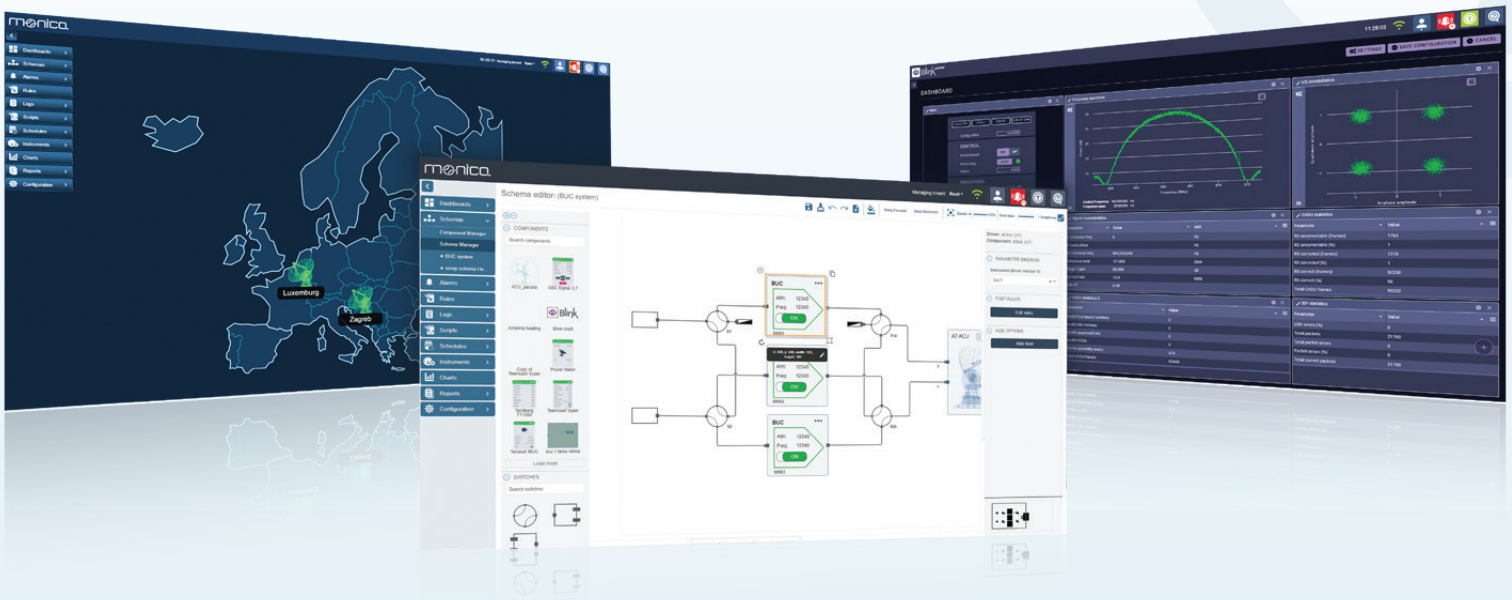
MONICA is a state-of-the-art ground station monitor and control solution, built primarily for the satellite industry.

Over the past 20+ years, Amphinicy has gained in-depth knowledge and experience in **delivering M&C solutions** to some of the most demanding customers globally.

Our solution, MONICA, is **robust, secure, and reliable**. It demonstrates high performance and has the ability to scale to any size of customer service.

Our typical applications encompass Satellite Communication (RF and Optical), TV/Radio Broadcast, Telecom, Cable TV, and SCADA System Management.

monica.amphinicy.com



Main features

- White-label, fully customizable M&C system
- Can be used as a stand-alone application or a framework for building more complex solutions
- A multi-tenant system with tight security and user management
- HTML5 responsive web interface supports major modern web browsers
- Built on the leading open-source technologies, no need for additional licenses
- Supports distributed and hierarchical deployments
- Runs virtually anywhere from on-premise hardware to cloud infrastructure
- Scalable to virtually unlimited number of instruments and parameters
- Simple configuration backup and restore
- Customizable look and feel with theming system
- Path and signal highlighting

Modular architecture

- Schema / Mimics with integrated drag and drop schema editor
- Flexible and rich dashboards with user-configurable widgets
- Flexible trending with multiple charts types
- Rich and customizable reports
- Powerful alarming based on user-friendly rules definition and device-related constraints
- Simulation/Demo mode for easy instrument simulation

Device management

- User-friendy, on-the-fly driver editor, no programming needed
- Integrated SNMP MIB browser and driver generator
- Supports a growing number of communication protocols (SNMP, REST, TCP/UDP ASCII/binary, Modbus, SQL, etc.)
- Distributed device data collection via lightweight Remote Agents
- Fine-grained polling configuration per parameter
- User-defined hard limits to prevent equipment and system damage

Technical specification

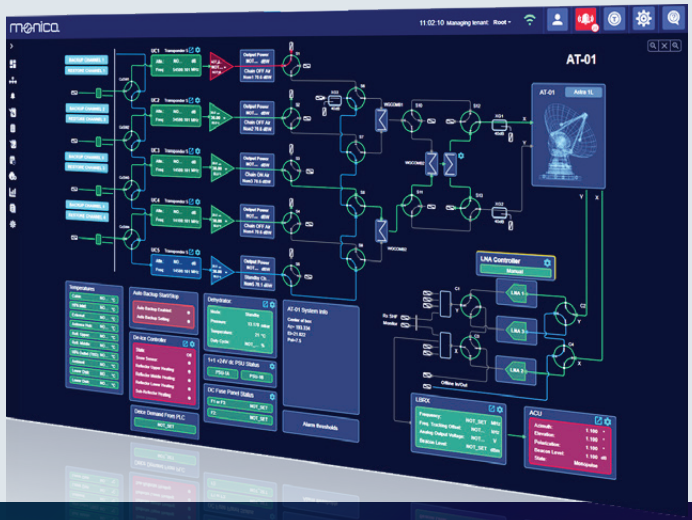
- Running on bare metal, Docker based, and cloud systems on RedHat, Debian & SLES based OS, supporting x86 and ARM architectures
- Accessible from any device supporting modern web browsers including tablets and smartphones
- High-availability / failover mode
- Data persistence via PostgreSQL DBMS and TimescaleDb

Advanced automation & orchestration

- Task automation via rule engine, scheduled jobs, or alarm-driven events
- Custom, sophisticated action scripting via Python / Groovy
- Macro recorder for user actions, including editor and executor
- One-click configuration of a subsystem using preset database
- Automatic device redundancy switching
- Automatic level control
- Site diversity switching

Integration

- Integration with third-party directory services via SSO providers
- Extensive northbound interfaces for integration with third-party OSS / BSS systems: REST/Websocket, SNMP, MQTT



MONICA is a critical building block of any ground station.

AMPHINICY TECHNOLOGIES

www.amphinicy.com