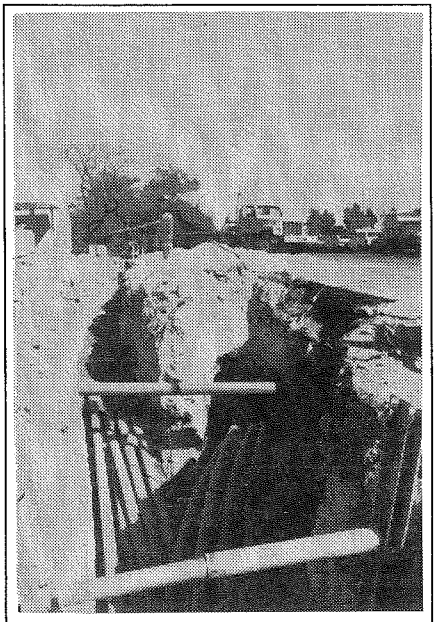
Telecom News

University Telecommunications
The University of Arizona

April 1989
Volume 1, Number 1

Infrastructure for New Telecommunications System Under Way



TIPS Conduit Construction on Helen St. Conduits are pipes that house the copper and fiber optic cables for the UA's new telecommunications system.

The street closures and digging of trenches that you see on campus represent a major component of the TIPS project, the construction and installation of the communications infrastructure for the University's new telecommunications system. Fishel, a subcontractor of ComQuest, is placing the conduits (pipes) which will house the copper and fiber optic cables used to provide voice and data connectivity to all buildings on campus. The construction is being overseen by the University's Facilities, Design, and Construction department.

The conduit system will extend communications north of Speedway to the Arizona Health Sciences Center (AHSC) and to other areas currently not served on campus. In fact, the new communications infrastructure is designed to support UA buildings that are planned for the mid to late 1990's.

Expected to be completed in June 1989, the conduit construction will be done in the following four phases or areas around campus:

Phase I - Mountain and Highland Aves. near the Computer Center (completed).

Phase II - North of Speedway on Helen St. and Cherry Ave. by the AHSC (currently under construction).

Phase III - West side of campus from North Campus Dr. to South Campus Dr.

Phase IV - South side of campus by the West Stadium and across Sixth St.

When the conduit construction is complete, approximately 240 miles of conduit will have been placed—enough conduit to go from Tucson to Phoenix and back! The conduit will house about 500 miles of copper and fiber optic cables which will link the University's 117 buildings.

The fiber optic cable system will support future high-speed data services to 77 buildings. Four buildings will serve as wire centers for the fiber optic cable system: Administration, AHSC Basic Sciences, Computer Center, and Gould-Simpson. For a list of buildings served by these wire centers, refer to the *Fiber Optic Cable Distribution Plan* available by calling 621-TIPS.

The construction of the new conduit system may seem like a major inconvenience today, but the long-term benefits will be worth the disruptions. This new telecommunications infrastructure will significantly improve the way the University communicates and help us move forward as one of the top research institutions in the country.

Welcome

Welcome to the University Telecommunications newsletter. This newsletter is in response to requests and suggestions we have received from TIPS Telecommunications Departmental Coordinators.

Through *Telecom News*, you will be kept informed of Telecommunications Improvement Project Services (TIPS) activities. This publication will also provide pertinent information on University Telecommunications developments, facilities, and services.

For more information on TIPS publications, see *What's TIPS* on page 3 or call 621-TIPS.

Inside:

AHSC Phone User's Perspective High Priority

[Two telecommunications systems are being installed in the Arizona Health Sciences Center (AHSC) campus area. The University Medical Center (UMC) is installing its own system as the UA is implementing TIPS. On February 21, the University Telecommunications department and COM's Office of Medical Computing held a briefing for UA Telecommunications Departmental Coordinators to explain the differences between the two systems and how they will affect phone users.]

"I've heard a rumor that all of you in the College of Medicine will soon have two telephones on your desks," said University Telecommunications director Bob Leach in a briefing for UA Telecommunications Departmental Coordinators (TDC's) on February 21. "But that's not true," followed Leach.

The reason people fear a second phone might drop on their desks, Leach explained, is that while UMC will soon run its own phone system, COM employees in the UA system will continue to have to call those in the UMC system.

The situation seems further complicated, continued Leach, because a phone user at AHSC may be simultaneously an employee of COM, UMC, and even of University Physicians.

"From the point of view of the user, it begins to sound very complex, and technically, it is," said Leach. "But the technology will be invisible to the user," assured Leach, "and you will be able to easily dial the other system from your one phone."

Leach said that he is a member of a UA-UMC coordination team that meets at least once a week to resolve user and technical issues about the two telecommunications systems. "And we're here today to open a dialogue with you and the people you represent so that the transition to the new systems is as smooth as possible," said Leach.

Leach summarized, with the help of overhead transparencies, the major phases of transition to the new UA and UMC systems. Then TDC's asked questions of the UA-UMC coordination team. The responses are summarized below:

- UA will be wiring UA space in AHSC, and UMC will be wiring UMC space
- phones will be provided by either UA or UMC, depending on one's employer
- present functions of individual phones will be duplicated in the new UA system
- the UA system at AHSC will keep its present prefix, 626, but UMC system will have a different prefix, 496
- to reach someone in the UMC system, a COM employee will probably dial 2 digits, and then will dial as any other user within the UMC system
- transferring and forwarding calls between the UA and UMC systems will be standard functions
- the UMC system will have its own switchboard services for caller information
- emergency medical paging services will be taken over by UMC

For other questions that arise, Leach urged TDC's to call 621-TIPS or COM's Office of Medical Computing at 626-4904, and he said a tape of the briefing can be borrowed by calling 621-TIPS as well.

TIPS Activities Inside Buildings

TIPS construction is not only taking place outside of buildings on campus; it's also starting to happen on the inside of many buildings. In order to connect buildings to the conduit system (see *Infrastructure* on page 1), holes must be drilled through the wall or foundation of each building. Cables are then pulled through the conduits and connected to the cable system inside the building. If a building has multiple stories, conduits and cables must be installed between floors. This usually involves more drilling and pulling of cables.

Inside activity also includes the installation of new telephone wiring and jacks in offices and classrooms. This may require moving furniture if it's blocking a phone jack, or removing ceiling tiles to install telephone wiring. Please note that our TIPS contractors are responsible for dust protection, furniture moves, security, and cleanup while working in offices. Telecommunications Departmental Coordinators will be notified prior to construction activities. All efforts will be made to reduce disruptions to users and telephone service during the installation. If you need further information, please call 621-TIPS.

Telecommunications Services Directory

Customer Service Orders (Data/Telephone Lines)	1-5100
Network Control Center (24-Hour Data/Telephone Trouble Reports)	1-7999
Billing Inquiries	1-5100
Telex/Telegrams	1-3030
PC/Terminal Maintenance and Paging Services	1-5050
TIPS Hotline/Help	1-TIPS

Telephone Equipment Inventory

In February, the University Telecommunications department began an inventory of all telephone equipment on campus as part of the telecommunications modernization that will guarantee rapid information exchange between all UA departments and between the UA and the world.

The purpose of the telephone equipment inventory is to verify equipment records and to map the capabilities needed for the start-up of the University's new telephone system, a system also selected by Duke, USC, and MIT.

According to Amelia Tynan, Assistant Director of Telecommunications Services, the inventory will take three months to complete. "We're taking the time to carefully schedule the inventory—we want to minimize disruption of work," says Tynan.

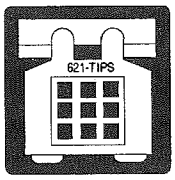
Tynan adds that representatives designated by each University department are also helping to coordinate the inventory and are accompanying the inventory team. The inventory team, composed of a representative of U S WEST, prime contractor for the communications upgrade, and a representative of the University Telecommunications department, are recording the location of all phones and associated equipment.

According to Bob Leach, Director of the University Telecommunications department, there are other phases of the telecommunications project that will continue during the time period of the telephone equipment inventory. These phases are conduit construction, engineering walk-through, and preparation of a new switch room.

The conduit construction phase is the replacement and addition of conduit, which will house the communications cable between UA buildings (see *Infrastructure* on page 1). In the engineering walk-through phase, representatives of U S WEST, with their building drawings, and representatives from the UA's University Telecommunications, Risk Management, and Physical Resources departments, "walk through" buildings to confirm building designs.

This new wiring system will help improve communications capacity, quality, and reliability. Before any building is visited for engineering walk-through, Leach adds, departments are notified in order to reduce the inconvenience to those already working in the building.

Also concurrent with the inventory is the preparation of a new switch room located in the expansion of the Computer Center building. Cable terminals, wiring racks, and associated equipment are being prepared for the arrival of AT&T's 5ESS switch, heart of the UA's new state-of-the-art telecommunications system.



TIPS Hotline

Have a question or concern about the Telecommunications Improvement Project Services (TIPS)? Call our hotline/help number: 621-TIPS. This number is answered by UA TIPS staff Monday through Friday, 9 a.m. to 4 p.m.

Given the size and complexity of TIPS, the UA TIPS staff may not know the answer to your question at the time of your call. Questions that cannot be answered will be logged and referred immediately to the appropriate person in the Telecommunications department. You will be called back as soon as we know the answer to your question.

We welcome your questions as they will assist us in identifying areas of concern and where information is lacking. Frequently asked questions will be published each month in this newsletter (see *Q&A* on page 4).

What's TIPS All About?

TIPS is the project acronym for the UA's Telecommunications Improvement Project Services (TIPS) overseen by the University Telecommunications department. This major campus-wide project will replace the University telephone switch and cable system, install a new conduit system, and expand the Computer Center to house the switch.

Because TIPS will affect everyone on campus, University Telecommunications has established a broad coordination program. Over 200 Telecommunications Departmental Coordinators (TDC's) have been appointed to serve as liaisons during the course of the project. TDC's represent their departments in information meetings, participate in training classes, and help coordinate TIPS activities that affect departments. Currently, TDC's are assisting with the telephone equipment inventory (see *Inventory*, this page).

Additional details on TIPS are covered in the following information handouts available from Telecommunications Services at 621-TIPS:

- *TIPS: Project Background*
- *TIPS Campus Coordination Program: The Telecommunications Departmental Coordinator*
- *Telephone Equipment Inventory Orientation Guide*

TIPS Q & A

This column will be featured each month in *Telecom News*. It provides answers to frequently asked questions about the TIPS project. If you have any questions, please call 621-TIPS between 9 a.m. and 4 p.m., Monday through Friday.

Q. What is the bottom line? What will the University get for the TIPS outlay of $25 million?

A. For essentially the same annual cost of the current telephone system, the University will get:

1. A new digital telephone system (AT&T's 5ESS system),
2. A new building,
3. A new conduit system,
4. A new telephone wiring system,
5. A new low-speed data communications wiring plant,
6. Medium-speed data switching through the new telephone switch, and
7. A new fiber optic cable system.

The 5ESS telephone system will offer the capacity, service quality, flexibility, and reliability that the present system can no longer provide. This new system will provide for current and future telephone service requirements. AT&T projects a useful life of 15 years for the 5ESS.

Q. I heard that ISDN will become available to the campus. Is that true?

A. Although the new system supports ISDN, it is not scheduled to be available at cutover time. We will be studying ISDN requirements and support before service is offered to the entire campus. Two ISDN-related projects are planned: pilot demonstration areas and a campus survey of ISDN applications.

Q. What kinds of interruptions in service can I expect during the project?

A. Our goal is zero interruption.

Telecom News

Telecom News is published monthly by the University Telecommunications department at the University of Arizona. Articles may be reprinted without permission as long as credit is given to the newsletter.

Inquiries and suggestions are welcome and should be addressed to *Telecom News*, University Telecommunications, Computer Center 73A, Rm. 131, 621-TIPS.

Publisher: Amelia Tynan
Telecommunications Services

Editors: Terry Robinson
George Shelton
Warren Van Nest

Circulation Manager: Kay Jolly

Subscription Form

Subscriptions to *Telecom News* are free. If you already receive the newsletter, we will retain your name on our mailing list unless you request cancellation. To subscribe or change subscription information, complete this form and return to: *Telecom News*, University Telecommunications, Computer Center 73A, Rm. 131.

- ☐ Add my name
- ☐ Cancel my subscription
- ☐ Change my address (include current address label)

Name: _____

Phone #: _____

Dept.: _____

Campus Address: _____

_____

_____

Telecom News
University of Arizona
University Telecommunications
Computer Center 73A, Rm. 131

AMELIA A TYNAN
ASSISTANT DIRECTOR
TELECOMMUNICATIONS SERVICES DEPT
CCIT BLDG 73
CAMPUS