

INVITATION FOR BID
IFB C4DNCS19
Data Networks and Communications Services
**CATEGORY 24 – FLAT RATE INTERNET
SERVICES**

Charter Communications Operating, LLC

Statement of Work

TECHNICAL REQUIREMENTS

August 6, 2020

Addendum #6

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ADDENDUM LOG

Addendum #	Date	Addendum Description
2	11/22/19	Modified Access/Interface type table 24.2.5.3.a and mandatory speed requirements in Tables 24.2.5.3.b and 24.2.5.4.a. Modified Stop Clock Condition Table to include Customer Environmental. Modified SLA Objective Initiation Section 24.6.8.5.
3	12/5/19	Re-numbered Section 24.2.4.2. Modified language in Section 24.2.5.1 Modified language in Section 24.2.5.3 Modified language in Section 24.2.5.4 Modified language in Section 24.6.8.9 Provisioning SLA.
5	1/14/20	Removed Broadband High-speed Internet – BHIS/BHIMS Mandatory Requirements and Speeds. 24.2.4.3.3 – Modified language. 24.2.5.2 – Removed Bidder Description. Table 24.2.6 – Modified Table Header. 24.4.1 – Modified language. 24.4.2.1- Added U.S. Based DDoS Mitigation Services Waiver.
6	8/6/20	Unsolicited Services SLAs added to Tables: 24.6.8.1 Availability 24.6.8.2 Catastrophic Outage 1 (CAT 1) 24.6.8.3 Catastrophic Outage 2 (CAT 2) 24.6.8.4 Catastrophic Outage 3 (CAT 3) 24.6.8.5 DDoS Mitigation 24.6.8.6 Excessive Outage 24.6.8.9 Provisioning 24.6.8.10 Time to Repair

TECHNICAL REQUIREMENTS

CATEGORY 24 – Flat Rate Internet Services

24.6.7 Trouble Ticket Stop Clock Conditions

Only the following conditions shall be allowed to stop the duration of the Service Level Agreements. The Contractor shall document durations using the Stop Clock Condition (SCC) listed in Table 24.6.7.a, which must include start and stop time stamps in the Contractor’s Trouble Ticket Reporting Tool (SOW Business Requirements Section G.10.4) or Customer provisioning Service Request for each application of an SCC.

The Contractor shall not consider “cleared while testing” or “no trouble found” as a SCC.

Contractor observation timeframes, not requested by End-User, after incident resolution shall not be included in Outage Duration reporting.

Note: The Glossary (SOW Appendix A) defines term “End-User” as the “individual within an Entity that is receiving services and/or features provided under the Contract.”

Table 24.6.7 – Stop Clock Conditions

Line Item	Stop Clock Condition (SCC)	SCC Definition
1	END-USER REQUEST	Periods when a restoration or testing effort is delayed at the specific request of the End-User. The SCC shall exist during the period the Contractor was delayed, provided that the End-User’s request is documented and time stamped in the Contractor’s trouble ticket or Service Request system and shows efforts are made to contact the End-User during the applicable Stop Clock period.
2	OBSERVATION	Time after a service has been restored but End-User request ticket is kept open for observation. If the service is later determined by the End-User to not have been restored, the Stop Clock shall continue until the time the End-User notifies the Contractor that the Service has not been restored.

Line Item	Stop Clock Condition (SCC)	SCC Definition
3	END-USER NOT AVAILABLE	Time after a service has been restored but End-User is not available to verify that the Service is working. If the service is later determined by the End-User to not have been restored, the Stop Clock shall apply only for the time period between Contractor's reasonable attempt to notify the End-User that Contractor believes the service has been restored and the time the End-User notifies the Contractor that the Service has not been restored.
4	WIRING	Restoration cannot be achieved because the problem has been isolated to wiring that is not maintained by Contractor or any of its Subcontractors or Affiliates. If it is later determined the wiring is not the cause of failure, the SCC shall not apply.
5	POWER	Trouble caused by a power problem outside of the responsibility of the Contractor.
6	CUSTOMER PROVISIONING DELAY	Delays to Provisioning caused by lack of Customer's building entrance Facilities, conduit structures that are the Customer's responsibilities or Extended demarcation wiring. If the Service Providing Contractor has been contracted by the Customer for extended demarcation, this SCC shall not apply to missed dates/times. The Customer Provisioning Delay SCC is restricted to Provisioning SLAs only.
7	ACCESS	<p>Limited access or contact with End-User provided the Contractor documents in the trouble ticket several efforts to contact End-User for the following:</p> <ul style="list-style-type: none"> a. Access necessary to correct the problem is not available because access has not been arranged by site contact or End-User representative; b. Site contact refuses access to technician who displays proper identification;

Line Item	Stop Clock Condition (SCC)	SCC Definition
		<p>c. Customer provides incorrect site contact information which prevents access, provided that Contractor takes reasonable steps to notify End-User of the improper contact information and takes steps to obtain the correct information; or,</p> <p>d. Site has limited hours of business that directly impacts the Contractor's ability to resolve the problem.</p> <p>If it is determined later that the cause of the problem was not at the site in question, then the Access SCC shall not apply.</p>
8	STAFF	Any problem or delay to the extent caused by End-User's staff that prevents or delays Contractor's resolution of the problem. In such event, Contractor shall make a timely request to End-User staff to correct the problem or delay and document in trouble ticket.
9	APPLICATION	End-User software applications that interfere with repair of the trouble.
10	CPE	Repair/replacement of Customer Premise Equipment (CPE) not provided by Contractor if the problem has been isolated to the CPE. If determined later that the CPE was not the cause of the service outage, the CPE SCC will not apply.
11	NO RESPONSE	Failure of the trouble ticket originator or responsible End-User to return a call from Contractor's technician for on-line close of trouble tickets after the Service has been restored as long as Contractor can provide documentation in the trouble ticket substantiating the communication from Contractor's technician.

Line Item	Stop Clock Condition (SCC)	SCC Definition
12	MAINTENANCE	An outage directly related to any properly performed scheduled maintenance or upgrade scheduled for CALNET DNCS service. Any such stop clock condition shall not extend beyond the scheduled period of the maintenance or upgrade. SLAs shall apply for any maintenance caused outage beyond the scheduled maintenance period. Outages occurring during a scheduled maintenance or upgrade period and not caused by the scheduled maintenance shall not be subject to the Maintenance SCC.
13	THIRD PARTY	Any problem or delay caused by a third party not under the control of Contractor, not preventable by Contractor, including, at a minimum, cable cuts not caused by the Contractor. Contractor's Subcontractors and Affiliates shall be deemed to be under the control of Contractor with respect to the equipment, services, or Facilities to be provided under this Contract.
14	FORCE MAJEURE	Force Majeure events, as defined in the eVAQ General Provisions - Telecommunications, Section 28 (Force Majeure).
15	Customer Environmental	An outage directly caused by customer premise environmental conditions, which are outside the control and responsibility of the Contractor. This includes a non-secured location, excessive heat or lack of cooling. If determined later that the environmental conditions were not the cause of the service outage, or a result of the Contractor modifying Contractor provided equipment without Customer's approval, the Customer Environmental SCC will not apply.

The Contractor shall provide and manage the following Technical SLAs.

24.6.8 Technical Service Level Agreements (SLA)

24.6.8.1 Availability (M-S)

SLA Name: Availability

Definition:

The percentage of time a CALNET DNCS service is fully functional and available for use each calendar month.

Measurement Process:

The monthly Availability Percentage shall be based on the accumulative total of all Unavailable Time derived from all trouble tickets closed, for the individual affected service (per Circuit ID or Service ID), per calendar month. The monthly Availability Percentage equals the Scheduled Uptime per month less Unavailable Time per month divided by Scheduled Uptime per month multiplied by 100. Scheduled Uptime is based on 24 x number of days in the month. All Unavailable Time applied to other SLAs, which results in a remedy, will be excluded from the monthly accumulated total.

Services:

Flat Rate Internet Service

Objectives:

The objective will be based on the access type identified in the table below:

Access Type	Basic (B)	Standard (S)	Premier (P)	Bidder's Objective Commitment (B, S or P)
InFRa	≥ 99.2%	≥ 99.5%	≥ 99.9%	P
InFRaM	≥ 99.2%	≥ 99.5%	≥ 99.9%	P
InFRa MMF	≥ 99.2%	≥ 99.5%	≥ 99.9%	P
InFRaM MMF	≥ 99.2%	≥ 99.5%	≥ 99.9%	P

Rights and Remedies:

1. Per Occurrence:

- End-User Escalation Process
- CALNET CMO Escalation Process

2. Monthly Aggregated Measurements:

- First month service fails to meet the committed SLA objective shall result in a 15% credit or refund of the TMRC.
- The second consecutive month to fail to meet the committed SLA objective shall result in a 30% credit or refund of TMRC.
- Each additional consecutive month to fail to meet the committed SLA objective shall result in a 50% credit or refund of the TMRC.

24.6.8.2 Catastrophic Outage 1 (CAT 1) (M-S)

SLA Name: Catastrophic Outage 1 (CAT 1)

Definition:

The total loss of service at a single site resulting in the loss of service to five or more circuits or any single service at 500Mbps or greater.

Measurement Process:

The Outage Duration begins when a network alarm is received by the Contractor from an outage-causing event or the opening of a trouble ticket by a Customer, or the Contractor, whichever occurs first. The Contractor shall open a trouble ticket for each service (Circuit ID or Service ID) affected by the common cause. Each End-User service is deemed out of service from the first notification until the Contractor determines the End-User service (Circuit ID or Service ID) is restored minus SCC. Any service reported by a Customer as not having been restored shall have the outage time adjusted to the actual restoration time.

Services:

Flat Rate Internet Service

Objectives:

The objective restoral time will be:

Service Type	Basic (B)	Standard (S)	Premier (P)	Bidder's Objective Commitment (B, S or P)
Internet Flat Rate Service	≤ 3 hours	≤ 2 hours	≤ 1 hour	P
Internet Flat Rate Service MMF	≤ 3 hours	≤ 2 hours	≤ 1 hour	P

Rights and Remedies:

1. Per Occurrence:
 - 100% credit or refund of the TMRC for each End-User service not meeting the committed objective for each CAT 1 fault.
2. Monthly Aggregated Measurements:
 - N/A

24.6.8.3 Catastrophic Outage 2 (CAT 2) (M-S)

SLA Name: Catastrophic Outage 2 (CAT 2)

Definition:

A total failure of a service type in a central office (or equivalent facility), other than access, that results in a CALNET DNCS service failure. Or, a backbone failure or failure of any part of the equipment associated with the backbone that causes a CALNET DNCS service failure.

Measurement Process:

The Outage Duration begins when a network alarm is received by the Contractor from the outage-causing event or the opening of a trouble ticket by the Customer or Contractor, whichever occurs first. Upon notification from the Customer or network alarm, the Contractor shall compile a list for each End-User service affected by the common cause for tracking and reporting of the SLA rights and remedies. Outage Duration shall be measured on a per-End-User service (Circuit ID or Service ID) basis from information recorded from the network equipment/system or a Customer reported trouble ticket. Each End-User service (Circuit ID or Service ID) is deemed out of service from the first notification until the Contractor determines the End-User service is restored. Any End-User

service reported by the End-User/Customer as not having been restored shall have the outage time adjusted to the actual restoration time.

Services:

Flat Rate Internet Service

Objectives:

The objective restoral time will be:

Access Type	Basic (B)	Standard (S)	Premier (P)	Bidder's Objective Commitment (B, S or P)
Internet Flat Rate Service	≤ 1 Hour	≤ 30 Minutes	≤ 15 Minutes	P
Internet Flat Rate Service MMF	≤ 1 Hour	≤ 30 Minutes	≤ 15 Minutes	P

Rights and Remedies:

1. Per Occurrence:
 - 100% credit or refund of the TMRC for each End-User service not meeting the committed objective per occurrence objective for a single CAT 2 fault.
2. Monthly Aggregated Measurements:
 - N/A

24.6.8.4 Catastrophic Outage 3 (CAT 3) (M-S)

SLA Name: Catastrophic Outage 3 (CAT 3)

Definition:

The total loss of Internet Service on a system wide basis.

Measurement Process:

The Outage Duration begins when a network alarm is received by the Contractor from an outage-causing event or the opening of a trouble ticket by the Customer or the Contractor, whichever occurs first. Upon notification from the Customer or network alarm, the Contractor shall open a trouble ticket and compile a list for each End-User service (Circuit ID or

Service ID) affected by the common cause for tracking and reporting of the SLA rights and remedies. Outage Duration shall be measured on a per-End-User service (Circuit ID or Service ID) basis from information recorded from the network equipment/system or trouble ticket. Each End-User service (Circuit ID or Service ID) is deemed out of service from the first notification until the Contractor determines the End-User service is restored. Any End-User service reported by the End-User/Customer as not having been restored shall have the outage time adjusted to the actual restoration time.

Services:

Flat Rate Internet Service

Objectives:

The objective restoral time will be:

Access Type	Basic (B)	Standard (S)	Premier (P)	Bidder's Objective Commitment (B or P)
Internet Flat Rate Service	≤ 30 Minutes	N/A	≤ 15 Minutes	P
Internet Flat Rate Service MMF	≤ 30 Minutes	N/A	≤ 15 Minutes	P

Rights and Remedies:

1. Per Occurrence:
 - 100% credit or refund of the TMRC for each service (Circuit ID or Service ID) not meeting the committed objective for each Cat 3 fault.
2. Monthly Aggregated Measurements:
 - N/A

24.6.8.5 DDoS Mitigation (M-S)

SLA Name: DDoS Time to Initiate Mitigation

Definition:

The time to initiate DDoS mitigation upon the identification of an attack.

Measurement Process:

The amount of time between the detection via Customer or Contractor identification of an anomaly or attack, and the initiation of the mitigation process.

Services:

DDoS Mitigation

Objectives:

Mitigation shall begin within:

Access Type	Basic (B)	Standard (S)	Premier (P)	Bidder's Objective Commitment (B, S or P)
DDoS Mitigation	≤ 45 Minutes	≤ 30 Minutes	≤ 15 Minutes	B
DDos Mitigation 10 Gbps	≤ 45 Minutes	≤ 30 Minutes	≤ 15 Minutes	B

Rights and Remedies:

1. Per Occurrence:

Basic Time to Initiate Mitigation Minutes	Standard Time to Initiate Mitigation Minutes	Premier Time to Initiate Mitigation Minutes	Credit or Refund Percentage of TMRC for all components of DDoS feature per event
46 – 75	31 – 45	16 – 30	25%
76 – 135	46 – 75	31 – 45	50%
136 and over	76 and over	46 and over	100%

2. Monthly Aggregated Measurements:

- N/A

24.6.8.6 Excessive Outage (M-S)

SLA Name: Excessive Outage

Definition:

Any failure that prevents full functionality of the service that remains unresolved for more than the committed objective level.

Measurement Process:

This SLA is based on trouble ticket Unavailable Time. The circuit or service is not fully functional during the time the trouble ticket is reported as opened until restoration of the service, minus SCC. If the Customer reports a partial or complete service that is not fully functional and remains unresolved after the closure of the trouble ticket by the Contractor, the Unavailable Time shall be adjusted to the actual restoration time.

Services:

Flat Rate Internet Service

Objectives:

The Unavailable Time objective shall not exceed:

Access Type	Basic (B)	Standard (S)	Premier (P)	Bidder's Objective Commitment (B, S or P)
Internet Flat Rate Service	16 Hours	12 Hours	8 Hours	B
Internet Flat Rate Service MMF	16 Hours	12 Hours	8 Hours	B

Rights and Remedies:

1. Per Occurrence:

- 100% credit or refund of the TMRC for each service (Circuit ID or Service ID) out of service for a period greater than the committed objective level.
- Upon request from the Customer or the CALNET Program, the Contractor shall provide a briefing on the excessive outage restoration.

2. Monthly Aggregated Measurements:

- N/A

24.6.8.7 Managed Service Proactive Notification (M-S)

SLA Name: Managed Service Proactive Notification

Definition:

The proactive outage notification SLA provides credits if the Contractor fails to open a trouble ticket and notify Customer of an Outage for a managed service. Notification to the Customer shall occur through means agreed to by Contractor and CALNET Program.

An Outage is defined as an unscheduled period in which the managed service is interrupted and unavailable for use by Customer for 60 continuous seconds or more than 60 cumulative seconds within a 15-minute period measured by the Contractor.

Measurement Process:

The Outage Duration start shall be determined by the first Contractor network alarm resulting from the outage-causing event or the opening of a trouble ticket by the Customer, whichever occurs first. The Contractor has fifteen minutes (Notification Period) to open a trouble ticket and notify the Customer from the start point of the first network alarm. The Contractor is in compliance with the proactive outage notification SLA if the Customer opened the trouble ticket prior to the network alarm or Customer is notified by the Contractor within the Notification Period.

Services:

Flat Rate Internet Service with Managed Router or IP Enabled Routing Device

Objectives:

15 Minutes

Rights and Remedies:

1. Per Occurrence:
 - Customer will receive a credit or refund equal to 10% of the TMRC for each Contractor Managed Service (Circuit ID) that was impacted during an outage if the Customer was not proactively notified within the notification period
2. Monthly Aggregated Measurements:
 - N/A

24.6.8.8 Notification

SLA Name: Notification

Definition:

The Contractor notification to the CALNET Program and designated stakeholders in the event of a CAT 2 or CAT 3 failure, terrorist activity, threat of natural disaster, or actual natural disaster which results in a significant loss of telecommunication services to CALNET DNCS End-Users or has the potential to impact services in a general or statewide area. The State understands initial information requiring the nature of the outage may be limited.

Measurement Process:

The Contractor shall adhere to the Network Outage Response requirements (SOW Business Requirements Section G.3.3, Network Outage Response) and notify the CALNET Program and designated stakeholders for all CAT 2 and CAT 3 Outages or for network outages resulting in a significant loss of service. Notification objectives will be based on the start time of the outage failure determined by the opening of a trouble ticket or network alarm, whichever occurs first. For events based on information such as terrorist activity or threat of natural disaster, the Contractor shall notify the CALNET Program and designated stakeholders when information is available for dissemination to the Customers.

Services:

Internet Flat Rate Service

Objectives:

Within 60 minutes of the above mentioned failures' start time, the Contractor shall notify the CALNET Program and designated stakeholders using a method defined in SOW Business Requirements, Network Outage Response.

At 60-minute intervals, updates shall be given on the above-mentioned failures via the method defined in SOW Business Requirements, Network Outage Response.

This objective is the same for Basic, Standard and Premier Commitments.

Rights and Remedies:

1. Per Occurrence:

- Senior Management Escalation
2. Monthly Aggregated Measurements:
- N/A

24.6.8.9 Provisioning (M-S)

SLA Name: Provisioning

Definition:

Provisioning shall include new services, moves, adds and changes, completed by the Contractor on or before the due dates. The Provisioning SLA shall be based on committed installation intervals established in this SLA or due dates negotiated between the Customer and the Contractor documented on the Contractor's order confirmation notification or Contracted Project Work SOW in accordance with SOW Business Requirements Section G.2.5.4, Provisioning and Implementation. The Contractor shall meet the committed interval dates or due date negotiated with the Customer. If the Customer agrees to a negotiated due date, the negotiated due date supersedes the committed interval. At the Customer's discretion, if the scope of the Service Request(s) meets the Coordinated or Managed Project criteria, negotiated due dates will be established and documented in the Project Timeline per SOW Business Requirements Section G.8, Contracted Service Project Work.

Provisioning SLAs have two objectives:

- Objective 1: Individual service installation; and,
 - Objective 2: Successful Install Monthly Percentage by service type.
- Note: Provisioning timelines include extended demarcation wiring when appropriate.

Measurement Process:

Objective 1: Individual Service Installations: Install intervals are based on the committed installation intervals established in this SLA or due dates negotiated between the Customer and the Contractor. This objective requires the Contractor to meet the due date for each individual service installation. This includes individual circuit/service level installations for Coordinated and Managed Projects.

Objective 2: Successful Install Monthly Percentage per Service Type: The Contractor shall sum all individual installations per service, as listed below,

meeting the objective in the measurement period and divide by the sum of all individual service installations due per service in the measurement period and multiply by 100 to equal the percentage of service installations completed on time. The Contractor must meet or exceed the objective below in order to avoid the rights and remedies.

Services:

Features must be installed in conjunction with the service except when listed below:

Service	Committed Interval Days	Coordinated/Managed Project
InFRa	30	Coordinated/Managed Project
InFRaM	30	Coordinated/Managed Project
InFRa MMF	30	Coordinated/Managed Project
InFRaM MMF	30	Coordinated/Managed Project

Objectives:

Objective 1: Individual service installation: Service provisioned on or before the due date per installation Service Request.

Objective 2: Monthly Average percent by service type:

Access Type	Basic (B)	Standard (S)	Premier (P)	Bidder's Objective Commitment (B or P)
InFRa	≥ 90%	N/A	≥ 95%	B
InFRaM	≥ 90%	N/A	≥ 95%	B
InFRa MMF	≥ 90%	N/A	≥ 95%	B
InFRaM MMF	≥ 90%	N/A	≥ 95%	B

Rights and Remedies:

1. Per Occurrence:
 - Objective 1: Individual service installations: 50% of installation fee credited to the Customer for any missed committed objective.
2. Monthly Aggregated Measurements:

- Objective 2: 100% of the installation fee credited to the Customer for all service installations (per service type) that did not complete within the committed objective during the month if the Successful Install Monthly Percentage is below the committed objective.

24.6.8.10 Time to Repair (M-S)

SLA Name: Time to Repair

Definition:

Any failure that prevents full functionality of the service that remains unresolved for more than the committed objective level.

Measurement Process:

This SLA is based on trouble ticket Unavailable Time per service (Circuit ID or Service ID). The circuit or service is not fully functional during the time the trouble ticket is reported as opened until restoration of the service, minus SCC. If the Customer reports a service that is not fully functional and remains unresolved after the closure of the trouble ticket by the Contractor, the Unavailable Time shall be adjusted to the actual restoration time. This SLA is applied per occurrence.

Services:

Flat Rate Internet Service

Objectives:

The Unavailable Time objective shall not exceed:

Service Type	Basic (B)	Standard (S)	Premier (P)	Bidder's Objective Commitment (B, S or P)
Internet Flat Rate Service	6 Hours	5 Hours	4 Hours	P
Internet Flat Rate Service MMF	6 Hours	5 Hours	4 Hours	P

Rights and Remedies:

- Per Occurrence:

- 25% credit or refund of the TMRC for each service (Circuit ID or Service ID) out of service for a period greater than the committed objective level.

2. Monthly Aggregated Measurements:

- N/A

24.6.8.11 Unsolicited Service Enhancement SLAs

All unsolicited service enhancements shall be considered a feature of the service, and therefore shall be included as such under the SLAs as defined in this section.