Internet
Product Overview

Fibertech Networks

2009

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1. Executive Overview

In addition to a full portfolio of data solutions, Fibertech also offers a best-in-class Dedicated Internet Access service (DIA). Many of our customers purchase Dark Fiber and Point-to-Point circuits from us, and have now found that layering Internet over that same fiber infrastructure is both economical and scalable. Fibertech's Internet service consists of a secure, fiber-based, fully scalable suite of ports ranging from multiple T1s to OC-48, and incremental Ethernet speeds from 3Mbits to 10Gbits.

Benefits of Fibertech Internet:

- **Tier 1 Internet Providers** – Fibertech only connected to Tier 1 Internet backbones, to ensure that we are providing you with the highest quality Internet.
- **Fully-Protected Backbone Using BGP and SONET Rings** – Fibertech provides BGP on our backbone, and uses a SONET infrastructure across all of our peering connections. By doing this, it reduces the chance of downtime in the case where one of our up-stream providers has a problem with their Internet.
- **No Oversubscription on the Metro Backbone** – Fibertech does not oversubscribe our metro backbone, so rest assured that when you order 50 meg of Internet, you will receive your 50 meg of Internet at all times.
- **Scalable & Flexible Loops Topologies** – Fibertech can design and build your connection to fit your unique needs – and we build end-to-end fiber, so your infrastructure is future-proof. Fiber is the most scalable physical medium, and will grow with you as your business grows.
- **Monitored 24x7x365** – Fibertech is watching your service at all times to provide the highest level of availability and performance.
- **Competitive SLAs** – Fibertech stands behind our service with an industry-leading Service Level Agreement (SLA).
- **Cost-Effective** – Fibertech can provide a total solution that is cost-effective compared to others.
- **Additional Services** – Fibertech also provides our customers with DNS/RDNS and 8 IPs for Free.
- **Optional Throughput Graphs** – As an optional service, you can order near real-time graphs of your through-put via Fibertech's On-Line Customer Portal.

Fibertech offers high-quality, high-bandwidth solutions providing you with a new level of control, scalability, and service. Our unparalleled attention to details and dedication to providing outstanding customer service makes it easier than ever to do business with us.

Give us a try, and experience the Fibertech difference!

2. Fibertech Internet Differentiators

2.1 Underlying Tier 1 Internet Providers

Fibertech purchases its underlying Internet bandwidth from multiple Tier 1[1] Internet providers. This ensures that you will have fewer "hops," lower latency, and the most robust network possible.

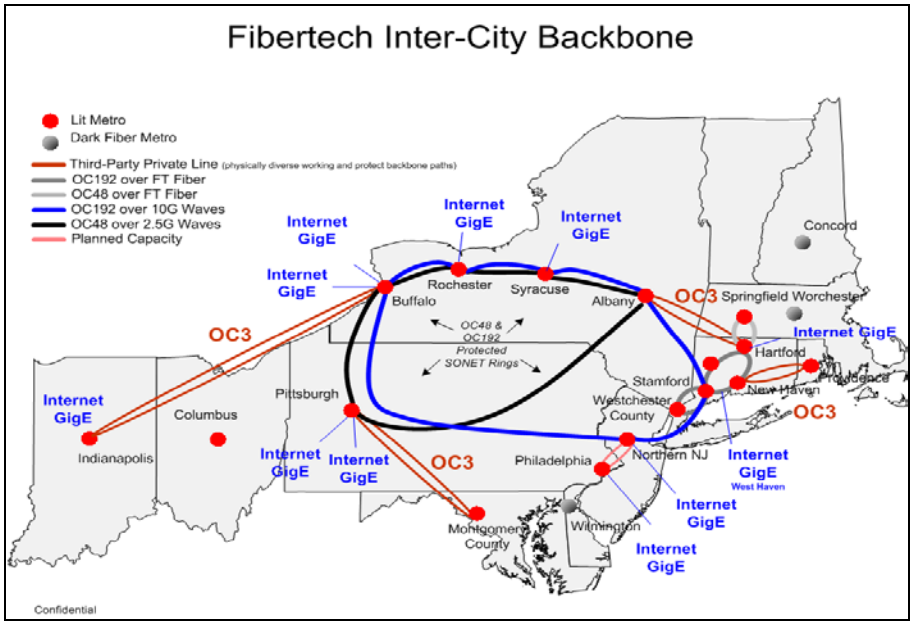
Fibertech has over 9 Gigs of Internet Peering capacity across all of our markets, and we continue to add additional ports on a regular basis. Because of the large amount of Internet that we purchase, we are able to negotiate competitive Internet rates, which we then extend to our end users through our DIA service.

Fibertech does not purchase Internet from low-cost service providers who oversubscribe their ports excessively. For Fibertech's customer base, Internet has become a mission-critical application, and we will not jeopardize performance by purchasing Internet from an unreliable IP backbone.

2.2 Fully-Protected Backbone Using BGP & SONET Rings

Fibertech uses BGP to protect IP traffic on our backbone. In addition, our IP peering hubs are all tied in to our fully-diverse SONET rings. This means that if we lose an Internet connection in a market, the capacity will automatically roll-over to another available peering point, without a loss of service.

*Figure 1: Inter-City Backbone **



[1] Tier 1 Internet providers are defined as follows: AT&T, Global Crossing, Level 3, NTT, Qwest, Sprint, Tata Communications, Verizon Business, SAVVIS, TeliaSonera International Carrier, and XO (a transit-free network).

* Please note that Fibertech continues to augment and enhance our backbone with additional capacity. Therefore, Figure 1 changes often. Please contact your Sales Manager for the most up-to-date version.

2.3 No Oversubscription of the Metro Backbone

Unlike many other Service Providers, Fibertech does not oversubscribe its metro transport capacity. Oversubscription is a practice in the industry where a provider may sell more capacity on a shared route than is actually available – betting that customers will not need the route at the same time. Fibertech does not oversubscribe our transport loop. We guarantee that you will receive your contracted bandwidth at all times.

Not sure if your current Internet provider oversubscribes? Ask them if they provide Quality-of-Service ("QOS") or Class-of-Service ("COS") on their backbone. Class-of-Service is the practice of tagging packets on the backbone with different priority levels. In the event that the backbone experiences congestions, or an outage, the network will discard lower level packets. Since Fibertech does not oversubscribe our backbone, we do not have a need to offer QOS or COS.

In addition, Fibertech provides you with synchronous bandwidth, which means that you will get the same speed in-coming and out-going (receive/transmit). When you order 10 megs of Internet from Fibertech, you are getting the full 10 megs - whether you are pulling a file from the Internet, or uploading data to your website.

2.4 Scalable & Flexible Loop Topologies

One of the most important aspects of any Internet service is the transport loop – and that is where Fibertech excels! Fibertech's core competency is building and maintaining unique fiber infrastructure. This is unlike most others telecom companies, who generally buy and re-sell local loops. At Fibertech, we feel that it is important for us to own and operate the underlying infrastructure in order to deliver the high level of service and support that our customers require. Owning the infrastructure provides two key benefits:

- **Scalability** – Your solution will be delivered over end-to-end fiber. This means that scaling your bandwidth is very easy and very affordable. For example, if you currently use 10 megs of Internet, going to 20 or 30 megs is generally a software change for Fibertech that can be completed quickly for you. Since bandwidth needs continue to grow (and show no signs of slowing down), our customers see the value in using an infrastructure that can grow with them.

- **Flexibility** – Since we build our network new for each order, we can build your solution to fit your needs. For example, if price is a key component in your decision making process, we can build to your location with a single point-to-point. However, if diversity and up-time are essential, then Fibertech can build to your location with two physically diverse paths, and provide you with on-site equipment diversity. Either way, we will take your lead – tell us the way you want it, and we can build it for you!

Our customized selling approach ensures you get the optimal solutions for your business needs.

2.5 24 x 7 x 365 Network Monitoring

Fibertech monitors our network with a 24x7, fully-staffed Network Operations Center (NOC). Our NOC is located at 300 Meridian Centre, Rochester New York. The NOC is staffed at all times by full-time Fibertech Technicians, which are responsible for all activities associated with monitoring, locating, and maintaining Fibertech's network and the respective Points of Presence (POPs). This means that when you call our NOC, you will be speaking with the individuals who have the tools and skills required to assist you – you will not be talking with an answering service.

Fibertech monitors all of our backbone fiber cables, and some lateral cables, optically on a 7 x 24 x 365 basis. An interruption in cable integrity, or an excessive loss level, generates alarms to the Fibertech NOC, the Fibertech Outside Monitoring Agency, the Fibertech On-call Technician and the Fibertech Senior Director of Operations. In addition, Fibertech NOC Technicians continuously monitor weather conditions for all cities where we have active networks.

Fibertech patrols all network backbone and lateral cable routes a minimum of twice each year. Any conditions that are found and determined to require resolution (e.g., pole transfers, broken lashing wires, etc.) are handled immediately, by dispatching either Fibertech or contractor work crews.

Because Fibertech owns and operates all of its network, we are able to provide you with exceptional quality and control. This is reflected in the many awards that we have won from the leading industry market research firm – Atlantic ACM.

2.6 Service Level Agreements (SLAs)

Fibertech provides you with a competitive Service Level Agreement for Internet Services. This means that if we fail to perform, we will provide you with a service level credit. You can rest assured that Fibertech will be pro-actively monitoring your service to ensure that you have the highest network availability and performance.

2.7 Cost-Effective

In addition to providing many value propositions to your business, as outlined in this paper, Fibertech can also deliver Internet at a **competitive price**.

In fact, Fibertech may be able to get you Internet from a Tier 1 provider more cost-effectively than the Tier 1 provider could offer you directly. How is that possible? Most Tier 1 Internet providers use access providers, such as Fibertech, to provide the local loop to deliver Internet Service. Therefore, there are two cost components to delivering Internet: 1) The Core Internet Bandwidth, and 2) the Local Loop.

In the past, the core Internet bandwidth was a significant portion of the cost of Internet. However, over the last few years, Internet bandwidth price erosion has been significant, and has made the Local Loop, in many cases, the driving cost-component of the total cost. In other words, once a Tier 1 provider purchases and marks-up a loop, it is more expensive than when the access provider purchases the Internet and marks it up.

2.8 Additional Services

Fibertech has its own allocation of IP addresses from ARIN (American Registry for Internet Numbers). As part of Fibertech's Internet service, we provide up to 8 IP addresses for our customers with DIA.[2] If you need additional IP addresses, Fibertech can supply them in accordance with ARIN IP allocation policies.

In addition, Fibertech also provides DIA customer with DNS and R-DNS service at no additional cost.

2.9 Optional Network Statistics

Fibertech offers Network Statistics as an optional add-on service for DIA. Network Statistics is a **near real-time[3], web-based** offering that allows you to monitor and manage your bandwidth more effectively. You will be able to see your information in easy-to-view graphs, and display your information across time (hourly, weekly, monthly, and annually). Some of the benefits of Network Statistics include:

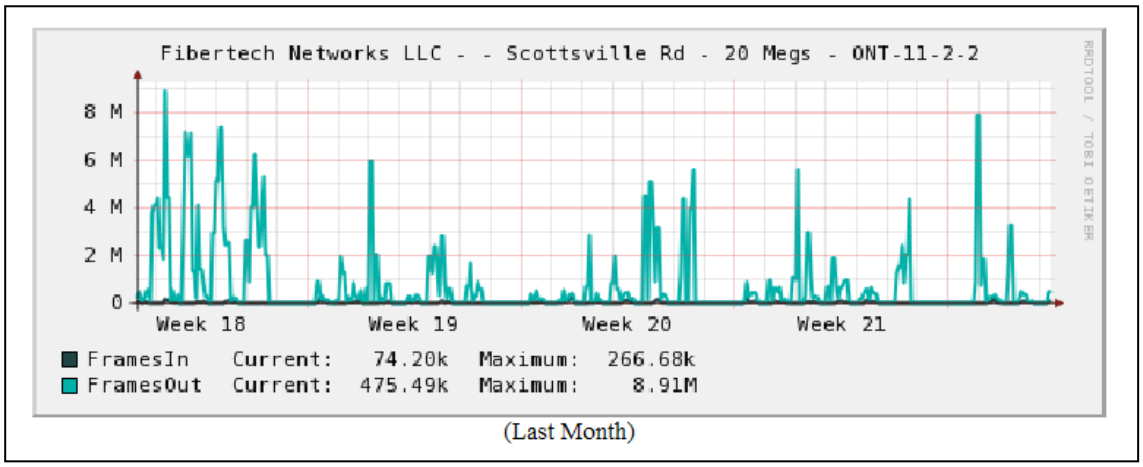
- Long Term Capacity Planning - Analyze you bandwidth across time to plan long-term resource allocation across your entire network.
- Short Term Capacity Management - View real-time graphs to understand how data is traversing your network, and optimize your connections accordingly.
- End-User Experience Management - Make sure your internal customers are satisfied by detecting performance fall-off early and taking preemptive action to resolve service degradations before end-users are impacted.

[2] Additional IP addresses beyond eight available upon request.
[3] Samples taken every 5 minutes

- Non-Intrusive Visibility - Unlike other network reporting tools, Fibertech's Network Statistics does not need an in-line probe. The equipment that we deliver your bandwidth on supports Network Reporting.
- Executive Reporting - Provide easy-to-view graphs of your network to your internal customers.

Fibertech's Network Statistics is one more tool that we can provide you. It empowers you and your organization to more effectively deploy, manage, solve, and optimize your network environment.

Figure 3: Network Statistics Graph Example



3. Applications

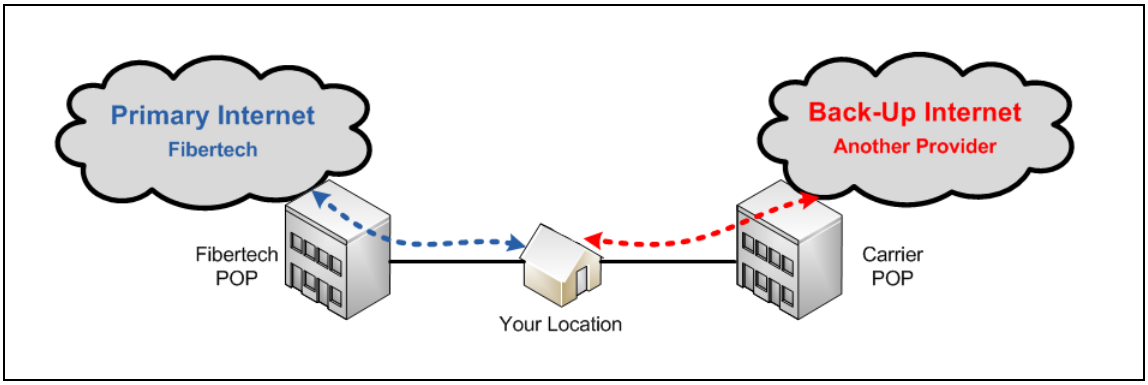
When setting-up your Internet connectivity for your locations, you have a number of different options. The topology of your network will influence the resiliency of your network, as well as its costs. Each company is different, but here are a few different scenarios that have worked for existing Fibertech customers.

3.1 Fibertech As Your Primary Internet Provider

Use Fibertech for your primary Internet connection. Your connection will use an all-fiber network from your location to Fibertech's POP (Point-of-Presence), and will be mapped from our equipment to a Tier 1 Internet backbone (blue line in diagram below). You can then use a separate Service Provider for a diverse back-up connection (red line).

Generally speaking, most customers order the back-up connection at a lower bandwidth – knowing that and outage on the primary route will roll-over to the back-up route and will be "impaired" for a certain amount of time. However, this is a decision that each company makes on their own, as the cost of Internet down-time presents different risks for each company.

Figure 3: Network Topology Example



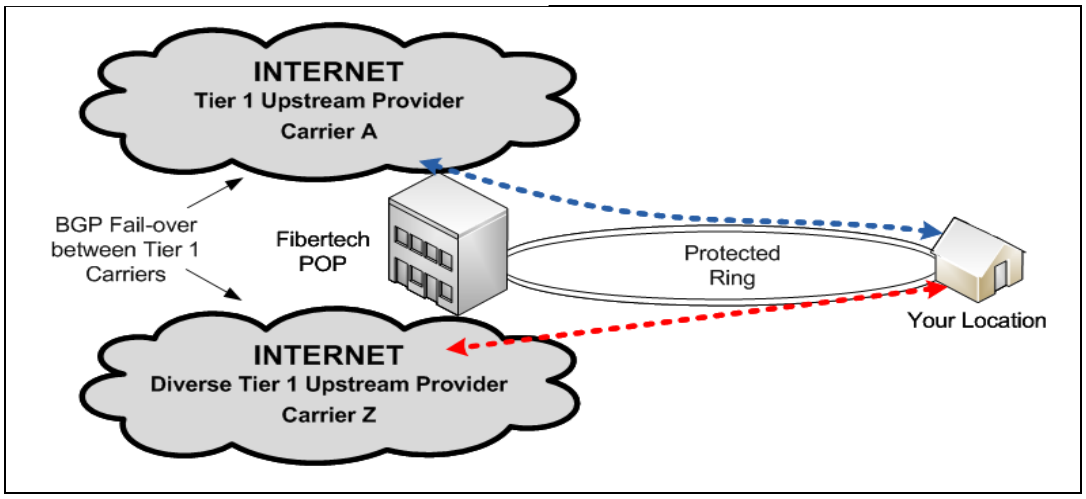
3.2 Fibertech As Your Back-Up Internet Provider

Already have Internet with another provider? Fibertech still may be a viable option for you. Some of our customers choose to order a back-up Internet circuit from Fibertech (the red line in diagram above). Since Fibertech's core competency is building new network, you can tell us the route that your primary Internet provider is using, and we can ensure that your physical path from Fibertech is completely diverse.

3.3 Fibertech As Your Total Internet Solution

Since Fibertech gets its Internet from diverse Tier 1 Internet backbones, you may want to consider purchasing both your primary and diverse paths from us. We can build to your location diversely (with diverse building entries, if needed), and place your circuits on protected SONET rings. We can then map one of your Internet connections to one Internet peering point, and the second path to a diverse Internet peering point. If there is a problem with one connection, you will automatically fail-over to the other path.

Figure 1: Loop Example



APPENDIX A – Order Form

Enterprise Service Contract

This Service Contract is hereby entered into by and between Fiber Technologies Networks, L.L.C. ("Fibertech") and the customer identified below ("Customer") as of the date of execution by Fibertech as indicated below. For and in consideration of the mutual promises contained herein and in the relevant Service Level Agreement ("SLA"), Terms and Conditions of Service ("TCS") and Fibertech's Acceptable Use Policy ("AUP"), all of which are incorporated herein by reference (the Service Contract, SLA, TCS and AUP collectively being the "Contract Documents"), Fibertech agrees to provide and Customer agrees to purchase the services described below in accordance with the provisions in the Contract Documents.

CUSTOMER INFORMATION			BILLING INFORMATION		
Business Name	Contact Name		Billing Contact	Contact e-mail	
Contact e-mail	Phone Number		Street Address	City	
Street Address			State Zip	Contact Phone Number	
			Fed Tax ID:	Ownership: Please Select	
City	State	Zip			

SERVICE SELECTION

Type of Order: Please Select Type of Service: Please Select Qty: _____ Bandwidth: Please Select If other: _____

Addt Services Needed: Please Select Circuit Type: Please Select If Ethernet, are Jumbo frames req'd? Please Select If Ethernet, is Q-in-Q required? Please Select

Unless otherwise noted, Fibertech will provide service via an electrical hand-off.

CIRCUIT DESCRIPTION DETAILS & PRICING		(NON-RECURRING) PAYMENT TERMS			(RECURRING)	
PRODUCT DESCRIPTION AND LOCATIONS Please list exact demarc location per site (i.e. floor, suite number, etc) If CHANGE/DISCONNECT order, please include Install Job ID and Circuit ID	Term (Months)	SERVICE IMPLEMENTATION FEE	% UPFRONT	% UPON COMPLETION	MRC	DESIRED DELIVERY INTERVAL

ADDITIONAL CIRCUIT DESCRIPTIONS AND/OR ILLUSTRATIONS, WHERE NECESSARY, WILL BE ATTACHED HERETO AND ARE INCORPORATED HEREIN.

TRAFFIC PATTERN (FOR INTERNET ORDERS ONLY)	
Do you have your own IP Address Space from ARIN? Do you want Fibertech to advertise these addresses? Please list address space.	
Do you have IP Address space through another ISP that you would like advertised? If so, who? Please list address space. (note: we will need Letters of Authority to announce IP space not directly assigned by ARIN)	
Do you want Fibertech to provide IP Address space? How many IP addresses will you need (Fibertech will issues up to 8 IP addresses at no additional charge)? (Customer needs to complete "IP Addressing Request Form" for more than 8 addresses)	
Are there significant changes in your traffic pattern (daily, seasonal, etc)? Please describe.	
Will Reverse DNS be needed? If so, please list mail server FQDN and IP address to be assigned. [Note - If you will be running a mail server in this space, then you will likely require Reverse DNS]	

APPROVAL	
CUSTOMER	FIBER TECHNOLOGIES NETWORKS, L.L.C.
By:	By: Fibertech Networks, LLC, its sole member
By:	By:
Authorized Customer Signature Date	Authorized Fibertech Signature Date
Print Name & Title	Print Name & Title

APPENDIX B – Internet SLA

Fibertech networks

SERVICE LEVEL AGREEMENT (INTERNET)

This Service Level Agreement ("SLA") sets forth the provisions and commitments relating to service quality between Fiber Technologies Networks, L.L.C. ("Fibertech"), and Customer. This SLA is hereby incorporated into to the Service Contract ("Contract") between Customer and Fibertech.

1. Standards. The quality of service provided hereunder shall be consistent with industry standards, government regulations and sound business practices. Fibertech will use commercially reasonable efforts to maintain its overall network quality.

2. Service Interruptions. Subject to the provisions of Section 6 below, interruptions in service will be credited to Customer as set forth below for the portion of the Service that the interruption affects. In the event that Customer subscribes to data services from Fibertech, Fibertech may offer additional service level standards with respect to such services. In such event, a service Addendum shall be added to the Contract. The provisions of this SLA shall govern the interpretation of any such service Addendum.

3. Service Interruption Credits. An interruption period begins when Customer reports a service, facility, or circuit to be interrupted through the opening of a trouble ticket and makes it available for testing and repair. An interruption period ends when the service, facility, or circuit is operative. If Customer reports a service, facility, or circuit to be inoperative but declines to make it available for testing and repair, it is considered to be impaired, but not interrupted.

(a) For purposes of calculating credit allowances, every month is considered to have 30 days. Credit allowances will be applied on a pro-rata basis against the monthly recurring charges for the affected service and will depend on the length of the interruption. Credits will only be issued for those facilities on the interrupted portion of the circuit.

(b) A credit allowance will be given for interruptions of Two (2) hours or more, upon written request of the customer no later than ten (10) business days after the occurrence of the outage to either Customer's Fibertech Account Manager (if applicable) or to the Fibertech customer support center in Rochester, New York. Credit allowances will be calculated as follows:

(c) If the service interruption continues for less than 24 hours:

(i) 1/30th of the monthly recurring charge for the first interruption in a billing period.

(ii) 2/30ths of the monthly recurring charge if there was a previous interruption of at least 24 hours in the same billing period.

(d) If the service interruption continues for more than 24 hours, 2/30 of the monthly recurring charge for the first 24 hours and 4/30ths of such rate for each additional 24 hours (or fraction thereof); however, if service is interrupted for over 24 hours, more than once in the same billing period, the 4/30ths allowance applies to the first 24 hours for the second and subsequent service interruptions.

(e) Two or more interruptions of thirty minutes or more during any one 24-hour period shall be considered as one interruption.

4. Maximum Credit. In no event may the credits provided for hereunder (either individually or on a cumulative basis) in any billing period exceed the total monthly recurring charges for that period for the service and facilities furnished by Fibertech. Fibertech shall issue only one credit for the same incident in the same month, regardless of how many of the parameters in Section 2 above were affected. The credits set forth in this SLA shall be Fibertech's sole liability and Customer's sole remedy in the event of any interruption and under no circumstances shall an interruption be deemed a breach of the Contract.

5. Definition of "Interruption". For the purpose of applying this provision, the word "interruption" (whether capitalized or not) shall mean a complete loss of service resulting in the inability to complete calls due to equipment malfunction or human errors for a continuous period of more than thirty (30) minutes. "Interruption" does not include and no allowance shall be given for service difficulties such as slow dial tone, circuits busy, latency or

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other network and/or switching capacity shortages. No allowance shall be made for interruptions due to electric power failure where Customer is responsible for providing electric power.

6. Limitations on Credit Allowances. No credit allowance will be made for:

(a) Interruptions arising from the acts or omissions of the Customer or their agents or employees, or arising from non-compliance with the provisions of the Contract and incorporated agreements (including without limitation this SLA, the Terms and Conditions of Service ("TCS"), and Fibertech's Acceptable Use Policy ("AUP") [available at www.fibertech.com/aup]) by, Customer or any authorized user, or any Interruptions due to any party other than Fibertech, or for events happening on any other party's network, including but not limited to data service providers or other carriers connected to, or providing service connected to, the service of Fibertech or to Fibertech's facilities;

(b) Interruptions of service during any period in which Fibertech is not given full and free access to its facilities and equipment for the purpose of investigating and correction interruptions;

(c) Interruptions of service due to the failure or malfunction of non-Fibertech equipment, including service connected to Customer-provided electric power;

(d) Interruptions of service caused by *Force Majeure* events;

(e) Interruptions of service during any scheduled maintenance period or when Customer has released service to Fibertech for maintenance purposes or for implementation of a Customer order for a change in service.

[End of Document]

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ADDENDUM A TO SERVICE LEVEL AGREEMENT
(DATA SERVICES PARAMETERS)

1. Scope. This Addendum to the SLA between Fibertech and Customer provides Customers subscribing to Fibertech Data Services with certain rights and remedies regarding the performance of the Fibertech Data Network ("FDN"). The FDN is defined as the Fibertech owned and operated Data Protocol routing infrastructure consisting of Network to Network interfaces and selected Fibertech points of presence ("POP") and the connections between them in the United States. The Fibertech network does not include (i) customer premise equipment; (ii) any local loop or access facilities connecting Customer's premises to the Fibertech POP; (iii) connections between Fibertech's network and other Data service providers, or (iv) other Data service provider networks. The terms of this Addendum to the SLA will take effect the first full calendar month after Customer's first use of the Fibertech Data Services.

2. SLA Parameters

(a) Network Availability Guarantee and Remedy:

(i) The FDN shall be available to Customer free of Network Outages for 100% of the time. A "Network Outage" is an instance in which Customer is unable to transmit and receive IP packets due to a Fibertech network outage for more than thirty (30) consecutive minutes.

(ii) Customer shall be eligible for a credit for Network Outages occurring during any calendar month that are reported by Customer to Fibertech (per the procedures set forth in the Contract Documents) and confirmed by Fibertech's measurements of the Fibertech network. For calculating credit allowances, every month is considered to have thirty (30) days. A credit allowance is applied on a pro rata basis against the base IP monthly recurring charges ("MRC") for the affected service and is dependent upon the length of the Network Outage measured from the time that Fibertech receives notice from Customer of actual circuit unavailability (established by a Trouble Ticket) until restoration of the affected circuit by Fibertech. Only those facilities on the interrupted portion of the circuit will receive a credit.

(b) Latency Guarantee

(i) The FDN Average Round-Trip Latency shall be one hundred (100) milliseconds or less. "Average Round-Trip Latency" is defined to mean, with respect to a given month, the average time required for round-trip packet transfers between POPs on the Fibertech network during such month, as measured by Fibertech through sampling at various times at the request of the customer.

(ii) If Average Round-Trip Latency on the Fibertech network for a calendar month exceeds one hundred (100) milliseconds, then upon Customer's request (per the procedure set forth in the Contract Documents), Fibertech will issue a credit to Customer equal to one day's worth of the base IP MRC paid by Customer for such month. To qualify for the credit, Customer must report any suspected latency problems to Fibertech within twenty-four hours after becoming aware of the problem through the opening of a trouble ticket.

(c) Packet Delivery Guarantee

(i) The FDN Average Packet Delivery shall be 99.9% or greater. "Average Packet Delivery" is defined to mean, with respect to a given month, the average percentage of IP packets transmitted on the Fibertech network during such month that are successfully delivered, as measured by Fibertech through sampling at various times at the request of the customer.

(ii) If Average Packet Delivery falls below 99.9% during a calendar month, then upon Customer's request (per the procedure set forth in the Contract Documents), Fibertech will issue a credit to Customer equal to one day's worth of the base IP access fee paid by Customer for such month. To qualify for the credit, Customer must report any suspected packet delivery problems to Fibertech within twenty-four hours after becoming aware of the problem through the opening of a trouble ticket.

[End of Document]

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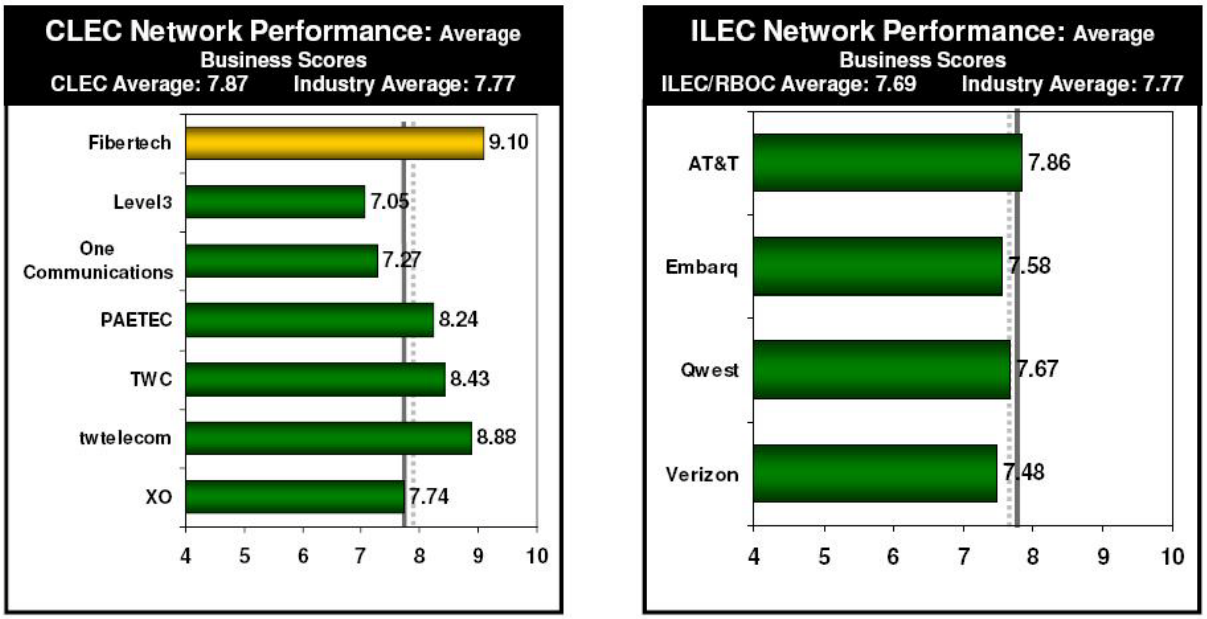
APPENDIX C – Atlantic ACM Award

Atlantic ACM is a third-party research firm that monitors the telecommunications industry (http://www.atlantic-acm.com/). On annual basis, Atlantic ACM surveys customers and asks them how they would rate their Service provider(s) compared to each other. As a Metro Fiber Provider, Fibertech receives industry-leading mark across all survey categories.

Fibertech received high ratings for network performance, scoring above 9 out of 10

- Fibertech outscored the industry and segment mean by 17.1% and 15.6%, respectively
- Scores, overall, for network performance were quite high, with all companies finishing above 7 out of 10



Network: For each carrier with which you work, please rate the network based on your assessment of Performance, and ability to meet SLAs