

ERIE COUNTY WATER AUTHORITY
AUTHORIZATION FORM
For Approval/Execution of Documents
(check which apply)

Contract: _____ Project No.: _____
Project Description: SPECTRUM BUSINESS POINT TO POINT FIBER
CIRCUIT BETWEEN VAN DE WATER PLANT AND VAN DE WATER RAW
WATER.

Item Description:

<input checked="" type="checkbox"/> Agreement	<input type="checkbox"/> Professional Service Contract	<input type="checkbox"/> Amendment	<input type="checkbox"/> Change Order
<input type="checkbox"/> BCD	<input type="checkbox"/> NYSDOT Agreement	<input type="checkbox"/> Contract Documents	<input type="checkbox"/> Addendum
<input type="checkbox"/> Recommendation for Award of Contract	<input type="checkbox"/> Recommendation to Reject Bids		
<input type="checkbox"/> Request for Proposals			
<input type="checkbox"/> Other _____			

Action Requested:

<input checked="" type="checkbox"/> Board Authorization to Execute	<input type="checkbox"/> Legal Approval
<input type="checkbox"/> Board Authorization to Award	<input checked="" type="checkbox"/> Execution by the Chairman
<input type="checkbox"/> Board Authorization to Advertise for Bids	<input type="checkbox"/> Execution by the Secretary to the Authority
<input type="checkbox"/> Board Authorization to Solicit Request for Proposals	
<input type="checkbox"/> Other _____	

Approvals Needed:

APPROVED AS TO CONTENT:

<input checked="" type="checkbox"/> Department Head	<u>[Signature]</u>	Date: <u>9/11/19</u>
<input type="checkbox"/> Risk Manager		Date: _____
<input checked="" type="checkbox"/> Director of Administration	<u>[Signature]</u>	Date: <u>9/11/19</u>
<input checked="" type="checkbox"/> Executive Engineer	<u>[Signature]</u>	Date: <u>9/11/19</u>

APPROVED AS TO FORM:

<input checked="" type="checkbox"/> Legal	<u>Margaret A. Murphy</u>	Date: <u>9/11/19</u>
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APPROVED FOR BOARD RESOLUTION:

<input checked="" type="checkbox"/> Secretary to the Authority	<u>[Signature]</u>	Date: <u>9/11/19</u>
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Remarks: _____

Resolution Date: _____ Item No: _____

[Handwritten initials]



ERIE COUNTY WATER AUTHORITY

INTEROFFICE MEMORANDUM

September 10th, 2019

To: Terrence D. McCracken, Secretary to the Authority

From: Jeffrey C. Schlierf, Acting Manager of Information Technology *JCS*

Subject: Spectrum Business – Install Fiber Point to Point data connection. Van de Water Plant to Van de Water Raw Water

The IT department recommends replacing the unlicensed Motorola microwave link that provides data connectivity between the Van de Water plant and Van de Water Raw Water building with a more stable Spectrum Business fiber point to point connection. This current link is prone to hardware issues and line of site issues since it traverses multiple properties between the two sites. This link is used to carry Security Video feeds back to the video server located in the main plant and Door Access data back to the server located at the Service Center.

The agreement states the circuit will be \$900 per month for 36 months allowing us to wave the \$11,005.00 one-time cost for building this link. When the water transmission line between the Main plant and Raw Water is replaced, ECWA will run its own fiber connection between the two sites and this Spectrum link we become a backup to it.

If the Board agrees to this plan of action at the September 19th, 2019 meeting, I would like a resolution to be entered at the October 3rd, 2019 meeting.

Attached please find the following document:

- 1) Spectrum Fiber Internet Access Service Agreement

JCS
Attachment

Service Order

Time Warner Cable Northeast, LLC D/B/A Spectrum Fiber Internet Access Service Agreement

Pursuant to NYS Office of General Services Contract PS67808

Time Warner Cable shall provide Customer with Fiber Internet Access (FIA) Service pursuant to the terms and conditions of the New York State Office of General Services Contract PS67808

Customer Name:	ERIE COUNTY WATER AUTHORITY
Date:	9/2/19

Section 1. Billing Information

Billing Name:	ERIE COUNTY WATER AUTHORITY
Street Address:	295 Main St
Suite information:	RM 350
City, State and Zip Code:	Buffalo NY 14203
Billing Contact:	accountspayable@ecwa.org
Contact phone number:	716-685-8271

Section 2. Service location Information

Service Location A	
Service Location Name:	ERIE COUNTY WATER AUTHORITY
Street Address:	3750 River Rd
Room/Suite information:	
City, State and Zip Code:	Tonawanda NY 14150
Installation Contact:	Jeff Schlierf
Contact phone number:	716-685-8271
Fiber Information	100M PTP

Service Location B	
Service Location Name:	ERIE COUNTY WATER AUTHORITY
Street Address:	3300 River Rd
Room/Suite information:	
City, State and Zip Code:	Tonawanda NY 14150
Installation Contact:	Jeff Schlierf
Contact phone number:	716-685-8271
Fiber Information	100M PTP

Section 3. Initial Term of Service

Term:	Effective Date:
36months (per approved fiscal year)	From the date of Spectrum Completion Notice

Section 4. Circuit and Pricing Information

PRODUCT	Quantity	Monthly Recurring Charge	Installation Cost	One-Time Cost
3750 River Rd 100M PTP	1	\$450	\$0.00	\$0.00
3284 River Rd 100M PTP	1	\$450	\$0.00	\$11,005.00
Total		\$900.00	\$0.00	\$11,005.00

Section 5. Additional Terms and Conditions

In lieu of One-time costs (defined in NYS OGS Contract PS63596) of \$11,005.00 per circuit referenced in Section 4, customer agrees to an initial term of service outlined in this agreement in Section 3.

In the event that the customer terminates any portion of the Service prior to the expiration of the Term, customer will pay to Time Warner Cable, the remaining construction liability (One-Time Cost) which has been reduced by 1/36^h per circuit, per month from Effective date to Termination Date.

Customer:		Time Warner Cable	
Signature:		Signature:	
Name:	Jerome D. Schad	Name:	
Title:	Chairman	Title:	
Date:	9/3/2019	Date:	

Description of Service:

Spectrum Enterprise

Ethernet Service Level Agreement

This document outlines the Service Level Agreement ("SLA") for fiber-based Spectrum Enterprise Ethernet Service and Spectrum Enterprise Cloud Connect Service (individually the "Service" and collectively the "Services"). Capitalized words used, but not defined herein, shall have the meanings given to them in the Agreement.

This SLA is a part of, and hereby incorporated by reference into the Spectrum Enterprise Service Agreement (including the terms and conditions, attachments, and Service Orders described therein, the "Agreement"). To the extent any provision of this SLA conflicts with the Agreement, this SLA shall control. Performance tier goals ("SLA Targets") are set forth in the table(s) below.

Ethernet Services SLA Targets presented below are measured end to end (i.e. from any two applicable Customer's edge or network interface devices at the Service Location) at the individual circuit or service level, and any applicable credits are issued for the affected circuit or service (the "Affected Service").

The Cloud Connect Service SLA Target for Availability is measured between Spectrum Enterprise's network interface device (NID) located at the Customer location and the point of physical handoff of the Service to the Cloud Service Provider (the "Gateway Point").

I. SLA Targets for Ethernet and Cloud Connect Services:

Spectrum Enterprise Ethernet Services SLAs				
Performance Tier	On-Net			Off-Net
	Metro	Regional	National	
Miles	0 - 155	156 - 746	> 746	N/A
Kilometers	0 - 250	251 - 1200	> 1200	N/A
Latency	< 10ms	< 25ms	< 125ms	< 125ms
Jitter	< 2ms	< 4ms	< 8ms	< 8ms
Frame Loss	< 0.01%	< 0.01%	< 0.01%	< 0.01%
Availability	> 99.99%	> 99.99%	> 99.99%	> 99.99%
MTTR	4 hrs.	4 hrs.	4 hrs.	4 hrs.

¹ "On-Net" includes circuits that are provided by Spectrum Enterprise to Service Locations directly from the Spectrum Network.

² "Off-Net" includes circuits that are provided to geographic locations that may be outside or inside Spectrum Enterprise service areas and are provided by third party service providers and not from the Spectrum Network.

Spectrum Enterprise Cloud Connect Gateway Point SLAs	
Availability	≥ 99.99%

II. Priority Classification:

"Excluded Disruptions" means (i) planned outages, (ii) routine or urgent maintenance, (iii) time when Spectrum Enterprise is unable to gain access to Customer's premises to troubleshoot, repair or replace equipment or the Service, (iv) service problems resulting from acts of omissions of Customer or Customer's representatives or agents, (v) Customer equipment failures, (vi) Customer is not prepared to release the Service for testing, and (vii) Force Majeure

Events. Notwithstanding anything to the contrary in the Agreement, any service issues beyond the connectivity to the Cloud Service Provider is not covered by this SLA.

A "Service Disruption" is defined as an outage, disruption, or severe degradation, other than an Excluded Disruption, that interferes with the ability of a Spectrum Enterprise network hub to transmit and receive network traffic between Customer's A and Z Service Locations. The Service Disruption period begins when Customer reports a Service Disruption using Spectrum Enterprise's trouble ticketing system by contacting Customer Care. Spectrum Enterprise acknowledges receipt of such trouble ticket, Spectrum Enterprise validates that the Service is affected, and Customer releases the Service for testing. The Service Disruption ends when the affected Service has been restored.

"Service Degradation" means a degradation of the Service that is not a Service Disruption or a result of an Excluded Disruption, such as failure of the Service to achieve the SLA Targets for Latency / Frame Delay, Jitter / Frame Delay Variation, or Packet / Frame.

Spectrum Enterprise will classify Service problems as follows:

Priority	Criteria
Priority 1	<ul style="list-style-type: none"> Service Disruption resulting in a total loss of Service; or Service Degradation to the point where Customer is unable to use the Service and is prepared to release it for immediate testing (each a "Priority 1 Outage").
Priority 2	<ul style="list-style-type: none"> Service Degradation where Customer is able to use the Service and is not prepared to release it for immediate testing.
Priority 3	<ul style="list-style-type: none"> A service problem that does not impact the Service; or A single non-circuit specific quality of Service inquiry.

III. Service Availability

"Service Availability" is calculated as the total number of minutes in a calendar month less the number of minutes that the Service is unavailable due to a Priority 1 Outage ("Downtime"), divided by the total number of minutes in a calendar month.

The following table contains examples of the percentage of Service Availability translated into minutes of Downtime for the 99.99% Service Availability Target:

Percentage by Days Per Month	Total Minutes / Month	Downtime Minutes
99.99% for 31 Days	44,640	4.5
99.99% for 30 Days	43,200	4.3
99.99% for 29 Days	41,760	4.2
99.99% for 28 Days	40,320	4

IV. Mean Time to Restore ("MTTR")

The MTTR measurement for Priority 1 Outages is the average time to restore Priority 1 Outages during a calendar month calculated as the cumulative length of time it takes Spectrum Enterprise to restore a Service following a Priority 1 Outage in a calendar month divided by the corresponding number of trouble tickets for Priority 1 Outages opened during the calendar month for the Service.

MTTR per calendar month is calculated as follows:

Cumulative length of time to restore Priority 1 Outage(s) per Service
<hr/>
Total number of Priority 1 Outage trouble tickets per Service

V. Latency / Frame Delay

Latency or Frame Delay is the average roundtrip network delay, measured every 5 minutes during a calendar month, unless measurement is not possible as a result of an Excluded Disruption, to adequately determine a consistent average monthly performance level for frame delay for each Service. The roundtrip delay is expressed in milliseconds (ms).

Latency / Frame Delay is calculated as follows:

**Latency / Frame
Delay=**

Sum of the roundtrip delay measurements for a Service
<hr/>
Total # of measurements for a Service

VI. Packet Loss / Frame Loss Ratio

Packet Loss or Frame Loss Ratio is defined as the percentage of frames that are not successfully received compared to the total frames that are sent in a calendar month, except where any packet or frame loss is the result of an Excluded Disruption. The percentage calculation is based on frames that are transmitted from a network origination point and received at a network destination point.

Packet Loss / Frame Loss Ratio is calculated as follows:

$$\text{Packet Loss / Frame Loss (\%)} = 100 (\%) - \text{Frames Received}$$

VII. Jitter / Frame Delay Variation

Jitter or Frame Delay Variation is defined as the variation in delay for two consecutive frames that are transmitted (one-way) from a network origination point and received at a network destination point. Spectrum Enterprise measures a sample set of frames every 5 minutes during a calendar month, unless measurement is not possible as a result of an Excluded Disruption, and determines the average delay between consecutive frames within each sample set. The monthly Jitter / Frame Delay Variation is calculated as the average of all of the frame delay variation measurements during such calendar month and is expressed in milliseconds (ms).

$$\text{Jitter / Frame Delay Variation} = \frac{\text{Sum of the Frame Delay Variation measurements for a Service}}{\text{Total \# of measurements for a Service}}$$

VIII. Network Maintenance

Maintenance Notice:

Customer understands that from time to time, Spectrum Enterprise will perform network maintenance for network improvements and preventive maintenance. In some cases, Spectrum Enterprise will need to perform urgent network maintenance, which will usually be conducted within the routine maintenance windows. Spectrum Enterprise will use reasonable efforts to provide advance notice of the approximate time, duration, and reason for any urgent maintenance outside of the routine maintenance windows.

Maintenance Windows:

Routine maintenance may be performed Monday – Friday 12 a.m. – 6 a.m. Local Time.

IX. Remedies Service Credit:

If the actual performance of a Service during any calendar month is less than the SLA Targets, and Customer is in compliance with the terms of the Agreement and this SLA, then Customer may request credit equal to the corresponding percentage of the monthly recurring charges for the Affected Service as set forth in the table below. Any credit to be applied will be off-set against any amounts due from Customer to Spectrum Enterprise in the billing cycle following the date Spectrum Enterprise makes its credit determination. Credit requests must be submitted to Spectrum Enterprise within thirty (30) days of the calendar month in which the SLA Target was missed. Spectrum Enterprise will exercise commercially reasonable efforts to respond to such credit requests within 30 days of receipt thereof.

Service Availability	Mean Time To Restore ("MTTR")		Latency / Frame Delay (Roundtrip)	Jitter / Frame Delay Variation	Packet Loss / Frame Loss
30%	> 4 hours ≤ 7:59:59 hours	4%	5%	5%	5%
	> 8 hours	10%			

All SLA Targets are monthly measurements, and Customer may request only one credit per SLA Target per month for the Affected Service. Should one event impact more than one SLA hereunder, Customer shall receive the single highest of the qualifying credits only. Except as set forth below, the credits described in this SLA shall constitute Customer's sole and exclusive remedy, and Spectrum Enterprise's sole and exclusive liability, with respect to any missed SLA Targets. Service Credits hereunder shall not be cumulative per Service.

Chronic Priority 1 Outages:

If Customer experiences and reports three (3) separate Priority 1 Outages where the Downtime exceeds four (4) hours during each Priority 1 Outage within three (3) consecutive calendar months, then Customer may terminate the Affected Service without charge or liability by providing at least thirty (30) days written notice to Spectrum Enterprise; provided, however, that (i) Customer may only terminate the Affected Service; (ii) Customer must exercise its right to terminate the Affected Service by providing written notice to Spectrum Enterprise within thirty (30) days after the event giving rise to Customer's termination right; (iii) Customer shall have paid Spectrum Enterprise all amounts due at the time of such termination for all Services provided by Spectrum Enterprise pursuant to the Agreement, and (iv) the foregoing termination right provides the sole and exclusive remedy of Customer and the sole and exclusive liability of Spectrum Enterprise for chronic Priority 1 Outages and Customer shall not be eligible for any additional credits. Termination will be effective forty-five (45) days after Spectrum Enterprise's receipt of such written notice of termination.