

**A COMPILATION OF “BEST PRACTICES”
TO IMPLEMENT THE
TELECOMMUNICATIONS ACT OF 1996**

April 1999

The Honorable Bob Rowe
Chair
NARUC Committee on Telecommunications

Vivian Witkind Davis, Ph.D.
Associate Director for
Telecommunications and Water
National Regulatory Research Institute

This compilation is available on the NRRI web site www.nrri.ohio-state.edu. The opinions expressed herein do not necessarily reflect the views, opinions, or policies of the NRRI, the NARUC, or any NARUC-member commission.

TABLE OF CONTENTS

Introduction	1
Alternative Dispute Resolution and Administrative Flexibility	3
Dispute Resolution Techniques	4
Informal Mediation of Carrier Disputes	7
CLEC/RBOC Working Groups	8
Informal Settlement of Interconnection Agreements	10
Texas “Rocket Docket”	11
Expedited Process for Carrier-to-Carrier Complaints	12
Tariffs Effective on One Day’s Notice	14
Customer Service and Education	17
“Ratewatcher Guide” to Compare Retail Rates	18
InterLATA Slamming Protection	19
“Small Claims Court” for Consumer Complaints	20
Mandatory Third Party Verification for Changes in Preferred Carriers	22
Independent Third Party Verification for Preferred Carrier Freezes	24
Independent Third Party Verification for All Purchases on a Telecommunications Bill	26
Cramming Charges	28
Advanced Telecommunications Services	29
Joint Statement of Principles Applicable In a Separate Subsidiary Environment	30
Spectrum Interference	31
Unbundled xDSL Loops	32
Universal Service	35
“No Support” Zones	36
Screening Method to Identify High-Cost Areas	38
TIIAP Adaptation	39
Public Transit on the Information Superhighway	42
Universal TRS Access Number	48

TABLE OF CONTENTS (Cont.)

Market Entry and Other Issues Related to Competition	49
IXC and CLEC Plans For Entry Into the Local Exchange Market	50
“Red Light/Green Light” Section 271 Checklist	52
Carrier Access to Office and Apartment Buildings	53
Demarcation Point for Multi-Unit Buildings	55
Facilitating Traffic Origination and Termination Through Carrier Identification Codes	57
Reduced Requirements for CLEC Service to Particular Geographical Areas or Customers	59
Interconnection and Resale Issues	61
Numbering Issues	63
Intercept Messages Under Area Code Splits	64
New Entrant Access to Numbers in Existing Area Codes	66
Number Pooling for Local Number Portability Testing	67
Scheduling of Local Number Portability Cutovers	68
Collocation	69
Cageless Collocation	70
Improvements to Physical Collocation Practices	71
Third Party Testing of an ILEC’s Operation Support Services	72
General Collocation Area with Individual Lockers	74
Alternatives to Physical Collocation	76
Decreasing Charges for Collocation	78
Decreasing Excessive Waits For Collocation	80
Increasing the Space Available for Physical Collocation	82
Removing Restrictions on Equipment in Collocation Cages	84
Terms and Conditions of Collocation	86
Operation Support Services and Other Interconnection Issues	89
Third Party Testing	90
Unbundling for Access to Customers Served by Digital Loop Carriers	92
Dynamic Benchmarking	93
Operations Support Systems	94
Early Interconnection Planning Meetings	95
Firm Order Commitment Dates	97
Letters of Introduction for New Entrants	98
Damages for Interconnection Agreement Violations	100

INTRODUCTION

The 1996 Telecommunications Act set high standards for promoting competition, investment and innovation; preserving universal service; and protecting customers. Within industry and among state and federal regulators, there is much we can learn from one another about implementing the directions of the Congress. By sharing “best practices” we can help and inspire others in the field to improve their own effectiveness. Such practices might be whole new approaches or a significant improvement to an existing program. Best practices can include innovations in process, structure, management information systems, communications flows, staffing or other areas.

The NARUC Committee on Telecommunications in late 1998 and early 1999 solicited examples of ideas that either industry or regulators have successfully used to address the problems and opportunities opened up by the Act. More than 40 ideas were submitted, demonstrating that new ideas are indeed blooming and flourishing. The suggestions were featured at the NARUC Winter Telecommunications Meeting in Washington, D.C., February 23, 1999. Representatives from public sector and industry presented their ideas in person in a special Committee session. This document compiles their many excellent ideas.

A “best practice” is a “method which has been judged to be superior to other methods. Many times it is the most efficient way to perform a task.”¹ Many if not most of the submissions in this compilation are not quite “best practices” yet. They have not been implemented or formally compared with alternative ideas. Best practices in the strict sense are established through a process of benchmarking, or “the search for industry best practices that lead to superior performance.”² Best practices are determined through that benchmarking process. In many cases, we are not to the point of being able to state with any certainty what is the absolute *best*, although we are getting a good idea of what is *better*.

What has been accomplished is to identify outstanding candidates for best practices. The effort has been mightily successful, and we are delighted with the range of suggestions and the effort with which they have been prepared. Suggestions came from resellers, facilities-based competitors, incumbent local exchange carriers, and federal and state agencies. The best practices ideas range from small steps to

¹ Arthur Andersen — Contract Services: Control Self-Assessment Technique, Center for Virtual Organization and Commerce, [wysiwyg://35/http://isds.bus.lsu.edu](http://isds.bus.lsu.edu), accessed Jan. 27, 1999.

² *Ibid.*, quoting Camp, 1989.

streamline procedures to broad policy suggestions, from a better way to manage collocation space to a vision for universal access to broadband telecommunications services. We have organized the submissions into eight categories.

- Alternative Dispute Resolution and Administrative Flexibility
- Customer Service and Education
- Advanced Telecommunications Services
- Universal Service
- Market Entry and Other Issues Related to Competition
- Numbering Issues
- Collocation
- Operation Support Services and Other Interconnection Issues

Good ideas do not become best practices without wide use. Besides asking whether the proposed best practice has been implemented at least once, we gathered information on how transferable the practice might be to other companies and jurisdictions and what next steps the person suggesting the proposal advised for improving or spreading the practice. The participants were enthusiastic about the capability for their ideas to be used widely and offered suggestions for making that happen. The appropriateness of an idea for a particular jurisdiction will differ across the states, depending on demographic characteristics, socio-economic factors and other variables. Companies and agencies will want to adapt an idea to suit their circumstances. We hope that the NARUC Telecommunications Committee effort to bring many good ideas together will spur diffusion and adoption, helping to fulfill the pro-competitive, pro-universal service aspirations of the 1996 Telecommunications Act.

The idea of identifying best practices in implementing the Telecommunications Act of 1996 began as a proposal to speed access to advanced services under Section 706 by rapidly disseminating successful approaches, and by moving away from conflict and toward cooperation in the Act's implementation. The concept originated at the Aspen Institute's Annual Conference on Telecommunications Policy, which is always a source of thoughtful and creative ideas.

This report is the latest in a series of "deliverable products" offered by the NARUC Telecommunications Committees and The National Regulatory Research Institute to state and federal policy makers and to others interested in successful implementation of the nation's telecommunications policy. If interest continues, the effort may be revisited in the future. The report is yet another example of the close and productive relationship between the Telecommunications Committee and NRRI, without which products such as this would not be possible.

**ALTERNATIVE DISPUTE RESOLUTION
AND ADMINISTRATIVE FLEXIBILITY**

Dispute Resolution Techniques

Submitted by: Jaclyn A. Brillling
Judith A. Lee
Eleanor Stein
Administrative Law Judges
New York State Public Service Commission
(518) 486-2801

Users: Both industry and regulators

Application: Alternative dispute resolution

Description:

At the New York State Public Service Commission, dispute resolution techniques are used in a wide range of matters involving telecommunications, from complex policy issues requiring the cooperation of all the involved parties, to complaints and disagreements affecting two parties only. Facilitated discussions and mediation sessions require parties who generally have ongoing relationships to attempt to create solutions they can live with, rather than having a decision imposed upon them.

A range of dispute resolution services is available to consumers, competitors, and other market participants, so that their disputes in the telecommunications area can be resolved in a timely and efficient manner.

Administrative Law Judges (ALJs) and other staff members have been involved in many complex cases with numerous parties³ and have also participated in mediating and arbitrating two-party disputes, such as those between New York Telephone/MCI and New York Telephone/AT&T (where the parties agreed to binding arbitration of certain clauses of their interconnection agreements). Extensive training of ALJs, attorneys, technical and customer services staff and occasionally the parties, provided a common framework and ongoing skills development.

In many cases under the Telecommunications Act of 1996, mediation and arbitration of disputes between telecommunications carriers have been successfully completed by Department Staff, using a team approach. These teams combine the Department's Administrative Law Judges' case management practices and dispute resolution experience with the skills and insights of other legal and technical experts. This approach can be successfully applied more generally to competition issues in the telecommunications field as they arise. The teams can function as arbiters, mediators, and facilitators and can begin their

³ Examples of these complex multi-party cases include the Telephone Resale case (Cases 95-C-0657 *et. al.*), the Operations Support Systems for Unbundled Elements (Case 97-C-0271), and Telecommunications Service Quality Standards (Case 97-C-0139).

work at any stage of a complaint filing, request for mediation or arbitration, or demand for contract enforcement.

The Department has used facilitation and mediation techniques successfully in large and complex policy cases in the telecommunications field. For example, consensus was reached on carrier-to-carrier service quality guidelines that are currently being evaluated after a year-long trial period.⁴ Participants, who were trained by the ALJ and Staff in consensus and facilitation, included many different types of competing telephone companies, large and small business customers, consumer advocates for the disabled, and state and federal agencies. These same participants are collaborating to develop end-user service quality standards for the emerging competitive markets. Telecommunication carriers also collaborated to resolve numerous technical issues involved in developing necessary computer systems designed to allow competing companies to communicate with each other to perform such functions as ordering items, billing customers, and making all necessary repairs to maintain quality service.⁵

Even where dispute resolution techniques produce no full settlement of the case, collaboration among the parties can be very useful in defining and narrowing issues. One such case was the dispute over a new area code for New York City.⁶ In that instance, facilitated discussions among the many parties resulted in the outright elimination of peripheral issues and greater illumination of the complex policy disagreements that could not be resolved. Those policy disagreements were ultimately the subject of a Commission decision. A mediation of a long-standing dispute between information providers and Bell Atlantic-New York resulted in a joint proposal of most, but not all, parties, currently pending before the Commission.⁷

In mediations and arbitrations under the Telecommunications Act of 1996, resolution has been reached regarding specific contract clauses addressing such matters as the requirement for an electronic interface, pricing for various services such as collocation and interim number portability, and certain provisions regarding directory listings and directory information pages.⁸ Often, dispute resolution teams have brought the parties together to see if the issues could be resolved through mediation, and if those efforts were unsuccessful, the case was resolved

⁴ In Case 97-C-0139, consensus was reached on performance standards and measurements, as interconnection trunk forecasting guide, a statistical method for evaluating the data to be reported in accord with the guidelines, and a form for interpretation and implementation of the guidelines and recordkeeping.

⁵ In Case 97-C-0271, parties engaged in intensive collaborative efforts regarding these "operations support systems" for unbundled network elements. This collaboration was initiated upon the request of several parties, based on their previous experience collaborating on operation support systems for resale services in Cases 95-C-0657 *et. al.*

⁶ Case 96-C-1158.

⁷ Case 98-C-1079, In the Matter of New York Telephone's Proposal to Discontinue Offering Information Services.

⁸ See *e.g.*, Cases 96-C-0864 and 96-C-0787.

through arbitration, with a decision ultimately issued by the Commission.⁹ These arbitration decisions resolving specific contract clauses permitted complete interconnection agreements to be presented to the Commission for approval. This “med-arb” model has been welcomed by parties for its efficiency. In addition, final offer or “baseball” arbitration has been used to encourage parties to move their proposals toward a reasonable center, and to reach closure expeditiously. In this model, the ALJ chooses contract language offered by one or another party, in whole or in part. In some cases, parties have contracted for final binding arbitration by an ALJ as to specified issues. These decisions do not go to the Commission.

Often disputes among parties must be resolved very quickly to avoid additional harm. The selection of an appropriate dispute resolution process depends on the anticipated schedule, and the process must be designed to enable expeditious handling as required. Accordingly, an important component of each dispute resolution proceeding is the convening stage, where the specific process is designed and efforts are made to ensure that all appropriate parties-in-interest are involved in the public policy work handled by the Department.

These disputes are handled in an expeditious manner, using available technology to facilitate rapid communication (including the use of web sites, teleconferencing, video conferencing, and electronic mail). The Staff teams encourage the parties to work together to understand as comprehensively as possible the reasons for their disagreement, and the parties are expected to find mutually agreeable solutions for as much of their dispute as they possibly can through use of a variety of techniques, including mediation and mini-trials. For those issues that remain, the matter is sharply focused for presentation to the Commission for a timely decision.

Originator of Idea: New York PSC

Has It Been Implemented? Yes.

Why Is It an Improvement? See above.

Transferability: High

Next Steps:

A database is being developed on the issues addressed, which will enable the application of relevant experience to resolve future disputes consistently, and periodic ALJ meetings to compare ADR experiences and distill best practices.

⁹ The Act provides for federal court review of state interconnection agreement determination (§252 (e) (6)): the Supreme Court just reinstated the FCC’s interpretation of §208 of the Act, that this was not an exclusive remedy but that, in the alternative, a complainant could seek FCC review as to whether a common carrier contravened the Act (FCC Local Competition Order, ¶¶121-128). AT&T Corp. v. Iowa Utilities Bd., __U.S. __, Slip Opn., 18 (1999).

Informal Mediation of Carrier Disputes

Submitted by: Craig Siwy
Director - Regulatory Policy
Ameritech
(414) 270-5952

Users: Regulators

Application: Alternative dispute resolution

Description:

Informal mediation of carrier disputes by state and federal commission staff. When a carrier brings a complaint about another carrier, the staff asks the two parties to meet and work the problem out themselves, rather than immediately opening a docket.

Originator of Idea: The PSC of Wisconsin Staff.

Has It Been Implemented? Yes.

Why Is It an Improvement?

By encouraging this collaborative approach, a commission avoids a litigation process, which is expensive, time consuming and entrenches and polarizes positions. The source of contention is often technical or operational. This process allows for open discussion between subject matter experts from each carrier. If both parties want to resolve the problem, a solution will be found.

Transferability:

Any commission can adopt by engaging in informal discussions before starting a formal process.

Next Steps:

Commissions should apply mediation or negotiation strategies on a broader basis, including policy and rulemaking proceedings.

CLEC/RBOC Working Groups

Submitted by: David Turetsky
Vice President, Law and Regulatory
Teligent, Inc.
(703) 762-5230

Users: Industry

Application: Alternative dispute resolution

Description:

In every RBOC region a CLEC/RBOC working group should be convened to address, on a semi-monthly basis, common issues that the CLEC's are having with the RBOC regarding any and all aspects of interconnection and implementation.

Originator of Idea:

The idea was first started in Bell Atlantic territory (North and South) and facilitated by the Association of Local Telecommunications Services (ALTS). It is known as the Bell Atlantic User Group (BAUG). It is now handled by the CLECs and Bell Atlantic jointly without ALTS' assistance. Every other month, a meeting is held between Bell Atlantic and participating CLECs operating in Bell Atlantic's territories to discuss the issues and how they can be resolved. Bell Atlantic sets up and hosts the meeting at various locations within its North and South regions. During the month prior to the BAUG meeting, the CLECs meet without Bell Atlantic in order to prepare the agenda of issues which they then submit to Bell Atlantic four weeks prior to the joint BAUG meeting. The CLECs alternate responsibility for coordinating the agenda-setting meeting and preparing and submitting the agenda to Bell Atlantic.

Has It Been Implemented? Yes.

Why Is It an Improvement?

This process brings issues and problems to the table rapidly and creates a forum for discussion and consensual resolution. It makes Bell Atlantic aware of the frequency and magnitude of particular problems CLECs have with it involving interconnection and encourages resolution without the need to resort to state commissions and/or the FCC for resolution. Often, Bell Atlantic is not aware of the problem or its frequency until it has been brought to its attention in this forum.

Transferability:

This practice would be very transferable in other regions, assuming the RBOC was as receptive to the idea as Bell Atlantic. Many of the CLECs currently involved in the BAUG would be the ones participating in this process in other regions and it could work if the RBOC were willing to host the meeting, even if always at its head quarters location every other month.

Next Steps:

The steps the BAUG is taking to improve the practice is to include numerous actual examples of how the particular issues included on the agenda adversely affect the CLECs and/or end-user customers so that Bell Atlantic clearly understands the issues. This also allows the issues to be discussed quickly and completely for efficient conduct of the meeting. Teligent is documenting internally on a monthly basis, the issues that arise and the facts surrounding them for the use in this process.

Informal Settlement of Interconnection Agreements

Submitted by: David Turetsky
Vice President, Law and Regulatory
Teligent, Inc.
(703) 762-5230

Users: Regulators

Application: Alternative dispute resolution

Description:

All state Commissions should adopt an informal settlement procedure similar to Section 22.325 of the Texas Administrative Code. This procedure allows either party to an interconnection agreement to request a settlement conference with Commission staff in order to address any issue connected with interconnection within 10 business days of the request.

Originator of Idea:

This process was adopted by the Texas PUC and became effective on November 17, 1997 to provide an informal forum in which to resolve disputes outside of a formal hearing procedure.

Has It Been Implemented? Yes.

Why Is It an Improvement?

This process enables CLECs to bring quickly to the Commission for attempted resolution, any issues related to an interconnection agreement, including: 1) interpretation of terms and conditions; 2) implementation of activities explicitly provided for or implicitly contemplated; and 3) enforcement. It may also improve the efficiency of Commission staff by reducing the number of formal proceedings that arise out of interconnection-related disputes and settling them instead in an informal forum.

Transferability:

This practice should be easily transferable to other state commissions as the commission staff member that handles these conferences need not be at the most senior level.

Next Steps:

Teligent has not yet needed to take advantage of this process in Texas. Yet, it was reassuring to know that the process was available when it appeared that a dispute might arise. Other state commissions could move forward quickly to adopt similar processes if they do not already exist.

Texas “Rocket Docket”

Submitted by: David Turetsky
Vice President, Law and Regulatory
Teligent, Inc.
(703) 762-5230

Users: Regulators

Application: Alternative dispute resolution

Description:

All state commissions should adopt a procedure similar to Texas Administrative Code § 22.327, known as the “Rocket Docket,” for expediting resolution of formal, interconnection-related complaints.

Originator of Idea:

The Texas PUC first adopted this procedure, which became effective on November 17, 1997, in order to expedite, to within as few as 30 days after the filing of a formal complaint, resolution of interconnection-related disputes directly affecting the ability of a CLEC to provide uninterrupted service to its customers or to provision any service, functionality, or network element.

Has It Been Implemented? Yes.

Why Is It an Improvement?

The procedure would quickly resolve interconnection-related disputes that affect the CLEC's ability to provide quality service to customers, in competition with the ILEC.

Transferability:

The procedure would need to be adopted as a rule change by any commission not having a similar process.

Next Steps:

Teligent has not yet raised this issue in any other forum.

Expedited Process for Carrier-to-Carrier Complaints

Submitted by: Ron Binz
President
Competition Policy Institute
(303) 393-1556

Users: Regulators

Application: Administrative flexibility

Description:

The role of telecommunications regulators is changing from an arbiter of rates to a referee of competitors. Because successful inter-carrier transactions are so important to competition, regulators should modify their practices for handling complaints among telecommunications providers. Commissions should modify traditional procedures to try to limit litigation and produce a decision in such cases much more rapidly. This suggestion entails several possible elements, including: 1) a “quick look” process in which a complainant and respondent are advised by a settlement judge of the likely outcome of their case; 2) sharply expedited procedures to arrive at a decision; 3) mandatory mediation and voluntary arbitration for complaints; 4) the ability of a commission to award litigation costs to a prevailing party; and 5) the ability of a commission to sanction a party if it determines that a complaint or defense against a complaint is frivolous or comprises harassment or tactical delay. The basic suggestion is that commissions rethink their process for these complaints. While regulatory lag might have provided some useful incentives during cost-of-service regulation of a monopoly, it is injurious to competition. Incumbents and new entrants alike prefer the certainty of a quick decision, since competitive market conditions change rapidly.

Originator of Idea:

Some of these ideas were raised by several participants at the January 1999 Symposium for State Regulators hosted by the Competition Policy Institute.

Has It Been Implemented?

Elements of this suggestion are probably in use in state commissions today.

Why Is It an Improvement?

The practice would likely unburden state commissions’ dockets, speed up the resolution of certain carrier-to-carrier complaints, reduce legal costs and sharpen the incentives of regulated companies to comply with contracts, arbitrated agreements, and commission rules. Most importantly, it would provide competing companies with a timely outcome of a complaint, reducing risk and uncertainty for carriers and their customers. In doing so, it would enhance competition.

Transferability:

The practice would likely be transferable to many state commissions. In some cases, it may be necessary to adopt new rules or seek legislative changes.

Next Steps:

Develop the concept further and implement it.

Tariffs Effective on One Day's Notice

Submitted by: David Turetsky
Vice President, Law and Regulatory
Teligent, Inc.
(703) 762-5230

Users: Regulators

Application: Administrative flexibility

Description:

All state commissions should adopt rules that allow non-dominant carriers, *i.e.*, CLECs and IXCs, to file tariffs that are effective and presumed lawful on one day's notice.

Originator of Idea:

The idea was first started by the FCC in Docket 79-252, the Competitive Carrier Rulemaking, when the FCC realized that non-dominant carriers, *i.e.*, those that did not have market power or provide monopoly services, could not charge anti-competitive prices because of the laws of economics and the marketplace. This concept has been adopted by certain state commissions, *e.g.*, Florida, Texas, Illinois, and the District of Columbia, for CLECs and/or IXCS; however, the vast majority of state commissions still conduct extensive tariff review for periods of 14-60 days before a non-dominant carrier's tariff can become effective. The practice would allow tariffs to be filed and become effective on one day's notice and they are presumed lawful unless challenged and an investigation is opened because the challenge seems legitimate.

Has It Been Implemented?

Why Is It an Improvement?

This practice vastly improves the ability of competitive carriers to respond quickly to the marketplace and enables carriers who operate on a regional and national basis to have uniform rates and service offerings available to all customers at the same time. It also enables the carrier to better plan its service offerings without facing the possibility of rejection or modification to accommodate a particular state commission staff member and it conserves valuable state commission resources that could be used to deal with more pressing issues that really do require their attention.

Transferability:

The practice would be very transferable to every state. It has been successfully implemented in states such as Florida, Texas and Illinois, as well as the District of Columbia. Any of these states' rules could serve as model rules for adoption by other states.

Next Steps:

In states (and at the FCC) where this has been adopted, it works very well and no improvement is necessary. In addition, end user customers have the same protections they have in states where in-depth tariff reviews are conducted because carriers still have the obligation to charge just and reasonable, non-discriminatory rates.

CUSTOMER SERVICE AND EDUCATION

“Ratewatcher Guide” to Compare Retail Rates

Submitted by: Wayne Jortner
Counsel to Public Advocate Stephen Ward
Maine Public Advocate
(207) 287-2445

Users: Regulators

Application: Customer service and education

Description:

Publish and widely distribute comparisons of retail rates, along with related consumer education pieces.

Originator of Idea:

Wayne Jortner and Steve Ward. We began by designing a survey form to solicit relevant price data and checking filed tariffs. Newspapers, radio stations, and television stations have made our Ratewatcher Guide well known statewide. It has been very popular.

Has It Been Implemented? Yes.

Why Is It an Improvement?

Providing access to pricing information improves the efficiency of a competitive market. Customers are less likely to complain about high prices if they are given the tools to make an optimal choice. The guide also helps to steer customers away from those providers that might surprise customers with high rates.

Transferability:

Any commission or consumer advocate office can do this. The cost can be as little as several thousand dollars.

Next Steps:

We are considering the production of a separate guide for business customers.

InterLATA Slamming Protection

Submitted by: Bob Reynolds
Director - Regulatory Policy
Ameritech
(313) 223-7456

Users: Both industry and regulators

Application: Customer service and education

Description:

TA96 prohibits slamming of all services. Slamming Protection is an option that customers can choose to protect themselves from unknowingly having their interLATA or intraLATA telecommunications provider(s) changed. Customer feel that it is their right to be able to have such protection.

Originator of Idea:

InterLATA slamming protection has been in the industry since the 1980s. Some LECs have now implemented slamming protection for intraLATA service as well. A dramatic increase in customer slamming and an increasingly competitive marketplace has made slamming protection almost an essential offering to consumers. Also, the FCC rules alone were not sufficient to protect against slamming.

Has It Been Implemented? Yes.

Why Is It an Improvement?

There has been a significant decrease in slamming and therefore in customer complaints. In Michigan, when slamming protection was temporarily lifted from June 1998 to December 1998, slamming incidences tripled. In addition, fewer company resources have to be used in assisting customers that were slammed to restore their service to the provider of their choice, etc.

Transferability:

Very transferable because it is easy to implement and depending on how it is offered, can be very inexpensive to implement. Again, it saves time and money due to the decrease in customer complaints and customer calls.

Next Steps:

Possibly adding local service to the slamming protection option. Ameritech is also looking into allowing customers to sign up for or suspend slamming protection via the Internet.

“Small Claims Court” for Consumer Complaints

Submitted by: Ron Binz
President
Competition Policy Institute
(303) 393-1556

Users: Regulators

Application: Customer service and education

Description:

As the role of telecommunications regulators moves away from economic regulation and towards consumer protection, state public service commissions should become much more efficient at processing consumer complaints about practices of companies certified to do business in a jurisdiction. The suggestion is that state commissions institute the equivalent of a “small claims court” where a consumer can get a rapid resolution of a complaint. The “court” would operate under rules designed to move complaints along quickly and remedies would be limited to damages the commission is authorized to award. Typically, neither the consumer nor the responding company would be represented by an attorney. If one of the parties (Party A) escalates the process by using an attorney, then Party A would pay legal costs of Party B if Party B prevails.

Originator of Idea:

The idea was described by a member of the Utility Consumer Board to the Colorado Office of Consumer Counsel who was reacting to the difficulty consumers had in filing formal complaints against a carrier for “held orders” (the failure to provide dial tone service on a timely basis). The concept obviously has more general application, including slamming complaints, cramming complaints, bill disputes, etc.

Has It Been Implemented?

We are unaware if the suggestion has been implemented at any commission.

Why Is It an Improvement?

The practice would likely unburden state commissions’ dockets, speed up the resolution of certain consumer complaints, improve consumer attitudes about the regulatory process, reduce legal costs and, most importantly, sharpen the incentives of regulated companies to comply with customer service and consumer protection rules.

Transferability:

The practice would likely be transferable to any state commission with clear customer service rules and the ability to impose sanctions on a carrier that violates those rules. In some cases, it may be necessary to adopt new rules or seek legislative changes. Staffing could be covered by an administrative law judge and a paralegal assistant.

Next Steps:

Develop the concept further and implement it.

Mandatory Third Party Verification for Changes in Preferred Carriers

Submitted by: Deborah M. Barrett
Vice President, Regulatory
Teltrust, Inc.
(801) 535-2000

Users: Both industry and regulators

Application: Customer service and education

Description:

Mandate independent third party verification ("TPV") for all changes in residential and business preferred carriers ("PCs") or services. A telecommunications carrier's sales representative or agent must establish that the residential or business consumer intends to make any change in his or her local or long distance telecommunications service or service provider and must explain any charges associated with that change. The consumer's decision to change local or long distance telecommunications services or providers must be confirmed by an independent third party verification company. The independent TPV company: (1) must not be managed, owned, controlled or directed more than five percent by the telecommunications carrier seeking to provide the new service; (2) must operate from facilities physically separate from those of the telecommunications carrier; and (3) must not derive commissions or other compensation based upon the number of sales confirmed. The TPV company must obtain the consumer's oral confirmation of the change, must record that confirmation, and must record pertinent consumer-specific data (such as social security digits or mother's maiden name).

Originator of Idea:

The California legislature and the California PUC have required independent TPV for residential sales since 1996 (Cal. Pub. Util. Code Sec. 2889.5), and a California workshop has recommended extending mandatory TPV for sales to business customers. Since 1992, independent TPV has been one option in the FCC's rules to verify preferred carrier changes made via telemarketing (47 U.S.C. Sec. 64.1100-64.1190).

Has It Been Implemented?

The US Congress strengthened the FCC's verification authority in 1996 (Sec. 258) and the FCC has extended the application of verification to changes of local service carriers, PC changes made as a result of consumer-initiated calls (inbound telemarketing) and PC freeze installations.

Why Is It an Improvement?

Third party verification is a fair, pro-consumer way to address the serious problem of slamming (the unauthorized change of a consumer's telecommunications carrier) that plagues consumers as well as state and federal regulators. Independent TPV can be effective in preventing

slamming before it happens by ensuring that the consumer has given his/her authorization for the change in local or long distance services or carriers. Requiring TPV of carrier changes will deter abuse and strengthen the protective measures many commissions have in place today.

Transferability:

Optional TPV has been applied for interstate long distance services for seven years and has now been extended to local carrier changes, inbound telemarketing sales and PC freezes. Mandated TPV for local and long distance residential and business services and carrier changes would be readily achievable.

Next Steps:

TPV should be mandated in the anti-slamming rules of each state utility commission. Teltrust has supported and continues to support the inclusion or expansion of TPV to confirm residential and business consumers' changes in their local and long distance services or telecommunications carriers.

Independent Third Party Verification for Preferred Carrier Freezes

Submitted by: Deborah M. Barrett
Vice President, Regulatory
Teltrust, Inc.
(801) 535-2000

Users: Both industry and regulators

Application: Customer service and education

Description:

Independent third party verification ("TPV") would be used to verify requests to institute and remove Preferred Carrier ("PC") freezes. A carrier would connect a consumer who requests a PC freeze (with or without PC change) to Teltrust's state-of-the-art verification center. Connection can be either by three-way conference call or through arranged connection. Teltrust would record the consumer's request to implement or remove a PC freeze for requested ANI(s) and would record other verification details required by regulation or requested by the carrier. Teltrust would generate a written order to the carrier's PC change group verifying that the consumer has requested installation or removal of a PC freeze on the listed ANI(s). All pertinent verification details will be contained in the digital voice recording stored in Teltrust's system. Teltrust would provide the carrier's PC change group with a dial-up telephone number for Teltrust's voice recording storage system. If a dispute arises regarding the PC freeze, the carrier's PC group would be able to dial into the Teltrust system, with the consumer on the line, to verify a particular request. Regulatory enforcement personnel could obtain access to information about disputed PC freezes.

Originator of Idea:

Teltrust and others have advocated TPV for PC freeze installations and removals in the FCC's Section 258 proceeding (CC Docket No. 94-129).

Has It Been Implemented?

The FCC now requires verification of PC freeze installations. The process described above has been developed by Teltrust personnel.

Why Is It an Improvement?

PC freezes provide an element of protection for consumers from the frustration, hassle, time and money associated with slamming. The PC freeze process can be frustrating for the consumer, laborious for carriers and, possibly, contentious for all parties involved. TPV of PC freezes makes the process more user-friendly, time-saving and convenient for consumers and carriers. Teltrust believes that consumers are hesitant to use a protective PC freeze due to the nuisance associated with the current paper process. A voice recording would enable the carrier's PC group and the consumer to expeditiously and accurately verify the initiation and

removal of the PC freeze. This proposal will eliminate a substantial amount of paper and the associated filing space needed. Also, having a consistent process for both initiation and removal of PC freezes will reduce consumer confusion.

Transferability:

Teltrust provides independent third party verification for the purposes of verifying consumers' PC changes, the services requested and, often, the rates for those services. TPV has now been extended to the installation of the PC freeze precaution. Teltrust would extend its resources to assist in the removal of PC freezes.

Next Steps:

Teltrust is supporting TPV for both the initiation and removal of PC freezes in the FCC's anti-slamming proceeding. The FCC recently adopted a requirement to use one of its verification methods to verify the installation of consumers' PC freezes. Teltrust also is working with carriers to encourage the use of TPV when PC freezes are removed as well as when they are instituted.

Independent Third Party Verification for All Purchases on a Telecommunications Bill

Submitted by: Deborah M. Barrett
Vice President, Regulatory
Teltrust, Inc.
(801) 535-2000

Users: Both industry and regulators

Application: Customer service and education

Description:

Mandate independent third party verification ("TPV") for all purchases of goods and services to be billed on a consumer's telecommunications bill. A vendor or billing entity should be required to obtain the express authorization of the consumer prior to placing on the consumer's telecommunications bill a charge for a purchase made by telephone or via the Internet. TPV can be the vehicle to ensure that purchases of goods and services made by telephone and via the Internet are indeed authorized by the consumer. The independent TPV company: (1) must not be managed, owned, controlled or directed more than five percent by the vendor soliciting -- or billing entity billing for -- the service or product; (2) must operate from facilities physically separate from those of the vendor or billing entity; and (3) must not derive commissions or other compensation based upon the number of sales confirmed. The TPV company must obtain the consumer's oral confirmation of the charge, must record that confirmation, and must record pertinent consumer-specific data (such as social security digits or mother's maiden name).

Originator of Idea:

This proposal has been originated and developed by Teltrust, Inc. personnel.

Has It Been Implemented?

Teltrust is advocating this approach in the Federal Trade Commission's anti-cramming proceeding (FTC File No. R611016). This proposal derives from the effective use of independent TPV to confirm consumer authorization for changes in telecommunications services or service providers.

Why Is It an Improvement?

Consumer protection against cramming (the inclusion of unauthorized charges on a consumer's telecommunications bill) would be greatly improved by adding independent third party verification as a requirement before a vendor or billing entity may insert on a consumer's telecommunications bill a charge for goods or services purchased by telephone or via the Internet. Requiring independent TPV of these charges will deter abuse by ensuring that the consumer has given his or her authorization for the purchase. Independent TPV is a

reasonable, pro-consumer practice to prevent the serious problem of cramming before it happens thus avoiding the regulatory complaints associated with cramming.

Transferability:

TPV has been applied for interstate long distance services since 1992, and federal statute (47 U.S.C. Sec. 258) and the Federal Communications Commission's regulations (47 C.F.R. Sec. 64.1100-64.1190) have now expanded its use to local carrier changes, inbound telemarketing sales and preferred carrier freezes. Independent TPV would be readily transferable if mandated before a vendor or billing entity may insert on a consumer's telecommunications bill a charge for goods or services purchased by telephone or via the Internet.

Next Steps:

TPV should be mandated in the federal and state regulations that protect consumers against cramming. Teltrust is submitting a proposal regarding the use of independent TPV to confirm consumer authorization for all purchases of goods and services to be billed on a consumer's telecommunications bill in the Federal Trade Commission's anti-cramming proceeding.

“Cramming” Charges

Submitted by: Susan Grant
Vice President, Public Policy
National Consumer League
(202) 835-3323

Users: Industry

Application: Customer service and education

Description:

Bell Atlantic was the first local telephone company to announce two important policy changes to protect consumers from “cramming” and assist them with their billing problems if they were cramming victims.

Originator of Idea:

National Consumer League (NCL) President Linda Gelodner, who co-chairs Bell Atlantic’s Consumer Advisory Committee, has urged the company to take aggressive action to fight cramming. Susan Grant, NCL Vice President of Public Policy, has also pressed Bell Atlantic and other local phone companies to “step up to the plate.”

Has It Been Implemented? Yes.

Why Is It an Improvement?

Bell Atlantic adopted a policy of removing disputed “cramming” charges from consumers’ bills immediately, removing the burden of contacting the crammers first to try to resolve the problem. The company also is the first to offer customers blocking of charges to their bill by third-party companies, which prevents cramming.

Transferability:

These policies could be adopted by all local telephone companies. Some have already followed suit on removing disputed charges, but as far as we know none have announced a blocking option yet.

Next Steps:

NCL intends to survey the local phone companies this summer to find out what policies they have implemented against cramming. We will continue to advocate policies that are adequate to protect consumers and as uniform as possible. Cramming was the number one complaint made to our National Fraud Information Center last year.

ADVANCED TELECOMMUNICATIONS SERVICES

Joint Statement of Principles Applicable In a Separate Subsidiary Environment

Submitted by: Terry Appenzeller
Director - Regulatory Strategy
Ameritech
(847) 248-4450

Users: Industry

Application: Advanced telecommunications services

Description:

Carriers engage in discussions to resolve contested regulatory issues, as characterized by the Joint state of Principles Applicable in a Separate Subsidiary Environment by Ameritech and Northpoint. Ameritech and Northpoint, a CLEC, engaged in an open and honest dialogue in order to reach common ground on most of the major issues in the 706 debate. Ameritech and Northpoint agreed on collocation arrangements, access to unbundled loops, a separate subsidiary framework and limited LATA relief. The agreement is significant in that two parties on opposite sides of the 706 issue have transcended the adversarial posturing in the docket in order to come to an agreement that benefits both parties.

Originator of Idea:

Ameritech and Northpoint initiated discussions regarding the principles that should drive the Commission decisions in the 706 NPRM.

Has It Been Implemented? Under consideration

Why Is It an Improvement?

This practice conserves commission resources by reducing the number of contested issues for regulators to resolve. The Joint Statement will hopefully lead to a resolution to the 706 issue that accommodates ILECs and CLECs.

Transferability:

Any company can engage in dialogue with another. This is consistent with the concept of individual negotiation contemplated in TA96.

Next Steps:

FCC decision in Section 706 proceeding.

Spectrum Interference

Submitted by: Michael Olsen
Northpoint
(415) 365-6013

Users:

Application: Advanced telecommunications services

Description:

DSL, like all other services, causes a certain level of interference to other services carried over adjacent copper pairs. While most ILECs appear to be responsibly evaluating equitable approaches to managing potential spectrum interference, SBC/Pacific has unilaterally imposed spectrum interference policies that favor the specific spectrum map of its chosen vendor over all competing DSL vendors.

Originator of Idea:

Has It Been Implemented?

Why Is It an Improvement?

Remedy: Spectrum Interference Issues Should be Resolved through a Collaborative, not Unilateral, Process.

Benefits: The ILECs' ability to terminate any interfering CLEC's xDSL service while immunizing their own xDSL service from similar interference charges is an open invitation for anticompetitive abuse. SBC, for instance, has recently indicated that it will not permit xDSL CLECs to offer any service that does not meet the specific spectrum interference specifications endorsed by SBC. SBC has further disadvantaged CLECs by refusing to release the study – apparently prepared by SBC's own xDSL equipment vendor -- underlying its spectrum interference guidelines. This behavior penalizes CLECs for using any xDSL equipment not used by SBC. By using an unsupported and unsubstantiated study to limit competitors' options, SBC is attempting to move spectrum interference issues out of industry standards bodies – where they are being actively researched and where they belong – and is attempting to unilaterally proclaim spectrum interference standards that will most benefit its own xDSL service. Accordingly, regulators should require that ILECs resolve all spectrum interference issues in appropriate industry standards committees.

Unbundled xDSL Loops

Submitted by: Michael Olsen
Northpoint
(415) 365-6013

Users: Regulators and industry

Application: Advanced telecommunications services

Description:

DSL requires “clean” copper loops devoid of a variety of impediments such as bridge tap, load coil, midspan repeaters, SLCs, and DLCs. Although almost all of the ILECs are now providing DSL service in some form, only Ameritech and BellSouth offer an “unbundled DSL loop” without any of these impediments. The other ILECs offer only an unbundled ISDN or analog loop, and either refuse to take steps required by CLECs for DSL service, or charge excessive conditioning charges.

Originator of Idea:

Has It Been Implemented?

Why Is It an Improvement?

Remedy: ILECs Should be Required to Provide Unbundled xDSL Loops .

Benefits: As explained above, unbundled digital-quality loops are required in order for consumers to enjoy DSL service. Some ILECs offer unbundled DSL loops free of DSL impediments demonstrating the technical feasibility of doing so. Provision of unbundled DSL loops free of bridge tap, load coil, and midspan repeaters should be made a pre-condition of ILEC retail DSL offerings. In addition, in order to further ensure competitive parity, regulators should require, that the ILECs move loops off SLCs and DLCs without any charge.

Remedy: ILECs Should be Required to Meet Pro-Competitive Loop Provisioning Intervals.

Benefits: While ILECs such as Bell Atlantic have committed to provide loops within five days of a CLEC's order, others require double that time. There is no justification for these dilatory loop installation intervals, which frustrate consumers' needs; accordingly, regulators should require five day loop ordering interval guarantees as a precondition to section 706 relief.

Remedy: ILECs Should be Required to Impute Loop Costs.

Benefits: ILECs impose vastly different recurring and non-recurring charges for unbundled loops. Ameritech, for instance, charges \$2.57 for an unbundled ISDN loop in Illinois (including all necessary conditioning charges), whereas SWBT's Texas SGAT charges \$65, or 2500% more. These disparities cannot be explained by any legitimate cost differential. Moreover,

when SBC/Pacific Bell filed its recent retail ADSL tariff, it reflected no loop charges based on the claim that there were no incremental costs to condition a digital loop. These disparities preclude cost-effective DSL alternatives, significantly diminishing competition and limiting consumers' ability to choose. Accordingly, regulators should require the ILECs to reflect these cost disparities in their own retail ADSL tariffs through imputation of loop costs.

UNIVERSAL SERVICE

“No Support” Zones

Submitted by: Glenn Brown
Partner
McLean & Brown
(602) 751-4151

Users: Regulators

Application: Universal Service

Description:

I have been a consistent advocate for targeting universal service support to the smallest geographical area that is feasible (i.e., CBGs), and still believe that this is the best public policy. None the less, there are parties suggesting that support be targeted to the wire center or Study Area. Should regulators decide to “target” support to the wire center, then, at minimum, there must be a defined area close to the central office where no support would be provided. Support would be provided only to high-cost customers residing outside of this “no-support” zone. If support is “targeted” to the Study Area, then a two-step process must be employed. First, low-cost wire centers must be excluded from receiving any funding. Second, a no-support zone as described above must be applied.

Originator of Idea:

I have been advocating this position for the past year.

Has It Been Implemented?

Why Is It an Improvement?

This practice would have the following benefits:

- No support should be provided to low-cost customers close to the central office. Competition will develop naturally in these areas, and providing “high-cost” funds to these customers, in addition to being a waste of money, would complicate competitive entry.
- If low-cost customers receive funding, those fund were intended for higher cost customers. This is a problem that occurs through the averaging process. Ultimately, additional funding would need to be provided to replace the “windfall” funding and to support affordable service to the high-cost customers.
- Targeting support to the customers who need it allows per-customer support payments to be closer to the cost of serving the high-cost customer. In other words, rather than a small per-customer payment to all customers in a wire center based on wire center average cost, the per-customer payment to the few high-cost customers would be significantly higher, although would still fall short of the cost of serving them.

Transferability:

This process would be relatively easy to implement, and could possible use existing regulatory processes such as base rate areas.

Next Steps:

As state and federal programs are implemented these steps would need to be applied.

Screening Method to Identify High-Cost Areas

Submitted by: Glenn Brown
Partner
McLean & Brown
(602) 751-4151

Users: Regulators

Application: Universal Service

Description:

Efficient targeting of high-cost universal service support requires the analysis of cost by small areas of geography, for example, census block groups (CBGs). There are, however, 220,000 CBGs nationwide, and analysis of each of these would be burdensome and time consuming. To reduce the number of areas which will need to be analyzed, it is suggested that a test first be applied to identify wire centers where the wire center average cost exceeds the funding benchmark. Only wire centers where this average cost exceeds this threshold would be further analyzed to determine support requirements by smaller geographic areas.

Originator of Idea:

I first heard of this idea from Lee Selwyn, President of Economics and Technology.

Has It Been Implemented?

Why Is It an Improvement?

There are two distinct benefits that this practice would produce:

- The number of areas that would need to be examined, and that the fund Administrator would need to manage would be significantly reduced saving time and resources. It would also make the more accurate targeting of support operationally practical.
- The overall size of the fund could be reduced since fringe areas of low-cost wire centers where the cost of some CBGs might exceed the benchmark would be excluded from funding.

Transferability:

This practice could be used in both the federal universal service fund and state funds.

Next Steps:

I have been actively advocating this practice.

TIIAP Adaptation

Submitted by: Steve Downs
National Telecommunication and Information Administration
(202) 482-2048

Users: Regulators

Application: Universal Service

Description:

At the state or local level, establish a competitive grant program modeled after the Department of Commerce's Telecommunications and Information Infrastructure Assistance Program (TIIAP). Like TIIAP, the grant programs would demonstrate practical applications of new telecommunications and information technologies to serve the public interest.

The grant programs would provide matching grants to non-profit organizations such as schools, libraries, hospitals, public safety entities, and state and local governments. The grants will be used to fund network-based projects that improve the quality of, and the public's access to, education, health care, public safety, and other community-based services.

Originator of Idea:

In September 1993, the Clinton Administration released *The National Information Infrastructure: Agenda for Action*. The *Agenda for Action* outlined the Administration's policy objectives for stimulating the development of the National Information Infrastructure.

In developing policy initiatives in this area, the Administration recognized that many public sector organizations do not have the necessary resources to deploy and use network technology in the near term. If left unaddressed, the gap between these organizations and those with the resources to acquire advanced technology today would increase.

Without providing adequate mechanisms which include nonprofit and public sectors in the development of network application development, new information technologies will continue to neglect the specialized needs of these sectors. Moreover, without the development of a "critical mass" of technology users in the public sector to drive the implementation of new products and services, many communities will not realize the benefits of the Nation's investment in advanced networking technologies. As a result, disparities between the nation's information "haves" and "have-nots" will increase. Studies have shown that both rural and urban underserved populations are typically the last populations to have access to and adopt new, beneficial technologies.

To address these disparities, the Administration created the Telecommunications and Information Infrastructure Assistance Program (TIIAP) to act as a catalyst to promote technological innovation and new applications in the non-profit and public sector.

Through TIIAP, applications developed in partnership between the private sector and organizations in the public and non-profit sector have served as testbed incubators for new developments and an effective source of feedback to identify and refine broader policy objectives such as universal service. By exploring the usability of the new technologies in a realistic setting, the projects supported by this grant program significantly streamline the non-profit and public sectors' acquisition of new technology.

Since 1994, TIIAP has awarded 378 grants in 50 states, the District of Columbia and the U.S. Virgin Islands. Approximately \$118 million in Federal grant funds have been matched by more than \$180 million in non-Federal funds. Applications are reviewed by external, peer reviewers, and selections are based on a project's ability to serve as innovative model. By serving as models that can be replicated in similar communities across the country, TIIAP projects extend their benefits far beyond the communities in which they take place, and provide economic and social benefits to the nation as a whole.

Has It Been Implemented?

Why Is It an Improvement?

TIIAP has accelerated the deployment of network technologies across the nation. Through a relatively small investment, \$118 million over five years, TIIAP has supported 378 projects that have served as inspiration for other communities and organizations to invest in and utilize network communication resources.

An assessment of TIIAP grantees' dissemination activities supports the notion that many other organizations are learning from these projects. For example, the 206 projects TIIAP funded in 1994 and 1995 provided written materials to over 335,000 organizations and hosted 5,489 site visits and tours.

Transferability:

The TIIAP model is very adaptable to other localities. The funding need not be large, using seed money to leverage private sector and in-kind investments has proven very effective for TIIAP. In terms of replicability, a number of state departments of education already use TIIAP's application review and selection guidelines as a model for distributing educational technology funds within their states.

Staff requirements for a TIIAP-like initiative can also be kept to a minimum. In Portland, Oregon, the Community Access Capital Grant program, which provides capital support for community organizations to use network technology, is managed by one person out of the City Office of Cable Communications and Franchise Management.

Next Steps:

One of the unique characteristics of TIIAP is that the program continues to evolve. In terms of selecting projects, TIIAP has increased its emphasis on project evaluation. TIIAP recognizes that to truly serve as a model, selected projects must conduct thorough assessments of how the projects are having an impact at the local level.

At the programmatic level, TIIAP continues to expand its own evaluation and dissemination efforts to ensure that the lessons the program staff learn through quarterly reports, site visits, and other grantee correspondence are captured and shared with as many people as possible.

Finally, TIIAP must continually coordinate with other grants agencies and the universal service system in order to prevent duplication and to ensure grants function as complements to existing efforts.

Public Transit on the Information Superhighway

Submitted by: Walter Siembab
President
The Siembab Corporation
(310) 645-1129

Users: Industry and regulators

Application: Universal service

Description:

A policy for a system of *public transit on the information superhighway* would either replace or complement universal service (a household-based narrowband consumer concept) with universal access (a community-based broadband producer/consumer concept). Universal access to broadband networks would be provided through a system of shared-use, non-profit facilities for public network access. The goal would be to provide by 2020 a public network access center (PNAC) within walking distance (1/2 mile) of each citizen in every metropolitan area (rural populations would have different distance standards).

The initial PNACs would be developed at significant intersections of public transit service such as light/heavy rail stations and multi-modal centers, particularly in low income neighborhoods. The second phase would develop PNACs at centrally located single function centers such as civic centers, shopping centers and office centers, with low income communities getting the highest priority. The third phase would bring PNACs into neighborhoods located in public schools, libraries, community centers, and mini-malls, again giving priority to low income communities.

PNACs would eventually be found everywhere, including wealthy neighborhoods, because their mission will include environmental goals, mobility goals, and economic goals as well as telecommunications market goals.

Benefits:

Mobility: Many potential destinations (work, school, health care) can be functionally transferred to a network and made available at locations closer to the origins of the traveler. In other words, a ubiquitous system of high bandwidth network access centers will allow the spatial reorganization of urban functions. Call this *telemobility*.

Environmental: Because of telemobility, fewer single occupant, fossil fuel vehicle miles will be traveled – less energy expended, less air pollution produced, and less congestion generated.

Economic: A number of positive economic outcomes, too complex to detail here, are likely. Public network access centers will provide every community with universal access to the means of production in an information economy. Specifically, this would provide:

- access points to electronic commerce,
- a linked material-economy marketplace,
- a public facility with “spread effects” for the adjacent real estate,
- a platform for a variety of economic development programs such as small business start-up seminars and computer skills training,
- a way to capitalize community-based non-profit corporations that provide low income communities with housing, health care and job training, and
- a place for diffusion of technological and programmatic innovations that will stimulate the private market for information technologies.

Because this system of universal access serves several broad societal goals, the responsibility for funding it can be shared among several marketplaces. For example, the state government could combine the contributions from the telecommunications industry with the proceeds from a dedicated gasoline tax, a dedicated sales tax (as is done for construction of mass transit systems), exactions from land developers, plus portions of the budgets of each state’s environmental protection agency, transportation agency, and economic development department.

As an example of relative costs, a 300 mile high capacity fiber network, including private, government and non-profit components, 50 PNACs, with staff and operational expenses for 3 years would cost approximately \$500 million. This is about equal to the cost of 1 mile of underground heavy rail construction or the cost of the 7 mile second deck on the Harbor Freeway south of the Los Angeles central business district.

The organizational structure for the system would expand the role of democracy in governing telecommunications provision. Municipal franchising of relatively primitive cable television systems in the 1960s through the 1980s caused virtually every city in the nation to convene an advisory panel of citizens. The best of them provided thoughtful guidance for the role of telecommunications in their communities. Ironically, the much more powerful globally integrated broadband network of tomorrow gets very little public attention as its guidance has been entrusted to the invisible hand of the marketplace. It is important in principle to ensure that some portion of the modern network is subject to direct democratic control.

Each system could be organized at the county level with the formation of a public non-profit telecommunications corporation. The model for such an organization could well be the non-profit public access corporations that each city formed in order to manage its public access studios and channels.

Each PNAC would have its own governing board that would manage the budget and oversee the staff. The county corporation would consist of representatives from these PNAC boards. Representatives from the county corporation would sit on the board of the regional backbone network

The PNACs could purchase bandwidth from the marketplace or, in partnership with local governments, could obtain dedicated transmission facilities to connect the PNACs in the city. For example, the cities of Anaheim, Pasadena, and Los Angeles in this region have acquired- or are in the process of acquiring- extensive networks through joint development partnerships with CLECs. Every transportation authority that operates an urban rail system owns the rights-of-way to construct the regional backbone for connecting the public non-profit WANs that, within each city, would connect the public non-profit LANs that integrate the various equipment pieces in each PNAC.

A typical PNAC would include a wide range of off-the-shelf technologies for *non-commercially* facilitating good quality voice, video and data communications. This could include low cost pay telephones, a mix of Pentium and Pentium II computers (as of February, 1999) with bi-lingual software, an advanced work station with CAD/CAM software, group scale video conferencing and meeting space, and tools for multi-media web page production.

For a nominal expense, these technologies would be open to first come, first served public use during certain hours, and would be programmed to provide different urban functions during other hours. These additional functions could include dermatological exams conducted by a remote HMO; a live, interactive distance education class in English as a Second Language, a contract education class in Mathematics for the Shop Floor, a contract computer class in new billing software for employees of a local lumber yard, and so forth.

The design of the infrastructure and the development of the programs should specifically reflect the needs and interests of the community, subject to the constraints of the budget.

Policy: One of the central questions facing telecommunications regulators is the level of support that should be required for "public benefits." The regulated telephone industry traditionally cross-subsidized local network access-and-use in order to maximize the number of network subscribers.

The cable television industry was more concerned with the ability of citizens and institutions to produce than to consume. As a result, public benefits in the cable industry typically involved a package that included channels for PEG access, PEG production facilities, a 5% franchise fee paid to the city's general fund, and 3% of gross revenues paid to support a non-profit corporation that managed public access.

Compared to the previous models, the current contributions to universal service are very disappointing. \$2.5 billion is barely 1% of the annual gross revenues of the common carrier segment of the total telecommunications market.

In broad outline, state regulators would:

- Endorse the vision of shared-use, non-commercial, first come-first served access to good quality network services and access devices within walking distance of every urban-based citizen as the definition of public transit for the information superhighway.
- Establish a Telecommunications Trust Fund for each county (initially under the direction of the county's MPO since the MPO is experienced brokering federal transportation funds).

- Fund the TTF with a 3% (or x%) tax on the annual gross revenues of every wireline telecommunications vendor in the state.
- Enable the formation of public non-profit network access corporations in each county.
- Promote the TTF to other state agencies (e.g., argue that some investments in automobility such as high occupancy vehicle lanes on freeways should be diverted to the TTF).
- Phase out municipal franchise agreements and franchise fees (a huge political barrier).
- Convince the federal government that a portion of the proceeds from its spectrum auction should be shared with the states in proportion to the amount of spectrum that will be used in that state (another significant political challenge). This revenue would be added to the TTF.

In the long run, the states and the federal government should harmonize the public benefit requirements that apply to wire line and spectrum vendors. This might entail replacing spectrum auctions with an annual fee based on gross revenues from commercial usage in order to be consistent with states' treatment of wireline vendors. The point would be to create and sustain a level playing field.

Conclusions: This system of public transit for the information superhighway would address three of the most vexing problems in contemporary urban policy – how to provide:

- Effective universal access to broadband networks
- An affordable new urban mobility option
- A system for expanding economic opportunity for everyone, particularly for those most disadvantaged

The resulting system of high bandwidth networks and PNACs within the telecommunications world would also constitute:

- A safety net of non-commercial telecommunications beneath the private telecommunications market.
- A weak form of competition, but a competitive alternative none the less, for the current and probably inevitable telecommunications oligopolies (see also the history of the automobile industry).
- An effective generator of demand for private network access devices and private network services.

Originator of Idea:

I have been working on the idea since the early 1970s.

Has It Been Implemented?

So far as I am aware, telecommunications have yet to be successfully integrated into urban policy as have, for example, land use, transportation and economic development. See an extended discussion of this oversight in Graham and Marvin's Telecommunications and the City: Electronic Spaces, Urban Places (Routledge, London and New York, 1996).

As former advisor to the League of California Cities, and Co-Director of the Institute for Local Self Government's (the research and education arm of the LCC) Telecommunications Education Project , I authored several articles and reports published by the ILSG in the early 1990's that discussed initial versions of this approach. See for example, "Telecommunications Issues for Local Government" (1990), and "A Telecommunications Framework for Cities" (1991).

A policy report for the Los Angeles County Transportation Commission entitled "METRO NET Fiber Optics and Metro Rail: Strategies for Development" (12/92) led to the development of the prototype public network access center by the L.A. County Metropolitan Transportation Authority. This was called the Blue Line TeleVillage Demonstration Project (BLTV). I have included two very brief summaries of this project. A 15 page Executive Summary is also available should you want additional details. I also can present an illustrated lecture on the concept and BLTV findings.

Why Is It an Improvement?

The BLTV was located at the Compton Metro Blue Line rail station in the middle of a low income, Hispanic/African American community. The facility provided a computer center with high speed internet access, a small telework center, video conference center, desk-top video conferencing, computer-based kiosks, community meeting room and support staff. Essentially, public network access was well received by citizens, non-profit corporations, government, private businesses, Pacific Bell and the MTA. The project was recognized by the National Information Infrastructure Awards and the International Telework Association.

Access was reflected in over 6,000 visits in the 9 month demonstration period.

Economic development benefited with over 2,000 people trained in some subject from computer use to planning for small business. The project also demonstrated how a material marketplace could be formed around a cyber event (video conference).

Mobility was served by an apparent "mode shift" away from automobiles to public transit and walking. Eleven additional urban functions were electronically introduced.

Transferability:

Given that care must be taken in planning each PNAC with the participation of the community in the service area, the practice seems completely transferable. Conditions such as high rates of school drop-out and non-English speaking constituents were well handled. More affluent conditions would seem to pose less difficult problems.

Next Steps:

Discuss the concept of universal access within the public interest telecommunications community, and between the telecommunications, transportation, livable cities, and economic equity communities. Sectoral isolation can inhibit effective policy.

Demonstrate and evaluate a system of PNACs in a city of at least 100,000 population.

Start lobbying for the difficult political changes involving cities giving up their franchise authority and benefits, and the federal government sharing its spectrum auction proceeds.

Universal TRS Access Number

Submitted by: Karen Peltz Strauss
Government Affairs for Telecommunications
National Association of the Deaf
(301) 587-1788

Users: Both industry and regulators

Application: Universal service

Description:

There has been much debate over the use of N-1-1 numbers, which historically have been used for public benefit. The National Association of the Deaf is suggesting that all local service providers follow Bell Atlantic's lead and adopt 7-1-1 service throughout their service areas. With 7-1-1 service, callers need to dial only an additional three digits plus the number they are calling to reach Telecommunications Relay Service (TRS) centers and communicate using text telephone or TTY devices. This would benefit the public at large as well as the deaf and hard-of-hearing community by simplifying access to TRS centers nationwide.

Originator of Idea:

The deaf and hard-of-hearing community proposed the implementation of a simpler way to access TRS as part of its TRS filings several years ago. The FCC reserved 7-1-1 for this purpose.

Has It Been Implemented?

Bell Atlantic was the first local phone company in the continental United States to adopt the provision of 7-1-1 service throughout its service area.

Why Is It an Improvement?

Adopting 7-1-1 service would simplify communication for the deaf and hard-of-hearing community as well as the community at large. The adoption of 7-1-1 service nationwide would make it easy to use TRS and lessen the need for operator assistance because there is only one telephone number to remember.

Transferability:

Completely. Any telecommunications provider that is responsible for providing 9-1-1 service has the ability to provide 7-1-1 service.

**MARKET ENTRY AND OTHER
ISSUES RELATED TO COMPETITION**

IXC and CLEC Plans For Entry Into the Local Exchange Market

Submitted by: Craig Siwy
Director - Regulatory Policy
Ameritech
(414) 270-5952

Users: Regulators

Application: Market entry

Description:

Commissions should consider IXC and CLEC plans for entry into the local exchange market when evaluating RBOC Section 271 applications. This approach was adopted by the special master presiding over U.S. West's Section 271 application in Nebraska. He determined that the plans for entry into the local exchange market by IXCs and CLECs are relevant in a Section 271(c) proceeding.

"The subject of this Section 271(c) proceeding is the status of competition in the state of Nebraska, and not any other state. U S West cannot prove Section 271(c) compliance in the state of Nebraska unless it has information from the intervenors respecting OSS system needs and the status or potential status of competition. Although U S West has a primary obligation to open its markets and put systems in place that will allow competition if it wishes to enter the long-distance market, what intervenors AT&T, TCG, Sprint and McLeod plan to do is relevant. That is particularly true if these intervenors have no interest in entering the Nebraska market at any time soon." (Nebraska Public Service Commission Application No. C-1830, Progression Order No. 9, p. 4)

Originator of Idea:

U S West filed data requests to IXCs and CLECs who intervened in U S West's Section 271(c) docket in Nebraska. The IXCs and CLECs filed objections and U S West filed a motion to compel responses. The special master overruled the IXC and CLEC objections, ordering them to answer the discovery requests subject to a protective order. The Commission sustained the special master's ruling, but limited discovery to only the intervenors who submitted pre-filed testimony and witnesses. The IXCs and CLECs chose to withdraw from the case, rather than respond to the data requests.

According to the order, the Nebraska Rules of Civil Procedure, which are based on Federal Rules of Civil Procedure, have been liberally construed to allow broad discovery, though not all information discovered is necessarily admissible. In making his ruling, the special master reasoned that the plans of IXCs and CLECs to enter Nebraska local markets are relevant in determining the status of competition and whether OSS obligations will be satisfied. He stated that this is particularly relevant if the IXCs and CLECs have no interest in entering the Nebraska market.

Has It Been Implemented? Yes, in Nebraska.

Why Is It an Improvement?

Determining the actual intentions of potential new entrants of entering the local exchange market would facilitate the process of evaluating Section 271 applications by ensuring that the record contains a complete and accurate assessment of the state of local competition.

Transferability:

IXC and CLEC intentions to enter local exchange markets are relevant in the context of a Section 271 filing in every jurisdiction.

Next Steps:

Commissions should be encouraged to follow the Nebraska Commission's approach when evaluating RBOC Section 271 applications.

“Red Light/Green Light” Section 271 Checklist

Submitted by: Craig Siwy
Director - Regulatory Policy
Ameritech
(414) 270-5952

Users: Both industry and regulators

Application: Market entry

Description:

“Red light/green light” section 271 checklist status chart. One page table that readily displays progress with the 271 checklist. Good outline for meetings and good reporting tool.

Originator of Idea:

First used by Ameritech Michigan in a meeting with the MPSC Staff.

Has It Been Implemented? Yes.

Why Is It an Improvement?

Helps keep 271 meetings focused. Allows quick assessment of 271 status.

Transferability:

It is an Excel spreadsheet. Any company can use it.

Next Steps:

PSC and FCC adopting of Ameritech’s positions on shared transport, recombinations of UNEs and performance measures.

Carrier Access to Office and Apartment Buildings

Submitted by: David Turetsky
Vice President, Law and Regulatory
Teligent, Inc.
(703) 762-5230

Users: Regulators

Application: Market entry

Description:

Tenants in multi-tenant environments (*i.e.*, office and apartment buildings) must be able to take telecommunications service from their carrier of choice. To this end, telecommunications carrier access to tenants in multi-tenant environments must be afforded by building owners and landlords on a reasonable and nondiscriminatory basis.

Originator of Idea:

The idea got started as a state statute (Section 54.259 and 54.260 of the PURA) and was implemented in a very pro-competitive manner by the Public Utilities Commission. Connecticut has adopted a similar statute; Ohio has accomplished a similar result through Commission decision; and NARUC adopted a similar resolution at its summer 1998 meeting.

Simply put, building owners and managers may not exclude a telecommunications carrier from installing equipment and offering service within their buildings when a tenant seeks service from that carrier. Building owners/managers may not demand or accept unreasonable payment of any kind from the tenant or the telecommunications carrier. The building owner may impose certain conditions reasonably necessary to protect the safety, security, appearance and condition of the property and the safety and convenience of other persons (as well as the time at which a carrier may access the property). Moreover, if a building owner can demonstrate a space constraint, a limitation may be placed on the number of carriers permitted in the building. Recognizing that the building access market does not operate as a free market, the Legislature and the Texas PUC require that compensation to the landlord be reasonable and nondiscriminatory. That is, the same costs, methodology, and rates must be assessed on all carriers given access to the building. Exclusive access contracts are prohibited. However, existing service and compensation arrangements may remain in place until a second carrier invokes the nondiscrimination requirement, at which point the second carrier either receives the same terms as the incumbent, or the terms of the incumbent's arrangement must be altered to mirror those of the second carrier.

Has It Been Implemented? Yes.

Why Is It an Improvement?

This practice prevents building owners and landlords from refusing access altogether. It also facilitates negotiations between telecommunications carriers and building owners/managers by establishing reasonable parameters within which access negotiations must occur.

Transferability:

The practice is quite transferable to others. Indeed, Connecticut has a similar statute that has been equally effective. The Public Utilities Commission of Ohio accomplished a similar result without legislation and the California Public Utilities Commission has done the same.

Next Steps:

Teligent suggests that public utility commissions recommend access statutes to their legislatures and consider the pro-competitive ways in which states such as Texas have implemented those statutes. In the absence of legislation, public utility commissions should explore the means by which Ohio and California have accomplished their objectives through regulatory action alone.

Demarcation Point for Multi-Unit Buildings

Submitted by: David Turetsky
Vice President, Law and Regulatory
Teligent, Inc.
(703) 762-5230

Users: Regulators

Application: Market entry

Description:

The demarcation point for all multi-unit buildings (commercial and residential, regardless of when internal wiring was installed) should be relocated to the minimum point of entry (MPOE), as defined in Section 68.3(b)(2) of the FCC's rules.

Originator of Idea:

The FCC developed these rules in a 1990 Order, although FCC rules distinguish between pre-1990 buildings and post-1990 buildings (in any event, the demarcation point is established at the MPOE in all instances at the request of the building owner). California was a pioneer state in adopting the FCC's rules for itself and implementing them in a manner designed to foster competition through transferring ownership and responsibility for certain telephone cable and inside wire to property owners and allowing for accelerated depreciation to accomplish the same.

Has It Been Implemented?

Why Is It an Improvement?

The relocation of the demarcation point to the MPOE permits all telecommunications carriers -- ILECs and CLECs alike -- to connect with the facilities of the building at the same location. As a result, ILEC control over the in-building network cannot be employed to impair competition and extract the related benefits from consumers. Moreover, this equalizes costs for all carriers and avoids giving one carrier (*i.e.*, the ILEC) control over facilities that must be used by other carriers in order to reach end users in a multi-unit building. Moreover, it minimizes the disruption to building owners and tenants caused by the construction of multiple end runs within a building.

Transferability:

The technical and practical feasibility of relocating the demarcation point is not in question; this practice is highly transferable to others. States such as California have long designated the MPOE as the inside wire demarcation point. Indeed, the FCC has already established relevant rules. Reference to the FCC Orders will guide state commissions in defining their demarcation

points and locating them at the MPOE in all multi-unit buildings (not only those with wiring installed prior to 1990).

Next Steps:

To the extent they have not already done so, state commissions should clarify their rules or otherwise implement rulemakings to mandate location of the demarcation point in all multi-unit buildings at the MPOE.

Facilitating Traffic Origination and Termination Through Carrier Identification Codes

Submitted by: David Turetsky
Vice President, Law and Regulatory
Teligent, Inc.
(703) 762-5230

Users: Regulators

Application: Market entry

Description:

State regulatory commission's should adopt a requirement that all certificated IXCs in the state that permit the ILEC to originate and terminate their long distance traffic must also permit a CLEC operating in that area to originate and terminate their traffic through authorizing the CLEC to input the IXC's carrier identification code (CIC) code into the CLECs switch.

Originator of Idea: Teligent

Has It Been Implemented?

Currently, Teligent is not aware of any particular state that has made this an express requirement, although most state commissions with whom Teligent has discussed the issue have agreed that they expect the IXCs to do this. The problem arises because unless an IXC submits an access service request (ASR) to the CLEC, thereby allowing the CLEC to load the IXC's CIC code into its switch and to establish billing arrangements, then the CLEC technically is not authorized to let its customers originate calls to that IXC because the IXC has not requested originating access. Consequently, customers that may have entered into long term contracts with certain IXCs are unable to switch local service to the CLEC of their choice because they cannot access their chosen IXC from the desired CLEC.

Why Is It an Improvement?

This requirement, if adopted, would enable customers to choose a CLEC without having to consider whether that CLEC can provide the customer with access to the IXC of its choice.

Transferability:

This practice should be easy to implement. When a state commission certifies its IXCs, it should state that as a condition of certification they must be willing to interconnect their network with all CLECs operating in that state and that the interconnection requirement, which stems from Section 251(a) of the 1996 Act, requires all IXCs to submit ASRs to CLECs operating switches in that state.

Next Steps:

Awareness of the issue will help to give it attention. As Teligent launches service in each market, Teligent sends letters to all IXCs in the market and requests that they submit ASRs to Teligent so that Teligent's customers may choose the IXC as their long distance provider.

Reduced Requirements for CLEC Service to Particular Geographical Areas or Customers

Submitted by: David Turetsky
Vice President, Law and Regulatory
Teligent, Inc.
(703) 762-5230

Users: Regulators

Application: Market entry

Description:

All state regulatory commissions should allow CLECs to set and follow their business plans rather than require them to alter their business plans in order to meet service-related regulatory requirements, *i.e.*, that they serve particular geographic areas or types of customers that the CLECs did not intend to serve, based on business reasons.

Originator of Idea:

The overwhelming majority of state commissions allow carriers to set and follow their own business plans, enabling carriers to choose the geographic areas and types of customers they will serve; however certain commissions dictate the geographic areas and the types of customer a CLEC will serve, regardless of the availability of its facilities.

Has It Been Implemented? Yes.

Why Is It an Improvement?

Teligent understands that state commissions have an interest in facilitating the development of competition throughout their state. Teligent fears, however, that geographic area or end user requirements may have the opposite effect, particularly on facilities-based CLECs. True facilities-based CLECs, who provide service to end users via their own facilities and are dependent upon the ILEC to the minimum extent possible, *i.e.*, because they do not purchase unbundled elements or wholesale service for resale, must substantially change their business strategy as well as internal processes if required to serve a class of users whose needs may not be consistent with their initial planned service offerings as well as to serve market areas where they do not or cannot construct their own facilities. This requires a shift in resources and capital away from the planned facilities-based service areas and offerings where the CLEC's primary focus should be in order for that CLEC to gain a foothold in the market.

Teligent believes that Commissions should recognize that enabling a facilities-based CLEC to focus only on its planned facilities-based service areas and services will promote fuller and faster competition in those areas, thus better enabling the CLEC to expand into additional geographic areas and to include additional classes of users in the future.

Transferability:

This policy should be very transferable, as it requires less regulatory effort on the part of the state commission.

Next Steps:

Implementation in more jurisdictions.

Interconnection and Resale Issues

Submitted by: Andrew O. Isar
Director - Industry Relations
Telecommunications Resellers Association
(253) 265-3910

Users: Both industry and regulators

Application: Multiple aspects of competition

Description:

TRA proposes that regulators adopt the following “best practices” as addressed in the Telecommunications Resellers Association’s December 1, 1998 response to Senator Thomas Bliley regarding implementation of the Telecommunications Act of 1996 (the Act). TRA’s primary recommendations are summarized in the attachment below. They include:

1. Establishing an Effective Collaborative Process
2. Designing An Effective Plan for Unbundled Network Elements
3. Maximizing Resale Discount and Minimizing Resale Restrictions
4. Requiring IntraLATA Toll Dialing Parity on February 8, 1999.

Originator of Idea:

These concepts have evolved from the experience gained by regulators and the industry in implementing the Act. TRA believes these fundamental concepts are critical to establishing definitive approaches for implementation of the Act and mitigate the ever-present likelihood of protracted adjudication and litigation. TRA is particularly supportive of the collaborative process, whose roots may be traced to the New York and Texas Public Service Commissions, as an “umbrella” process to address a myriad to local competition issues before regulators.

Has It Been Implemented? Yes.

Why Is It an Improvement?

Each of these “best practices” is founded on clearly defining the obligations of incumbent local exchange carriers under the Act. Such definition crates a “road map” for local competition, and offers consistency in the approaches taken by state regulators. Moreover, by defining incumbent obligations, regulators are able to mitigate the likelihood incumbent appeals when regulatory interpretations differ from those of the incumbents.

Transferability:

TRA has witnessed the success of collaborative procedures in several state such as New York, Texas, and California. While each state has formulated its own process, these processes have resulted in a uniform, comprehensive approach to defining and often resolving interconnection and resale issues.

Next Steps:

TRA urges NARUC to propose guidelines for the conduct of collaborative sessions patterned after those in New York, and California for the use of those states which have not yet undertaken such efforts.

NUMBERING ISSUES

Intercept Messages Under Area Code Splits

Submitted by: David Turetsky
Vice President, Law and Regulatory
Teligent, Inc.
(703) 762-5230

Users: Both industry and regulators

Application: Numbering Issues

Description:

In an area code split scenario, the carrier holding the original number should maintain intercept messages on all numbers assigned to customers that are affected by the split until the carrier awarded those numbers can activate the numbers into its switch or activate an intercept message itself.

In an area code overlay, ILEC should retain recording on all active numbers until the awarded carrier can load the numbers into its switch and activate them

Originator of Idea:

Teligent is not aware of any carrier that has adopted this procedure to date, but the lack of this practice has resulted in hardships to numerous end-users.

Has It Been Implemented? No

Why Is It an Improvement?

Adoption of this procedure would improve customer satisfaction and reduce customer confusion in area code split situations. Teligent has several times been faced with the following situation in a market where an area code split has occurred: An ILEC customer receives a new area code. The customer stays with the ILEC, yet its original number (with the original area code) is assigned to Teligent. The customer complains to the ILEC that an intercept message must be run on the "old" number, the ILEC responds either that it no longer "owns" the number and refers the customer to Teligent or says that Teligent took the customer's number and the customer must go to Teligent to get it back. If Teligent has not yet activated its switch in that market with its assigned NXX codes, it is unable to run the intercept message, thereby frustrating the consumer who believes that Teligent is somehow at fault.

Transferability:

This practice should be easily adoptable by every carrier and would require only the implementation of an extra step in the procedures in an area code split, *i.e.*, the incumbent carrier and the new entrant would have to coordinate when the new entrant was able to load the numbers into its switch.

Next Steps:

Heighten regulatory agency awareness of this issue so that regulatory agencies take appropriate action to require carriers to follow the procedure.

New Entrant Access to Numbers in Existing Area Codes

Submitted by: David Turetsky
Vice President, Law and Regulatory
Teligent, Inc.
(703) 762-5230

Users: Both industry and regulators

Application: Numbering Issues

Description:

In jeopardy or number exhaust situations all remaining NXXs in the existing area code should be reserved for new entrants. When an area code overlay is implemented, each new entrant must have the option to obtain at least one NXX code from the existing area code in accordance with FCC rules state commissions should facilitate the process by ensuring that a mechanism is in place to implement this requirement.

Originator of Idea:

The idea stems from the FCC's rules regarding area code overlays. In Docket No. 96-98, Second Report and Order and Memorandum Opinion and Order, FCC 96-333 par. 286 (August 8, 1998) the FCC said that 90 days before the introduction of a new overlay area code, at least one NXX must be available to every existing carrier in the affected area code. Certain state commissions have encouraged numbering administrators to ensure that new entrants not having any NXX codes should get available codes first in a jeopardy situation. For example, the Texas PUC did this with area code 713.

Has It Been Implemented? Yes.

Why Is It an Improvement?

This practice will reduce the potential anti-competitive effects of area code overlays because it will not single out new entrants purely by the overlay codes they have been assigned. Often, the new area code is considered less desirable by customers because they are less recognizable.

Transferability:

It needs to be adopted by the North American Numbering Administration uniformly across the country.

Number Pooling for Local Number Portability Testing

Submitted by: David Turetsky
Vice President, Law and Regulatory
Teligent, Inc.
(703) 762-5230

Users: Industry

Application: Number portability

Description:

Each CLEC, ILEC, and independent ILEC in a region should contribute numbers to a pool established and administered by each ILEC, for the purpose of LNP testing between carriers. Each contributing carrier could draw on the pool in order to perform LNP testing on ILEC and independent ILEC numbers as well as on numbers that have already been ported away from the ILEC to a CLEC, which would enable LNP testing between CLECs.

Originator of Idea: Teligent

Has It Been Implemented? No

Why Is It an Improvement?

Implementation of this idea would better ensure that all carriers within a market are fully LNP capable. Not only would such testing ensure that carriers could port numbers to and from the ILEC or independent ILEC, but also between CLECs.

Transferability:

Would be transferable

Next Steps:

Teligent has so far proposed this idea to two ILECs: Bell Atlantic and BellSouth. Bell Atlantic has declined to facilitate the process; however, a BellSouth executive responded favorably to the idea and is considering the proposal.

Scheduling of Local Number Portability Cutovers

Submitted by: David Turetsky
Vice President, Law and Regulatory
Teligent, Inc.
(703) 762-5230

Users: Industry

Application: Number portability

Description:

In a LNP cutover scenario, the ILEC should contact the CLEC on the day of a scheduled disconnect to ensure that all parties are prepared and that a subsequent cancellation of the disconnect has not been overlooked.

Originator of Idea:

Bell Atlantic sets forth this procedure in its handbooks for both the North and South regions.

Has It Been Implemented? Yes.

Why Is It an Improvement?

Adoption of this procedure would improve efficiency and avoid customer dissatisfaction by ensuring that all parties are prepared for the disconnect and that a subsequent cancellation of the disconnect order has not been overlooked by the ILEC. Teligent has discovered that, with ILECs that do not have such policies in place, early or unanticipated disconnects are common and lead to undesirable periods of outage for the customer.

Transferability:

This practice should be easily transferable to every ILEC, since it requires only the implementation of an extra step in the ILEC's LNP cutover procedures.

Next Steps:

Teligent currently requests that each ILEC with which it is interconnected do this but most indicate they cannot because their internal processes are not coordinated to handle the process.

COLLOCATION

Cageless Collocation

Submitted by: Terry Monroe
Vice President, State Affairs
CompTel/ACTA
(312) 895-8457

Users: Both industry and regulators

Application: Collocation

Description:

CompTel recommends that regulators consider two basic forms of cageless collocation — Shared Space Collocation and Common Space Collocation. These collocation reforms would sufficiently accommodate the needs of a rapidly evolving competitive local industry.

Originator of Idea: N/A

Has It Been Implemented? No.

Why Is It an Improvement?

Traditional collocation — a dedicated cage equaling 100 square feet — is unnecessarily costly and inflexible. Further, as competition expands beyond urban markets to areas with smaller central offices and lower density, there will be a corresponding need for more efficient and less costly collocation options. Uncaged collocation is known as a superior alternative to caged collocation because it is faster, more efficient, and cheaper. Most important, uncaged collocation space can accommodate far more collocation customers than a caged environment.

Transferability:

This process is extremely easy to transfer. The collocation method is simple, reliable, and inexpensive. Further, other competitive markets (e.g., long distance, Internet, and consensus practices of CLECs) provide working models of efficient collocation arrangements. Finally, cageless collocation complies with the Telecommunications Act of 1996.

Next Steps:

CompTel recommends that regulators consider two forms of cageless collocation. In the first form — Shared Space Collocation — the ILEC would physically separate its equipment from the CLEC but within the shared area. In the second form — Common Space Collocation — new entrants would be allowed to collocate their equipment within the same space as the ILEC.

Improvements to Physical Collocation Practices

Submitted by: Terry Monroe
Vice President, State Affairs
CompTel/ACTA
(312) 895-8457

Users: Both industry and regulators

Application: Collocation

Description:

In addition to offering forms of cageless physical collocation, there are simple and inexpensive reforms that can be adopted to improve traditional collocation. These include: (1) improving available space; (2) creating smaller physical collocation arrangements; (3) improving intervals and throughput; (4) removing unnecessary restrictions on equipment type and use; (5) removing restrictions that prevent shared collocation space; and (6) reducing the price of providing collocation.

Originator of Idea: N/A

Has It Been Implemented?

Some of the proposed reforms have already been agreed to by one or more ILECs. For example, Bell Atlantic has recently agreed to provide CLECs with collocation cages smaller than the standard 100 ft² minimum.

Why Is It an Improvement?

The measures proposed for improving traditional collocation will improve the CLECs' ability to obtain traditional collocation arrangements in a more efficient, timely, and economical manner. For example, most ILECs limit the type of equipment that can be collocated to transport equipment. Unfortunately, these restrictions do nothing but create a competitive barrier that adds costs and delay for the CLEC and allows the ILEC to control the pace at which new technologies are employed. CLECs should be able to collocate any type of equipment that will allow them to compete effectively with the ILEC.

Transferability:

These practices are easily transferable to others.

Next Steps:

CompTel's White Paper, *Uncaging Competition: Reforming Collocation for the 21st Century*, outlines in detail steps to improve traditional collocation.

Third Party Testing of an ILEC's Operation Support Services

Submitted by: Terry Monroe
Vice President, State Affairs
CompTel/ACTA
(312) 895-8457

Users: Both industry and regulators

Application: Collocation

Description:

There are eight basic steps that should be followed in establishing a third party test of an ILEC's OSS. These fundamental steps are: (1) selecting the third party; (2) building the interfaces necessary to process CLEC-to-ILEC transactions; (3) assembling the resources needed to perform the test; (4) defining the order types that will be processed; (5) defining the maintenance, repair and restoration scenarios; (6) defining the billing requirements of the ILEC; (7) conducting the test, including any needed retesting if corrections must be made by the ILEC during the test; and (8) comparing test results to ILEC performance measures. Given the critical importance of nondiscriminatory OSS to a competitive full service environment, it is also vital that regulators follow certain principles in establishing a third party test. First, OSS should be able to accommodate commercial volumes of network elements at the scale of the PIC-change process. Second, state commissions should establish third party tests of at least the basic network elements specifically required under the 271 checklist, along with logical combinations requested by the CLECS. Further, other principles that should be followed by state commissions include, a test of the complete entry cycle, a test that is comprehensive, testing of both correct and incorrect transactions, attention to OSS needs in the data market, and regulatory patience.

Originator of Idea: N/A

Has It Been Implemented? N/A

Why Is It an Improvement?

A properly designed third party test of an ILEC's OSS is uncomplicated and inexpensive in comparison to actual market entry. That is, it will take less time and be less costly compared to actual entry because the systems need not be as large and robust as actual commercial systems, and are not connected into full back-end business systems as they would be for a CLEC. Independent third party testing will test these systems and mediate the inevitable problems that will arise with emerging OSS arrangements. Otherwise, failure to follow the CompTel/ACTA basic steps will result in unreliable systems and subsequently lead to frustration and failure in the marketplace for the CLEC and consumers. For example, most ILECs limit the type of equipment that can be collocated to transport equipment. Unfortunately, these restrictions do nothing but create a competitive barrier that adds costs and delay for the CLEC and allows the ILEC to control the pace at which new technologies are employed. CLECs

should be able to collocate any type of equipment that will allow them to compete effectively with the ILEC.

Transferability:

Basic steps can be applied across the states, subject to refinements that may be necessary to reflect the unique circumstances of each state.

Next Steps:

CompTel's recommends that state commissions require a comprehensive third party test of the ILEC's OSS, based on the principles and steps outlined in CompTel's White Paper, *Evaluating OSS Availability: A Blueprint of Third Party Testing*.

General Collocation Area with Individual Lockers

Submitted by: Matt Berns
Assistant General Counsel
Focal Communications Corporation
(312) 895-8457

Users: Industry

Application: Collocation

Description:

Focal has a collocation practice that would translate well in ILEC central offices. Specifically, Focal does not require separate 100 sq. ft. cages for its collocating customers. Instead, Focal employs a general collocation area, using 24X7 electronic key-card access. Once inside the collocation area, individual equipment is secured in locked numbered equipment lockers. Power and cabling comes through the floor. Collocating customers cannot access each others' equipment, nor can they even see the type of equipment used by other collocating customers.

Expansion of collocation space is simply a matter of requesting an additional locker (adjoining when possible).

Originator of Idea:

Focal has employed this alternative collocation arrangement since beginning operations in 1997.

Has It Been Implemented? Yes.

Why Is It an Improvement?

This type of collocation arrangement is significantly cheaper, as well as a more efficient use of space. By contrast, typical ILEC build-out of a collocation space can cost a minimum of thirty to forty thousand dollars before the first piece of equipment is placed. If adopted by ILECs, the lower cost factor could encourage collocation in more central offices, thus expanding the footprint for loop and DSL-based applications further into the less densely populated areas. A lower collocation cost could bring facilities-based competition to a broader customer base, including residential customers and customers removed from the most concentrated urban areas.

Transferability:

This practice is completely transferable to other LECs. Locked equipment cabinets are commercially available and key-card access is already utilized in ILEC collocation cages.

Next Steps:

The next step should be to have wider industry implementation. Focal already employs this practice in all of its central offices.

Alternatives to Physical Collocation

Submitted by: Michael Olsen
Northpoint
(415) 365-6013

Users: Industry

Application: Collocation

Description:

CLECs currently insist on physical collocation simply because most ILECs make no comparable solution available. ILECs, of course, have little reason to develop creative solutions since they can move their own xDSL equipment into central offices without worrying about space limitations, intervals, or imputed costs. CLECs have suggested numerous alternatives that would promote broadband service deployment if made available under reasonable terms and conditions. Given the ILECs' reluctance to agree to such solutions, however, it is apparent that regulatory assistance is required.

Originator of Idea:

Has It Been Implemented?

Why Is It an Improvement?

Remedy: Virtual Collocation Arrangements Should be Made Available to CLECs in Which CLECs Can Own, Install, and Maintain Their Own Equipment.

Benefits: To date, CLECs have focused on obtaining physical collocation space in order to ensure that they are able to install and maintain their own equipment. Virtual collocation arrangements – where the CLEC's equipment is intermixed with the ILEC's and the ILEC installs and maintains the equipment -- severely limit the CLEC's ability to respond to service problems and its flexibility to deploy new services. Virtual collocation arrangements in which the CLECs can own, install and access their own equipment would not pose the same disadvantages and would provide many of the benefits of physical collocation. Accordingly, ILECs should be required to develop virtual collocation arrangements where the CLEC can own, install and maintain its equipment

Remedy: Cageless Collocation Must be Made Available to CLECs at Charges Significantly Less Than Physical Collocation.

Benefits: While cageless collocation can allow a CLEC to deploy service effectively, it is far less attractive than physical collocation, which allows a CLEC to maintain complete and exclusive control over its equipment. Nonetheless, those few ILECs that do allow cageless collocation – such as BellSouth -- charge rates that are comparable or proportionally more expensive than those for physical collocation. Cageless collocation requires less space and

thus should be much cheaper and quicker than physical collocation. Low-cost cageless collocation must be made available before any section 706 relief is granted.

Decreasing Charges for Collocation

Submitted by: Michael Olsen
Northpoint
(415) 365-6013

Users:

Application: Collocation

Description:

Aside from needing cages delivered in a timely manner, CLECs require cost-effective collocation which enables them to serve customers in an efficient manner. The current system is characterized by a total absence of parity. NorthPoint has been charged non-recurring collocation charges ranging from \$10,000 to over \$550,000 for a single cage. By contrast, the recent ILEC retail ADSL tariffs reveal that ILECs are imputing no collocation charges for their own services. For competition to develop, the wholesale charges for collocation must be decreased and ILECs must impute to their own services the collocation charges they collect from CLECs.

Originator of Idea:

Has It Been Implemented?

Why Is It an Improvement?

Remedy: Require ILECs Seeking Section 706 Relief To Lower Collocation Costs.

Benefits: CLECs' ability to deploy xDSL services has been hampered by arbitrary pricing of collocation cages. Application fees vary between \$0 (Pacific Bell) and \$7500 (Bell Atlantic North). Charges for cage construction range from \$10,000 in Georgia to more than a hundred thousand dollars. Power, heating, and ventilation ("HVAC") installation charges can range from \$2,000 to \$12,000. Other disparities include the monthly recurring costs for the cage, which ranges from \$700 to \$2,000. These glaring disparities arbitrarily limit the economic viability of providing broadband service to consumers. To police against anticompetitive pricing, regulatory bodies must ensure these arbitrarily high collocation rates are lowered.

Remedy: Require ILECs To Eliminate First-In Penalties For Unconditioned Space.

Benefits: Several ILECs currently require the first collocater to pay 100 percent of conditioning an office to make it suitable for collocation, subject to a rebate when additional CLECs request collocation space in that CO. Since the bill to the "first-mover" can run well over a half million dollars, with no guarantee of a rebate, CLECs have a powerful incentive to wait until someone else has entered the CO before submitting their request. This has led to a reluctance to act first that has diminished consumers' ability to choose among broadband services. This anticompetitive scheme should be banned in favor of a cost-sharing arrangement like that

adopted in New York, where all carriers share the costs of conditioning based on their proportionate share of the office's floor space. Only by so doing will the regulators promote deployment of broadband alternatives in COs where physical collocation space must be added.

Remedy: Require ILECs To Impute The Cost Of Collocation In Their Retail Tariffs.

Benefits: If regulators do not establish reasonable collocation prices, then it can at least partially remedy the situation by requiring ILECs to impute the cost of collocation to their retail ADSL tariffs. Currently, CLECs face a "price squeeze" in which CLEC collocation and loop costs are less than an ILEC's full retail price. Obviously, no competition can develop if wholesale inputs for CLECs are more expensive than ILEC retail services! Imputation also will provide incentives for ILECs to rationalize their pricing and come up with lower price alternatives for CLECs to avoid imputing an amount inconsistent with market needs.

Decreasing Excessive Waits For Collocation

Submitted by: Michael Olsen
Northpoint
(415) 365-6013

Users:

Application: Collocation

Description:

In addition to the alleged lack of space for collocation, CLECs also face excessive ILEC-induced delays in obtaining physical collocation. A combination of anticompetitive and arbitrary ILEC procedures for ordering, purchasing, and delivering physical collocation cages often increase the total time to obtain cages to well over a year. These delays greatly limit customer choice yet could easily be remedied by simply eliminating the more arbitrary ILEC practices.

Originator of Idea:

Has It Been Implemented?

Why Is It an Improvement?

Remedy: Ensure Prompt Collocation Ordering Rights By Requiring ILECs To File Collocation Tariffs (Saves 2-6 Months).

Benefits: Once a CLEC is allowed to purchase physical collocation space, it can expect to wait a minimum of four months to have the cage constructed. Arbitrary ILEC ordering requirements, however, routinely subject CLECs to several months delays before they are even able to purchase collocation space. For instance, U S WEST has arbitrarily prevented NorthPoint from ordering collocation for several months by refusing to allow NorthPoint to place an order in any state in which is has not yet been approved as a CLEC, signed an interconnection agreement, and obtained State commission approval of the agreement. These steps take a minimum of six months in most states; U S WEST thus has kept NorthPoint from placing a single order in its territory to date. By contrast, Bell Atlantic, Ameritech, and Pacific Bell have tariffed physical collocation at the state or federal level, which allows a CLEC to order a cage immediately. Immediate ordering allows the CLEC to have a cage built while it is in the process of obtaining CLEC authority and a signed and approved interconnection agreement during the 4-12 month that it takes the ILEC to build the collocation space. Immediate collocation ordering rights thus promotes speedier broadband deployment. Nor is there any legitimate business justification for not tariffing collocation, since several ILECs have done just that. Accordingly, ILECs should be required to file appropriate physical collocation tariffs.

Remedy: Require ILECs To Provide Collocation Quotes In 10 Days (Saves Up To Four Months).

Benefits: Before physical collocation can be purchased, ILECs require CLECs to confirm availability and price by filing a request for quote. Ameritech provides quotes within 10 days regardless of the number of quotes submitted at any time. Other ILECs, however, require dramatically different intervals for providing a quote. For example, it took SBC almost 4 months to provide NorthPoint with quotes for several dozen Central Offices in Texas. This causes unnecessary delay on top of the excessive waits for a cage once an order is placed. ILECs should be required to provide quotes as to both price and availability within 10 days, regardless of the number of quotes submitted at any time.

Remedy: Require ILECs To Provide Standard Cage Completion Dates Of No Greater Than 90 Days For Conditioned Space.

Benefits: After a quote is accepted, the ILEC begins constructing the actual collocation cage. Cage completion intervals for ILECs range from 90 days on up. In non-ILEC offices housing ISP equipment, similar cages generally are constructed in less than 30 days. There is simply no reason for ILECs to take more than 90 days to construct a cage in conditioned space, which generally requires only the extension of power, air conditioning, and the construction of a reinforced steel mesh cage to separate the cage from the rest of the central office. ILECs, however, currently have no incentive to deliver a cage in a timely manner. Accordingly, regulators should require the ILECs to deliver cages within 90 days.

Remedy: Require ILECs To Provide Cages In Unconditioned Space In 120 Days.

Benefits: In an increasing number of instances, CLECs are told that space could be made available but it must first be conditioned for collocation, e.g., asbestos must be removed, special air conditioning and power must be added, etc. While some ILECs – such as Bell Atlantic South -- condition space within 120 days, others provide conditioning only within 180 days or, worse yet, on a wholly arbitrary “individual case basis.” There is no reason to allow some ILECs to unilaterally determine a reasonable interval when others require only 120 days. Accordingly, ILECs should be required to provide cages in unconditioned space within 120 days.

Remedy: Require ILECs To Meet Their Cage Completion Intervals Or Face Withholding Of 271 Authority Or Other Sanctions.

Benefits: Even after a CLEC obtains a promised due date, its problems are not over. NorthPoint has not had a single cage completed and released prior to its planned completion date (regardless of the amount of work required). Moreover, while most of the cages it purchased in Los Angeles were satisfactorily delivered, almost all the cages NorthPoint purchased in New York and San Francisco were either delivered late or had some flaw that rendered them unacceptable. This causes great hardship in terms of carefully planned installation schedules and customer expectations. (While SWBT requires five days to fix flaws in the cage, other ILECs provide no guarantee of when flaws will be fixed.) Currently, neither late nor flawed deliveries are reported and late completions have no consequences. In order to remedy this problem, regulators should grant every ILEC five days to fix flaws in the cage, but require reporting of missed cage construction dates, and impose monetary sanctions or other regulatory penalties (such as recommending against section 271 relief) when intervals are consistently missed.

Increasing the Space Available for Physical Collocation

Submitted by: Michael Olsen
Northpoint
(415) 365-6013

Users: ILEC practices, State Commissions

Application: Collocation

Description:

CLECs cannot provide DSL service in the area served by a Central Office (ACO©) unless they obtain physical collocation space in the CO. The importance of collocation thus cannot be overemphasized -- it is the single most important limitation to increasing broadband alternatives in the last mile. The Telecommunications Act of 1996 requires ILECs to provide physical collocation wherever available, but ILECs are increasingly asserting that space is unavailable. NorthPoint has had one or more applications for physical space denied in all of the states in which it has submitted applications, and other CLECs have experienced similar problems in obtaining physical collocation space.

Originator of Idea:

Northpoint and other CLCs

Has It Been Implemented?

California is pursuing remedies along these lines.

Why Is It an Improvement?

While there are physical limitations on the space available in central offices for collocations by CLECs, much of the space is underutilized due to practices that are either no longer useful or appropriate. For example, the advent of digital multiplexing and digital switching has dramatically increased productivity and lowered labor requirements; nevertheless, many central offices are still configured to support dozens of engineers and technicians B office space, luncheon rooms, and other facilities remain in place but are never used.

The proposed Abest practices© for collocation are designed to facilitate maximum use from a scarce resource.

Remedy: Require ILECs To Submit Detailed Floor Plans To State Commissions And Interested CLECs Wherever They Contend Space For Physical Collocation Is Unavailable.

Benefits: The FCC's Interconnection Order contemplated that ILECs would submit detailed floor plans when asserting that space was unavailable. Local Interconnection Order, & 585. Few have done so, however, and there thus has been precious little review of the

reasonableness of the space limitation claims asserted by ILECs. In California, NorthPoint and other facilities-based CLECs filed a motion demanding floor plans for 59 offices that Pacific asserted were out of space. Shortly thereafter, amid increasing scrutiny by CLECs and state regulators, Pacific found additional space in two-thirds of the 59 offices that it had declared to be closed. Thus, even the threat of third-party scrutiny can force an ILEC to be more conscientious in identifying available space. Floor plans also allow for independent verification that an ILEC's claims of lack of space are reasonable.

Remedy: Require ILECs To Remove Obsolete Equipment And Non-Critical Administrative Offices In COs To Increase The Amount Of Space Available For Collocation.

Benefits: Because the rush for collocation is a very recent phenomenon, freeing up space in COs has received little attention. In the only related state proceeding to date, U S WEST testified that it frequently has large, obsolete, older-model switches in its COs which it does not bother to remove until it needs the space for its own uses. U S WEST admitted that it would not remove such equipment when CLECs applied for collocation in these types of COs; instead, it considers the CO to be out of space. In addition to obsolete equipment, the few CO floor plans that have been made public to date also reveal large numbers of administrative offices, which were added when space was not at a premium. Many or all of these offices could be moved to regional administrative office centers with little hardship. Unfortunately, without state intervention, ILECs have no incentive to take these simple steps for competing CLECs. Regulators thus should require that ILECs remove obsolete equipment and noncritical administrative offices identifiable from CO floor plans.

Remedy: Prohibit ILECs From Warehousing CO Space For Themselves.

Benefits: A final reason underlying the ILECs' claims that offices are closed is that they warehouse unlimited space for potential future needs. In California, for instance, Pacific Bell recently announced it would be deploying its own retail ADSL service in several COs which it had declared closed to CLECs. Yet at the time it was informing CLECs that no physical collocation space was available, Pacific clearly had reserved sufficient space in those same COs for its own ADSL service. By contrast, ILECs impose on CLECs specific Anti-warehousing© rules whereby CLECs lose their collocation space if they do not utilize it in a certain period of time, generally around six months. Parity requires that first-come first-serve rules apply equally to all carriers and that all carriers be barred from warehousing.

Transferability:

Each of these procedures can be implemented by State commissions or the FCC to increase the usable space in central offices and promote facilities based and broadband competition.

Removing Restrictions on Equipment in Collocation Cages

Submitted by: Michael Olsen
Northpoint
(415) 365-6013

Users: Regulators and industry

Application: Collocation

Description:

The ILECs' routinely argue that xDSL equipment should not be placed in collocation cages, despite the FCC's clear mandate that they 'permit the collocation of equipment used for interconnection or access to unbundled network elements." [Local Interconnection Order](#), ¶ 579. Thus, even after collocation space is obtained, ILEC "gatekeeping" threatens to make it useless for the provisioning of DSL service.

Originator of Idea:

Has It Been Implemented?

Why Is It an Improvement?

Remedy: Regulators Should Specifically Clarify that Digital Subscriber Line Access Multiplexers ("DSLAMs") Can Be Placed in Collocation Cages.

Benefits: In order to provide xDSL service, DSL CLECs must be able to collocate a DSLAM, which multiplexes customer traffic from multiple xDSL lines onto a single DS-3. The FCC already has mandated that "transmission equipment such as optical terminating equipment and [multiplexers](#), may be collocated on LEC premises." [Local Interconnection Order](#), ¶ 580 (emphasis added). Nonetheless, several ILECs have refused to allow NorthPoint to collocate its DSLAM. To eliminate time-consuming and counterproductive disputes, any section 706 relief should be conditioned on the ILECs' allowing the collocation of DSLAMs and other multiplexing equipment required for DSL services.

Remedy: Regulators Should Specify that Remote Access Management Equipment and Retail Services Can Be Placed in Collocation Cages.

Benefits: ILECs, by definition, employ on-site technicians to monitor their CO equipment. CLECs, by contrast, rely on remote access management systems to monitor their equipment, since CLEC technicians cannot be stationed in ILEC COs. Although Pacific Bell allows this equipment, several ILECs have attempted to ban remote access management equipment from collocation cages. This can severely damage a CLEC's ability to provide xDSL service, since the remote access management equipment allows a CLEC to identify service troubles. Similarly, in order to use the remote access management equipment, the CLEC must be able to order retail service such as POTS lines to the collocation space. (Without these retail services,

the CLEC has no means of accessing the remote access management equipment.) Regulators should thus condition any section 706 relief on the ILECs' allowing the collocation of remote access management equipment and their commitment to provide retail services to the collocation cage.

Remedy: ILECs Should Only Be Allowed to Subject CLEC Equipment to Legitimate Safety Standards.

Benefits: Both CLECs and ILECs have a strong and shared interest in ensuring that all equipment placed in their central offices meets industry safety standards, such as NEBS Level 1. Bell Atlantic, however, is requiring CLECs to meet far more stringent NEBS Level 2 and 3 standards. This is entirely inappropriate since these standards deal almost exclusively with equipment reliability, not equipment safety. ILECs have no legitimate reason in requiring that CLEC equipment meet specific reliability standards; such concerns are properly left to the mutual agreement of the CLECs, their customers, and their equipment providers. By requiring certification to NEBS Levels 2 and 3, the ILECs condemn CLECs and their equipment vendors to months of testing, at a cost of hundreds of thousands of dollars, significantly delaying xDSL CLECs' ability to provide innovative broadband services. Accordingly, regulators should make clear that ILECs may only require that CLEC equipment meet industry safety standards, such as NEBS Level 1.

Remedy: ILECs Should Be required to List All Approved Equipment and All Equipment They Use.

Benefits: In almost all instances where ILECs have informed NorthPoint that equipment is not NEBS-compliant and refused to allow NorthPoint to place its equipment in the collocation cage, the equipment vendor has insisted it was selling the very same equipment to the ILEC in significant quantities for use in COs. Texas currently requires ILECs to list all equipment used within the CO, and there is no valid reason for why other ILECs cannot publish similar lists. This simple remedy would help to prevent discrimination by allowing independent verification that the ILECs are not using equipment they have refused to allow CLECs to use.

Terms and Conditions of Collocation

Submitted by: John Ivanuska
Director - Local Market Development
Sprint Corporation
(913) 534-6131

Users: Regulators and industry

Application: Collocation

Description:

Sprint has developed a policy that describes terms and conditions of collocation that it is sponsoring in negotiations with ILECs and in regulatory fora. Because Sprint must balance the competing interests of ILECs (Sprint Local Division) and the CLECs (Sprint National Integrated Service) and optimize shareholder value, its policy represents a keen balance of these competing (and often conflicting) interests. The policy contains such things as multiple “flavors” of physical collocation, competitively neutral space reservation policies, and a requirement that ILECs regularly make publicly available the status of space availability in its larger end offices.

Originator of Idea:

The notion of collocation being an efficient means of enabling competition and more efficient network provisioning has been in place since the early 1980s when the FCC established rules whereby ILECs were required to offer “expanded interconnection.” However, the technical requirements of the ILEC offering were quite evolutionary in nature, and the offering was utilized infrequently throughout the 1980s, primarily by competitive access providers (“CAPs”) like Teleport Communications Group (“TCG”), and Metropolitan Fiber Systems (“MFS”). Since the enactment of the Telecommunications Act of 1996 (“TA96”), the more comprehensive focus toward the achievement of widespread local exchange has led to the realization that collocation in the ILEC central office is an essential component to full and fair local exchange competition. The Sprint policy in particular was derived from a rule proposed by Covad in the context of the FCC’s 706 proceeding. Sprint examined Covad’s proposal from both an ILEC and a CLEC perspective, and made modifications essential to balancing competing ILEC and CLEC perspectives.

Has It Been Implemented?

The practice is designed to facilitate more rapid and efficient local exchange competition. Sprint has proposed the practice in a number of regulatory fora, but it has yet to be implemented in its entirety. Elements similar to those set forth in Sprint’s practice have been adopted in state proceedings. For example, the California PUC recently implemented rules that require an ILEC to clearly and convincingly demonstrate and justify when it claims that a particular end office is “out of space” for physical collocation. Many of the elements contained in the California PUC Rule are also contained in the Sprint policy. Requiring that the ILECs satisfy a “high hurdle” of proof as set forth in the rule, has and will continue to reduce

competitor frustration and mitigate the impression that ILECs are “stonewalling” competition. Also, the Rule provides for some much needed regulatory oversight of the ILEC determination that space is not available. Experience has recently shown that the prospect of regulatory scrutiny causes the ILEC to “look more closely” at space availability, by rearranging equipment, eliminating non-essential administrative space in favor of collocation space, or curtailing the amount of space reserved for the ILECs future use, with the result being (in many cases) further space availability.

Why Is It an Improvement?

Sprint’s collocation policy would require incumbents to be more rigorous and timely in making physical space available in its end offices, which would in turn save significant resources currently being spent on policy escalations, disputes and dispute resolution efforts, formal complaints internally and ultimately in the regulatory and legal arenas. Since the policy also would require the proactive publication of critical data such as ILEC addressable market data, the result would be more informed investment decisions by CLECs. For example, the policy states that, if requested, ILECs would be required to provide (on an end office basis) data that indicates what portion of the subscribers served by that end office are eligible for broadband services. Such predictive measures include average loop length, the number of customers residing behind digital line concentrators, and the state of binder group exhaust, all of which are currently barriers to the provision of broadband services from that end office. Absent predictive data such as this, CLECs are required to make decisions to collocate and place equipment without regard to actual demand potential for its broadband offerings. If CLECs have this information, a much more informed (albeit still rudimentary, due to numerous unknowns) investment decision can be made. Efficient deployment of capital is a critical factor to the success of local competition.

Transferability:

This practice is fully replicable across the ILEC industry, because it is a refinement of existing national rules that were initially enacted to implement collocation. The practice incorporates many of the recent learnings of the industry as attempts at competition are made, and shores up many of the biases that are prevalent in existing rules. Just as the FCC and states initially enacted the national rules, so can a refinement to these rules be implemented broadly and consistently in the federal and state regulatory venues.

Generally speaking, collocation is the same whether in New York, Atlanta, Kansas City, or Los Angeles. Thus, implementation of Sprint’s policy will make collocation more competitively neutral across all markets in the U.S.

Next Steps:

The practice can be “improved” in at least two significant ways. First, the FCC and state regulatory agencies can undertake proceedings to revisit collocation rules that, in many cases, are antiquated or nonexistent and implement competitively neutral policies such as those set forth by Sprint. Also, ILECs can “improve” the practice by proactively implementing the policy. One tangible way of doing this would be to move forward with the creation of the data elements set forth in the policy that are essential to the proliferation of fair local competition. Sprint’s local division (ILEC) is in the process of creating this data creation effort consistent with what is set forth in the practice.

**OPERATION SUPPORT SERVICES AND
OTHER INTERCONNECTION ISSUES**

Third Party Testing

Submitted by: Stephen Minnig
Senior Manager
KPMG Peat Marwick LLP
(202) 530-6767

Users: Both industry and regulators

Application: Operation support services

Description:

Based on a model proven to be effective in New York, the state PUC (or group of state PUCs) works with the CLEC community and RBOC to design a third-party independent test to evaluate the BOC's OSS in anticipation of a section 271 petition. The evaluation can be customized to the individual state or group of states, and would contain a number of elements which have proven to be effective in promoting competition in New York.

Originator of Idea:

The New York State Public Service Commission (NY-PSC) in conjunction with KPMG Peat Marwick LLP, Bell Atlantic - New York (BA-NY), and the CLEC community in the state worked together to forge the Master Test Plan for OSS Testing in the State of New York. KPMG acted as the test manager to implement the test, while the NY-PSC took overall ownership of the test, BA-NY and the CLEC community provided information and feedback to the tester throughout the process.

Has It Been Implemented? Yes.

Why Is It an Improvement?

- Through the testing of a BOC's OSS, this product highlights strengths and weaknesses and help and BOC make necessary system changes to meet requirements of the 1996 Act;
- By allowing a BOC to provide evidence of its OSS operational readiness at the time of its 271 application, the BOC increases its chances of passing the 14-point checklist and being permitted to offer long distance service;
- It provides a mechanism for state PUCs to evaluate BOC applicants and provides a vehicle for improving competition in that state; and,
- It provides CLECs with a road map to interconnection with the BOC and prescribes improvements that improve CLEC access to OSS.

Transferability:

The concept of third party testing is transferable to other states or groups of states. The PSC needs to contribute staff resources and needs to overall ownership of the test. Management of the test and test activities is outsourced to the third party tester.

The standard for passage of the 14-page checklist set by the FCC in its *Ameritech Michigan 271 Order* and *BellSouth South Carolina Section 271 Order* establishes the third party test a strong option, as large amounts of empirical evidence need to be presented to the Commission to prove compliance with the checklist items. The independent tester provides the PUC with the information it needs to make an informed decision, while working with both the BOC and the CLEC community to facilitate interconnection.

Next Steps:

The New York test provides a strong example of how an OSS test should be conducted. It is a thorough test that sets the minimum standards that the incumbent RBOC must meet to allow for passage of the Section 271 test. Future tests should be based on this model and adjusted to the state specific needs identified by the PUC.

Unbundling for Access to Customers Served by Digital Loop Carriers

Submitted by: Chandan Choudhary
Senior Policy Advisor
MCI WorldCom
(202) 887-2667

Users: Both regulators and industry

Application: Interconnection

Description:

There are four technically feasible unbundling methods that can provide CLECs with nondiscriminatory access to customers service by integrated digital loop carriers (IDLCs):

1. Multiple switch hosting,
2. Integrated network architecture (INA),
3. Digital cross-connect system (DCS) grooming, and
4. Side-door grooming.

Originator of Idea:

MCI WorldCom technical experts had extensive conversations with vendors about the technical capabilities currently embedded in equipment and currently used by ILECs and CLECs.

Has It Been Implemented? Yes.

Why Is It an Improvement?

Unbundling IDLCs allows CLEC as well as ILEC customers to enjoy the service quality and efficiency benefits of IDLC technology.

Transferability:

This best practice is totally transferable to all ILECs and CLECs.

Next Steps:

Industry and regulators must be informed of these IDLC unbundling capabilities and rules should be put in place to foster this unbundling that benefits customers.

Dynamic Benchmarking

Submitted by: Tim Sloan
National Telecommunications and Information Administration
(202) 482-1880

Users: Regulators

Application: Interconnection

Description:

If (1) a State commission has directed an ILEC to provide a particular interconnection/ collocation arrangement or UNE or (2) an ILEC has voluntarily offered to provide such an arrangement, there should be a rebuttable presumption that the same arrangement/ UNE should be made available in any other jurisdiction. ILECs could rebut the presumption by demonstrating that the requested arrangement/ UNE was infeasible.

Originator of Idea: NTIA.

Has It Been Implemented?

It has not been implemented.

Why Is It an Improvement? N.A.

Transferability:

NTIA's proposal should not cause problems for the largest ILECs that serve most of the customers. The fact that ILECs have an opportunity to show that any particular arrangement/ UNE is infeasible should minimize potential hardships.

Operations Support Systems

Submitted by: Michael Olsen
Northpoint
(415) 365-6013

Users:

Application: Operations support services

Description:

Most ILECs currently do not provide CLECs with access to vital operations support systems, such as the loop qualification databases. In addition, the ILECs charge widely divergent rates for OSS access, creating a barrier to entry that diminishes competition and limits consumers' ability to choose.

Originator of Idea:

Has It Been Implemented?

Why Is It an Improvement?

Remedy: ILECs Should be Required to Provide Access to Loop Qualification Databases as a Precondition to Section 706 Relief.

Benefits: While Bell Atlantic allows CLECs real-time access to a "loop qualification database" that indicates whether specific loops will support digital services like DSL, others ILECs do not. The inability to access this type of database severely hampers CLECs' ability to respond to customers' requests. Accordingly, ILECs should be required to offer real-time access to all available loop qualification databases.

Remedy: Standardization and Imputation of OSS Charges Should be a Precondition to Section 706 Relief .

Benefits: ILECs impose vastly different recurring and non-recurring charges for OSS access. SWBT, for instance, charges \$4,705 per month for dedicated OSS access, whereas the Florida PSC did not allow BellSouth to charge for OSS access. These expensive OSS costs erect a barrier to entry that threatens to significantly diminish competition and limit consumers' ability to choose. Accordingly, regulators should require the ILECs to reflect these cost disparities in their own retail ADSL tariffs.

Early Interconnection Planning Meetings

Submitted by: David Turetsky
Vice President, Law and Regulatory
Teligent, Inc.
(703) 762-5230

Users: Industry

Application: Interconnection

Description:

Early interconnection planning meetings are essential for timely network launches. The ILECs should have Subject Matter Experts from cross-functional organizations attend these meetings as a requirement, so that many interconnection related issues can be addressed early in the process and not dealt with on an ad hoc basis. In this planning session, the ILECs should provide a comprehensive document on how to do business with them, emphasizing all of the elements necessary for establishing connectivity to their networks. The document could include CLLI codes for switches located within the ILEC's footprint and an explanation of the functions served by its various equipment. For example is a particular tandem used for toll or local traffic and what is the corresponding CLLI code for each.

Originator of Idea:

Teligent initiated this strategy in its Pacific Northwest markets because of the problems it faced in other markets. Historically, too many things were done "piece-meal" and too often the ILECs did not have the correct people attend meetings. There seemed to be a fair amount of confusion within the ILEC organization as to who was responsible for what piece of network implementation. Trunk forecasts seemed to be the primary focus in planning sessions. Early interconnection meetings need to be more comprehensive in nature and early clarification of the roles, responsibilities, and accountability of each individual would lead to smoother market launches.

Has It Been Implemented? Yes.

Why Is It an Improvement?

Comprehensive meetings and network implementation documents would save a great deal of time by not having to address each network element piece-by-piece. Having the right subject matter experts available to meet face-to-face with the CLEC would reduce the time wasted in merely identifying who in the ILEC organization is responsible for each function.

Transferability:

Very transferable. Having a working document of everything a CLEC must have in place to interconnect with ILEC's network, either as a facilities-based or resale carrier, would be a valuable instrument and, once created for the first CLEC in a market, would not have to be reinvented each time. These documents should be compiled on a city-by-city basis so that the specifics of that particular network could be addressed.

Next Steps:

We will be suggesting these ideas to all of the ILECs with which we currently interface. If other CLECs were to make similar requests of the ILECs, and if regulatory agencies would support this type of effort the ILECs would be more amenable to address this request and successful interconnecting would occur more quickly.

Firm Order Commitment Dates

Submitted by: David Turetsky
Vice President, Law and Regulatory
Teligent, Inc.
(703) 762-5230

Users: Industry

Application: Interconnection

Description:

ILECs should ensure that all necessary underlying facilities are available before issuing firm order commitment (FOC) dates and should honor all FOC dates, unless due to exceptional and unforeseeable circumstances.

Originator of Idea:

Certain ILECs issue reliable FOC dates, based on the actual availability of facilities; however, Teligent has experience with one ILEC, in particular, that consistently misses its FOC dates, indicating that the facilities are not available.

Has It Been Implemented? Not completely

Why Is It an Improvement?

Reliable FOC dates would enable CLECs to better plan their market roll-outs. Missed and delayed FOC dates by the ILEC affect multiple functions related to a market launch and, ultimately, delay the launch. Moreover, if a CLEC is given a FOC date, then the CLEC may decide it can obtain the facilities more quickly from another carrier.

Transferability:

This practice should be easily transferable as it requires only that the ILEC properly investigate its facility availability prior to issuing the FOC date, rather than on the FOC delivery date itself.

Next Steps:

Continue to implement.

Teligent has applied to have a seat on the NANC in order to participate in its policy making process.

Letters of Introduction for New Entrants

Submitted by: David Turetsky
Vice President, Law and Regulatory
Teligent, Inc.
(703) 762-5230

Users: Industry

Application: Interconnection

Description:

As each CLEC enters a market, it should exchange contact information with other CLECs and independent ILECs already in the market. Teligent suggests that this be done through letters of introduction, rather than by entering into a formal agreement.

Originator of Idea:

Because of the uncertainty as to whether other CLECs or independent ILECs would require Teligent to enter into interconnection agreements in order to interact with that carrier, *i.e.*, exchange traffic and port numbers between them, Teligent began sending “letters of introduction” to each CLEC and independent ILEC in a market, in advance of that market’s launch. Through this practice, Teligent hoped to identify prior to market launch those carriers that required formal agreements and to exchange the contact information necessary for smooth and successful interactions between the carriers. Teligent sought to avoid situations that would affect its ability to gain customers in a particular market. For instance, Teligent did not wish to discover, after signing up a customer and attempting to port a number from the customer’s existing CLEC carrier, that the CLEC would not allow numbers to be ported until it had entered into a formal interconnection agreement with Teligent.

Has It Been Implemented? No

Why Is It an Improvement?

The practice is intended to avoid customer complaints by ensuring a smooth transition to another carrier.

Transferability:

The practice should be easily transferable to other CLECs as simply an extra step in each carrier’s market launch.

Next Steps:

An industry-wide recognition that interconnection agreements are unnecessary between CLECs and between CLECs and independent ILECs would smooth market launches for all CLECs and foster development of a competitive marketplace. Ultimately, a clearinghouse of CLEC and independent ILEC contact information could be established to avoid the need for new carriers to send out letters seeking to exchange such information.

Damages for Interconnection Agreement Violations

Submitted by: David Turetsky
Vice President, Law and Regulatory
Teligent, Inc.
(703) 762-5230

Users: Regulators

Application: Interconnection

Description:

Each state legislature should adopt laws that allow a CLEC to seek damages from an ILEC for violation of an interconnection agreement provision.

Originator of Idea:

The Michigan legislature adopted the Michigan Telecommunications Act ("MTA"), including Section 601, Remedies and Penalties (MSA § 22.1469(601)). Section 601 provides, *inter alia*, that if the Commission determines that a party with more than 250,000 access lines has violated the MTA and that violation results in an economic loss to a ratepayer or other party, the Commission may order any combination of the following: a per day fine for the first offense of between \$1,000 - \$20,000 for each day that the party is in violation of the MTA. Subsequent offenses are subject to per day fines of \$2,000 - \$40,000. The Commission may also order a refund to the provider's ratepayers of any collected excessive rates. Violators are also subject to license revocation and cease and desist orders. Carriers with under 250,000 access lines are subject to per day fines ranging from \$200 - \$500 for the first offense, and \$500 - \$1,000 for any subsequent offense. Section 601 has been used by CLECs to seek refunds, fines, and damages from ILECs for violations of the MTA that arose out of interconnection-related disputes.

Has It Been Implemented? Yes.

Why Is It an Improvement?

Laws such as Section 601 of the MTA provide monetary remedies for CLECs who lose customers due to ILEC performance or actions and would likely improve ILEC performance under interconnection agreements through the threat of a potential monetary penalty.

Transferability:

This practice should be easily transferable to other states, and state regulators should support the adoption of regulations or enactment of legislation similar to Section 601.