

**New York State
Department of Public Service
Office of Telecommunications**

**Telecommunications Service Quality
Uniform Measurement Guidelines**

Revised January 27, 2011

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The following guidelines are provided to local telecommunications service providers for use in reporting monthly service quality in a consistent manner using a uniform set of measurement practices. These guidelines are associated with the service quality metrics of the Public Service Commission's Service Standards (Title 16, NYCRR Part 603).

Monthly service results are to be reported regardless of any abnormal circumstances in any particular month that may be beyond the control of the service provider (e.g., ice storm, hurricane, work stoppage, etc.) in the provision of quality telephone service. The Commission's service standards apply under normal operating conditions as defined in Part 603.1(c). If abnormal operating conditions exist in a given month(s), a service provider may petition the Commission for a waiver of performance requirements under the standards, but the actual monthly results must still be reported.

The most recent revisions result from the Commission's Order of December 17, 2010¹ which expanded certain exclusions for timeliness of repair performance calculations. Questions concerning the application of these guidelines, or the potential need for changes should be addressed to Staff of the Department of Public Service.

¹ Case 10-C-0202 – Verizon Service Quality Improvement Plan, Order Adopting Verizon New York Inc's Revised Service Quality Improvement Plan with Modifications, (issued December 17, 2010). A Notice Inviting Comments on several aspects of these revisions was issued in February 2010. See Matter 10-00319, Request of Verizon New York Inc. for Changes to the Uniform Measurement Guidelines of the Service Quality Standards, Notice Inviting Comments on Verizon New York Inc's Request to Modify the Uniform Measurement Guidelines (issued February 24, 2010)

Telecommunications Service Quality
Uniform Measurement Guidelines
Revised January 27, 2011

TABLE OF CONTENTS

MAINTENANCE SERVICE METRICS4

- 1. CUSTOMER TROUBLE REPORT RATE (CTRR).....4
- 2. PERCENT OUT-OF-SERVICE OVER 24 HOURS HRS (%OOS>24 HRS).....8
- 3. PERCENT SERVICE AFFECTING OVER 48 HOURS (%SA>48 HOURS)10

INSTALLATION SERVICE METRICS13

- 4. PERCENT INITIAL BASIC LOCAL EXCHANGE SERVICE LINE INSTALLATIONS WITHIN 5 DAYS13
- 5. PERCENT INSTALLATION COMMITMENTS MISSED14

NETWORK PERFORMANCE METRICS.....16

- 6. PERCENT OF FINAL TRUNK GROUP BLOCKAGES.....16

ANSWER TIME PERFORMANCE METRICS17

- 7. BUSINESS OFFICE ANSWER TIME.....18
- 8. REPAIR OFFICE ANSWER TIME18
- 9. OPERATOR ASSISTANCE ANSWER TIME.....18

Telecommunications Service Quality
Uniform Measurement Guidelines
Revised January 27, 2011

MAINTENANCE SERVICE METRICS

1. Customer Trouble Report Rate (CTRR)

Part 603.3(b) (1) “This is composed of two metrics. The first metric is defined as the number of initial customer trouble reports per hundred access lines per month and has a performance threshold of 5.5 or less for each central office. The second metric is applicable to service providers with 7 or more central offices, and is defined as the percentage of a service provider's total central office entities that perform at or below 3.3, and has a performance threshold of at least 85%.”

(a) Initial customer trouble reports per hundred access lines per month:

Reporting companies:

All local exchange carriers except those that have received an exemption.

Measurement Entity:

A central office switch identified in the public switched network by a unique routing address, and having one or more NA-NXX codes. There may be more than one central office switch within a building, and each switch is separately reported. In instances where a remote line switch or a remote switching system is used, each such remote is reported separately from its associated host (or control) office. As technology evolves, the definition may be expanded to include other non-traditional switching technologies.

The following definitions and examples may be helpful in identifying a measurable entity for purposes of reporting CTRR (All definitions are from Newton's Telecom Dictionary, 8th Edition, 1994):

A **central office switch** is a telephone company facility where subscribers' lines are joined to equipment for purposes of connecting other subscribers to each other.

A **remote line switch** is a line unit or group of line units mounted near a cluster of users and equipped with intracalling capability.

A **remote switching system** is a switch that is away from its host or control office, and most or all of the central control equipment for the remote is

Telecommunications Service Quality
Uniform Measurement Guidelines
Revised January 27, 2011

located in the host office.

A multiplexer (**line concentration unit**) is not considered a switch since this equipment generally does not provide intracalling capability.

Examples

1. One switch serving one exchange = one measurable entity
2. Two switches serving one exchange = two measurable entities
3. Remote switch serving a different exchange than the host switch = two measurable entities
4. Remote switch serving the same exchange as the host switch = two measurable entities
5. One switch serving two exchanges = one measurable entity

A customer trouble report is record of when the repair office personnel receives notification of a trouble or perceived trouble by a subscriber, third party, or employee acting as a subscriber or when other employees receive notification of a trouble or perceived trouble by a subscriber, third party, or employee acting as a subscriber and refers the report to the repair office.

A **trouble** - A trouble is an impairment of the telephone network, or a deviation from its design specifications.

An **access line** - A telecommunications channel of varying size with an associated telephone number.

An initial report - The first customer trouble report associated with a specific trouble for which there is no pending customer report.

Notes:

Access Lines and associated initial trouble reports to be counted:

- All public switched network lines including residence, business Centrex, Payphone and voice-grade PBX trunks. All initial trouble reports associated with the service itself and any supplemental services (e.g., Call Waiting, Caller ID) except that noted below.

Access Lines and/or trouble reports to be excluded:

Telecommunications Service Quality
Uniform Measurement Guidelines
Revised January 27, 2011

- All subsequent reports. All employee reports. All dedicated (non-switched and/or special service) circuits, Wide Area Telephone Service, Integrated Service Digital Network (ISDN), and the Special Services portion of PBX Service. Any initial trouble reports associated with voice mailboxes. Any reports associated with customer equipment, inside wire and payphone instruments.

A service provider includes all initial trouble reports in its CTRR for the access lines/services noted above regardless of the ownership of the underlying facilities. Customer trouble reports on lines of a service provider that are composed entirely of resold facilities of another local service provider are included in the CTRR of the carrier reselling the service to the customer, and are also included in the CTRR of the carrier providing the facilities to the resale carrier. In instances where a service provided to a customer is composed of elements of the carrier serving the customer and elements of an underlying carrier (i.e., resale of unbundled network elements), the carrier serving the customer includes any associated customer trouble reports with the entire service in its reported CTRR while the underlying carrier does not (since that carrier has no associated line for such trouble reports).

All initial trouble reports not otherwise excluded will be dispositioned either to an actual network condition, to a "test OK" or to a "not found" trouble condition. All such reports are included in CTRR.

An employee report is any trouble report from an employee of the service provider (or from the provider's surveillance system) who detected a trouble-causing condition while performing his/her duties, and is independent of any conversation initiated by the customer regarding the trouble.

In those instances where a customer reports a trouble condition and the service provider's tests indicate that the line is not in trouble (i.e., Test OK), the trouble report can be excluded from the CTRR only if the customer first agrees to check any customer equipment (i.e., This is considered an excluded report because it appears to be a problem in the customer's equipment which the customer agrees to check.)

Troubles reported as a result of major failures are included in the report rate. When a multiple- line customer reports a trouble on several lines, the service representative is to record a separate trouble report for each line identified.

The following types of calls are not counted as trouble reports:

- Customer calls the repair office when another department is desired,

Telecommunications Service Quality
Uniform Measurement Guidelines
Revised January 27, 2011

- Customer calls the wrong number,
- Customer requires instruction on features of a service,
- Customer requests directories or publications,
- Customer requests the company to locate cable, bury a wire, or raise a wire due to alterations or tree removal,
- Customer calls concerning features to which the customer does not subscribe,
- A customer call on an unassigned, suspended or disconnected line,
- Customer calls about wires or poles down that are not telephone lines,
- Customer calls to report a trouble regarding a service order not yet completed,
- A third party report that a test indicates is a legitimate busy or "doesn't answer,"
- Customer requests to activate or modify a service recovery feature (e.g. call forwarding when the current line goes service).
- Calls with insufficient information to process a report.
- Information calls that are not trouble related (e.g., PIC verification, requests concerning the disposition of a closed trouble report, and customer instruction on new area codes).
- Troubles reported to the wrong carrier.
- Troubles that require a service order to resolve.
- Requests to raise, lower or move wires or interfaces.

Calculation:

Total measured initial reports divided by the result of total access lines divided by 100, reported per central office entity per month. This is the CTRR expressed as the number of reports per 100 lines (RPHL).

CTRR is reported to the hundredths decimal place, using traditional mathematical rounding. Additional data reported for each CTRR is the number of initial trouble

Telecommunications Service Quality
Uniform Measurement Guidelines
Revised January 27, 2011

reports, and access lines per central office entity with each entity consistently identified by a single assigned NPA-NXX. The single identifying NPA-NXX will usually be that used in the Local Exchange Routing Guide (LERG) for identifying the origination and termination of calls in the network. This single NPA-NXX is simply a means of identifying a central office entity in the Office of Telecommunication's service quality data base. Therefore, the identifying NXX should be used consistently month after month, regardless of the actual number of NPA-NXXs assigned to a central office switch.

(b) 85% or More of Total Central Offices at or Above 3.3 RPHL

Reporting Companies:

All local exchange carriers with seven or more central offices except those that have received an exemption.

Measurement Entity:

A service provider's company-wide count of central office switches as counted and reported in 1(a) above.

Notes:

All central office CTRR results are determined in the manner described in 1(a) above.

Calculation:

The number of central office switches with a CTRR equal to or greater than 3.3 RPHL divided by the total number of central office switches for the company, reported each month per company, and expressed as a percentage to the hundredths decimal place (using traditional mathematical rounding).

2. Percent Out-of-Service Over 24 Hours Hrs (%OOS>24 Hours)

Part 603.3 (c) (1) "This metric is defined as the monthly percentage of customer trouble reports classified as service which are not cleared within 24 hours. The performance threshold for each administrative entity is 20.0% or less."

Reporting companies:

All local exchange carriers with more than 500,000 access lines in service except those that have received an exemption.

Measurement Entity:

Each district or area of a reporting company.

Telecommunications Service Quality
Uniform Measurement Guidelines
Revised January 27, 2011

Notes:

➤ Out-Of-Service

Out-Of-Service - A classification of a trouble report where the customer indicates either: an inability to complete incoming or outgoing calls; or (2) the presence of interference which causes connected calls to be incomprehensible. Other service difficulties (slow dial tone, busy circuits, etc.) shall not be considered out-of-service conditions.

- Reporting companies are required to continue to maintain performance data on out of service troubles. That information shall be made available to Staff at its request. However, formal monthly reporting of out of service performance metrics is limited to “core customers” as defined in the Commission’s Order of December 17, 2010.
- All troubles shall be classified when received as either out-of-service or service affecting, as described by the customer.
- Any trouble classified as out-of-service may not be reclassified as service affecting (see the definition of a service affecting trouble below). However, a service affecting trouble may be reclassified as out-of-service trouble (without increasing the overall count of trouble reports) based on information obtained from the customer or periodic testing by the company.
- Only initial trouble reports will be used to determine the percent out-of-service.
- Troubles classified as out-of-service should receive repair priority over service affecting troubles.
- Companies should strive to clear out-of-service troubles within 24 hours.
- An OOS trouble is considered cleared if the company fixed the network condition leading to the report, or determines that the line is either Test OK or No Trouble Found from the central office to the customer's demarcation point.
- Sundays and holidays (i.e., those holidays during which the company is generally closed) are excluded (i.e., the timeframe from the close of normal operations on the day before the excluded day until resumption of normal operations on the day following the excluded day) from calculating the length of time that a customer is out-of-service.

Telecommunications Service Quality
Uniform Measurement Guidelines
Revised January 27, 2011

- The 24 hour clock begins when the out-of-service condition is reported by the customer. If a service affecting trouble report is reclassified to an out-of-service condition, the clock for the out-of-service condition begins at the time of reclassification.
- When the company cannot gain access to a customer's premises for purposes of clearing an out-of-service condition, the 24 hour clock continues to run until the trouble condition is cleared.
- Out-of-service conditions involving unusual repairs are included. However, a company experiencing "unusual repairs" (as defined in Part 602.7(d)) in a given month that adversely impacts its performance on this metric can identify these "unusual repairs" in any Service Inquiry Report (as defined in Part 603.4 (e)) that may need to be filed with Commission staff.
- OOS trouble reports for customers who have requested or accepted repairs outside of the 24 hour standard shall be excluded from the calculation of out-of-service troubles not cleared within 24 hours

Calculation:

It is the number of measured initial customer out-of-service trouble reports not cleared within 24 hours divided by the total number of initial customer out-of-service trouble reports in a given month, expressed as a percentage to the hundredths decimal place (using traditional mathematical rounding).

The monthly number of out-of-service reports over 24 hours, the total monthly number of out-of-service reports, and the corresponding percentage are to be reported by central office switch as in above. Staff will aggregate central office data to the maintenance district(s) of each company, based on the alignment of central offices to the company's maintenance district boundaries.

3. Percent Service Affecting Over 48 Hours (%SA>48 Hours)

Part 603.3(d) (1) "This metric is defined as the monthly percentage of customer trouble reports classified as service affecting which are not cleared within 48 hours. The performance threshold for each maintenance administrative entity is 20.0% or less."

Reporting companies:

All local exchange carriers with more than 500,000 access lines in service except those that have received an exemption.

Telecommunications Service Quality
Uniform Measurement Guidelines
Revised January 27, 2011

Measurement Entity:

Each maintenance district or area of a reporting company.

Notes:

- All trouble reports not categorized as out-of-service will be considered service affecting.
- Reporting companies are required to continue to maintain performance data on service affecting troubles. That information shall be made available to Staff at its request. However, formal monthly reporting of service affecting performance metrics are limited to “core customers” as defined in the Commission’s Order of December 17, 2010.
- All troubles shall be classified when received as either out-of-service or service affecting, as described by the customer.
- Any trouble classified as out-of-service may not be reclassified as service affecting. However, a service affecting trouble may be reclassified as out-of-service trouble (without increasing the overall count of trouble reports) based on information obtained from the customer or periodic testing by the company. Only initial trouble reports will be used to determine the percent service affecting.
- Troubles classified as out-of-service should receive repair priority over service affecting troubles.
- A service affecting trouble is considered cleared if the company fixed the network condition leading to the report, or determines that the line is either Test OK or No Trouble Found from the central office to the customer's demarcation point.
- Sundays and holidays (i.e., those holidays during which the company is generally closed) are excluded (i.e., the timeframe from the close of normal operations on the day before the excluded day until resumption of normal operations on the day following the excluded day) from calculating the length of time that a service affecting condition exists.
- The 48 hour clock begins when the service affecting condition is reported by the customer. If a service affecting trouble report is reclassified to an out-of-service condition, the clock for the out-of-service condition begins at the time of reclassification.

Telecommunications Service Quality
Uniform Measurement Guidelines
Revised January 27, 2011

- When the company cannot gain access to a customer's premises for purposes of clearing a service affecting condition, the 48 hour clock continues to run until the trouble condition is cleared.
- Service Affecting trouble reports for customers who have requested or accepted repairs outside of the 48 hour standard shall be excluded from the calculation of service affecting troubles not cleared in 48 hours.

Calculation:

It is the number of measured initial customer service affecting trouble reports not cleared within 48 hours divided by the total number of initial customer service affecting trouble reports in a given month, expressed as a percentage to the hundredths decimal place (using traditional mathematical rounding).

The monthly number of service affecting reports over 48 hours, the total monthly number of service affecting reports, and the corresponding percentage are to be reported by central office switch as in 1(a) above. Staff will aggregate central office data to the maintenance district(s) of each company, based on the alignment of central offices to the company's maintenance district boundaries.

Telecommunications Service Quality
Uniform Measurement Guidelines
Revised January 27, 2011

INSTALLATION SERVICE METRICS

4. Percent Initial Basic Local Exchange Service Line Installations Within 5 Days

Part 603.3(e) "This metric is defined as the monthly percentage of initial basic local exchange service line installations completed within five working days (following the day the order is received) and has a performance threshold of 80.0% or greater for each installation administrative entity. This provision shall apply to the primary installation of service as follows:

- (i) the initial residential line; or
- (ii) the initial business customer order of five lines or less."

Reporting Companies

All local exchange carriers with more than 500,000 access lines in service except those that have received an exemption.

Measurement Entity:

Each installation district of a reporting company.

Notes:

- Count only those service orders establishing initial dial tone. Exclude any service orders that add additional lines to an existing customer's service, add additional features and/or discontinue service. Exclude orders for PBX, Centrex and special services (e.g., non-switched data circuits, WATS).
- For purposes of counting the number of days, a service order for initial basic service completed the day after the order is received is considered completed within one day. Similarly, an order completed the second day after the order is received is counted as an order completed within two days, and so forth. A "day" ends at midnight.
- Exclude those service orders that relate to customers who are transferring from another service provider who have requested to keep their phone number and where the customer retains dial tone during the interim.
- Exclude those service orders where a customer has requested an installation date beyond the five day interval.
- Initial basic local exchange service is determined on the basis of the number of lines per customer billing account. Count only the initial basic local exchange line on a residential billing account or up to five access lines on initiation of service

Telecommunications Service Quality
Uniform Measurement Guidelines
Revised January 27, 2011

for a new business account. Subsequent to establishing an account, the addition of more access line (even if under a different name) or features to the same customer billing account is not counted in this metric.

Calculation:

It is the number of basic initial line installations completed within 5 days divided by the total number of basic initial line installations, stated as a percentage to the tenths decimal place (using traditional mathematical rounding), for a given month.

5. Percent Installation Commitments Missed

Part 603.3(f) (1) "This metric is defined as the percentage of installation commitments missed per month and has a performance threshold of 10.0% or less for each installation administrative entity."

Part 603.3(f) (2) "A missed installation commitment occurs when initial basic local exchange service is not provided to the consumer's interface on or before the end of the day of the appointment interval with the customer except when due to consumer fault or other condition as defined in subsection Part 603.3(f) (3)."

Part 603.3(f) 3 "For purposes of this Section, the terms Consumer Fault and Other are defined to include the following:"

Part 603.3(f) (3) (i): "Consumer fault occurs when during the appointment interval, the consumer is not ready, there is not access to or there exists unsafe conditions at the consumer's premises, or on or before the commitment date the consumer requests a later date."

Reporting Companies:

All local exchange carriers with more than 500,000 access lines in service except those that have received an exemption.

Measurement Entity:

Each installation district of a reporting company.

Notes:

- Part 602.5(e) (3) Prior to an appointment, arrangements to access a necessary third party's premises shall be discussed with the consumer.
- Service orders included/excluded from this metric are as defined in item 4 above with the additional caveats that follow:

Telecommunications Service Quality
Uniform Measurement Guidelines
Revised January 27, 2011

- Count only one commitment per service order for an initial basic local exchange service.
- If a commitment is missed due to lack of access to a third party's premises, the miss is not counted in the numerator, and the order is not counted in the denominator of the calculation described below.
- A miss is based on the end of the day of the appointment, and not the specific time of the appointment if that time is earlier than the end of the day (i.e., midnight).

Calculation:

It is the number of commitments for basic initial line installations not kept divided by the total number of commitments for basic initial line installations, stated as a percentage to the tenths decimal place (using traditional mathematical rounding), for any given month.

Telecommunications Service Quality
Uniform Measurement Guidelines
Revised January 27, 2011

NETWORK PERFORMANCE METRICS

6. Percent of Final Trunk Group Blockages

Part 603.3 (g) “This metric is defined as the monthly percentage of blocked calls on any local, toll and local operator final trunk groups and has a performance threshold of 3.0% or less for each final trunk group.”

Reporting companies:

All local exchange carriers with more than 500,000 access lines in service except those that have received an exemption.

Measurement Entity:

Each final trunk group carrying local, toll or operator traffic.

Notes:

- Any final trunk group where monitoring indicates blockages of 3% or more of the calls presented to the trunk group during the busy hour for three consecutive months are to be identified.
- This metric is only reported on an exception basis. That is, only those final trunk groups not meeting the established busy hour performance threshold for three consecutive months are reported. In other words, only "Service Inquiry Reporting" (as defined in Part 603.4 (e)) is made on final trunk group performance. Do not report monthly on blockage performance for final truck groups.

Calculation:

Calls blocked divided by total calls presented to a given final trunk group during the busy hour, expressed as a percentage to the tenths decimal place (using traditional mathematical rounding), for a given month.

Telecommunications Service Quality
Uniform Measurement Guidelines
Revised January 27, 2011

ANSWER TIME PERFORMANCE METRICS

The following statements apply to all answer time performance metrics:

Reporting Companies:

All local exchange carriers with more than 500,000 access lines in service except those that have received an exemption report answer time metrics. Reporting is also limited to those functional groups of representatives that receive a monthly average of more than 275 calls per working day for three consecutive months. Also excluded from this provision is any group of specialized business account representatives established to address the needs of a single large business customer, or a small group of such customers.

Measurement Entity:

Each functional group of representatives that share the same function and access from specific customers.

Notes:

- The entire universe of calls to a functional group of representatives shall be used to calculate answer time performance.
- Answered calls as well as 10% of calls reaching a busy and 15% of calls that are abandoned are included in the calculation of any metric based on a percentage of calls answered within a specified period of seconds.
- Timing begins when the call first reaches that queue having direct access to a representative, and ends when the call is answered. In instances where automated responses are used to handle billing or repair issues, service providers shall configure their menu system such that a consumer is able to be routed to a representative for billing or repair issues within 60 seconds from the time the automated response begins.
- Service providers may have additional access telephone numbers for automated responses and/or other means (e.g. the Internet) of providing customers with various types of information. Such methods of access are considered supplemental to those that allow customers' access to a representative. Supplemental methods of access need not meet the 60 second timing interval, or even allow access to a representative. However, service providers must have at least one published method of allowing customers access to representatives for

Telecommunications Service Quality
Uniform Measurement Guidelines
Revised January 27, 2011

billing questions (see Part 602.6(d)) and for reporting trouble conditions (see Part 602.7 (b)).

Answer:

- The point in time when a call has been delivered to a representative who is ready to render assistance and/or accept the information necessary to process the call.
- An acknowledgment that the customer is on the line does not constitute an answer.

Calculation (in general):

Calls answered within the seconds associated with the specific answer time metric divided by the total number of calls to the functional group (including those calls answered, 10% of those reaching a busy and 15% of those abandoned), stated as a percentage to the tenths decimal place (using traditional mathematical rounding), for any given month. This generalization of the calculation methodology applies to all answer time metrics except average speed of answer for operator assistance (which is described below)

The following are the specific answer time metrics, and any notes specific to each metric:

7. Business Office Answer Time (answered within 30 seconds)

Part 603.3(h) (1) (a) “This metric is defined as the monthly percentage of consumer calls of the business office answered within 30 seconds. The performance threshold for each administrative entity is 80.0% or greater.”

8. Repair Office Answer Time (answered within 30 seconds)

Part 603.3 (1) “This metric is defined as the monthly percentage of consumer calls for repair office service answered within 30 seconds. The performance threshold for each administrative entity is 80.0% or greater.”

9. Operator Assistance Answer Time

Part 603.3(j) (1) "Service providers may elect to report operator assistance answer time under either or (a) or (b) below.”

(a) Percent Answered within 10 seconds

Part 603.3(j)(i) “This metric is defined as the monthly percentage of calls for operator

Telecommunications Service Quality
Uniform Measurement Guidelines
Revised January 27, 2011

assistance service answered within 10 seconds. The performance threshold for each administrative entity is 90.0% or greater."

(b) Average Answer Time in seconds

Part 603.3(j) (ii) "This metric is defined as the monthly average speed of answer of calls for operator assistance. The performance threshold for each administrative entity is 3.0 seconds or less."

Calculation:

Total time delay for answering incoming calls divided by the total number of answered calls, for a given month, in seconds to the tenths decimal place (using traditional mathematical rounding).