Telecommunications
Annual Report
2001-2002
DELT A S TATE UNIVERSITY: ANNUAL REPORT
for the Previous Year
and Budget Request FY 2003

I. Unit Title: Telecommunications

Unit Administrator: Charles Boyles

II. Data and Information for Department:

* Bellsouth has increased rates for telephone local service provided to Delta State, but Telecommunications has kept campus charges below comparable off-campus service. Campus long distance rates remain very competitive at $.15 for day calls, and $.10 for nights, weekends and holidays.

* Telecommunications is continuing to reroute and relocate telephone and fiber-optic cables, pedestals and other communications facilities north of highway #8, due to the completed fence project, and proposed Administration Building.

* Bellsouth conducted a traffic study to determine the volume of traffic on Delta State's trunk lines. The study indicated that the number of trunk lines is adequate for current traffic patterns.

* This department continues to expand ethernet access to Internet and the Delta State data network, by installing fiber-optic cables to most areas of the campus. These projects also include placement of numerous handholes, conduits, wiremold and innerducts. In addition, all buildings are being completely wired with category 5 data and category 3 telephone wiring, cabinets, equipment and terminations.

* A considerable number of departments have relocated throughout the campus, resulting in daily changes to the telephone and data fiber-optic, cabling and wiring networks.

* Plans are in process to relocate existing telephone and fiber-optic infrastructure, and install new facilities, to provide data and telephone access to the renovation projects at Jobe Hall and the (4) dormitories at the Court of Governors.

* Telecommunications continues to support Delta State's off-campus facilities at the Greenville Higher Education Center, Merigold Center for Science & Environmental Studies, and the Commercial Aviation Airport Flight Operations Center. This department provides data and telephone wiring and equipment installation and maintenance at these facilities.

* Delta State is in the process of acquiring a Comprehensive Card Reader System. This department will be responsible for engineering, installing and maintaining communications cables, wiring and equipment to link this service throughout the campus.
III. Personnel:

Noteworthy activities and accomplishments:
* Barbara Allen, Karen Haney and Charles Boyles are enrolled in Delta State classes, and have completed other job related classes and seminars.
* Sarah Mosley or Charles Boyles attended all regular and special Board meetings of MTMA (MS Telecommunications Manager’s Association), and both attended the annual meeting and Bellsouth’s Major Client Association meeting.
* Marshall Cole and Peter Rocconi completed formal and hands-on fiber-optic installation and maintenance training courses conducted by The Light Brigade of Kent, Washington. Both are now certified in fiber-optics termination, splicing and testing procedures.

New position(s) requested, with justification
* None

Recommended change of status (such as promotion/tenure/change in responsibilities)
* None

IV. Department Goals for 2001-2002:
* See pages 3-14

V. Department Goals for 2002-2003:
* See pages 15-27

VI. Unit Budget Plan:
* No budget changes are requested
IV. Department Goals for 2001-2002:

A. Goal #1:
   To continue to negotiate lower rates for the long distance service that DSU purchases, and continue to lower the rates that Telecommunications charges.

B. Institutional Goal which was supported by this goal:
   Provide administrative services and auxiliary enterprises (student housing, bookstore, food services, etc.) which are effective and efficient in the support of the institutional mission.

C. Expected Results:
   Delta State will pay less for local and long distance services.

   The Telecommunications Department will charge less for these services.

D. Evaluation Procedure(s):
   The Telecommunications Department will know immediately when lower rates are negotiated with long distance vendors.

   The Delta State community will be paying less per minute for long distance calls.

E. Actual Results of Evaluation:
   The charges that Delta State pays for local service has increased, but Telecommunications has been able to keep campus rates unchanged.

   On-campus long distance rates remain at $.15 for day calls, and $.10 for nights, weekends and holidays.

F. Use of Evaluation Results:
   The comparatively low rates that departments pay for local and long distance services enables the DSU Administration to distribute savings to other areas.

   This goal will continue to be a part of this department’s planning process.
A. **Goal #2:**
To extend the fiber-optic cable network to the Alumni Building, and other areas, by placing conduits and handholes north of Highway #8.

B. **Institutional Goal which was supported by this goal:**
Provide administrative services and auxiliary enterprises (student housing, bookstore, food services, etc.) which are effective and efficient in the support of the institutional mission.

C. **Expected Results:**
Fiber-optic access to the data network (Banner, Internet, etc.) will provide much faster speeds, more reliable service and more features.

Expansion of fiber-optic to other areas north of highway #8 will be much easier and less expensive after the initial installation is complete.

D. **Evaluation Procedure(s):**
Suggestions and comments will be solicited as users become familiar with the improved services.

Results will be assessed through the increased use of the facilities.

E. **Actual Results of Evaluation:**
A temporary 6-strand fiber-optic cable has been placed to the Alumni Building, and is providing ethernet access to the campus data network.

An aerial fiber-optic cable has also been placed to the Coliseum, but will have to be removed to permit construction in the area.

F. **Use of Evaluation Results:**
The success of this project reinforces the need to continue to expand the campus fiber-optic infrastructure.

The initial Coliseum fiber-optic cable installation was an aerial, but will be buried when it is re-installed in the future.

This goal will continue to be a part of this department’s planning process until completed.
A. **Goal #3:**
To continue to expand the LAN network and offer full access for the DSU community to Internet, Banner, local E-Mail, library services, etc., through either direct fiber-optic cable and Category 5 wiring, or modern links through the Telecommunications Department.

B. **Institutional Goal which was supported by this goal:**
Provide administrative services and auxiliary enterprises (student housing, bookstore, food services, etc.) which are effective and efficient in the support of the institutional mission.

C. **Expected Results:**
All Delta State employees and students will be able to use these services from anywhere on campus.

Familiarity with available services, along with easier access, will result in increased usage.

D. **Evaluation Procedure(s):**
The goal will be met for each area of the University, as these services are provided.

Suggestions and comments will be solicited as users become familiar with the services.

E. **Actual Results of Evaluation:**
Most faculty and staff now have direct access from their offices.

Delta State computer labs now offer direct access to these services, and dial-up access is also available from any telephone line on campus through modems located in the Telecommunications Department.

F. **Use of Evaluation Results:**
Direct access will continue to be expanded.

Dial-up access will continue to be a vital element of the network, until direct access is expanded to all areas of the campus.
A. **Goal #4:**
To provide a full range of communications services to the new Men's Residence and Physical Education Center.

B. **Institutional Goal which was supported by this goal:**
Provide administrative services and auxiliary enterprises (student housing, bookstore, food services, etc.) which are effective and efficient in the support of the institutional mission.

C. **Expected Results:**
The Telecommunications Department will provide a full range of Telecommunications services (telephones, local and long distance service, etc.), and LAN access (Internet, Banner, etc.) to all new and renovated buildings.

The Physical Education Center will not have to curtail any activities due to inability to access Telecommunications services.

Construction and renovation projects will not be delayed by Telecommunications requirements.

D. **Evaluation Procedure(s):**
The results of the provision of Telecommunications and data services will be assessed by examining records of usage.

The goal will be reached for each of these buildings, when all communications services are provided.

E. **Actual Results of Evaluation:**
A full range of Telecommunications services is now provided to all areas of the new Aquatic Center, and to the new Men's Residence.

All communications installations were installed, tested and operational prior to occupation of these facilities.

F. **Use of Evaluation Results:**
Providing communications access to other new or renovated buildings in these areas will be less complicated due to the expansion of telephone and fiber-optic cabling to serve these buildings.

Spare conduits are being placed to facilitate future expansion.
A. **Goal #5:**
To continue the on-going process of replacing all defective Telecommunications cables and wiring to increase line quality and services.

B. **Institutional Goal which was supported by this goal:**
Provide administrative services and auxiliary enterprises (student housing, bookstore, food services, etc.) which are effective and efficient in the support of the institutional mission.

C. **Expected Results:**
Better line quality will be achieved for clearer telephone connections and computer links (faster, error-free movement of data).

A more efficient use of manpower will result, since trouble reports will decrease.

D. **Evaluation Procedure(s):**
Results will be assessed through the expected decrease in trouble reports from the effected areas.

A representative telephone survey will be conducted to solicit the opinions of users.

E. **Actual Results of Evaluation:**
Telephone line quality continues to improve.

The replacement of existing data wiring with Category 5 wiring for computer access has enhanced the transfer of data.

F. **Use of Evaluation Results:**
The process of replacing/upgrading cables and wiring has proven effective and will continue.

The results of these findings will be used within the Telecommunications Department to determine future upgrade requirements.

This goal will continue to be a part of this department’s planning process.
A. **Goal #6:**
To send the Telecommunications Data Base Manager to Nashville for training on Telco Research TRU Call Accounting Software.

B. **Institutional Goal which was supported by this goal:**
Provide administrative services and auxiliary enterprises (student housing, bookstore, food services, etc.) which are effective and efficient in the support of the institutional mission.

C. **Expected Results:**
Formal training will give the Data Base Manager more thorough knowledge of the software used for Delta State’s call accounting.

A better understanding of the TRU Call Accounting system will enable the Data Base Manager to access and customize valuable reports.

Productivity will increase as a direct result of additional training.

D. **Evaluation Procedure(s):**
Changes in productivity levels will be determined by making comparisons with pre-training levels.

Ability to access, generate and change complex reports will be a valuable means of assessment.

The ability of the Data Base Manager to communicate with Telco Research, and resolve software problems, will be observed.

E. **Actual Results of Evaluation:**
The formal training provided by Telco Research has enabled the Data Base Manager to have a more thorough understanding of the TRU Call Accounting System.

Resolution of software issues have improved, and productivity levels have increased.

F. **Use of Evaluation Results:**
The Data Base Manager will continue to take advantage of applicable Telco Research training.

Other Telecommunications employees operate the TRU Call Accounting software, and they will also be scheduled for formal training, as conditions permit.
A. **Goal #7:**
To have BellSouth conduct a traffic study to determine volume of traffic, periods of peak usage and recommended number of lines for each of Delta State's trunk groups.

B. **Institutional Goal which was supported by this goal:**
Provide administrative services and auxiliary enterprises (student housing, bookstore, food services, etc.) which are effective and efficient in the support of the institutional mission.

C. **Expected Results:**
Documented records will clearly indicate if there is blockage on any trunk group, and when the blockage occurred.

The traffic study will be a valuable aid when deciding whether the number of trunk lines in any group should be increased or decreased.

When decisions are made not to make changes to trunk groups, the study will provide important supporting documents.

D. **Evaluation Procedure(s):**
Additional studies will be conducted to determine when traffic patterns or other changes occur.

Any report of blockage will be investigated to determine if the problem was caused by not having enough trunk lines.

E. **Actual Results of Evaluation:**
The study indicated that the number of trunk lines is adequate for current traffic patterns.

Blockage is rare, and only occurs for short periods of time.

Telecommunications is not receiving any complaints about blockage.

F. **Use of Evaluation Results:**
Studies indicate that Delta State may be able to decrease the number of trunk lines in some groups.

The traffic study is very helpful in determining the optimum number of lines in each trunk group, and in supporting those decisions.

This goal will continue to be a part of this department's planning process.
A. **Goal #8:**
To upgrade the Telecommunications Department accounting software to include an “inactive” file, and other needed features.

B. **Institutional Goal which was supported by this goal:**
Provide administrative services and auxiliary enterprises (student housing, bookstore, food services, etc.) which are effective and efficient in the support of the institutional mission.

C. **Expected Results:**
An "inactive" file will allow the retention of delinquent, dormant accounts in the database, without the necessity of having them included in current accounts and reports.

By including “collection” and “uncollectible” files, accounts that are below a specified amount could be “written off”, while collection efforts could be pursued for all other delinquent accounts.

D. **Evaluation Procedure(s):**
Upon conversion from manual to computer based maintenance of “inactive” files, time savings will be calculated.

Reports containing current accounts will be generated and compared to “inactive” files to determine accuracy.

E. **Actual Results of Evaluation:**
The “inactive” file, and other requested features have been developed by contract computer programmers, but have not been made available to Telecommunications by the Delta State ITS Department.

F. **Use of Evaluation Results:**
Telecommunications will continue to seek necessary upgrades that will provide an “inactive” file, and other needed features.

This goal will continue to be a part of this department’s planning process until completed.
A. **Goal #9:**
To convert the campus Directory Assistance operation from a manual system of searching through lists of names, numbers, addresses, etc., to a computer based method.

B. **Institutional Goal which was supported by this goal:**
Provide administrative services and auxiliary enterprises (student housing, bookstore, food services, etc.) which are effective and efficient in the support of the institutional mission.

C. **Expected Results:**
Computer based directory assistance should result in immediate productivity improvement for all console attendants.

A computer database will make it easier for callers to obtain more accurate information on Delta State employees and students.

D. **Evaluation Procedure(s):**
The number of calls waiting in queue will be compared to previous busy periods.

A study will be conducted to determine if fewer calls are being made from the switchboard to other departments to obtain employee and student information.

E. **Actual Results of Evaluation:**
The Delta State ITS Department has not developed the software required for completion of this goal.

F. **Use of Evaluation Results:**
The Telecommunications Department will continue to seek development of the necessary software.

This goal will continue to be a part of this department’s planning process until completed.
A. **Goal #10:**
To have several computer programs written to assist in compiling and maintaining information on: calling cards, local and long distance billing, cable pairs, phone numbers and locations, terminal numbers, etc.

B. **Institutional Goal which was supported by this goal:**
Provide administrative services and auxiliary enterprises (student housing, bookstore, food services, etc.) which are effective and efficient in the support of the institutional mission.

C. **Expected Results:**
Productivity should increase immediately, since manually maintained Telecommunications records are extremely labor intensive.

Access to records for provision of Telecommunications services would be much easier, and records would be more accurate.

D. **Evaluation Procedure(s):**
During test periods, both manual and computer based records will be maintained, so that productivity comparisons can be made.

Since finding adequate records necessary to respond to trouble reports has always been difficult, a study will be done to determine the level of improvement provided by computer based records.

E. **Actual Results of Evaluation:**
The Delta State ITS Department has not developed the software required for completion of this goal.

F. **Use of Evaluation Results:**
The Telecommunications Department will continue to seek development of the necessary software.

This goal will continue to be a part of this department’s planning process until completed.
A. **Goal #11:**
To relocate existing telephone and fiber-optic infrastructure, and install new facilities, to provide data and telephone access to the proposed Administration Building and renovated Jobe Hall.

B. **Institutional Goal which was supported by this goal:**
Provide administrative services and auxiliary enterprises (student housing, bookstore, food services, etc.) which are effective and efficient in the support of the institutional mission.

C. **Expected Results:**
All existing fiber-optic and telephone cables in the vicinity of Jobe Hall will be relocated to allow renovation and expansion of the building.

Downtime will be kept to a minimum for those areas of the campus experiencing network and telephone outages due to relocation of facilities.

New installations will be completed and operational prior to occupation of new and renovated buildings.

D. **Evaluation Procedure(s):**
Inspections will be made to determine if all areas effected by relocation of facilities were disrupted for a minimum of time.

Continuous checks will be made during construction to determine if facilities have been relocated and/or installed as needed.

E. **Actual Results of Evaluation:**
These projects remain in the planning stages, and construction has not yet begun.

F. **Use of Evaluation Results:**
This goal will continue to be a part of this department’s planning process until completion of the proposed projects.
A. **Goal #12:**
To continue wiring dormitories with fiber-optic cable and category 5 wiring to provide direct ethernet access to the campus computer network.

B. **Institutional Goal which was supported by this goal:**
Provide administrative services and auxiliary enterprises (student housing, bookstore, food services, etc.) which are effective and efficient in the support of the institutional mission.

C. **Expected Results:**
Fiber-optic and Category 5 installations in the dormitory will provide much faster speeds and more reliable service.

Fast and reliable access to advanced technology will be a valuable marketing tool for attracting students to Delta State.

Fiber-optic access will permit students to stop using telephone lines and modems for data services.

D. **Evaluation Procedure(s):**
Suggestions and comments will be solicited as students begin using data ports for internet access, and telephone lines for voice traffic.

Traffic studies will be conducted on the modem bank to determine level of usage and availability.

E. **Actual Results of Evaluation:**
Most of the dormitories have been completely wired with fiber-optic cabling and category 5 wiring (including jacks, hubs, cabinets, terminations, etc.).

Additional dormitories will be wired, and connected to the Delta State data network via fiber-optic cabling, as funds for the projects become available.

F. **Use of Evaluation Results:**
Most of the installation process is being completed by the Telecommunications Department, rather than by contract services, which has resulted in savings to Delta State of more than $100,000 for the completed dormitories.

Telecommunications is in the process of expanding the fiber-optic network, and completing the wiring of additional dormitories.
V. Department Goals for 2002-2003:

A. Goal #1:
To upgrade the Meridian Telephone System to Release 25.40.

B. Institutional Goal which was supported by this goal:
Provide administrative services and auxiliary enterprises (student housing, bookstore, food services, etc.) which are effective and efficient in the support of the institutional mission.

C. Expected Results:
The upgrade will provide software features and reports not currently available.

The telephone system will be capable of supporting remote peripheral equipment installation, linked to the PBX via fiber-optic cabling.

D. Evaluation Procedure(s):
New features available with the Release 25.40 upgrade will be tested when the installation is complete.

As opportunities arise, the capability of the telephone system to support remote peripheral equipment will be used.
A. **Goal #2:**
To install a telephone switch remote shelf in the Student Services & Administration Building, and link to the PBX via fiber-optic cabling.

B. **Institutional Goal which was supported by this goal:**
Provide administrative services and auxiliary enterprises (student housing, bookstore, food services, etc.) which are effective and efficient in the support of the institutional mission.

C. **Expected Results:**
This technology will make it appear to the PBX that all remote shelf operated communications equipment is located in the Meridian switch, rather than at a remote site.

Since the PBX sees the remote shelf as an integral part of the switch, digital phone distance limitations will not apply.

The remote shelf will provide service for approximately 300 phones.

D. **Evaluation Procedure(s):**
An engineering study will be conducted to determine how much capacity the remote shelf has added to existing infrastructure.

Suggestions and comments about this service will be solicited from occupants of all buildings transferred to the remote shelf.
A. **Goal #3:**
To install fiber-optic cabling and infrastructure to the Student Services and Administration Building for access to the campus data network.

B. **Institutional Goal which was supported by this goal:**
Provide administrative services and auxiliary enterprises (student housing, bookstore, food services, etc.) which are effective and efficient in the support of the institutional mission.

C. **Expected Results:**
All occupants of the building will have immediate access via fiber-optic cabling to the campus data network.

All buildings north of Highway #8 can be connected by fiber-optic cabling to the new building infrastructure.

D. **Evaluation Procedure(s):**
Continuous checks will be made during construction to determine if facilities have been relocated and/or installed as needed.

An engineering study will be conducted to determine the most feasible method of connecting other buildings via the new infrastructure.

New installations will be completed and operational prior to occupation of the new building.
A. **Goal #4:**
   To install wiring and equipment in the Student Services & Administration Building for access to the campus telephone and data networks.

B. **Institutional Goal which was supported by this goal:**
   Provide administrative services and auxiliary enterprises (student housing, bookstore, food services, etc.) which are effective and efficient in the support of the institutional mission.

C. **Expected Results:**
   All occupants of the building will have immediate access to the campus telephone and data infrastructure.

   Wiring and equipment will be installed to provide infrastructure access for other buildings north of Highway #8.

   Provision will be made in all areas of the building for future technology requirements.

D. **Evaluation Procedure(s):**
   New installations will be completed and operational prior to occupation of the new building.

   Plans for connecting other buildings to the telephone and data services will be finalized prior to completion of the new building.

   Suggestions and comments about the provision of technology services will be solicited from occupants.
A. **Goal #5:**
   To convert all telephone PBX switched trunking to Primary Rate Interface (PRI) ISDN digital trunking.

B. **Institutional Goal which was supported by this goal:**
   Provide administrative services and auxiliary enterprises (student housing, bookstore, food services, etc.) which are effective and efficient in the support of the institutional mission.

C. **Expected Results:**
   Conversion from analog to digital trunk lines will result in better line quality and more reliable service.

   By converting to T1 technology, Bellsouth will be able to lower local service charges for trunk lines.

   Primary Rate Interface (PRI) technology will provide the capability to receive Caller ID information.

D. **Evaluation Procedure(s):**
   Current billing for trunk lines will be compared to previous Bellsouth billing.

   Testing will be conducted with Bellsouth to determine line quality of all T1 circuits.

   Caller ID capability will be tested and evaluated.
A. **Goal #6:**
   To install a Meridian CallPilot Voice Mail System.

B. **Institutional Goal which was supported by this goal:**
   Provide administrative services and auxiliary enterprises (student housing, bookstore, food services, etc.) which are effective and efficient in the support of the institutional mission.

C. **Expected Results:**
   Voice Mail will provide an easier and more reliable means of communications when employees are not available to accept calls.

   Charging for the service will provide revenue to pay for increased manning to manage the system.

   The system can be expanded to provide voice mail services to students.

D. **Evaluation Procedure(s):**
   Comparisons will be made between revenue for providing voice mail, and expenses for managing the service.

   Surveys will be conducted to determine employee satisfaction with the service.

   Student interest will be determined prior to expanding voice mail services.
A. Goal #7:
To continue to negotiate lower rates for the long distance service that DSU purchases, and continue to lower the rates that Telecommunications charges.

B. Institutional Goal which was supported by this goal:
Provide administrative services and auxiliary enterprises (student housing, bookstore, food services, etc.) which are effective and efficient in the support of the institutional mission.

C. Expected Results:
Delta State will pay less for local and long distance services.

The Telecommunications Department will charge less for these services.

D. Evaluation Procedure(s):
The Telecommunications Department will know immediately when lower rates are negotiated with service providers.

The Delta State community will be paying less per minute for long distance calls.
A. **Goal #8:**
   To engineer and install all necessary communications cables, wiring and equipment to link a Comprehensive Card Reader System throughout the campus.

B. **Institutional Goal which was supported by this goal:**
   Provide administrative services and auxiliary enterprises (student housing, bookstore, food services, etc.) which are effective and efficient in the support of the institutional mission.

C. **Expected Results:**
   Installation of a One-Card System backbone would allow the cards to be used like a debit card for food service, vending machines, bookstore, etc.
   
   The communications links would also allow the card to be used as a security system, providing access to buildings, dormitories, recreation centers, health center, events, etc.

D. **Evaluation Procedure(s):**
   As different users are connected to the One-Card System, studies will be made to determine the best method of extending the network.
   
   Surveys will be conducted to determine access speeds, user satisfaction, most efficient means of data transfer, etc.
A. **Goal #9:**
To continue to expand the LAN network and offer full access for the DSU community to Internet, Banner, local E-Mail, library services, etc., through either direct fiber-optic Cable and Category 5 wiring, or modem links through the Telecommunications Department.

B. **Institutional Goal which was supported by this goal:**
Provide administrative services and auxiliary enterprises (student housing, bookstore, food services, etc.) which are effective and efficient in the support of the institutional mission.

C. **Expected Results:**
All Delta State employees and students will be able to use these services from anywhere on campus.

Familiarity with available services, along with easier access, will result in increased usage.

D. **Evaluation Procedure(s):**
The goal will be met for each area of the University, as these services are provided.

Suggestions and comments will be solicited as users become familiar with the services.
A. **Goal #10:**
To provide a full range of communications services to the (4) dormitories being renovated at the Court of Governors.

B. **Institutional Goal which was supported by this goal:**
Provide administrative services and auxiliary enterprises (student housing, bookstore, food services, etc.) which are effective and efficient in the support of the institutional mission.

C. **Expected Results:**
The Telecommunications Department will provide a full range of telephone services and LAN access to all new and renovated buildings.

Construction and renovation projects will not be delayed by Telecommunications requirements.

Communications links to other areas of the campus will not be interrupted during installation and cutover of services.

D. **Evaluation Procedure(s):**
Continuous checks will be made during construction to determine if facilities have been relocated and/or installed as needed.

Installations will be completed and operational prior to occupation of the renovated dormitories.
A. **Goal #11:**
To continue the on-going process of replacing all defective Telecommunications cables and wiring to increase line quality and services.

B. **Institutional Goal which was supported by this goal:**
Provide administrative services and auxiliary enterprises (student housing, bookstore, food services, etc.) which are effective and efficient in the support of the institutional mission.

C. **Expected Results:**
Better line quality will be achieved for clearer telephone connections and computer links (faster, error-free movement of data).

A more efficient use of manpower will result, since trouble reports will decrease.

D. **Evaluation Procedure(s):**
Results will be assessed through the expected decrease in trouble reports from the effected areas.

A representative telephone survey will be conducted to solicit the opinion of users.
A. Goal #12:
To send the Telecommunications Senior Clerk to Nashville for training on Telco Research TRU Call Accounting Software.

B. Institutional Goal which was supported by this goal:
Provide administrative services and auxiliary enterprises (student housing, bookstore, food services, etc.) which are effective and efficient in the support of the institutional mission.

C. Expected Results:
Formal training will give the Telecommunications Senior Clerk more thorough knowledge of the software used for Delta State’s call accounting.

A better understanding of the TRU Call Accounting system will enable the Senior Clerk to access and customize valuable reports.

Productivity will increase as a direct result of additional training.

D. Evaluation Procedure(s):
Changes in productivity levels will be determined by making comparisons with pre-training levels.

Ability to access, generate and change complex reports will be a valuable means of assessment.

The ability of the Senior Clerk to communicate with Telco Research, and resolve software problems, will be observed.
A. **Goal #13:**
   To have Bellsouth conduct a traffic study to determine volume of traffic, periods of peak usage and recommended number of lines for each of Delta State’s trunk groups.

B. **Institutional Goal which was supported by this goal:**
   Provide administrative services and auxiliary enterprises (student housing, bookstore, food services, etc.) which are effective and efficient in the support of the institutional mission.

C. **Expected Results:**
   Documented records will clearly indicate if there is blockage on any trunk group, and when the blockage occurred.

   The traffic study will be a valuable aid when deciding whether the number of trunk lines in any group should be increased or decreased.

   When decisions are made not to make changes to trunk groups, the study will provide important supporting documents.

D. **Evaluation Procedure(s):**
   Additional studies will be conducted to determine when traffic patterns or other changes occur.

   Any report of blockage will be investigated to determine if the problem was caused by not having enough trunk lines.