Adtran

Data Sheet

Mosaic Network Controller

Mosaic Fiber Director

Real-time GIS-based solution for fiber network surveillance

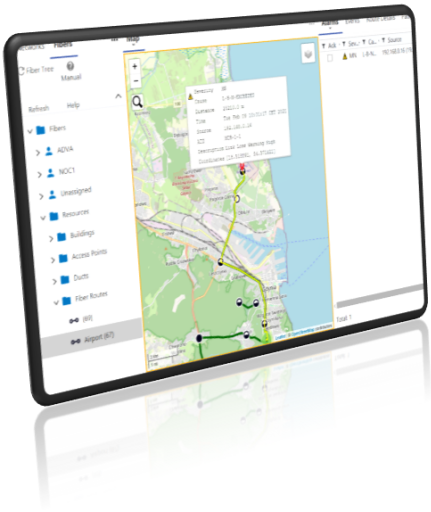
Benefits

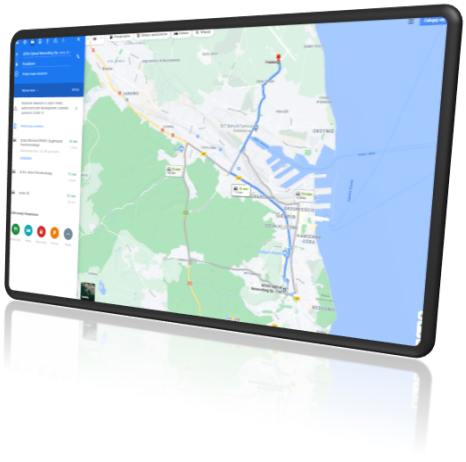
- **Fiber plant visualization**
  Fiber plant component locations and fiber events displayed on street maps enable fast fault isolation. Flexible event notification and Google Maps integration support rapid deployment of repair teams.
- **Industry-leading PON monitoring**
  Advanced OTDR event correlation algorithms enable fault isolation "beyond the splitter" in the distribution network to the individual subscriber level
- **Reliable data source integration**
  Intelligent GIS fiber route data import, correlation tools, and over-length documentation features support premium data accuracy
- **Mosaic Network Controller suite**
  Reliable, secure and user-friendly management and surveillance of Adtran networks with full FCAPS support
- **Wholesale service management**
  Efficiently monitor routes and resources offered to individual customer services
- **Geographic diversity route planning**
  Plan diverse service routes to avoid bottlenecks or single points of failure
- **Customer impact analysis**
  Route assignment to customers enables proactive notification of faults and restoration activities

Overview

Optical fiber is at the core of modern communication systems. From PON-based access infrastructures all the way to metro and long-haul core networks, the fiber plant is the underlying element supporting fast and reliable communications. All network operators must therefore react quickly and efficiently to any fiber events that jeopardize service continuity. Adtran's Mosiac Fiber Director provides geographically accurate, real-time fiber event location data to network operations teams to enable rapid troubleshooting and repair.

The Mosaic Fiber Director is an optional component of the Mosaic Network Controller suite. The system utilizes data from our ALM OTDR-based fiber monitoring platform to locate fiber-related issues. Using geographic information system (GIS) coordinates, it monitors the fiber infrastructure and precisely pinpoints any faults, whether they occur in traditional point-to-point topologies or in the PON access network infrastructure. Equipped with multiple notification options, the system can quickly alert the responsible parties to any fiber alarms/conditions via email/SMS or third-party alarm management systems. Mosaic Fiber Director also aids in proper documentation of the outside fiber plant including OTDR-to-GIS correlation tools for best-in-class accuracy. There is no better way to monitor and manage outside fiber plant.





MOSAIC FIBER DIRECTOR

High-level technical specifications

Visualization

- View fiber plant components and fiber routes on geographical maps
- Support for public (Google Maps, OpenStreetMaps, etc.) or private tile servers
- View fiber OTDR traces and events correlated to components
- Wide variety of reports for performance and fault analysis
- Layer filtering options
- Desktop and mobile phone workflow views

Data integration and accuracy

- Industry-standard WFS API for third-party GIS data integration
- Import functions for most popular geographic files (SHP, KMZ/KML, WGS84)
- Corrections to account for slack cables, helix factor and vertical sag enables highly accurate GIS correlation
- Scaling to large numbers of outside plant components

Troubleshooting and repair

- Customer route association provides immediate impact analysis
- Fiber events correlated to individual PON subscribers in access networks
- Accurate geographic fault location accelerates isolation, repair and restore activities
- Custom cable layout configuration for easy fiber identification
- Mobile phone views for field technician workflows

Network documentation

- Track outside fiber plant components with geographic coordinates
- Automatic population of the address database
- Database search for quick component identification

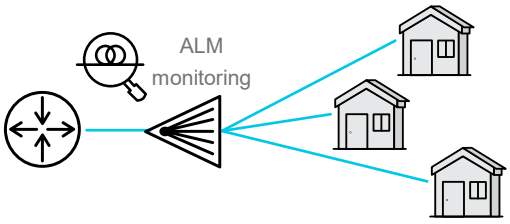
Event notifications

- Proven MNC alarm engine with alarm filtering and flood suppression
- SMTP client capability for email and SMS notifications
- Integration with Google Maps provides accurate dispatching of troubleshooting and repair teams

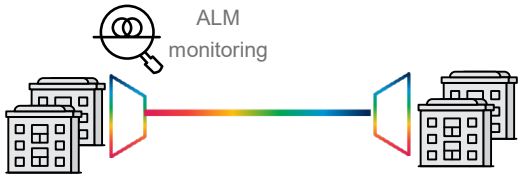
Applications in your network

- Advanced fiber plant monitoring, assurance, and visualization
- Centralized visibility of entire fiber plant infrastructure
- Real-time, real-world situational awareness
- Proactive notification of fiber faults with precise geographical fault location
- PON and point-to-point topologies

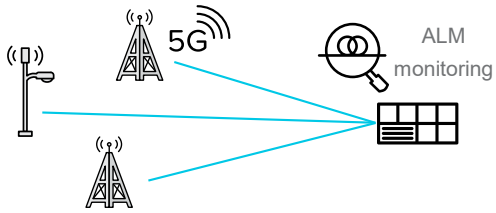
PON networks



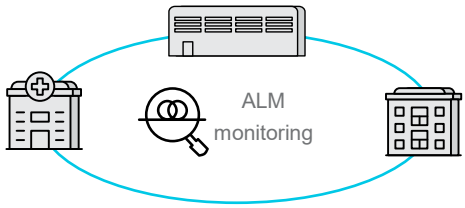
DWDM systems



Mobile fronthaul and backhaul



Dark fiber



MOSAIC FIBER DIRECTOR

Product specifications

Server requirements – GIS Server

Parameter	Specification	Units
RAM	16	GB
CPU	2.2	GHz
Hard disk space	110	GB
System architecture	64-bit	
Supported OS (*)	CentOS/RHEL	

(*) Fiber Director server runs as a Docker container

Client requirements – Fiber editor

Parameter	Specification	Units
RAM	8	GB
CPU	2.5	GHz
Hard disk space	10	GB
System architecture	64-bit	
Supported OS	Windows 10	

Communication protocols

Interface	Protocols
ALM communication	SNMP, REST, FTP
MNC Communication	HTTP, HTTPS, WFS API
Third-party systems	WFS API

Geographic file support

File format	Support
Shape (SHP)	Supported natively
KMZ/KML	Supported natively
Other WGS-84 compliant formats (**)	Supported after conversion

(**) Any standard file format can be easily converted to SHP files for import

Ordering information

Software licenses:

Product code	Product name	Product description
1091008940	ENC/EFD	Mosaic Fiber Director license: Serves for geographical management of fibers in connection with ALM devices NOTE: A current MNC license is required to operate the software
1091008941	ENC/EFD/Editor	Mosaic Fiber Editor Application license for one client

ALM connection licenses:

Product code	Product name	Product description
1091009401	ENC/EFD/CL/M	Mosaic Fiber Director connection license for one ALM16 unit
1091009402	ENC/EFD/CL/L	Mosaic Fiber Director connection license for one ALM64 unit

Upgrade licenses available as well, contact Adtran for more information

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