The Strategic Intersection of Innovation and Security

Elite government missions no longer have to choose between the rapid innovation of a tech lab and the impenetrable security of a massive defense prime.

INNOVIM, LLC
The Engine of Science & Innovation

- ✓ Founded in **2002**
- ✓ **Certified WOSB** ($27.5M size standard)
- ✓ **over 175 FTEs**
- ✓ **ISO 9001:2015 Certified**

Flawless Execution

INNOVIM Defense Services
The Shield of Secure Operations

- **Small Business**
- Subsidiary of **INNOVIM**
- **Top Secret (TS) Facility Security Clearance**

The client's mission lives here.

The INNOVIM Engine: Quality & Transitions

Elite Talent Retention (96.6%)

We hire, continuously upskill, and retain the best. Our internal Center of Excellence ensures total mastery in modern technologies and SAFe practices.

Uncompromising Quality (ISO 9001:2015)

A rigorous, standardized approach to risk management, quality control, and continuous process improvement across all task orders.

Seamless Transitions (30 Days to FOC)

Proven ability to achieve Full Operational Capability on massive federal transitions ahead of schedule, consistently retaining 94%+ of incumbent workforces to ensure zero mission drop-off.

National Reach, Local Presence

Boston MA

Sterling VA

Greenbelt MD

Boulder

Colorado Springs

Pasadena CA

Huntsville AL

Ft. Worth TX

Anchorage AK

Headquarters:
Silver Spring, MD

Space Hubs:
Greenbelt, Huntsville, Pasadena

Defense/NOAA Hubs:
Colorado Springs, Ft. Worth, Boulder

Key Sites:
Boston, Sterling, Anchorage

NotebookLM

Operational Metrics 2: Enterprise Impact

Global Space Observation

10% Granule Inventory Increase
Zero operational downtime during expansion.

Tactical Defense Communications

34 Downed Circuits Restored
Rapid global response for Cheyenne Mountain operations.

Enterprise Cloud Infrastructure

160 Million Earthdata Searches
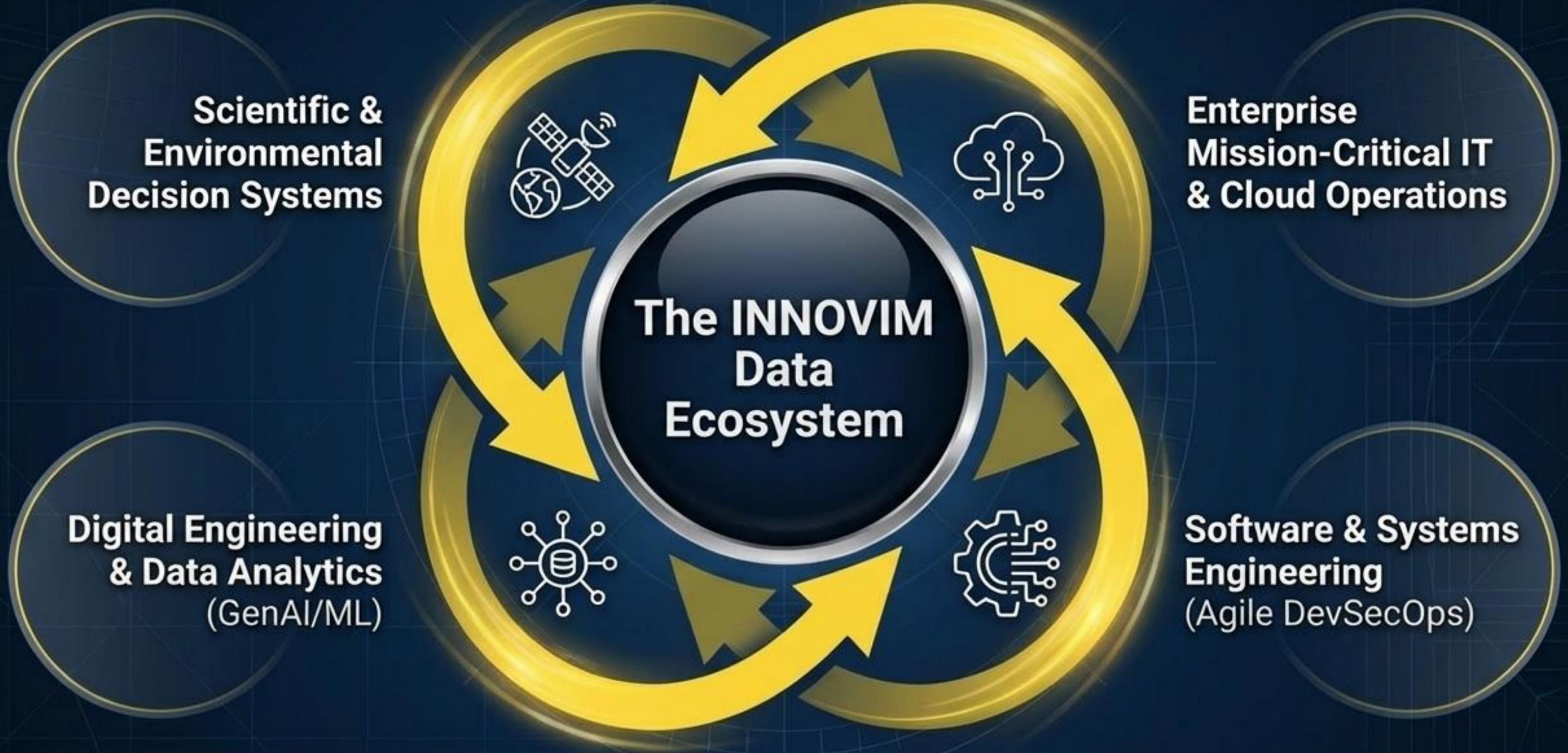Serviced with >99.9% system availability.

DevSecOps Velocity
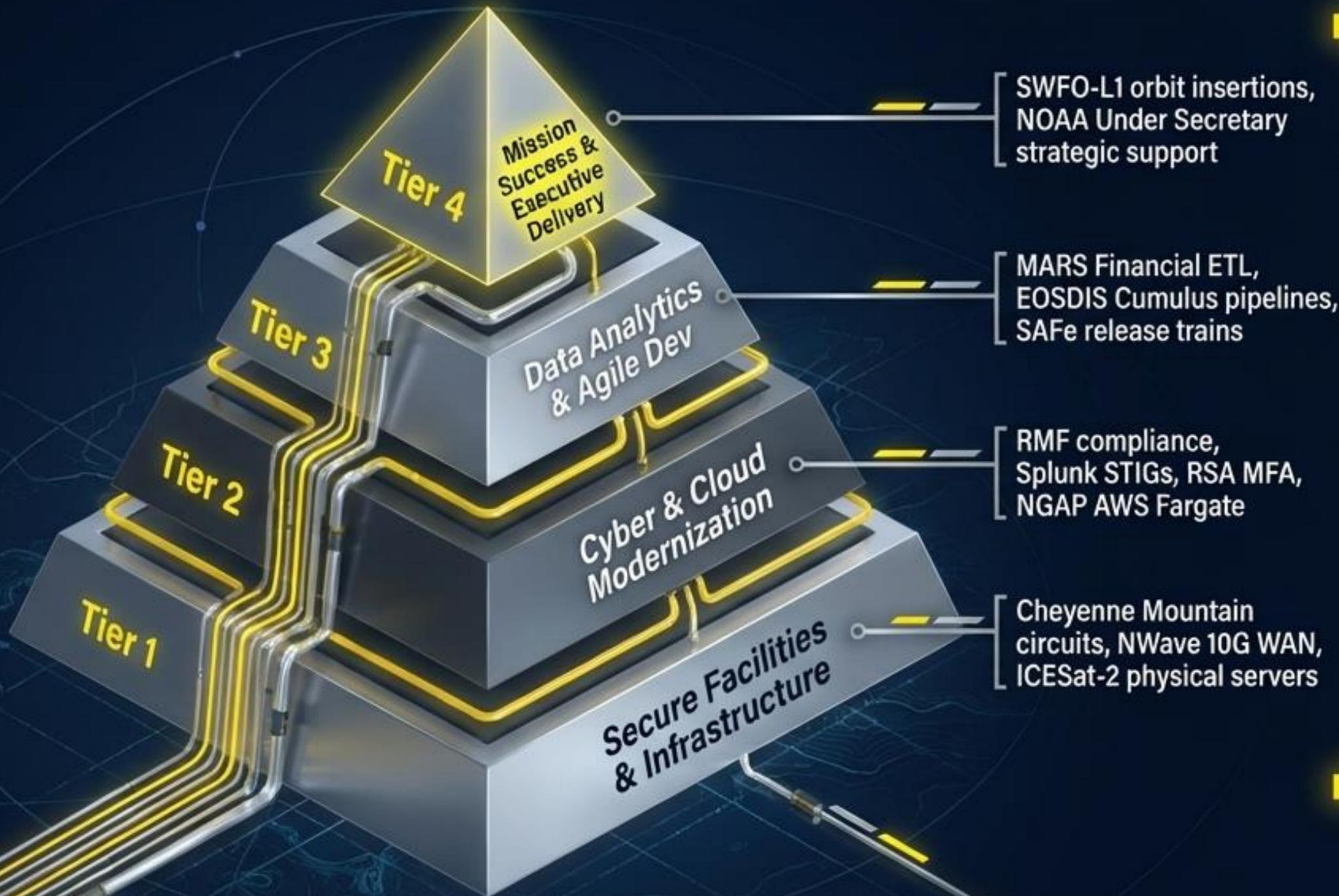

80-100 Hours Saved
Achieved via automated regression testing on DECON Tech Refresh.

We do not just maintain servers or commit code. We ensure successful orbit insertions, resilient national defense networks, and secure climate data distribution.

The Unified Capability Framework: Data Ecosystem

The Enterprise Capability Stack

Tier 4 — Mission Success & Executive Delivery
SWFO-L1 orbit insertions, NOAA Under Secretary strategic support

Tier 3 — Data Analytics & Agile Dev
MARS Financial ETL, EOSDIS Cumulus pipelines, SAFe release trains

Tier 2 — Cyber & Cloud Modernization
RMF compliance, Splunk STIGs, RSA MFA, NGAP AWS Fargate

Tier 1 — Secure Facilities & Infrastructure
Cheyenne Mountain circuits, NWave 10G WAN, ICESat-2 physical servers

Disparate contracts.
One unified capability stack.

NotebookLM

Architectural Agility: Cloud vs. On-Premises

Architectural decisions are driven strictly by mission constraints, never by one-size-fits-all mandates.

Cloud-Native Solutions
(EED-3 / NGAP)

Database Migration
Transition to AWS Aurora Serverless v2 for unmatched dynamic scalability.

Containerized Services
DNS services migrated to serverless, containerized Fargate-hosted solutions.

DAAC Independence
Thin Egress App (TEA) implemented as a separate modular entity.

Local/Hybrid Solutions
(ICESat-2 SIPS)

Massive Local Archiving
Continuous maintenance of 2.5 Petabytes of dedicated local storage.

Custom Hardware Integration
Design and deployment of custom Network Redundant Array of Independent Disks (RAID).

Mission Constraint Alignment
Driven by strict cost constraints and NASA's explicit preference for data locality.

Architecting for High Availability and Scale

Cloud Migration & Hybrid Ops

Proven expertise in AWS (EC2, S3, Lambda, RDS). Migrating legacy, on-premise applications to serveress architectures and highly efficient containerized deployments (Docker, Kubernetes/EKS).

24/7/365 Operations

Sustaining globally dispersed infrastructure (e.g., NOAA CLASS sites, DoD IRES Panama shifts). Utilizing real-time anomaly detection, automated event notifications, and active/active failover.
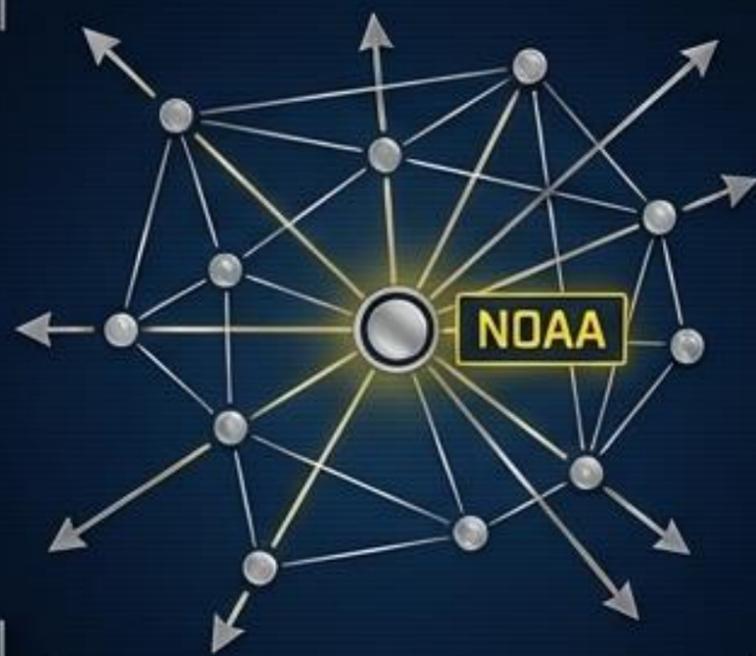
Infrastructure as Code (IaC)

Leveraging Terraform and Ansible for automated, repeatable, and secure deployments that eliminate manual configuration drift.

Scalable Cloud Environment

Legacy On-Premise Servers

NotebookLM

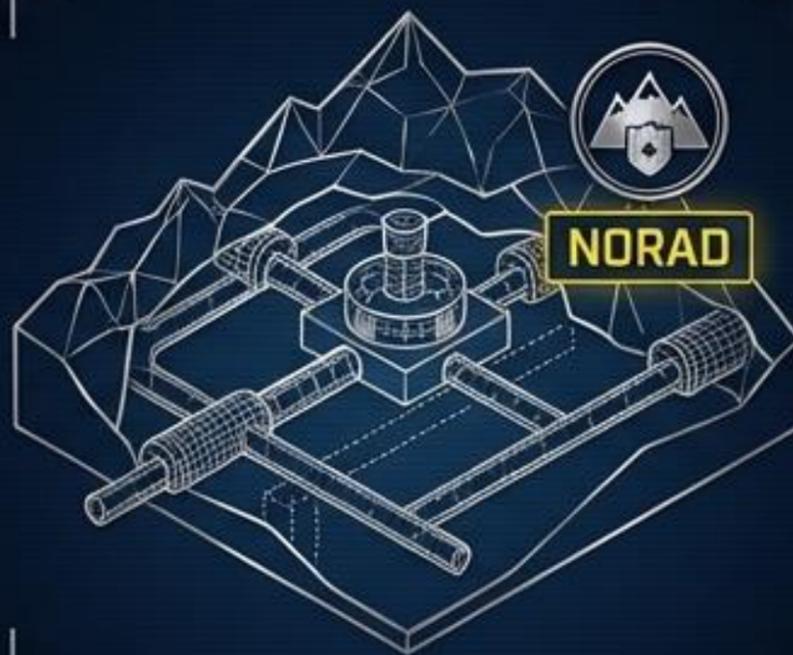# Global Network Telemetry & Infrastructure Maintenance

NWave 10G WAN Integration (NOAA)

NOAA

10G Circuits Active

Testing and turn-up of new Zayo 10G WAN circuits, rapidly resolving associated SR VPN connectivity drops to maintain internal application access.

Cheyenne Mountain Operations (NORAD)

NORAD

34 Critical Circuits Restored

Flawless relocation of 1,000 feet of UMUX cabling executed with zero reported downtime during active defense operations.
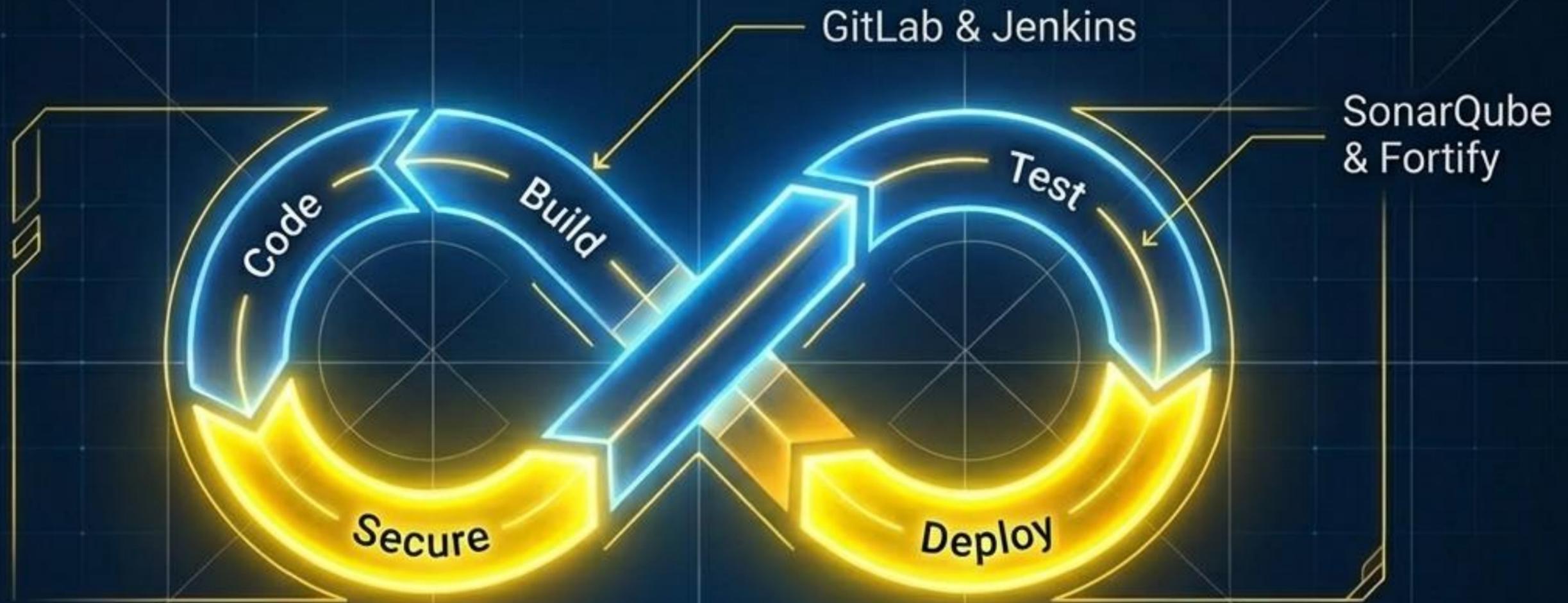
Secure Voice & Comm (DoD)

DoD

30% Capability Expansion

Expansion of secure voice conferencing capabilities, including the installation and configuration of DRSN phones in the CFC JOC.

RMF Compliance: 100% SIA Approvals

SIA Approvals Tracking

☑ CCIC2S ☑ NIIDE ☑ SISP ☑ CPS

100% COMPLETED

Successful submission and final approval of **12** distinct System Impact Assessments (SIAs) across multiple critical environments.

eMASS Architecture Migration

CSO WAN Package: RMF Rev 4 → Rev 5

100% COMPLETED

Flawless transition of the CSO WAN package, assessing and documenting **635** distinct security controls.

ATO Audit Readiness

VERIFIED

100% COMPLETED

CCIC2S DMZ and ELMS Hardware/Software lists peer-reviewed and rigorously updated for impending Authority to Operate (ATO) audits.

Cybersecurity Threat Matrix: MFA/Splunk Hardening

Multi-Factor Authentication (MFA)

DEFENSE VECTOR 1

Deployment and STIG-hardening of 3 new RSA Authentication Managers.

Executed within the NIIDE environment to fundamentally secure government workstation communications.

Tsunami Warning System (NOAA8865)

DEFENSE VECTOR 2

Provisioning of Tenable Nessus for continuous active vulnerability scanning.

Comprehensive CSAM documentation management implemented for mission-critical alert dissemination systems.

Splunk Enterprise Hardening

DEFENSE VECTOR 3

Enterprise upgrades from versions 9.1 to 9.4 executed across RHEL 9 environments.

Successfully validated by rigorous two-week DISA STIG compliance audits at TDF and CMAFS.

Transforming Petabytes into Predictive Insights

AI/ML Processing Nodes

Deep Learning Core

Predictive Insights Dashboard
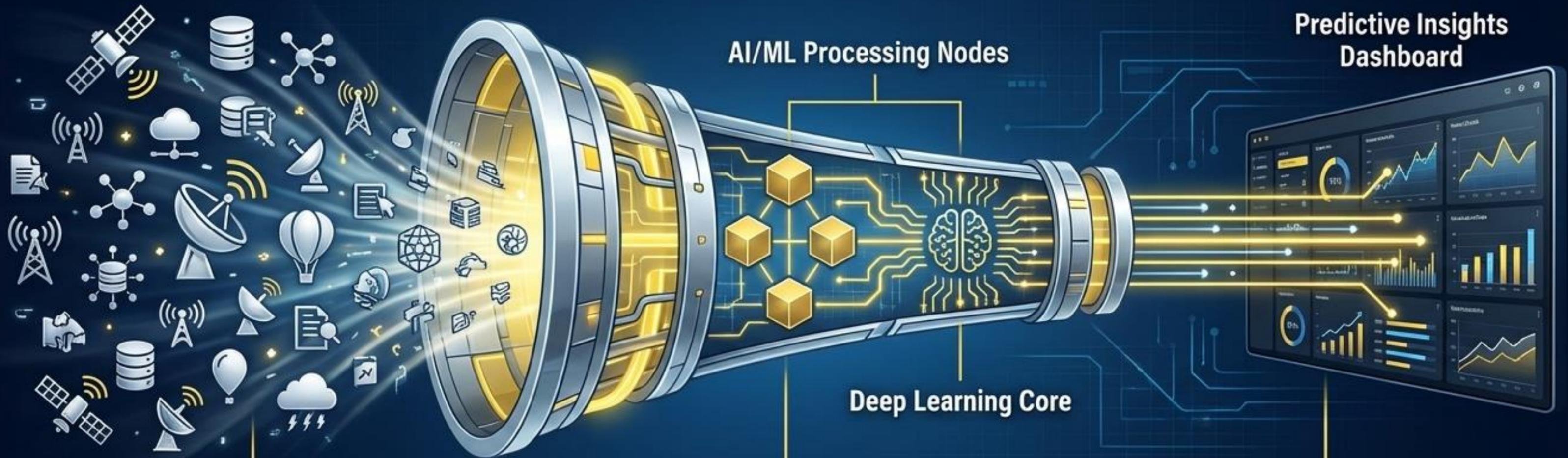
Big Data Management

Governing the entire data lifecycle—from high-velocity ingestion of diverse sensor sets to rigorous metadata standardization and cataloging.

Advanced Analytics & GenAI/ML

Prototyping deep learning bias correction models, running logistic regression for climate outlooks, and building automated ETL pipelines using proprietary tools like InnoVisions™.

Enterprise Operational Intelligence

Utilizing Splunk, Kibana, and Elastic Search to build real-time monitoring dashboards that give agency leadership total visibility into system health and performance.

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Data Lifeline: High-Volume Distribution

01

Ingest

Raw data hits the NASA Sentinel Gateway (NSG).

Concurrent ingest handling of Sentinel 1A, 1B, 3A, and reprocessed 5P data.

02

Processing

Automated scripts execute verification.

Rigorous checksum verifications to prevent ESA staging errors.

03

Cloud Storage

Data pushed to AWS S3 via Cumulus.

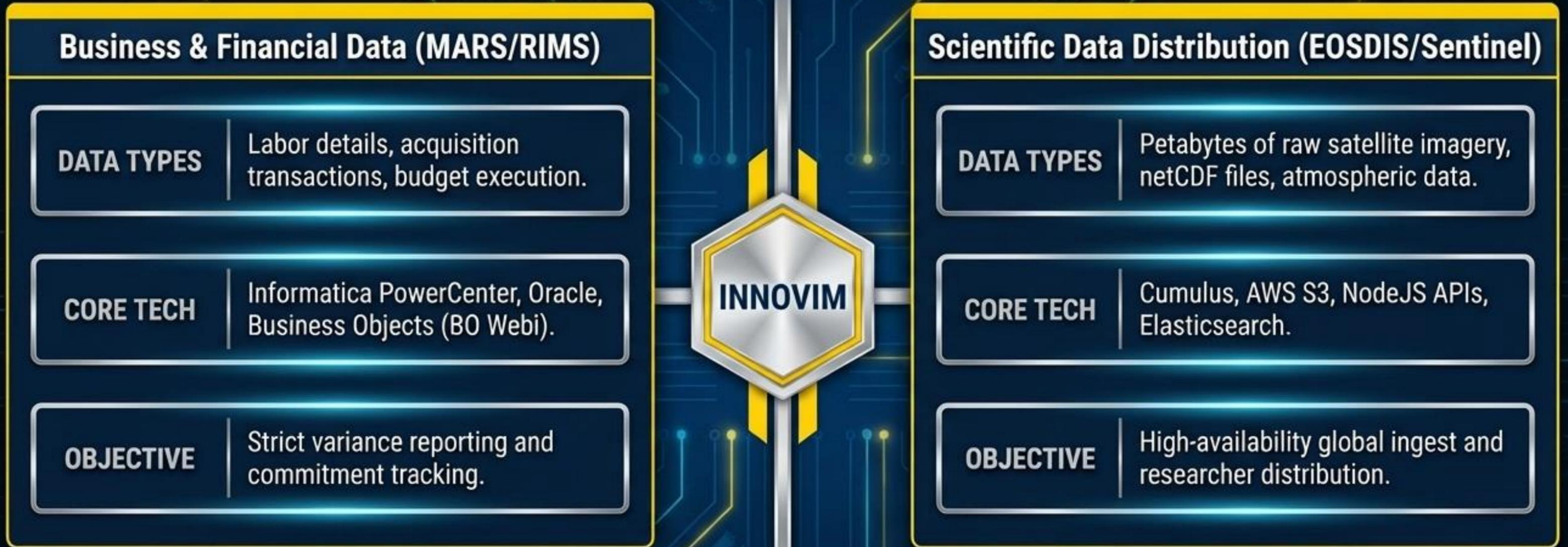Scalable bulk re-ingest workflows deeply integrated with Cloud Metrics.

04

End-User Query

Accessed via Earthdata Search.

Implementation of Natural Language AI search capabilities (e.g., 'show me rainfall data over Washington DC').

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Data Systems Diagnostic: Specialized Domains

Business & Financial Data (MARS/RIMS)

DATA TYPES | Labor details, acquisition transactions, budget execution.

CORE TECH | Informatica PowerCenter, Oracle, Business Objects (BO Webi).

OBJECTIVE | Strict variance reporting and commitment tracking.

INNOVIM

Scientific Data Distribution (EOSDIS/Sentinel)

DATA TYPES | Petabytes of raw satellite imagery, netCDF files, atmospheric data.

CORE TECH | Cumulus, AWS S3, NodeJS APIs, Elasticsearch.

OBJECTIVE | High-availability global ingest and researcher distribution.

Mastery requires distinct toolsets; INNOVIM possesses **enterprise-level fluency** in both highly specialized data domains.

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Financial ETL Engine (MARS)

1 Disparate Inputs

NOAA Data Warehouse
Raw meteorological and climate data streams.

Grants Online
Financial grant award and disbursement records.

Sunflower Asset Management
Enterprise asset and inventory data.

2 The Engine

Informatica PowerCenter Funnel

Automated Validation Protocols:
Daily integrity checks and transformation rules applied to raw inputs.

3 Executive Outputs

Oracle MARS Data Warehouse
Centralized financial data repository (OLAP).

Interactive BO Webl Dashboards
Spend YTB: 12.48 | Variance: -1.2%

Real-time Variance Analysis
ALERT: Snact_ID 8645 Overrun | Sector: SERVIR

Office-by-Office Staffing Plans
MPS: 92% Staffed | NESDIS: 95% Staffed

Oracle MARS Data Warehouse
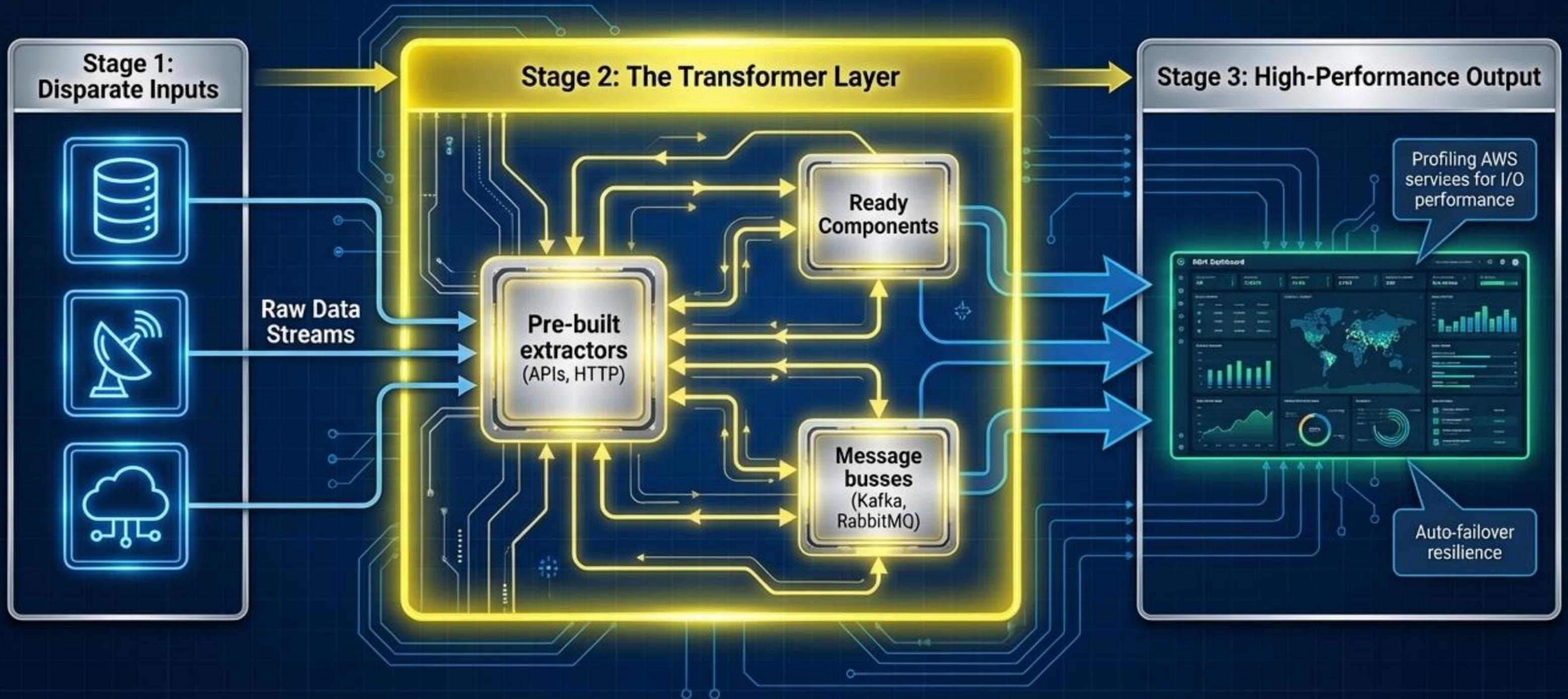Centralized financial data repository (OLAP).

InnoVisions Strategic Advantage vs Legacy

How the INNOVIM architecture directly outperforms legacy IT implementations.

Dimension	Legacy Solutions	InnoVisions™ Architecture
Rapid Prototyping	Slow, rigid testing.	Test scale, throughput, and resilience with auto-failover.
Ready Components	Custom-built from scratch.	Pre-built extractors (APIs, HTTP) and message busses (Kafka, RabbitMQ).
Performance Tracking	Surface-level analytics.	Profiling AWS services for precise I/O performance and ingest metrics.
Data Granularity	Batch reporting.	Record-level logging and real-time status reporting.

InnoVisions Catalyst: Transformer Layer Stage 2

The proprietary transformer layer that converts raw agency data into actionable, record-level mission intelligence.

Stage 1: Disparate Inputs

Stage 2: The Transformer Layer

Stage 3: High-Performance Output

Raw Data Streams

Pre-built extractors (APIs, HTTP)

Ready Components

Message busses (Kafka, RabbitMQ)

Profiling AWS services for I/O performance

Auto-failover resilience

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The Unified Impact Synthesis

Space
Terabyte-scale Data Distribution
(NASA EOSDIS)

Weather
Atmospheric Machine Learning & Field Readiness
(NOAA SWO/NWS)

Defense
Global Network Defense & Cloud IT
(DoD MDA IRES)

InnoVisions™ Platform
(WOSB + TS Clearance)

No matter the agency or domain, the INNOVIM framework consistently delivers **data-driven**, flawlessly executed mission intelligence.

Powering Exploration

SECTOR: SPACE (NASA)

- **Instrument Design:** Remote sensing systems build & launch.
- **Science Data Engineering:** Big data and mobile computing solutions.
- mobile computing solutions. ⊣nent.
- **Propulsion Support:** Valve and fluid system evaluation for spacecraft.
- **Data Distribution:** Processing advanced algorithms on commodity hardware.

Sector Focus: Space (NASA)

Case Study Panel: NASA EED-3 (Earthdata Evolution)

Mission: Modernize the sprawling Earth Observing System Data and Information System (EOSDIS) to handle exponential data growth.
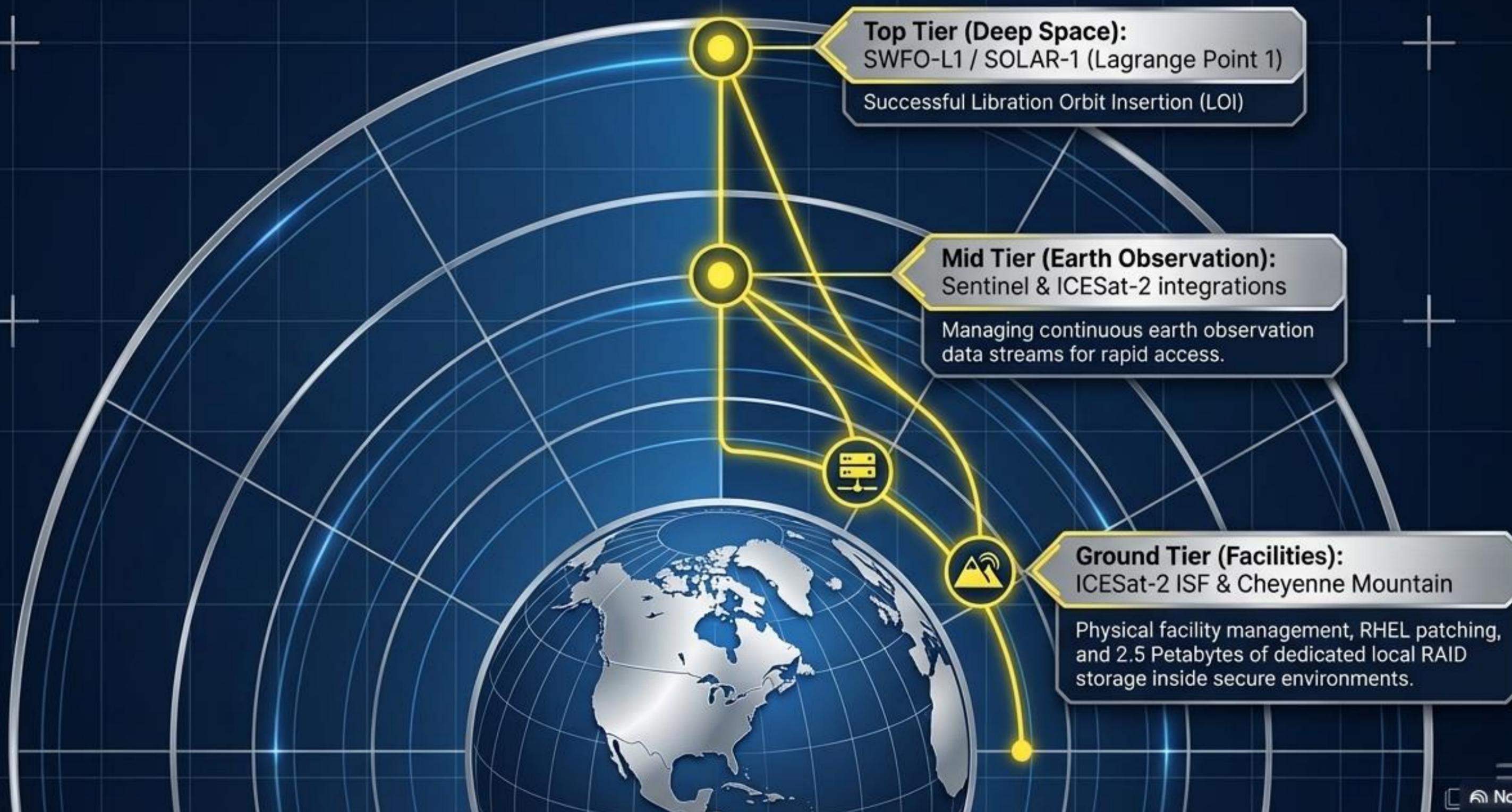
Execution:

Led the Cumulus initiative, transitioning legacy on-premise DAAC data into a cloud-native AWS infrastructure. Coordinated multiple SAFe Agile Release Trains to ensure seamless delivery.

Impact:

Upgraded the Common Metadata Repository (CMR) to support 160M+ searches annually at 99.9% uptime. Transitioned physical servers into an optimized serverless ecosystem.

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Spatial Awareness: Deep Space to Ground Ops

Top Tier (Deep Space):
SWFO-L1 / SOLAR-1 (Lagrange Point 1)

Successful Libration Orbit Insertion (LOI)

Mid Tier (Earth Observation):
Sentinel & ICESat-2 integrations

Managing continuous earth observation data streams for rapid access.

Ground Tier (Facilities):
ICESat-2 ISF & Cheyenne Mountain

Physical facility management, RHEL patching, and 2.5 Petabytes of dedicated local RAID storage inside secure environments.

Sector Focus: Environment (NOAA)

Case Study Panel: NOAA CLASS (Data Stewardship at Scale)

186-DAY ACCELERATION

MISSION:
Sustain, operate, and modernize NOAA's premier facility for the distribution of critical environmental satellite data.

EXECUTION:
Orchestrated the secure, end-to-end migration of the Comprehensive Large Array-Data Stewardship System to AWS. Designed an active/active architecture for continuous COOP access.

IMPACT:
Securely moved over 15 Petabytes of data (700 million individual files) to AWS within a rapid 186-day window. Achieved >99% uptime and massive cost-efficiencies.

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Defending the Enterprise.

» Systems integration and 24/7 operations

» Cyber defense and cloud computing

» Sustainment of mission-critical systems

» Hardware/software integration for tactical environments

INNOVIM Defense Services (IDS)
Top Secret Facility Clearance

Strategic Warning Systems for NORAD & USAF

Project: NISSC II (NORAD)

Sustainment of mission-critical systems for the Cheyenne Mountain Complex. Delivering DevSecOps services and virtual infrastructure updates for Integrated Tactical Warning/Attack Assessment.

Project: Kessel Run (USAF)

Advanced Data Science Services including data governance, metadata management, and microservice-based architectures.

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Securing the High Ground Across Massive DoD Portfolios

USAF Kessel Run

Migrated the All-Domain Common Platform to AWS Kubernetes. Embedded top-tier security tools for continuous ATO.

Scaling environments to successfully support 100 million users per hour.

DoD IRES (Missile Defense)

Provided 24/7/365 global IT O&M across 250 locations.

Architected micro-segmented virtual networks and managed Top Secret infrastructure for the Ballistic Missile Defense System.

NORAD NISSC II

Modernized legacy ITW/AA early warning systems.

Utilized VMware Tanzu to transition entirely to an 'everything as code' DevSecOps infrastructure inside highly secure, air-gapped environments.

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Streamlined Procurement.

- **NOAA ProTech Satellite 2.0**
- **NOAA ProTech Weather 2.0 (Small Business)**
- **NASA SEWP**
- **GSA MAS**
- **NMITS**

NAICS Codes:
- 541330 (Engineering)
- 541611 (Management Consulting)
- 541512 (Systems Integration)
- 541511
- 541618
- 541690
- 541990

Let's build the future of your mission.

Point of Contact:

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Contracting Codes:

UEI: PFKNCNAF6MD3

CAGE: 67JY3 / 3TTR0

NAICS: 541512, 541330, 541511, 541618, 541690, 541990

Certifications: Woman-Owned Small Business (WOSB), ISO 9001:2015

Facility Clearance: Top Secret

Innovim
Innovative Solutions, Flawless Execution

Forging Knowledge Advancement.

Empowered people enabling smart decisions through data analytics and exploration.

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