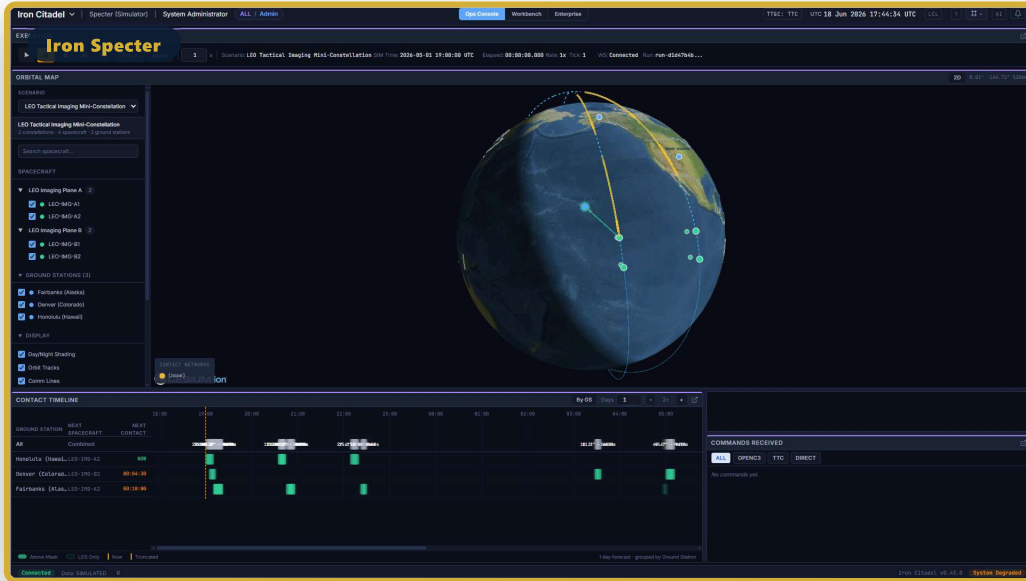




One ground system for the whole mission — from a single CubeSat to a full constellation.

Iron Citadel unifies simulation, flight dynamics, mission planning, scheduling, TT&C, fleet operations, and conjunction assessment into one integrated, **FIPS-validated** platform — built by Omitron on 40+ years of mission-operations heritage. Start with one spacecraft. Scale to hundreds without changing tools.



Native TT&C built in

Modern command & telemetry in the platform — no separate third-party TT&C stack to license and run.

Multi-mission, multi-tenant

One deployment serves every program. Operator-defined roles and missions keep each program's data and people cleanly separated.

Single pane of glass

One operator view across the entire fleet of spacecraft.

On-prem or GovCloud

Deploy on your hardware or in AWS GovCloud — your call.

Scales with your fleet

From one CubeSat to a full constellation — without ever changing tools.

OPERATE BY EXCEPTION

Iron Citadel doesn't just bring the tools together — it runs the mission. It automates the repetitive work of operations — scheduling contacts, building and validating command loads, and executing stored procedures and command sequences — while continuously monitoring the health of every spacecraft and ground system. Operators supervise the mission and act by exception, rather than driving each step by hand.

WHAT SETS IRON CITADEL APART

One integrated platform — not bolted-together tools

Every tool shares one data fabric, one login, and one interface — no brittle integrations between separate vendor products.

AI that advises — never commands

The embedded co-pilot is read-only: it analyzes your data and recommends, but never sends a command on your behalf.

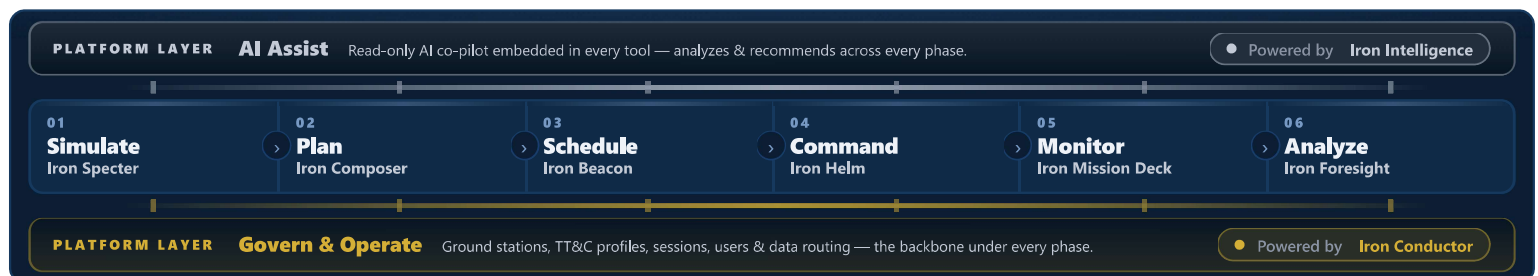
Open standards, not a black box

CCSDS-native commanding over standard ground links, with import/export in open formats — your definitions and data stay portable.

Adopt one tool or the whole suite

Start with a single capability and grow into the full ground system — at the pace your program and budget allow.

ONE PLATFORM FOR THE FULL MISSION LIFECYCLE



One system. Eleven tools. Every phase of operations.

Shared authorization, shared data, one login — an integrated ground segment of modular tools built into a singular cohesive suite.

Iron Specter

SIMULATE & TEST

Physics-based spacecraft simulator with 10 modeled subsystems — power, thermal, propulsion, attitude & more. Fault & noise injection and full record/replay with truth comparison.

Iron Mission Deck

SEE THE WHOLE FLEET

Single-pane-of-glass cockpit: fleet overview, alert triage & correlation, crew tasking, contact ops, mission timeline, and cross-tool health.

Iron Beacon

SCHEDULE CONTACTS

Books passes across NEN, SN, AFSCN & commercial networks: booking workbench, conflict detection, visibility prediction, and post-pass reconciliation — verifying each pass delivered what was booked.

Iron TALON

FLIGHT DYNAMICS

Orbit determination, maneuver planning, and flight-dynamics operations — keeping every spacecraft precisely where the mission needs it.

Iron Helm

COMMAND & CONTROL

Native TT&C: command dictionary, packet editor, drag-and-drop telemetry screens, real-time limits, scripting, and FSW tables — over CCSDS/TCP.

Iron Composer

PLAN THE MISSION

Mission planning & timelines: real-time and stored command load (ATS/RTS) planning, maneuver & contact-window scheduling, pass-plan templates, and a change-request workflow feeding Helm.

Iron Intelligence

AI ACROSS EVERYTHING

Centralized AI powering the assistant panel in every tool — retrieval-grounded, read-only + recommend. It advises but never commands, and is fully audited.

Iron OwlEye

COLLISION AVOIDANCE

Conjunction Assessment & Maneuver Trade Space: ingests USSF CDMs, refines collision probability (Pc), cross-checks operator ephemerides, and rolls fleet-wide risk into 2D/3D dashboards — NASA CARA-aligned.

Iron Conductor

ORCHESTRATE & ADMINISTER

Ground stations, TT&C profiles, live session monitoring, notifications, and the Iron Citadel dashboard — plus operator-defined roles, missions & COMSEC keys.

Iron Foresight

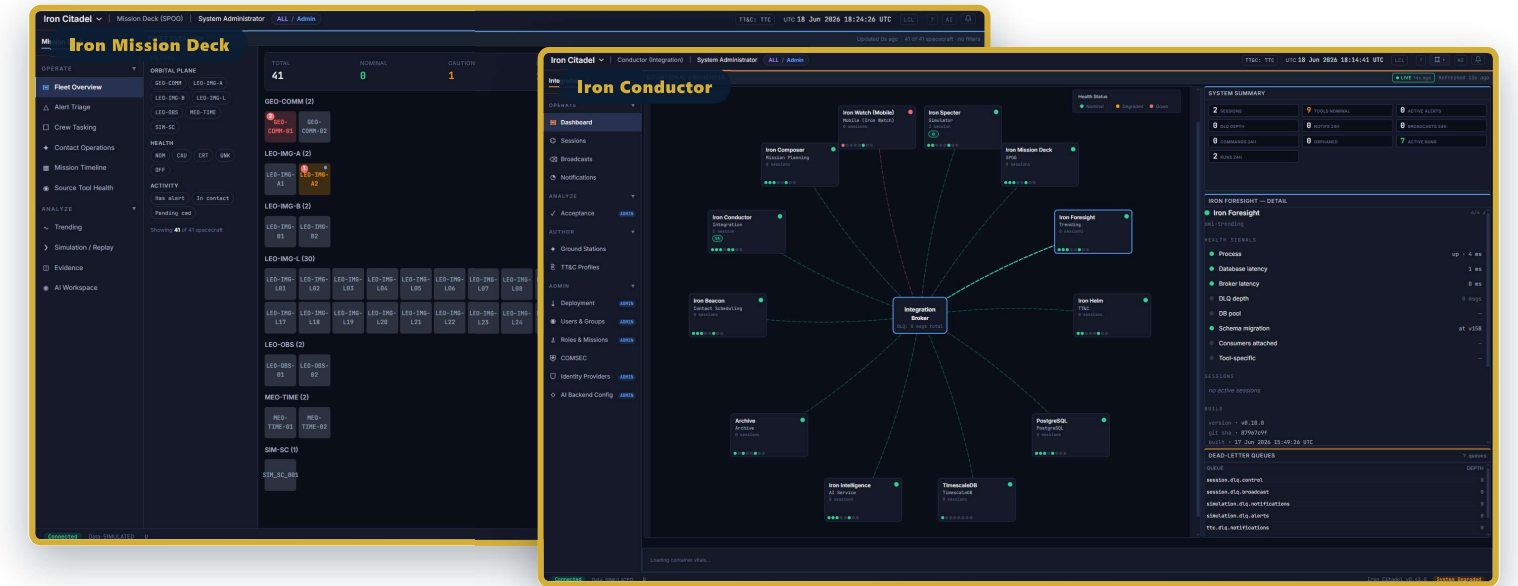
ANALYZE THE TRENDS

Long-term telemetry analytics over archive + live broker: multi-parameter plots, fleet comparison, AI anomaly & trend detection, and predictive alerts.

Iron Watch

OPS IN YOUR POCKET

Mobile companion to Mission Deck: alerts + fleet-glance for on-call operators. Acknowledge, assign, note, escalate. PWA + SMS; alert-workflow only — never commands.



■ SECURE BY DESIGN

FIPS 140-2 validated crypto

NIST 800-53 controls

STIG-hardened

CMMC / DFARS aligned

ATO-ready

SDLS / COMSEC (Type-1 boundary)

AWS GovCloud deployable

Role-based access & full audit

BUILT FOR THE TEAMS THAT FLY THE MISSION

Commercial & NewSpace

Constellation operators scaling from first launch to a full fleet — without re-tooling along the way.

Government & Defense

Programs that demand FIPS-mode crypto, an ATO path, and on-prem or GovCloud sovereignty.

Civil, Research & University

Teams who need professional-grade operations tooling without the overhead.



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