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November 13, 1998

**Via Overnight Delivery**

Mr. William Bullard, Jr.
Executive Director
South Dakota Public Utilities Commission
500 East Capitol Avenue
Pierre, South Dakota 57501-5070

Re: Proposed Telecommunications Rules

Dear Mr. Bullard:

Enclosed are an original and eleven copies of AT&T Communications of the Midwest Inc.'s Comments on the Proposed Telecommunications Rules. An extra copy has been provided for return service. These Comments (without attachments) were also faxed earlier today to the Commission for filing purposes.

Please feel free to call me if there are any questions.

Sincerely,

Mary B. Tribby

MBT/rm

Enclosures

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA



IN THE MATTER OF PROPOSED TELECOMMUNICATIONS RULES ) Docket #

AT&T COMMUNICATIONS OF THE MIDWEST, INC.'S
INITIAL COMMENTS ON PROPOSED RULES



AT&T Communications of the Midwest, Inc ("AT&T") hereby files its comments in response to the South Dakota Public Utilities Commission's Notice of Proposed Rules. AT&T's comments are limited to those rules with which it has concerns. The convention used in these comments is that additions to these rules proposed by AT&T will be underlined and deletions will be shown as stricken. Rule changes, proposed by the Commission, have already been incorporated into the normal text.

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***20:10:24 Interexchange carrier and classification rules.***

***20:10:24:04. Certificate of authority -- Information filed after certification. After*** *a telecommunications company has received a certificate of authority from the commission, the company shall submit on June 1 each year thereafter the following information from the preceding calendar year:*

*(1) A report on its revenues resulting from operations in this state, ~~a current financial statement, and a statement of any changes in the financial position of the telecommunications company relating to operations of the company in South Dakota~~. The report ~~and statements~~ shall be verified by a corporate officer and shall identify the location where any working papers supporting the report ~~and statements~~ can be reviewed;*

Explanation – It is extremely difficult to produce state specific financial statements. While revenues can be tracked with relative ease, it is very difficult to

develop the state specific costs that would be necessary to produce state specific financial statements. For a national carrier like AT&T, state specific financial statements require special studies that include cost allocations that are not typically done. Additionally, it is unclear what value state specific financial statements provide to the Commission. Therefore, AT&T recommends the elimination of any requirement to produce South Dakota specific financial statements.

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***20:10:32 Local Exchange Service Competition***

> ***20:10:32:03 Certificate of authority for local exchange service – Application requirements.*** *Telecommunications companies required to apply for a certificate of authority for local exchange services from the commission shall submit a written application including the following information:*
>
> *(21) Information concerning the applicant's policies relating to solicitation of new customers, ~~including all telemarketing scripts used by the applicant and its third-party verifier,~~ and a description of the efforts that will be made to prevent unauthorized switching of local service customers by the applicant, its employees, or agents;*

Explanation - AT&T proposes the elimination of a requirement to provide telemarketing scripts used by the applicant, as well as by its third-party verifier, in an application for local exchange service certificate of authority. This requirement has real costs and questionable benefits. At any given time, a large telecommunications company, like AT&T, could have dozens of telemarketing scripts that it uses to market the wide variety of services and calling plans it offers to customers. It would be extremely burdensome to collect every telemarketing script in use at the time of the application. Even if that were possible, the ferocity of competition requires companies to continually be updating and improving the services it offers to its customers and to improve how the

companies market those services. If a company did provide all of the telemarketing scripts in use at the time of its application, it would not be very long until the majority of those scripts were stale and out-of-date.

It is unclear how the collection of telemarketing scripts that will quickly become out of date will benefit customers or competition in South Dakota. Again, if it is assumed that a company provides the telemarketing scripts in its application, what will the Commission do with the information? Will it reject a telemarketing script? Will it require a change to the telemarketing script? Such management is likely more than this Commission would want to undertake. As such, AT&T recommends that this provision be removed.

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***20:10:32 Local Exchange Service Competition***

> ***20:10:32:10. Service obligations of all providers.*** *All telecommunications companies providing local exchange services shall, at minimum, make the following available to each customer, or otherwise ensure that the customer has other available means to obtain:*

Explanation - Local exchange competition is going to provide customers with local service options that were previously unavailable to them. Some of these options may not "look" like what has been accepted as traditional local exchange service. Nevertheless, customers will make informed decisions to purchase local exchange service options that don't look entirely like traditional local exchange service. AT&T has proposed the additional language in this rule to reflect that some local exchange service options may appear untraditional.

For example, AT&T offers its customers AT&T Digital Link Service ("ADL") across U S WEST's region. ADL provides customers that have dedicated access to the AT&T long distance network with a cost effective means to use that dedicated access for their local calling needs as well. Customers have been choosing ADL service for many reasons, not the least of which is the money they save. While ADL customers can save money, existing technological limitations do not allow E911 calls to be placed over ADL facilities. In order to have the capability to make E911 calls, ADL customers must maintain a limited amount of facilities with their previous local exchange carrier. The facilities of the previous local exchange carrier provide the customer with the ability to make E911 calls.

Technically, therefore, AT&T does not provide its ADL customers with the ability to make E911 calls. However, the customer is aware of that limitation and maintains a greatly reduced number of facilities from its previous local exchange carrier to make E911 calls. Under the rule as proposed, AT&T would be unable to offer its ADL service to large customers in South Dakota. AT&T proposed the additional language to ensure that customers in South Dakota can take advantage of innovative and cost effective services that may not look exactly like traditional local exchange service.

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***20:10:32 Local Exchange Service Competition***

~~***20:10:32:11. Local calling scope for alternative providers. A telecommunications company that is granted authority to offer competitive local exchange services in an area where the incumbent local exchange carrier provides a certain local calling area shall provide no less than the same local calling area to its customers. An alternative provider of local exchange services may, subject to commission approval, offer a different local calling area upon***~~

~~*showing that it would not be contrary to universal service, public safety and welfare, quality of service, and consumer rights concerns.*~~

Explanation - Requiring that alternative providers define their local exchange calling areas as identical to or greater than the incumbent's local calling area serves no constructive purpose. Customers should be able to take advantage of all the choices that the presence of competition offers. For instance, although an alternative provider may offer a different local calling area than the incumbent provider, it may suit a particular customer's needs at a rate that is perceived by the customer to be of higher value than other competitive options. This proposed rule would effectively limit the options that competition would bring to consumers in South Dakota. Requiring a carrier to identically replicate an area already served by another provider makes no sense in a competitive environment. Therefore, AT&T recommends that the Commission strike this rule in its entirety.

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***20:10:32 Local Exchange Service Competition***

***20:10:32:13. Annual reporting requirements.*** *After a telecommunications company has received a certificate of authority to provide local exchange services from the commission, the company shall submit by June 1 of each year thereafter the following information:*

~~*(2) A current financial statement and a statement of any changes in the financial position of the telecommunications company relating to operations of the company in South Dakota;*~~

*(5) The number of access lines being served~~, segregated between business and residential local exchange customers;~~*

Explanation – Please see discussion regarding Rule 20:10:24:04.

Additionally, AT&T does not currently report its number of access lines, segregated by business and residence. This rule, as proposed, would cause additional expense that would be borne by the consumers of South Dakota. AT&T suggests that the value, if any, to be gained is not sufficient enough to offset the costs this extra reporting burden would cause. Therefore, AT&T recommends the Commission not require the disaggregation of reporting below the number of access lines.

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***20:10:32 Local Exchange Service Competition***

***20:10:32:38. Rural exemption from negotiation and interconnection requirements.*** *Pursuant to 47 U.S.C. § 251(f)(1) (September 10, 1998), the obligations of an incumbent local exchange carrier, which include the duty to negotiate and provide interconnection, unbundled network elements, resale, notice of changes to its facilities or networks, and collocation, do not apply to a rural telephone company, unless the company has received a bona fide request for interconnection, services, or network elements and the commission determines that the rural telephone company shall fulfill the request. A provider of telecommunication services seeking interconnection, services, or network elements from a rural telephone company, subject to the exemption established by 47 U.S.C. § 251(f)(1) (September 10, 1998), shall provide the company with a bona fide request for such interconnection, services, or network elements. The bona fide request shall be in writing and shall detail the specifics of the request. ~~The bona fide request shall, at minimum, include the requesting provider's best reasonable estimate of the following information concerning the interconnection, services, or network elements requested:~~*

*~~(1) A technical description of the requested meet points or, in the alternative, the points of collocation;~~*

*~~(2) The type of collocation (physical or virtual) requested and, if physical collocation is requested, an estimate of the amount of partitioned spaced required, as well as DC power and environmental conditioning requirements;~~*

*~~(3) A technical description of any requested interface;~~*

*~~(4) The requested reciprocal compensation arrangement for transport and termination of local traffic;~~*

~~*(5) A technical description of any required unbundled network elements;*~~

~~*(6) Any requested access to the poles, ducts, conduits, and rights-of-way owned or controlled by the providing carrier;*~~

~~*(7) Any requested white pages directory listings;*~~

~~*(8) Any requested access to 911, enhanced 911, directory assistance, operator call completion service, and any required dialing parity capability;*~~

~~*(9) Whether telephone numbers are requested;*~~

~~*(10) The requested methods of interim number portability capability, until long-term number portability is available;*~~

~~*(11) A list of the required telecommunications services to be offered for resale by the requesting provider, and required operational support systems associated with the resale of these telecommunications services;*~~

~~*(12) If transit traffic functionality is required, the requested methods of providing that functionality;*~~

~~*(13) The requested completion date; and*~~

~~*(14) A list of the requesting provider's contact person for the negotiation process.*~~

Explanation -- The details proposed in this rule are inappropriate primarily because they go far beyond the bona fide request ("BFR") which is required in Section 251 of the Federal Act. Furthermore, AT&T suggests that the BFR requirements in this rule embed inefficiency into the BFR process. The requesting carrier will be entering the BFR process with extremely limited information regarding the capabilities and network of the rural carrier. It is extremely premature at the start of the BFR process for a requesting carrier to know all of the required information in this rule. Even if the information were known, it puts those parties requesting interconnection, services, or elements from a rural telephone company in the position of having to provide, as part of

the BFR, proprietary, market-sensitive information. Essentially, the rule as written provides the rural carrier with a roadmap of where and how the CLEC intends to enter the market. Further, the effort required to make even a reasonable estimate of the requested information could be wasted absent knowledge about the rural carrier's network. For example, a carrier may request fiber transport from a rural carrier and invest considerable effort in producing the technical description of the unbundled network element, only to find later that the rural carrier has no fiber in its network.

That is not to say that AT&T does not believe that the information contained in the rule shouldn't be discussed. To the contrary, it should be discussed between the requesting carrier and the rural carrier. Those discussions should be held in a cooperative spirit and should not be governed from the onset by Commission regulations. Indeed, discussions between the requesting carrier and the rural carrier may result in the requesting carrier realizing that it may not want to interconnect with the rural carrier after all.

Making the most productive use of the all of the parties' time requires some up front discussions before the formal paperwork processes start. The proposed and detailed BFR process appears to unnecessarily assume that any request for interconnection of a rural carrier will be adversarial. AT&T does not believe that this assumption should be made. AT&T's proposed elimination of the requirements of a detailed BFR should allow informal and productive discussions between the requesting carrier and the rural carrier to occur before any mandated formal process is invoked.

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***20:10:32 Local Exchange Service Competition***

***20:10:32:40 Petition for suspension or modification of interconnection requirements by rural telephone companies.*** *A petition for suspension or modification, by rural telephone companies, of the requirements set forth in 47 U.S.C. §251(b) and 251(c), and qualified in §251(f)(1)(2), (September 10, 1998) shall include:*

Explanation - As proposed, the rule could be interpreted that all carriers could petition the Commission for suspension or modification of interconnection agreements. Clearly, the intent of the Telecom Act was to limit this capability to rural telephone companies that have fewer than 2 percent of the nation's subscriber lines installed in the aggregate nationwide. Therefore, AT&T recommends the above changes to clarify that it is rural companies that may petition the Commission.

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***20:10:32 Local Exchange Service Competition***

***20:10:32:43 Designation of eligible telecommunications carriers.*** *The commission on its own motion or upon request shall designate a local service provider which meets the requirements of 47 C.F.R. § 54.201 (September 10, 1998) to serve as an eligible telecommunications carrier within each service area of the state. Upon request and consistent with the public interest, convenience, and necessity, the commission may, in the case of an area served by a rural telephone company, and shall, in the case of all other areas, designate more than one local service provider as an eligible telecommunications carrier for a service area designated by the commission, so long as each additional requesting carrier meets the requirements of 47 C.F.R. § 54.201 (September 10, 1998). ~~The commission may not, in area served by a rural telephone company, designate more than one eligible telecommunications carrier absent a finding that the additional designation would be in the public interest. In reviewing any proposed additional eligible telecommunications carrier designation within an area served by a rural telephone company, the commission shall not find it to be in the public interest if the provider requesting such designation is not offering its services coextensive with the rural telephone company's service area.~~*

Explanation - As proposed, the above rule appears to predefine public interest rather than determining it on a case-by-case basis. AT&T proposes the above change to keep open the option to designate eligible telecommunications carriers on a case-by-case basis, consistent with the Federal Act. Predetermining what does or does not serve the public interest will have a negative impact on competition.

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***20:10:32 Local Exchange Service Competition***

> ***20:10:32:45 Existing eligible telecommunications carrier designation not affected.*** *Eligible telecommunications carrier designations granted by the commission prior to the effective date of these rules shall remain in full force and effect.*

Explanation - It appears that the above proposed rule relates to proposed rule 20:10:32:43. AT&T requests that the Commission clarify its intent relating to these two rules. If rule 20:20:32:43, "Designation of eligible telecommunications carriers", stands as proposed, it appears that the addition of this proposed rule would only exacerbate the stifling of competition by effectively eliminating many new entrants from the market.

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***20:10:33 Service Standards for Telecommunications Companies***

Overall Objection - AT&T suggests to the Commission that it is inappropriate to apply service standards to competitive local exchange companies ("CLECs"). While application of the proposed rules to incumbent local exchange companies ("ILECs") may have merit, without wholesale (carrier-to-carrier) service standards in place, CLECs themselves are not guaranteed any level of service standards for services or network elements they receive from the ILECs. It is therefore unreasonable to hold CLECs

accountable to end user customers for standards relating to underlying facilities or services which the CLECs do not control.

### A. Competitive Choice Will Obviate The Need To Apply These Rules To Competitive Providers

By applying these rules to competitive providers, the Commission appears to be acting out of a concern to protect the competitive provider's customers from inadequate or poor quality service. Regulation has proven to be an effective means of ensuring that customers receive adequate quality service when customers do not have a choice of providers. However, when customers have a choice of competitive providers, the need for regulation is considerably less. A customer that is dissatisfied with the quality of service being provided by a competitive provider can easily pick up the telephone and change to a different provider.

The Commission is rightfully concerned about poor quality telecommunications providers. However, the dynamics of the competitive market will discipline and punish the poor performing telecommunications providers more quickly and harshly than the regulatory process can ever hope to achieve. AT&T urges the Commission to let the competitive market dictate the service quality that competitive telecommunications providers offer.

### B. Applying These Rules To Competitive Providers Will Limit The Service Offerings Available To South Dakota Customers

Applying these proposed rules to competitive providers establishes a baseline of service that competitive providers are prohibited from violating. The Commission has taken the decision away from the customers of CLECs of what constitutes acceptable and

adequate service. AT&T believes that the customers of competitive providers should be able to make these decisions on their own.

Experience in the long distance market has shown that segments of customers are willing to tolerate what others consider inadequate or inconvenient service if the customers can obtain the service for a lower price. Prior to extensive implementation of long distance equal access, customers would dial numerous additional digits when making long distance calls in order to save money. To those customers, the inconvenience of extra dialing was offset by the benefit of lower prices. Even with virtually universal equal access, customers are today choosing to dial the extra digits required to use the services of the myriad of what are called "dial around" long distance providers. Additionally, the telecommunications industry is seeing a surge in the use of Internet telephony. Customers are dialing extra digits and experiencing degraded voice quality in order to save money on long distance and international calls over the Internet. Customers generally make decisions to dial the extra digits and tolerate likely degraded voice quality of Internet calls with their eyes wide open.

Applying these proposed rules to competitive providers will clearly limit the competitive service choices available to customers in South Dakota. However, it is unclear how limiting the competitive service options that a competitive provider can offer is going to benefit customers in South Dakota. If a customer is not satisfied with the service they receive from a competitive carrier they have an easy solution -- they can change to a different provider.

This remedy has worked well in the long distance market where thousands of customers change providers daily. While the local market is not yet as competitive as the

long distance market, there is no reason to place unnecessary regulatory requirements on competitive providers. AT&T urges the Commission to resist the temptation to regulate the service quality of competitive providers and instead let the competitive market dictate the quality that competitive providers need to provide.

### C. These Rules Should Be Applied To ILECs

While AT&T urges the Commission to exclude competitive providers from the application of these rules, AT&T recommends that the rule be applied to ILECs, at least for the foreseeable future. South Dakota is still not a competitive local exchange market – far from it, in fact. While a number of companies have registered as competitive providers, U S WEST still has a disproportionate amount of market power. It is premature to expect, therefore, that the market will take care of service quality problems on the part of ILECs, especially for the basic exchange service addressed in this rulemaking. Once vigorous facilities-based competition develops, that will be the time to reassess whether service quality standards are necessary. As we make the transition from a monopoly environment to a multi-provider environment, it is still the Commission's role to ensure that those customers without a choice of providers have high quality service.

In addition, these rules are necessary to ensure that ILECs are providing CLECs with adequate service that is nondiscriminatory and at least equal in quality to that which the ILECs provide to themselves, their affiliates, their customers or any other third party. These rules should aid in establishing measures that can help to objectively determine if the ILECs are meeting their state and federal "equal in quality" obligations.

## D. Wholesale Service Performance Rules Need To Be Developed

AT&T has worked with MCI, Sprint, LCI and WorldCom to develop an appropriate set of performance measurements for determining whether or not parity of performance is being delivered to CLECs. The objective of this group, known as the Local Competition Users Group ("LCUG"), has been to develop a minimum set of performance measurements that adequately reflects whether parity is being provided to CLECs without imposing undue burdens or costs on incumbent LECs. Attachment A is a copy of the most current service quality measurements that the "LCUG" group has developed. The Commission may wish to use the "LCUG" performance measurements as a guideline if it opens a separate docket to determine what quality or business process standards U S WEST should be required to meet in providing service to its wholesale customers.[1]

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***20:10:33 Service Standards for Telecommunications Companies***

> ***20:10:33:33 Failure to pay for services other than local exchange services may provide ~~not~~ grounds to terminate local exchange service. ~~No~~ A*** *local exchange company may terminate local exchange service to any customer on the ground that the customer has not paid for undisputed services other than local exchange services.*

Explanation - AT&T submits that nonpayment of all undisputed charges on a bill should be grounds for possible termination of local exchange service. As proposed, this rule would provide incentive for customers to run up high unpaid bills for long distance or other services, knowing that they could not have their local exchange service terminated.

Additionally, as written, a provider of local exchange service offered in a bundle with long distance and other services, would be forced to continue providing local exchange service even when the customer's lack of payment justifies terminating the rest of the bundled services. Also, adoption of this rule could force a carrier to provide local exchange service when they would not otherwise extend service to a customer due to their credit standing. As competitive alternatives become available in South Dakota, customers will be able to change their telephone numbers and employ other means of hiding poor credit history. As written, this rule increases the potential for fraud and the resulting burden will be borne by those customers that pay their bills on time. Losses from those higher uncollectibles will be passed on to all customers in the form of higher rates. AT&T's recommended change allows that a customer may have their local exchange service terminated for nonpayment of long distance or other services, but only if those charges are undisputed.

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***20:10:34 Prohibition Against Unauthorized Switching of Carriers And Charging for Unauthorized Services***

Explanation - As an initial matter, it should be pointed out that AT&T is committed to a zero tolerance policy against slamming. In March of this year, AT&T voluntarily implemented new anti-slamming initiatives which included setting up a 24-hour slamming resolution center as well as suspending the use of certain marketing firms

[1] *See* Before the Public Utilities Commission of the State of South Dakota, In the Matter of the Interconnection Contract Negotiations between AT&T Communications of the Mid-west, Inc. and U S

who were not meeting AT&T's strict standards. AT&T will continue to lead the industry in the fight against slamming. Attachment B is a copy of the press release detailing AT&T's zero tolerance policy.

Slamming rules need to balance the dual and sometimes competing goals of protecting customers against slamming by unscrupulous carriers, and allowing customers to easily and conveniently change their designated telecommunications carrier. AT&T believes, however, that the carrier change verification rules proposed in 20:10:34 may effectively make it inconvenient and even uncomfortable for customers to change designated telecommunications carriers.

In addition to making the carrier change verification process less convenient for customers, the rules in 20:10:34 are inconsistent with federal law, telecommunications industry practices and AT&T practices in several areas. It is unclear from the proposed rules whether the verification processes would apply to inbound (customer-initiated) calls as well as outbound (telemarketing) calls. The South Dakota statute that this proposed rule enforces, SDCL 37-30A-9, is also vague regarding the applicability of verification. Current FCC rules regarding verification are only applicable to outbound calls. Additionally, the proposed Commission rules remove certain options and requirements as compared to federal law and industry practices. Finally, the proposed Commission rules add some requirements that are not present in federal law or industry practices. As a result, the inconsistencies will likely lead to legal dilemmas, customer confusion and increased costs throughout the industry. All of these are undesirable consequences for incremental benefits that are not clear.

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WEST Communications, Inc., Pursuant to 47 U.S.C. Section 252, Order TC96-184, ¶ 248.

AT&T also suggests to the Commission that since South Dakota is a single LATA state, current federal rules are sufficient to address the issue of slamming.[2] If the Commission moves forward with rulemaking on slamming, AT&T requests that the Commission consider the points made below.

**A. The Commission's Proposed Slamming Rules are Inconsistent With Federal Law**

Application of Verification - The current federal law regarding the unauthorized change of a customer's carrier sets forth options to verify a customer's change in carrier selection. These verification options apply strictly to carrier selections changed via outbound (telemarketing) calls. Under the current FCC rules, no such verification is required for inbound calls where the customer initiates the change. These are calls where the customer picks up the phone, calls the new carrier and asks to switch. It would be as if you called a travel agent to buy an airline ticket, and after finalizing the details of your travel plans, the sales agent said to you: "Before you can get your ticket, you have to talk to an independent third party to confirm that you really want that airplane ticket or you have to mail in a signed request form." At a minimum, you would be annoyed. This analogy illustrates a second point: if it is too difficult for customers to switch carriers, they will not try. Consumers and competition will suffer.

The FCC, in Docket 94-129, is currently evaluating whether or not verification rules should apply to inbound calls. Also, national legislation is being drafted that may impose verification rules on inbound calls. Until the issue is settled nationally, AT&T

[2] 47 C.F.R. § 64.1100.

suggests that the Commission clarify that the proposed rule for verification apply only to outbound calls. This clarification would relieve South Dakota consumers from bearing the cost of additional expense that telephone companies would incur to implement a rule specific only to South Dakota.

***20:10:34 Prohibition Against Unauthorized Switching of Carriers And Charging for Unauthorized Services***

***20:10:34:02 Requirements for independent third-party verification.***

Verification Requirements - Federal law presently allows a carrier four methods of verifying a customer's change in long distance carriers that is **generated by telemarketing.**[3] These methods are:

1. signed letter of authorization;
2. third party verification;
3. electronic authorization; and
4. welcome package.

The proposed Commission rules, 20:10:34:02 and 20:10:34:03, only allow two: signed letter of authorization and third party verification. This establishes potential legal dilemmas. For example, a carrier could use electronic authorization as a means of verifying a South Dakota customer's decision to change its long distance company that was prompted by a telemarketing solicitation. That carrier would be fully compliant with the requirements of 47 C.F.R. §64.1100. However, because the carrier did not use either a signed letter of authorization or third party verification as its verification method, the carrier would be in violation of proposed rule 24:10:34:06. The carrier would

[3] 47 C.F.R. § 64.1100.

simultaneously be in compliance with federal law and in violation of South Dakota rules while performing the exact same action.

## B. The Proposed Rules Are Inconsistent With Current Industry and AT&T Practices

The "gold standard" of verification methods in the long distance industry is third party verification. Carriers and customers have found this method to strike the best balance of protecting customers from slamming while at the same time making carrier change verification easy and convenient. Using this standard, the customer's confirmation is usually provided in the form of generally unknown personal information, i.e., mother's maiden name, date of birth or social security number. That information is typed by the third party verification company into a database as a record of that verification. Should a dispute arise, the generally unknown personal information serves as the record of the oral confirmation.

AT&T supports the Commission's proposed rule that includes third party verification as one of the two approved verification options. However, the Commission's method of performing third party verification adds an additional requirement that deviates greatly from current industry and AT&T practices. Rule 24:10:34:02 appears to require that an audio recording of the conversation between the customer and the third party verification company be made. AT&T objects to the requirement of audio recording of all of the third party verification transactions for several reasons.

The first reason is that it puts AT&T and the customer in the uncomfortable position of having to make an audio recording of their conversation. Customers are

becoming increasingly protective of their privacy. Many customers will object, become suspicious or become uncomfortable about having their conversations recorded and maintained for a period of 12 months. It will be equally uncomfortable for the carrier to have to put its customer in that awkward position. Rather than feeling "protected" by the recording of their conversation, many customers will feel that their privacy is "violated". AT&T would guess that if the audio recording requirement is adopted, then the Commission will field numerous complaints from consumers about "telephone companies forcing them to have their conversations recorded just to change telephone companies".

The second reason is that it adds a tremendous amount of cost to the verification process. Customers in South Dakota today change their long distance company tens of thousands of times per year. The advent of intraLATA toll presubscription and local exchange competition will only add to that total. The hardware, software, software development, systems engineering, and retraining that would be required to implement recording of third party verification calls would be significant.

The third reason is that it would require processes that are unique to South Dakota. Aside from the expense required to record voice conversations for South Dakota customers, national and regional carriers will also have additional costs to "work around" South Dakota's requirements which will be different than virtually the entire country. One way or another, it will be the consumers in South Dakota that will eventually be paying for the increased costs of recording customers' conversations. AT&T fails to see how the loss of a customer's privacy and the additional costs are offset by any consumer benefit.

The requirement that customer's conversations be recorded also appears to be more than is required by South Dakota law. When discussing third party verification, SDCL 37-30A-9 states:

> The third-party verification company shall obtain the consumer's oral confirmation regarding the change and shall record that confirmation. The record shall include the information requested by the third-party verification company and the consumer's responses.

The law does not explicitly require or even appear to require that an audio recording of the entire conversation be made. AT&T would submit that the legislature's first use of the word "record" in the above citation was as a verb to mean, "to set down in writing: make a written account or note of: furnish written evidence of: put into written form".[4] AT&T would also submit that the legislature's second use of the word "record" was as a noun to mean, "an account in writing or print or in some other permanent form intended to perpetuate a knowledge of facts or events".[5]

If the South Dakota legislature truly intended to require an audio recording of the customer's entire conversation, the second use of the word "record" in the statute would be different. If the legislature intended the first use of the verb "record" to mean, "to cause (sound, visual images) to be transferred to and registered on something (as a phonograph disc, magnetic tape) by mechanical usu. electronic means in such a way that the thing so transferred and registered can (as by the use of phonograph, tape recorder) be

[4] Webster's Third New International Dictionary, Unabridged.
[5] Id.

subsequently reproduced" then it probably would have used the word "recording" in place of "record" as the noun in the latter part of the statute.[6]

The existing industry practice of obtaining and recording (by typing into a database) generally unknown personal information and maintaining that record for a period would appear to satisfy SDCL 37-30A-9. However, that practice would not satisfy proposed rule 20:10:34:02. As such, AT&T recommends changes to proposed rule 20:10:34:02 to allow the rule to conform with current industry practices and SDCL 37-30A-9, as set forth below.

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***20:10:34 Prohibition Against Unauthorized Switching of Carriers And Charging for Unauthorized Services***

> ***20:10:34:02 Requirements for independent third-party verification.*** *When an independent third-party verification company obtains a subscriber's oral confirmation regarding a change of a designated telecommunications company for interexchange or local exchange telecommunications services, the third-party verification shall include:*
>
> ~~*(4) The name and toll-free telephone number of the newly requested telecommunications company;*~~

Explanation – Requiring the independent third party verifier to provide the name and toll free telephone number of the newly requested telecommunications company during the change verification procedure would be a requirement unique to South Dakota that would cause unreasonable burdens on AT&T. AT&T does provide the customer with its toll free telephone number. However, that number is provided, not during the

[6] Id.

third party verification, but in the fulfillment letter. The fulfillment letter provides a written and enduring record of the toll free number of the carrier. A requirement to verbally provide the customer with the toll free number during the third party verification almost ensures that the customer will not retain the number. Most customers will not even choose to record the toll free number during the call. For those that choose to record the number, providing it verbally requires the customer to get a pen and a piece of paper, and then write down the number. Inevitably, the paper will be the back of an envelope or some other scrap that will be promptly lost. AT&T believes that a fulfillment letter is a more effective means of providing this information to its customers.

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***20:10:34 Prohibition Against Unauthorized Switching of Carriers And Charging for Unauthorized Services***

> ***20:10:34:02 Requirements for independent third-party verification.*** *. The third-party verification company shall maintain ~~electronically~~ a record of, ~~in its entirety,~~ the verification data unique to the subscriber ~~telephone call that~~ confirms the subscriber's change of a designated telecommunications company. The record of the verification data unique to the subscriber ~~electronic recording~~ shall be retained by the third-party verification company for 12 months.*

Explanation – For the reasons previously discussed, AT&T believes consumers in South Dakota receive adequate protection from slamming through the recording of verification data unique to the subscriber. Additionally, AT&T believes that a Commission requirement to record a customer's conversation with the third party verification company is burdensome, costly, and causes unnecessary customer concerns.

If the Commission insists on maintaining a requirement of the audio recording of customer's conversations with the third party verification company, then AT&T would

propose that this requirement only be used in exceptional situations. A requirement to make audio recordings of customer's conversations with third party verification companies should only be imposed on carriers who, after a hearing, are found to be routinely and consistently slamming customers. This would allow the Commission to reserve the burdens of mandatory audio recording of customers' conversations for only the proven "bad actors".

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***20:10:34 Prohibition Against Unauthorized Switching of Carriers And Charging for Unauthorized Services***

> ***20:10:34:03. Letter of agency form and content.*** *A letter of agency obtained from a subscriber for a change of the subscriber's telecommunications company shall be a document which sole purpose is to authorize the change of a telecommunications company. It must be signed and dated by the subscriber of the telephone line requesting the change. It shall not be combined with inducements of any kind on the same document. At a minimum, the letter of agency must be printed with a type of sufficient size to be clearly legible and must contain clear and unambiguous language that confirms.*
> *20:10:34:03 (6) That the subscriber understands that any change in a subscriber's interexchange or local exchange service company may involve charges to the subscriber. ~~The precise amount of each charge shall be specified in the letter of agency~~;*

Explanation – Carriers may not often know the precise amount of a carrier change charge as that is usually a tariffed item that is in control of the local exchange company. Even if that tariffed charge were known to the carrier, the proposed requirement would result in local exchange company specific letters of agency. A national carrier like AT&T could be forced to maintain and keep track of potentially hundreds of letters of agency that account for differences in the rates that are charged to make carrier changes. The logistics of that requirement would be virtually impossible to maintain.

The important point to make to the customer is that there may be a charge for changing carriers. That point can still be made if the requirement to identify the precise charge is eliminated. As such, AT&T recommends that the requirement to identify the precise charge for the carrier change be eliminated.

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***20:10:34 Prohibition Against Unauthorized Switching of Carriers And Charging for Unauthorized Services***

> ***20:10:34:03. Letter of agency form and content.*** *A letter of agency obtained from a subscriber for a change of the subscriber's telecommunications company shall be a document which sole purpose is to authorize the change of a telecommunications company. It must be signed and dated by the subscriber of the telephone line requesting the change. It shall not be combined with inducements of any kind on the same document. At a minimum, the letter of agency must be printed with a type of sufficient size to be clearly legible and must contain clear and unambiguous language that confirms:*
>
> ~~*(9) A toll-free number that the subscriber can call to verify whether the change has occurred.*~~

Explanation – AT&T agrees with the Commission that a toll free number that can be used to verify a change in carrier selection should be provided to the subscriber. However, AT&T suggests that the letter of agency in not the appropriate venue to provide the toll free number. AT&T provides its customers with a toll free number, that can be used to verify that a carrier change has been made, in the fulfillment letter that is sent to the customer. AT&T suggests to the Commission that the fulfillment letter is the best method of providing the information to the consumer in a convenient and timely manner. Unlike the letter of authorization, which will eventually end up in the hands of the carrier, the fulfillment letter will be mailed to the customer shortly after the change process has

been initiated. It is at this point that the customer would want to verify that the change has taken place, not when the customer signs the letter of agency.

Since the provision of a toll free number to verify the change is not part of the federal rules and since AT&T already provides the information with its fulfillment letter, AT&T recommends the elimination of that requirement to provide the toll free verification number as part of the letter of agency. Compliance with the proposed rule that is unique to South Dakota would cause expensive system and process changes, resulting in higher costs that would be borne by the consumers of the state.

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***20:10:34 Prohibition Against Unauthorized Switching of Carriers And Charging for Unauthorized Services***

***20:10:34:06. Telecommunications company liability.*** *Notwithstanding any other provision of law, a telecommunications company, its agent or employee, who initiates a change in a subscriber's telecommunications company in violation of these rules, or cannot provide documentation that the change was initiated in compliance with these rules ~~is liable~~ must:*

*(1) Re-rate the calls and services at the level that the properly authorized telecommunications company would have billed. The subscriber should only be billed for the amount that it would have been liable for to the properly authorized telecommunications company. ~~To the subscriber for all long distance charges, local exchange service charges, monthly service charges, carrier switching fees, and other relevant charges billed by the unauthorized telecommunications company or its agent to the subscriber during the period of the unauthorized change, not to exceed six continuous months; and~~*

*(2) Remit tTo the subscriber's original telecommunications company ~~for~~ all charges related to reinstating service to the subscriber and an amount equal to all charges paid by such subscriber after such violation.*

Explanation - A requirement to absolve customers of all charges billed by unauthorized carriers is contrary to existing federal requirements. The federal

requirement is that if a customer is slammed, a customer's calls must be re-rated and the customer should be liable to the unauthorized carrier only for the charges that the customer would have incurred with its properly authorized carrier. The FCC explained its decision to reject an "absolution" approach when it found:

> The "slammed" consumer does receive a service, even though the service is being provided by an unauthorized entity. The consumer expects to pay the original rate to the original IXC for the service. Except for the time and inconvenience spent in obtaining the original PIC, consumers are not injured if their liability is limited to paying the toll charges they would have paid to the original IXC.[7]

Nothing has changed in the three years since the FCC's 1995 Report and Order to alter the conclusion that absolving customers of all liability for charges in a slamming dispute is unwarranted. AT&T believes that the FCC's 1995 Report and Order properly replicates the legitimate economic expectations of customers whose selected carrier has been changed without authorization, by requiring the unauthorized carrier to re-rate its bill to the level that would have been charged to the customer in the absence of an unauthorized change.[8] With this "'make whole' remedy,"[9] consumers are fully insulated against exorbitant charges by another carrier in the event of an unauthorized change.[10] Absolving such customers of all charges is unnecessary to achieve that objective; as the

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[7] 1995 Report and Order, 10 FCC Rcd at 9579 (¶ 37)(footnote omitted).

[8] The FCC held a decade ago that customers are not liable for carrier change charges in connection with unauthorized changes. See Illinois Citizens Utilities Board (Petition for Rulemaking), 2 FCC Rcd 1726 (1987).

[9] 1995 Report and Order, 10 FCC Rcd at 9579 (¶ 37).

[10] In a companion ruling in its 1995 Report and Order (id. at 9580 (¶ 39)), the FCC required the authorized carriers to refrain from billing optional calling plan minimum payments to presubscribed customers whose service has been changed without authorization, unless the plan provides additional benefits (e.g., calling card discounts) and the customers' liability for the minimum payments are clearly stated in the authorized

FCC found more than a decade ago, "[c]omplete forgiveness of charges exceeds the damages" suffered by a slammed customer.[11]

Indeed, with the enactment in the Telecommunications Act of 1996 of a new Section 258 of the Communication Act, absolving customers of all charges is even more inappropriate. Moreover, absolution of customers' charges from unauthorized carriers would eviscerate the carefully crafted private enforcement remedy provided by Congress in Section 258(b) of the Communications Act. That new statutory provision makes a carrier that violates the FCC's prescribed carrier change verification procedures liable to the subscriber's authorized carrier "in an amount equal to the charges paid by such subscriber after such violation," in accordance with rules to be adopted by the FCC. This right of action based on collected revenues rather than lost profits, as under traditional measures of damages, creates a powerful incentive for private enforcement by carriers injured by unauthorized changes of their subscribers.

Absolving "slammed" customers of all liability for charges from the unauthorized carrier is utterly contrary to the objective of Congress to create a method for properly authorized carriers to recover their lost revenue. As the FCC correctly states,

> "Under Section 258(b), the liability between properly authorized and unauthorized carriers exists only to the extent that the unauthorized carrier actually collects charges from a slammed subscriber . . . We recognize that if subscribers are absolved of all liability for charges assessed after being slammed . . . the properly authorized carrier would be deprived of foregone revenue" (emphasis in original)(footnote omitted).[12]

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carrier's tariff. This requirement further protects "slammed" customers from incurring unwanted charges as a result of an unauthorized change.

[11] Franks v. U.S. Telephone, Inc., File No. E-86-11, Mimeo 4620, released May 7, 1986 (¶ 12).

The proposed rules would deprive economically injured carriers of their most effective remedy for recovering revenue lost as a result of slamming activity directed at their customers. The absolution proposal thus cannot be defended on any basis. Rather than vindicating the legitimate economic expectations of consumers, absolution would simply provide subscribers a windfall in the name of "deterring" slamming, while at the same time eliminating the very deterrent mechanism that Congress enacted to control slamming.

Additionally, an absolution remedy would create perverse economic incentives for customers to delay raising bona fide slamming claims. Indeed, absolving customers of all charges could be an invitation to fraud. Adoption of any reparations measure that is likely to deter early correction of unauthorized changes would plainly disserve the interests of authorized carriers, the Commission's interest in compliance with its rules, and the long term interest of customers in controlling slamming. The Commission should therefore eliminate the customer absolution "windfall" sections from this rule and instead

[12] Further notice ¶ 27.

adopt the AT&T proposed language. The AT&T proposed language is intended to "make the customer whole".

Respectfully submitted this 13th day of November 1998.

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# ATTACHMENT A

# LOCAL COMPETITION USERS GROUP (LCUG)

## SERVICE QUALITY MEASUREMENTS (SQMs)

August 28, 1998
Membership: AT&T, Sprint, MCI, LCI, WorldCom

Version 7.0

# Service Quality Measurements
## --Table of Contents--

## Background:

On August 8, 1996, the Federal Communications Commission released its First Report and Order (the Order) in CC Docket No. 96-98 (Implementation of the Local Competition Provisions of the Telecommunications Act of 1996). The Order establishes regulations to implement the requirements of the Telecommunications Act of 1996. Those regulations are intended to enable potential competitive local exchange carriers (CLECs) to enter and compete in the local telecommunications markets. One requirement found to be "absolutely necessary" and "essential" to successful entry is that the incumbent local exchange carriers (ILECs) provide nondiscriminatory access to their operations support systems (OSSs). Many variations of interim OSS GUIs (graphic user interfaces) and electronic gateways have been or are being offered by the ILECs. These interim systems have not provided the capability for the CLECs to provide the same customer experience for their customers as compared to what the ILECs do for their customers. The availability, timeliness and accuracy of information processed by the ILEC for pre-ordering, ordering, provisioning, maintenance and repair, unbundled elements, and billing have not, to date, been satisfactory. Service delivery problems exist regardless of whether total service resale (TSR), unbundled elements, or interconnection are utilized. Final solutions for application-to-application real time system interfaces are elusive because of the complexity, the diversity of committed implementation schedules, and lack of or inconsistent use of industry guidelines.

On February 12, 1997, the Local Competition Users Group (LCUG) issued its "Foundation For Local Competition: Operations Support Systems Requirements For Network Platform and Total Services Resale." The core principles contained in the document are: Service Parity, Performance Measurement, Electronic Interfaces, Systems Integrity, Notification of Change, and Standards Adherence. Each of these is significant to ensure CLEC customers can receive at least equal levels of service compared to those the ILEC provides to its own customers.

The LCUG group indicated in its Foundation document that is was essential that a plan be developed to measure the ILECs performance for all the OSS categories (e.g. pre-ordering, ordering and provisioning, maintenance and repair, network performance, unbundled elements, operator services and directory assistance, system performance, service center availability and billing). To that end, an LCUG sub-committee was formed with a charter to address measurements and metrics. The subcommittee jointly developed a comprehensive list of potential measurements, which was shared among the team members for review. Each committee member researched an assigned measurement group for the purpose of proposing consolidation and other modifications. The subcommittee discussed each measurement and considered existing regulatory requirements (minimum service standards) as well as good business practices in arriving at the recommended measurement and extent of detail to be reported. Service Quality Measurement (SQM) benchmark levels of performance were established to provide a nondiscrimination standard in the absence of directly comparative ILEC results. Establishing precise benchmark levels was difficult since ILECs have been reluctant to share actual performance results. The benchmarks, therefore, were based upon best of class performance and an assessment of the necessary performance to support a meaningful opportunity for CLECs to compete. SQM benchmarks may change if the ILECs share historical and/or self-report current results.

## Measurement Plans:

A measurement plan, capable of monitoring for discriminatory behavior, must incorporate at least the following characteristics: 1) it permits direct comparisons of the CLEC and CLEC industry experience to that of the ILEC through recognized statistical procedures; 2) it accounts for potential performance variations due to differences in service and activity mix; 3) it measures not only retail services but experiences with UNEs and OSS interfaces; and 4) it produces results which demonstrate that nondiscriminatory access to OSS functionality is being delivered across all interfaces and a broad range of

resold services, unbundled elements and interconnection capabilities. The measures employed must address availability, timeliness of execution, and accuracy of execution.

It is essential that the CLECs be able to determine that they are receiving at least equal treatment to that ILECs provide to their own retail operations or their local service affiliates. Benchmarks (performance standards) that are either negotiated by the CLECs and ILECs, or ordered by Commissions, need to clearly demonstrate that new service providers are receiving service on reasonable terms that affords an efficient CLEC a meaningful opportunity to compete.

This document discusses measurements at both a summary level (Executive Overview) and at a level suitable for starting the implementation process (Measurement Detail).

# Business Rules

## Test for Parity and Compliance with the Act:

Across all reporting dimensions, performance results (mean, proportion, or rate) should be collected for the ILEC's retail versus wholesale performance. Using a statistical model acceptable to CLECs, these results should be compared to confirm or reject an assumption of parity (in performance results and variance) for each dimension.[1] These individual parity comparisons should result in a monthly determination of the ILEC's compliance with its section 251 nondiscrimination obligations. The ILEC's record of compliance over some period of time will be used as one element in making a determination of compliance with section 271.[2]

**ILEC Results Are Not Reported Or Results Are Incomplete:**
The mean, proportion or rate result for CLEC must be compared and a determination made that the CLEC result is no worse than the benchmark performance level. The benchmark performance level to be used in the comparison is the result produced via special study by an ILEC (as described below) or, in the absence of such a study result, either the LCUG default performance benchmarks or other applicable state standards as may be determined by the appropriate regulatory agency.

**Benchmarking Study Requirements:**
The ILEC should produce a study supporting a benchmark performance level whenever a reasonable ILEC retail analog does not exist. When the ILEC performs a benchmarking study, it must be based upon equivalent experiences of that ILEC and conform to the following minimum requirements: (1) a benchmark result is provided for each reporting dimension described for the measurement; (2) the mean, standard error, and number of sample points are disclosed for each benchmark result; (3) the study process and benchmark are fully disclosed and independently audited; (4) update to the benchmark result will occur whenever changes may reasonably be expected to affect the study results and reviewed every six months for changes in the business climate that could significantly affect the benchmark. Unless directly ordered by the appropriate regulatory commission, no ILEC benchmark should be utilized without the mutual agreement of the CLECs impacted by the use of the benchmark.

## Reporting Expectations and Report Format:

CLEC results for the report month are to be shown in comparison to the ILEC retail result for the same period with an indication, for each measurement, where the CLEC result is lesser in quality compared to the ILEC (based upon the test for parity described in the preceding). Such detailed results should be reported only to the CLEC unless written permission is provided to do otherwise. Furthermore, reporting to the individual CLECs should include, for each measure, a representation of the dispersion around the average (mean) of the measured results for the reporting period (e.g. percent of 1-4 lines installed in the 1st day, 2nd day, 3rd day, and > 10 days, etc.) In summary, the ILEC should also report separately on its performance for each reporting dimension as provided to: (1) its own retail customers, (2) any of its affiliates that provide local service, (3) competing carriers (CLECs) in the aggregate, and (4) the individual CLEC receiving the report. The "affiliate" category above includes any ILEC affiliate that purchases local service for resale or purchases unbundled network elements from the ILEC. Performance results of the ILEC and ILEC affiliates would be provided to CLECs as proprietary information that could be used for legitimate business purposes other than marketing-type activities.

**Delivery of Reports and Data:**
Reports should be made available to CLECs preferably by the 5th day following the close of the calendar report month or on an alternative schedule, which may be mutually agreed to between

[1] The details of this statistical model used to accept or reject an assumption of parity are found in LCUG's "Statistical Tests For Local Service Parity v1.0" white paper.
[2] The details of the methodology utilized to make a monthly 251 compliance determination as well as the requirements for 271 compliance are found in LCUG's "Local Service Non-Discrimination Compliance and Compliance Enforcement v1.0" white paper.

CLECs and the ILEC. If requested by the CLEC, data files of raw data supporting the performance reports are to be transmitted by the ILEC to the CLEC on the 5th scheduled business day pursuant to mutually acceptable format, protocol and transmission media. Likewise, individual CLEC reports should be considered proprietary and competitively sensitive. As such, no CLEC should receive information about another CLEC (other than a CLEC affiliate of an ILEC).

**Disaggregation:**
Performance measurements reporting should be disaggregated to ensure parity comparisons are meaningful. The reporting dimensions in Appendix A provide LCUG's recommended disaggregation level for each Performance Measurement. The appropriate disaggregation across all ILECs should be comparable to the requirements in Appendix A. However, LCUG recognizes that the ILECs current method of operation may be unique and thus require modifying the disaggregation to be ILEC specific. The mutually agreed disaggregation must be consistent with the overall requirement of ensuring meaningful parity comparisons that do not obscure actual performance result differences.

Measurement data should be reported in a manner consistent with natural geographic and operational areas that allow prudent operational management decisions to be made and that do not obscure actual performance levels. Currently, ILECs report at levels as discrete as individual exchanges (Central Offices) and as aggregated as the ILEC Region.

Reporting at too high a level of geographic aggregation, for example, statewide (except for a LEC that may serve only a limited portion of a state) or LATA-wide (in states where LATAs encompass large geographic areas) can mask underlying differences in performance so as to make meaningful parity determinations unlikely. For example, if local competition exists only in one metropolitan area of a state, statewide measurement and reporting could obscure that an ILEC is providing significantly superior performance to its own metropolitan retail customers because of its below-average performance in non-competitive parts of the state.

Although an ILEC may claim that it cannot disaggregate below statewide/LATA reporting levels, it knows its performance in various regions within a state so that it can evaluate its operation and performance personnel, and allocation of resources within these smaller geographic units.

ILECs that currently report (whether externally or internally) performance in geographic units smaller than a state or LATA should continue to use those units. For ILECs that have not established such subdivisions, MSAs (metropolitan statistical areas) may be an appropriate level of geographic disaggregation.

Further, performance interval results are often affected by the volume of service requested by the CLEC. For instance, a request for 30 or more telephone numbers or an order for 100 lines will likely lead to a longer performance interval than a request for a single phone number or a single line installation. Hence, it is critical that interval-affecting volumes be reported separately to accurately depict ILEC performance in handling both the smaller and larger volume requests. The volume thresholds should be mutually agreed to by ILECs and CLECs and disaggregated sufficiently to allow a meaningful comparison of an ILEC's retail versus wholesale performance (e.g. Mean Completion Interval for 1-10 lines, 10-30 lines and greater than 30 lines).

## Verification and Auditing:

By request of one or more CLECs, an audit of data collecting, computing and reporting processes–as well as related business processes–must be permitted by the ILEC. The ILEC also must permit an individual CLEC to audit or examine its own results pursuant to terms no more restrictive than those established between the CLEC and the ILEC in their interconnection agreement for the relevant operating area.

During implementation of the measurement reporting, the validation of data collection, measurement result computation and report production will be necessary. The ILEC must permit such validation activities. It may not subsequently contend that such activities constitute an audit under the terms of the measurement plan or the CLEC's interconnection agreement.

## Adaptation:

Technology, market conditions and industry guidelines/standards continue to evolve. LCUG reserves the right to modify the content of this document as necessary to reflect such changes.

# Service Quality Measurements
## Executive Overview

**Executive Overview:**

- Summarizes the business implications of each measurement function
- Quickly lists each measurement and its reporting dimensions

## Ordering and Provisioning (OP)

**Function:**
**Order Completion Intervals**

**Business Implications:**

- When the CLEC commits to a due date for service delivery, the customer plans for service availability at that time and will be dissatisfied if the requested service or feature is not delivered when promised.
- The "average completion interval" metric monitors the time required by the ILEC to deliver integrated and operable service components requested by a CLEC, regardless of whether total service resale or unbundled network elements are employed.
- When the service delivery interval of the ILEC is measured for comparable services, then conclusion can be drawn regarding whether or not CLECs have a reasonable opportunity to compete for customers.
- The "average completion interval" and "percent completed on time" also may prove useful in detecting developing network capacity problems.
- The "average offered interval" shows whether the ILEC offers less favorable timeframes for completions to CLECs than to itself or affiliates. This measure also can be compared to the "mean completion interval" to note disparities in timeframes CLECs are offered but are later changed by the ILEC.

| Measurements: | Results Detail: |
|---|---|
| • Average Completion Interval<br>• % Orders Completed on Time<br>• Average Offered Interval | • Company<br>• Service Type<br>• Order Activity Type<br>• Geographic Scope<br>• Volume Category |

**Function:**
**Order Processing Quality**

**Business Implications:**

- Customers expect that their service provider will deliver precisely the service ordered and all the features specified.
- The "order accuracy" measurement monitors the accuracy of the provisioning work performed by the ILEC in response to CLEC orders.
- Measuring the percent of mechanized order flow through is critical to reducing errors and inefficiency caused by ILEC rekeying CLEC orders on behalf of customers.
- Measurements of order rejections and resubmissions can highlight problems with ILEC systems or training processes unduly affecting the CLEC.

| Measurements: | Results Detail: |
|---|---|
| • % Order Accuracy<br>• % Mechanized Order Flow Through<br>• % Order Rejections<br>• Average Submissions Per Order | • Company<br>• Interface Type<br>• Service Type<br>• Order Activity Type<br>• Volume Category |

NEXT

DOCUMENT (S)

BEST IMAGE

POSSIBLE

# Service Quality Measurements
## Executive Overview

**Function:**
**Order Status**

**Business Implications:**

- When customers call their service provider, they expect to be able to promptly get information regarding the progress on their orders.
- When changes must be made, such as to the expected delivery date, customers expect that they will be immediately notified so that they may modify their own plans.
- The order status measurements, when compared to the ILEC result, will indicate whether the CLEC has timely access to all the information needed to notify its customers promptly when changes and rescheduling are required.

| Measurements: | Results Detail: |
|---|---|
| • Reject Interval<br>• FOC Interval<br>• Jeopardy Interval<br>• Completion Notice Interval<br>• % Completions/Attempts Without Notice or With Notice Less Than 24 Hours<br>• % Jeopardies | • Company<br>• Interface Type<br>• Service Type<br>• Order Activity<br>• Geographic Scope |

**Function:**
**Coordinated Cutovers**

**Business Implications:**

- Customers must not be subjected to unscheduled service disruptions because of lengthy or uncoordinated cutovers of loops with interim or permanent number portability.
- Customers have suffered loss of dialtone due to the early cutover of trunks with interim number portability. Late ILNP facilities conversions and PNP conversions of translations by ILECs also can cause unscheduled disruptions in service.
- The "coordinated cutover" measurements capture the extent to which CLEC customers face more losses in dialtone or call blocking due to mishandling of such cutovers.

| Measurements: | Results Detail: |
|---|---|
| • Average Coordinated Conversion Interval<br>• % Service Loss from Early Cuts<br>• % Service Loss from Late Cuts | • Company<br>• Service Types<br>• Order Activity<br>• Geographic Scope<br>• Volume Category |

**Function:**
**Held Orders**

**Business Implications:**

- Customers expect that work will be completed when promised.
- There must be assurances that the average period that CLEC orders are held, due to a delayed completion, is no longer for CLEC than ILEC orders.

| Measurements: | Results Detail: |
|---|---|
| • Held Order Interval<br>• % Orders Held ≥ 90 Days<br>• % Orders Held ≥ 15 Days | • Company<br>• Service Type<br>• Reason for Hold (no facilities, no equipment, workload, other)<br>• Geographic Scope |

## Maintenance and Repair (MR)

**Function:**
**Time To Restore**

**Business Implications:**

- Customers expect prompt restoral of service to the normal operating parameters whenever troubles are detected.
- The longer the time required to correct a service problem, the greater the customer dissatisfaction
- Failure to provide parity in jeopardy notices regarding maintenance appointments can cause customers great inconvenience, particularly for delivery of service through collocations and UNEs when massive coordination of vendors, technicians, translations specialists and other technicians are involved. Customers will not tolerate a provider that cannot at least notify them when a maintenance or trouble handling appointment cannot be met.

| Measurements: | Results Detail: |
|---|---|
| • Time to Restore<br>• Average Jeopardy Notice Interval for Maintenance Appointments/Trouble Handling | • Company<br>• Service Type<br>• Trouble Type<br>• Geographic Scope |

**Function:**
**Frequency of Repeat Troubles**

**Business Implications:**

- This measurement, when gathered for both the ILEC and CLEC, can establish whether or not CLECs are competitively disadvantaged (vis-à-vis the ILEC) as a result of experiencing more frequent occurrences of customer troubles not being resolved on the first repair attempt. Differences in this measure may indicate that the CLEC is receiving inferior maintenance support in the initial resolution of troubles or, in the alternative, it may indicate that the network components supplied are of inferior quality.

| Measurements: | Results Detail: |
|---|---|
| • Repeat Trouble Rate | • Company<br>• Service Type<br>• Trouble Type<br>• Geographic Scope |

# Service Quality Measurements
## Executive Overview

**Function:**
**Frequency of Troubles**

**Business Implications:**

- Customers demand high quality service from their supplier, and differentials in supplier performance are quickly recognized throughout the market place.
- When measured for both the ILEC and CLEC and compared, this metric shows whether CLECs are competitively disadvantaged, compared to ILECs, as a result of experiencing more frequent incidents of trouble reports.
- Disparity in this measure may indicate differences in the underlying quality of the network components supplied.

| Measurements: | Results Detail: |
|---|---|
| • Trouble Rate<br>• % Troubles in 30 Days of New Installations and Other Order Activity | • Company<br>• Geographic Scope<br>• Service Type<br>• Trouble Type |

**Function:**
**Estimated Time To Restore Met**

**Business Implications:**

- When customers experience trouble on working services, they naturally expect the services to be restored within the time frame promised.
- When this measure is collected for the ILEC and CLEC and then compared, it can be used to establish that CLECs are receiving equally reliable (as compared to the ILEC operations) estimates of the time required to complete repairs.

| Measurements: | Results Detail: |
|---|---|
| • % Customer Troubles Resolved Within Estimate | • Company<br>• Service Type<br>• Trouble Type<br>• Geographic Scope |

# Service Quality Measurements
## Executive Overview

## General (GE)

| Function: |
|---|
| Systems Availability |
| **Business Implications:** |
| • Dependable access to essential business functionality, supported by OSS of the ILEC, is absolutely essential to CLEC operations.<br>• This measure monitors whether such OSS functionality is at least as accessible by the CLEC as by the ILEC. |

| Measurements: | Results Detail: |
|---|---|
| • % System Availability | • By Function Interface<br>• Company<br>• Business Period |

| Function: |
|---|
| Center Responsiveness |
| **Business Implications:** |
| • When CLECs experience operational problems dealing with ILEC processes or interfaces, prompt support by the ILEC is required in order to ensure that CLEC customers are not adversely impacted<br>• Any delay in responding to CLEC center requests for support (e.g., request for a vanity telephone number) will, in turn, adversely impact the CLEC retail customer who may be holding on-line with the CLEC customer service agent.<br>• This measure monitors whether the ILEC's handling of support calls from CLECs is at least as responsive as the ILEC's handling of calls from its retail customers seeking assistance (e.g., calling the business office of the ILEC or calling the ILEC to report service repair issues). |

| Measurements: | Results Detail: |
|---|---|
| • Mean Time to Answer Calls<br>• Call Abandonment Rate | • By Support Center Provided |

| Function: |
|---|
| Average Response Interval for Real-Time OSS Queries |
| **Business Implications:** |
| • The CLEC customer service agent must determine the availability of desired features, likely service delivery intervals, telephone number(s) to be assigned and the validity of the street address information while the customer (or potential customer) is on the line.<br>• It is critical that the CLEC employees be perceived as equally competent, knowledgeable and fast as ILEC customer service agents.<br>• This measure is designed to monitor the time required for CLECs to obtain the pre-ordering information necessary to establish and modify service and maintenance information necessary to handle trouble resolution activities.<br>• Comparison to the ILEC results allow conclusions regarding whether CLECs have an equal opportunity to deliver a comparable customer service experience when a retail customer calls with a service inquiry. |

| Measurements: | Results Detail: |
|---|---|
| • Average Response Interval for OSS Query Information | • Query Type (Pre-Ordering and Maintenance)<br>• Interface Type for Each Functional Area |

## Network Performance (NP)

| Function: |
|---|
| Network Performance |
| **Business Implications:** |
| • The perceived quality of CLEC retail services, particularly when either ILEC services are resold or UNE combinations are employed, will be heavily influenced by the underlying quality of the ILEC network performance.<br>• Customers experience the quality of the service provider each time services are used. |

| Measurements: | Results Detail: |
|---|---|
| • % Call Completion (Inbound and Outbound)<br>• Mean time to notify CLEC of a Network Incident/Outage<br>• Transmission Quality | • Trunk Type<br>• Switch<br>• Company<br>• Geographic Scope<br>• Reportable Incident |

## Collocation Provisioning (CP)

| Function: |
| --- |
| Timeliness of Collocation Provisioning |
| **Business Implications:** |
| • Timely responses about the availability and price of collocation space or alternatives where space is not available or high priced is critical for CLEC financial planning on expansions beyond the calling areas of its switches.<br>• Timely provisioning of collocation arrangements enables CLECs to keep to business plans for entering new service areas. |

| Measurements: | Results Detail: |
| --- | --- |
| • Mean Time To Respond to Collocation Request<br>• Mean Time To Provide Collocation Arrangement<br>• % Due Dates Missed | • Company<br>• Collocation Type<br>• Geographic Scope |

## Database Updates (DU)

| Function: |
| --- |
| Database Update Timelines and Accuracy |
| **Business Implications** |
| • Timely and accurate database updates are critical to customers receiving prompt emergency assistance at correct locations when they dial 911, customers and friends obtaining correct dialing information from operators or telephone directories, and callers seeking correct information about acceptance of collect or third-party-billed calls.<br>• Timely and accurate loading of CLECs' NXXs enable proper completion and billing of all calls, on-time launch of new facilities-based service, and proper emergency routing of calls for emergency assistance. |

| Measurements: | Results Detail: |
| --- | --- |
| • Average Update Interval<br>• % Update Accuracy | • Company<br>• Database Type |

## Interconnect / Unbundled Elements and Combos (IUE)

| Function: |
|---|
| Availability of Network Elements |
| **Business Implications** |
| • Because CLECs use individual elements as well as element combinations to deliver unique services, it is essential that the UNE functionality operate properly due to the crucial role played by such elements in providing quality retail services.<br>• This measure monitors individual network element or element combinations, that do not have an apparent retail analog, to assure that CLECs have a meaningful opportunity to compete through access to and use of an element (or combinations) functionality. |

| Measurements: | Results Detail: |
|---|---|
| • Function Availability | • By Unique UNE or UNE Combination Requested by CLEC |

| Function: |
|---|
| Performance of Network Elements |
| **Business Implications** |
| • As CLECs use individual elements (as well as element combinations) to deliver unique services, it is essential that the UNE functionality operates in a timely manner because of the crucial role played by such elements in providing quality retail services |

| Measurements: | Results Detail: |
|---|---|
| • Timeliness of Element Performance | • By Unique UNE or UNE Combination employed (e.g. LIDB Query time out) |

## Formula Quick Reference Guide

| Measurement Designation: | Measurement Name: | Measurement Formula: |
|---|---|---|
| | **Ordering and Provisioning (OP)** | |
| OP-1 | Average Completion Interval | Average Completion Interval = Σ [ (Completion Date & Time) - (Order Submission Date & Time) ] /(Count of Orders Completed in Reporting Period) |
| OP-2 | % Orders Completed on Time | % Orders Completed on Time = (Count of Orders Completed within ILEC Committed Due Date) / (Count of Orders Completed in Reporting Period) x 100 |
| OP-3 | Average Offered Interval | Average Offered Interval = Σ [(Committed Due Date & Time) – (Date & Time of Receipt of valid Service Request)]/(Number of Committed Due Dates) |
| OP-4 | % Order Accuracy | % Order Accuracy = (Σ Orders Completed w/o Error)/ (Σ Orders Completed) x 100 |
| OP-5 | % Mechanized Order Flow Through | % Mechanized Order Flow Through = [(Total Number of Orders Processed Without Manual Intervention)/(Total Number of Orders Completed)] x 100 |
| OP-6 | % Orders Rejected | % Orders Rejected = [Number of Orders Rejected Due to Error or Omission/Number of Orders Received by ILEC During Reporting Period] x 100 |
| OP-7 | Average Submissions Per Order | Average Submissions Per Order = Σ[(Number of Firm Order Confirmations) + (Number of Rejections Issued)/(Number of Firm Order Confirmations |
| OP-8 | Reject Interval | Reject Interval = Σ [(Date and Time of Order Rejection) - (Date and Time of Order Receipt or Acknowledgment)]/(Number of Orders Rejected in Reporting Period) |
| OP-9 | FOC Interval | FOC Interval = Σ [(Date and Time of Firm Order Confirmation) - (Date and Time of Order Acknowledgment)]/(Number of Orders Confirmed in Reporting Period) |
| OP-10 | Jeopardy Interval | Jeopardy Interval = Σ [(Date and Time of Committed Due Date for the Order) - (Date and Time of Jeopardy Notice)]/(Number of Orders Jeopardized in Reporting Period). For all orders jeopardized on or before the scheduled due date. |
| OP-11 | Completion Notice Interval | Completion Notice Interval = Σ [(Date and Time of Notice of Completion Issued to the CLEC) - (Date and Time of Work Completion by ILEC)]/(Number of Orders Completed in Reporting Period) |
| OP-12 | % Completions/Attempts without Notice or with Less Than 24 Hours Notice. | % Completions/Attempts without Notice or with Less Than 24 Hours Notice = [Completion Dispatches (Successful and Unsuccessful) With No FOC or FOC Received Within 24 Hours of Due Date/All Completions ] x 100 |

# Service Quality Measurements
## Formula Quick Reference

| Measurement Designation: | Measurement Name: | Measurement Formula: |
|---|---|---|
| OP-13 | % Jeopardies | % Jeopardies = (Number of Orders Jeopardized in Reporting Period)/(Number of Orders Confirmed in Reporting Period) |
| OP-14 | Average Coordinated Conversion Interval | Average Coordinated Conversion Interval = Σ [(Date & Time Re-termination is Completed by ILEC) – Date and Time of Initial Service Interruption (disconnect of facilities and translations for customer transferring service)/All Customer Conversions Completed During Reporting Period)] x 100 |
| OP-15 | % Service Loss from Early Cuts | % Service Loss from Early Cuts = (Customer Conversion Where Cutover Time is Earlier Than Due Date and Time)/(All Customer Conversions Completed During Reporting Period) x 100 |
| OP-16 | % Service Loss from Late Cuts | % Service Loss from Late Cuts = (Customer Conversion Where Cutover Time Is More Than 30 Minutes Past Due Date and Time)/All Customer Conversion Completed During Reporting Period) x 100 |
| OP-17 | Held Order Interval | Held Order Interval = Σ( Reporting Period Close Date - Committed Order Due Date) / (Number of Orders Pending and Past The Committed Due Date) for all orders pending and past the committed due date |
| OP-18 | % Orders Held ≥ 90 Days | % Orders Held ≥ 90 Days = (# of Orders Held for ≥ 90 days) / (Total # of Orders Pending But Not Completed) x 100 |
| OP-19 | % Orders Held ≥ 15 Days | % Orders Held ≥ 15 Days = (# of Orders Held for ≥ 15 days) / (Total # of Orders Pending But Not Completed) x 100 |
| **Maintenance and Repair (MR)** | | |
| MR-1 | Mean Time to Restore | Mean Time To Restore = Σ [(Date and Time of Trouble Ticket Resolution Returned to CLEC)-(Date and Time Trouble Ticket Referred to ILEC)] / (Count of Trouble Tickets Resolved in Reporting Period) |
| MR-2 | Mean Jeopardy Interval for Maintenance and Trouble Handling | Mean Jeopardy Interval for Maintenance and Trouble Handling = Σ [(Date and Time of Committed Due Date for Maintenance or Trouble Handling ) - (Date and Time of Jeopardy Notice)]/(Number of Maintenance or Trouble Handling Appointments Jeopardized in Reporting Period) |
| MR-3 | Repeat Trouble Rate | Repeat Trouble Rate = (Count of Trouble Reports Where More Than One Trouble Report Was Logged for the Same Service Access Line Within a Continuous 30 Day Period) / (Number of Reports in the Report Period) x 100 |
| MR-4 | Trouble Rate | Trouble Rate = (Count of Initial & Repeated Trouble Reports in the Current Period) / (Number of Service Access Line in Service at End of the Report Period) x 100 |

# Service Quality Measurements
## Formula Quick Reference

| Measurement Designation: | Measurement Name: | Measurement Formula: |
|---|---|---|
| MR-5 | % Troubles Within 30 Days of Install and Other Order Activity | % Troubles Within 30 Days of Install and Other Order Activity = (Total Number of Trouble Tickets Associated With Lines That Had Service Order Activity Within 30 Days of the Trouble Report)/(Total Number of Orders Completed in the Report Period |
| MR-6 | % Customer Troubles Resolved Within Estimate | % Customer Troubles Resolved Within Estimate = (Count of Customer Troubles Resolved By The Quoted Resolution Time and Date) / (Count of Customer Troubles Tickets Closed) x 100 |
| **General (GE)** | | |
| GE-1 | % System Availability | % System Availability = [(Hours Functionality is Available to CLECs During Report Period) / (Number of Hours Functionality was Scheduled to be Available During the Period)] x 100 |
| GE-2 | Mean Time to Answer Calls | Mean Time to Answer Calls = Σ [(Date and Time of Call Answer) - (Date and Time of Call Receipt)]/(Total Calls Answered by Center) |
| GE-3 | Call Abandonment Rate | Call Abandonment Rate = (Count of Calls Terminated Before Answer During the Reporting Period)/(Count of All Calls Placed in Queue During the Reporting Period) |
| GE-4 | Average Response Interval | Average Response Interval = Σ [ (Query Response Date & Time) - (Query Submission Date & Time) ] /(Number of Queries Submitted in Reporting Period |
| **Billing (BI)** | | |
| BI-1 | Mean Time to Provide Recorded Usage Records | Mean Time to Provide Recorded Usage Records = {Σ[(Data Set Transmission Date)-(Date of Message Recording)]}/(Count of All Messages Transmitted in Reporting Period) |
| BI-2 | Mean Time to Deliver Invoices | Mean Time to Deliver Invoices = Σ[(Invoice Transmission Date)-(Date of Scheduled Bill Cycle Close)]/(Count of Invoices Transmitted in Reporting Period) |
| BI-3 | % Invoice Accuracy | % Invoice Accuracy = [(Number of Invoices Delivered in the Reporting Period that Have Complete Information, Reflect Accurate Calculations and are Properly Formatted) / Total Number of Invoices Issued in the Reporting Period)] x 100 |
| BI-4 | % Usage Accuracy | % Usage Accuracy = [(Number of Usage Records Delivered in the Reporting Period That Reflected Complete Information Content and Proper Formatting) / (Total Number of Usage Records Transmitted)] x 100 |
| **Operator Services/Directory Assistance & Listings (OS, DA and DL)** | | |
| OS/DA-1 | Mean Time To Answer | Mean Time To Answer = Σ [(Date and Time of Call Answer) - (Date and Time of Call Receipt)]/(Total Calls Answered on Behalf of CLECs in Reporting Period) |

# Service Quality Measurements
## Formula Quick Reference

| Measurement Designation: | Measurement Name: | Measurement Formula: |
|---|---|---|
| DL-1 | Average Time Allotted To Proof Listing Updates Before Publication | Average Time Allotted To Proof Listing Updates Before Publication = Σ[(Date & Time of Directory Publication Deadline) – (Date and Time Updates Available for Proofing)]/ Number of Updates Sent for Proofing |
| **Network Performance (NP)** | | |
| NP-1 | % Call Completion | % Call Completion = [(Total number of blocked call attempts during busy hour)/(Total number of call attempts during busy hour)] x 100<br>(inbound and outbound call attempts would be measured separately) |
| NP-2 | Meantime To Notify CLEC | Meantime To Notify CLEC = Σ[(Date and Time ILEC Notified CLEC) – (Date and Time ILEC detected network incident)]/Count of Network incidents |
| NP-3 | Network Performance Parameters | Network Performance Parameters = Σ(Network Performance Parameter Result)/(Number of Tests Conducted) |
| **Collocation Provisioning (CP)** | | |
| CP-1 | Meantime To Respond To Collocation Request | Meantime To Respond To Collocation = Σ [(Request Response Date) – Request Submission Date)]/Count of Request Responses Issued |
| CP-2 | Meantime To Provide Collocation Arrangement | Meantime To Provide Collocation Arrangement Request = Σ [(Date & Time Collocation Arrangement is Compete) – (Date & Time Collocation application submitted)]/Number of Collocation Arrangements Complete |
| CP-3 | % Due Dates Missed | % Due Dates Missed = (Number of Orders Not Completed By ILEC Committed Due Date)/Total Number of Orders Completed During the Reporting Period |
| **Database Updates (DU)** | | |
| DU-1 | Average Update Interval | Average Update Interval = Σ [(Completion Date & Time of Database Update) – (Submission Date and Time of Database Change)]/Total Number of Updates Completed During Reporting Period |
| DU-2 | % Update Accuracy | % Update Accuracy = [Number of Updates Completed Without Error)/(Number Updates Completed)] x 100 |
| **Interconnect / Unbundled Elements and Combos (IUE)** | | |
| IUE-1 | Function Availability | Function Availability[1] = (Amount of Time[2] a Functionality is Useable[1] by a CLEC in a Specified Period)/(Total Time[2] Functionality Was Intended to Be Useable)<br><br>Notes:<br>1. These measures may also be expressed in the negative, that is, in term of unavailability.<br>2. In some instances, rather than time, the availability will be expressed in terms of transactions executed successfully compared to transactions attempted |

# Service Quality Measurements
## Formula Quick Reference

| Measurement Designation: | Measurement Name: | Measurement Formula: |
|---|---|---|
| IUE-2 | Timeliness of Element Performance | Timeliness of Element Performance = (Number of Times Functionality Executes Successfully Within the Established Timeliness Standard)/(Number of Times Execution of Functionality was Attempted) |

**Measurement Detail:**

- Highlights the business implications of each measurement function
- Details the measurement methodology, analogous retail functions, reporting dimensions, and objective performance standard in the absence of ILEC retail performance results

# Service Quality Measurements
## Measurement Detail

## Pre-Ordering (PO)

The content of this section has been moved to the "General" section.

## Ordering and Provisioning (OP)

| | |
|---|---|
| Function: Business Implications: | **Order Completion Intervals**<br>In order to be successful in the marketplace, CLECs must be capable of delivering service in time frames equal to or better than the ILEC delivers for comparable service configurations and activities. Likewise, CLECs' customers will be dissatisfied if requested services or features are not delivered when promised. The "average completion interval" measure monitors the time required by the ILEC to deliver integrated and operable service components requested by the CLEC, regardless of whether service resale, unbundled network elements or interconnection service delivery methods are employed. When the service delivery interval of the ILEC is measured for comparable services, a conclusion can be drawn regarding whether or not CLECs have a reasonable opportunity to compete for customers. Timely provisioning of interconnect trunks and inbound augments by the ILEC can prevent customer harm from call blocking before the problem occurs.<br><br>The "orders completed on time" measure monitors the reliability of ILEC commitments with respect to committed due dates to assure that CLECs can reliably quote expected due dates to their retail customers. In addition, when monitored over time, the "average completion interval" and "percent completed on time" may prove useful in detecting developing capacity issues. The "average offered interval" indicates whether both ILEC and CLEC have the same scheduling opportunities for service delivery. The measure also shows non-parity if the ILEC's offered intervals match more closely the completion intervals for its customers than do the ILEC's offered and completion intervals for CLEC customers. CLECs need to honor their offered intervals to retain customers.<br><br>Timely delivery of interconnect trunks and augments based on CLEC traffic projections rather than current utilization is a significant capacity parity issue. Because of the ILEC's more extensive network and greater use of DEOTs (direct end office trunks), ILECs typically do not need to augment their own trunks until utilization reaches 85%. A CLEC, however, is very likely to see its 50% utilization rate jump to 100% with the addition of one or two large customers. An ILEC should not deny the CLEC's request for inbound interconnect trunk augments when the CLEC's current utilization level does not match the percentage level at which the ILEC augments its own trunks. The ILEC's network should meet the CLEC's forecasted or otherwise formally communicated business needs for augment trunks and DS3 trunks (which must be in place before local tandem trunks and DEOT orders are placed. |
| Measurement Methodology: | **Average Completion Interval = Σ [ (Completion Date & Time) - (Order Submission Date & Time) ]/(Count of Orders Completed in Reporting Period)**<br><br>**% Orders Completed on Time = (Count of Orders Completed within ILEC Committed Due Date) / (Count of Orders Completed in Reporting Period) x 100** |

**Average Offered Interval = [(Date & Time Due Date) – (Date &Time of Receipt of Service Request)]/(Number of Committed Due Dates)**

**For CLEC Results:** The actual completion interval is determined for each order processed during the reporting period. The completion interval is the elapsed time from the ILEC receipt of a syntactically correct order from the CLEC to the ILEC's return of a valid completion notification to the CLEC. Elapsed time for each order is accumulated for each reporting dimension (see below). The accumulated time for each reporting dimension then is divided by the associated total number of orders completed within the reporting period.

The percentage of orders completed on time is determined by first counting, for each specified reporting dimension, both the total numbers of orders completed within the reporting interval and the number of orders completed by the committed due date (as specified on the initial FOC returned to the CLEC). For each reporting dimension, the resulting count of orders completed no later than the committed due date is divided by the total number of orders completed with the resulting fraction expressed as a percentage.

Although CLEC forecasts are not technically "orders", the CLEC forecast provides the ILEC with the information it needs to be able to augment its inbound trunks (and other ILEC trunks needed for efficient interconnection) in a timely manner to handle the forecasted CLEC calling volume. To calculate ILEC trunk augments as a percentage of "orders" completed on time, the due date is the date on which the additional trunk is needed by the CLEC, as stated in the forecast. The total number of ILEC augments completed no later than the due date is divided by the total number of ILEC augments completed in the reporting period. The resulting fraction is expressed as a percentage.

The offered interval is the due date that an ILEC provides the CLEC on a firm order confirmation (i.e. the earliest date on which the CLEC's customer can obtain service without paying for an escalation).

**For ILEC Results:** Same as for CLEC with the clarifications noted below.

**Other Clarifications and Qualification:**

- The elapsed time for an ILEC order is measured from the point in time when the ILEC customer service agent enters the order into the ILEC order processing system until the date and time that the ILEC personnel log actual completion of all work necessary to permit service initiation, whether or not the ILEC initiates customer billing at that point in time.
- Results for the CLECs are captured and retained at the order level (e.g., unique PON).
- The Completion Date and Time is the date upon which the ILEC issues the Order Completion Notice to the CLEC.
- If the CLEC initiates a supplement to the originally submitted order and the supplement reflects changes in customer requirements (rather than responding to ILEC initiated changes), then the order submission date and time will be the date and time of the ILEC receipt of a syntactically correct order supplement.
- No other supplemental order activities will result in an update to the order submission date and time used for the purposes of computing the order completion interval.

# Service Quality Measurements
## Measurement Detail

- See "Order Status" measurement detail for a discussion of ILEC analogs, receipt of a syntactically correct order and return of a valid completion notice.
- Elapsed time is measured in hours and hundredths of hours rounded to the nearest hundredth of an hour.
- The accumulation of elapsed time continues through off-schedule, weekends and holidays.

**Reporting Dimensions:**

- Company
- Service (See Appendix A)
- Activity (See Appendix A)
- Geographic Scope
- Volume Category

**Excluded Situations:**

- Canceled orders
- ILEC Orders associated with internal or administrative use of local services
- Orders where CLEC has selected a longer due date than requested.

**Data Retained Relating To CLEC Experience:**

- Report Month
- CLEC Order Number
- Order Submission Date
- Order Submission Time
- Order Completion Date
- Order Completion Time
- Service Type
- Activity Type
- Geographic Scope

**Data Retained Relating To ILEC Performance:**

- Report Month
- Average Order Completion Interval
- Standard Error for the Order Completion Interval
- Count of Orders Completed
- Count of Orders Completed by the Due Date
- Average Offered Interval
- Service Type
- Activity Type
- Geographic Scope
- Volume Category

**Performance Standard in Absence of ILEC Results:**

If the ILEC does not deliver direct comparative results or the ILEC has not produced benchmark levels based upon a verifiable study of its own operation as agreed to with the CLEC, then result(s) related to the CLEC operation should be provided according to the following levels of performance in order to provide the CLEC with a meaningful opportunity to compete:

- Unless otherwise noted, the order completion interval for installations that do not require a premise visit and do not require anything beyond software updates is 1 business day.
- Unless otherwise noted, the order completion intervals for installations that involve a premise visit or physical work is three business days.
- Installation Interval Exceptions:
  - UNE Platform (at least DS0 loop + local switching + common transport elements) installation interval is 1 business day whether or not premise work is required.
  - The installation interval for unbundled loops is always 1 business day.
  - UNE Channelized DS1 (DS1 unbundled loop + multiplexing) installation interval is within 2 business days.
  - Unbundled Switching Element installation interval is within 2 business days
  - DS0/DS1 Dedicated Transport installation interval is within 3 business days (See Network Performance measurement detail for related standards on interconnect trunks and augment inbound trunk provisioning thresholds)
  - The installation interval for All Other Dedicated Transport is within 5 business days.
  - Access DS3s used for local interconnects within 10 days.

# Service Quality Measurements
## Measurement Detail

- The installation interval for all orders involving only feature modification is 5 hours.
- Order completion interval for all disconnection orders is 1 business day.

Interconnect Augment Trunks: ILECs must meet relevant tariff, service level agreement or contract intervals for T-1s/DS0s and DS1 provisioning 98% of the time

Although CLECs do not order them per se, ILECs must also provide inbound trunk augments in line with CLEC capacity projections. CLECs require these augments at utilization thresholds that are lower than the ILEC's own thresholds to reflect the differences in network size and the impact of growth in CLEC customer numbers on inbound as well as outbound capacity needs. The threshold below for augment trunk provisioning will afford CLECs a reasonable opportunity to compete. Individual CLECs may agree to different thresholds in negotiation with ILECs on inbound trunk augments:

- DEOTS REPRESENT LESS THAN 50% OF COMBINED INBOUND/ OUTBOUND CAPACITY – augment trunk orders must be provided when utilization reaches 60% on the Erlang-B.01 scale.

- DEOTS REPRESENT MORE THAN 50% OF TOTAL CAPACITY – augment trunk orders may be placed when utilization is at 75% on the Erlang-B.01 scale.

Functional Business Explanations

**Order Processing Quality**

Customers expect that their service provider will deliver precisely the service ordered and all the features specified. A service provider that is unreliable in fulfilling orders, will not only generate ill-will with customers when errors are made, but will also incur higher costs to rework orders and to process customer complaints. This measurement monitors the accuracy of the provisioning work performed by the ILEC, in response to CLEC orders. When the ILEC provides the comparable measure for its own operation, it is possible to know if provisioning work performed for CLECs is at least as accurate as that performed by the ILEC for its own retail local service operations.

Many of the order transactions between ILEC and CLEC are designed to be entirely automated. For these transactions, any "fall out" from the mechanized process will result in a higher likelihood of delay or inaccurate processing. The availability of flow through order entry without manual intervention on the ILEC's part decreases the occurrence of rekeying errors and makes the CLEC more accountable for its order quality. Measurements are needed (1) to monitor the extent to which human intervention is required for CLEC automated order transactions and (2) to compare the results to ILEC order processing flow through. CLECs must be assured that their orders have the same opportunity as the ILEC's orders for timely and accurate processing.

Sometimes CLECs receive order rejections and must resubmit orders for failures on the part of the ILECs' systems or lack of notice or training on changed formats and processes for order entry. Sometimes orders are rejected with no explanation or delayed for invalid queries by the ILECs. Often ILEC electronic editing systems reject an order one error at a time, rather than capture all the issues with the order on one submission. These rejections and resubmissions not only are burdensome to CLECs but delay service delivery to the customer.

# Service Quality Measurements
## Measurement Detail

**Measurement Methodology**

**% Order Accuracy = (Σ Orders Completed w/o Error) / (ΣOrders Completed ) x 100**

**% Mechanized Order Flow Through = [(Total Number of Orders Processed Without Manual Intervention)/(Total Number of Orders Completed)] x 100**

**% Orders Rejected =[ Number of Orders Rejected Due to Error or Omission/Number of Orders Received by ILEC During Reporting Period] x 100**

**Average Submissions Per Order = Σ[(Number of Firm Order Confirmations) + (Number of Rejections Issued)/(Number of Firm Order Confirmations**

**For CLEC Results:**

**Order Accuracy:**

For each order completed during the reporting period, the original account profile and the order that the CLEC sent to the ILEC are compared to the services and features reflected upon the account profile as it existed following completion of the order by the ILEC. An order is "completed without error" if all service attribute and account detail changes (as determined by comparing the original and the post order completion account profile) completely and accurately reflect the activity specified on the original and any supplemental CLEC orders. "Total number of orders completed" refers to the total number of order completion notices sent to the CLEC by the ILEC for each reporting dimension identified below.

**% Mechanized Order Flow Through:**

"Percentage Mechanized Order Flow Through" identifies the total orders processed from acceptance of the ILEC gateway to the ILEC service order processor and other legacy systems without manual intervention. For each type of order, the count includes orders that arrive at the destination work group(s) without human intervention from initial order creation by the customer contact agent until the time the order is delivered to the appropriate work group responsible for physical work. The resulting count is divided by the total number of orders (of the same type) that were processed during the reporting period with the result expressed as a percentage.

**% Orders Rejected:**

The percentage of orders rejected is the count of (1) order submissions where the ILEC returns a notice of a syntax rejection to the CLEC and (2) order submissions where the ILEC returns a notice that the CLEC order was rejected by legacy system edits. The resulting combined count of rejections is divided by the count of orders submitted (For EDI interfaces, the orders submitted would be the combined count of positive and negative 997 messages issued upon receipt of the CLEC order.)

**Average Number of Submissions Per Order:**

The "average number of submissions per order" is derived by adding the number of Firm Order Confirmations sent to the CLEC during the reporting period and the number of rejects issued to the CLEC during the reporting period. This sum is then divided by the number of Firm Order Confirmations to determine the average number of submissions per order for the CLEC.

**For ILEC Results:** Same computation as for the CLEC with the clarifications noted below.

**Other Clarifications and Qualification:**

- **Order Supplements** - If the CLEC initiates any supplements to the originally submitted order, for the purposes of reflecting changes in customer requirements, then the cumulative effect of the initial order and all the

# Service Quality Measurements

## Measurement Detail

| Reporting Dimensions: | Excluded Situations: |
|---|---|
| • Company<br>• Interface Type<br>• Service Type (See Appendix A)<br>• Order Activity (See Appendix A)<br>• Volume Category | • Orders canceled by the CLEC<br>• Order Activities of the ILEC associated with internal or administrative use of local services.<br>• For resubmissions impact on due date measure, ILEC would not have to comply if tying final accepted order to original order is technically infeasible (But feasibility issue will be revised as systems are upgraded.) |

| Data Retained Relating To CLEC Experience: | Data Retained Relating To ILEC Performance: |
|---|---|
| • Report Month<br>• Count of Orders Completed Without Manual Intervention<br>• Count of Firm Order Confirmations<br>• Count of Syntax Rejects<br>• Count of Legacy System Rejects<br>• Count of Orders Submitted<br>• Interface Type<br>• Order Activity Type<br>• Original order date for rejected orders<br>• Rejection Notice Date and Time<br>• Service Type<br>• Volume Category<br>• Manual Fallout (for Mechanized Orders Only) | • Report Month<br>• Count Orders Completed Without Manual Intervention<br>• Count of Order Confirmations<br>• Count of Syntax Rejects<br>• Count of Legacy System Reject<br>• Count of Orders Submitted<br>• Interface Type<br>• Order Activity<br>• Service Type<br>• Volume Category |

**Performance Standard in Absence of CLEC Data**

If the ILEC does not deliver direct comparative results or the ILEC has not produced benchmark levels based upon a verifiable study of its own operation as agreed to with the CLEC, then result(s) related to the CLEC operation should be provided according to the following levels of performance in order to provide the CLEC with a meaningful opportunity to compete.

- Completed CLEC orders, by reporting dimension, are accurate no less than 99% of the time.
- Mechanized flow through of orders occurs at least 98% of the time.

**Function Purpose Implications**

**Order Status**

When customers call their service providers, they expect prompt answers regarding the progress on their orders. Likewise, when changes must be made, such as to the expected delivery date, customers expect that they will be immediately notified so that they may modify their own plans. A service provider that cannot fulfill such expectations will generate customer dissatisfaction. Lengthy delays in exchange of status information will result in the delay of other customer affecting activities. For example, inside wiring activity often is initiated after the firm order confirmation is returned, and customer billing must await CLEC receipt of the order completion notice. The order status measurements monitor, when compared to the ILEC result, whether the CLEC has timely access to order progress information so that the customer may be updated or notified promptly when changes and rescheduling are necessary.

The "% jeopardies returned" measure for the CLEC, when reported in comparison to the ILEC result, will gauge whether initial commitments to the CLEC for order processing are at least as reliable as the commitments the ILEC makes for its own operations.

CLECs also need adequate notice of order completion activities. They can be made to look disorganized by ILECs providing service without such advance notice. Customers and CLECs may even be unable to schedule necessary vendors on the scene to complete the installation, resulting in ILEC technicians being turned away and customer frustration with the CLEC. An ILEC could cause a great deal of harm to the CLEC competitively, yet look like it is providing parity or above parity service by the results other provisioning measures. A measurement capturing any non-parity in the occurrence of surprise or short-notice service deliveries also is critical to affording CLECs a reasonable opportunity to compete.

**Measurement Methodology**

Order status intervals measure the elapsed time necessary to provide a notice to the CLEC that specific events have occurred or particular conditions have been encountered when processing an order. Order status includes notification of order rejection due to violation of order content or syntax requirements, confirmation of order acceptance, jeopardy of an order due to the inability to complete work as originally committed and work completion notification. The interval associated with each of these four preceding major categories of status must be separately monitored and reported.

**Reject Interval = Σ[(Date and Time of Order Rejection) - (Date and Time of Order Receipt or Acknowledgment)]/(Number of Orders Rejected in Reporting Period)**

Reject Interval **(syntax)** is the elapsed time between the ILEC receipt of an order from the CLEC to the ILEC return of a notice of a syntax rejection to the CLEC. The time measurement starts when the ILEC receives the order from the CLEC. The time measurement stops when the ILEC returns a rejection notice to the CLEC. The elapsed time is accumulated by order type with the resulting accumulated time then divided by the count of rejected orders associated with the particular order type.

Reject Interval **(legacy system)** is the elapsed time between the ILEC's acknowledgement /acceptance of an order from the CLEC to the ILEC's return of a rejection notice to the CLEC. The time measurement starts when the ILEC accepts or acknowledges the order from the CLEC as syntactically correct. The time measurement stops when the ILEC returns a rejection notice to the CLEC. The elapsed time is accumulated by order type with the resulting accumulated time then divided by the count of rejected orders associated with the particular service and order type.

**FOC Interval = Σ[(Date and Time of Firm Order Confirmation) - (Date and Time of Order Acknowledgment)]/(Number of Orders Confirmed in Reporting Period)**

Interval for Return of a Firm Order Confirmation (FOC Interval) is the elapsed time between the ILEC acceptance of a syntactically correct order and the return of a confirmation to the CLEC that the order will be worked as submitted or worked with the modifications specified on the confirmation. The time measurement starts when the ILEC accepts (acknowledges) the order from the CLEC. The time measurement stops when the ILEC returns a valid firm order confirmation to the CLEC. The elapsed time is accumulated by order type with the resulting accumulated time then divided by the count of orders associated with the particular order type.

**Jeopardy Interval = Σ[(Date and Time of Committed Due Date for the Order) - (Date and Time of Jeopardy Notice)]/(Number of Orders Jeopardized in Reporting Period). For all orders jeopardized on or before the scheduled due date.**

Jeopardy Interval is the remaining time between the pre-existing committed order completion date and time (communicated via the FOC) and the date and time the ILEC issues a notice to the CLEC indicating an order is in jeopardy of missing the due date. The scheduled order completion time will be assumed to be 5:00 p.m. local time unless other information is communicated in the FOC. The date and time of the jeopardy notice delivered by the ILEC is subtracted from the scheduled completion date to establish the jeopardy interval for any order placed in jeopardy before its scheduled due date. The jeopardy interval is accumulated by standard order activity with the resulting accumulated time then divided by the count of orders placed in jeopardy before the due date for each order activity.

**Completion Interval = Σ[(Date and Time of Notice of Completion Issued to the CLEC) - (Date and Time of Work Completion by ILEC)]/(Number of Orders Completed in Reporting Period)**

Completion Notice Interval is the elapsed time between the ILEC technician's reported completion of physical work and the issuance of a valid completion notice to the CLEC. Where physical work is not required, such as in the case of software-only changes, the elapsed time will be measured beginning at 5:00 p.m. local time of the date for the committed completion and will end when the ILEC returns a valid completion notice to the CLEC. If a valid completion notice is returned before 5:00 p.m. on the committed completion date and no physical work is involved, then the elapsed time will be recorded as 1/10 hour. The elapsed time is accumulated by order type with the resulting accumulated time then divided by the count of completion notices returned for each service and order type.

**% Completions or Attempts without Notice or with Less Than 24 Hours Notice. = [Completion Dispatches (Successful and Unsuccessful) With No FOC or FOC Received Within 24 Hours of Due Date/All Completions ] x 100**

Completion and Completion Attempts include any delivery of service (successful or not successful) for which the CLEC did not receive sufficient prior notification.

**For ILEC Results:** The ILEC reports completions for which ILEC technicians delivered service to customers without giving sufficient advance notice to customers, sales or to internal account team to arrange for appropriate vendors to be on hand. Calculation of insufficient notice is similar to CLEC calculation (none or less than 24 hours). Similar surprise service deliveries are calculated for ILEC affiliate's account representatives.

**For CLEC Results:** Calculation would exclude any successful or unsuccessful service delivery that CLEC was informed of at least 24 hours in advance. ILEC may also exclude from calculation deliveries on less than 24 hours' notice that CLEC requested.

**% Jeopardies = (Number of Orders Jeopardized in Reporting Period)/(Number of Orders Confirmed in Reporting Period)**

% Jeopardies is the percentage of total orders processed for which the ILEC notifies the CLEC that the work will not be completed as committed on the original FOC.

The measurement result is derived by dividing the count of jeopardy notices the ILEC issues to the CLEC by the count of FOCs returned by the ILEC during the identical period. Both the "Number of Orders Jeopardized in Reporting Period" and "Number of Orders Confirmed in Reporting Period" are utilized in other status measurement computations and have identical meaning and derivation for this measurement.

**For ILEC Results:** Same computation as the CLEC with the clarifications outlined below.

**Other Clarifications and Qualification:**

- When the ILEC processes orders for a CLEC via different interfaces (e.g., ASR and EDI) then the preceding measurement must be computed for each interface arrangement.
- All intervals are measured in hours and hundredths of hours rounded to the nearest hundredth.
- Because this should be a highly automated process, the accumulation of elapsed time continues through off-schedule, weekends and holidays.
- "Syntactically correct" means all fields required to process an order are populated and reflect the correct format as agreed and documented in the current interface specifications.
- The ILEC service agent's attempt to submit an order for processing by the ILEC OSS is considered equivalent to the ILEC acknowledgment of the CLEC's order.
- The ILEC OSS return of any indication to the service agent that an order cannot be processed as submitted is considered equivalent to the ILEC return of a rejection notice to the CLEC.
- Return of any information (e.g., order recapitulation) to the ILEC customer service agent that indicates no errors are evident or that an order can be processed, is the equivalent of the ILEC return of a FOC to the CLEC.
- Logging of information in the ILEC OSS, whether manual or automatic, that indicates an order may not be completed by the existing due date, is equivalent of the return of a jeopardy notice to the CLEC regardless of whether or not the ILEC takes action based upon such information.
- Automatic logging of work completion and manual logging of work completion, whether input directly to the ILEC OSS or into an intermediate storage device, is considered the equivalent of the return of a completion notice to the CLEC.

**Reporting Dimensions:**

- Standard Order Activities (See Appendix A)
- Company
- Interface Type
- Service Type (See Appendix A)
- Geographic Scope

**Excluded Situations:**

- Rejection Interval - None
- Jeopardy Interval - None
- Firm Order Confirmation Interval - None
- Completion Notification Interval - None
- % Jeopardies – None
- Completions or Attempts Without Notice or With less than 24-hours' notice delivery that the CLEC specifically requested.

# Service Quality Measurements

## Measurement Detail

| Data Retained Relating To CLEC Experience: | Data Retained Relating To ILEC Performance: |
|---|---|
| • Report Month<br>• Interface Type<br>• Service Type<br>• CLEC Order Number<br>• Order Submission Date<br>• Order Submission Time<br>• Status Type (Rejection, FOC, Jeopardy Type, Completion Notice)<br>• Status Notice Date<br>• Status Notice Time<br>• Standard Order Activity<br>• Order Due Date | • Report Month<br>• Interface Type<br>• Service Type<br>• Status Type (Rejection, FOC, Jeopardy Type, Completion Notice)<br>• Average Status interval<br>• Standard error of status interval<br>• Number of Orders Reflected In Result<br>• Standard Order Activity<br>• Number of Statuses Provided |

**Performance Standard in Absence of ILEC Results**

If the ILEC does not deliver direct comparative results or the ILEC has not produced benchmark levels based upon a verifiable study of its own operation as agreed to with the CLEC, then result(s) related to the CLEC operation should be provided according to the following levels of performance in order to provide the CLEC with a meaningful opportunity to compete:

- no less than 97% of Rejects in any category for a reporting period are returned within 15 seconds
- all Firm Order Confirmations are returned within 4 hours
- no less than 97% of order completions in any category are returned within 30 minutes of work completion
- 99.9% of completion and completion attempts should receive more than 24 hours notice.
- no less than 97% of Jeopardies for any category are returned to the CLEC a minimum of 2 business days in advance of the due date indicated on the most recent FOC
- no more than 5% of the total number of orders should result in a Jeopardy in any given report period.

**Function Business Implications:**

**Coordinated Cutovers**

Customers must not be subjected to unscheduled service disruptions because of lengthy or uncoordinated cutovers of loops with interim or permanent number portability or the provision of any other UNEs that require disconnection and reconnection of a customer.

Customers may suffer loss of dialtone due to early cutovers (ILEC takes down loop before scheduled date for CLEC loop to be ready) in cases where interim number portability is involved. With Permanent Number Portability (PNP), customers may not receive inbound calls if the ILEC (1) does not provide timely disconnection of the ILEC's old translations for routing the number or (2) does not employ or prematurely takes down the 10-digit trigger designed to ensure proper routing during the transition. Service may also be disrupted in conversions from ILNP-to-PNP or through premature disconnects in coordinated cutovers of UNE combinations. The percentage of early and late cutovers must be monitored to ensure that CLECs' customers are not disproportionately losing dialtone or having inbound calling blocked.

# Service Quality Measurements
## Measurement Detail

**Measurement Methodology:**

**Average Coordinated Conversion Interval = Σ[(Date & Time Re-termination is Completed by ILEC) – Date & Time of Initial Service Interruption (disconnect for Customer Transferring Service)]/(Count of Completed Coordinated Conversions in Reporting Period)**

**% Service Loss from Early Cuts = (Customer Conversion Where Cutover Time is Earlier Than Due Date and Time)/(All Customer Conversions Completed During Reporting Period)] x 100**

**% Service Loss from Late Cuts =(Customer Conversions Where Cutover Time is More than 30 Minutes Past Due Date and Time)/(All Customer Conversions Completed During Reporting Period) x 100**

**For CLEC Results:**

Average Coordinated Conversion Interval: The elapsed time between the disconnection of an access line (for a retail customer of the ILEC) from the switch port of the ILEC to the time that the ILEC finishes both the physical work necessary to re-terminate the loop (at the point of re-termination specified by the CLEC) and receives CLEC confirmation that electrical continuity exists. The elapsed time is accumulated for the reporting period and divided by the number of loops that were re-terminated on a coordinated basis.

% Service Loss (Early/Late Cuts): For hot loop cuts, the same loop is moved from an existing port to what is effectively a different port (The CLEC collocation point). Translation disconnections also are reported if they occur too early or late in a conversion involving local number portability. For each conversion, the ILEC will track whether the cutover time (for facilities and translations) was earlier or later than the committed due date and time that appeared on the FOC. The total number of early cutovers will be divided by the total number of customer conversions that were completed during the reporting period. Likewise, the total number of cutovers that were completed more than 30 minutes past the committed due date and time will be divided by the total number of customer conversions that were completed during the reporting period. For both formulas, the resulting ratio will be expressed as a percentage.

**For ILEC Results:** ILECs would use retail residential or business POTS outside move activity as an analog. An outside move occurs when a customer, with existing service, moves from one premises to another within the same central office area without disconnecting and reconnecting service. With inside moves the customer keeps their own phone number. Although an outside move involves disconnecting an existing loop from an operating port and reconnecting a different loop (within the same office) to that same port, the work involved is very similar (i.e. coordinated re-termination).

| Reporting Dimensions: | Excluded Situations: |
|---|---|
| • Company<br>• Type of Loop or UNE Combination Cutover and Type of NP involved (i.e. ILNP, PNP or ILNP-to-PNP conversion). See also Service Type (Appendix A)<br>• Order Activity<br>• Geography<br>• Volume Category | None |

# Service Quality Measurements
## Measurement Detail

| Data Retained Relating To CLEC Experience: | Date Retailed Relating To ILEC Experience: |
|---|---|
| • Report Month<br>• Service Type<br>• Order Activity<br>• Committed Due Date and Time (from Firm Order Confirmation)<br>• Completion Date and Time<br>• Geographic Scope<br>• Volume Category | • Report Month<br>• Number of Early Conversions<br>• Number of Conversions >30 Minutes Late<br>• Total Number of Conversions<br>• Average Conversion Interval<br>• Standard Error of Conversion Interval<br>• Geographic Scope<br>• Volume Category |

| | |
|---|---|
| Performance Standard in Absence of ILEC Results: | If the ILEC does not deliver direct comparative results or the ILEC has not produced benchmark levels based upon a verifiable study of its own operation as agreed to with the CLEC, then result(s) related to the CLEC operation should be provided according to the following levels of performance in order to provide the CLEC with a meaningful opportunity to compete:<br>• 98% of coordinated cutovers have ILEC and CLEC work completed within 5 minutes of one another and 100% within 15 minutes.<br>• 98% of unscheduled disruptions causing loss of dialtone or inbound call blocking should be corrected in 1 hour and 100% within 2 hours. |

| | |
|---|---|
| Function: | Held Orders |
| Business Implications: | Customers expect that work will be completed when promised. Therefore, when delays occur in completing CLEC orders, such delays must be no longer than the average period of time the ILEC's own customer orders are held. |
| Measurement Methodology: | **Held Order Interval = Σ( Reporting Period Close Date - Committed Order Due Date) / (Number of Orders Pending and Past The Committed Due Date) for all orders pending and past the committed due date**<br><br>**For CLEC Results:** This metric is computed at the close of each report period. The held order interval is established by first identifying all pending orders at that time that (1) have not been reported "completed" via a valid completion notice and (2) have passed the currently "committed completion date." For each such order, the number of calendar days between the committed completion date and the close of the reporting period is established and represents the held order interval for that particular order. The held order interval is accumulated (by service type and reason for the hold, if identified) and then divided by the number of held orders within the same category to produce the mean held order interval.<br><br>**Orders Held for ≥ 90 days = (# of Orders Held for ≥ 90 days) / (Total # of Orders Pending But Not Completed) x 100**<br><br>**Orders Held for ≥ 15 days = (# of Orders Held for ≥ 15 days) / (Total # of Orders Pending But Not Completed) x 100**<br><br>This "percentage orders held" measure is complementary to the held order interval but is designed to detect orders continuing in a "non-completed" state for an extended period of time. Computation of this metric uses a subset of the data accumulated for the "held order interval" measure. All orders, for which the "held order interval" equals or exceeds 90 (or 15) days, are counted by service type and reason for the hold. |

# Service Quality Measurements
## Measurement Detail

The total number of pending and past due orders for the same category are counted (as was done for the held order interval) and divided into the count of orders held past 90 (or 15) days.

**For ILEC Results:** Same computation as for the CLEC with the clarifications provided below..

**Other Clarifications and Qualification:**

- The "held order" measure established by some state commissions as part of minimum service standards is analogous to this proposed measure but, because it is typically limited to monitoring only those orders held because of facility shortages, needs to be expanded to include all reasons that an order is pending and past due.
- **Order Supplements** - If the CLEC initiates a supplement to the originally submitted order for the purpose of reflecting changes in customer requirements, then the due date returned on the FOC will be the basis for the preceding calculations. No other supplemental order activities will result in an update to the committed due date.
- See "Order Status" measurement definitions for discussion of the ILEC analog for a completion notice.
- The held order interval is measured in calendar rather than business days.

**Reporting Dimensions:**

- Company
- Service Type (See Appendix A)
- Reason for Hold (no facilities, no equipment, workload, other)
- Geographic Scope

**Excluded Situations:**

- Any orders canceled by the CLEC will be excluded from this measurement.
- Order Activities of the ILEC associated with internal or administrative use of local services

**Data Retained Relating To CLEC Experience:**

- Report Month
- CLEC Order Number
- Committed Due Date
- Report Period Close
- Service Type
- Hold Reason
- Geographic Scope

**Data Retained Relating To ILEC Performance:**

- Report Month
- Average Held Order Interval
- Standard Error for Average Held Order Interval
- Number of Orders Rejected
- Service Type
- Hold Reason
- Geographic Scope

**Performance Standard in Absence of ILEC Results:**

If the ILEC does not deliver direct comparative results or the ILEC has not produced benchmark levels based upon a verifiable study of its own operation as agreed to with the CLEC, then result(s) related to the CLEC operation should be provided according to the following levels of performance in order to provide the CLEC with a meaningful opportunity to compete:

- Less than 0.1% of orders held for more than 15 calendar days.
- No orders held for more than 90 calendar days.

# Service Quality Measurements
## Measurement Detail

## Maintenance and Repair (MR)

| | |
|---|---|
| Function: Business Implications: | **Time To Restore**<br>Customers expect service to be restored promptly to the normal operating parameters whenever troubles are detected. The longer the time required to correct a service problem, the greater the customer dissatisfaction. Customers also need to know that the CLEC is monitoring the status of their repair closely. The CLEC, therefore, needs jeopardy notification if repair commitments are not going to be met. Both measures, when collected and compared for the CLEC and ILEC, monitor whether the CLEC receives the same intervals and jeopardy notices regarding repairs as the ILEC provides for its own or an affiliate's retail customers. |
| Measurement Methodology: | **Mean Time To Restore = Σ[(Date and Time of Trouble Ticket Resolution Returned to CLEC)-(Date and Time of Trouble Ticket Referred to the ILEC)] / (Count of Trouble Tickets Resolved in Reporting Period)**<br><br>**For CLEC Results:** The restoral interval for resolution of customer requested maintenance and repair is the elapsed time, measured in hours and tenths of hours, measured from the CLEC submission of a customer trouble to the ILEC, regardless of the ultimate resolution of the trouble, to the time the ILEC returns a valid trouble resolution notification to the CLEC. The elapsed time is accumulated by service type and trouble disposition for the reporting period. The accumulated time is divided by the count of maintenance tickets reported as resolved by the ILEC (by service type and trouble type) during the report period.<br><br>**For ILEC Results:** Same computation as for the CLEC.<br><br>**Other Clarifications and Qualification:**<br><br>• Elapsed time is measured on a 24-hour-a-day, seven-days-a-week basis. The time is measured in hours and hundredths of hours rounded to the nearest hundredth hour.<br>• Multiple reports for the same customer service are treated as the same incident only when a subsequent report is received for a customer service arrangement that already has an open ticket.<br>• "Restore" means to return to the normally expected operating parameters for the service regardless of whether or not the service, at the time of trouble ticket creation, was operating in a degraded mode or was completely unusable.<br>• A trouble is "resolved" when the ILEC issues notice to the CLEC that the customer's service is restored to normal operating parameters.<br>• A trouble ticket or trouble report is any record (whether paper or electronic) used by the ILEC for the purpose of monitoring action and disposition of a service repair or maintenance situation.<br>• ILEC acceptance of a trouble by the call receipt agent is considered equivalent to the CLEC logging or submitting a trouble to the ILEC.<br>• The ILEC closure of a trouble ticket (whether automatic or manual) is considered equivalent to returning a trouble resolution notice to the CLEC.<br><br>**Mean Jeopardy Interval = Σ [(Date and Time of Committed Due Date for the Order) - (Date and Time of Jeopardy Notice)]/(Number of Orders Jeopardized in Reporting Period)** |

# Service Quality Measurements
## Measurement Detail

**CLEC Results:** Jeopardy Interval is the remaining time between the pre-existing committed maintenance or trouble handing appointment date and time and the date and time the ILEC issues a notice to the CLEC indicating an appointment is in jeopardy of being missed. The scheduled appointment time will be assumed to be 5:00 p.m. local time unless other information is communicated. The date and time of the jeopardy notice delivered by the ILEC is subtracted from the scheduled completion date to establish the jeopardy interval for any appointment placed in jeopardy. The jeopardy interval is accumulated by service group with the resulting accumulated time then divided by the count of scheduled appointments associated with the particular service.

**For ILEC Results:** Computations are the same as for the CLEC with the clarifications outlined below.

**Other Clarifications and Qualification:**

All intervals are measured in hours and hundredths of an hour rounded to the nearest hundredth. The lack of electronic bonding for maintenance does not excuse the ILEC from jeopardy reporting requirements.

**Reporting Dimensions:**

- Service Type (See Appendix A)
- Trouble Type
- Geographic Scope

**Excluded Situations:**

- Trouble tickets that are canceled at the CLEC's request
- ILEC trouble reports associated with administrative service
- Instances where the CLEC or an ILEC customer requests that a ticket be "held open" for monitoring
- Subsequent Reports (additional reports on an already open ticket)
- Any trouble type tracking that parties agree are technically unfeasible or operationally prohibitive
- A trouble ticket created for tracking and/or monitoring requests for clarifying information (e.g. confirmation of customer ownership from CLEC support centers.
- Tickets used to track referrals of misdirected calls

# Service Quality Measurements
## Measurement Detail

| Data Retained Relating To CLEC Experience: | Data Retained Relating To ILEC Performance: |
|---|---|
| • Report Month<br>• CLEC Ticket #<br>• Ticket Submission Time<br>• Ticket Submission Date<br>• Ticket Completion Time<br>• Trouble Resolution Time<br>• Trouble Resolution Date<br>• Service Type<br>• WTN or CKTID (a unique identifier for elements combined in a service configuration)<br>• Trouble Type<br>• Geographic Scope | • Report Month<br>• Average Restoral Interval<br>• Standard Error for the Average Restoral Interval<br>• Service Type<br>• Trouble Type<br>• Geographic Scope<br>• Number of Tickets |

**Performance Standard in Absence of ILEC Results:**

If the ILEC does not deliver direct comparative results or the ILEC has not produced benchmark levels based upon a verifiable study of its own operation as agreed to with the CLEC, then result(s) related to the CLEC operation should be provided according to the following levels of performance in order to provide the CLEC with a meaningful opportunity to compete:

1. Out of Service conditions where dispatch is required:
   - ≥90% resolved within 4 hours
   - ≥95% resolved within 8 hours
   - ≥99% resolved within 16 hours
2. Out of Service conditions where no dispatch is required:
   - ≥85% resolved within 2 hours
   - ≥95% resolved within 3 hours
   - ≥99% resolved within 4 hours
3. > all other troubles resolved within 24 hours

**Function: Business Implications:**

**Frequency of Repeat Troubles**

Customers are keenly aware of the effectiveness of repair activities. First time troubles are sufficiently annoying and disruptive. When the trouble recurs within a short time frame, customers are even more dissatisfied. This measurement, when gathered for both the ILEC and CLEC, can establish whether or not CLECs are competitively disadvantaged (vis-a-vis the ILEC) as a result of experiencing more lingering customer troubles after the first repair attempt. Differences in this measure may indicate that the CLEC is receiving inferior maintenance support in the initial resolution of troubles or that ILEC-supplied network components are inferior.

**Measurement Methodology:**

**Repeat Trouble Rate = (Count of Trouble Reports Where More Than One Trouble Report Was Logged for the Same Service Access Line Within a Continuous 30 Day Period) / (Number of Reports in the Report Period) x 100**

**For CLEC Results:** The repeat trouble rate measure is computed by accumulating the number of instances where a trouble ticket is submitted by a CLEC to the ILEC for a service arrangement that had at least one prior trouble ticket any time in the 30 calendar days preceding the creation of the current trouble ticket. The number of repeat troubles are accumulated for the reporting period by service type and trouble type. The count of repeat troubles, by service type, is divided by the count of initial trouble reports (by service type) received during the report period.

# Service Quality Measurements
## Measurement Detail

**For ILEC Results:** Same computation as for CLECs.

**Other Clarifications and Qualification:**

- Unbundled loops or UNE combinations involving and unbundled loops are considered a "service access line"
- A trouble is "resolved" when the ILEC issues notice to the CLEC that the Customer's service is restored to normal operating parameters
- The "same service arrangement" means a trouble report being reported for the same telephone number or the same circuit identifier.
- The trouble resolution need not be identical between the repeated reports for the incident to be counted as a repeated trouble

**Reporting Dimensions:**

- Service Type (See Appendix A)
- Company
- Trouble Type
- Geographic Scope

**Excluded Situations:**

- Trouble tickets that are canceled at the CLEC request
- ILEC trouble reports associated with administrative service
- Instances where the CLEC or an ILEC customer requests that a ticket be "held open" for monitoring.
- Subsequent trouble report(s) on a maintenance ticket that has (have) not been reported as resolved (or closed)
- Trouble tickets created for tracking and or monitoring requests for clarifying information (e.g., confirmation of customer ownership from CLEC support centers)
- Tickets used to track referrals of misdirected calls.

**Data Retained Relating To CLEC Experience:**

- Report Month
- CLEC Ticket #
- Ticket Submission Time
- Ticket Submission Date
- Trouble Resolution Time
- Trouble Resolution Date
- Service Type
- WTN or CKTID (a unique identifier for elements combined in a service configuration)
- Trouble Type
- Geographic Scope

**Data Retained Relating To ILEC Performance:**

- Report Month
- % repeat trouble
- Service Type
- Trouble Type
- Geographic Scope
- Count of Troubles
- Count of Repeat Troubles

**Performance Standard in Absence of ILEC Results:**

If the ILEC does not deliver direct comparative results or the ILEC has not produced benchmark levels based upon a verifiable study of its own operation as agreed to with the CLEC, then result(s) related to the CLEC operation should be provided according to the following levels of performance in order to provide the CLEC with a meaningful opportunity to compete:

- Less than 1% of trouble reports, by service type, experience a repeat report, regardless of the trouble disposition, within a 30-day period.

# Service Quality Measurements
## Measurement Detail

| | |
|---|---|
| **Function:** | **Frequency of Troubles** |
| **Business Implications:** | Customers demand high quality service from their supplier, and differentials in supplier performance are quickly recognized throughout the market place. Poor performance is difficult to overcome and may require lengthy periods of sustained superb performance in order to re-establish a product image that has been tarnished. When measured for both the ILEC and CLEC and compared, this measure can be used to establish that CLECs are not competitively disadvantaged, compared to the ILEC, as a result of experiencing more frequent trouble reports. Disparity in this measure may indicate differences in the underlying quality of the network components supplied. |
| **Measurement Methodology:** | **Trouble Rate = (Count of Initial & Repeated Trouble Reports in the Current Period) / (Number of Service Access Line in Service at End of the Report Period) x 100**<br><br>**For CLEC Results:** The frequency of trouble metric is computed by accumulating, by standard service grouping and disposition and cause, the total number of maintenance tickets logged by a CLEC (with the ILEC) during the reporting period. The resulting number of tickets for each trouble type is accumulated within each standard service grouping, and trouble type is divided by the total number of "service access lines" existing for the CLEC at the end of the report period.<br><br>**For ILEC Results:** Same calculation as for the CLEC with the clarifications provided below.<br>**Other Clarifications and Qualification:**<br>• This measure is frequently a minimum service standard required by state commissions for monitoring ILEC performance..<br>• Unbundled loops or UNE combinations involving unbundled loops would be counted as a "service access line."<br>• A trouble is "resolved" when the ILEC issues notice to the CLEC that the customer's service is restored to normal operating parameters.<br>• See the "Time to Restore" measurement for a discussion of the ILEC equivalent of "trouble tickets" and "trouble logging".<br><br>**% Troubles Within 30 Days of Installations and Other Order Activity = (Total Number of Trouble Tickets Associated With Lines That Had Service Order Activity Within 30 Days of the Trouble Report)/(Total Number of Orders Completed in the Report Period.**<br><br>**For CLEC Results:** The results are computed by accumulating the number of trouble tickets submitted by a CLEC to the ILEC for a service arrangement that had at least one install or service order activity within the 30 calendar days preceding the creation of the current trouble ticket. The count of troubles is divided by the count of service-affecting orders completed by the ILEC for the CLEC during the report period.<br><br>Non-parity results for % Trouble Rate within 30 Days of Install and Other Order Activity may require further reporting to determine root cause issues. For instance, reports on whether facilities provided on new installations tested to industry standard per interconnection contract, tariff or regulatory requirements may be required if results indicate a poorer performance of facilities and supporting network equipment provided to CLECs. ILECs also may need to cooperate with CLECs on comparative mechanized line testing (through respective ILEC and CLEC switches) of the transmission quality of ILEC loops versus CLEC unbundled loops obtained from the |

# Service Quality Measurements
## Measurement Detail

| | |
|---|---|
| | ILEC. Reporting dimensions of copper versus fiber deployment may show that CLEC install troubles result from a disparity in use of underlying transmission media for install of ILEC vs. CLEC facilities. The broadening of the measure to include more than just new installs will detect new service activations (hunt group changes, other feature additions) that cause troubles versus the quality of the transmission medium.<br><br>**For ILEC Results:** Calculations are similar to those for CLECs. |

| Reporting Dimensions: | Excluded Situations: |
|---|---|
| • Standard Service Groupings (See Appendix A)<br>• Company<br>• Trouble Type<br>• Geographic Scope | • Trouble tickets that are canceled at the CLEC request<br>• ILEC trouble reports associated with administrative service<br>• Instances where the CLEC or an ILEC customer requests a ticket be "held open" for monitoring<br>• Trouble tickets created for tracking and/or monitoring requests for clarifying information (e.g., confirmation of customer ownership from CLEC support centers)<br>• Tickets used to track referrals of misdirected calls. |

| Data Retained Relating To CLEC Experience: | Data Retained Relating To ILEC Performance: |
|---|---|
| • Report Month<br>• CLEC Ticket #<br>• Ticket Submission Time<br>• Ticket Submission Date<br>• Trouble Resolution Time<br>• Trouble Resolution Date<br>• Service Type<br>• WTN or CKTID (a unique identifier for elements combined in a service configuration)<br>• Trouble Type<br>• Geographic Scope | • Report Month<br>• Service Type<br>• Trouble Type<br>• Geographic Scope<br>• Number of Tickets<br>• Number of Service Access Lines |

| | |
|---|---|
| Performance Standard in Absence of ILEC Results | If the ILEC does not deliver direct comparative results or the ILEC has not produced benchmark levels based upon a verifiable study of its own operation as agreed to with the CLEC, then result(s) related to the CLEC operation should be provided according to the following levels of performance in order to provide the CLEC with a meaningful opportunity to compete:<br>• Less than 0.5% of lines, by service type, regardless of disposition and cause, experience a trouble in a report period for both the "trouble rate" and "percent troubles on new installations and order activity measures." |

| | |
|---|---|
| Function: Business Implications: | **Estimated Time To Restore Met**<br>When customers experience trouble on working services, they naturally expect the services to be restored within the time frame promised. When such commitments are not fulfilled, an already unsatisfactory condition, in the customer's eyes, becomes even worse. When this measure is collected for the ILEC and CLEC and then compared, it can be used to establish that CLECs are receiving equally reliable (as |

compared to the ILEC operations) estimates of the time required to complete service repairs.

**Measurement Methodology:**

**% Customer Troubles Resolved Within Estimate = (Count of Customer Troubles Resolved By The Quoted Resolution Time and Date) / (Count of Customer Troubles Tickets Closed) x 100**

**For CLEC Results:** The computation of the measure is as follows: The quoted repair completion date and time is compared to the actual repair date and time (ticket closure as defined in Time to Restore metric). In each instance where the actual repair date and time is on or before the initially provided estimated or quoted date and time to restore, the count of "troubles resolved within estimate" is incremented by one for the relevant "service type" and "trouble type." The resulting count is divided by the total number of troubles resolved (for the consistent service and trouble type), for the report period, in all instances where an estimated interval was provided or a standard interval existed.

**For ILEC Results:** Same calculation as for CLEC.

**Other Clarifications and Qualification:**

The ILEC analog for this measure is derived by comparing the actual date and time of ILEC trouble ticket closure compared to the projected trouble clearance date and time established through the ILEC agent's on-line interaction with the ILEC's work management system, regardless of whether or not the ILEC currently quotes this information to its retail customer.

- See the "Time To Restore" measurement for discussion of analogous ILEC maintenance activities (e.g., trouble resolution).
- The "quoted" or "estimated" time to restore is the actual scheduled time projection returned by the ILEC work management system or the standardized repair interval that the ILEC uses for its own operations when equivalent service arrangements are involved.
- A trouble is "resolved" when the ILEC issues notice to the CLEC that the customer's service is restored to normal operating parameters.
- If the ILEC supplies only the estimated repair interval, then the estimated date and time of repair is determined by adding the repair interval to the date and time that the CLEC logged the repair request with the ILEC.

**Reporting Dimensions:**

- Company
- Service Type (See Appendix A)
- Trouble Type
- Geographic Scope

**Excluded Situations:**

- Trouble tickets that are canceled at the CLEC request
- ILEC trouble reports associated with administrative service
- Instances where the CLEC or an ILEC customer requests a ticket be "held open" for monitoring
- Trouble tickets created for tracking and/or monitoring requests for clarifying information (e.g., confirmation of customer ownership from CLEC support centers).
- Tickets used to track referrals of misdirected calls.

# Service Quality Measurements
## Measurement Detail

| Data Retained Relating To CLEC Experience: | Data Retained Relating To ILEC Performance: |
|---|---|
| • Report Month<br>• CLEC Ticket #<br>• Ticket Submission Time<br>• Ticket Submission Date<br>• Trouble Resolution Time<br>• Trouble Resolution Date<br>• Service Type<br>• WTN or CKTID (a unique identifier for elements combined in a service configuration)<br>• Trouble Type<br>• Geographic Scope | • Report Month<br>• Service Type<br>• Trouble Type<br>• Number of Troubles Resolved Within Estimate<br>• Number of Troubles Resolved<br>• Geographic Scope |

**Performance Standard in Absence of ILEC Results:**

If the ILEC does not deliver direct comparative results or the ILEC has not produced benchmark levels based upon a verifiable study of its own operation as agreed to with the CLEC, then result(s) related to the CLEC operation should be provided according to the following levels of performance in order to provide the CLEC with a meaningful opportunity to compete:

- Greater than 99% of a maintenance problems, by service type and regardless of trouble type, are resolved by the quoted or estimated date and time of repair.

# Service Quality Measurements
## Measurement Detail

## General (GE)

| | |
|---|---|
| **Function:** | **Systems Availability** |
| **Business Implications:** | Access to essential business functionality, supported by the ILEC's OSS, is absolutely critical to CLEC operations. This measure monitors whether OSS functionality is at least as accessible to the CLEC as it is to the ILEC. |
| **Measurement Methodology:** | **% System Availability = [(Hours Functionality is Available to CLECs During Report Period) / ( Number of Hours Functionality was Scheduled to be Available During the Period)] x 100**<br><br>**For CLEC Results:** The total "number of hours functionality was scheduled to be available" is the cumulative number of hours (by date and time on a 24-hour clock) over which the ILEC planned to offer and support CLEC access to ILEC OSS functionality during the reporting period. The ILEC must provide a minimum advance notice of one reporting period regarding availability plans and such plans must be interface-specific. If scheduled availability is not provided with at least one report period's advance notice, then the default availability for the subsequent reporting period will be seven days per week, 24 hours per day.<br><br>"Hours Functionality is Available" is the actual number of hours, during scheduled available time, that the ILEC gateway or interface is capable of accepting CLEC transactions or data files for processing in the gateway / interface and supporting OSS.<br><br>The actual time available is divided by the scheduled time available and then multiplied by 100 to produce the "% system availability" measure. The "% system availability" measure is required for each unique interface type offered by the ILEC.<br><br>**For ILEC Results:** Each OSS of the ILEC that is employed in the support of CLEC operations must first be identified by supported functional area (e.g., pre-ordering, ordering and provisioning, repair and maintenance and billing) with such mapping disclosed to the CLECs. The "available time" and "scheduled available time" is gathered for each of the identified ILEC OSS during the report period. The OSS function availability is computed based upon the weighted average availability of the subtending support OSS. That is, the available time for each OSS supporting a functional area is accumulated over the report period and then divided by the summation of the scheduled available time for those same supporting OSS.<br><br>**Other Clarifications and Qualification:**<br><br>• The ILEC analogs for this performance measure are the internal measures of system downtime (or up time) typically established between the ILEC Systems Management Organization and the client organizations.<br>• OSS scheduled and available time may be utilized in the computation of more than one functional area.<br>• Parity exists if the CLEC "% system availability" ≥ ILEC function availability for the functionality accessed by the CLEC.<br>• "Capable of accepting" must have a meaning consistent with the ILEC definition down time, whether planned or unplanned, for internal ILEC systems having a comparable potential for customer impact.<br>• Time is measured in hours and tenths of hours rounded to the nearest tenth of an hour. |

# Service Quality Measurements

## Measurement Detail

| Reporting Dimensions: | Excluded Situations: |
|---|---|
| • Company<br>• Interface type offered for each functional area (See Appendix A)<br>• Business Period (8:00AM to 8:00PM local time versus 8:00PM to 8:00AM , weekends and holidays) | • None |

| Data Retained Relating To CLEC Experience: | Data Retained Relating To ILEC Performance: |
|---|---|
| • Report Month<br>• Interface Type (Identifies each unique interface available to CLECs)<br>• Business Period<br>• Scheduled Hour Available<br>• Actual Hours Available | • Report Month<br>• Functionality Identification<br>• Business Period<br>• % Availability of Functionality |

| | |
|---|---|
| Performance Standard in Absence of ILEC Results | If the ILEC does not deliver direct comparative results or the ILEC has not produced benchmark levels based upon a verifiable study of its own operation as agreed to with the CLEC, then result(s) related to the CLEC operation should be provided according to the following levels of performance in order to provide the CLEC with a meaningful opportunity to compete:<br>• Less than 0.1% of unplanned down time, by interface type, during either business period. |

| | |
|---|---|
| Function: Business Implications: | **Center Responsiveness**<br>When CLECs experience operational problems dealing with ILEC processes or interfaces, prompt responses by ILEC support centers are required to ensure that the CLEC customers are not adversely affected. Any delay in responding to CLEC center requests for support (e.g., request for a vanity telephone number) will, in turn, adversely impact the CLEC retail customer who may be holding on-line with the CLEC customer service agent. This measure monitors the ILEC's handling of support calls from CLECs to determine if responsiveness is at parity with the service the ILEC provides its retail customers seeking assistance (e.g., calls to the business office of the ILEC or call the ILEC to report service repair issues). |
| Measurement Methodology | **Mean Time to Answer Calls = Σ [(Date and Time of Call Answer) - (Date and Time of Call Receipt)]/(Total Calls Answered by Center)**<br><br>**Call Abandonment Rate = (Count of Calls Terminated Before Answer During the Reporting Period)/(Count of All Calls Placed in Queue During the Reporting Period)**<br><br>**For CLEC Results:**<br>Speed of answer (mean time to answer calls) and call abandonment rates are monitored through the call management technology utilized to distribute calls to ILEC agents supporting CLEC activities (i.e., call receipt personnel staffing ILEC support centers intended for CLEC use). Results for each measure are to be provided separately for each center handing CLEC inquiries. If centers deployed by the ILEC support multiple functions (e.g., both maintenance and provisioning) then the results for each function supported should be separately reported.<br><br>Speed of Answer is determined by measuring and accumulating the elapsed time from the entry of a CLEC call into the ILEC call management system until the CLEC call |

is transferred to the ILEC personnel assigned to handling CLEC calls for assistance. The elapsed time is measured in seconds and tenths of seconds rounded to the nearest tenth of a second. The accumulated elapsed time is divided by the count of calls transferred to ILEC agents for accuracy.

The Call Abandonment Rate is based on the number of calls received by the call distribution system of the ILEC center for the reporting period, regardless whether the call actually is transferred to ILEC personnel for processing. In addition, a count is accumulated of all calls that are subsequently terminated by the calling party or dropped due to equipment failure before transfer to the service agent for processing. The accumulated count of calls abandoned (terminated) is divided by the total count of calls received at the monitored center.

**For ILEC Results:**

Speed of Answer, as it relates to the ILEC, will be measured in an identical manner as described for the CLEC. The results for the ILEC business office operations and its repair bureau operations should be separately accumulated, computed and retained. If further distinctions are made or more discrete tracking is performed within the ILEC call receipt centers (e.g., by business and residence), then results should be reported at the lowest possible level of detail. Where call receipt for such operations are commingled and inseparable, then only a single result for each measure will be generated and serve as the comparative result for both the CLEC repair support and the CLEC provisioning support results.

**Other Clarifications and Qualification:**

- Speed of Answer minimum service standards, established in many states for business office, maintenance center, and/or operator services represent a similar ILEC measure and are derived from identical data (although the result displayed may be in comparison to a pre-established standard performance minimum).
- For ILEC and CLEC calls, an ILEC Agent answering and placing the caller on hold does not stop timing for purposes of the speed of answer interval.
- An interactive voice response (IVR) unit does not stop the timing for purposes of the speed of answer interval. For a call to be considered answered, the live ILEC Agent must handle the CLEC request.
- Results may be reported for the CLEC industry in aggregate to the extent that separate carrier-specific support centers are not provided. If separate centers are provided (either for an individual CLEC or a group of CLECs) then results should be gathered and supplied for each center and reported to the CLEC(s) based upon the center providing the specific CLEC's support.
- If the ILEC call management technology cannot measure speed of answer on a call-specific basis, then an alternate methodology that simulates speed of answer based upon the average time for component parts of the call (e.g., queue to IVR + IVR to queue + queue to agent answer) can be utilized by mutual consent of the ILEC and CLECs.

| Reporting Dimensions: | Excluded Situations: |
|---|---|
| • Support Center Type (i.e., Center supporting CLEC maintenance, Center supporting CLEC provisioning, ILEC Center supporting retail customer maintenance calls, ILEC Center supporting business office inquiries) | • None |

# Service Quality Measurements

## Measurement Detail

| Data Retained Relating To CLEC Experience: | Data Retained Relating To ILEC Performance: |
|---|---|
| • Month<br>• Center Identifier<br>• Center Type<br>• Mean Speed of Answer<br>• Standard Error for Mean Speed of Answer<br>• Count of Calls Answered<br>• Count of Calls Abandoned | • Month<br>• Center Identifier<br>• Center Type<br>• Mean Speed of Answer<br>• Standard Error for Mean Speed of Answer<br>• Count of Calls Answered<br>• Count of Calls Abandoned |
| **Performance Standard in Absence of ILEC Results:** | If the ILEC does not deliver direct comparative results or the ILEC has not produced benchmark levels based upon a verifiable study of its own operation as agreed to with the CLEC, then result(s) related to the CLEC's operation should be provided according to the following levels of performance in order to provide the CLEC with a meaningful opportunity to compete:<br>• Greater than 95% of calls, by center, are answered within 20 seconds.<br>• All calls are answered within 30 seconds. |

| | |
|---|---|
| **Function:** | **Average Response Interval for Real-time OSS Queries** |
| **Business Implications:** | As an initial step of establishing service, the customer service agent must determine such basic facts as availability of desired features, service delivery intervals, telephone numbers to be assigned, the customer's current products and features, qualification of the customer's loop for advanced digital services, and/or the validity of the street address. Likewise, maintenance customer service agents also must obtain real-time information in order to log customer troubles. In preordering and maintenance operations, this type of information is gathered from supporting OSS while the customer (or potential customer) is on the telephone with the customer service agent. Because pre-ordering activities are the first tangible contact a customer may have with a CLEC and because customers already may be dissatisfied when they report a trouble, it is critical that the CLEC be perceived as equally competent, knowledgeable and fast as and ILEC customer service agent. This measure is designed to monitor the time required for CLECs to obtain the pre-ordering and maintenance information necessary to establish and modify service and to log trouble reports. Comparisons to ILEC results indicate whether a CLEC has an equal opportunity to deliver a comparable customer experience when a retail customer calls the CLEC with a service inquiry. |
| **Measurement Methodology:** | **Average Response Interval = Σ[ (Query Response Date & Time) - (Query Submission Date & Time) ]/(Number of Queries Submitted in Reporting Period)**<br><br>**For CLEC Results:** The response interval for each query is determined by computing the elapsed time from the ILEC receipt of a query from the CLEC, whether or not syntactically correct, to the time the ILEC returns the requested data (or reject notification) to the CLEC. Elapsed time is accumulated for each major query or transaction type, consistent with the specified reporting dimension, and then divided by the associated total number of queries received by the ILEC during the reporting period.<br><br>**For ILEC Results:** The ILEC computation is identical to that for the CLEC with the clarifications noted below. |

# Service Quality Measurements
## Measurement Detail

**Other Clarifications and Qualification:**

- The elapsed time for an ILEC query is measured from the point in time when the ILEC customer service agent submits the request for identical or similar information into the ILEC OSS until the time when the ILEC OSS returns the requested information to the ILEC customer service agent.
- As additional pre-ordering functionality is established by the industry, for example with respect to unbundled network elements, the reporting dimensions may be expanded.
- Elapsed time is measured in seconds and tenths of seconds rounded to the nearest tenth of a second.
- Elapsed time is to be measured through automated rather than manual monitoring and logging.
- The ILEC service agent entry of a request for pre-ordering or repair information (to the ILEC OSS) is considered to be the equivalent of the ILEC receipt of a query from the CLEC.
- The ILEC OSS return of information to the ILEC customer service agent, whether in hard copy or by display on a terminal, is considered equivalent to the return of requested information to the CLEC.

| Reporting Dimensions: | Excluded Situations: |
|---|---|
| • Company<br>• Interface Type<br>• Pre-Ordering Query Types (See Appendix A)<br>• Maintenance Query Types (See Appendix A) | • None |

| Data Retained Relating To CLEC Experience: | Data Retained Relating To ILEC Performance: |
|---|---|
| • Report Month<br>• Interface Type (specific to pre-ordering or maintenance and repair)<br>• Query Identifier (e.g., unique tracking number)<br>• Query Receipt Date by ILEC<br>• Query Receipt Time by ILEC<br>• Query Type (per reporting dimension)<br>• Response Return Date<br>• Response Return Time | • Report Month<br>• Interface Type<br>• Query Type (per reporting dimension)<br>• Mean response interval<br>• Query Count<br>• Standard error of the mean response interval |

**Performance Standard in Absence of ILEC Results:**

If the ILEC does not deliver direct comparative results or the ILEC has not produced benchmark levels based upon a verifiable study of its own operation, then result(s) related to the CLEC operation should meet or exceed the following levels of performance in order to provide the CLEC with a meaningful opportunity to compete:

- Other than a query requesting 30 or more telephone numbers, the response interval will be less than or equal 2 seconds for 98% of the CLEC's queries received by the ILEC during the reporting period and no query will take longer than 5 seconds.
- For queries requesting 30 or more telephone numbers, the response interval is never to exceed two hours.

## Billing (BI)

| | |
|---|---|
| Transaction Business Implications | **Timeliness Of Billing Record Delivery**<br>Regardless of whether the billing is to retail customers or to exchange access service customers, ILEC delivery of billing records must provide CLECs with the opportunity to deliver bills in as timely a manner as the ILEC, otherwise artificial competitive advantage will be realized by the ILEC. The "mean time to provide recorded usage" and the "mean time to deliver invoices" metrics monitor this situation. |
| Measurement Methodology | **Mean Time to Provide Recorded Usage Records = { Σ[(Data Set Transmission Date)-(Date of Message Recording)]}/(Count of All Messages Transmitted in Reporting Period)**<br><br>**Mean Time to Deliver Invoices = Σ[(Invoice Transmission Date)-(Date of Scheduled Bill Cycle Close)]/(Count of Invoices Transmitted in Reporting Period)**<br><br>**For CLEC Results:**<br><br>Usage Records: This measure captures the elapsed time between the recording of usage data generated either by CLEC retail customers or by CLEC access customers (by the AMA recording equipment associated with the ILEC switch) and the time when the data set, in a compliant format, is successfully transmitted to the CLEC. For each usage record, the calendar date and time of usage recording is compared to the calendar date and time of successful completion of data set transmission to the CLEC. The number of hours and tenths of hours elapsed between message recording and data set transmission will constitute the elapsed delivery time. The elapsed delivery time is accumulated for each usage record with the resulting total number of hours accumulated being divided by the number of complete usage records in all the data sets transmitted.<br><br>Invoices: This measure captures the elapsed number of days between the scheduled close of a Bill Cycle and the ILEC's successful transmission of the associated invoice to the CLEC. For each invoice, the calendar date of the scheduled close of Bill Cycle is compared to the calendar date that successful invoice transmission to the CLEC completes. The number of calendar days elapsed between scheduled Bill Cycle close and completion of invoice transmission will constitute the elapsed delivery time. The elapsed delivery time is accumulated for each invoice with the resulting total number of days accumulated being divided by the number of complete invoices sent in the reporting period.<br><br>**For ILEC Results:** Identical computations are made for the ILEC with the clarifications provided below.<br><br>**Other Clarifications and Qualification:**<br><br>• The elapsed time for delivery of ILEC usage records is measured from the time of message recording, as captured on the ILEC's AMA tape, to the time the AMA tape is converted to billing format (EMR format or equivalent).<br>• The elapsed time for ILEC invoice delivery is measured from the scheduled close date of the retail customer bill cycle to the production of the customer bill in a format appropriate for delivery to retail customers regardless whether such a distribution occurs immediately. |

# Service Quality Measurements
## Measurement Detail

| | |
|---|---|
| | • Mean time to deliver usage records is to be reported separately for end user usage and access related usage. |
| **Reporting Dimensions:** | **Excluded Situations:** |
| • Company<br>Type of Record (end user or access) or Invoice (resale, UNE or interconnection services) | • Any usage records or invoices rejected due to formatting or content errors. |
| **Data Retained Relating To CLEC Performance:** | **Data Retained Relating To ILEC Performance:** |
| • Report Monthly<br>• Record Type or Invoice Type<br>• Mean Delivery Interval<br>• Standard Error of Delivery Interval<br>• Number of Messages or Invoices Delivered | • Report Month<br>• Record Type or Invoice Type<br>• Mean Delivery Interval<br>• Standard Error of Delivery Interval<br>• Number of Messages or Invoices Delivered |
| **Performance Standard in the Absence of ILEC Results:** | If the ILEC does not deliver direct comparative results or the ILEC has not produced benchmark levels based upon a verifiable study of its own operation as agreed to with the CLEC, then result(s) related to the CLEC operation should be provided according to the following levels of performance in order to provide the CLEC with a meaningful opportunity to compete:<br>• For usage records, separately for access usage and end user usage:<br>1. Greater than 99.9% records received within 24 hours or usage recording.<br>2. All usage is received within 48 hours of usage recording.<br>• Greater than 99.95% of total service resale invoices received within 10 calendar days of bill cycle close.<br>• Greater than 99.95% of wholesale (UNE) invoices received within 10 calendar days of bill cycle close. |

| | |
|---|---|
| **Explanation of Business Implications:** | **Accuracy of Billing Records**<br>The accuracy of billing records affects the accuracy of the billing ultimately delivered to local service customers, whether retail local service or exchange access service customers. Billing for the elements from which CLEC services are constructed must be validated to assure that only correct charges are paid. This validation is necessary to assure that the cost structure for services is not inflated. Furthermore, charges such as "time and material" related charges may be on the invoice and need to be promptly passed on to customers (by CLECs) to avoid dissatisfaction regarding the timeliness of CLEC billing. Prompt billing of such charges also minimizes customer inquiries on late billing. Fair competition requires that the accuracy of billing records (both usage and invoices) delivered by the ILEC to the CLEC must provide CLECs with the opportunity to deliver bills at least as accurate as those delivered by the ILEC. Producing and comparing this measurement result for both the ILEC and CLEC allows a determination as to whether or not parity exists. |
| **Measurement Algorithm:** | **Invoice Accuracy = [(Number of Invoices Delivered in the Reporting Period that Have Complete Information, Reflect Accurate Calculations and are Properly Formatted) / Total Number of Invoices Issued in the Reporting Period )] x 100**<br><br>**Usage Accuracy = [(Number of Usage Records Delivered in the Reporting Period That Reflected Complete Information Content and Proper Formatting) / (Total Number of Usage Records Transmitted)] x 100**<br><br>**For CLEC Results:** The completeness of content, accuracy of information and conformance of formatting will be determined based upon the terms of the individual CLEC interconnection agreements with the ILECs. The ILEC will establish a quality |

control process that is disclosed to CLECs and that is no less rigorous than the most rigorous quality monitoring established in the ILEC billing service contracts for long distance service providers. The quality monitoring process must be disclosed in advance and process auditing must be permitted. The records and invoices delivered by the ILEC must simultaneously meet the standards relating to content, accuracy and formatting in order to be counted as accurate. Each of the above measurements, is expressed as a ratio (expressed as a percentage) of accurate records (or invoices) to the total records (or invoices) delivered.

**For ILEC Results:** The computation for the ILEC is identical to that described for the CLEC. The usage accuracy determination is based upon comparison of the usage records, following format conversion to the EMR (or equivalent) format as compared to the internally established content and formatting requirements. Likewise, the accuracy measure for invoice delivery will be based upon a statistically reliable comparison of ILEC invoices to the content, calculation methodology and formatting standards of the ILEC. Separate comparisons are to be made for retail service invoices and access invoices with the results compared to wholesale (total service resale) and UNE invoices, respectively.

**Other Clarifications and Qualification:**

- The usage accuracy measure identified here is similar to the type of measures that ILECs commonly institute in service contracts with long distance service suppliers who use ILEC billing services.
- The wholesale invoice accuracy identified here is analogous to the measures contained within the Billing Quality Assurance Programs that the ILECs have with interchange carriers for monitoring access billing quality. If a sampling process is used to monitor accuracy, then the study results must be reconfirmed no less than quarterly.

| Reporting Dimensions: | Excluded Situations: |
|---|---|
| • Company<br>• Type of Record (end user or access) or Invoice (resale, UNE or interconnection services) | • None |

| Data Retained Relating To CLEC Experience: | Data Retained Relating To ILEC Performance: |
|---|---|
| • Report Month<br>• Record Type or Invoice Type<br>• Number of Records With Errors<br>• Number of Records Delivered | • Report Month<br>• Record Type or Invoice Type<br>• Number of Records With Errors<br>• Number of Records Created |

**Performance Standard in Absence of ILEC Results:**

If the ILEC does not deliver direct comparative results or the ILEC has not produced benchmark levels based upon a verifiable study of its own operation as agreed to with the CLEC, then result(s) related to the CLEC operation should be provided according to the following levels of performance in order to provide the CLEC with a meaningful opportunity to compete:

- Greater than 98% of usage records transmitted, by usage type, reflect the agreed upon format and contain complete information.
- Greater than 98% of wholesale bills, by invoice type, are accurate.

# Service Quality Measurements
## Measurement Detail

## Operator Services/Directory Assistance & Listings (OS, DA & DL)

| | |
|---|---|
| Function/ Business Implications: | **Speed To Answer/Review Period for Directory Listings**<br>The speed of answer delivered to CLEC retail customers, when the ILEC provides Operator Services or Directory Services on behalf of the CLEC, must be no slower than the speed of answer that the ILEC delivers to its own retail customers of equivalent local services. The average amount of hold time that CLEC customers experience also must not be longer than it is for ILEC customers. In addition, CLECs must be provided the same opportunity to review directory listing updates to catch any errors before publication in white pages directories. |
| Measurement Methodology: | **Mean Time To Answer = [ Σ(Date and Time of Call Answer) - (Date and Time of Call Receipt)]/(Total Calls Answered on Behalf of theCLECs in Reporting Period)**<br><br>**Mean Time Allotted to Proof Listing Updates Before Publication = [Date &Time of Directory Publication Deadline) – (Date and Time Updates Available for Proofing]/(Total Number of Updates Provided for Proofing During Reporting Period)**<br><br>**For CLEC Results:** Speed of answer is monitored through the call management technology used to distribute calls to ILEC agents supporting CLEC activities (i.e., call receipt personnel staffing Directory Assistance or Operator Service Positions).<br><br>Speed of Answer is determined by measuring and accumulating the elapsed time from the entry of a CLEC retail customer call into the ILEC call management system queue until the CLEC retail customer call is transferred to the ILEC personnel assigned to handling CLEC calls for assistance (whether DA or OS). The elapsed time is measured in seconds and tenths of seconds rounded to the nearest tenth of a second.<br><br>Time Allotted To Proof Listing Updates encompasses the amount of review time afforded to CLECs for the purposes of validating directory listings prior to directory publication. If electronic access permits a CLEC to view, on demand, its customers' listings as they will be published, then this measure is not necessary. An interface availability measurement, however, should be included within the reporting dimensions for the "General" OSS systems measurements. The directory proofing interval information should be captured and retained for each directory published. The interval is measured from the date and time the CLEC receives a final listing of customer-related information that will be contained within the ILEC's next directory publication to the final date and time for submission of changes to the listings provided.<br><br>**For ILEC Results:** Identical to process described for the CLEC with the clarification provided below.<br><br>**Other Clarifications and Qualifications:**<br><br>• The "speed to answer" measure is directly analogous to speed of answer minimum service standards established within many states.<br>• Results must be reported separately for CLECs that use facilities-based interconnection, as customer calls to OS and DA will arrive at the operator center on unique facilities. For CLECs that use common facilities to deliver customer calls to the operator center, results may be reported for the CLEC industry in aggregate until the capability to measure specific CLEC results exists. |

- See the "Center Responsiveness" measurement for the treatment of situations where ILEC call management technology cannot measure speed of answer on a call basis from receipt to answer.

**Reporting Dimensions:**

- Company
- Operator Services By Center
- Directory Assistance By Center
- Directory Listings By Directory

Note: OS/DA Speed to Answer is to be CLEC-specific if technically feasible.

**Excluded Situations:**

- Call abandoned by customers prior to answer by the ILEC OS or DA operator

**Data Retained Relating To CLEC Experience:**

- Month
- Type of Measurement (OS Calls, DA Calls or Directory Listing
- Center Identifier (or Directory ID for DL)
- Mean Speed of Answer (OS & DA only)
- Standard Error for Mean Speed of Answer (OS & DA only)
- Number of Calls Answered (OS & DA only)
- Directory Close Date (DL only)
- List Availability Date (DL only)

**Data Retained Relating To ILEC Performance:**

- Month
- Type of Measurement (OS Calls, DA calls or Directory Listings)
- Center Identifier (or Directory ID for DL)
- Mean Speed of Answer (OS & DA only)
- Standard Error for Mean Speed of Answer (OS & DA only)
- Standard Error for Mean Speed of Answer (OS & DA only)
- Directory Close Date (DL only)
- Listing Availability Date (DL only)

**Performance Standard in Absence of ILEC Results:**

If the ILEC does not deliver direct comparative results or the ILEC has not produced benchmark levels based upon a verifiable study of its own operation as agreed to with the CLEC, then result(s) related to the CLEC operation should be provided according to the following levels of performance in order to provide the CLEC with a meaningful opportunity to compete:

- More than 90% of calls answered by a "live" agent, separately for OS and DA services, within 10 seconds.
- All calls answered by a Voice Response Unit, separately for OS and DA services, within 2 seconds.
- Directory Listing review time may be no more than 4 hours less than the ILEC's.

# Service Quality Measurements
## Measurement Detail

## Network Performance (NP)

| | |
|---|---|
| Function: Business Implications: | **Interconnect Traffic Engineering/Trunking Capacity**<br>When customers place calls, they expect that their calls will go through. Likewise customers also expect that other callers will be able to reach them without having their calls blocked. In order to ensure that CLEC customers do not experience greater blocking to and from their lines than ILEC customers do, it is necessary to measure and compare blocking rates for ILEC and CLEC trunk usage.<br><br>Overall trunk blocking experienced by ILEC and CLEC customers must be measured because blockage on common trunks affects a greater percentage of CLEC total traffic than ILEC total traffic. The ILEC's greater build out of Direct End Office Trunking (DEOT), using common trunking mostly for overflow traffic from DEOTS, creates the disparity. Common trunks carry a greater percentage of CLEC traffic because of the CLECs' reliance on tandem interconnection as their networks are built out. The reliance not only is an economic choice based on 'start-up' traffic volumes, but also results from ILEC restrictions on direct end office connections.<br><br>Blocking measurements, as recommended below, or any call completion comparisons for dedicated final interconnection trunks do not tell the whole story of network capacity. Timely delivery of interconnect trunks and augments based on CLEC traffic projections rather than current utilization is also significant to the capacity parity issue and is discussed further in the order completion interval section. To protect their customers and their reputations, CLECs keep blocking levels under control on dedicated trunks by holding up new off-net and on-net customer orders. Installing new customers before ILECs have provided adequate trunking capacity, in line with CLEC forecasts and actual business requirements, can degrade service to existing and new CLEC customers. |
| Measurement Methodology: | **% Call Completion: [(Total number of blocked call attempts (separate measures for inbound and outbound) during the busy hour)/Total number of call attempts during busy hour)] x 100**<br><br>**For CLEC Results:** For determining outbound call blocking, the number of CLEC customer call attempts, where the customer dials a valid telephone number, is accumulated for the reporting period. The number of blocked call attempts experienced by CLEC customers, where a call to a valid telephone number was not completed by the network because of ILEC-controlled capacity limitations or other ILEC network trouble, also is accumulated during the reporting period. At the end of the reporting period, the total number of blocked attempts is divided by the total number of attempts, and the ratio is expressed as a percentage. For inbound calling, the results will measure calls originating on the ILEC's network and blocked from terminating on the CLEC's network.<br><br>**For ILEC Results:** The approach is identical to that described for the CLEC, except that the network performance is measured only for representative ILEC service configurations.<br><br>**Other Clarifications and Qualifications:**<br><br>CLECs may agree to call completion reports in lieu of or in addition to blocking reports. |

# Service Quality Measurements

## Measurement Detail

| Reporting Dimensions: | Excluded Situations: |
|---|---|
| • Trunk Capacity Type (DS0, DS1, DS3, etc.)<br>• Dedicated Trunk Groups<br>• Common Trunk Groups Where CLEC/LD Traffic Share Common ILEC Trunks.<br>• Common Trunk Groups where CLEC traffic traverses a separate common network from ILEC traffic.<br>• Availability of 7-digit call back-up to PSAP location<br>• E911/911 Trunk Groups<br>• OS/DA Trunk Groups<br>• By Switch (Serving CLEC) for CLEC<br>• By Switch (Serving CLEC) for ILEC<br>• Company<br>• Geographic Scope | • None |

| Data Retained Relating To CLEC Experience: | Data Retained Relating To ILEC Performance: |
|---|---|
| • Report Month<br>• By Switch (Serving CLEC) for CLEC<br>• Trunk Capacity Type<br>• Trunk Group Identifier<br>• Geographic Identifier<br>• Busy Hour and Day<br>• Calls Attempted<br>• Calls Blocked | • Report Month<br>• By Switch (Serving CLEC) for ILEC<br>• Trunk Capacity Type<br>• Trunk Group Identifier<br>• Geographic Identifier<br>• Busy Hour and Day<br>• Calls Attempted<br>• Calls Blocked |

**Performance Standard in Absence of ILEC Results:**

If the ILEC does not deliver direct comparative results or the ILEC has not produced benchmark levels based upon a verifiable study of its own operation as agreed to with the CLEC, then result(s) related to the CLEC operation should be provided according to the following levels of performance in order to provide the CLEC with a meaningful opportunity to compete:

Engineering Parameters:

- Dedicated Trunk Groups: Not to exceed blocking standard of B.01
- Common Trunk Groups:

(1) Where CLEC/LD traffic share common ILEC trunks: No more than 1% of end offices may have more than 2% blockage a month based on the Erlang-B.01 scale.
(2) Where CLEC traffic traverses a separate common network from LEC traffic: No more than 2% of end offices may have more than 2% blocking.

# Service Quality Measurements
## Measurement Detail

| | |
|---|---|
| Function/ Business Implications: | **Reporting Network Outages**<br>Both CLECs and ILECs must be made aware of major network events in order to notify customers and regulatory agencies (e.g. E-911 agencies, FAA, and other key customer accounts).<br><br>To that end, the ILECs must provide the CLECs with timely and detailed information (pertaining to a network incident) to afford CLECs the opportunity to make prudent business decisions regarding management of their own customer base and networks. For example, the ILEC would inform the CLEC that the network incident was caused by a cable cut at a specified location. |
| Measurement Methodology: | **Mean Time to Notify CLEC = Σ[(Date and Time ILEC Notified CLEC network incident) - (Date and Time ILEC detected network incident)] / Count of Network Incidents.**<br><br>**For CLEC Results:** The results will be based on the time it takes for the ILEC's Centralized Control Center to notify the CLEC and ILEC of a customer impacting network incident in equipment utilized by the CLEC. When the ILEC's Centralized Control Center becomes aware of the network incident, they must electronically notify both the ILEC and the CLEC.<br><br>The notification time for each outage will be measured in minutes and divided by the number of outages for the reporting period.<br><br>**For ILEC Results:** Same computation as for the CLEC. |

| Reporting Dimensions: | Excluded Situations: |
|---|---|
| • Company<br>• Type of Event - By each Reportable Incident Grouping (See Attachment A)<br>• By Switch and Tandem | • None |

| Data Retained Relating To CLEC Experience: | Data Retained Relating To ILEC Performance: |
|---|---|
| • Report Month<br>• Type of Event<br>• Meantime to notify CLEC<br>• Number of Events<br>• Geographic Scope Indicator | • Report Month<br>• Type of Event<br>• Mean Time to Detect Event<br>• Number of Events<br>• Geographic Scope Indicator |

| | |
|---|---|
| Performance Standard in Absence of ILEC Results: | If the ILEC does not deliver direct comparative results or the ILEC has not produced benchmark levels based upon a verifiable study of its own operation as agreed to with the CLEC, then result(s) related to the CLEC operation should be provided according to the following levels of performance in order to provide the CLEC with a meaningful opportunity to compete:<br>• Electronic Notification Procedures are required for real-time network incident reporting from ILEC to CLEC.<br>• Manual reporting processes may be required until OSS Interfaces become operational. |

# Service Quality Measurements
## Measurement Detail

| | |
|---|---|
| **Function:** | **Network Performance Parity** |
| **Business Implications:** | The perceived quality of CLEC retail services, particularly when either ILEC services are resold or UNE combinations are employed, will be heavily influenced by the underlying quality of the ILEC network performance. Customers experience the network quality of the service provider each time services are used. This metric, when collected for both the CLEC and ILEC and then compared, will help show whether CLEC network performance is at least at parity with ILEC network performance. |
| **Measurement Methodology:** | **Network Performance Parity = Σ(Network Performance Parameter Result)/(Number of Tests Conducted)**<br><br>**For CLEC Results:** Based upon a random and statistically reliable (at a preset level) sample of network configurations employed by the CLEC, the network performance parameter (as indicated in the reporting dimension) is monitored based upon generally accepted testing procedures and the resulting parameter value(s) recorded. The measured values are accumulated across the sample base and the mean and associated variance computed.<br><br>**For ILEC Results:** The approach is identical to that described for the CLEC, except that the network performance is measured only for representative ILEC service configurations. |

| Reporting Dimensions: | Excluded Situations: |
|---|---|
| • Transmission Quality (See Appendix A) | • None |

| Data Retained Relating To CLEC Experience: | Data Retained Relating To ILEC Performance: |
|---|---|
| • Report Month<br>• Reporting Dimension<br>• Mean Performance Result<br>• Standard Error of Mean Performance<br>• Number of Data Points<br>• Geographic scope | • Report Month<br>• Reporting Dimension<br>• Mean Performance Result<br>• Standard Error of Mean Performance<br>• Number of Data Points<br>• Geographic scope |

| | |
|---|---|
| **Performance Standard in Absence of ILEC Results** | If the ILEC does not deliver direct comparative results or the ILEC has not produced benchmark levels based upon a verifiable study of its own operation as agreed to with the CLEC, then result(s) related to the CLEC operation should be provided according to the following levels of performance in order to provide the CLEC with a meaningful opportunity to compete:<br>• Performance Standards in this area are yet to be published. |

# Service Quality Measurements
## Measurement Detail

## Collocation Provisioning (CP)

| | |
|---|---|
| Function: Business Implications | **Collocation Provisioning**<br>CLECs need to receive timely responses describing the price and availability of collocation space and ontime provisioning of collocation arrangements. CLECs also need the timely offering of alternatives to physical collocation and virtual collocation.<br><br>Where ILECs run out of physical collocation space, they may develop suitable space. CLECs also may prefer more cost-efficient alternatives that afford control over their own equipment and may seek alternative arrangements from ILECs. The speed at which these alternative arrangements (i.e. leasing GR-303 compliant access concentration equipment as an unbundled network element or backhauling to a neighboring central office) are offered and provided also is critical to CLECs obtaining a meaningful opportunity to compete in local markets. |
| Measurement Methodology | **Mean Time To Respond To Collocation Request = Σ [(Request Response Date) – Request Submission Date)]/Count of Request Responses Issued**<br><br>**Mean Time To Provide Collocation Arrangement = Σ [(Date & Time Collocation Arrangement is Complete) – (Date & Time Collation Application Submitted)]/Number of Collocation Arrangements Completed**<br><br>**% Due Dates Missed = (Number of Orders Not Completed By ILEC Committed Due Date)/Total Number of Orders Completed During the Reporting Period**<br><br>**For CLEC Results:**<br><br>Mean Time to Respond to Collocation Request: The response interval for each space request is determined by computing the elapsed time from the ILEC receipt of a collocation request (or inquiry) from the CLEC, to the time the ILEC returns the requested information or commitment to the CLEC. Elapsed time is accumulated for each type of collocation space request, and then divided by the associated total number of collocation requests received by the ILEC during the report period.<br><br>Mean Time To Provide Collocation Arrangements: The interval is the elapsed time from the ILEC's receipt of an order for collocation (from the CLEC) to the ILEC's return of a valid completion notification to the CLEC. Elapsed time for each order is then divided by the associated total number of collocation orders completed within the reporting period for each type of collocation. The measurement is similar to the Average Completion Interval for resold services and unbundled network element orders and could be reflected as a separate category of that measurement.<br><br>% Due Dates Missed: For each type of collocation, both the total numbers of orders completed within the reporting interval and the number of orders completed but missing the committed due date (as specified on the initial confirmation returned to the CLEC) are counted. The resulting count of orders completed later than the committed due date is divided by the total number of orders completed. The measurement is similar to the % Completed on Time for resold services and unbundled network element orders and could be reflected as a separate category within the % Completed on Time measurement.<br><br>**For ILEC Results:** The ILEC computation is identical to that for the CLEC for provision of collocations to ILEC affiliates. Largely, however, tariff and contract standards will be the benchmarks that ILECs must meet for a parity determination. |

# Service Quality Measurements
## Measurement Detail

Their vast number of end offices compared to CLECs' switch deployment make it difficult to develop the appropriate analog.

**Other Clarifications and Qualifications:**

- Elapsed time is measured in days and hours.
- A response to the collocation request will only be considered to be "received" if it is a thorough and actionable plan (i.e., a simple "yes" or "no" is not sufficient).
- Questions about the CLEC's collocation request also do not count as a "received response."

**Reporting Dimensions:**

- Company
- Type of Collocation
- Geographic Scope

**Excluded Situations:**

- CLEC cancellations or requested delays.

**Data Retained Relating To CLEC Experience:**

- Report Month
- Request Identifier (e.g., unique tracking number)
- Date and Time of Request receipt by ILEC.
- Request type (per reporting dimension)
- Response Date and Time
- Committed Delivery Date and Time
- Actual Delivery Date and Time
- Response Date and Time
- Geographic Scope

**Data Retained Relating To ILEC Performance:**

- Report Month
- Request Identifier
- Date and Time of Request Receipt by ILEC
- Response Date and Time
- Committed Delivery Date and Time
- Actual Delivery Date and Time
- Geographic scope

**Performance Standard in Absence of ILEC Results**

If the ILEC does not deliver direct comparative results or the ILEC has not produced benchmark levels based upon a verifiable study of its own operation as agreed to with the CLEC, then result(s) related to the CLEC operation should be provided according to the following levels of performance in order to provide the CLEC with a meaningful opportunity to compete:

- All responses must be provided in 5 business days unless contract/tariff interval is shorter.
- All collocations must be provided within the applicable contract or tariff intervals.
- No less than 98% of commitments must be met for Physical, Virtual and other alternative collocation offerings.

# Service Quality Measurements
## Measurement Detail

## Database Updates (DU

| | |
|---|---|
| **Function:** | **Database Updates** |
| **Business Implications:** | CLECs must rely on ILEC databases in order to provide accurate E911/911 services, directory listings, directory assistance, and operator services. ILECs currently control the updating of many essential databases, such as the Line Information Database (LIDB); directory listings, E911 Automatic Location Identifier (ALI), Master Street Address Guide (MSAG) and selective routing databases.<br><br>In addition, accurate and timely loading of NXXs before the LERG (Local Exchange Routing Guide) effectiveness date is vital to CLEC customer's receiving calls from ILEC customers, and it is essential to ensure that customers are charged correctly for local and toll calls. Routing of CLEC's NXXs at the tandem and central office to the proper Public Safety Answering Point (PSAP) for emergency calls also is critical to E911/911 service.<br><br>Disparity in timely and accurate updates of the above databases can lead to annoying, costly and possibly "life and death" situations for CLEC customers. |
| **Measurement Methodology:** | **Average Update Interval = Σ [(Completion Date & Time of Database Update) – (Submission Date and Time of Database Change)]/Total Number of Updates Completed During Reporting Period**<br><br>**% Update Accuracy = [Number of Updates Completed Without Error)/(Number Updates Completed)] x 100**<br><br>**For CLEC Results:**<br>Average Update Interval: The actual update interval is determined for each update processed during the reporting period. It is the elapsed time from the ILEC receipt of a syntactically correct transaction from the CLEC to the ILEC's accurate completion of updating all databases affected by the CLEC activity. Elapsed time for each update is accumulated for each affected database (e.g., E911/911, LIDB, Directory and Directory Listings). The time required to update each database is accumulated and then divided by the associated total number of updates completed within the reporting period.<br><br>% Update Accuracy: For each update completed during the reporting period, the original update that the CLEC sent to the ILEC is compared to the Database following completion of the update by the ILEC. An update is "completed without error" if the database completely and accurately reflects the activity specified on the original and supplemental update (e.g., orders) submitted by the CLEC. Each Database (e.g., E911/911, LIDB, Directory and Directory Listings) should be separately tracked and reported.<br><br>**For ILEC Results:** The ILEC computation is identical to that for the CLEC with the clarifications noted below.<br><br>**Other Clarifications and Qualification:**<br><br>• For LIDB, the elapsed time for an ILEC update is measured from the point in time when the ILEC's file maintenance process makes the LIDB update information available until the date and time reported by the ILEC that database updates are completed.<br>• Results for the CLECs are captured and reported at the update level by Reporting Dimension (see below). |

# Service Quality Measurements
## Measurement Detail

- The Completion Date is the date upon which the ILEC issues the Update Completion Notice to the CLEC.
- If the CLEC initiates a supplement to the originally submitted update and the supplement reflects changes in customer requirements (rather than responding to ILEC initiated changes), then the update submission date and time will be the date and time of ILEC receipt of a syntactically correct update supplement. Update activities responding to ILEC initiated changes will not result in changes to the update submission date and time used for the purposes of computing the update completion interval.
- Elapsed time is measured in hours and hundredths of hours rounded to the nearest tenth of an hour.
- Because this should be a highly automated process, the accumulation of elapsed time continues through off-schedule, weekends and holidays, however, scheduled maintenance windows are excluded.

**Reporting Dimensions:**

- Company
- Database Type

**Excluded Situations:**

- Updates Canceled by the CLEC
- Initial update when supplemented by CLEC
- ILEC updates associated with internal or administrative use of local services

**Data Retained Relating To CLEC Experience:**

- Report Month
- Database Type
- Update Submission Date
- Update Submission Time
- Update Completion Date
- Update Completion Time
- Reporting Dimension
- Geographic Scope

**Data Retained Relating To ILEC Performance:**

- Report Month
- Database Type
- Mean Interval for Update
- Standard Error of Mean
- Number of Updates
- Number of Updates With Errors
- Geographic Scope

**Performance Standard in Absence of ILEC Results:**

If the ILEC does not deliver direct comparative results or the ILEC has not produced benchmark levels based upon a verifiable study of its own operation as agreed to with the CLEC, then result(s) related to the CLEC operation should be provided according to the following levels of performance in order to provide the CLEC with a meaningful opportunity to compete:

- 99.99% completed in 24 hours or 100% completed by LERG effective date
- 99.99% accurate

# Service Quality Measurements
## Measurement Detail

## Interconnection/Unbundled Elements and Combinations (IUE)

| | |
|---|---|
| **Function:** | **Availability of Network Elements** |
| **Business Implications:** | As CLECs use individual elements and element combinations to deliver unique services, UNE functionality must operate properly to ensure that those elements support quality retail services. This measure monitors individual network elements or element combinations to ensure that CLECs have a meaningful opportunity to compete through access to and use of element (or combination) functionality. |
| **Measurement Methodology:** | **Function Availability[1] = (Amount of Time[2] a Functionality is Useable[1] by a CLEC in a Specified Period)/(Total Time[3] Functionality Was Scheduled To Be Useable)**<br><br>**Notes:**<br>**1. These measurements may also be expressed in the negative, that is, in term of unavailability.**<br>**2. In some instances, rather than time, the availability will be expressed in terms of transactions executed successfully compared to transactions attempted.**<br><br>**For CLEC Results:** Availability will be measured for each unique UNE functionality (or combination of UNEs). The number of times that the functionality executes properly will be shown in comparison to the number of times that the execution of the functionality was requested or initiated. Availability can apply to both physical and logical (e.g., database) elements. Physical element availability (e.g., links to databases, dedicated transport, etc.) will typically be expressed as the percent of time that the functionality is useable compared to the total time in the period being observed. "Useable" means that, when monitored, the element indicates readiness to operate (e.g., an electrical (or equivalent) continuity is detected, expected signaling is returned, etc.). Logical element availability will typically be expressed in terms of the number of transactions successfully executed (e.g., successful database updates, success query responses) compared to the number of transactions attempted.<br><br>Illustrative examples of availability measures are shown below<br>• A-link: minutes unavailable per year<br>• D-link: seconds unavailable per year<br>• Databases: percentage of queries receiving a response<br>• Databases: percentage of queries experiencing a return of unexpected values<br><br>**For ILEC Results:** Identical measurements are performed where the ILEC employs the same or reasonably comparable functionality. Where such analogs do not exist, the ILEC is expected to establish benchmark performance levels jointly with the CLEC requesting the functionality.<br><br>**Other Clarifications and Qualification:**<br>• The preceding list of elements is illustrative and is not to be considered exhaustive<br>• ILEC failure to provide comparably timely performance when using comparable functionality constitutes discriminatory access. Where comparable functionality is not employed, failure to meet or exceed parameters negotiated with the CLEC also is discrimination.<br>• For each element or element combination requested, where a retail analog is not identified, the ILEC is expected to establish both an availability measure and an availability standard (ILEC functional analog or benchmark) unless the CLEC waives its right for such a measure. |

# Service Quality Measurements
## Measurement Detail

| | |
|---|---|
| | • Typical databases for which standards are currently expected are AIN, LIDB and 800 Number |
| **Reporting Dimensions:** | **Excluded Situations:** |
| • By unique UNE or UNE combinations requested by the CLECs | • None |
| **Data Retained Relating To CLEC Experience:** | **Data Retained Relating To ILEC Performance:** |
| • Month<br>• Element or Element Combination Identification<br>• Result for Agreed Upon Availability Parameter | • To Be Determined |
| **Performance Standard in Absence of ILEC Results:** | If the ILEC does not deliver direct comparative results or the ILEC has not produced benchmark levels based upon a verifiable study of its own operation as agreed to with the CLEC, then result(s) related to the CLEC operation should be provided according to the following levels of performance in order to provide the CLEC with a meaningful opportunity to compete:<br>• Performance Standards in this area are yet to be published. |

| | |
|---|---|
| **Function: Business Implications:** | **Performance of Network Elements**<br>As CLECs use individual elements (as well as element combinations) to deliver unique services, it is essential that the UNE functionality operates in a timely manner because of the crucial role played by such elements in providing quality retail services. This measure monitors individual network element (or element combinations) that do not have an apparent retail analog. CLECs must be afforded a meaningful opportunity to compete when element (or combination) functionality is utilized. |
| **Measurement Methodology:** | **Timeliness of Element Performance = (Number of Times Functioality Executes Successfully Within the Established Timeliness Standard)/(Number of Times Execution of Functionality was Attempted)**<br><br>**For CLEC Results:** Timeliness will be measured for each unique UNE (or combination of UNEs) that delivers unique functionality. The number of times that the functionality executes properly within the established standard time frame will be accumulated and shown in comparison to the number of times that the execution of the functionality was requested or initiated.<br><br>Illustrative examples of timeliness measures are shown below:<br>• Database: % transactions experiencing time-outs<br>• Post Dial Delay: % calls routed to CLEC OS platform within 2 seconds<br><br>**For ILEC Results:** Identical measurements are performed where the ILEC employs the same or reasonably comparable functionality. Where such analogs do not exist, the ILEC is expected to establish benchmark performance levels jointly with the CLEC requesting the functionality.<br><br>**Other Clarifications and Qualification:**<br>• The preceding list of elements is illustrative and is not to be considered exhaustive<br>• ILEC failure to provide comparably timely performance when using comparable functionality constitutes discriminatory access. Where comparable functionality is not employed, failure to meet or exceed parameters negotiated with the CLEC also is discrimination. |

# Service Quality Measurements
## Measurement Detail

| | |
|---|---|
| | • For each element (or element combination) requested where a retail analog is not identified, the ILEC is expected to establish both a timeliness measure and a timeliness standard (ILEC functional analog or benchmark) jointly with the requesting CLEC unless that CLEC waives its right for such a measure.<br>• Typical databases for which standards are currently expected are AIN, LIDB and 800 Number.<br>• Comparisons of performance should be based upon the criteria for which the element was engineered. For example, if the element was engineered based upon average busy hour criteria, the comparison should be based upon the CLEC busy hour period (likewise for criteria such as busy day, busy season, or ten high days). |
| **Reporting Dimensions:** | **Excluded Situations:** |
| • By unique UNE or UNE combinations requested by the CLECs | • None |
| **Data Retained Relating To CLEC Experience:** | **Data Retained Relating to ILEC Performance:** |
| • Month<br>• Element or Element Combination Identification<br>• Result for Agreed Upon Availability Parameter | • To Be Determined |
| **Performance Standard in Absence of ILEC Results:** | If the ILEC does not deliver direct comparative results or the ILEC has not produced benchmark levels based upon a verifiable study of its own operation as agreed to with the CLEC, then result(s) related to the CLEC operation should be provided according to the following levels of performance in order to provide the CLEC with a meaningful opportunity to compete;<br>• Performance Standards in this area are yet to be published. |

# Appendix A: Reporting Dimensions

| | |
|---|---|
| Service Types: | • Resold Residence POTS<br>• Resold Business POTS<br>• Resold BRI ISDN<br>• Resold PRI ISDN<br>• Resold Centrex/Centrex-like<br>• Resold Analog PBX trunks<br>• Resold DID Trunks<br>• Resold Voice-Grade Private Line<br>• Resold DS1 Services<br>• Resold DS3 Services<br>• Resold >DS3 Services<br>• Other Resold Services<br>• UNE Platform (at least DS0 loop + local switch + transport elements)<br>• UNE Channelized DS1 (DS1 loop + multiplexing)<br>• Unbundled or UNE-derived 8 dB Analog Loops<br>• Unbundled or UNE-derived 2-wire Digital Loops<br>• Unbundled or UNE-derived 4-wire Digital Loops<br>• Unbundled or UNE-derived ADSL Loops<br>• Unbundled or UNE-derived HDSL Loops<br>• Unbundled or UNE-derived xDSL Loops<br>• Other Unbundled or UNE-derived Loops<br>• UNE Analog Switch Port (line side)<br>• UNE BRI Capable Switch Port (line side)<br>• UNE DS1 Switch Port (line side)<br>• UNE PRI Switch Port (trunk side)<br>• UNE DID-capable Switch Port (trunk side)<br>• UNE Message Trunk Port<br>• UNE Dedicated DS0 Transport<br>• UNE Dedicated DS1 Transport<br>• UNE Dedicated DS3 Transport<br>• Interconnect Trunks (DS0s, DS1s and DS3s,<br>• Two-Way Trunking, Inbound Augments, separately)<br>• Common Transport<br>• ILNP<br>• PNP<br>• ILNP-to-LNP conversions |
| Standard Order Activities: | • New Service Installations<br>• Service Migrations Without Changes<br>• Service Migrations With Changes<br>• Local Number Porting<br>• Inside Move<br>• Outside Move<br>• Records Change<br>• Feature Changes<br>• Service Disconnects<br>• Translation Disconnects<br>• Standalone Directory Listing (DL)<br>• Standalone Directory Assistance (DA) Listing<br>• Standalone DL & DA Activity |

| | |
|---|---|
| Pre-Ordering Query Types: | • Due Date Reservation (if separate transaction from Appointment Scheduling)<br>• Feature Function Availability<br>• Facility Availability (if separate transaction from Feature/Function Availability)<br>• Qualification of Loops for Advanced Digital Services<br>• Street Address Validation<br>• Service Availability Information (if separate transaction from Feature/Function Availability)<br>• Appointment Scheduling<br>• Customer Service Records<br>• Telephone Number<br>• Rejected or Failed Queries (regardless of type) |
| Maintenance Query Types | • Create (or confirm logging of) a Maintenance Request<br>• Obtain Status<br>• Obtain Test Results<br>• Cancel Request<br>• Rejected of Failed Queries (regardless of type)<br>• Clearance Notification<br>• Closure Notification |
| Order Rejection Reason Codes | • Invalid Address<br>• Address Errors<br>• End User Name Doesn't Match ILEC Records<br>• Incorrect Directory Assistance Listing/Due Date<br>• Duplicate PON<br>• Winback (Customer Returned to ILEC)<br>• ILEC System Problem<br>• TN Already Disconnected |
| Transmission Quality Parameters | • Subscriber Loop Loss<br>• Signal to Noise Ratio<br>• Idle Channel Circuit Noise<br>• Loop-Circuit Balance<br>• Circuit Notched Noise<br>• Attenuation Distortion |
| Collocation Provisioning Types | • Physical within CO (space available at time of request)<br>• Physical within CO (space created in response to request)<br>• Physical outside of CO (space available at time of request)<br>• Physical outside of CO (space created in response to request)<br>• Virtual<br>• Backhauling to neighboring CO<br>• Access to GR-303 compatible concentration equipment (leased UNE alternative)<br>• Other alternatives to physical |
| Databases and Switch Tables: | • E911/911 ALI, Selective Router<br>• MSAG<br>• LIDB<br>• OS/DA<br>• DL<br>• NXX tables at CO for call completion and NXX routing<br>• NXX tables at tandem for call completion and NXX routing |

## Appendix B: Glossary

| Term: | Definition: |
|---|---|
| Abandoned Call: | An abandoned call occurs when the caller hangs up after the call has been delivered, but before the receiving party has answered the call. |
| Automatic Location Identification: | A proprietary database developed for E911 systems that provides for a visual display of the caller's telephone number, address and the names of the emergency response agencies that are responsible for that address. The ALI also shows an interim number portability telephone number if applicable. |
| Attenuation Distortion: | Attenuation Distortion measures the variation in loss at different frequencies across the voice frequency spectrum (200Hz – 3400 Hz). |
| Call Completion Rate: | The call completion rate for CLEC customers is determined by calculating the total number of calls placed by CLEC customers that were completed to the calling destination. The number of completed calls is then divided by the total # of call attempts made by CLEC customers during the reporting period. |
| Call Delivery Rate: | The call delivery rate for CLEC customers is determined by calculating the total # of calls received by CLEC customers. This number of delivered calls is then divided by the total # of call attempts received by the ILEC for termination to CLEC customers. |
| Common Trunks | Trunks carrying the traffic from more than one carrier, such as the trunking between a tandem switch and end office switches. |
| Completion: | A completion is the transaction that the ILEC sends to the CLEC to inform the CLEC that a requested order has been completed. |
| Dial Tone Delay: | The dial tone delay is determined for each trial completed during the reporting period by computing the time that transpires from a customer's going off-hook and the receipt of dial tone from the servicing central office. It should be measured in seconds and tenths of seconds. Post dial delay for each trial is determined for each trial completed during the reporting period by computing the time that transpires from when the last digit is dialed until a valid response is received by the customer. It should be measured in seconds and tenths of seconds |
| Direct End Office Trunks | Trunking from the serving central office to the central office switch (Class 5) used to connect subscriber loops. |
| Directory Assistance Database: | The database containing subscriber records used to provide live or automated operator-assisted directory assistance, including 411, 555-1212, NPA-555-1212. |
| Directory Listings: | Subscriber information, including name, address and phone numbers, that is published in any media, including traditional white/yellow page directories, CD ROM and other electronic formats. |

# Service Quality Measurements
## Appendix B: Glossary

| Term: | Definition: |
|---|---|
| FOC: | A FOC is a Firm Order Confirmation notification, which is the transaction that the ILEC will send to the CLEC to confirm that an order can be completed. |
| GR303-Compliant Loop Access Concentration | An alternative to physical and virtual collocation that enables CLECs to serve a greater number of unbundled loops with less transport and collocation costs through leasing GR303-compliant remote digital terminals (RDTs) (as an unbundled network element priced on forward-looking costs)—from the ILECs. Loops are then ordered to the RDTs and carried over leased transport to the CLEC's collocation area. Bellcore General Requirements-303 describes a family of generic criteria for integrated access systems that includes open interfaces for mix-and-match of (1) local digital switches with RDTs as well as (2) remote digital terminals and element management systems. |
| Held Orders: | Held orders are orders that the ILEC has confirmed (an FOC was returned to the CLEC) and that are overdue. |
| Idle Channel Circuit Noise: | The idle channel circuit noise for each trial is determined for each trial completed during the reporting month by computing the difference between the noise that exists in the channel when no signals are present and the reference noise. The resulting accumulated idle channel circuit noise for all trials is divided by the total # of trials completed during the reporting period. |
| Interface: | The interface is the ILEC interface that allows the CLEC to access the ILEC system |
| Interim Local Number Portability: | An interim service arrangement, such as by use of remote call forwarding, whereby subscribers who change local service providers may retain existing telephone numbers without impairment of quality, reliability or convenience when changing local service providers and remaining in their current location or changing their location or changing their location within the geographic area service by the initial carrier. |
| Internal or Administrative Use: | The carrier's use for intra-company communications or for operation of its business. |
| Jeopardy: | A jeopardy is a transaction that the ILEC sends to the CLEC to inform the CLEC that a previous order cannot be processed as specified in the original FOC. |
| Line Information Database | A signal control point database (linked by common channel signaling to other points in the network) that provides for such functions as calling card validation for telephone number cards issued by ILECs and other entities and validation for collect and billed-to-third-party services. |

# Service Quality Measurements
## Appendix B: Glossary

| Term: | Definition: |
|---|---|
| Loop-circuit Balance: | Loops-circuit balance should be measured in decibels and tenths of decibels above the reference noise. "Attenuation Distortion" should measure the variation in loss at different frequencies across the voice frequency spectrum (200Hz – 3400 Hz). It should be measured from the NID to the switch, and from the switch to the NID. It is measured by subtracting the loss at 1004 Hz from the loss at the frequency of interest, and should be reflected in tenths of decibels. |
| Master Street Address Guide: | A database defining the geographic area of an E911 service. It includes an alphabetical list of the street names, high-low house number ranges, community names and emergency service numbers provided by the counties or their agents. |
| Network Incident: | A network incident is an unplanned network occurrence that results in blocked calls |
| NXX: | The three-digit code that indicates the central office switch serving the called party. The NXX is the fourth, fifth and sixth digits of a telephone number as established within the North American Numbering Plan. |
| Physical Collocation: | A form of carrier network interconnection where the ILEC designates space on the floor of its central office for the CLEC to build a cage for its transmission equipment. With physical collocation, the CLEC services and maintains its own equipment. |
| Permanent Number Portability or Number Portability: | A long-term service arrangement whereby users of telecommunications services retain, at the same location, existing telephone numbers without impairment of quality, reliability or convenience when switching from one telecommunications carrier to another. |
| Post Dial Delay: | Post dial delay is the time that transpires from when the last digit is dialed until a valid response is received by the customer |
| Public Safety Answering Point | A public safety communications center that receives 911 calls placed by the public in a specific geographic area. |
| Return of Valid Completion: | Receipt of notification that service has been installed or is being provided to the customer and such service has been installed or provided. |
| Selective Router | A database service that automatically routes an E911 call to the PSAP that has jurisdictional responsibility for the service address of the telephone that dialed 911, irrespective of the telephone company exchange or wire center boundaries. |
| Signal to Noise Ratio: | Signal to Noise ratio is the ratio of usable signal being transmitted to the noise or undesired signal. |

| Term: | Definition: |
|---|---|
| Subscriber Loop Loss: | Subscriber loop loss is determined by computing the difference between the strength of the signal as it enters the loop and the strength of the transmitted signal. Signal strength is measured in decibels rounded to the nearest tenth of a decibel. The total number of trials completed during the reporting period divides the resulting accumulated decimal strength. |
| Subsequent Reports: | Customer trouble reports where the customer calls to check on the status of a previous trouble report (initial or repeat) that has not been cleared (closed or resolved) at the time of the call. |
| Syntax Reject: | A syntax reject is the transaction that an ILEC will return to a CLEC when a the CLEC has submitted an order transaction that the ILEC's gateway cannot process due to violation of published rules for formatting or content. |
| System: | The system is the combination of ILEC gateways, communications links, hardware and software that, in combination, is used to perform or support business functions or executes supporting transactions. |
| Tandem | A switch between a serving wire center and the end office switches that enables multiple carriers to trunk to one point rather than provide direct end office terminations to all switches. |
| Trouble Appointment: | A trouble appointment is a commitment made by the ILEC (to CLEC or to customer) to resolve a trouble. |
| Troubles: | Troubles include all reported difficulties with performance of resold services or UNEs, whether the report is the initial or a repeated report, that the CLEC refers to the ILEC repair process/interface for resolution. Subsequent reports are categorized separately. |
| Virtual Collocation: | A form of carrier network interconnection where the CLEC provides its transmission equipment to the ILEC to install in the ILEC's network. The ILEC then services and maintains the equipment for the CLEC. |

## CERTIFICATE OF SERVICE

I hereby certify that an original and 15 copies of the foregoing Joint Comments of AT&T and MCI in Docket No. 97R-153T were hand delivered on this 10th day of November, 1998, to:

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# ATTACHMENT B

**AT&T PROPOSES BOLD NEW INITIATIVES TO ERADICATE SLAMMING**
**– Recommends Tough, Uniform Anti-Slamming Measures Be Implemented Nationwide**

FOR RELEASE: MARCH 3, 1998

NEW YORK — AT&T today announced it has undertaken bold new initiatives to eradicate "slamming," the fraudulent practice of switching consumers from their preferred communications company without their consent.

"We want to eliminate slamming from our industry and are taking the steps today to do so," said C. Michael Armstrong, AT&T's chairman and CEO. "We will work to preserve choice by doing what is right for consumers.

"As the industry leader, we have zero tolerance for slamming," said Armstrong. "That is why we are also announcing today three tough new measures to ensure that our own house is in order."

- AT&T will voluntarily and unilaterally suspend the use of outside sales agents for consumer marketing efforts at local community events. AT&T has discovered that these vendors generate an unacceptable level of complaints. The company will not resume use of these vendors until we are comfortable that they can meet AT&T's zero tolerance policy toward slamming.

- more -

- AT&T has established a slamming resolution center 1-800-538-5345 to provide dedicated service representatives 24-hours a day, seven days a week to resolve any consumer slamming complaints involving AT&T. The center is committed to resolve most slamming inquiries on the first call and any that require further investigation within three business days. The center's capabilities will be expanded to handle business customer slamming inquiries on April 1.
- AT&T will charge companies that resell our network facilities for the cost of handling each valid customer slamming complaint they cause. AT&T will also step up its monitoring of those companies' marketing practices to ensure that they are not misrepresenting themselves as AT&T.

"These extra steps, which go above and beyond current industry practices, will give consumers an added level of protection. We believe our entire industry should take this approach as well," Armstrong said.

Public policy makers in Congress and in the states have been increasingly concerned about slamming. AT&T hopes its actions today will be constructive as Congress continues to address this issue. That's why AT&T is calling on the FCC to use the authority Congress gave it in the 1996 Telecommunications Act to put in place the following industry-wide safeguards:

- The requirement that all changes in local, local toll, and long distance service for residential customers be verified by an independent third party before they can be processed. This verification now occurs only when communications companies call customers to solicit their business. AT&T is proposing that verification also take place when customers themselves initiate the call, submit a signed form requesting a change in service, or agree to have their service switched while attending a local event in their community. AT&T will begin to develop the systems and training necessary to implement third party verification on all residential carrier changes, following FCC adoption of nationwide rules.
- The implementation of stricter anti-slamming rules for the communications industry, including rules involving compensation to companies whose customers have been slammed. We propose a stiff carrier-to-carrier penalty of $1,000 per valid slamming incident.
- The tightening of FCC rules on third party verification to prevent unscrupulous carriers from using scripts that mislead customers as to the identity of the carrier actually soliciting their business.
- The elimination of local telephone company control over the processing of changes to local, local toll, and long distance communications services. This could be accomplished by setting up an independent company to handle such changes. This measure will take service change activities out of the hands of the local telephone companies, which have a vested interest in maintaining their monopoly position.

Since the early 1990s, AT&T has been in the forefront in condemning slamming and finding ways to eliminate this industry problem. Based on the most recent FCC studies, the company's performance is the best in the industry. AT&T has also coordinated several consumer education campaigns on slamming over the last decade that has reached consumers in eight languages.

# # #

Editor's Note: AT&T Chairman and CEO C. Michael Armstrong will hold an audio news briefing at 11:00 a.m. EST today. Reporters in the United States wanting to join the teleconference can call 1-800-260-0718. Beginning at 1:30 p.m. EST today, a rebroadcast of the audio news briefing will be repeated for 48 hours at 1-800-475-6701, access code 381490.

## CERTIFICATE OF SERVICE

I hereby certify that on this 13th day of November, 1998, the original and 11 copies of AT&T Communications of the Midwest, Inc.'s Comments were delivered via overnight delivery and that a copy was delivered via facsimile to:

William Bullard, Jr
Executive Director
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and true and correct copies were delivered via regular mail this 13th day of November, 1998 to:

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