi, Spanish/Portuguese • Simon Hooper, curriculum/instruction • Donna Pearson, work/community/family education • Edward Ratner, internal medicine All panelists are from the Twin Cities campus.

Engineering Village 2

Your gateway to information for Computing, Physics, and Engineering

Kristi Jensen, University Libraries, http://www.lib.umn.edu

The deep web

The networked information environment is a complex, difficult space to navigate today. Some novice researchers find information with standard search engines like Google, AltaVista, or HotBot. General search engines like these, however, while often valuable for fact finding, lack the selectivity and robust abilities of "deep web" resources.

The deep web is an important concept for academic researchers today because much of the content developed from academic research is only available in this typically hidden sphere. The deep web is defined simply as content that standard search engines can't access. Deep web content is often contained in a database and available only via a separate search interface. To guarantee that research is both reliable and comprehensive, it is important to understand the limits of standard web search engines and to identify and utilize appropriate deep web resources on a particular topic.

- *The deep web contains content that standard*
- *search engines can't access. Often, deep web*
- *content is contained in a database and avail-*
- *able only via a separate search interface.*

Luckily for researchers at the University of Minnesota, the University Libraries provides access to many deep web resources covering topics in a wide array of subject areas. One of the major advantages of accessing information via a proprietary resource (one that we pay for and isn't freely available online) is the added value researchers can often expect to find. Typical added value features include:

- the ability to search multiple databases at one time,
- direct links to online full text journal literature,
- comprehensive coverage of the journal and conference literature worldwide,
- descriptive abstracts and added keywords that enhance searching and retrieval,
- alert services to notify researchers when new articles are available on a particular topic.

Engineering Village 2

Engineering Village 2 (EV2), formerly Engineering Village, is the latest release of one of the most important deep web resources for scholars in the fields of computing, physics, and engineering. Several features of EV2 were devised to enhance and simplify the research process.

Breadth and Depth

One of EV2's new features is the ability to search two major engineering resources at the same time.

■ Compendex, the premier index covering engineering topics, contains over 9.5 million records and covers engineering literature from around the world. The University Libraries recently acquired the backfile for Compendex and coverage now includes literature from 1884 to the present.

■ Inspec, a more specialized resource covering electrical engineering, computing and control, physics, and information technology, contains over 7.5 million records from 1969 to the present.

EV2 also allows for the easy removal of duplicate records from search results. When searching in both Compendex and Inspec, the search results list includes a "Remove Duplicates" button at the top of each page. One click removes duplicate items so that researchers don't have to waste time investigating the same item more than once.

Searching

The search interface for EV2 has been designed to support both novice and sophisticated researchers. The Quick Search for new or less experienced searchers provides basic keyword searching across the databases in all fields. Quick Search also allows for more robust and complex search strategies, by providing simple drop-down boxes which can limit a search to a specific field – for example, the author or abstract fields. Other limits available in Quick Search include document types, language, and data, among others. (See Figure 1.)

Saving results

After mastering the search interface, EV2 users can use numerous options to save their search results. Traditional options, like printing and e-mailing results, are available. However, EV2 also provides other useful options. Researchers can create a customized account that allows them to save information directly to folders in EV2. Students using a computer in the library or a computer lab may find this particularly useful; since, once the information is saved, it is available to them from any computer they use to access EV2.

Another option is to download the results and import them into Refworks, a citation management program available to the U of M community from the University Libraries. EV2 provides the option to download citations directly into Refworks. Refworks, in turn, allows you to easily cite and format these resources in a research paper or bibliography. For more information about Refworks visit the Library web site at http://www.lib.umn.edu/refworks/.

Saving searches and creating e-mail alerts

As mentioned above, EV2 allows users to create a customized account to facilitate the storage of interesting citations. Once a customized account has been established, other valuable, personalized features are available as well. Researchers can easily save search histories that can be re-executed or modified in the future. Saved searches can also be utilized to generate e-mail alerts notifying a researcher about new, pertinent resources in her area of interest (as described in the search strategy).

Want to learn more?

Engineering Village 2 offers even more advanced features to help researchers more directly access pertinent information in areas related to engineering and the physical sciences. Examples that can help refine search strategies include controlled search terms, searchable thesauri, and several browseable indexes. To help researchers learn more about using these advanced features, the Libraries offers advanced search classes. The next EV2 class will be held soon. To learn more, stop by the reference desk in room 206 Walter or register at http://www.lib.umn.edu/registration.

■ Communications about this column should be addressed to Kristi Jensen, Physics and Astronomy Librarian, Science and Engineering Library, Walter Library, East Bank

Figure 1:

Quick Search Screen

▼ Help

Computer Misuse or Abuse (also see Procedure 2.8.1.1)
- Emergency Network Help Line 612-625-0006
- Non-emergency, e.g., spamming .... abuse@umn.edu

1–HELP 612-301-4357

Dial 1-HELP. Listen to the voice menu list of options.
Press the number of your desired option.
- Technology Help.................. www.umn.edu/adcs/help

▼ Modem pool for active UM accounts

Internet/PPP: up to 53kps if v.90................ 612-627-4250

▼ Quick Guide

- Internet/Email account options .... www.umn.edu/validate
- Office of Information Technology ....www.umn.edu/oit
- One Stop Services .... onestop.umn.edu
- Techmart .... www.techmart.umn.edu
- Computer Accommodation Program .... cap.umn.edu
- University Computer Services .... www.umn.edu/ucs
- U Libraries (MNCAT/LUMINA) ....www.lib.umn.edu
- UM News Server ....news.umn.edu

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