

LUMEN SERVICE GUIDE

Field Tech Services (“FTS”)

Updated: 02/03/23

The following topics are addressed in this FTS Service Guide:

- Service Overview and Availability
- Pricing
- Requesting Service
- Billing
- Shipping and Receiving

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This FTS Service Guide is applicable only where Customer orders Field Tech Services (“Services” or “FTS”). Customer may request FTS by submitting a Service Request. For additional information on how to submit a Service Request, see page 4. This Service Guide is governed by and is incorporated under the terms of the Master Service Agreement and FTS Service Schedule, or other Lumen approved service agreement (the “Agreement”) and, if applicable, any Annual Commit Addendum, statement of work (“SOW”), SOW Change Request, other Service Request, or documents incorporated by reference into the Agreement.

Service Description

Field Tech Services (“FTS”) is comprised of On-Demand Maintenance and Scheduled Maintenance.

On-Demand Maintenance (as defined in the Service Schedule) activities are typically defined by a network-impacting situation requiring immediate “on-demand” repair or maintenance, and include but are not limited to:

Activity	Description
Troubleshooting/Testing	Assist Customer in determining the source of an outage or impairment
Power Cycle	Power restarts and cycling as per the Service Request submitted by Customer
Cable Swap	Swap and reconnect cables; replace or fabricate and install new cable as required
Visual Verifications	Relay to Customer, such as, LED status or display readout
Reseat / Remove and Replace	Reseat / remove and replace card / module / power supply / drive, etc.
Escorts/Site Access	Escort Customer or Customer’s vendor into their space for equipment installation, repair, maintenance, testing, etc.

Scheduled Maintenance (as defined in the Service Schedule) activities may include but are not limited to:

Activity	Description (requires Customer direction for all, and a MOP is required where noted below)
Inventory or Data Audit	<p>Conduct an equipment inventory or audit on behalf of the Customer, and to their specifications. Note: Requires Customer to complete the Method of Procedure (MOP) (see example MOP in Attachment B).</p>
Shipping/Receiving	<ul style="list-style-type: none"> • Receiving shipments on behalf of the Customer. • Returning equipment to Customer (Customer provides labels and materials). <p>Note: The Customer equipment receipt process must be used for all Customer shipments. For Customers who have also purchased Data Center Facilities Services, please also see the Data Center Facilities User Guide for additional shipping instructions.</p>
Testing	<ul style="list-style-type: none"> • Extended Testing – Bit Error Rate testing (“BER”) of services for durations longer than Lumen established standard. • Out-of-Scope Testing – Perform optical return loss (ORL), chromatic dispersion (CD), polarization mode dispersion (PMD), round trip delay (RTD) / latency / cell transfer delay (CTD). <p>Note: Requires Customer to complete the MOP.</p>
Preventive / Basic Maintenance	<ul style="list-style-type: none"> • Dust, clean or change filters, labeling, etc. <p>Note: Requires Customer to complete the MOP.</p>
Installation	<ul style="list-style-type: none"> • Install Customer-provided network equipment in Customer’s colocation space. • Install basic logical configurations on Customer equipment. • Install intra-cabinet / intra-suite cabling. <p>Note: Requires Customer to complete the MOP.</p>
Backup Functions	<ul style="list-style-type: none"> • Hard Drive Backup – Back up data to Customer-provided medium. • Tape Swap – Swap data backup tapes and store according to Customer direction, as appropriate.
Tertiary DC Cabling and Terminations	<ul style="list-style-type: none"> • In this document, tertiary power is defined as DC power work within a Customer’s colocation space. <p>Note: Requires Customer to complete the MOP.</p>

*All activities may be subject to additional restrictions by activity and/or Site Type or region. Customer will be notified of any applicable restrictions prior to commencement of the applicable activity.

Field Tools.

The tools listed in the table below are the tools typically utilized by Technicians in performance of their duties. They may include but are not limited to the following which may vary by jurisdiction or region:

- Power Meter
- Light Source
- Fiber Cleaning Tool
- *Laptop
- ISP and OSP Hand Tools
- Punch Down Tool
- Power Cable Crimper
- OTDRS
- Label Maker
- Digital Multimeter
- Digital Camera
- VFL
- SONET BER Test Equipment
- SDH BER Test Equipment
- Electrical BER Test Equipment
- Coax Crimper
- 10Base T Crimper
- LAN Cable Analyzer
- Electrical Patch Cable
- Current Clamp

*Laptop – Lumen provided laptops cannot be used to access Customer’s network not provided by Lumen. If non-Lumen network access is required, then Customer must provide the laptop/PC.

Field Technician Training and Certifications

Technicians have a broad understanding of industry and manufacturer installations standards. Any request requiring technical licensing or skills outside of the ones listed below may be subject to incidental costs.

The following is a list of examples of standards the Technicians may be trained for:

- National Electrical Code (NEC)
- National Fire Protection Association (NFPA)
- Electronic Industries Association (EIA)
- American National Standards Institute (ANSI)
- American Society for Testing and Materials (ASTM)
- Underwriters Laboratories, Inc.(UL)
- Telcordia GR-1275 Central Office Installation Standards
- Core Technical competencies of these technicians include

The following is a list of examples of general telecommunication services knowledge Technicians typically have:

- Optical Networking
- Switching
- TCP/IP (routers, higher-layered products)
- Outside Plant (Fiber locating & OTDR testing)
- Documentation
- Engineering Analysis
- Engineering Planning
- Equipment Operations
- Equipment Maintenance
- Implementation
- Technical Support
- Technical Utilization
- Testing (Test & Turn Up)
- Troubleshooting

Geographic Availability

FTS are generally available in the continental United States, Canada and Europe. Pre-approval is required for Outreach requests. To verify support availability for specific locations, please contact your Lumen Account Director or FTS.

Site Types or Regions

For the purposes of providing FTS, Lumen Site Types are defined in the Service Schedule. Customer must verify with Lumen the availability of the Service in Customer’s desired locations.

*Outreach and Premier Elite locations must be pre-approved and may also include hourly charges or additional fees.

Service Levels

Please see the Service Schedule.

Pricing

FTS pricing for Service Requests related to On-Demand Maintenance or Scheduled Maintenance may be billed as follows: (i) Hourly rates as set forth in the table below; (ii) Annual Commit (billed as a one-time or MRC over the committed term) as set forth in the Annual Commit Addendum (if applicable); or (iii) Additional fees for Outreach* sites.

Field Tech Services Standard Pricing is expressed in USD, but will be billable in certain local currency equivalents at the exchange rate in place at the time of invoice:

Site Type	Business Hours		After Hours	
	Scheduled	On-Demand	Scheduled	On-Demand
Tier 1 / Tier 2 or Premier/Premier Select	\$200	\$250	\$275	\$325
Outreach/Premier Elite	\$300	\$350	\$350	\$400

- Lumen may update Field Tech Services Standard Pricing from time to time without notice.
- Support for off-net and third-party locations is provided on an individual case basis. To verify support availability please contact your Lumen Account Director or Lumen Field Tech Services.
- Available in annual volume rates for anytime usage (starting at 300 hours; 50-hour increments). Contact your Lumen Account Director for details. An Annual Commit Addendum (may previously have been referred to as a SOW) is required, and pricing will be detailed within the Addendum.
- Hourly rates apply once the Technician leaves the dispatch center to begin performance of the Service Request and continue until the Technician has returned to the dispatch center. All Services are billed in 15-minute increments at the applicable hourly rate with no minimums for Tier 1, Tier 2. Approved Outreach sites will require 1-hour minimum; inclusive of Technician travel time to and from the approved site as necessary.
- Additional fees of \$185.00 per site per month, or local currency equivalent, may apply to approved Outreach locations when the Customer agrees to an annual commit.
- “Business Hours” mean Monday - Friday 8:00 a.m. – 5:00 p.m. local time where work is performed.
- “After Hours” mean Monday - Friday 5:01 p.m. – 7:59 a.m. local time, Saturdays, Sundays and Lumen holidays, where work is performed.
- Site Type will also be noted on the applicable invoice.

Lumen will invoice Customer for Incidental Costs and Expenses at Lumen’s cost plus an additional fifteen percent (15%). FTS does not procure equipment. Customers must have all materials and parts on site or provide tracking number for a shipment with all materials and parts required to perform the work before an FTS ticket is opened.

Second Site Visit: If Lumen cannot perform the requested FTS request due to either (i) a replacement part being dead on installation / dead on arrival (“DOI/DOA”) or (ii) Lumen responds to the site and has to reschedule due to no fault of Lumen, will treat the subsequent response to the site as a separate Service Request and Customer will be charged the applicable hourly rate as set forth above.

How to Initiate Field Tech Services Ticket Requests

Initiating the Request

To get started, populate the MOP, Service Request form or one of the FTS request templates based on the type of support you need. For examples of the essential information required by FTS for each maintenance category, please reference: Attachment A – ‘Field Tech Services Request’; Attachment B – ‘Method of Procedure (MOP) and Attachment C – FTS Request Templates.

Once the FTS request has been populated, utilize one of the following methods to engage a Field Service Associate (“FSA”) within the FTS Team for ticket creation.

You can reach an FSA by:

1. Customer Portal
2. Phone
3. Email

Ticket Creation

Field Service Associates (“FSA”) are not technicians but are your first point of contact when requesting support. The FSA team coordinates all incoming FTS dispatch requests with the Customer and the Technician and helps schedule tech support. The FSA typically schedules each request based on if you marked “N” in the service affecting field of the template (N being not service affecting and Y being service affecting). Any non-service affecting requests are scheduled at the standard SLA of 3 business days. You may receive a response from the FSA confirming this with the requestor of the ticket before scheduling the support. **Note:** The requestor may take this opportunity to let the FSA know the severity of their request in case “N” was entered in error in the ‘service affecting’ field on the ticket template.

FTS Request

Full instructions must be noted on your FTS requests (in the ‘Description of customer request’ section). This detail will help the FSA convey the customer’s needs and urgency to the Technician and schedule/assign accordingly. Visit the DOs and DON'Ts on the last page of this Service Guide for helpful suggestions on communicating support requests to the FSA.

Contact the FSA Team

Once the FTS request template has been populated, utilize one of the following methods to engage a Field Service Associate (“FSA”) within the FTS Team for ticket creation.

You can reach a FSA by:

1. Customer Portal
2. Phone
3. Email

1. Customer Portal (Control Center)

Submit a Service Request online through the [Portal](#).

Sign in

Click **Support**

Click **Colocation Request**

Click **New Request**

Click on **Field Tech Services Request**

Note: when submitting the Service Request, MOP or any other forms. If submitting via Portal, you will need to attach the templates at the time of your first submission; otherwise, FTS may not get the notification that a form was added to the request.

For additional information on submitting Service Requests via the Portal, go to the following link: [Creating a FTS Service Request | Lumen](#)

An overview on features and functionality of the Portal is located here: [Portal Support: Overview](#)

Register for access to the Portal by visiting <https://www.lumen.com/login/> and Self Registration or contact your Portal Administrator at one of the following phone numbers:

- Small Business customers: 800-350-1044
- Enterprise/Retail customers: 877-453-8353, option 2
- National Wholesale customers: 866-434-2555 (303-797-0208)
- Local Wholesale customers: 866-434-2555

2. Contacting FTS via Phone

- Call 1-877-453-8353, and Select options 1, 2, 3
- Call +44-207-904-4998 Opt 1, 2, 3 for EMEA

Customer must be prepared to select a service type from a menu of audio voice prompts.

3. Contacting FTS via Email

Customers may initiate a FTS Service Request via email by sending in a completed “Field Tech Services Request”, MOP and/or with the information noted in the sample FTS ticket template, samples of which are attached for informational purposes, and Lumen may update these from time to time to FTS at fts@lumen.com.

Customer Invoice

Customer invoices can be accessed via the [Portal](#).

The screenshot displays the LUMEN Control Center interface. At the top, there is a navigation bar with 'LUMEN Control Center', user information (EID), and links for 'EXPLORE LUMEN', 'HELP', and 'CONTACT US'. A left sidebar contains navigation options: Home, Admin, Inventory, Orders, Service Mgmt, Reports, Billing (highlighted), and Shop. The main content area is titled 'INVOICES' and features a 'Download All Accounts' button, search and sort filters, and a table of accounts. Below the table, a detailed view of an invoice is shown, including fields for Account Number, Custom Name, Account Name, Last Invoice, Balance, and Current 3rd Party Charges. A 'One Time Payment' button is prominently displayed. At the bottom, there are links for 'Online Invoice', 'PDF Invoice', 'Billing Request', 'Request History', 'Delivery Options', and 'Autopay'.

The Portal allows access to information such as:

- View, download and analyze your Lumen invoices
- Pay your invoices easily online with the option to set up recurring payments
- Submit and manage billing inquiries, disputes, and requests
- Create standard and custom reports
- “Go green” by turning off your paper invoice

Invoices are available in the Portal approximately 3 to 5 days after the Invoice Date (your Invoice Date is shown on the top right corner of your invoice).

Sample Lumen Invoice: Field Tech Services

The image shows a sample Lumen invoice for Field Tech Services. It includes sections for Billing Account Number, Invoice Number, Invoice Date, CHARGE SUMMARY, AGING, PAYMENT DETAIL, OUTSTANDING BALANCE, and ACCOUNT LEVEL CHARGES. Annotations 1-5 point to specific fields: 1. Product Type: "3Tech", 2. Location Identifier, 3. Lumen dispatch case number, 4. Hours associated with executing the dispatch case, and 5. Service Type: On-Demand or Scheduled.

Invoice Date	Invoice Number	Invoice Amount	Credits/ Adjustments	Payments	Finance Charges	Total Amount Due USD

Billing Period	Charge Description	Units	Amount	Taxes, Fees, Surcharges	Total
Sep 21, 2020	1-STECH PROFESSIONAL SERVICES (3)Tech, Fair 1, Sched Maint Bus Hrs 19627844-100, Hours, (3)Tech, NDC-62940, Shipping, B. Gtr Train 72 Hrs, San J	1	300.00	0.00	300.00
Sep 20, 2020	(3)Tech-Outreach On-Demand 1.25, Hours, NDC-63093, Marionville, O, 72 Hrs or Less, 197	1	437.50	0.00	437.50
Sep 17, 2020	(3)Tech-Outreach On-Demand 1.25, Hours, NDC-63093, 19658811-100, Hours, (3)Tech, 629403, Customer	1	1,950.00	0.00	1,950.00

Above Line Item Description

1. Product Type: "3Tech" is also known as Field Tech Services
2. Location Identifier
3. Lumen dispatch case number that all support-related information is recorded against
4. Hours associated with executing the dispatch case rounded in 15-minute increments
5. Service Type: On-Demand or Scheduled
6. Product Type: "3Tech" is also known as Field Tech Services
7. Location Identifier
8. Lumen dispatch case number that all support-related information is recorded against
9. Hours associated with executing the dispatch case rounded in 15-minute increments
10. Service Type: On-Demand or Scheduled

Attachment A – Sample “Field Tech Services Request Form”

LUMEN®	Field Tech Services Request Form
<p>This Form is to request Lumen Field Tech Services for Lumen Field Techs to complete work on customer's behalf</p> <ol style="list-style-type: none"> 1. Complete the form in full. Form will be rejected if Mandatory Yellow Fields are not completed. 2. Email completed form, along with any other required Method of Procedures (MOP), to FTS@Lumen.com <p>Requests may also be submitted via Lumen Control Center 1-877-453-8353 Opt 1, 2, 3</p>	
<p>Customer Information</p> <p>Billable Customer Name: _____</p> <p>Requestor Name: _____</p> <p>Requestor Phone #: _____</p> <p>Contact Name (person that needs access): _____</p> <p>Contact Phone (Cell Phone #): _____</p> <p>Customer Internal Ticket Number: _____</p> <p>Requested Date/Time (including time zone work to occur in): _____</p>	
<p>Request Details: <i>A MOP is required to request the following types of activities: Audit/Inventory; Maintenance; Equipment Installation; Testing; Cabling</i></p> <p>Request Description: (Please be specific and include any special instructions or Test Equipment required) _____</p> <p>Site Street Address: _____</p> <p>City _____</p> <p>State _____</p> <p>Zip Code _____</p> <p>Floor, Suite, Cabinet/Rack #, Equipment Rack mount unit, shelf, slot, port: _____</p>	
<p>Shipping Details ***if required</p> <p><i>When shipping equipment to a Lumen gateway, send it to:</i></p> <ul style="list-style-type: none"> • Your Company Name • C/O Lumen Communications or contact (if located at Gateway) • Gateway Address <p>Date shipped: _____</p> <p>Addressed shipped to: _____</p> <p>Tracking number(s): _____</p> <p>Number of packages: _____</p>	

Attachment B – Sample “Method of Procedure” (MOP)

The MOP is a step-by-step outline of the Customer's request, which varies depending on the nature of the request. The following describes, by way of example, the type of detail typically required by Lumen to perform maintenance activities on the Customer's behalf. (See also Sample Ticket Template in Attachment C for additional information):

	Required Detail	Sample
Customer Information	MOP Title:	Installation of Optical Networking Equipment
	Billable Customer Name:	ABC Company
	Requestor Name:	Ken Smith
	Requestor Phone #:	720-888-1000
	Contact Name (person that needs access):	Ken Smith
	Contact Phone (Cell Phone #):	720-888-1000
	Customer Internal Ticket Number:	163745-CM
	Related Lumen Ticket Number, if applicable:	12345678
	Conference Bridge Number (if applicable):	866-276-1794 Conf. ID 111111
Customer Requested Directions	Requested Date/Time (including local time zone):	mm/dd/yyyy; 1201am CDT
	Location(s) where work is to be completed (Street Address, City, State or CLLI):	350 E Cermak Rd. Chicago, IL gateway (CHCGILDT)
	Customer requested directions for the Service Request	<ul style="list-style-type: none"> • Specific, step by step procedures to be followed • Expected impacts and duration • Pre-work activity • Maintenance check-in procedures • Maintenance activity/steps • From and to port assignments • Final Testing requirements • Back-out plan(s); If the system cannot be optimized or alarms cannot be cleared, restore the system to the original configuration • Post-maintenance activity • Notification of completion requirements • Test and acceptance requirements • Material(s) required • Power specifications • Equipment type(s), model(s), software version(s) • Configuration specifications

Attachment C – Sample of Ticket Templates

In addition to the details requested on the Service Request or, if applicable in a MOP, please provide the FSA with the following required information depending on the type of support needed:

Site Access Request Ticket

- Street Address where work is to be performed:
- Specific date/time access is requested:
- Name of person access is required for (FIRST & LAST NAME):
- Phone number for person requiring access (preferably cell phone):
 - *****PHOTO ID IS REQUIRED ON-SITE TO VERIFY IDENTITY*****

Maintenance Ticket

- Street Address where work is to be performed:
- Is issue service affecting? (Y/N)
- Date/Time for work:
 - The standard interval for scheduling all non-service affecting Service Requests is 72 hours minimum advanced notice. Short-interval requests require prior authorization by field management unless requested as an Emergency if proven as service affecting. Is it acceptable for this to be scheduled based on these requirements?
 - If not, is there a possible reschedule date if the field cannot comply with your requested date and time?
- Cabinet name/suite number and/or equipment ID where work is to be performed:
- Does Customer have Method Of Procedures (MOP) (attach using steps outlined):
- Will you want Lumen to return any equipment to your company?
 - If so, have you provided shipping materials and a shipping label?
 - (Note: If not, Lumen will not ship eqpt. back to customer)

Testing & Troubleshooting Ticket

- Street Address where work is to be performed:
- Date/Time for work:
- Is issue service affecting? (Y/N)
- Description of Customer request:
- Does Customer have Method Of Procedures (MOP)?:
- Service Identifier:

Shipping/Receiving Ticket

- Street address where package is to be delivered:
- Has this site been verified as manned?
- Shipper (Fed Ex, UPS, Etc.) & tracking/waybill number:
- Date package is expected to arrive:
- Does package weigh more than 40 lbs.? (Y/N)

Installation Ticket

- Street Address where work is to be performed:
- Cabinet Name/Suite Number and/or equipment ID where work is to be performed:
- Is issue service affecting? (Y/N)
- Date/Time for work:
- Description of Customer request:
- Does Customer have Method Of Procedures (MOP)?:
- Service Identifier:

Inventory, Tag & Locate, or Data Audit*

- Street Address where work is to be performed:
- Cabinet Name/Suite Number and/or equipment ID where work is to be performed:
- Service Identifier:
- Description of Customer request:
- Date/Time for work:

*Inventory, Tag & Locate, and Data Audit requests require 3 business days (minimum) to complete.

DOs & DON'Ts (for informational purposes only)

Below are some suggestions on how to communicate your request to the FSA and examples of submitting a good 'Description of Customer Request'.

- **DON'T** assume that the technician will know to complete any support needed that is not listed on the 'Description of Customer Request'.
- **DON'T** assume that every inbound shipment is going to include outbound shipping without including the instructions in the request (e.g., Because a replacement card was shipped that the faulty card will be automatically shipped back. Customer must provide those specific instructions in every request).
- **DON'T** expect the technician to provide the return tracking information without including those details in the request.
- **DON'T** assume that the technician will know to complete any support needed that is not listed on the 'Description of Customer Request'.
- **DO** be as detailed as you can in the 'Description of Customer Request' field. FTS technicians perform work based on customer instructions found in the service request and/or MOP. Anything you need the technician to carry out should be included in the 'Description of Customer Request. This can include return shipping, calling instructions (i.e., instructions to call before the work starts or any other specific steps that need to occur before, during or after work is completed).
- **DO** schedule with FTS if the technician needs to be at the site to retrieve a package at a specific date and time. Should the carrier be delayed, the tech can wait onsite for only a limited time. Shipments due to carrier delay will result in the request needing to be rescheduled. We will disclose only the technician's name on shipping tickets for the purpose of having the carrier verify that they are delivering the package to the correct recipient. We can disclose the technicians name and phone number in instances where the customer is arranging access for our technician. Lumen can receive shipments at Lumen facilities and circumstantially at customer location (i.e., emergency requests).

Examples of DOs & DON'Ts when submitting Description of Customer Requests:

DON'T:

Description of Customer Request: "Replace faulty card"

DO:

Description of Customer Request:

Step 1: Replace XCVR card under tracking # or unique package identifier

Step 2: Go to rack and locate the XCVR card that is going to be replaced

Step 3: Call us at (phone number) before proceeding with the work

Step 4: Remove faulty card and swap with replacement card

Step 5: Wait for customer on the line to verify configuration and connectivity

Step 6: Take faulty card and prepare for outbound shipping using the provided return label that came with the replacement card

Step 7: Provide return tracking information to Customer on the line

Step 8: Stage faulty card for carrier pick up