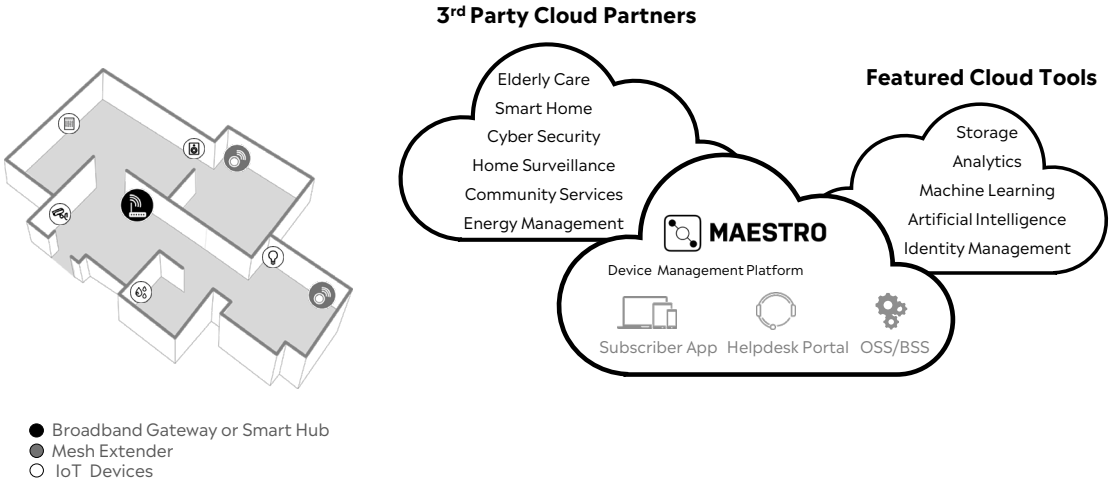
MAESTROACS

Device Management Platform

In Short

MaestroACS is a secure, unified and comprehensive management platform, enabling operators to take full control of their device deployment. Powerful capabilities address the complete life-cycle of standardised device management. From initial device activation and service upgrades, to advanced service monitoring and automation of any device type, from any manufacturer and deployed across any access network.



Key Functions

- ✓ Management of a multitude of device types, such as standard broadband gateways and mesh devices, including IoT smart hubs for enabling connectivity and functionality on IoT devices.
- ✓ Allows seamless and secure integration with IoT cloud services, operator OSS/BSS, subscriber apps and support portals.
- ✓ Intelligent configuration management for managing multi-vertical connected home environment.
- ✓ Run remote diagnostics and visualise subscriber network of devices and services for efficient helpdesk and support.
- ✓ Monitor, store, analyse and provide easy access to surrounding sub-systems.
- ✓ Automate provisioning and support tasks in an easy and flexible way.
- ✓ Proactive alarms allow instant awareness of end-user issues and triggering of automatic resolution policies
- ✓ Customisable dashboard providing complete deployment visibility.

Operational Benefits
Minimize initial subscriber service activation and support efforts.
Remove complexity in internal processes by system integration and automation.
Get deeper insights into end-user behaviour to enhance strategy development.
Extend control to end-user, allowing greater visibility and control over their home network.

Commercial Benefits
Build new recurring revenue streams through new service offerings
Improve operational efficiency, reduce support & service costs
Seamless end-user service experience, ensures significant reduction in churn.
Enhanced standardised Wi-Fi Mesh management capabilities eliminating the need for propriety expensive solution.

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Platform Capabilities Explained

Simplified Device Management
Most flexible and advanced set of features, available through an elegant and intuitive UI. We have come a long way helping operators to manage devices and services in the most efficient way. However, efficiency involves both powerful capabilities and simplicity of use. That is why MaestroACS has a compact UI design, which makes all features easily accessible to the user, instead of hiding them behind complex and programmatic sub-systems.

Seamless & Secure Integration
MaestroACS rich North-Bound Interface securely and seamlessly integrates with operator OSS/BSS, end-user apps, helpdesk portals, and IoT cloud services. Interface flexibility allows integrations with minimum efforts and investment. Thereby enabling simplified provisioning, control and service activation procedures.

Remote Diagnosis & Troubleshooting
MaestroACS comes equipped "out of the box" with powerful features that help to keep customer satisfaction at the highest level and reduce churn. Examples of such features are a 'Full visual map' of subscriber network of devices and services and 'Connectivity and speed tests' for efficient helpdesk and support operations. There is no need to connect to any command line or remote device GUI, since all the information pertinent to the call is presented directly in MaestroACS.

IoT & Smart Services Management
MaestroACS is fully capable to help operators in introducing IoT, smart home and cyber security services with minimum integration efforts and investment. Together with eco-system partner solutions, MaestroACS enables service providers to offer innovative, customized and easy-to-use smart services with a truly seamless IoT experience for end-users.

Big-data, Alarms & intuitive Automation
With MaestroACS support of lightweight protocol for monitoring, end-user service performance statistics can be collected with high frequency, no matter the size of the deployment. This gives the operator real-time insights to better understand the state of service utilization, devices, progress towards milestones and business outcomes. Intuitive and Intelligent automation framework allows execution of pre-defined policies on monitoring sessions and Alarms, which benefits automation of daily provisioning tasks and resolution of end-user issues in real-time.

Carrier Grade High-Availability and Scalability
The MaestroACS High-Availability (HA) solution provides cost-effective fail-over protection. It thereby guarantees operational continuity by eliminating any single point of failure for your ever-growing device population. Millions of devices can be reliably managed while guaranteeing service availability and eliminating costly service interruptions.

Wi-Fi Mesh Management
MaestroACS comes equipped with Wi-Fi monitoring and troubleshooting tools. These can be used by the support staff to resolve day-to-day wireless issues, such as connectivity and decreased bandwidth related issues, in the end-user home environment. This is achieved by presenting support staff with an easily understandable view of the Wi-Fi home network including status info on deployed Mesh Nodes with complete mesh topology view. Wi-Fi Diagnostics support includes Interference, Signal Strength and Link Status information. Furthermore, using lightweight monitoring features, proactive alarms can be raised and issues can be resolved before the subscriber contacts the operator support helpdesk.

Supported Device Management Standards
TR-098, TR-069 Amendment-5 (Annex F, G, K, M), TR-181, TR-181i2, TR-104, TR-106, TR-135, TR-140, TR-143, TR-157, TR-196, TR-262, TR-131
SNMPv2c and SNMPv3
System Integrations
Web services: SOAP & REST
BI Connector: Integrated Apache Drill (SQL query engine) application module.
NAT Traversal: Integrated Openfire (XMPP Server) application module and built-in STUN server.
End-user and Support apps portals: Integrated and available via partner.
User handling: LDAP support for simplified user management.
Alerting: SNMP traps and SMTP on external alarms notifications.
Key Facts
Interop free and 100+ CPE types managed.
Commercially Deployed since 2001. Used in over 25 countries by over 50 tier-1, tier-2, tier-3 operators.

Deployment Strategies & Setups
Installation Support: Standalone server or instance in any private or public virtualised environment.
High-Availability: Hot & cold standby
Dual-Node (Big-data Solution): Separate servers for device management and Monitoring. Ready for IPV6 Services
Minimum Technical Requirements
Server: Quad-core 64-bits CPU 16GB RAM Memory 2x Gbit/s Ethernet
Software: CentOS 7.x/ Red Hat® Enterprise Linux® 7.x Java SDK from Oracle Mysql/MariaDB MongoDB
Client: Modern web-browser_No client, extension, or plug-in to install
Capacity & Performance
Device Activations: With min: HW specs, activate as many as over 30K devices within a hour.
Active/Passive Notifications: With min: HW specs, monitor 300K devices in a hour.
UDP Lightweight Notification: 30K+ requests per second.
500K devices: 4-core /32GB RAM / 500 GB SSD Polling Window < 2h **2000K devices**: 16-core /128GB RAM / 2TB SSD Polling Window < 8h **N million devices: in system cluster configuration**

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