ASSIA Commande

AI-driven QoE optimization — Any device, any network, anywhere

Commande Benefits

- Reduce OpEx
- Optimize CapEx
- Improve customer satisfaction and retention
- Increase average revenue per user (ARPU)
- Meet service level agreements

Commande is a cloud-based initiative for service providers that provides end-to-end visibility into the QoE you are delivering to your internet and home Wi-Fi subscribers. Commande oversees, unifies, and brings together all of the systems, devices, and links that deliver home internet and Wi-Fi service to be monitored, diagnosed, and optimized from the cloud holistically. These include middleware software virtualization systems, customer-premises gateways, application devices, and network terminals — regardless of vendor.

Don't Get Locked-In

Wi-Fi management has become a defining factor for the delivery of internet-access services, but the industry has been fragmented by various middleware approaches that are not explicitly designed to manage and optimize all the components that deliver good internet and Wi-Fi QoE.

The market has seen the announcement of a variety of proprietary Wi-Fi solutions, which are difficult to deploy and scale, and lack smooth interoperability because they are aligned with specific middleware technology or customer-premises products.

Service providers can find themselves locked in by these suboptimal approaches. This lock-in risk increases as service providers attempt to evolve, innovate, and incorporate emerging standards such as Wi-Fi 6 and Mesh, and this is where ASSIA's Commande initiative enters to improve your business's future.

ASSIA Commande Deliver Business Value

- **Reduce OpEx** — by reducing the amount or length of support calls and field dispatches and preventing unnecessary equipment replacements.
- **Optimize CapEx** — with advanced analytics that recommends the right CapEx investments throughout your network to get the best results.
- **Improve customer satisfaction and retention** — with AI-driven self-healing, self-help, and customer care troubleshooting tools that improve QoS and QoE for happier customers that stay customers.
- **Increase average revenue per user (ARPU)** — by creating OpEx savings to invest in new revenue-generating services and by identifying opportunities for upsells, cross-sells, and service and equipment upgrades that deliver the highest ROI.
- **Meet service level agreements** — with accurate quality of service measurements to and within the home to assure you meet commitments and regulatory requirements.

Everyone Benefits

- **End users** — can take actions for self-help and see the value they get from having their service managed.
- **Call center operators** — can quickly deal with issues, get things right the first time, have shorter calls, have more time for up-sells, and request fewer field dispatches and no-fault-found returns.
- **Network operations** — can plan changes that actually make a difference.
- **Marketing** — gets the information they need so they know the offers that will deliver the best return.

Interoperate, Scale, and Evolve

ASSIA Commande enables service providers' internet connectivity and Wi-Fi management solutions to interoperate, scale, and evolve with technology and industry standards.

Interoperate

Standards

ASSIA is a significant contributor and participant of standards bodies including BBF, WFA, WBA, Prpl, ITU-T, and IEEE and assures your and its technologies maintain interoperability with CPE and middleware through the support of standards such as TR-369 and Wi-Fi Alliance Data Elements.

Flexible Wi-Fi Management

ASSIA Commande can optimize using service provider technology or CPE original equipment manufacturers (OEM) technology.

Comprehensive Connectivity Management

In addition to in-home Wi-Fi, ASSIA Commande manages and optimizes internet connectivity to the home, including copper, fiber, and wireless.

Scale

Unlimited Scalability

Commande offers more computational power and storage for monitoring, diagnostics, high-powered analysis, and optimization functions. In particular, large datasets can be used to correlate diagnostics across many lines or services. A cloud system can store and use long-term historical data, for example, by tracking medium-access-control (MAC) layer data rate variations over time.

On-demand scalability

Reusable "virtual probe" software interfaces to network elements as they are added, making it effortless to scale.

Evolve

Future-ready

Unlike CPE and middleware-specific solutions, ASSIA Commande's support for standards assures technology decisions you make today, will work with future technology innovations such as Wi-Fi 6, 5G, EasyMesh, and others as they emerge.

Field-tested ML algorithm

ASSIA's AI-based machine learning algorithms are field-tested, have been learning from over 125 Million access connections across the globe for many years, and will continue to learn as technology and environments evolve.

Virtualization

As a virtualized cloud service, Commande provides remote access, rapid upgrades, and interoperation with other virtual functions.

Features

Commande includes valuable QoS and QoE monitoring, optimization, and diagnostic tools.

Executive Dashboard monitors and alerts executives to key QoE and QoS metrics that map to each service provider's business and operational goals.

Network Operation Center dashboards monitor key operational metrics and alert technicians about issues requiring proactive and reactive maintenance to maintain QoE and QoS goals.

Field test app informs technicians with real-time root-cause analytics, next-best-action service recommendations, and validates fixes.

Self-help app guides end-users with easy-to-follow instructions for diagnosing and fixing QoE or QoS issues.

API provides seamless integration with operations support systems (OSS) and business support systems (BSS) to efficiently and effectively run the network and overall business.

Components

Commande builds on ASSIA's well-established suite of products and decade of experience using AI techniques to optimize home and access internet connectivity. The solution supports your choice of middleware and accommodates continually emerging Wi-Fi and Wi-Fi management standards as they evolve.

Broadband-to-the-Device solutions that monitor and optimize wireline, Wi-Fi, and mobile connectivity to achieve the best consumer QoE.

Cloud-based Diagnostics capabilities that enable customer care and field technicians to reduce no-fault-found-tickets and OPEX significantly.

Vendor-neutral industry standards support for data collection and control across copper, fiber, wireless, and Wi-Fi networks

Intellectual Property license for ASSIA's innovative AI-based Wi-Fi optimization and Quality of Experience solutions based on over 600 patents.

Services

Commande supports the broad set of services that make up a quality home internet service.

Cloud Data Collection and Analytics

Commande monitors and collects all network and device data from the cloud so that a best-in-class AI/ML decision engine can analyze and perform and recommend optimizations.

Broadband to the Home Optimization

Commande monitors and collects GPON and DSL network data so that a best-in-class AI/ML decision engine can analyze and perform and recommend optimizations.

In-home Wi-Fi Optimization

Commande monitors and collects CPE, device, and Wi-Fi network data so that a best-in-class AI/ML decision engine can analyze and perform and recommend optimizations.

Broadband and Wi-Fi Speed Testing

Commande accurately measures both broadband and Wi-Fi performance so that issues can be pinpointed, diagnosed, and properly resolved regardless of the source.

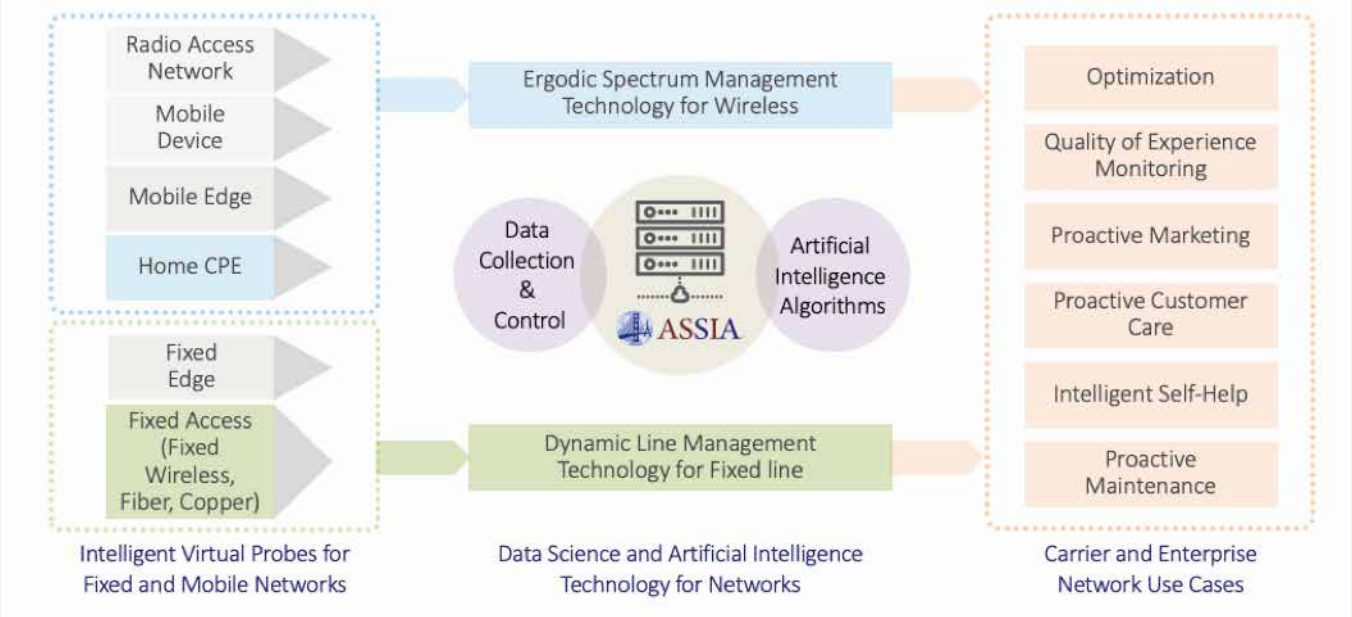
CPE Health and Phy Service Monitoring

Commande monitors and collects data from the CPE, including CPU, memory, temperature, and power cycling events for diagnosis, troubleshooting, and resolution.

Smart Home Services

Commande monitors and collects data from parental controls and other in-home smart services to assure proper configuration, performance, and optimization.

Commande optimizes both fixed-line and wireless QoE and QoS by collecting and analyzing data from all the devices, equipment, middleware, and networks. It then applies AI-driven QoE and QoS optimizations fine-tuned for each service provider's business and operational goals on a per-customer, MDU, neighborhood, or network-wide basis



Fixed Line — Dynamic Line Management technology gathers data from fixed wireless, fiber, and copper access networks and fixed-edge computing equipment.

Wireless — Ergodic Spectrum Management technology gathers data from radio access networks, mobile devices, CPEs, Mesh networks, and mobile edge computing equipment.

Business and Operational Goals specific to each service provider, such as QoE monitoring, proactive marketing, proactive customer care, intelligent self-help, and proactive maintenance, are the basis of Commande's AI-driven optimizations.

ASSIA

333 Twin Dolphin Drive, Redwood City, CA 94065
Tel: +1-650-654-3400 Fax: +1-650-654-3404
www.assia-inc.com

For more information contact ASSIA at
+1 650.654.3400 or email sales@assia-inc.com