FCC Moves to Improve Telephone Number Usage

Washington, D.C. - On March 17, the FCC adopted new policies and rules to reduce the need for new area codes, avoiding the inconvenience, costs, and confusion associated with changes in area codes for consumers and businesses. State regulatory commissions are frequently implementing new area codes, and this FCC action will promote the more efficient use of resources and help states manage new area codes.

Additionally, the new rules will make the existing telephone numbering system more compatible with the increasingly competitive telecommunications environment. The rapid use of telephone numbering resources is being driven by several factors, including the increase in the number of new competitors, the introduction of new technologies such as wireless telephones, the spread of new services such as Internet, data, and fax services, and the way our numbering resources are currently managed.

Last year, the FCC examined and sought comment on several administrative and technical measures for optimizing the use of numbering resources. In the recent Report and Order, the FCC authorizes a number of measures which promote more efficient use of numbering resources.

With this action, the FCC creates national standards to address numbering resource optimization, including:

- A technical solution for allocating numbers in blocks of 1,000 rather than 10,000 ("thousands-block number pooling"), wherever possible. It also establishes a plan for national rollout of mandatory thousands-block number pooling by carriers with local number portability (LNP) capability.

Number pooling, however, won’t begin until an administrator is selected, according to comments in Telecommunications Reports. Even then, implementation of 1,000-number block pooling will be phased in. Every three months, number pooling will be implemented for three area codes in each of seven regions. Those regions correspond to the seven areas covered by previously deployed local number portability databases in the U.S. The number pooling requirements apply to all carriers now required to offer local continuation on page 2.

In last month's column entitled “Leadership or Management,” I stated, “As IT/telecom professionals we are in a position to be change agents on our campuses.” This statement evokes accomplished this in various ways, five tasks/activities emerge in common. These are:

1. Sense of urgency

way in our rapidly evolving technological environments. They must understand what we are trying to accomplish, our achievable mission.
some degree of uneasiness for many of us and our staffs. It is human nature to view change negatively; we do not comfortably embrace change. Yet, as IT/telecom professionals, we work in an environment that is changing faster now than at any time in history. Our job as change agents (leaders) is to create an environment in which change is viewed as an opportunity, not a threat.

As I said, the fundamental purpose of leadership is to produce useful change, especially non-incremental change. As leaders, we must translate that need for change into actions by ourselves and our staffs, and at the same time we must help those we lead cope with these changes.

Creating that work environment may be easier if we understand what leaders in industry who have responded well to crises created by change have learned. Probably most important is that change induces stress in most employees, regardless of their job function. Successful organizations and/or their leadership have learned how to funnel the energy induced by the stress of change into productive outcomes. While individual organizations have

Most successful industry leaders have created a sense of urgency by focusing on the fact that there exists a significant problem that is not going to be resolved without someone doing something.

With our employees we need to use the same approach—not that we have a specific problem that will not be resolved without doing something, but rather by reinforcing the notion that the technological environment in which we work, by its sheer nature, forces us to constantly react (do something) before a problem is created or an opportunity is missed. In higher education the sense of urgency must be the daily message our staffs hear and understand.

2. Mission worth achieving
Organizations that have successfully managed change have learned what we all know: Change can be frightening.

To help offset this feeling, we must create for our staffs a vision of how challenging the way we currently do things will result in a worthwhile, achievable mission—a mission that our staff understands and can enthusiastically work toward. It is not enough for our staffs to understand that they cannot keep doing things the same old

3. Goals that stretch employees' abilities
Leaders who have successfully managed change have typically challenged their employees with goals that stretch their abilities. Establishing goals that are high enough to inspire outstanding effort while still appearing reasonable and attainable is essential if our staffs are to effectively cope with change.

4. Spirit of teamwork
Leaders have learned that encouraging employees to work as a team is much more effective when they know and acknowledge that the leader is part of the team.

Staff perform better when they feel that the "we" in "We are all in this together" really means the leader and the staff. The goals you establish for your staff seem more achievable when YOU are part of the team.

5. Realistic expectation that the team can succeed
Crafting realistic expectations for the team means that each member of the team can be assured that if they do their part, the team will succeed.

continued on page 4

New Area Code for ACUTA: As of April 1, Central Kentucky is transitioning to a new area code. Please note our new number: 859/278-3338
FCC continued from page 1

number portability. Wireless service providers, which have to be LNP-capable by November 2002, will have to participate in number pooling at that time or "soon thereafter," the FCC said in a public notice.

Not all areas in need of numbering relief will have to wait for the federal number pooling mechanism to be phased in. The FCC has delegated authority to 10 state regulatory commissions to implement number conservation efforts, including number pooling. (TR Daily, 3/20/00)

- Administrative measures that will allow the FCC to monitor more closely the way numbering resources are used within the U.S. These measures will link a carrier's ability to obtain numbering resources more closely to its actual need for telephone numbers to serve its customers. Specifically, the FCC adopts a uniform set of numbering status definitions, objective criteria, and enhanced data reporting to increase carrier accountability and incentives to use numbers efficiently.

- Numbering resource reallocation requirements to ensure the return of unused numbers to the inventory for assignment to other carriers. The new rules will mandate that carriers, to the extent possible, assign numbering resources within thousands blocks sequentially to facilitate reallocation and the establishment of thousands-block number pools. With this action, the FCC also sought comment on the following related matters:

(1) which thousands-block number pooling costs will be eligible for recovery as carrier-specific incremental costs
(2) whether charging for numbering resources is a viable solution to control the use of numbering resources
(3) what utilization threshold carriers must meet before they may obtain growth-numbering resources
(4) whether covered wireless providers required to implement pooling when they become LNP-capable in November 2002 should be given an additional transition period to begin participating in thousands-block number pooling.

Docket No: CC 99-200
Action by the Commission 3/17/00, by Report and Order and Further Notice of Proposed Rulemaking (FCC 00-104).
For more information, see www.fcc.gov.

ACUTA LEGISLATIVE & REGULATORY AFFAIRS COMMITTEE

D C Update

Area Codes
As reported elsewhere in this newsletter, the FCC has adopted a new set of rules to avert a crisis due to the exhaustion of the supply of area codes. Significant changes should make meeting demands much more realistic.

Of special interest to some ACUTA members, if an institution had arranged with the LEC for the future use of a full exchange but are only using half of the available numbers, the LEC may have to wireless carrier through access to the line information database (LIDB). Most institutions require that calls to institution numbers be LIDB checked, and collect as well as third-party calls are blocked. This process would also block calls to CPP numbers. The caller could then give a credit card number and have the bill paid through the card.

When the call to the CPP phone is long distance, the question of when answer supervision should cut in is also a factor.
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**Calling Party Pays**

This topic was on the FCC's 2/17 agenda, but was withdrawn prior to the meeting. At least two of the commissioners were concerned that the order as it stood before the meeting did not cover the problems that would arise from calls originating behind a PBX. Commissioner Nuss was said to be concerned that "institutions such as universities would lose revenues because students and others call through private branch exchanges couldn't be billed for calls to wireless phones." (Telecommunications Report 2/21/00)

The language of the CPP order was still under consideration when ACUTA's Legislative and Regulatory Affairs committee met on March 8, and there did not seem to be a definite schedule set for reconsideration. Enthusiasm among the commissioners for adopting an order appears limited. The law firm of Levine, Blaszak, Block & Boothe is urging the FCC to (1) adopt an order with appropriate protection for consumers and PBX owners and (2) require the wireless carriers to be sure the charges to the line are authorized for the line being used, otherwise they could not force payment for the unauthorized CPP charges. This could be done by the

**IT Personnel Shortage**

A bill under consideration in the Senate would increase the number of visas that could be issued to about 195,000 each year for the next three years—about three times as many such visas as will be available without the new law. This bill, the American Competitiveness in the Twenty-First Century Act of 2000 (S2045), addresses the shortage of IT workers in the United States. It also includes special provisions for universities by exempting foreign employees of the institution from the visa caps for as long as they are employed by the institution. Foreign students at U.S. institutions are also exempt from the visa caps both as students and after graduation. (Washington Update 3/13/00)

**Deceptive Long Distance Ads**

The FCC and the FTC have issued guidelines aimed at curbing or at least reducing unfair and deceptive advertising for LD service. The guidelines are particularly referring to "dial-around" and "10-10-XXX" type services. A good example offers $5 per minute any time of the month, but in the fine print it mentions a $50 minimum charge for each call. The guidelines for print and television ads for long distance service, issued in FCC file 00-EB-TCD1(PS), ban misleading information and require carriers to feature their terms, conditions, restrictions, and fees prominently.

Several consumer groups have been involved and applauded the guidelines. It seems that the action comes as a result of thousands of complaints from users about such ads. (TR 3/6)

**Beepers and Pagers**

According to Telecom Manager's Voice Report (2/28), "the paging industry may be on its last legs. With outdated technology that's losing the mobile communications war with cellular phones, broadband PCS, hand-held computers, and other wireless technologies, pagers quickly are becoming anachronistic. They note that several pager companies are in financial trouble and are looking for a company to come in and buy them out for easy access to the customer base. If you have a lot of pagers at your institution, you may need to check into the current status of the company that services them. It seems that the first thing the customer sees is a significant decline in the quality of service being provided.
Bill Slater  
Southwire Cyber Technologies, Inc.

It seems like there are more manufacturers of Category 5 cable in the U.S. than fast-food chains. Like the ubiquitous hamburger, all Cat 5 starts with a basic design. For the burgers, basic is a ground beef patty on a bun. For basic Cat 5, it's a sure bet that you'll see 24-awg solid copper, insulated with polyolefin (for non-plenum applications) or FEP (for plenum applications) covered with a PVC jacket. Usually there will be four pairs, color-coded blue, orange, green and brown.

From there, hotly debated differences abound. Many of the cable differences will be much more meaningful to the installer than whether or not he has pickles on his sandwich. In fact, when faced with a multi-floor installation of several hundred nodes, every second spent terminating the wire matters. Differences that seem subtle can make considerable differences in the amount of time required or frustration experienced. Here are a few of those considerations:

**Pair Identification Schemes**

The blue, orange, green, and brown pairs consist of one conductor insulated in the identifying color, twisted together with a conductor insulated in white. Depending on the manufacturer, that white conductor will have one of three appearances:

1. A lateral stripe of color corresponding to the other conductor in the pair – This colored stripe is simply colored plastic extruded at the same time as the rest of the white insulation. It provides an easy method for identification when terminat-

to the compound to produce the desired colors. For plenum cables, the color chips are incredibly expensive, so there is great incentive to use as little as possible on the manufacturing side. On the installer side, the more brilliant the color, the easier to identify the pairs (and hence the easier to install) in construction sites where less than ideal lighting is the norm. For non-plenum cables this is less of an issue, but variances exist from manufacturer to manufacturer.

**Ripcord**

A ripcord is preferred by some installers and not missed by others. When scoring the jacket to gain access to the pairs, it is possible to nick the insulated wires. To be safe, some installers use the rip cord to pull back some more jacket material and snip it off at a level below their first cut, ensuring undamaged pair insulation at the termination point. Some manufacturers include this feature, some do not.

**Enhanced Cat 5**

To get increased signal performance above and beyond the call of duty (as defined by TIA/EIA 568A), manufacturers employ different Cat 5 cable designs to gain better electrical results. Most are using a combination of slightly larger-diameter wire, thicker layers of insulation, and tighter lay-lengths (which translates to more twists per inch). In 1999, TIA/EIA established standards for enhanced Cat 5, referred to as "Se.

However, many products on the market were touted as 'enhanced' prior to the establishment of the standard since this process is typically several years behind.

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**Board Report**

March

The Board of Directors met by conference call on March 2, 2000. The following are highlights of that meeting:

- The Board approved New Orleans, Louisiana as the site for the 2001 Winter Seminar.
- Reno, Nevada was approved for the location of the 2002 Annual Conference.
- The Survey of Member Institutions’ Facilities and Services was approved and will be distributed in the near future.
- The annual review of the MiCTA agreement was completed and resulted in additional benefits for ACUTA.

Respectfully submitted,

Linda Bogden-Stubbs  
SUNY Upstate Medical University  
ACUTA Secretary/Treasurer

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**ACUTA Audio Conference on ITFS**

Many colleges and universities are licensees of Instructional Television Fixed Service (ITFS) stations. Based on a recent change in the FCC rules allowing two-way transmission of data, voice or video over ITFS channels, many schools are considering entering into excess capacity lease arrangements with commercial wireless system operators.

ACUTA is offering interested members an opportunity to learn about the issues that need to be considered in structuring a fair and workable relationship with wireless operators, and filing for and implementing two-way ITFS systems. An audio conference has been scheduled for Wednesday, April 26, 1:00 to 2:30 p.m. EDT, to provide more informa-

**Audio Conference**

April 26  
1:00 – 2:30 p.m. EDT
Category 6

Meanwhile, work is progressing on the establishment of a “Cat 6” standard for cables with the next incremental level of performance. In fact, advertisements in trade publications would lead you to believe the Cat 6 standard is already here. It will be late this year or even into 2001 before Cat 6 standards are finalized. But not to worry—most existing applications, and even some anticipated future applications will work fine on ordinary Cat 5.

Like Enhanced Cat 5, the manufacturers’ approaches to Cat 6 affect the physical structure of the cable and therefore the ease of installation. One manufacturer processes both conductors of a pair simultaneously and then twists the two still-hot-from-extruder insulated wires together so they bond as they cool. The pairs are then pulled into a flat jacket instead of being cables together in a round jacket. This approach improves electricals, but at a sacrifice of easy installation in the opinion of many installers. Another example of a Cat 6 design uses a center filler, which separates the pairs and provides improved electricals while maintaining the preferred round cable construction. Some installers prefer a round cable, some are okay with flat.

Choices abound; Cat 5 cannot be viewed as a commodity. Each brand is different, and as one fast-food commercial used to say, “different is good.”

Bill Slater is Business Development Manager at Southwire Cyber Technologies, Inc. Reach him at bill_slater@southwire.com.

Achievement Award Nominations

Margie Milone, ACUTA Past President
Kent State University

The Awards Committee is pleased to announce that nominations are now open for ACUTA Achievement Awards. Traditionally, ACUTA has honored selected individuals in this way at each Annual Conference, recognizing their contributions to ACUTA, higher education, and the telecommunications profession.

Has someone been especially helpful with a dilemma you faced? Do you know someone who found a unique resolution to a perplexing situation?

ACUTA Achievement Awards provide an opportunity to reward creative or innovative thinking or a willingness to serve others in the higher education telecommunications profession.

Past winners have included members, from both schools and companies, who have gone out of their way to share their knowledge with others; ACUTA committee chairs or members who have undertaken new projects beyond their normal workload; and members who have demonstrated their ability to effectively handle unexpected situations on their campuses.

In addition to the honor of recognition within the professional association, peer selection makes the Achievement Awards especially meaningful. Simply submit your nomination(s) in writing, stating the name of the nominee and the reason for the nomination. Winners are selected by the ACUTA Awards Committee and announced at the Annual Conference in July.

Submit nominations via mail, fax, or e-mail by May 26 to: Lisa Cheshire, ACUTA Awards Committee Staff Liaison, 152 W. Zandale Dr., Ste. 200, Lexington, KY 40503 Fax 606/278-3268; e-mail: lcheshire@acuta.org.
From ACUTA Headquarters

ACUTA Focus on Leadership in Technology Organizations

Early morning television shows on March 16 highlighted a remarkable development with perhaps far-reaching implications. A philanthropist has donated $100 million to fund the start-up of a “top class” virtual university. Its mission will be to create a “higher learning center” available to everyone, at little or no cost, over the Web, “forever.” The founder plans to put together a team of experienced university technology experts and administrators to structure the institution, which would offer lectures from the world’s “geniuses and leaders.” The virtual university will be seeking accreditation from the recognized accrediting bodies, and early plans are to have students travel to testing sites every few months to take final exams. The founder says he is personally willing to contribute whatever additional resources it takes to make this venture successful, although he is hoping other philanthropists will join the effort.

While these plans are likely to evolve as the institution gets started over the next few years, it is a concept that traditional colleges and universities will need to closely monitor. ACUTA members may be asking themselves a few questions after hearing this news, such as, “What are the implications for my institution?” “How can I, as a technology leader on my campus, advise the administration as to the strategic direction we should take in response to increasing potential competition from non-traditional sources?” Or maybe, “Where do I apply?” (Just kidding.)

How does this relate to ACUTA’s focus on leadership? Well, one of the desirable traits in a leader is the ability to rise above the day-to-day perpetuation of ongoing management tasks, take stock of developments in the general environment, and think strategically about how they will affect your organization. This kind of thinking isn’t limited to senior managers or highest level administrators. Those in mid-level management can greatly enhance their value to an organization by thinking in these terms, stimulating discussion among colleagues, and participating actively in these types of discussions. In all but the least progressive work environments, this type of initiative on the part of mid-level managers will be valued, and you will be recognized as someone who has the potential for advancement.

Another essential leadership trait is the ability not only to accept change as inevitable, but to anticipate it, embrace it, and help lead it. The development reported above, if implemented successfully, will likely have long-range implications in several areas relevant to colleges and universities. It may or may not be feared as the beginning of a trend among high tech moguls to shift philanthropic gifts to new non-profit educational ventures and away from existing institutions. (This particular donor said that he had previously given millions for traditional college scholarships, but viewed this new direction as the charity of the 21st century.) On the other hand, it may suggest new avenues for the development of partnerships with education-minded philanthropists or corporate foundations, who can see the benefits of affiliating with an institution that is already accredited with a top-notch faculty and network in place, and technology leaders with vision. I prefer the second alternative, don’t you?

ACUTA is committed to offering a wide range of leadership-focused educational opportunities and publications targeted specifically for your needs, to help you gain or sharpen essential leadership skills. The Spring Seminar offered an entire track on “Leading the Technology Organization.” If you couldn’t attend, tapes and handouts are available, and there will be streaming video of the highlights available on the ACUTA Web site.

At this summer’s Annual Conference, we will be offering an interesting session incorporating a self-assessment of leadership skills, with an opportunity to discuss the results with a recognized leadership trainer. Many other sessions will offer practical opportunities to discuss leadership issues with your colleagues and learn from peers who have developed outstanding personal leadership skills and have been successful in achieving leadership positions within their institutions.

In addition, the successful Senior Leadership Forum will be in its fourth year,
Corporate Affiliate Members
COPPER LEVEL
- InterQuest Communications, Walnut Creek, CA. Chris Mimer, 925/279-1942
  www.interquest.net
  InterQuest Communications, a division of Darwin Networks, offers a turn-key solution for providing
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  Hello Communications, Inc., provides colleges with The FreePhone Interactive Directory Unit, giving students
  discounts on products and services such as computers, airline tickets, clothing, and more. Students reach the
  advertiser immediately, pressing a two-digit access code located on the unit to receive their discounts.

Telecommunications Specialist, Middlebury College
Submit resume to Human Resources, Service Building, Middlebury College, Middlebury, VT 05753. Fax 802/443-2058.

Telephone Services Supervisor, Montana State University-Bozeman
Contact Pat Simmons, 406/994-5460, Finance, Projects & Telephone Services Manager, Montana
State University. Visit our Web page at www.montana.edu for details.

Computer Network Support Technician Senior, Longwood College
Contact Human Resources, Longwood College, 201 High St., Lancaster 335, Farmville, VA 23909. Fax
804/395-2635. AA/EEO.

Executive IT Professional, University of Maryland at College Park
Submit resume to Gary Kaplan & Assoc., Attn. Cindy Liu, 201 South Lake Ave., Ste 600, Pasadena,
CA 91101. Fax 626/796-1003; e-mail cliu@gksearch.com. No phone calls, please.

Manager, Residential Services Program, Stanford University
Send resume and letter of application to Vicki Hallett, 165 Forsythe Hall, Stanford CA 94305-4140.
E-mail: vhallet@stanford.edu.

Telecommunications Network Engineer, Westminster College
Send cover letter, resume, and three job-related references to Paul Wallace, Hoyt Computer Center,
Westminster College, New Wilmington, PA 16172. Fax 724/946-7158, e-mail infosys@westminster.edu.

RF Field Engineers, CHR Solutions, Inc.
Contact Employment Manager, CHR Solutions, Inc., 2711 LBJ Freeway, Suite 560, Dallas, TX 75234-
7321. Tel. 972/484-2323; fax 972/243-6139; e-mail resume@chrsolutions.com

Telecom Analyst II, Penn State Univ., Computer and Info Systems
Contact Penn State Univ. Employment Div., 120 S. Burrowes St., University Park, PA 16801-3857

Telecommunications Director, University of New Mexico
See details at telecommt.unm.edu/director.html or contact Richard Lampasi, Search Coordinator, at
505/277-9354.

Telecom Technician II, Salve Regina University
Contact Director of Human Resources, Salve Regina Univ., 100 Ochre Point Ave., Newport, RI 02840-
4192. Fax 401/341-2921. EO/AAE.

President’s Message
continued from page 1

For the leader that means establishing confidence with the team by making sure all aspects of an issue are fully addressed.
In our environment it is not just all parts of a problem, but includes all aspects of our dynamic environments. As a leader you
gain staff confidence when they know that you have addressed all potential consequences and that the success of the team is
a reachable goal.

As noted last month the highly technology-driven, competition-filled, volatile environment we all find ourselves and our
institutions in requires more leadership than in any previous time in our history. Your challenge as a leader is to create a
positive environment for your staff where change is viewed as an opportunity to advance the institution’s mission.

As always, I welcome your comments anytime at morsosky@bradley.edu.