Ensemble Sync Director
Timing management and sync assurance

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

Our Ensemble Sync Director is an advanced management platform providing centralized control of all technology for the distribution and assurance of frequency, phase and time synchronization. Implemented in client-server architecture, the Ensemble Sync Director 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. Our Ensemble Sync Director is part of our comprehensive Ensemble Controller solution suite.

Your benefits

- **Part of our Ensemble Controller suite**
  Reliable, secure and user-friendly management and surveillance of ADVA FSP and OSA networks, with full FCAPS support

- **Intuitive design and operational simplicity**
  Self-explanatory GUI with variety of graphical views and wizard-based provisioning as well as on-demand and periodic reporting capabilities

- **Sync topology views**
  Comprehensive timing topology view of devices and links on IEEE1588 PTP, SyncE and physical layers

- **SyncJack™ monitoring and assurance**
  Configuration, initialization and scheduling of SyncJack™ test procedures including 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, …), dedicated sync performance report
### High-level specifications

#### Visualization
- Intuitive point-and-click GUI
- Wizard-based provisioning
- Tree-like display of sync network topology
- Network and sync view on map
- Quick access to all parameters
- View of sync-related alarms and performance data

#### General
- Discovery, visualization and monitoring; centralized faults, real-time and historical PMs, inventory and security
- Backup and archive functionalities
- High availability
- Northbound interface
- Access to local management tools

#### Syncjack™ test framework
- 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

#### Security
- Multi-level password protection and encryption
- External user authentication (RADIUS)
- Self-managed user restricted views
- User activity log

#### Sync nodes
- 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
- PTP remote slaves list report also for unmanaged 3rd party slaves

#### Sync topology view
- End-to-end timing chain on map
- Active clock stream identification
- Display of physical, frequency and time&phase synchronization flows inside devices (internal timing topology) and in the network (network timing topology)

### 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, 5G RAN networks, etc.), enterprise networks and financial data centers