

Engineering Solutions Method and Procedure

OSP Handbook Project Design and As-Built Procedures

Purpose	The purpose of this document is to define the features and capabilities of the Fiber Inventory Management (FIM) 2.0 system. As well as providing guidance to Engineers, Operations (where applicable), and Vendors on Post Work Orders, Vendor's Low-Level, and As-built Network Design GDB files imported into FIM via the Vendor Portal tool.
Personnel Effected	This method affects all Outside Plant Engineering, Construction and Vendor personnel.
Effective Date	This document is effective upon receipt.
Superseded Documents	Outside Plant Handbook MCI 046 302 3802 – Sec 20, Sec 21
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**Regulatory
Compliance**

Not Applicable

**Related
Documents**

[OSP Handbook General Guidelines](#)
[OSP Handbook Aerial Plant](#)
[OSP Handbook Buried and Underground \(UG\) Plant](#)
[OSP Handbook Right-Of-Way/ Permitting](#)
[OSP Handbook Splicing Preparations](#)
[OSP Handbook Cable/Equipment/Material Specifications](#)
[OSP Handbook Safety Regulations](#)
[OSP Handbook Subaqueous Plant / Bridge and Fixed Structure Attachments](#)
[OSP Handbook Invoicing](#)

**Related
Training**

Not Applicable

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1.0 Verizon Employee Compliance

1.1 Verizon Code of Conduct and Company Policy Compliance

All Verizon employees are required to understand and adhere to the Verizon Code of Conduct and all Company policies.

The Code of Conduct and Company policies are in place to govern the conduct of employees and the conduct between employees, customers, competitors and the numerous business providers, including suppliers, vendors, contractors and agents.

Employees may never violate the Verizon Code of Conduct or any Company policy.

1.2 Customer Proprietary Network Information (CPNI) Compliance Policy

The CPNI policy describes and governs the permissible uses and disclosures of Customer Proprietary Network Information (CPNI).

The policy is applicable to customers of all Verizon Wireline organizations, consumer, small business, medium business, large business, government and online accounts. The policy governs activities where CPNI data is used internally, provided to a Customer, shared among affiliates or disclosed to a third party.

It is each employee's responsibility to understand and comply with the CPNI policy along with the Verizon Code of Conduct and all other Company policies.

2.0 Fiber Inventory Management System (FIM)

The purpose of this document is to define the features in the Fiber Inventory Management (FIM) system that the Verizon Planners, Engineers, Vendors, and Project Managers will use to approve, validate, and consume project designs and As-Built.

There are 3 basic versions of the FIM tool:

1. L-FIM which is utilized by the Wireline (or In Franchise) areas
2. G-FIM which is utilized by Business As Usual (BAU) Out Of Franchise (OOF)
3. GDB 2.0 that is utilized by One Fiber (1F) OOF.

If you are unsure of the design tool for your particular market reach out to the responsible Verizon Manager. There are a number of written and video training links available in VzKnowledge by searching keyword "FIM"

The link below provides guidance to the Vendor community performing 1F design work for Verizon.

Vendor Portal M&P URL link: Document Link in VzKnowledge [One Fiber Vendor Portal](#)

3.0 Requesting FIM (Fiber Inventory Management) Access (VZ Only)

Fiber Inventory Management (FIM) is a web portal and engineering tool that will bring together facility and usage views, help identify available fiber facilities, and provide engineering tools that support OSP planners, designers, Engineers, vendors, and coordinators.

FIM tools include geo-spatial views of existing facilities, facility availability checks, diversity checks, helpful analytic tools, and several design options for both In-Franchise and Out-of-Franchise.

A. Users may go to the Login page for FIM where there is a direct link to AORS.



B. Users who attempt to log in to FIM, but have not completed an AORS request for access, will receive the below message when attempting to log in. A hyperlink to AORS is provided to route users to the AORS application.



3.1 AORs Request

Users may be routed to AORS via the FIM application or may wish to access AORS directly.

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1) To gain access to FIM, users can access AORS here:
<https://isapps.verizon.com/cvce/Webpages/index.cfm>

2) Select Option for AORS

3) Choose either individual access request for requesting access for one individual, or batch access request for requests for multiple individuals.



4) Enter the VZID or EID in the appropriate fields and choose Continue.

Please enter Login ID/VZID or EID of the person you are requesting access for.

Login ID/VZID:

EID:

5) Confirm the user ID information entered and choose continue again.

6) Select the FIMS checkbox and continue.

<input type="checkbox"/> FACT	<input type="checkbox"/> Fairpoint WISOR VFO
<input checked="" type="checkbox"/> FIMS - Fiber Inventory Management System	<input type="checkbox"/> First Communications
<input type="checkbox"/> FSC VP Admintool	<input type="checkbox"/> GARM Approval Level Over

7) Choose Add, if this is a new request. Change if this is a request for additional access levels, and Delete if this is to remove access.

FIMS - Fiber Inventory Management System	
<input checked="" type="radio"/> ADD <input type="radio"/> CHANGE <input type="radio"/> DELETE	
<p>To RETAIN any existing access, you must either choose all the access needed under `Access Needed` or indicate in the comments section that Current or Existing Access must be retained.</p>	
<p>Asterik (*) indicates required fields</p>	
Position Title*	<input type="text"/>
Street Address*	<input type="text"/>
City*	<input type="text"/>
State*	<input type="text"/>
Mail Code	<input type="text"/>

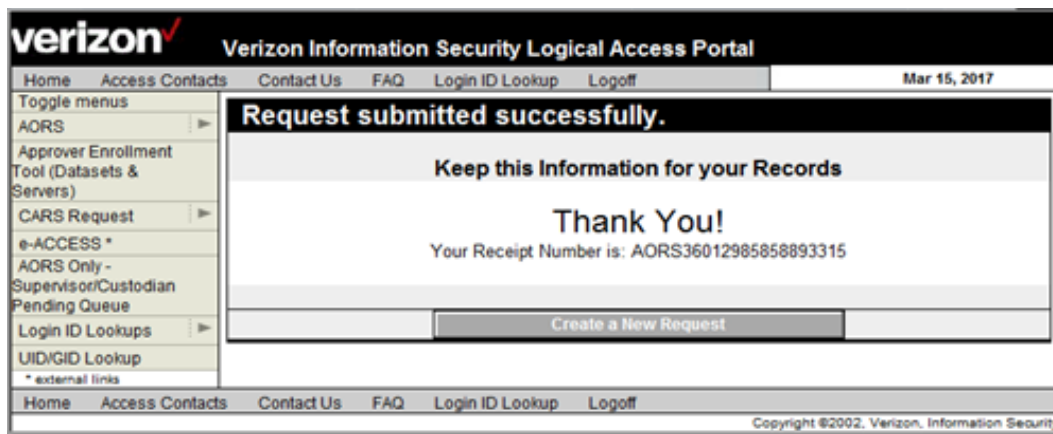
8) Fill out all fields required. Roles to be requested for FIM are noted in the below chart.

Group	AORS Role	Role	Description	Layers
OOF	G-FIM VZB View	GBV	GFIM-VZB Read only	'VZB', 'IMPORTED', 'Boundaries', 'LANDBASE', 'XO'
OOF	G-FIM VZB Engineer	GBE	GFIM-VZB, Design	VZB', 'IMPORTED', 'Boundaries', 'LANDBASE', 'XO'
OOF	G-FIM VZB Admin	GBM	GFIM-VZB, Design, Approval	Not Used now as GBE role has all VZB Access
IF	G-FIM VZT View	GTV	GFIM-VZT Read only	VZT
IF	G-FIM VZT Engineer	GTE	GFIM-VZT, Design	VZT', 'VZT Design', 'LANDBASE', 'Boundaries', 'Boston Build'

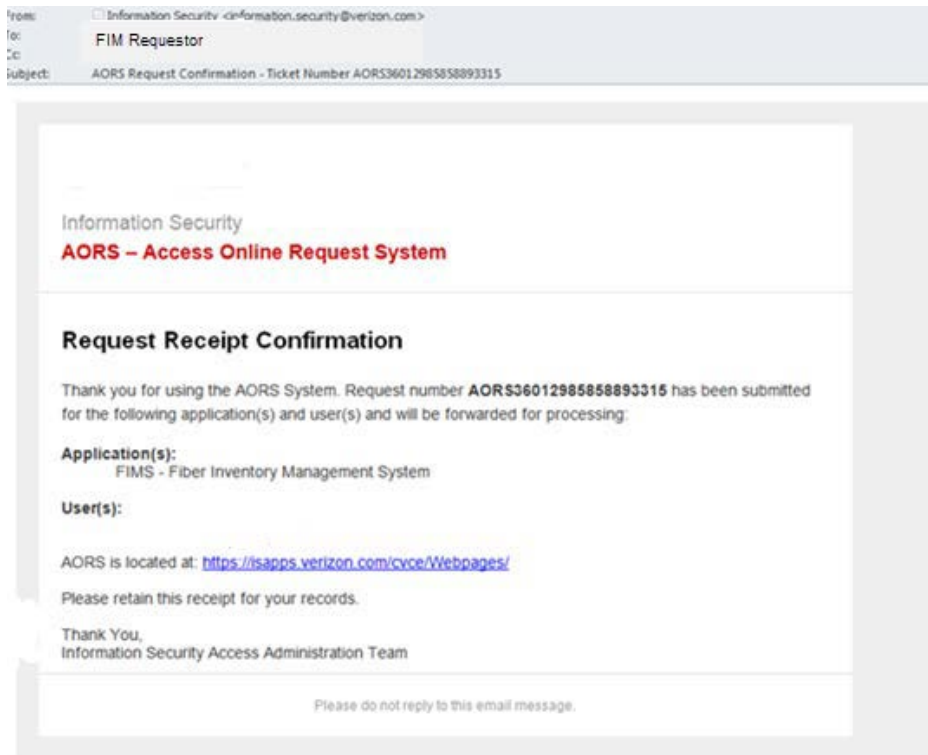
IF	G-FIM VZT Admin	GTM	GFIM-VZT, Design	Not Used
Wireless	G-FIM VZW View	GWV	GFIM-VZW Read only	Wireless
Wireless	G-FIM VZW Engineer	GWE	GFIM-VZW, Design	Not Used
Wireless	G-FIM VZW Admin	GWM	GFIM-VZW, Design, Approval	Not Used
Manager	Manager	GVM	GFIM Application Admin	All Layers
Confidential	Confidential	GVC	GFIM Confidential	Not Used

9) Submit your request and it will be sent to the manager for approval before being sent to the FIM team.

10) Upon successful AORS submission, Users will receive a confirmation pop-up message




11) Users will also receive an email notification that their AORS request was received and an additional email when the AORS Request Review has been completed.



12) When a User has been provisioned for FIM, they will receive a confirming email with a hyperlink to the FIM application

FIMS Account created on <https://fiberuat.ebiz.verizon.com>

 nepcs-icgswebnotifications@verizon.com

Sent: Fri 3/17/2017 12:13 PM

To:  K, Mahesh K

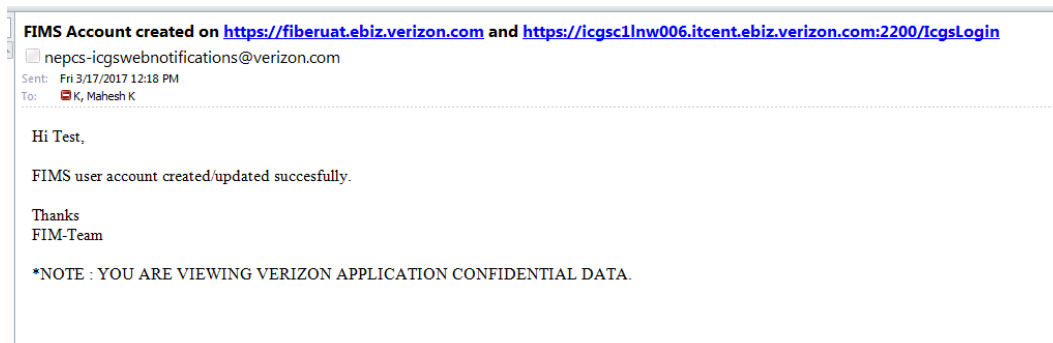
Hi Test,

FIMS user account created/updated successfully.

Thanks
FIM-Team

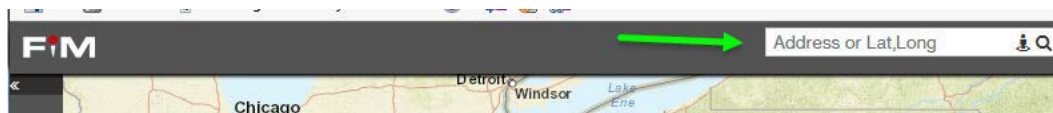
***NOTE : YOU ARE VIEWING VERIZON APPLICATION CONFIDENTIAL DATA.**

13) Existing LFIM (ICGS/IDDS) Users will receive an email advising their LFIM account has been updated for GFIM access



4.0 Search Navigation Tool

Common search functionality is located in the upper right corner of the FIM application. As users start to enter information, FIM will make auto completion suggestions, once your location appears you can select it from the menu options or just continue entering the entire location, LAT/Long Coordinates or Street address manually.



Users can perform their search requests by entering:

- 1) City/State
- 2) Street Address
- 3) Lat / Long Coordinates



Users will also have access to the Street View option as well as the Session Timer

For more information, refer to *FIM – Fiber Inventory Management 2.0 Menus and Navigation for In-Franchise* at:

https://knowledge.verizon.com/vzknowledge/documentUrl.portal?dDoctype=VZK_DOCUMENT&docName=VZK_1928182&xDocFileType=Document

https://knowledge.verizon.com/vzknowledge/documentUrl.portal?dDoctype=VZK_DOCUMENT&docName=VZK_348548&xDocFileType=Document

5.0 As-Built Procedures

5.1 General

The purpose of this section is to describe the Verizon standards for preparing “as-built” construction plans and drawings. The system is designed to provide a method of ensuring accurate and standard drawings. These drawings are used to track construction costs, prepare construction status reports, and provide accurate descriptions of what plant actually is placed in the field and where this plant can be found.

5.2 Construction As-Built Drawings & Timing Requirements

Timeframes for submission of design projects and requires documentation are stipulated in each vendor contract or governed by local agreements.

5.3 Definitions

As-Built (Plan): A final construction plan showing the engineered cable route and plant, as modified and annotated during construction.

Schematic: A generalized drawing showing, but not limited to, mileposts, cable reel assignments, cable, handholes, conduit, and repeaters.

For additional information concerning As-Built procedures and validation, refer to Fiber Inventory Management (FIM) 2.0, Verizon Business Vendor GDB HLD/LLD/As-Built Network Design Validation link.

http://knowledge.verizon.com/vzknowledge/documentUrl.portal?docName=VZK_2277346

5.4 Redlines / Three Way Match (TWM)

Electronic redlines are to be provided to Verizon unless otherwise permitted.

Verizon Technicians utilize the Technician Tablet (Tech Tablet) to complete all as-built functions. Please see link below for Tech Tablet instructions.

For more information, refer to *Three Way Automation* at:

https://knowledge.verizon.com/vzknowledge/documentUrl.portal?doctype=VZK_DOCUMENT&docName=VZK_985048&xDocFileType=Document

5.5 Cable Sequential Information Requirements

Fiber and copper cable are considered major material and are required to be reported. There is an Engineered (designed) footage and an As-Built (actual placed) footage. Both fiber and copper cables have

sequential numbers inscribed into the cable sheath. These sequential numbers are a running total of the length on the cable end to end.

When reporting cable the sequential numbers corresponding to the total length placed must be reported to the appropriate reel.

5.6 Facility Stationing Requirements

Stations will be shown for all outside plant facilities. Stations are required at, but not limited to:

- All repeater, junction, terminal.
- All handholes, pull boxes, and manholes.
- All milepost markers.
- The beginning and end of all conduit (including split duct).
- The beginning and end of all road and track bores.
- The centerline of all road and track bores.
- The beginning and end point of all bridges and tunnels.
- The center of all creeks, streams, rivers, and roads.
- All riser poles.
- All changes in running line 3' or greater.
- All buried cable markers.

5.8 Building Verification Requirements

Building and riser detail diagrams for cable placement at the beginning and end of the system will be as-built.

5.9 Handhole/Manhole Placement Verification Requirements

- Cable rack details if Verizon cable is placed in a foreign handhole or manhole:
- Verify the dimensions, depth, and amount of cover (if buried).
- Indicate the location by measuring the distance from the handhole to permanent structures such as the main track, roadways, bridges, and milepost markers.
- Verify the placement of Electronic Marker System (EMS) markers, if placed.
- Prepare as-built documents to include the following information:
 - Numbers and dimensions.
 - Duct type, structure, and size.
 - Existing and proposed cables.
 - Handhole/manhole butterfly details as required.
 - Splice case locations.
 - Sequential or footage markings.

7.0 Damaged Cable Sheath

If the cable sheath is damaged, the Verizon Supervisor will be notified immediately and the cable will be inspected.

Warning: *DO NOT CUT THE CABLE! The Verizon Supervisor is the only person who may authorize cutting a cable.*

NOTE: For additional information refer to *FIM-OOF Fiber Security in section 5.0*, at:

https://knowledge.verizon.com/vzknowledge/documentUrl.portal?dDoctype=VZK_DOCUMENT&docName=VZK_2038063&xDocFileType=Document

8.0 Acronyms

A list of acronyms and their associated definitions can be found on the VzKnowledge website located here:
<https://knowledge.verizon.com/vzknowledge/glossary.portal>