PRESIDENT'S MESSAGE

I trust that you all enjoyed a pleasant summer, have safely survived the seasonal panics at your own individual institutions, and are now ready to plunge enthusiastically into another ACUTA year.

Having safely survived the first couple of weeks of term, preparation of the campus telephone directory, and the aftermath of a five week telephone company strike and of my own four week absence from the office, it is a distinct pleasure for me to now reflect on some of the decisions made in Atlanta and to bring you all up to date on things that have happened since.

NEWSLETTER:

It was generally agreed that the ACUTA News has continued to improve in both appearance and professional content, but that we can still do better with a little help. What has been achieved so far can be attributed to the fine work of Ruth Michalecki and her staff and colleagues at the University of Nebraska, together with a handful of our faithful contributors. What we need now is a wholehearted response to the plea for information articles that will be going out via Ruth, Connie, and your Region Director. We would like to see the ACUTA News become a database that we all can use, and an ongoing testimonial to the level of professionalism and technical expertise that we collectively possess. Please don't wait to be called upon for your contribution, but if you are called upon, find the time to give it your best shot. Your article could end up in the trade magazines as well as our newsletter...and that, of course, could help the Association enormously.

MEMBERSHIP:

It is expected that we will be facing a proposed Constitutional Amendment at the Lincoln Conference that will, if passed, affect Industry Memberships. In order to initiate the best possible dialogue on this extremely important topic (the open-floor discussion at the business meeting in Atlanta proved that there are many varied opinions on the value of Industry Memberships to ACUTA), I have appointed a Sub-Committee to investigate every conceivable angle and, through their chairman, to issue a report to the members each month via the ACUTA News.

The committee will comprise:

PARTY LINE

"Party Line guest editor for this month is Elwyn Hull, Executive Vice-President of ACUTA and director of Telecommunications at the University of Utah".

PROFESSIONAL DEVELOPMENT

Since joining ACUTA a few years ago, I've heard a lot of comments about raising the professional stature of ACUTA members. In fact, from the ACUTA Constitution we read the primary objective of the Association: "To improve the professional competence of College and University Telecommunications Administrators."

During the first ACUTA conference I attended, in Charlotte, North Carolina, ACUTA's first president, Lou Robb, listed in his keynote address five steps to improve our professional competence. For those of you who weren't there, or for those of you who have forgotten, I'd like to bring those points to your attention and share some of my feelings with you:

1. "Eliminate the ambiguity as to what we do and what our role is in contributing to the overall success of our institution."

I'd like to suggest a way of doing this: see that your job description describes your functions. If it doesn't, rewrite it--don't rely on your boss, your secretary, or your Personnel Manager--you write it. No one knows what you do better than you know yourself. To assist you in rewriting your job description, you should obtain copies, from your Personnel Department, of job descriptions of others at your institution--your Personnel Department may even have guidelines for writing job descriptions. You may want to see job descriptions of other ACUTA Telecommunications Administrators--call them, ask them for a copy.

Once you've rewritten the description, review it with your boss, making any changes recommended and forward your new job description to your Personnel Department asking that they re-evaluate your position. Chances are, you'll find you've risen on the job ladder since your last evaluation.

For those employees you supervise, have them do the same thing. If your school is like ours, the perfect time to do this is shortly before the budgets are being planned for the next fiscal year.

Due to the rapid changes in telecommunications, I would suggest that you complete this task every two or three years. Why don't you mark your advance calendar to do that three years from now? (continued on page 3)
PRESIDENT'S MESSAGE, CONTINUED:

Dave Sonnega.....who was narrowly defeated in election for Secretary this year. Dave is from Michigan State, has been an ACUTA member for 4 years and will act as Chairman for the sub-committee.

Dick Werner.....from C.P. Telephone Co. of Virginia; Dick has been an Industry Member Chairman for almost a year and a member of ACUTA for 2 years.

Bill Hitchins.....from University of Toledo, Bill was one of our founding fathers in 1971.

Gayle Ziccardi...our member from University of Pittsburgh, since 1975.

Norm Sefton.....from Duke University, N.C., Norm was a charter member and has been Region #2 Director since 1972.

Vic Mason.......from Rochester General Hospital, Vic joined ACUTA in 1976.

The sub-committee will be gathering as much information as they possibly can on the subject of Industry Memberships and will also be comparing ACUTA with other associations. It is probable that their research will raise many other questions which we as an association must address as we head toward the second decade of our existence. I sincerely hope that all members will afford due concern for this important project, the outcome of which will have considerable impact on the future of ACUTA.

I would like to forward all correspondence that I have received to date on the subject, to the Chairman of the sub-committee, Dave Sonnega. I will, however, delay doing so until December 1st to afford the members who wrote to me in confidence the opportunity to let me know if they disapprove of my passing on the information. Please be assured that the source of any opinions expressed to myself or to the Chairman will remain confidential.

Other proposed Constitutional Amendments this year will:

(1) Clarify the status of two or more members from the same institution.

(2) Provide for the members in each region to elect their Region Director every 1 or 2 years rather than have him/her appointed by or remain in office at the pleasure of the President.

(3) Provide for an alternate or replacement procedure for effectively Constitutional changes (possible, involving proxy votes).

As you can see, the year leading up to our 9th Annual Conference will be one of self-examination—a year in which we intend to look at our Constitution and Bylaws and change whatever is not working for us.

ANNUAL CONFERENCES

I would be grateful if those of you who have not yet responded to the questionnaire published in last month's newsletter would please do so at the earliest opportunity. A Program Committee will shortly be appointed for the Lincoln Conference and it is important that as much information as possible is made available to it at the outset.

SEMINARS

As advised in my September 13th memorandum to all members, special arrangements have been made with the publisher of Business Communications Review, Jerry Goldstone to allow members of ACUTA to attend any of Autumn 1979 BCR Seminars at $75.00 off the regular registration fee. This type of arrangement is something new for us, of course, and I am sure that your response will confirm that it is indeed a good direction to take. Other professional development initiatives are being pursued and these include a study on the feasibility of incorporating these packaged programs not only into our Seminar program but also into the Annual Conference. I have no details for you yet on the Seminar planned for Austin, Texas next February, but I hope to meet with Saleem Tawil soon to get the ball rolling. I will also be working with our Executive Vice President (and President elect) Elynn Hull to formulate a calendar of events for 1979/80/81, so don't be surprised if you receive a call asking you to host one of them.

I will also be pursuing with Region Directors the feasibility of establishing local chapters within our ACUTA Regions. Possibly this would be on a statewide basis in the U.S. and, in Canada, on a slightly more complex basis depending on the local operating telephone company (the Canadian Telecommunications Carriers Association has no less than 22 member companies in addition to Bell Canada). In providing ACUTA-sponsored forums for the discussion of local telecommunications issues we would be adding a new dimension to our activities—one which we feel will be well-accepted by our existing members as well as appealing to prospective members. We must also face up to the reality of ever-increasing travel and hotel costs which prohibit many members from attending our existing activities. Our goal, then, is to aim at providing as many alternatives as possible for the education, interaction and professionalism development of our members.

In addition to our new Vice-President, Connie Gentry and Secretary, Mike Toner, I am pleased to welcome onto the Board of Directors our new Region #1 Director, Kim Sprague from the University of New Hampshire. I know that Kim will do an excellent job for us as did his predecessor Mort Berlan, and having worked with both Connie and Mike extensively before, I can assure you that their contributions will be significant.

We certainly have a busy year ahead of us, one that should prove to be as exciting and challenging and it is important to the future of our Association. I look forward to it with great interest as I hope you do.

Sincerely,

Mal Reader-President
PROFESSIONAL DEVELOPMENT, CONTINUED:

2. "Having established our right to manage, our responsibility to make decisions, and our authority to speak as professionals, we must be ready to accept the consequences for the results of our recommendations and decisions."

No matter what the results of the decisions, they should be documented. I would recommend that you share these results with your boss. We often sit back wondering why our institutions don't realize valuable work we do when often it's our own fault for not letting them know.

3. "We must insure that we provide for our 'customers' the most simple and least costly systems that will totally provide for their needs."

In order to know what the most simple, and least costly systems are: Do you know as much; no, MORE about your telephone company's products than they do? Do you subscribe to three or four good communication journals? Do you read them—even if it means taking them home? Do you have a copy of your operating company's tariff? Are you aware when they make changes to that tariff? Have you bought and read a book on telecommunications in the past two years?

When was the last time you took advantage of a telecommunication training course? Business Communication Review, in cooperation with ACUTA, is currently offering some telecommunication seminars at reduced rates. I'd recommend that you take the opportunity to attend. I've had the opportunity to take their courses on "Interconnect" and "Understanding Modern PBX's" and recommend them highly.

4. "We must maintain an open mind and an open door to insure that the people in our institutions will come to us for counsel and guidance on their communication problems."

Examine the policies you've developed with respect to how other departments on your campus deal with your department. Put yourselves in their shoes. Is it a hassle for them to deal with your department?

5. "We must develop the grace to admit when we are wrong, when we do not know an answer, or when we need to obtain more information."

If you need an answer, don't forget that one of your most valuable resources is the vast knowledge available from other ACUTA members. Chances are, it's been thought of or tried before. If you don't know whom to call, call your Region Director or one of your officers; they'll point you in the right direction. This is a two-way street, as Margaret Fuller once said, "If you have knowledge, let others light their candles on it".

In conclusion, I remind you that your professional development is entirely up to you. Even though the primary objective of ACUTA is to improve the professional competence of each of us, I remind you of our mentor, Bruce Howat's favorite motto:

"If it is to be, it's up to me."

...Mike Grunder, Virginia Tech

"The Fine Art of Communicating (Part I)"

The other day I got into a discussion over the name of my office and how it is, or should be listed in our Faculty-Staff Directory. It's official name is "Office of Communications Services." As that is a bit of a mouth full, we usually say, "Communications Office."

Of course this generates a little confusion as we have an academic "Communications Department" which deals with journalism, radio/TV broadcasting and the like. We also have an administrative unit called "Educational Communications" which takes care of the written word (magazines, newspapers and every sort of information blurb imaginable).

The person to whom I was speaking suggested that we should be called "Telephone Services" because it more accurately describes our true function. I must admit that I agree with this more than I disagree, although I did point out that there is more to it than just telephones. There's data communications, paging and two way radio to consider also. And, besides the term "Communications" is a lot classier than "Telephones." (This point is undoubtedly why everyone wants to use the term and why we have so much confusion!)

Anyway, this whole discussion got me thinking about other problems we have communicating with one another. I believe some of these things are worth pondering over occasionally.

One of the first things I learned on this job was that telephones, and providing decent telephone service, is a lot more complicated that meets the eye. The second thing I learned was that people really take telephones for granted and they don't have the foggiest idea of what they're getting into when they call and say "How about coming over and taking a look at our telephones, we've got a few little problems." That is usually the understatement of the year.

As a result of this, I usually tend to go overboard in explaining the different options that are available. One must be careful with this though, as it is easy to really go overboard and generate more confusion than you ever dreamed possible. Learning when to shut up is just as important as knowing that you can't solve those "few little problems" without getting into some detail. It's that old dilemma of trying to keep things in balance—and is it ever easy to get things out of balance.

I remember the story about the farmer off in the boondocks of Southwest Virginia who's wife just gave birth to their third set of twins. This, of course, caused a stir throughout the area, bringing numerous reporters back into the mountains to interview the couple. One reporter asked, "Do you always get twins sir?" To which the farmer replied, "Heck no, thousands of times we don't get anything!"

Be careful folks, language can be deceptive. Don't assume you're making complete sense just because you understand what you mean. The odds are that the Ph.D. you're speaking to doesn't have his degree in Telecommunications!
the user's choice

several hundred in operation

PACX (Private Automatic Computer eXchange) is a sophisticated high speed data switching and port contention system designed to optimise the allocation and use of your resources.

PACX continuously scans all terminal channels. When a service request is received, the user is connected to an appropriate port in less than one second.

Plug-in port and terminal modules (some with integral short haul data sets) offer system expansion or reconfiguration without high cost or delay. As many as 510 terminals can contend for service from up to 254 ports.

Regardless of system loading, all channels remain completely transparent to speed, code and data format up to 9600 bps asynchronous or 19.2 Kbps synchronous. Ports on both local and remotely located computers can be assigned up to 64 different class designations, accessible on request from the terminal keyboard. Reallocation of resources, at any time, is achieved by reassigning port classes via the control panel. Complete system status is seen at a glance. Data suitable for statistical analysis is continuously generated. PACX puts control over data communications back where it belongs.

Shown here is Dual-PACX (up to 510 terminals and 254 ports). Standard PACX (up to 254 terminals and 126 ports). Mini-PACX (up to 48 terminals and 32 ports). Complete data is available upon request.

Gandalf Data, Inc. 1019 S. Noel, Wheeling, Illinois 60090 (312) 541-6060
Canada: Gandalf Data Communications Ltd., Gandalf Plaza, 9 Slack Road, Ottawa Ontario, Canada K2G 087 (613) 223-0658
U.K.: Gandalf Digital Communications Ltd., 4 Cranford Court, Hardwick Grange, Cheshire, England
Unique Telephone Device
For Deaf Patients

A Magsat TTY telephone conversation device for use by deaf patients has been donated to St. Mary's by Miss Rappl in memory of her mother. The equipment allows a deaf person to send and receive telephone calls to and from similar devices. A flashing light indicates that a call to the deaf patient is coming in. The patient then communicates by typing the message on the Magsat keyboard. The message is displayed in a moving visual format (Times Square news style) across the top of the device. The Magsat is lightweight and completely portable. St. Mary's is the only hospital in Rochester to offer this telephone service to deaf patients. We feel it's an important help in maintaining reality orientation for the deaf patient who can feel very isolated from family and friends when hospitalized without means of communication.

*The switchboard operator will hear a high pitched beep tone when a call is coming in for the TTY, the call is then connected to the patients station number.
Turn any office into
a classroom.

**Problem** Certain engineers at Caterpillar Tractor Co. and Sundstrand Corp. are encouraged to take graduate courses. But the University of Illinois at Urbana is too far away for commuting.

The University, for its part, wants to extend its services to companies, communities and other campuses throughout the state. But budgets curtail travel and limit closed circuit television.

Both problems are typical of a growing need in education for innovative, low-cost, teleconferencing systems. Far from typical is a Bell System solution now undergoing test.

**Solution** Bell’s new GEMINI*100 Electronic Blackboard transmits diagrams and dialogue over separate lines simultaneously. It’s easy to use anywhere there are electric and telephone outlets. And its cost is low.

The instructor in Urbana uses it as he teaches. Groups of engineers at Caterpillar and Sundstrand see every chalk stroke on standard TV monitors, hear every word. With their own blackboards, they respond graphically as well as orally.

Educators view the electronic blackboard as a training breakthrough and a conferencing innovation.

If you haven’t talked systems with your Bell Education Specialist lately, you’re missing something.

The system is the solution.

Bell System

* Trademark of AT&T Co.
My university telephone directory is three months late, the new on-line terminal for my office is two months past due, the computer is doing strange and unexplainable things to my microfiche program, there is a 3% foot stack of Telephone, BCR, Communications News, Adm Management, etc., waiting to be read, I'm behind in my ACUTA News input, John Wright and Jim Dronsfield are waiting patiently for the Conference Financial report, I spent my week's vacation driving visitors from Scotland and Canada all over Florida trying to find sunshine... during Hurricane Fred, Jimmy Carter etc. descended on Emory for a groundbreaking ceremony (read PLEASE vote for me), the weather down here has been damp, dismal and depressing, I haven't been fishing since May, my doctor says I'm experiencing a "mid-life" crisis or a delayed adolescent reaction to not having a date for my eighth grade sockhop, my phone budget is overspent by $6,000, sometime before 1980 I've got to put together a bid for a new phone system, the Director of Alumni Giving just called to say he needs 25 lines installed for their annual fund raising drive... which begins tomorrow, and my mother can't understand why I don't come home more often. As Roseann Roseannadonna says, "It just goes to show, if it's not one thing, it's another!"

I'm also behind in writing letters to the ACUTA members who gave me so much help with the Atlanta Conference. Melba Chism, Vic Mason, Mike Toner, Jackie Pollack, Gayle Ziccardi, Don Gagnon, Steve Harwood and Vicky Center... I don't know what I would have done without you moderating the sessions. I'll get around to a personal letter one of these days but you all deserve recognition and applause for a job exceedingly well done! Steve Merril and Dick Feingold... thank you for saving my posterior on more than one occasion.

For those of you wondering about conference transcripts... be patient... Ruth will be sending out a few items at a time in the ACUTA News, and if I can't get it all together before next year's conference, that'll just give you more to look forward to!

The Monday after the conference ended, I walked into my office to be told that Cousin Jimmy and luv-vice Rosalyn would be on campus in two weeks for the groundbreaking for our new Cannon Chapel, named after the Methodist Bishop who delivered the invocation at Carter's inaugural and who is also the Vice-Chairman of Emory's Board of Trustees. It's not that I wasn't thrilled, you understand, I just felt that he might have chosen a later time, like next year, to come. There he was floating down the river on the Delta Queen and I felt like I was up, uh, the creek with no means of locomotion! Every one of you should experience a presidential visit to your campus at some time... It is truly mind-boggling! But much easier than I expected...

It's taken me a day and a half to type this between answering the phone, working on the budget, raising hell with the phone company, going to Alcoholics Anonymous, visiting my psychiatrist and my chiropractor and spending considerable time on my knees in prayer.

Not to worry... I'll be O.K. ... click! This is a recording, the number you have reached is definitely not in service!!!

Your editor is very sorry to report that one of our ACUTA members has passed away.

Nancy Swink from the University of Florida died after a long illness. A donation to the American Cancer Society was made in her name by ACUTA.

Our sincere sympathy to Nancy's family and friends. We will all miss her....

* * * * * * * * * * * * * * *

In the September issue of ACUTA News, we asked our members if they had any information on teletype to allow conversation with the deaf. We have received two responses. Our first response was from Gail Maier, Director of Communication Services at St. Mary's Hospital, Rochester, New York.

"....We have had our Magstat TTY since October 1976. This instrument is located in the Dept of Communications and is available to anyone requesting it. The staff in Communications are trained to install this instrument to any telephone in the hospital.

Since the arrival of the Magstat TTY three years ago, it has been used by our deaf patients, hearing patients with deaf relatives and/or friends, deaf people who do not have a TTY of their own but who would like to have occasional use of the TTY for making calls from the hospital. We are pleased to offer this service to the community...." Gail Maier.

(Gael enclosed a clipping which is reproduced on another page of this newsletter).

Our second response came from Dorothy Heinecke, Illinois State University. Dorothy states their switchboard is far too busy for the type of service Don Gagnon described, but let her tell us....

"....Illinois State Uni has recently installed a Porta Printer II Comm System in the Office of the Services for the Handicapped which will be acting as liaison between deaf and hearing persons on and off the campus. It is leased from the General Telephone Co of Illinois. We investigated many pieces of equipment on a purchase arrangement and decided to lease until we have experience in the operation.

The Porta Printer II is very compact. It has its own carrying case and can be easily used at a paystation. It is of course, battery equipped and can operate 2-4 hours sending or receiving time between charges. It is quite easy to use, usually ten minutes instruction is all that is needed. We temporarily installed two units in the Office of Services for the Handicapped and they had so much enthusiasm for the equipment, they hauled in the Vice President for Business & Finance, the Secretary for the University and anyone else they could reach.

We have had the units for too short a time to know what use will develop from the system...."

Your editor thanks both Gail and Dorothy for your responses and information. I am going to forward your letters to Don Gagnon. Thanks again....
What a busy Fall I have had. Along with the rest of you, I have been occupied with the new telephone directory and the opening of the fall term, etc. On top of all that, we have been going thru some pretty difficult budget sessions for the entire University. I should have appreciated those few days in Atlanta more, I wish I could have them to do again.

Have just completed planning for an up-graded Centrex System for our Medical Center in Omaha that included looking at our other campus in Omaha and the needs of state government. It was a very interesting project and I am excited over the final solution.

In Omaha the university was concerned with two locations (existing) and a third location being built now. Our present locations are served by separate switches, operating out of different central offices. The switch at the Medical Center was an earlier generation centrex, not capable of call transfer or detailed message recording. Naturally, we have 24 hours-a-day operator coverage at the Medical Center.

When I started looking at the problems, two things became apparent right away. We needed to retain the identity of each institution and that included individual billings for equipment from the telco; and we needed to retain the 24 hour coverage at the Medical Center.

Our solution was to combine all locations in one central switch, locating the operator positions at the Medical Center. They will handle the calls for UNO, UNMC, the new Downtown Education Ctr and for the State Government Offices located in Omaha. Because the operators will no longer have to transfer calls for their users, we feel this can be handled without additional operators. The combined switch will have about 2500 stations.

When an alternate routing system located in Omaha was priced out, it was decided to route all of their calls to Lincoln via telpak, to access the alternate routing system in Lincoln. Their call volume simply was not great enough to reach the low cost per minute we experience in Lincoln, even after adding the telpak costs.

Because the Medical Center is located in a favorable mileage zone, we were able to save over $2,000.00 per month mileage charges. Bell has agreed to upgrade our existing centrex service and grandfather the centrex tariff for us.

All in all, it was a challenge and one that has kept me fairly busy this summer and fall.

Our tentative cut-over date is August, 1980....

Our long awaited computerized billing system is finally underway. We have started with the net work calls; plan on adding the DDD and credit card calls next month and then do all the equipment/inventory by January 1st. We started out to do the equipment/inventory first, but due to pressing needs of the state, we had to get the network charges up first. What a job! The results are exciting and worth all the work, but I know I never realized how much was involved.
Out new Region I Director, R. Kimball Sprague of the University of New Hampshire and Lou Curry, ACUTA Conference-Atlanta/79....

REGION I

Marcia A. Charest
Service Mgr, University of Hartford
200 Bloomfield Ave
West Hartford, CT 06117
203-243-4325

Charles T. Curry
Director of Business Services
Onondaga Community College
Syracuse, N Y 13215
315-469-7741 (x348)

REGION II

W. Michael Fincher
Business Communications
University of Miami
P O Box 248184
Coral Gables, FL 33124
305-284-4346

* * * * * * * * * * * * * * * * * *

From Jackie Pollack, this item of information:

For those of you who attended Joe Massey's session in Atlanta entitled "Understanding Tariffs, Regulatory Trends and Developments.", copies of telephone company tariffs can be obtained from two sources:

Tel-Tech Service
P O Box # 241
Sparta, N Y 07446
(cost: $250, set-up, 20¢ per page weekly, binders are included).

CCM1
P O Box # 324
Ramsey, N J 07446
(cost: $385, set-up, 25¢ per page with minimum $5 per month. Binders not included).

Our thanks to Jackie for this information!

* * * * * * * * * * * * * * * * * *

ACUTA WELCOMES THE FOLLOWING NEW MEMBERS:

* * * * * * * * * * * * * * * * * *

ACUTA members attending the Bell Picture-phone demonstration in Atlanta....

Looks like Jan Toner and Gail Nalotte have a message for everyone. And it looks like they enjoyed shopping in Atlanta!
"WHAT IS TMC?"

TMC, Telecommunications Management Corporation, is an independent consulting firm specializing in Telecommunications Utilization and Management, and offering a full range of services including Equipment Analysis & Design, Computerized Network Analysis & Design, Preparation of Bid Specifications, Manufacturer/Vendor Interface, Department Organization & Efficiency, and Complete Implementation Services.

All contracted services include concise and complete Management and Financial Documentation, and thorough follow-through and follow-up services to insure the effectiveness of our recommendations.

"WHAT IS AN INDEPENDENT CONSULTING FIRM?"

TMC does not represent any Equipment or Facilities Manufacturer or Vendor. As Communications Consultants to your College, University, or Medical Center, our only function is to serve your best interests. This objective we pursue with all of the ability and energy at our command.

"DO YOU KNOW THE EDUCATION ENVIRONMENT?"

Our Education Specialist is a former University Telecommunications Manager who understands from 'Hands On' experience Telecommunications requirements and operation in an educational environment. Current clients in the education community include Boston College and The University of Virginia.

"WHAT DO WE DO IF WE ARE INTERESTED IN YOUR SERVICES?"

At your request, and at no cost to you, TMC will send our Education Specialist to your office for a mutual interview. From the results of the interview, TMC will prepare (for your review and analysis) a complete and detailed proposal of offered services and associated costs based upon your stipulated requirements. Upon acceptance of part or all of the proposal, the details will be incorporated into a contract. You will know what we will do and the associated cost to your institution before you enter into an Agreement.

CALL OR WRITE TO OUR EDUCATION SPECIALIST TODAY!

James J. McCullough / Member of ACUTA
Your System Deserves The Best...

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- Bell 113B compatible
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- Full diagnostics

**DL 9600**
4800/9600 bps Modem
- Auto-equalization
- Line degradation indicator
- Analog and digital loopbacks

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**Supermux 480**
Statistical Multiplexer
- Error-free transmission
- Up to eight channels at 9600 bps each
- Automatic baud rate detection

**Supermux 780**
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- Up to 128 channels
- Mixed synchronous and asynchronous inputs
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