

As precise timing becomes more important in many networks, centralized visibility and control of this mission-critical timing environment becomes essential. Our FSP Sync Manager, in combination with our advanced Syncjack™ technology, constitutes a powerful management platform to assure perfect synchronization everywhere in the network.

Our FSP Sync Manager is an advanced management platform for distributing and assuring timing for frequency, phase and time synchronization. Implemented in client-server architecture, the FSP Sync Manager provides the flexibility, availability, scalability and performance required to meet growing demand in network and application synchronization. All functionalities are fully supported by a user-friendly graphical interface. What's more, with our Syncjack™ technology network operators can monitor synchronization status at any time and any place in the network, while the network is up and running.



Your Benefits

- ✔ **Part of the FSP Network Manager Suite**
 Reliable, secure and user-friendly management and surveillance of ADVA FSP and OSA networks, with full FCAPS support
- ✔ **Intuitive Design and Operation Simplicity**
 Self-explanatory GUI with variety of graphical views and wizard-based provisioning
- ✔ **Virtual Sync Topology View**
 SyncMap view with pictorial representation of configured sync network resources and the relationships between them
- ✔ **Syncjack™ Monitoring and Assurance**
 Configuration, initialization and scheduling of Syncjack™ test procedures, end-to-end monitoring and testing
- ✔ **In-Service Distribution Path Analysis**
 Continuous and real-time visibility of the entire sync network infrastructure to optimize existing topologies, detect sync loops and prevent sync outages
- ✔ **Performance and Accuracy Metrics**
 Graphical display and analysis of standard performance metrics (PDV, MTIE, ...)

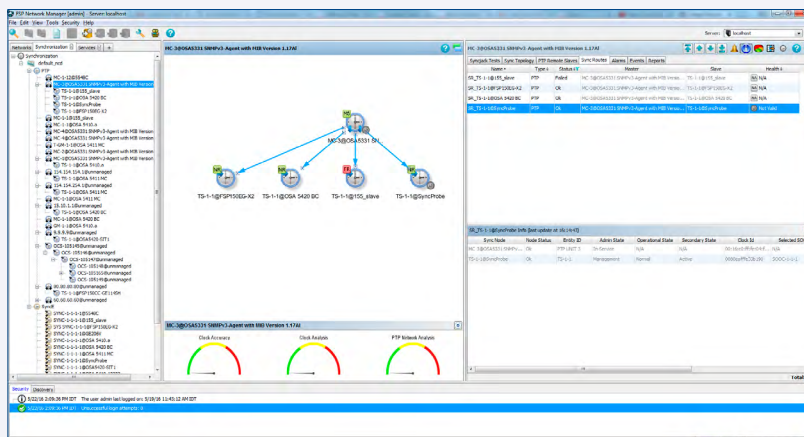
High-Level Specifications

<h3>Visualization</h3> <ul style="list-style-type: none"> • Intuitive point-and-click GUI • Wizard-based provisioning • Tree-like display of sync network topology • Network and sync view on map 	<h3>General</h3> <ul style="list-style-type: none"> • Discovery, visualization and monitoring; centralized faults, real time and historical PMs, inventory and security • Backup and archive functionalities • High availability • Northbound interface 	<h3>Syncjack™ Test Framework</h3> <ul style="list-style-type: none"> • Efficient provisioning of Syncjack probes • Graphical display of PTP standard metrics, MTIE and phase accuracy • Real time and long-term TE/TIE data collection and analysis with analytic tools
<h3>Security</h3> <ul style="list-style-type: none"> • Multi-level password protection and encryption • External user authentication (RADIUS) • Self-managed user restricted views • User activity log 	<h3>Sync Nodes</h3> <ul style="list-style-type: none"> • SyncE node • PTP nodes: G.8275.1(T-GM, T-BC), G.8265.1 (MC, TS, BC), BC with profile mediation • Management of third party vendor PTP grandmaster and PTP client instances 	<h3>Sync Topology View</h3> <ul style="list-style-type: none"> • End-to-end timing chain on map • Active clock stream identification • Quick access to all parameters • View of sync related alarms and performance data

Applications in Your Network

Advanced Management Platform for Synchronization Monitoring and Assurance

- Centralized visibility and control of network timing infrastructure.
- “Timing as a service” to manage precise time, phase and frequency distribution in packet networks
- Accurate phase and frequency information for mission critical timing environments such as packet-based mobile backhaul, next-generation network technologies (LTE-A, LTE-TDD, ...), enterprise networks and financial data centers



For more information please visit us at www.oscilloquartz.com
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OSCILLOQUARTZ
An ADVA Optical Networking Company

Supported Devices

- OSA 5410 Series – Access PTP Grandmaster and GNSS Receiver
- OSA 5420 Series - Mid-Scale Syncjack PTP Grandmaster
- OSA 5548C SSU / TSG
- OSA 5335 & OSA 5331– PTP Grandmaster
- OSA 5401 Syncplug™
- FSP 150 – Demarcation and Aggregation Devices
- TP 5000 PTP Grandmaster

General

- Based on TMN principles
- Intuitive point-and-click graphical user interface application
- Context-sensitive menu navigation, tooltips and online help
- Wizard-based provisioning application
- Graphical overlay with alarm summary indicators
- Tree-like display of synchronization network topology

Client-Server Architecture

- Simultaneous operation of single server entity with multiple GUI clients activated on different remote management stations
- Single sign-on with fast switch-over between multiple servers from a single GUI client
- Virtualized GUI clients using Citrix® Presentation Server

Functionality

- Synchronization map for IEEE1588v2 PTP and/or SyncE logical topology
- Monitoring of status, topology changes and synchronization distribution capabilities
- Clock distribution hierarchy also for partitioned synchronization network domains
- Detection of synchronization loops
- Identification of end-to-end clock distribution routes from master to slave
- Monitoring and display of clock distribution routes
- Configurable user labels (aka Aliases) for Sync Nodes and routes
- Collection and display of statistics per clock distribution route
- Event tracking and alarming for individual clock distribution routes
- Correlation and display of route-related events and alarms
- Initiation and monitoring of Syncjack™ test procedures
- Clock Accuracy, Clock Analysis and PTP Network Analysis
- Definition and scheduling of automated test procedures

- Graphical presentation of actual and historical test results
- Comparison and export of test result data with multiple options
- Automatic status update
- Syncjack Analyzer for TE/TIE PM data collection, to standard formats used by analytic tools
- Syncjack Analyzer integration of OSA WinSTS tool
- Listing of events and alarms with user-definable filters
- Saving tables layout as Template
- Event log and active alarm list
- Correlation, analysis and re-assessment of alarm severity
- Availability reports based on defects and degradations
- Sync Topology and Remote Slaves reports

Security

- Multi-level password protection
- Password encryption
- Customizable user privileges
- User activity log
- External user authentication (RADIUS, TACACS+)
- Customer self-management supporting user-restricted network views

Connection to Network Elements

- Network-wide access to individual devices
- Direct access to devices via Ethernet management interface
- Remote access over IP-based DCN connection

Protocols

- SNMP for communication to devices
- Support for SNMPv3 for higher-level security

Operating System

- Windows Server 2008 R2 & 2012 and Windows 7 or 8.1 (recommended) for client PCs
- Red Hat Enterprise Linux (OEL) Version 6 and Red Hat Enterprise Linux Version 6 for client
- Both Windows Server and Red Hat Linux can be operated native or on VMWare vSphere 5.1 and vSphere 5.5 Windows 7 (64bit and RAM >2GB) for PCs in lab