



FSP 150

Overview and Highlights

February 2016

FSP 150 Overview



Main Applications

- Service demarcation in traditional and virtualized networks
- Hosting of virtual network functions (VNFs)
- Business Ethernet service delivery
- Mobile backhaul solutions



Key Features

- Performance assured CE 2.0 and Layer 3 services
- Integrated server and hardware acceleration
- Precise timing distribution and assurance
- Secure and encrypted data transmission

CE 2.0
MEF
CERTIFIED



FSP 150

Assured, secure and programmable Carrier Ethernet 2.0 access

FSP 150 Solutions Overview



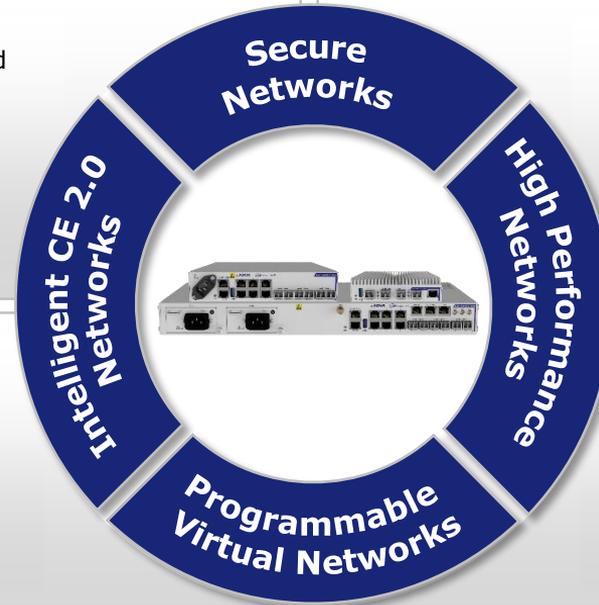
Demarcation and Aggregation

- Business Ethernet service delivery and assurance
- L2 and L3 VPN connectivity
- Multi-service Ethernet access



Encryption as a Service

- Secure Ethernet connectivity for business, cloud and enterprise data services
- ConnectGuard™ in-flight encryption



- Demarcation for NFV networks
- Hosting of NFVs at the edge
- Unique NFV assurance functions



- Mobile backhaul
- High-frequency trading
- Assured frequency and phase synchronization delivery



NFV/SDN Networking

Timing as a Service

Why FSP 150?



Carrier Ethernet 2.0



Carrier Ethernet 2.0 certified

- Differentiated and MEF-certifiable Ethernet services



Comprehensive CFM and OAM

- Increased service availability and customer satisfaction



Industry-leading customer portal

- Customer self-service for reduced trouble tickets and increased revenue

Intelligent services exceeding your customers' demand

Ubiquitous Ethernet



CE 2.0 service delivery in heterogeneous access environments

- Comprehensive Ethernet solutions over fiber, copper and TDM



Consistent implementation and operation

- Multiple variants available to fit all customer demands



Highest performance and lowest maintenance

- Performance-assured with industry-standard OAM protocols

Increase market opportunities by leveraging any medium

Secure Services



Integrated Layer 2 encryption

- Combining service intelligence with ultimate data protection



Simple and separated security domain operation

- Designed to support large-scale deployments



Professional implementation

- Manipulation-proof devices with central security management

Enabling secure delivery of cloud and hosted data services

Enabling NFV



Demarcation technology with optional NFV server capacity

- Enables hosting of virtual network functions at locations where they fit best



Open interfaces for seamless network integration

- Breaking up single vendor silos by standard programmable interfaces



Hardware support for virtualized functions

- Increasing value and performance of your virtualized environment

Seamless migration to virtualized business service deployment

Timing Excellence



Best-in-class synchronization

- Enabling efficient spectrum control and interference coordination in 4G RANs



SyncE and 1588v2 Precision Time Protocol

- Seamless migration from LTE to LTE-Advanced



Timing SLA verification and assurance

- New revenue opportunities from assured sync delivery

Mobile backhaul service evolution without constraints

Simple Operation



Service-based network management

- Automated management across the entire network



Service-level view and error tracking

- Quick fault localization and resolution



Flexible north-bound interface

- Simple and seamless integration into any OSS

Manage services – not network elements!

Future Proof



Designed for performance and scalability

- Supports the evolution of services in your network



Most comprehensive demarcation feature set

- Assuring network performance for any business service



Easy integration by open interfaces

- Integrated into many OSS platforms and open to NFV management systems

Supporting tomorrow's network requirements today

What's Hot?



Efficient Ethernet Demarcation



Universal

- Mobile backhaul and business services
- Comprehensive Syncjack™ sync suite

Efficient

- Ideal for large-scale deployment



FSP 150CC-GE110 and GE-206 series

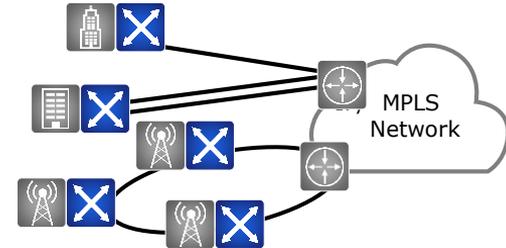
Versatile

- Ultra-compact and extended temperature range

Intelligent

- Assured Carrier Ethernet 2.0 and sync service delivery

Fiber-based Ethernet Service Delivery



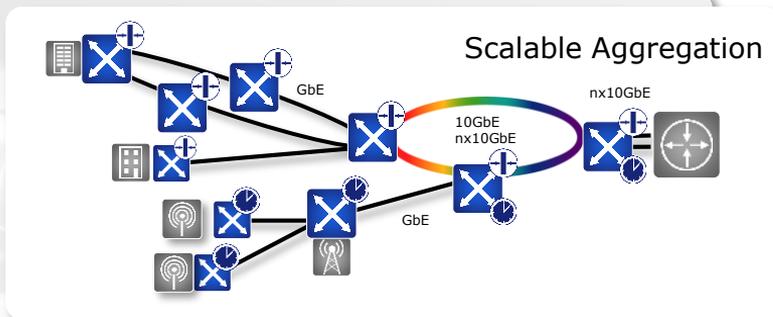
Intelligent service demarcation at the edge of your network

Scalable Ethernet Service Aggregation



Application

- All topologies
- Multi-service aggregation
- Multi-vendor interoperability



Scalability and Flexibility

- Ethernet over fiber, copper and TDM networks
- OTN interface for FSP 3000 WDM integration
- Various sizes for any capacity need

Scalable Ethernet aggregation improves network efficiencies

ConnectGuard™ Data Encryption



Powerful

- Extended MACsec implementation for end-to-end encryption

Scalable

- 1G and 10G network interfaces

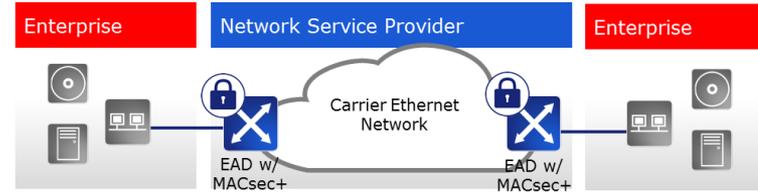
Secure

- Configurable for multiple private line and virtual private line services

Efficient

- Cost effective and easy to operate

Secure Ethernet Services



FSP 150CC-XG210
FSP 150GE-110 series

Secure connectivity for cloud and enterprise data services

Network Functions Virtualization (NFV)



Universal

- Demarcation technology with optional integrated NFV server capacity

Performance

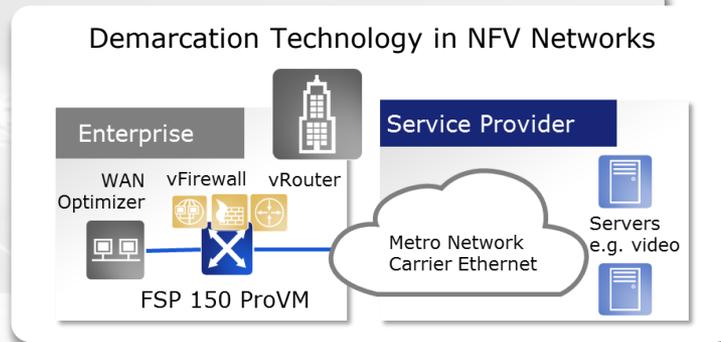
- Pure server solution and hybrid, hardware-accelerated edge servers

Open

- Open and programmable interfaces. Pre-integrated into OpenStack

Assured

- Unique technologies for monitoring server performance and VNF health check



Seamless introduction of NFV-based business services such as vCPE

Timing and Synchronization



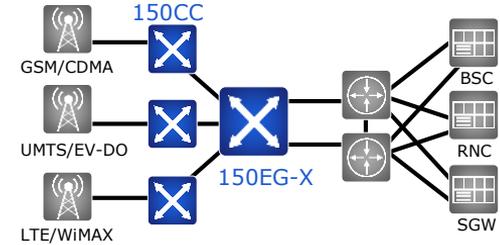
Universal

- SyncE and 1588v2 PTP

Complete

- Demarcation, aggregation and stand-alone solutions

Universal Mobile Backhaul



Flexible

- Slave, transparent, boundary and grandmaster clock
- Timing handoff via Ethernet, BITS, ToD and PPS

Accurate

- Syncjack™ timing verification and assurance



FSP 150CC and EG-X

Seamless migration from LTE to LTE-Advanced

Assured Timing Delivery



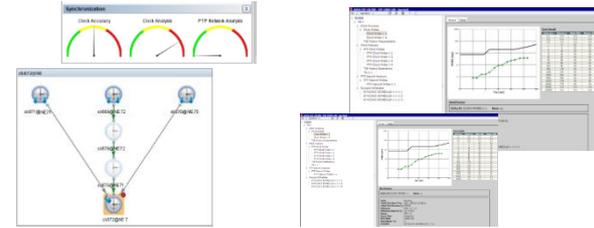
Complete

- Slave, transparent, boundary and grandmaster clock

Universal

- Clock probe, PTP clock probe and PTP network probe

Syncjack™ Assurance



FSP 150CC-GE206
FSP 150-GE110



Flexible

- Full and assisted partial timing support (G.8275.1/.2)

Accurate

- Syncjack™ timing verification and assurance

Enables delivery of SLA-based synchronization services

Layer 3 Service Awareness



Assured

- End-to-end SLAs for carrier-class IP services

Standards-based

- TWAMP sender and reflector



FSP 150CC and EG-X

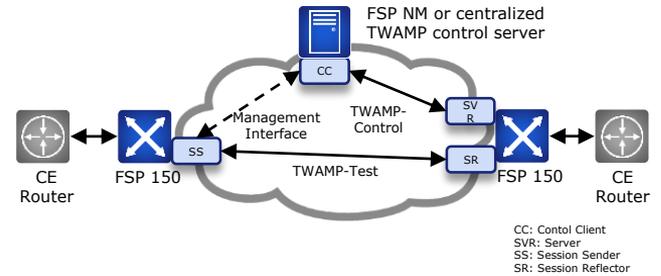
Fast

- Low-latency and wire-speed forwarding performance

Secure

- Virtual routing function (VRF) for separated routing domains

End-to-End Layer 3 Performance Monitoring



Designed for multi-layer service demarcation at the network edge

Industry-Leading Customer Portal



Powerful

- Provides service providers with unprecedented Carrier Ethernet 2.0-based SLA monitoring and performance reporting

Efficient

- Access data via standard web browsers with APIs for easy integration into other systems

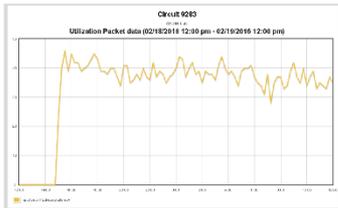


Versatile

- Customized customer views and private branding options

Intelligent

- PM reports based on user-selected KPIs and timeframes



Performance Graphs

Reduce operating costs and enhance quality of experience for your customers



Thank You

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