

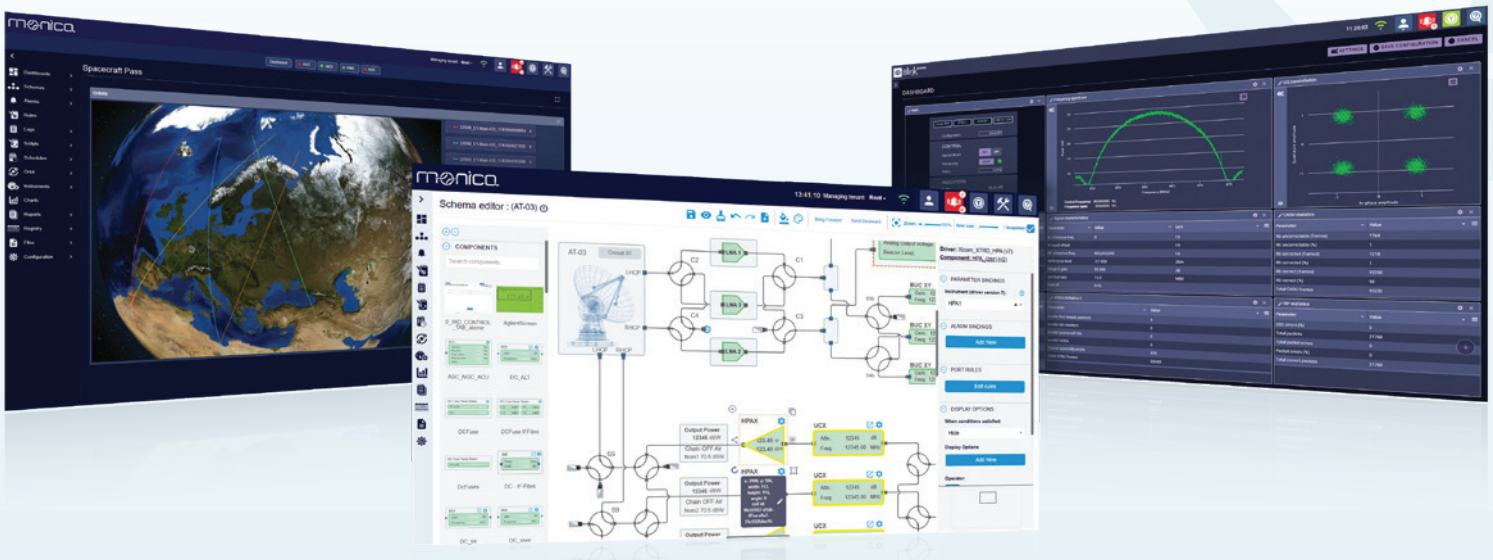
MONICA is a state-of-the-art ground station monitoring and control solution, designed primarily for the satellite industry.

Over the past 25+ 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**, offering high performance with the capacity to scale to any size of customer operation.

Typical applications encompass RF and Optical SatCom, TV and Radio Broadcasting, Telecommunications, SCADA Systems, and Defence and Aerospace projects.

monica.amphinicy.com



Core features

- White-label, fully customisable M&C system
- Can be used as a standalone application or a framework for building custom solutions
- A multi-tenant system with robust security and user management
- HTML5 responsive web interface supports major modern web browsers
- Built on leading open-source technologies, eliminating additional licence costs
- Supports distributed and hierarchical deployments
- Runs virtually anywhere from on-premise hardware to cloud infrastructure
- Scales to a virtually unlimited number of instruments and parameters
- Simple configuration backup and restore
- Configurable look and feel with theming system
- Path and signal highlighting

Modular architecture

- Schema/Mimics with an integrated drag and drop schema editor
- Flexible and rich dashboards with user-configurable widgets
- Flexible trending with multiple charts types
- Comprehensive and configurable reports
- Powerful alarm engine with user friendly rule definitions and device level constraints
- Built-in file management system
- Simulation/Demo mode for easy instrument simulation
- Advanced signal visualization – spectrum and constellation chart widgets

Device management

- User-friendly, on-the-fly driver editor - no programming needed
- Integrated SNMP MIB browser and driver generator
- Growing set of communication protocols: SNMP, REST, TCP/UDP, ASCII/Binary, Modbus, OPC-UA, SQL
- Distributed device data collection via lightweight Remote Agents
- Fine-grained polling configuration for each parameter
- User-defined hard limits to prevent equipment and system damage

Technical specification

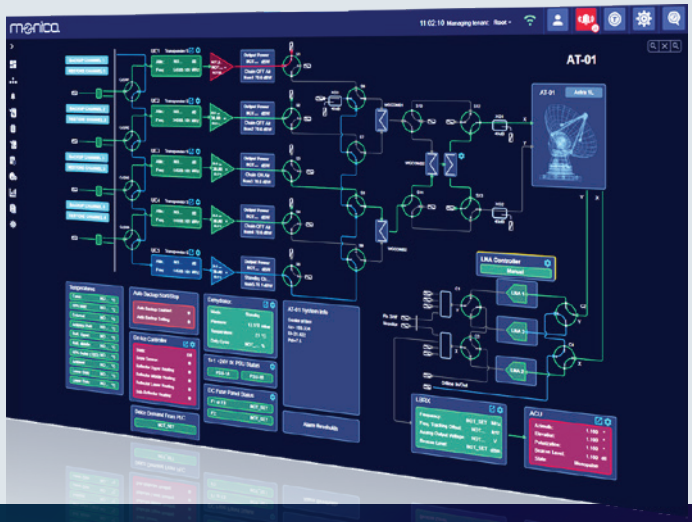
- Runs on bare metal, Docker-based, and cloud systems
- Supports Red Hat, Debian, and SLES families, on x86 and ARM architectures
- Accessible from any modern web browser, including tablets and smartphones
- Zero downtime cluster/High availability mode, including active-active redundancy with load balancing
- Data persistence via PostgreSQL DBMS and TimescaleDB

Advanced automation & orchestration

- Task automation via workflow engine, scheduled jobs, rule engine, or alarm-driven events
- Automated management of satellite orbits and passes
- Custom, sophisticated action scripting via Python/Groovy
- Macro recorder for user actions, including editor and executor
- One-click subsystem configuration 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



MONICA is a critical building block of any ground station.

AMPHINICY TECHNOLOGIES

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