

PRIVATE LINE AND SONET SERVICE ADDENDUM

PRIVATE LINE SERVICES – DS1

1. INTERCONNECTION SPECIFICATIONS. DS1 service specifications are defined in the American National Standards Institute (“ANSI”) T1.102 – 1987 Digital Hierarchy, Electrical Interfaces, ANSI T1.403 – Network to Customer Installation DS1 Metallic Interface and AT&T Technical Reference TR 62411. DS1 service is offered at the following Digital Signal Rate:

DS LEVEL	RATE
DS1	1.544 Mbps

2. PERFORMANCE STANDARDS. DS1 service standards apply on a one-way basis between the DS1 Service points of demarcation (“**DEMARC**”) which are designated DSX-1 jack field locations in the Fidium or your DSX-1 jack field bay. DS1 service standards exclude nonperformance due to force majeure or planned interruptions for necessary maintenance purposes. The actual end-to-end availability and performance of DS1 service may be affected by the customer-provided equipment, dependent upon the type and quality of customer-provided equipment used.

3. BIT ERROR RATE. The Bit Error Rate (“**BER**”) is the percentage of bits that have errors relative to the total number of bits received in a transmission. The end-to-end BER standards for DS1 service are:

SPECIFICATION	DS1 SERVICE
BER*	Less than 1×10^{-7} s

*Not applicable in Fidium NNE Markets: Maine, New Hampshire, and Vermont.

4. ERROR FREE SECONDS. Performance is noted in Error Free Seconds (“**EFS**”), the percentage of total seconds that do not contain bit errors when measured over a 24-hour consecutive period. Performance will be measured on a one-way basis using a Pseudo-Random Bit Sequence test pattern as defined in the CCITT Recommendation 0.151. The EFS standards for end-to-end portions of DS1 service are:

SPECIFICATION	DS1 SERVICE
EFS*	99.96%

*Not applicable in Fidium NNE Markets: Maine, New Hampshire, and Vermont.

5. LATENCY. Latency must be less than 30 ms per 1,000 linear V&H miles.

6. AVAILABILITY OBJECTIVE. Availability is a percentage of total time that service is operative when measured over a 30-consecutive-day (720 hour) period. The end-to-end availability standards for DS1 service are:

SPECIFICATION	DS1 SERVICE
Availability End to End	99.99%

7. INOPERABILITY. DS1 service is considered inoperative when there has been a loss of signal, or a BER greater than or equal to the rate specified in the Bit Error Rate section of this Addendum for ten or more consecutive seconds.

8. REPAIR AND SCHEDULED MAINTENANCE. Repair efforts will be undertaken upon notification of trouble by internal network surveillance and performance systems or by notification of trouble and release of DS1 service by you for testing. You will be notified a minimum of five (5) business days in advance of any scheduled maintenance. Scheduled maintenance will be performed in a manner that minimizes any system interruption. Performance and availability standards will not apply during scheduled maintenance periods.

PRIVATE LINE SERVICES – DS3

1. INTERCONNECTION SPECIFICATIONS. DS3 service specifications are defined in the American National Standards Institute (“ANSI”) T1.102 – 1987 Digital Hierarchy, Electrical Interfaces, ANSI T1.107 – DS3 format applications and ANSI T1.404 – Network to Customer Installation DS3 Metallic and AT&T TR 62415 Access Specification for High Capacity (DS1/DS3) Dedicated Digital Services. DS3 service is offered at the following Digital Signal Rate:

DS LEVEL	RATE
DS3	44.736 Mbps

2. PERFORMANCE STANDARDS. DS3 service standards apply on a one-way basis between the DS3 service points of demarcation (“**DEMARC**”) which are designated DSX-3 jack field locations in the Fidium or your DSX-3 jack field bay. DS3 service standards exclude nonperformance due to force majeure or planned interruptions for necessary maintenance purposes. The actual end-to-end availability and performance of DS3 service may be affected by the customer-provided equipment, dependent upon the type and quality of customer-provided equipment used.

3. BIT ERROR RATE. The Bit Error Rate (“**BER**”) is the percentage of bits that have errors relative to the total number of bits received in a transmission. The end-to-end BER standards for DS3 service are:

SPECIFICATION	DS3 SERVICE
BER*	Less than 1×10^{-7} s

*Not applicable in Fidium NNE Markets: Maine, New Hampshire, and Vermont.

4. ERROR FREE SECONDS. Performance is noted in Error Free Seconds (“**EFS**”), the percentage of total seconds that do not contain bit errors when measured over a 24-hour consecutive period. Performance will be measured on a one-way basis using a Pseudo-Random Bit Sequence test pattern as defined in the CCITT Recommendation 0.151. The EFS standards for end-to-end portions of DS3 service are:

SPECIFICATION	DS3 SERVICE
EFS*	99.96%

*Not applicable in Fidium NNE Markets: Maine, New Hampshire, and Vermont.

5. LATENCY. Latency must be less than 30 ms per 1,000 linear V&H miles.

6. AVAILABILITY OBJECTIVE. Availability is a percentage of total time that service is operative when measured over a 30-consecutive-day (720 hour) period. The end-to-end availability standards for DS3 service are:

SPECIFICATION	DS3 SERVICE
Availability End to End	At least 99.99%

7. INOPERABILITY. DS3 service is considered inoperative when there has been a loss of signal, or a BER greater than or equal to the rate specified in the Bit Error Rate section of this Addendum for ten or more consecutive seconds.

8. REPAIR AND SCHEDULED MAINTENANCE. Repair efforts will be undertaken upon notification of trouble by internal network surveillance and performance systems or by notification of trouble and release of DS3 service by you for testing. You will be notified a minimum of five (5) business days in advance of any scheduled maintenance. Scheduled maintenance will be performed in a manner that minimizes any system interruption. Performance and availability standards will not apply during scheduled maintenance periods.

SONET SERVICES

1. INTERCONNECTION SPECIFICATIONS. SONET service specifications are defined in the American National Standards Institute (“ANSI”) T1.105.X: SONET and ANSI T1.119: SONET family of standards and the Telecordia Technologies GR253 CORE: SONET Transport Systems: Common Generic Criteria. SONET service is offered at the following optical carrier levels:

OPTICAL CARRIER LEVEL	RATE
OC-3	155.520 Mbps
OC-12	622.080 Mbps
OC-48	2,488.320 Mbps

2. PERFORMANCE STANDARDS. SONET service standards apply on a one-way basis between the SONET service points of demarcation (“**DEMARC**”) which are designated Fiber Distribution Panels (“**FDPs**”) located in the Fidium or your FDP bay. When a third-party provider is used to extend the Fidium network, standards apply only to the Fidium network handoff (Network to NI) to the third party. SONET service standards exclude nonperformance due to force majeure or planned interruptions for necessary maintenance purposes. The actual end-to-end availability and performance of SONET service may be affected by the customer-provided equipment, dependent upon the type and quality of customer-provided equipment used.

3. BIT ERROR RATE. The Bit Error Rate (“**BER**”) is the percentage of bits that have errors relative to the total number of bits received in a transmission. The end-to-end BER standards for SONET service are:

SPECIFICATION	SONET SERVICE
BER*	Less than 1×10^{-7} s

*Not applicable in Fidium NNE Markets: Maine, New Hampshire, and Vermont.

4. ERROR FREE SECONDS. Performance is noted in Error Free Seconds (“**EFS**”), the percentage of total seconds that do not contain bit errors when measured over a 24-hour consecutive period. Performance will be measured on a one-way basis using a Pseudo-Random Bit Sequence test pattern as defined in ITU-T Recommendation G.826. The EFS standards for end-to-end portions of SONET service are:

SPECIFICATION	SONET SERVICE
EFS*	99.9975%

*Not applicable in Fidium NNE Markets: Maine, New Hampshire, and Vermont.

5. LATENCY. Latency must be less than 30 ms per 1,000 linear V&H miles.

6. AVAILABILITY OBJECTIVE. Availability is a percentage of total time that service is operative when measured over a 30-consecutive-day (720 hour) period. The end-to-end availability standards for SONET service are:

SPECIFICATION	SONET SERVICE
Availability End to End	At least 99.999%

7. INOPERABILITY. SONET service is considered inoperative when there has been a loss of signal, or a BER greater than or equal to the rate specified in the Bit Error Rate section of this Addendum for ten or more consecutive seconds.

8. REPAIR AND SCHEDULED MAINTENANCE. Repair efforts will be undertaken upon notification of trouble by internal network surveillance and performance systems or by notification of trouble and release of SONET service by you for testing. You will be notified a minimum of five (5) business days in advance of any scheduled maintenance. Scheduled maintenance will be performed in a manner that minimizes any system interruption. Performance and availability standards will not apply during scheduled maintenance periods.