CALIAN ®

Confidence. Engineered.

Advanced Technologies Operations Centre (ATOC)

Calian's ATOC platform is the premier next-generation solution for constellation owners to manage their expanding fleets.

Delivering complex software products and satellite operations services for decades, Calian can deliver the automated solutions needed to manage your constellation and ensure success. Integrated with your existing network or bundled with other Calian space offerings, this system provides tools for monitoring the health of your network, automated constellation orchestration and intelligent decision making.

Manage Your Entire Fleet

Get the most out of your constellation by optimizing resource utilization and grow naturally as it expands. Plus, you can transfer activities within assets to maintain client deliverables, schedule required maintenance periods, and commission new or decommission old assets as needed.

Monitor Thousands of Endpoints

Calian's Central Management Platform (CMP) provides the backbone for connecting to your entire network, from gateways to user terminals to your satellite fleet. Data from all endpoints are collated for efficient information sharing and situational awareness.

User Dashboards

You can easily aggregate and view data from all your assets and integrate with all mission databases and archives. You can customize your information sharing dashboard views to be standardized across multiple users or for unique use cases. Dashboards allow you to configure notification alerts for operator investigations, and unlock rapid situational awareness of your terrestrial and space network.

Real-Time Telemetry, Tracking & Tele-commanding (RT3)

You can automate operations using your mission database to ensure proper command and parameter verifications, and create procedures and timelines for upload and execution. You can easily encrypt and decrypt your information, and monitor operations and activities in real-time.
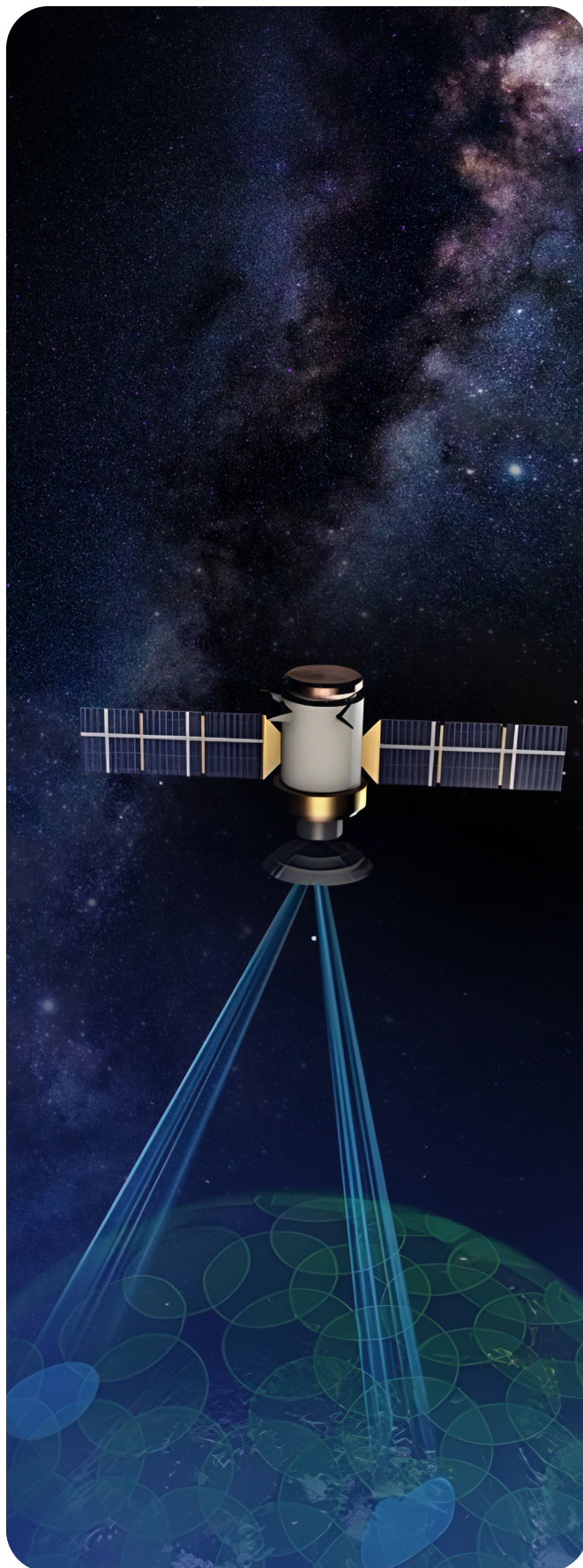
Resource Orchestration

Our orchestration tool allows you to optimize the allocation of constellation resources across all satellites and gateways to meet customer demand, and integration of engineering tasks with user taskings ensures timely maintenance. Plus, you can configure your mission constraints and optimize gateway schedules based on priorities and availabilities.

Flight Dynamics

You can ensure custody of each satellite in the fleet by updating orbit knowledge regularly, and manage and protect your constellation by analyzing and conducting orbit maintenance and collision avoidance activities. You can even provide event notifications to stakeholders.

Advanced Health Monitoring

Users can monitor each satellite using machine learning models that are trained to spot non-nominal performance, and maximize constellation up-time by triggering automated recoveries after identifying new and recurring anomalies. Plus, you can re-train and deploy model updates on the fly to feedback new signatures quickly.
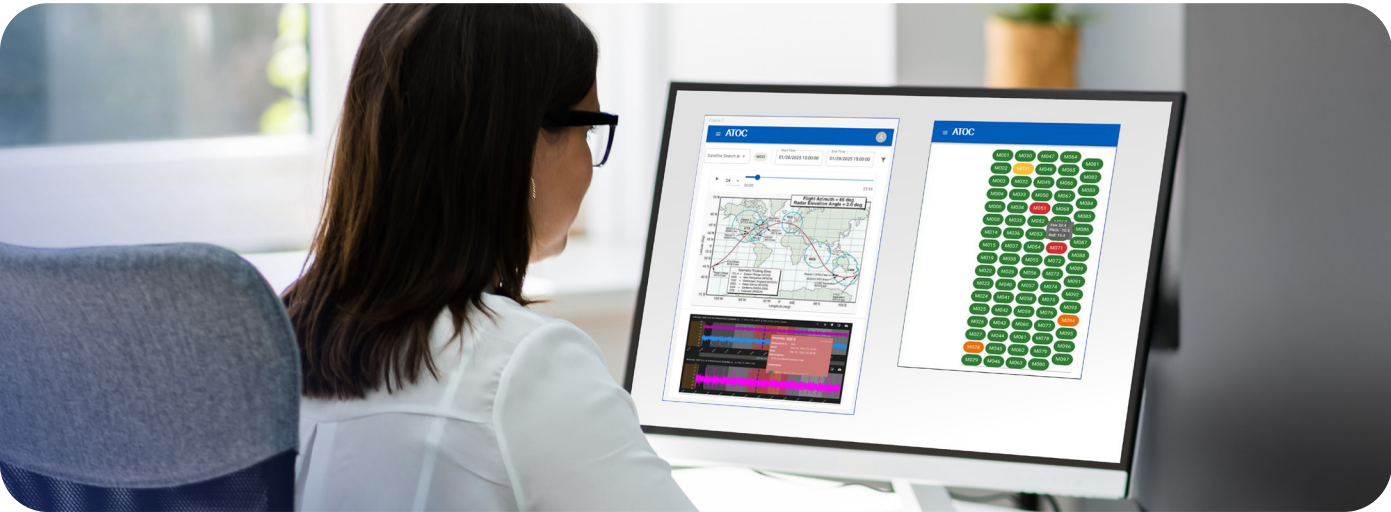
Rapid Situational Awareness

Graphical and timeline information shows your operators the health and location of your satellites in real-time. You can drill-down to the sub-system, packet or mnemonic level, and filter on events of interest, and you can playback archive data for investigations and easy stakeholder reporting.
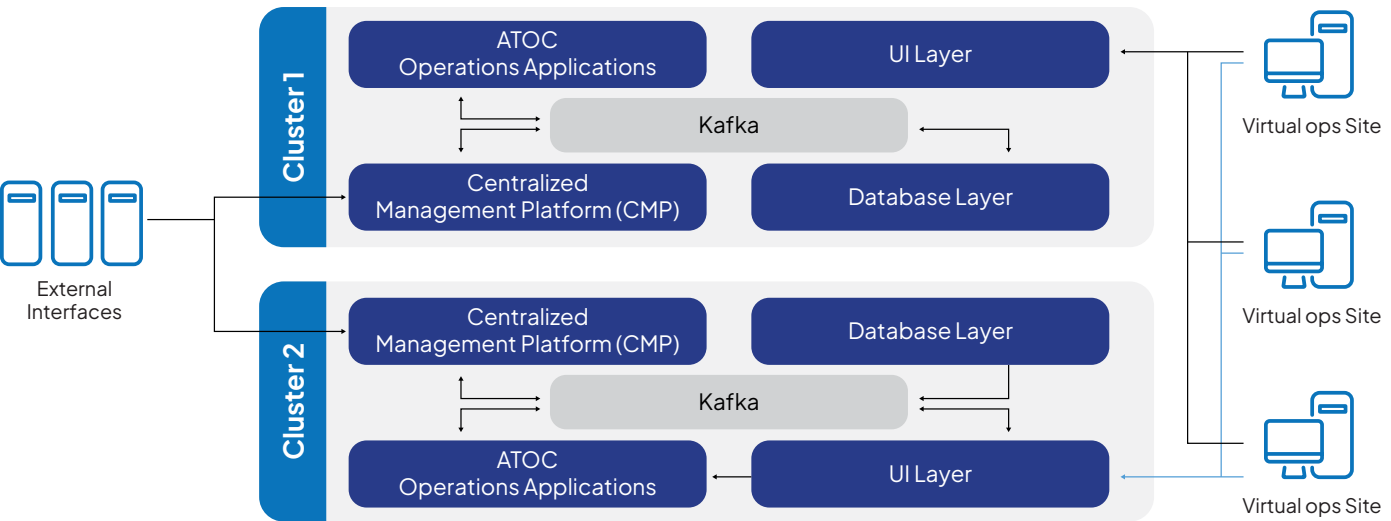
Schedules & Greenboards

Our tools allow you to obtain immediate visualization of your constellation status on one page. You can investigate problematic network endpoints (satellites, gateways, external interfaces) easily with hover-over summary details or detailed drill-down specifics.
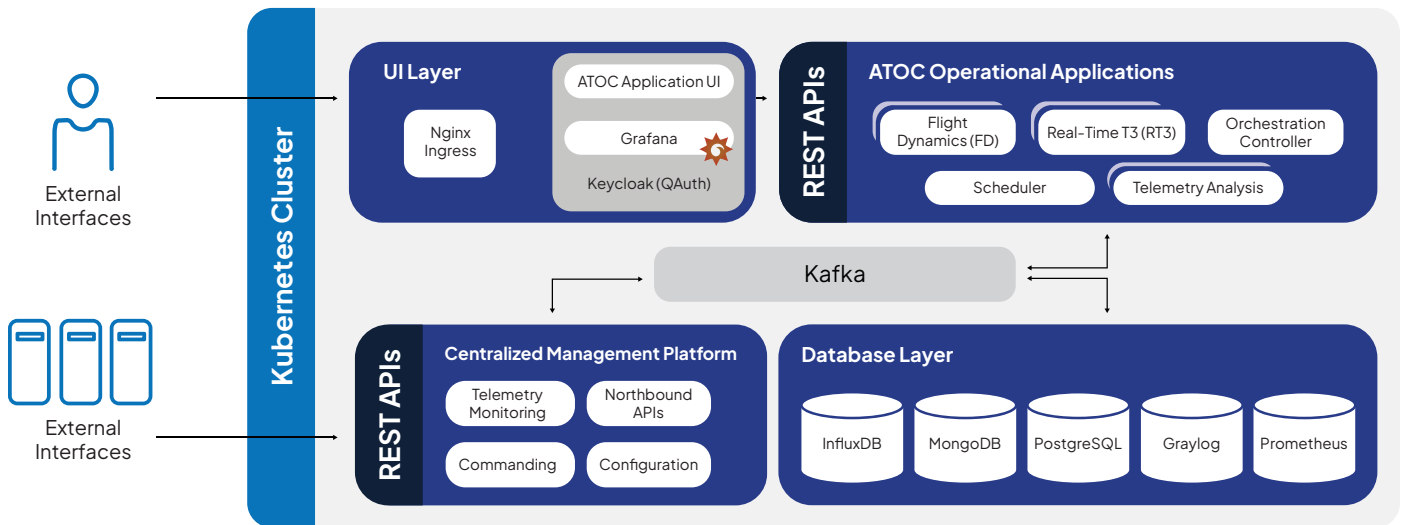

Integrated Multi-Site Deployments

Our foundational platform provides core infrastructure and services to constellation applications, as well as connection points to internal systems and external interfaces, and deployments to cloud, on-prem or hybrid environments. Plus, simultaneous operations across diverse geographic site deployments provide resiliency and are managed by primary/standby handshaking to ensure permissions control and data replication.

Extensible & Scalable Architecture

Dynamic growth features include spooling micro-service consumers to meet demand and distributed application loading to ensure efficient use of computational resources. When needed, vertical scaling is achieved with supplementary hardware installations when your network reaches maximum capacity with a growing constellation.

Support & Training

Deliverables can be customized for specific needs, and integration and transition periods are supported by our expert staff. Technical services are available to support various ATOC and operational needs. Training environments consist of classroom, remote, or blended locations as well as leverage our immersive training technologies for virtual experiences.

- Automated constellation operations
- Rapid situational awareness
- Machine learning & intelligent processes
- Scales to your needs
- Robust backup & archiving strategies
- Operator override controls
- Multi-site deployments
- Stakeholder reporting
- Virtualized environments

- Security posture to match your needs
- Modular components
- Service options available
- Augmented reality options
- Custom modifications as needed

We're here to help. Our experienced and capable SatDevOps engineers are available to provide support services to assist in managing your fleet.

Designed by operators for operators.

Contact us today.

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