ADVANA
INDUSTRY DAY

18 September 2024

Rules of Engagement

- *This Industry Day is intended for market research purposes only. The information presented at Industry Day is intended to increase Industry transparency of government requirements development.*

- *Any information collected during Industry Day will be used to improve our understanding of the market and will not be used for any other purpose.*

- *No decisions, commitments, or promises are being made, and no contracts or agreements will be entered into as a result of these sessions.*

- *The information and views expressed at the Industry Day are not intended to and shall not be interpreted as binding, creating, or executing any acquisitions, agreements, contracts, procurements, etc.*

- *Participation in this market research is voluntary and any information provided will be unclassified and publicly releasable.*

Objectives

- Share the origin story of Advana, its mission space, and its relationship to CDAO's Open DAGIR approach to scaling data, analytics, and artificial intelligence (AI) capabilities.

- Provide insights on opportunities for traditional and nontraditional contractors to participate in ongoing Advana development activities, including fundamental knowledge to provide Advana architecture development and Advana application development.

- Discuss initial ideas and solicit feedback on partner workflows, draft statements of work, solicitation criteria, the Open DAGIR construct, and the acquisition strategy for participating in Advana development, from design and development to testing and scaling.
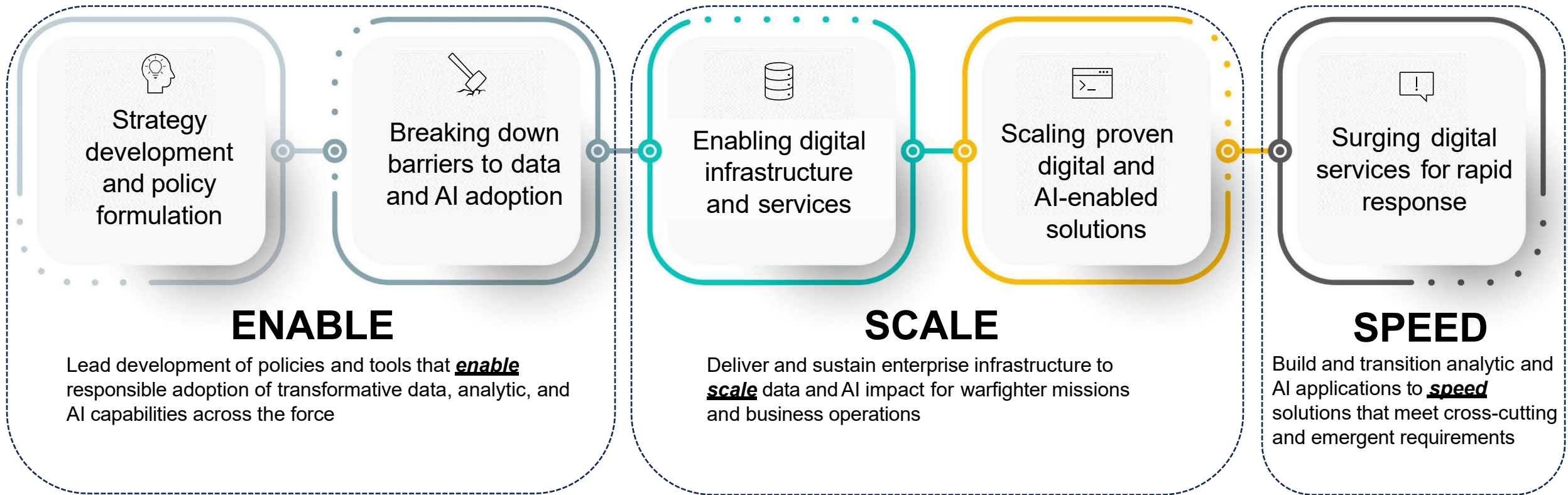
Dr. Radha Plumb

DoD Chief Digital and Artificial Intelligence Officer

CDAO Mission

Accelerate DoD adoption of data, analytics, and AI to generate decision advantage from the boardroom to the battlefield

Strategy development and policy formulation

Breaking down barriers to data and AI adoption

Enabling digital infrastructure and services

Scaling proven digital and AI-enabled solutions

Surging digital services for rapid response

ENABLE

Lead development of policies and tools that **_enable_** responsible adoption of transformative data, analytic, and AI capabilities across the force

SCALE

Deliver and sustain enterprise infrastructure to **_scale_** data and AI impact for warfighter missions and business operations

SPEED

Build and transition analytic and AI applications to **_speed_** solutions that meet cross-cutting and emergent requirements

CDAO | PSA that Executes

Supporting PSAs & CCMDs with END USER, END FACING CAPABILITY

CJADC2 Data Integration, Data Mesh, Analytics Capabilities

AT SPEED

RAPID LEARNING drives change

At enterprise foundation in areas of strategy, assurance, governance, acquisition, & talent – allowing for decentralized execution by foundational enablers (people/process/technology)

AT SCALE

ENABLES DIGITAL INFRASTRUCTURE Allows people to work within the system

In the context of digital, AI, and analytics solutions

UNCLASSIFIED

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ADVANA
INDUSTRY DAY

Advana

Overview & Background

Cody Ferguson

Data and AI Services Division Chief, CDAO Enterprise Platforms and Services

Mitchell Fiedler

Enterprise Analytics Division Chief, CDAO Mission Analytics
Acting Principal Director, CDAO Enterprise Platforms and Services

Kate Sieve

Division Chief, Audit and Financial Management Analytics for Advana,
Office of the Under Secretary of Defense Comptroller

The Department of Defense

Owns more

Aircraft than **Southwest**®

Ground vehicles than **FedEx**®

and a naval fleet roughly equal to **MAERSK**®

Maintains a global footprint larger than either

Starbucks **or** McDonald's

Serves more students and runs more schools than

BOSTON™ Public Schools

Employs more people than the entire populations of

San Jose **+** Philadelphia

combined

Runs more hospitals than either

Kaiser Permanente® **or** Mayo Clinic®

Maintains and manages assets valued greater than

BERKSHIRE HATHAWAY INC.® **+** **ExxonMobil**®

+ Walmart® **+ amazon**®

combined

Administers IT networks with a user base roughly equal to the population of

CHICAGO

Manages a supply chain with 3x as many suppliers as

Walmart®

The Original Concept of Advana

Who we are
Advana – a mash-up of the words "Advancing Analytics" – is a technology platform that houses Government-owned data in a flexible federated architecture that enables decision support analytics, data management and data science tools, and associated support services for decision making across the Department of Defense.
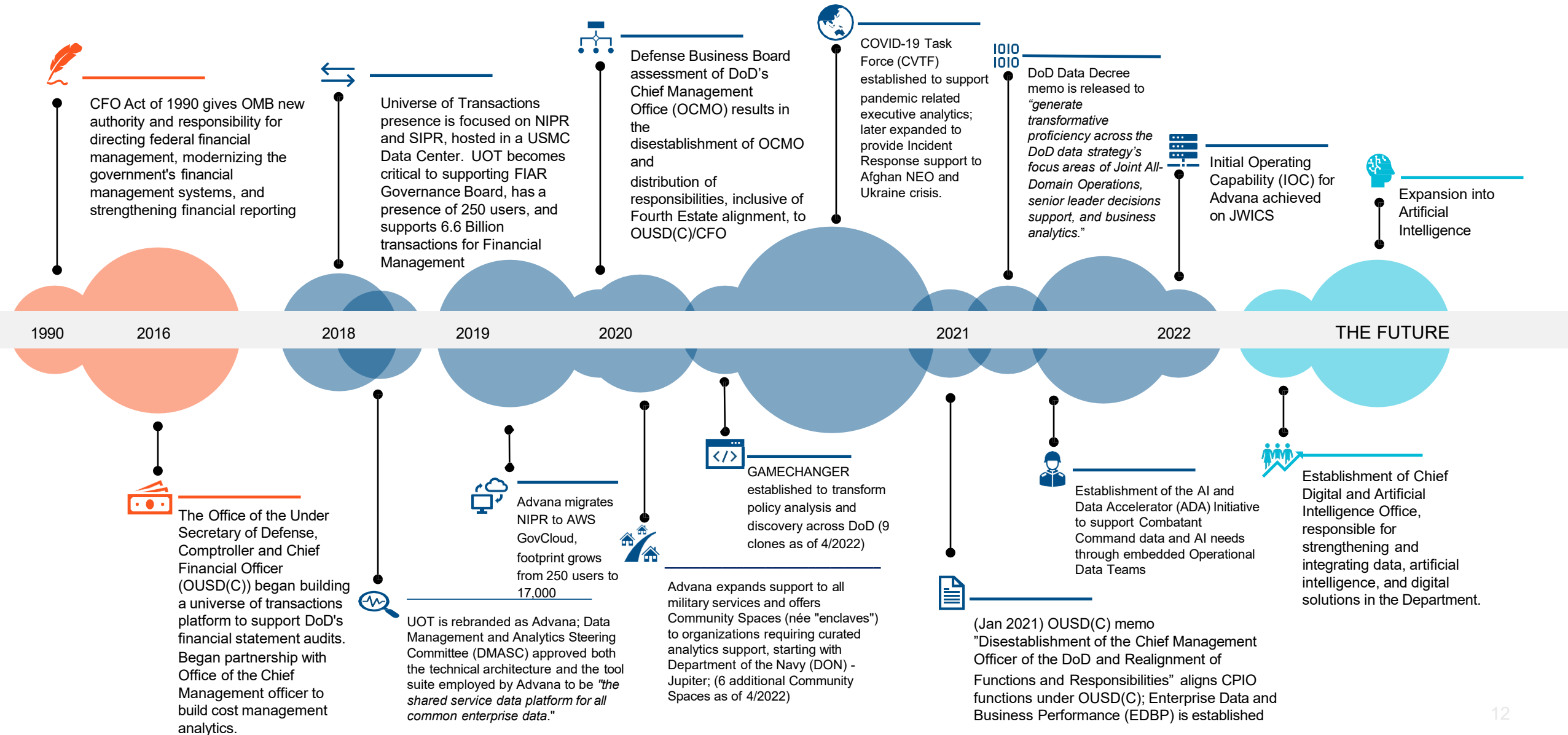
Our vision
Enable data driven decision-making behavior across the DoD with accessible data, analytics, and artificial intelligence (AI).

Our mission
Make data widely accessible, understandable, and actionable across the DoD enterprise by translating common enterprise data into profound yet actionable insights, decisions, and outcomes.

Evolution of Advana

CFO Act of 1990 gives OMB new authority and responsibility for directing federal financial management, modernizing the government's financial management systems, and strengthening financial reporting

Universe of Transactions presence is focused on NIPR and SIPR, hosted in a USMC Data Center. UOT becomes critical to supporting FIAR Governance Board, has a presence of 250 users, and supports 6.6 Billion transactions for Financial Management

Defense Business Board assessment of DoD's Chief Management Office (OCMO) results in the disestablishment of OCMO and distribution of responsibilities, inclusive of Fourth Estate alignment, to OUSD(C)/CFO

COVID-19 Task Force (CVTF) established to support pandemic related executive analytics; later expanded to provide Incident Response support to Afghan NEO and Ukraine crisis.

DoD Data Decree memo is released to *"generate transformative proficiency across the DoD data strategy's focus areas of Joint All-Domain Operations, senior leader decisions support, and business analytics."*

Initial Operating Capability (IOC) for Advana achieved on JWICS

Expansion into Artificial Intelligence

| 1990 | 2016 | 2018 | 2019 | 2020 | 2021 | 2022 | THE FUTURE |

The Office of the Under Secretary of Defense, Comptroller and Chief Financial Officer (OUSD(C)) began building a universe of transactions platform to support DoD's financial statement audits. Began partnership with Office of the Chief Management officer to build cost management analytics.

UOT is rebranded as Advana; Data Management and Analytics Steering Committee (DMASC) approved both the technical architecture and the tool suite employed by Advana to be *"the shared service data platform for all common enterprise data."*

Advana migrates NIPR to AWS GovCloud, footprint grows from 250 users to 17,000

GAMECHANGER established to transform policy analysis and discovery across DoD (9 clones as of 4/2022)

Advana expands support to all military services and offers Community Spaces (née "enclaves") to organizations requiring curated analytics support, starting with Department of the Navy (DON) - Jupiter; (6 additional Community Spaces as of 4/2022)

(Jan 2021) OUSD(C) memo "Disestablishment of the Chief Management Officer of the DoD and Realignment of Functions and Responsibilities" aligns CPIO functions under OUSD(C); Enterprise Data and Business Performance (EDBP) is established

Establishment of the AI and Data Accelerator (ADA) Initiative to support Combatant Command data and AI needs through embedded Operational Data Teams

Establishment of Chief Digital and Artificial Intelligence Office, responsible for strengthening and integrating data, artificial intelligence, and digital solutions in the Department.

Current Advana Ecosystem

- Analytic products and data tools are supported by core analytic capabilities, data operations, and platform infrastructure

- Community spaces – for example Jupiter for the Department of the Navy and BLADE for the Air Force – leverage Advana's shared services and draw from the same core products, tools, and capabilities in community space environments that meet their unique needs at a lower cost than standing up separate environments altogether
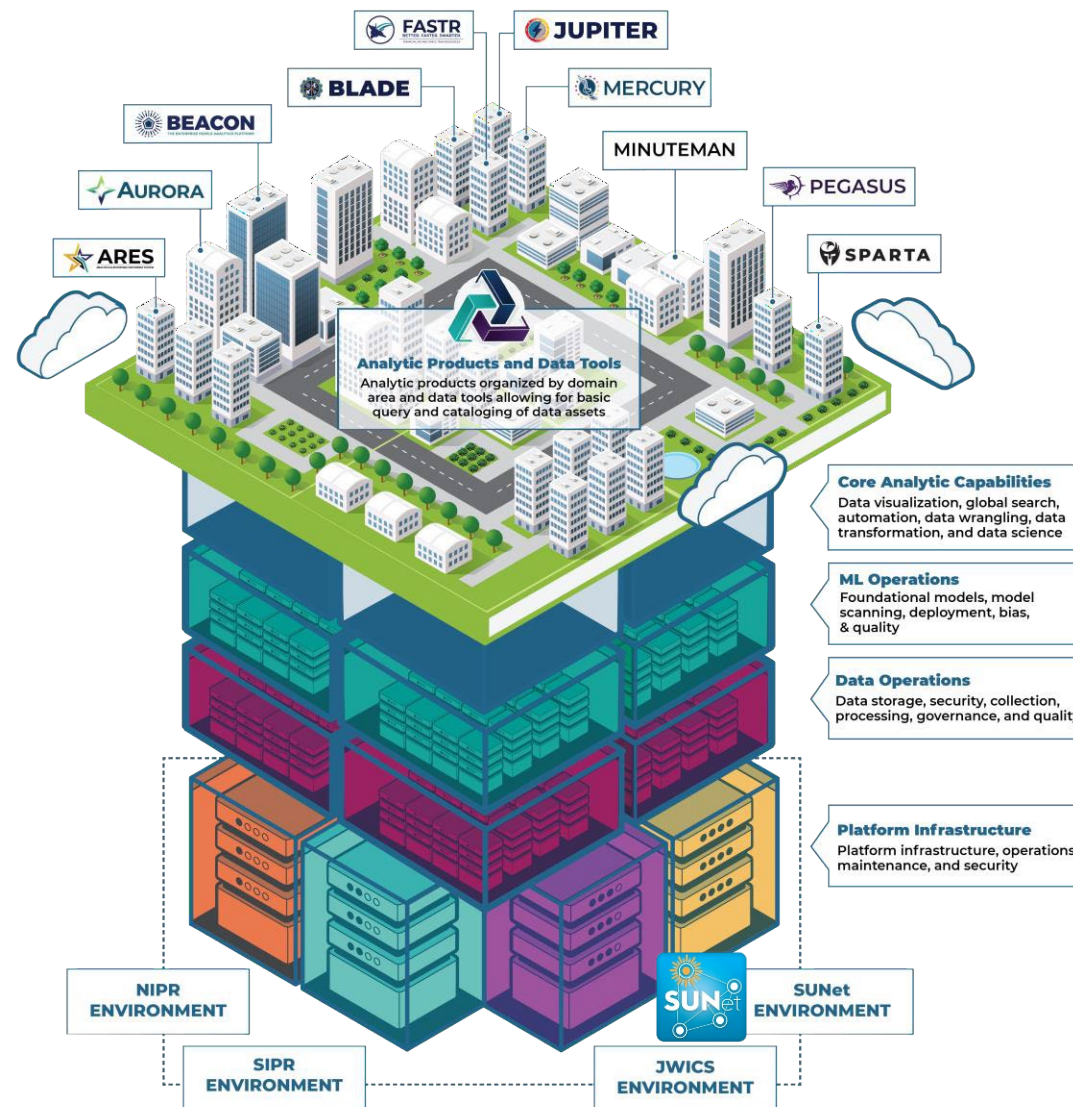
Benefits to DoD

These concepts underpin how Advana operates and what makes it unique in the data and analytics world.

Customer-centric Design

Product design is driven by customer business and mission needs, based on customer input feedback at all organizational levels

Open Architecture with No Vendor Lock-in

Best of breed open source and COTS tools are built on an open architecture, hosted on the cloud, with the ability to pull government, public, and commercial data feeds

Government Owned and Secured

DoD accredited system which can serve as a long-term steward of business, mission, and crisis related analytics on NIPR, SIPR, and JWICS

Something for Everyone

Range of ready-built visualizations and self-service options makes Advana relevant and impactful for ALL DoD users – from senior and mid-level decision-makers to analysts, developers, and data scientists

Scaled Agile Flexibility

Program resources leverage Scaled Agile (SAFe) methodology for planning and delivery, which allows for collaboration across our team and our customers as we iterate on solutions together

Single Source of Truth

Thousands of users have access to over 500+ DoD data sources across business domains (e.g., Personnel, Finance, Supply Chain)

Foundation Built Upon Audit •• **Improved Data Quality for Trusted Insights**

The platform began as the Universe of Transactions for purposes of financial statement audit and grew from there. The same audit principles that instill trust in the data for purposes of better decision making are applied to everything as a platform. This foundation leads to better business and mission decisions and outcomes via the ability to improve data quality, ask better questions of our data, and in turn, support decision making that creates value for the warfighter

Advana Impact

Improper Pay

- Fully automated from data acquisition to end results processing over 10 million records. Improper Pay has identified over $12.7 billion dollars of true improper payments since 2020, allowing DoD to immediately take action to prevent or recover these improper payments.

COVID-19 Task Force

- Pandemic response application suite launched to directly support DoD Coronavirus Task Force (CVTF). The CVTF led efforts to combat the COVID-19 pandemic by providing a DoD-specific COP for senior leadership and action officers to make critical decisions about the health and safety of DoD personnel as well as supply chain and industrial base impacts.

Afghan Non-combatant Evacuation (NEO)

- Acquired and collected information about U.S. citizens and our close partners to facilitate their evacuation from the country under the threat of death from the Taliban. Informing leadership decisions regarding safe haven locations, personnel throughput, morale, health, and welfare supplies, as well as the basic tracking of evacuees, enabling the largest-scale evacuation of a country attempted in modern history.

Ukraine Crisis

- Advana Tracks weapons expenditures in the theater, as well as stockpiles originating from the U.S. These tools are utilized to inform Presidential decisions regarding the extent of support to provide to Ukraine, while also balancing U.S. requirements to maintain a level of preparedness for other contingencies.

Integrated Approach Informs Decision Makers

Advana Approach

1. Discover Data
- Search data sets across platform
- Discover trending data
- Get recommendation based on your searches

2. Understand Data
- View data profile pages
- Understand uses of data
- Request access to data

3. Query and Analyze
- Request new Advana project workspace
- Develop data science and machine learning algorithms against data
- Run containerized models on scalable infrastructure

4. Visualize Results
- Visualize data and resulting models with drill-down dashboards
- Develop reports accessible to your community

Advana Principles
- Web-based access
- Horizontally (infinitely) scalable
- Containerized enclaves
- Role based access

Advana provides users with a seamless experience and journey across the platform from discovering the data all the way to getting insights from the data

ANALYSTS

BUILDERS

1. DISCOVER NEW DATA SETS

2. UNDERSTAND AND EXPLORE DATA

3. QUERY AND ANALYZE DATA

4. VISUALIZE AND SHARE RESULTS

DECISION MAKER
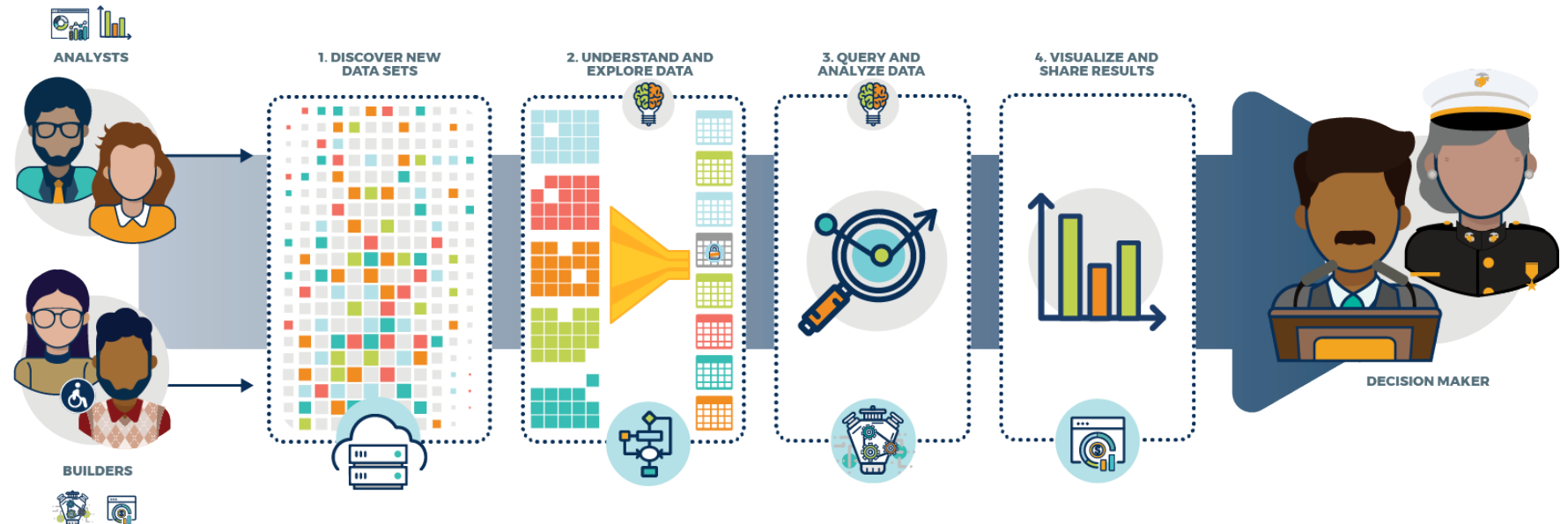
Current Advana Tech Stack

ADVANA NIPR

DATA, TOOLS, AND APPS ARE ACCESS CONTROLLED FOR DEPARTMENT OF DEFENSE USERS

PROCESSING/AGGREGATION | **CONSUMPTION**

Ingestion
Ingest batch and streaming data from any source of data using fully automated pipelines with little to no human involvement

Advana Shield · SFTP · databricks

Storage
Store any type of data from any source easily and cheaply. Handle structured to unstructured data regardless of structure, or format

Parquet · AVRO · amazon S3 · DELTA LAKE · Amazon RDS

API
Create, publish, and manage automated API connections

apigee

USE

Data Access Layer
Access and query data through different method to enable fast analytics. Tools enable non-technical and technical users to interact with the data using rapid and streamlined tools that are part of a fully integrated experience

iQ · Google · amazon Elasticsearch Service · IMMUTA · apigee

Exploratory Environment
Explore and perform analytics on the data using a variety of industry standard languages directly from your web browser (no need to install tools). Keep version control of your code, share and collaborate with others, and run the code against a powerful distributed computing platform

Scala · DataRobot · databricks · R · python · AWS SageMaker · VIRTUALITICS

Data Processing   Parallel and distributed computing enables processing of terabytes of data in seconds.

databricks · Advana Sonic · Advana BiFrost · Spark GraphFrames · C3.ai

Data Governance
Manage every piece of data using data cataloging, data tagging, data lineage, data policy management, and managing data access approvals

Collibra · IMMUTA

Reporting and Business intelligence
Rapidly build dashboards and reports that enable users to perform drill-down from top to bottom using modern visuals.

Qlik Sense · tableau SOFTWARE

INFRASTRUCTURE, SECURITY AND PLATFORM

Data Infrastructure and Security
Best-of-breed of Open-Source and COTS technologies providing a secure, scalable, and performant foundation for the platform.

IMMUTA · PII/PHI Compliant RBAC/ABAC · AWS CLOUDHSM · Microsoft Active Directory · sonarQube · anchore · splunk · CloudFormation · f5 · Amazon EKS · Advana Edge · GitLab

Data Platform
Fast performing and horizontally scalable compute and storage resources handling petabytes of data, hundreds of billions of records, millions of files across security fabrics.

AWS GovCloud (US) **NIPRNET** → Advana BiFrost CDES → AWS **SIPRNET** → Advana BiFrost CDES → AWS **JWICS**

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What Advana Has Become

ENTERPRISE PLATFORM CAPABILITIES

API

DATA GOVERNANCE
- Data Catalog
- Ontology

DECISION SUPPORT TOOLS
- Dashboards
- Models
- Web Apps

Consumers

DATA AND AI MANAGEMENT
- Access Control
- Data Acquisition
- Data Storage
- Data Quality
- Data Lineage
- Data Processing
- Data Automation
- Streaming Data

AI SCAFFOLDING
- Data Query/ Exploration
- Self-Service Workspaces
- CI/CD
- Model Dev & Test
- Model Deployment
- RPA

Builders

- Security Engineering
- Application Management
- Enterprise Architecture
- Operations Management

aws | **Microsoft** | **EDGE** | **ADVANA** | **ADVANA AI**

NIPR IL4/5 | **SIPR** IL6 | **JWICS** | **SUNet**

APPLICATIONS

MARQUEE PRODUCTS

MRI | GIDE | Panda | Orion | SUNNET
PULSE | GAMECHANGER | Perceptor | DAR-Q | RAVEN | IR COP

COMMUNITY SPACES

COMBATANT COMMANDS + SERVICES

FUNCTIONAL COMMUNITIES

CDAO APPS

Catalog for CDAO Policy | Advana DIL for CDAO | Anchore and CI/CD for CDAO Cyber | GIDE apps and DIL for CDAO CJADC2

100K USERS | **90K+** DATA SETS | **100+** ORGANIZATIONS USING PRODUCTS | **100+** PRODUCT LINES

Future Concept of Operations for Advana
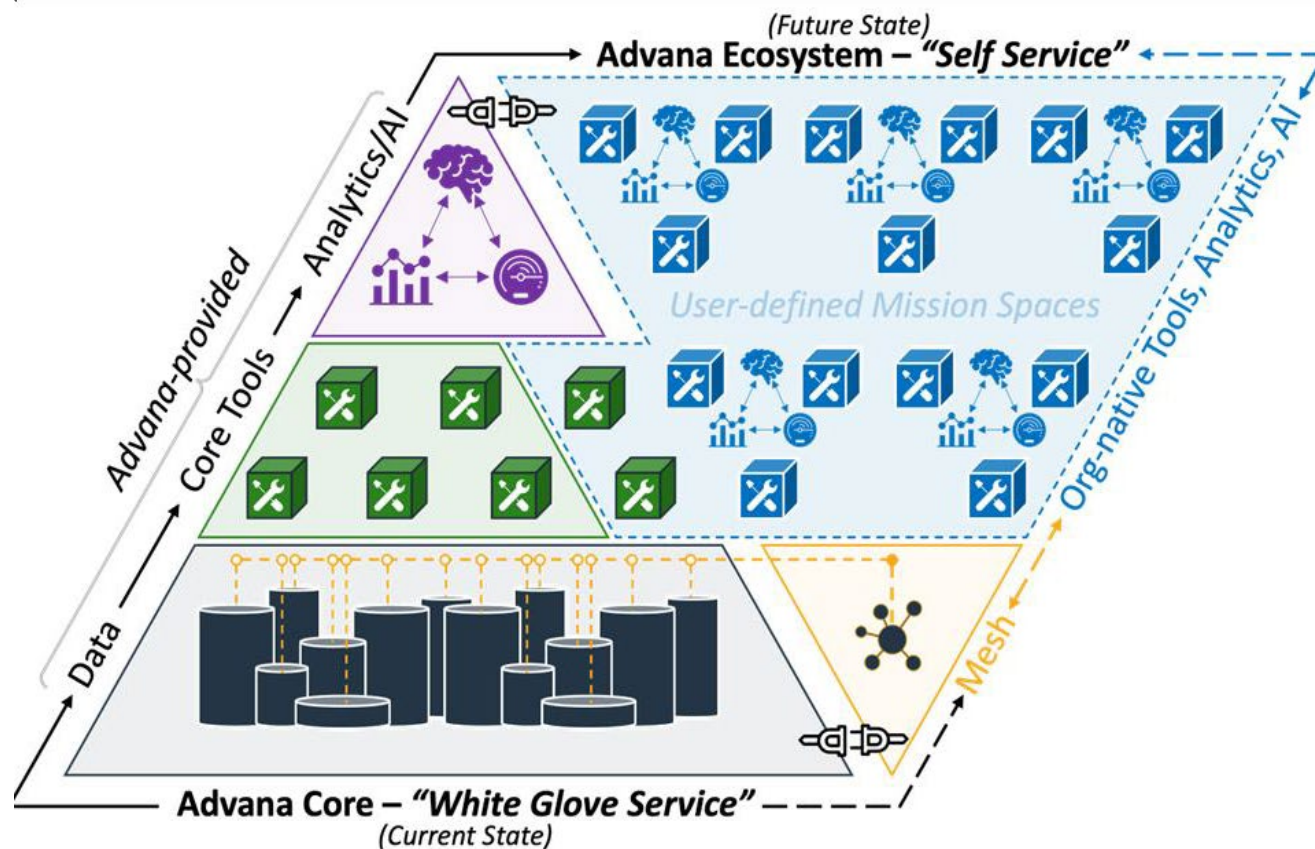
Today
- Single platform
- Development-as-a-service
- Single prime integrator
- Integrated tech stack
- Traditional analytics

Future
- Multi-platform ecosystem
- Self-service development
- Vendor diversity
- Federated technical offerings
- Advanced analytics

Open DAGIR & Advana
Overview

Garrett Berntsen

Deputy CDAO for Mission Analytics, DoD CDAO

Eugene Kuznetsov

Deputy CDAO for Enterprise Platforms and Services, DoD CDAO

CDAO Organization & Key Initiatives

```
Chief Digital & AI Officer

Principal Deputy Chief Digital & AI Officer

Executive Director
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ENABLE

| Acquisition & Assurance | Policy | Business Operations |

SPEED

| Advanced Command & Control (C2) Accelerator | Chief Product Officer |

SCALE

| **Garrett Berntsen** | **Eugene Kuznetsov** |
| Mission Analytics | Enterprise Platforms & Services |

Lead development of policies and tools that **_enable_** responsible adoption of transformative data, analytic, and AI capabilities across the force

Build and transition analytic and AI applications to **_speed_** solutions that meet cross-cutting and emergent requirements

Deliver and sustain enterprise infrastructure to **_scale_** data and AI impact for warfighter missions and business operations

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Tradewinds
& Policy Digital Education
Functional Community Management

CDAO Council; Strategy
RAI Toolkit
Partnership for Defense

CJADC2
GIDE

Defense Digital
Service

Advana
Pulse
Incident Response

AI/ML Scaffolding
Enterprise Infrastructure
for Autonomy

Creating Data Advantage Memo & Data Decrees
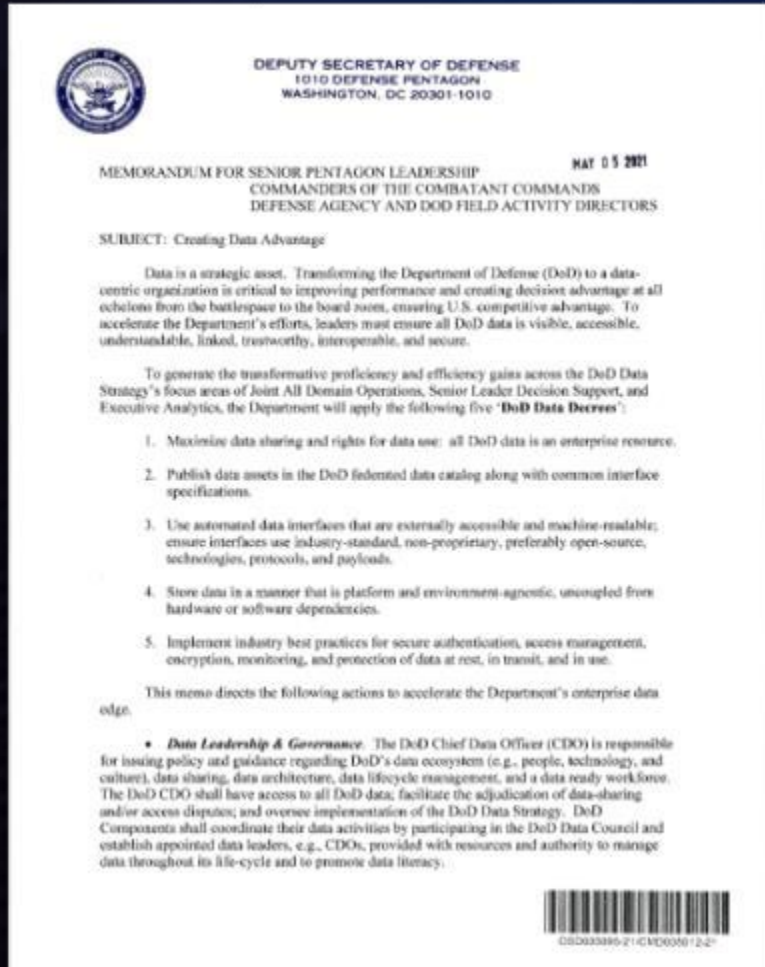
1. Maximize data sharing and rights for data use: **all DoD data is an enterprise resource.**

2. **Publish data assets in the DoD federated catalog** along with common interface specifications.

3. Use externally accessible and machine-readable **automated data interfaces.**

4. Store data in a manner that is **platform and environment-agnostic.**

5. **Implement industry best practices for access management and protection** of data at rest, in transit, and in use.

Open DAGIR is an acquisition and technical framework to execute <u>DoD's data decrees</u> and the 2023 Data, Analytics and AI Adoption Strategy

What is Open DAGIR Solving For?

Problem Statement: Government data is not easily available to build capabilities upon and hurts set of applications for warfighters and decision-makers

Why:
- Lack of common, approved development environment in which to build capabilities
- Department capabilities and solutions are not easily shared across organizational or platform boundaries
- Government data is 'locked' in proprietary formats that impede further use
- Government pays multiple times for the same capability
- Lack of 'competitive marketplace' to leverage best solutions

Impact:
- Not meeting CDA intent
- IP risks are not being protected or properly renumerated
- Not able to use data to make decisions
- Inability to rapidly deliver solutions to warfighters at scale
- Inability to embrace non-traditional software vendors and greatest innovators
- Inability to deliver everything that is needed against growing demand

Open DAGIR Principles

1. Clear and accessible **acquisition pathways** to allow both existing and new vendors to build prototypes and deliver services with pathways to production and scale

2. **Government-owned technology infrastructure and services** that are interoperable across platforms with clear mechanisms to define, protect and compensate use of commercially available vendor IP

3. Clear **ATO requirements, polices, and processes** that balance DoD security needs with the need to develop and deploy prototypes

4. Rules and tools to promote a **standardized** data, analytics, and AI **marketplace environment**

5. A **transparent operating model** that links all principles with CDAO government leads and has a process for vendors and government users to navigate application options

Open DAGIR Initiatives

Open DAGIR is being applied to all CDAO efforts and Directorates:

1. **Strategic C2**
   (GIDE Industry Day July 2024)

2. **Enterprise Analytics**
   (Advana Industry Day Sep 2024)

3. **Future…** Tactical data, Advance AI, etc. (TBD)

Advisory Services

| Use case intake / Solution consulting | Product mgmt, UI/UX consulting | Data science, analytics support | Process engineering |

Product Management

| Business analytics | Operational analytics | Mission partners | Autonomy |

Assess & Assure

| Test & evaluation | Cybersecurity / ATO | System audits |

Enabling Services

| Data tools/services | Modeling tools/services | Gen AI tools/services |
| Data integration | Cataloging/lineage mapping | AI scaffolding |

Infrastructure & Platform

| Cloud | Hybrid | On-Prem |
| IL 2 | IL 4/5 | IL 6 | IL 7 |
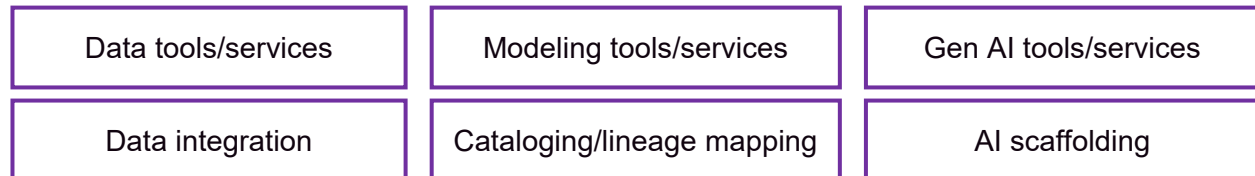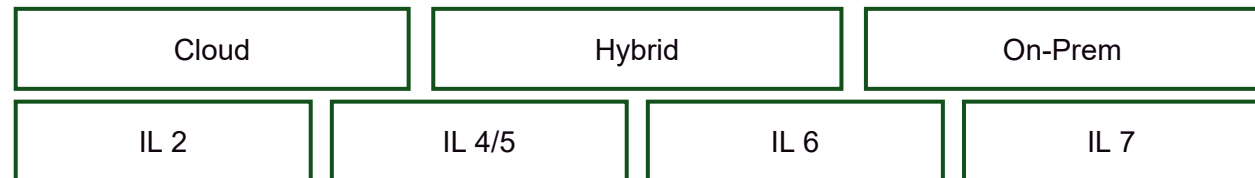
Use Case Analysis

Stephanie Tutko

Deputy Chief Analytics Officer, Department of the Navy Chief Information Officer

Kate Sieve

Division Chief, Audit and Financial Management Analytics for Advana,
Office of the Under Secretary of Defense Comptroller

Robert Aronin

Deputy Chief Data Officer, TRANSCOM TCJ6

Jupiter

THE NAVAL ENTERPRISE DATA AND ANALYTICS ENVIRONMENT

18 September 2024

Jupiter Overview

JUPITER PLATFORM CAPABILITIES

Jupiter offers the following DON-specific services to its users:

- Web-based Platform
- Data Engineering
- Data Catalog
- Privacy Threshold Analysis Review
- Data Sharing Agreement
- Data Governance Policy Alignment
- Use Cases
- Visualization Development
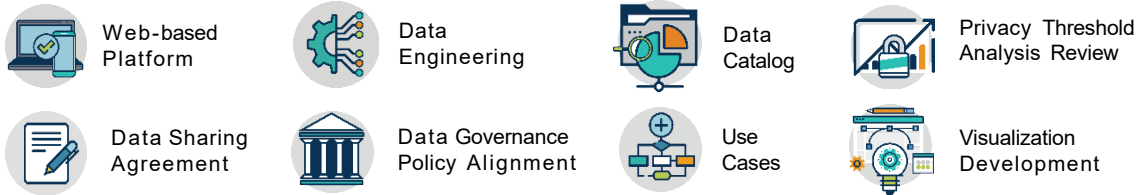
DON-Specific Tools:

Data Catalog
Self-service data discovery tool presenting helpful metadata about Jupiter data sources, tables, visualizations, and models

External Data Loader
Primary means for users to manually ingest non-sensitive data into Jupiter

Qlik
A data analytics and visualization tool to create and view dynamic visualizations and dashboards

Databricks
Advanced analytics platform enabling data scientists to use Python, R, or SQL code to process, model, and pipeline large amounts of data

iQuery
Data analytics tool enabling quick scans of Jupiter and Advana datasets, SQL queries, custom-guided query creation, and flat-file extract for Use Cases

databricks   Collibra   iQuery   Qlik
python   R   tableau   DataRobot   C3.ai

Jupiter by the Numbers:

16,000+ Active Users	**700** Qlik Applications	**495** Use Cases	**175+** Data Sources
130+ Automated Data Connections	**150+** Department of the Navy Organizations	**17** Advanced Analytics Products	**65** Tableau Workbooks

JUPITER USER BASE

Customers:

Hubs:

Total Force Data   FMDDT   BOLT   NCIS   LOG IT

Consumers:
- Include decision-makers and analysts who consume the data and analyses available on Jupiter
- Access Jupiter data, dashboards, and analytics

Developers:
- Include data scientists, analysts, and engineers who conduct analyses and build new products on Jupiter
- Manipulate Jupiter data and build dashboards to enhance decision-making

Users:

- DON Principal Senior Executives
- DON Flag Officers / General Officers
- DON Senior Executives
- DON Developers
- DON Force / Unit Commanders
- DON Program / Project Managers
- DON Program / Project Analysis
- DON Data Scientists

Jupiter Architecture

Jupiter, the Naval Enterprise Data and Analytics Environment, enables Sailors, Marines, and Civilians to integrate, share, and exploit data at speed and scale across the Warfighting, Business, and Readiness pillars for operational advantage and increased efficiency.

As a tenant in the Advana DoD Enterprise Analytics Environment, Jupiter leverages the power of shared services to bring best-of-breed capabilities to advance Naval priorities and enable rapid integration of data into the DoD information environment.

Advana is the Enterprise Analytics Environment for the DOD

- Jupiter is a tenant within the Advana Platform
- Jupiter is powered by Advana; Jupiter (and DON data) amplify Advana

Jupiter is the Naval Enterprise Data and Analytics Environment

- Fuses and provides a unified viewpoint of all DON data
- Enables many use cases - decision support, analytics, cleaning, integration, interoperability

Jupiter follows the Department of the Navy's information domain structure

- Organizing data by information domain enables stakeholders to discover related data and empowers data stewards to manage the data in their purview

Jupiter provides an extensive selection of data sets

- Leveraging Advana's data catalog solution, Jupiter makes raw data and curated datasets available and discoverable by the analyst

Jupiter & Advana Alignment

Jupiter operates as a **specialized community** space within Advana, the DOD's Enterprise Analytics Environment.

The Jupiter Platform uses the **proven Advana technical architecture and extensive tool stack** to execute data ingestion, storage, processing, governance, analytics, business intelligence, and machine learning capabilities.

Advana provides the platform infrastructure, data operations, and core analytic capabilities that underpin the Jupiter Platform and other DOD community spaces.

- Jupiter DON data and analytics are separated from Advana.

- Jupiter maintains a DON-specific Use Case Intake Portal which includes DON-specific Intake Forms and related processes.

- Jupiter has s DON-specific web-based interface, as well as DON-specific dashboards and visualizations.

- Jupiter directly aligns with DON data governance policies.

- Jupiter maintains approved & continuing DON CDAO funding for all DON Organizations to support Use Cases.
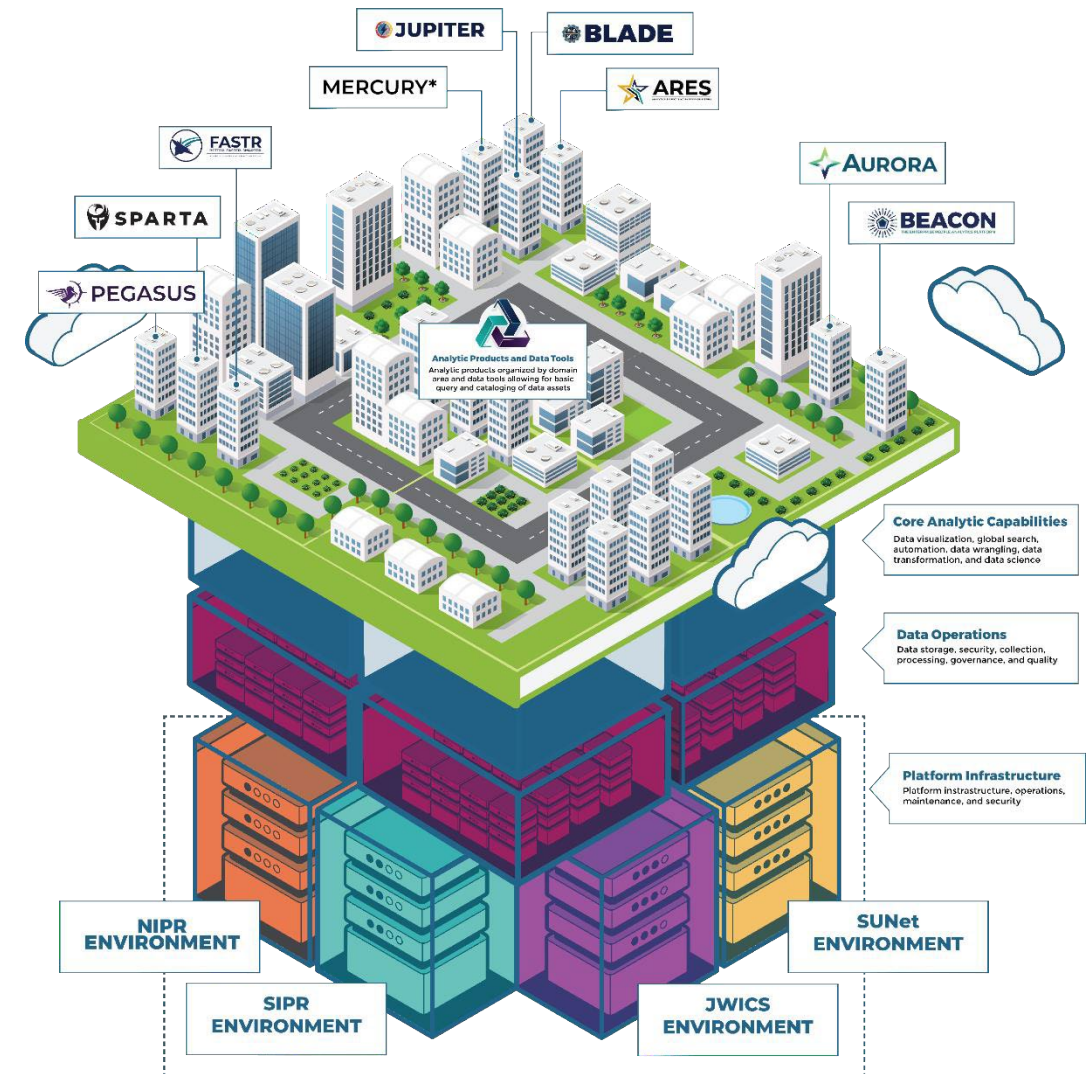
Jupiter Community Space and Data Domain Hubs

Jupiter data hubs provide DON users with access to comprehensive data sets and Jupiter capabilities to improve enterprise data management, increase resource efficiency, and provide tailored data analytics, data engineering, and data governance services.

Jupiter provides DON users with the following:

- Access to Advana tools and data

- DON-specific web-based interface

- Ability to demark and control DON data

- Access to data engineers and visualization analysts

- Use case support

- Alignment with DON Data Governance Policies

Jupiter Customers

CNO-OPNAV

USMC

DON/AA

NAVSUP

PEO USC

USFFC

NAVFAC

NAVAIR

PEO DES

NAVWAR

RESFOR

NAVINSGEN

NAVSEA

OASN (FM&C)

COMPACFLT

NRL

NPS

ASN M&RA

CNIC

NETWARCOM

…and 120 other Commands

Jupiter Users

DON Principal Senior Executives

"I need quick access to meaningful, executive-level dashboards that show me key performance indicators (KPI) across the entire Department and crossing all lines of business, with the ability to drill down to specific domain areas or organizations."

DON Flag Officers/General Officers

"I need access to meaningful, Service/DoD enterprise-level dashboards that show me timely, relevant, mission-critical information to quickly make decisions about theater/force-wide readiness, strategic guidance for force employment, and logistics and resource management."

DON Senior Executives

"I need quick access to executive-level dashboards drawing from all relevant authoritative data sources and the ability to drill down for a deeper understanding to support decision making."

DON Developers

"I need quick access to meaningful data and analytic outputs to develop dashboards that enhance decision making."

DON Force/Unit Commanders

"I need access to unit readiness, personnel, health/resilience, training, logistics/supply, maintenance, and financial data in one place with data visualizations that provide key decision-making information in support of operational mission accomplishment."

DON Program/Project Managers

"I need access to data for multiple programs/projects in one place and data visualizations that provide quick insights into key business questions."

DON Program/Project Analysts

"I need access to timely, relevant, trustworthy, and comprehensive data, a user-friendly interface to make navigating the platform intuitive, and flexibility to create different visualizations to answer business questions at various levels."

DON Data Scientists

"I need timely data ingest and access to cutting-edge advanced analytics tools to create purpose-built data and analytic products that enhance decision making."

Jupiter Data Engineering

The Jupiter Data Engineering (DE) Team works with stakeholders to **onboard and automate data sources** and **provide data connections, ingests, alerting, tagging, and monitoring** across the Jupiter Platform.

- Implements best practices and standards to ensure continuous innovation and collaborative problem- solving.

- Efforts align with DON's mission to leverage modern and automated systems to identify, validate, and deploy critical data sets and data sources for mission success.

ACCOMPLISHMENTS:

- **Piloted Navy ERP data sharing** using Immuta, a data access platform integrated with Jupiter's Databricks environment to **discover, secure, and monitor** all Jupiter access to (and control of) their data.

- **Transformed data** from Visibility and Management of Operating and Support Costs (VAMOSC) system **into refined tables** to direct cost analyses within the DON and help users procure and operate defense systems.

- **Pioneered expansion of GitLab usage** to automate builds, provision infrastructure, verify changes, and implement code deployments – **all repeatable, on demand, and with minimal manual intervention.**

- **Established connections** to external data sources and created **automated pipelines** to ingest data.

- **Implemented continual management** to facilitate greater data integrations across the DON Enterprise.

DATA ENGINEERING

Understand Data Source → Create Initial Tickets

Connect to Source → Load Initial Data Extracts → Set Up End-to-End Pipeline

Document Workflow → Completion of Data Ingestion + Product Hand-off → Update Data Catalog + Maintain Data
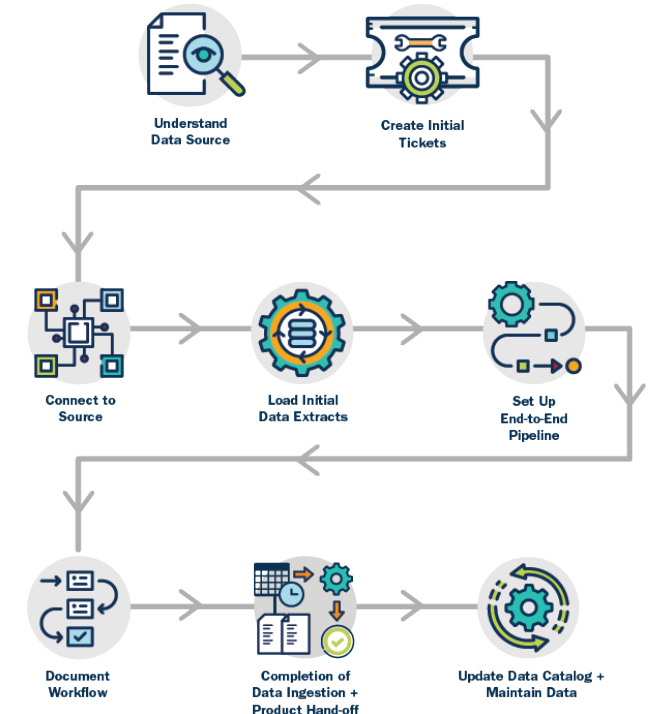
These steps are handled by Jupiter Support Team

Featured Data Engineering Product: Hermes

Hermes, a DON CDAO initiative managed by the NAVWAR Data Director, is a data engineering and data product that harnesses, parses, aggregates, and retains Naval Tactical Messages at an enterprise level. Hermes enables trend analysis, equips Navy Commands with accurate and useful information, empowers leadership level decisions, and ensures consistency of information distribution across commands.

OBJECTIVES:

- Build enterprise data sets of Naval message traffic by ingesting messages from the C2OIX system
- Provide users with access to Naval message data and manage user access on a "need to know" basis
- Provide users with tools to search and filter message traffic to aid in reporting and analytics
- Develop message parsers for incoming Naval messages with coordination from DON stakeholders
- Build analytical dashboards, applying AI applications to enable ML and NLP across the entire corpus of Naval messages
- Highlight advanced analytical capabilities and ongoing message parsing efforts
- Empower leaders to leverage the Hermes Analytics Dashboard to save time and increase resources across commands

Featured Data Hub: Bolt

The Bolt concept relies on distributed Enterprise data sources transmitting data to the Jupiter Platform via secure connections.

Bolt is supported by the DON CDAO and the USMC Deputy Commandant for Information's Service Data Office. Bolt was developed to provide USMC and DON stakeholders with a focus on Marine Corps data and analytics that is widely visible, accessible, understandable, linked, trustworthy, interoperable, and secure.

Bolt leverages the existing shared services, tools, and capabilities of the Advana and Jupiter Platform to create and sustain warfighting advantages, while also improving Enterprise Data Management and resource efficiency.

Bolt provides tailored data analytics, data engineering, and data governance services that suit USMC needs across four categories:

- Platform & Infrastructure
- Permissions Management
- Tailored User Experience
- Data & Analytics

Office of the Undersecretary of Defense (Comptroller)
Enterprise Financial Transformation (EFT)

Problem Statement:
DoD has not been able to achieve auditability in 30 years, since mandated by the CFO Act of 1990. This is a direct result of DoD's inability to produce a complete Universe of Transactions validated to the Department's financial statements. Business feeder systems and accounting data alone are not useful for leaders to make decisions because they are not holistic, timely, or consistently accurate.
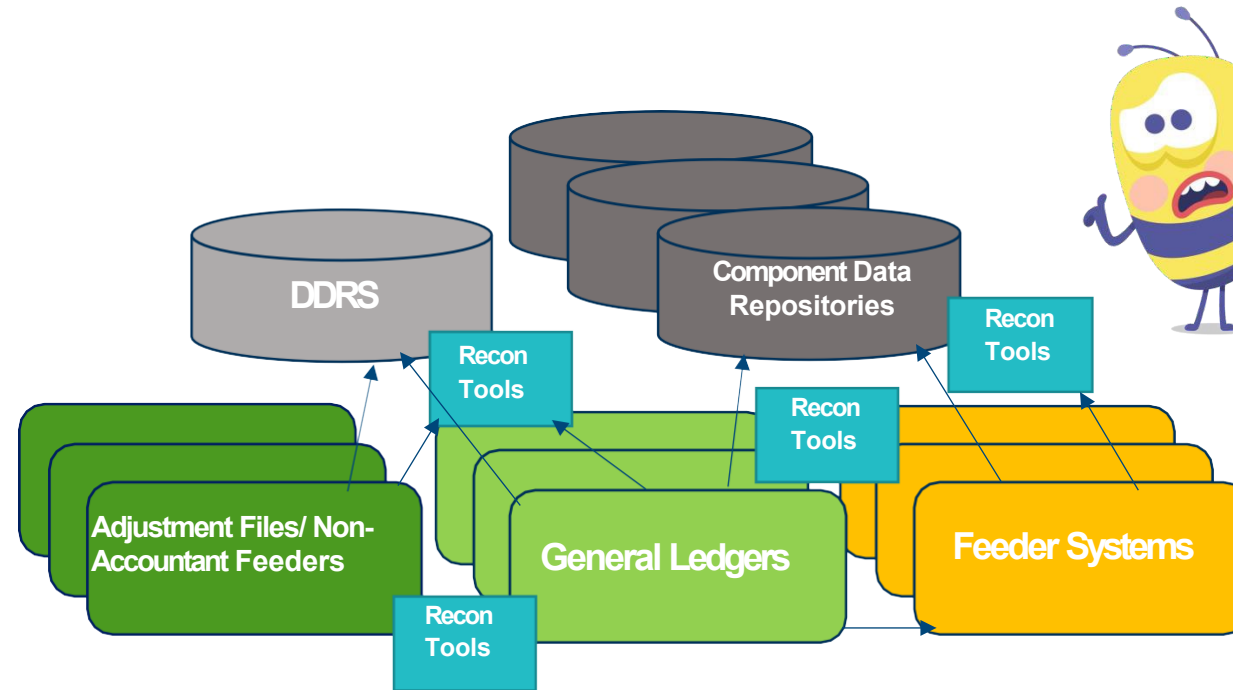
All aspects of Advana's **Financial Management (FM) Analytics** Portfolio are managed by OUSD(C) EFT.DoD's financial management community uses Advana's FM products to support financial statement audits, track budget execution, and produce management reports.
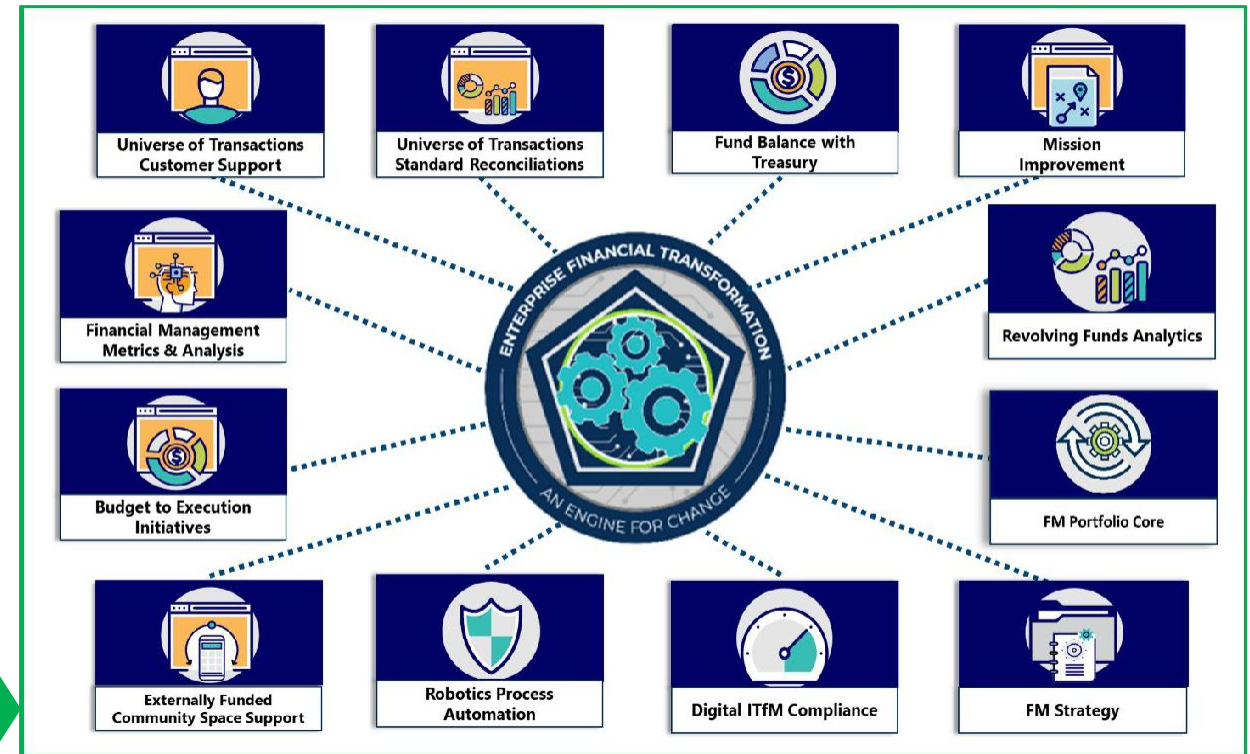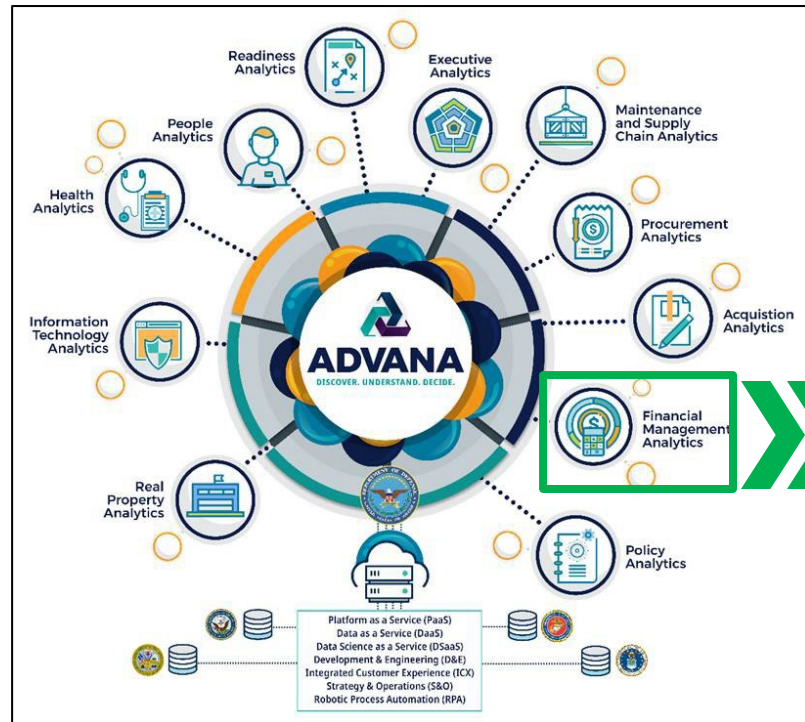
The Advana workstreams OUSD(C) EFT manages are grouped into 12 initiatives, shown above.

Financial Management Operations Foundation: UoT

The foundation of Financial Management (FM) Operations is the Universe of Transactions (UoT). The UoT is far more than a repository of accounting data. With the right business rules, it enables the development of financial management products, reconciliations, and metrics/analytics.

The UoT is comprised of data from the systems contributing to DoD's financial statement compilation/reporting flow. FM Operations acquires, ingests, and validates this data in preparation for its use in various outputs.

DoD Financial Statement Compilation/Reporting Flow

- Financial Statements
- DDRS-AFS Unadjusted Trial Balance
- DDRS-AFS Journal Vouchers
- Eliminations
- Trial Balance Input Adjustments
- DDRS-B Unadjusted Trial Balance
- DDRS-B Journal Vouchers
- Non-Accounting Feeder Systems
- General Ledger Accounting Systems
- Defense Cash Accountability System
- Feeder Systems

Completeness / Existence

UoT Product Examples
- Dormant Account Review - Quarterly
- Improper Payments Detection
- Financial Statement Drilldown

UoT Reconciliation Examples
- Fund Balance with Treasury
- General Ledger to Trial Balance
- Unadjusted to Adjusted Trial Balance

UoT Metrics/Analytics Examples
- Budget Execution
- Contingency Reporting
- A/R & A/P Aging

Data Output

Universe of Transactions & Financial Management Community Spaces

Department of the Navy: Jupiter

- In the first two years, 5,000 users were onboarded, 80 new data sources were acquired, and 175 Qlik applications were built. Includes FBwT for USMC, Navy General Fund, and Navy Working Capital Fund

Department of the Army: Ares

- Initial development of Army's UoT on Advana in 2019, expanding to Army's Financial Management Community Space, Ares, in 2022.

Department of the Air Force: FASTR

- The development of Air Force's FM community space on Advana, FASTR, began in 2022. Air Force's UoT and reconciliations migrated to FASTR; budget execution reports are under development.

Other Universe of Transactions Support

EFT produces a monthly UoT and reconciliations for the following reporting entities. The reconciliations include Feeder-GL, GL-TB, UTB-ATB, and FBwT.

- Defense Health Agency, USSCOM, & TRANSCOM
- 4th Estate (Tier 3 & Tier 4 Entities)
- DSCA SAA (OMB Reporting Entity)*

FY24 & Beyond

- Focus on more Machine Learning or Artificial Intelligence in established projects to enhance user experience and develop predictable analyses

- Transition remaining FBwT and Intragovernmental Transaction reconciliations to Advana

- Develop framework and metrics to measure the Department's Universe of Transactions progress as part of the Deputy Secretary of Defense Audit Priorities

- NIPR platform received Unmodified FY24 SOC-1 report with no NFRs. Future SIPR requirements forthcoming.

Recurring Operations

- Data acquisition and ingestion
- Monthly operational reconciliations
- Develop and maintain all web applications, exporting capabilities, bi-frost of data, and visualizations
- Audit delivery for DoD reporting entities
- Supporting DoD's Consolidated Audit
- Assisting customers with root cause analysis
- Advana SSAE18 Audit; implementing IT controls

* DSCA SAA FBWT under development

FM Analytics: Metrics and Analytics Overview

The FM Metrics & Analytics team leverages QLIK to display key enterprise-level metrics that summarize the financial health of the enterprise. Various applications are available for exploration by the DoD community. Each providing visualizations displaying key performance indicator status along with trending, additional breakdowns, and drill-down views.

Metrics / Applications

- Abnormal Balances
- Accounts Payable (A/P) Aging
- Accounts Receivable (A/R) Aging
- Advances From Others
- Advances To Others
- Budget Analytics
- Construction In Progress (CIP)
- Dormant Account Review (DAR-Q)
- Financial Statement Drilldown
- Fund Balance with Treasury (FBWT)

- Intragovernmental Eliminations
- Notice of Findings & Recommendations (NFR's)
- Overage Posted Unmatched Transactions
- PPA Interest Paid
- Revolving Fund
- SFIS Balanced Tie Points
- TI-97 Feeder Reconciliation
- Trial Balance Fluctuation Analysis
- Undelivered Orders Aging
- Universal Journal Vouchers

Helpful Links

- Advana Knowledge Base FM Analytics: https://wiki.advana.data.mil/display/SDKB/Financial+Management+%28FM%29+Analytics
- QLIK – FM Analytics: https://qlik.advana.data.mil/hub/stream/3254b0f6-25f7-4d08-9a18-f7bd98631ed7
- Access: https://support.advana.data.mil/plugins/servlet/desk/portal/5

Create Decision Advantage LOE 4 Status Update

LOE 4.0 GOSC: 21 June 2024
TCCC Update: 24 June 2024

Data as a Product Attributes

- **Data Asset:** Gold table(s) in plain language

- **Product Overview:** "Read Me" which describes where data comes from and how it's assembled

- **Metadata:** Details about the data that feeds the data catalog

- **API Access:** Process and permissions to access the data

- **Sample Queries:** Data obtained from the product to answer specific questions

- **Centralized Repository:** "GitLab" container with all the data product pieces

Data Product diagram with hexagons: Data Asset, Product Overview, Metadata, API Access, Sample Queries, Centralized Repository

47
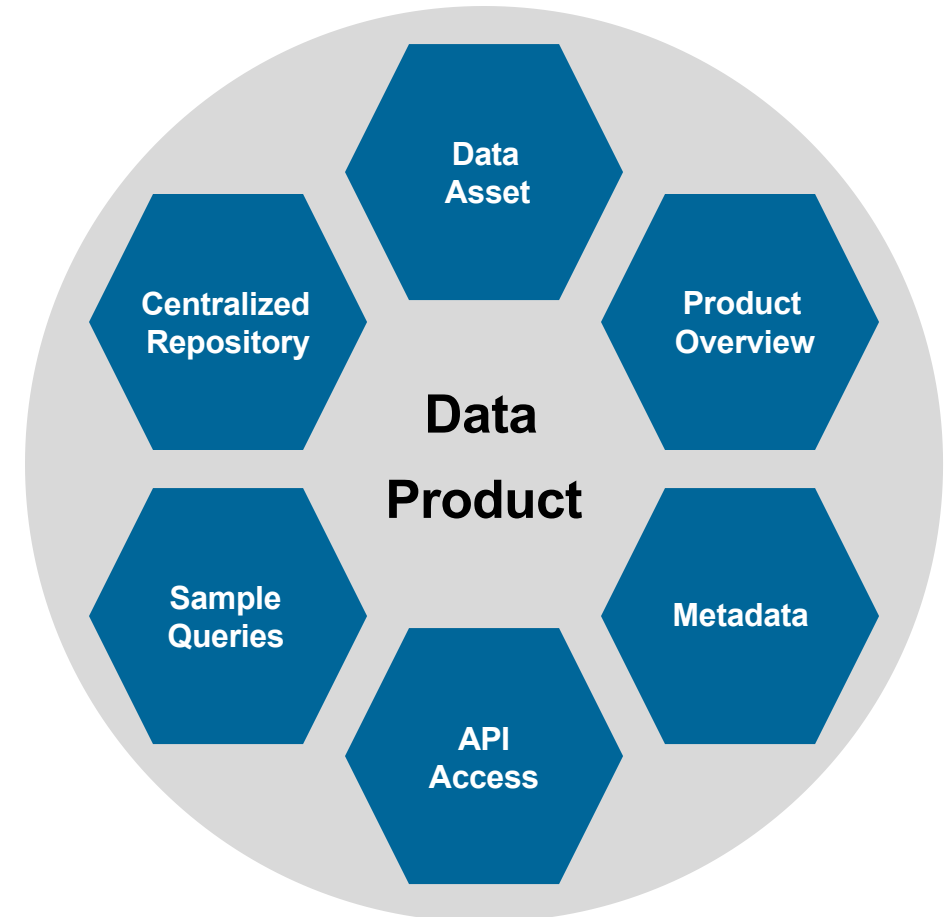
Advana 1.2 Deep Dive

**Architecture Development & Capability Needs
Application Development & Capability Needs
Open DAGIR Concept Implementation**

Alexander O'Toole

Infrastructure & Platform Division Chief, CDAO Enterprise Tools and Services

Cody Ferguson

Data and AI Services Division Chief, CDAO Enterprise Tools and Services

Open DAGIR & Advana 1.2

Objective	Approach
Increase Scope	Scale up to support 250,000+ Advana users
Increase Scale	Move to CI/CD process using GitOps
Improve Platform Delivery	Incorporate Continuous Monitoring/Remediation
Improve Cybersecurity	Increased scanning capabilities
Provide Dynamic Workspaces	New Advana v1.2 "Mission Space" Construct
Provide Self-Service to DoD Orgs	New Advana v1.2 "Authority" Construct
Formalize Cross-Cutting Collaboration	New Advana v1.2 "Domain" Construct

CDAO

ADVANA
INDUSTRY DAY

Why Advana 1.2?

The History

- The Advana Ecosystem has been under development and operation for over six years
- Advana Ecosystem (v1.0) began with a focus on supporting DoD business and financial use cases
- The great success of Advana v1.0 with the DoD business and financial community led to rapid growth
    - Advana now supports many DoD communities – including Acquisition, Decision Support, Energy, Health, Readiness, I.T., Intelligence, and Logistics
    - The scale of Advana v1.0 has swelled to 100,000+ users, 600+ enterprise data sources, and 100+ tools and applications

The Need

- Rapid growth has put a strain on the current Advana v1.0 system architecture
- Advana Users require more direct control over their Advana operations
- The scale and complexity of Advana operations requires the move to greater levels of automation and self- service
- The requirements for cybersecurity have grown beyond what currently exists
    - Requirement for Continuous Monitoring
    - Requirement for Zero Trust architecture

The Solution

- Produce the next generation of the Advana Ecosystem – Advana v1.2
- Build tracking and billing mechanisms to enable a hybrid model that allows both centrally managed products and self-service delivery

Benefits

- Allows for self-service development

- Standardized pipelines that automate security controls, deployments and promotions

- Parity between Impact Levels

- Unique, dedicated environments for IL2 (Sandbox, Development, Test) and IL5 (Integration, Staging, Production)

- Faster product delivery

- Less maintenance downtime

- Rapidly deploy sandbox environments

- Greater troubleshooting capabilities in Dev/Test

- Reduced impact on production environment via integration and staging environment

- Expandable environment for organizations and communities

Advana 1.2 Environments

Advana B/D/T / Node

| Advana **BOX** Environment | → | Advana **DEV** Environment | → | Advana **TEST** Environment |

IL2

Advana I/S/P / Node

| Advana **INT** Environment | → | Advana **STAGE** Environment | → | Advana **PROD** Environment |

NIPRNet / SUNet / SIPRNet / JWICS
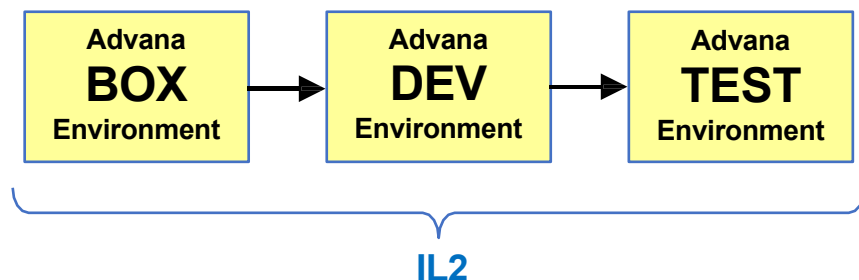
BOX (Sandbox) Environments are used for conducting Advana platform development including container creation, IaC development, and CaC development

DEV (Development) Environments are used for generating Advana source code and conducting unit testing on new or modified software components being added to the Advana platform using GitOps automation

TEST Environments are used for conducting comprehensive testing on the complete Advana platform using GitOps automation
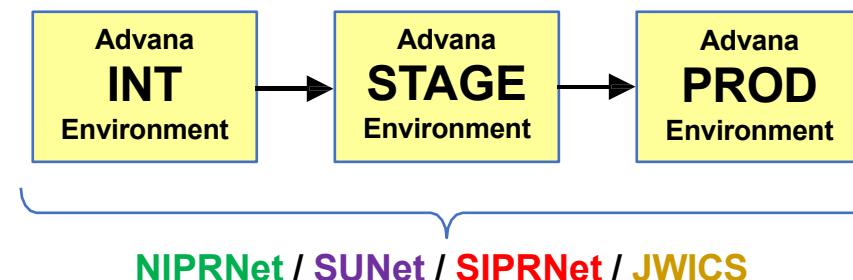
INT (Integration) Environments are used for integrating with IL5 environment and production systems, while testing the Advana platform using GitOps automation

STAGE Environments are used for conducting comprehensive readiness on the complete Advana platform to determine if it is ready to be moved into an Advana Production Environment

PROD (Production) Environment houses the entirety of the Advana ecosystem including all platform infrastructure, governance, data, tools, and users

DAIS and OpenDAGIR

Provide solutions that support the DoD Data Decrees and Data Analytics and AI Strategy:

1. Maximize data sharing and rights for data use: all DoD data is an enterprise resource

2. Publish data assets in the DoD federated catalog along with common interface specifications

3. Use externally accessible and machine-readable automated data interfaces

4. Store data in a manner that is platform and environment-agnostic

5. Implement industry best practices for access management and protection of data at rest, in transit, and in use

DoD Data Catalog 2.0 - Mission and Vision

DoD Data Catalog Mission

The data catalog is a **DoD data discovery tool** that ensures data assets are broadly visible and accessible for all users. The catalog informs them about data's lineage, availability, quality, and more.

Implied Persona Needs

- CDAO facilitates alignment of data sources to Data Stewards, so jurisdictions are clearly defined and mutually exclusive.

- Data Stewards, Data Managers, and Data Custodians must collaborate to ensure catalog entries are accurate and up-to-date.
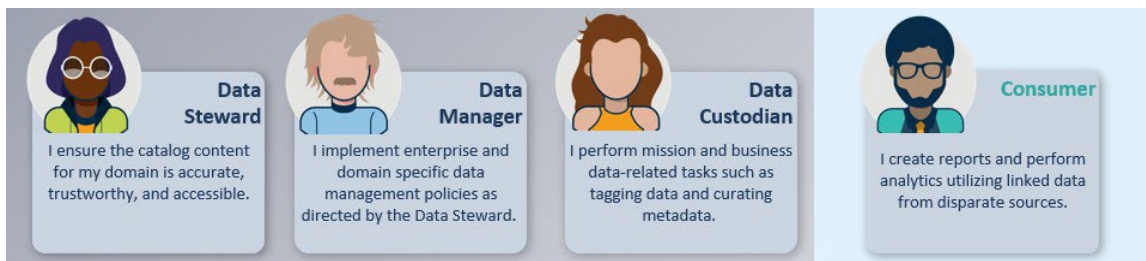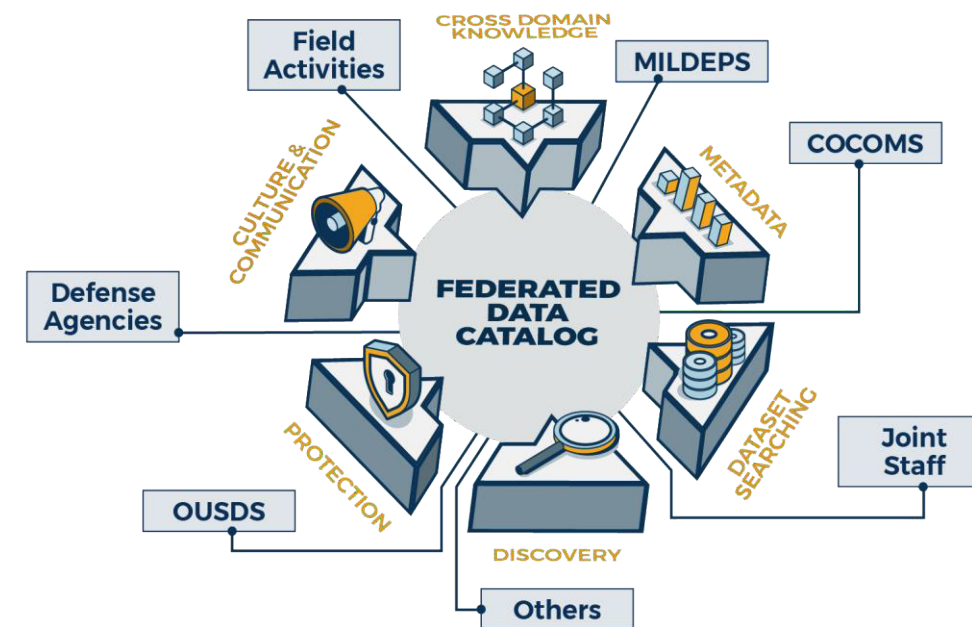
Data Catalog 2.0 Overview

In the upcoming increments, we are rolling out a more scalable and integrated operating model for the Data Catalog which includes:

Community and Domain Structure
- Each Federated Partner will have a Top-Level Community, creating clear alignment for asset ownership
- Advana-specific assets will be captured in a Platform top-level community

Permissions Structure
- Data Stewards/Managers/Custodians will be placed in Active Directory groups aligned to their top-level community, giving them access to fully own their asset's representation

Asset Model
- Clear definitions and standards of available core assets and their associated attributes
- Introducing "discovery" assets, owned by Federal Partners, and "residing" assets, owned by platforms, such as Advana
- Data Usage assets will capture the relation between external "discovery" assets, such as Data Sources, and how they're being used on the Advana Platform

New Tools and Automations
- Automated Metadata Ingestion Tool – Enables teams to build their own automated pipelines to manage the metadata for which they are responsible
- DITPR Synchronization Automation – Maintains metadata associated to DITPR Data Sources in parity with the DITPR System
- Automated Lineage – Visualizes how data is used and modified in Databricks, relating tables to their derivative tables

Customer Success
- Implementation of a clear customer support model to improve responsiveness
- Develop and deliver training plan that enables Data Stewards/Managers/Custodians to perform their roles within the Data Catalog

API Management – Background

The Advana Enterprise Architecture team conducted a brief Analysis of Alternatives (AoA) in Summer 2022. The AoA recognized Apigee as a solution that could meet platform requirements and was ultimately selected by government leadership before a more in - depth AoA and proof-of-concept could be conducted

User and Access Management	Auditing	Cost	Security	Deployment Features	Vendor Relationship
• Management Portal • Developer Portal • User Onboarding • Interaction with AD • Access Policy	• Analytics • Monetize API • Quota Limits • Usage Tracking	• Initial Cost • Operating Cost	• API Gateway Security • Multi-region deployment	• Availability • Scalability • Speed/Performance • Caching	• Vendor Relationship

Key Features for Apigee and Advana API Management Solution

API Products
- Enables a productized approach to bundling multiple endpoints to maximize consumer experience
- Enables access controls at a product level for features such as custom properties and rate/quota limiting.
- Deployment topology enables rapid API performance

Developer Portal
- Enables self-service consumption of API Products. Provides an efficient experience to enable shortest Time- to-First-API-Call.
- Enables customization including logos, themes, and page design to increase developer engagement.

API Transformation
- Enables orchestration of multiple workflows within a single endpoint. This enables custom logic prior to hitting backend resources.
- Enables ability to customize/script transformations not only in mediation but also create custom connectors to other services like AWS RDS, etc.

Operations Management
- Enables management of the platform via API including but not limited to: API endpoint deployments, environment administration, and API Product Access.
- Enables Global Traffic management including industry best practices like DDoS, OWASP Top 10 API, rate/quota limiting, and Oauth2.

API Management - Current Status
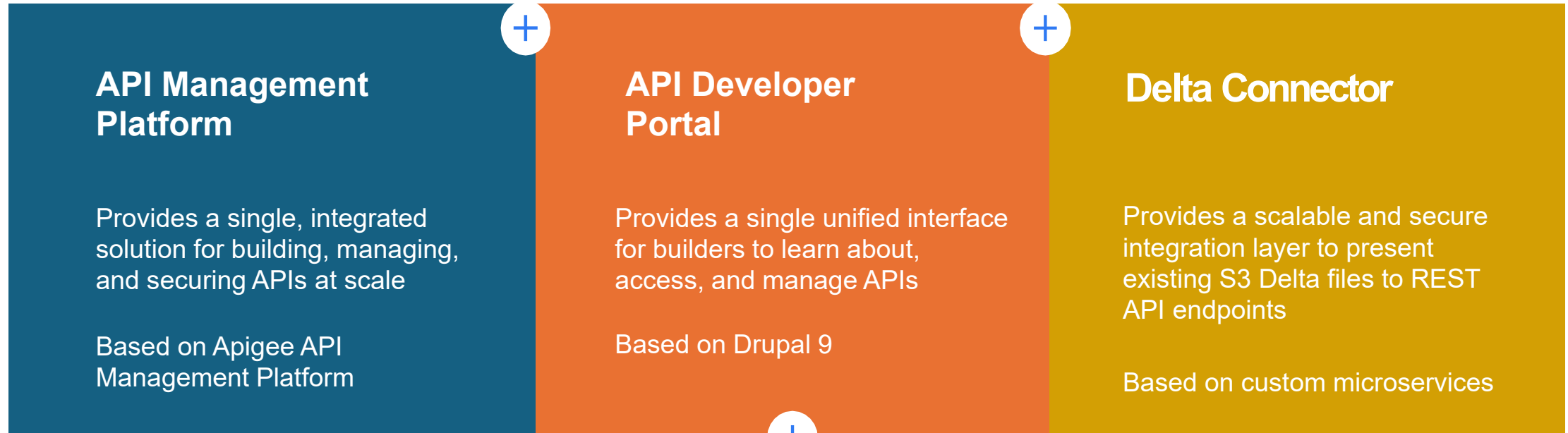
API Management Platform

Provides a single, integrated solution for building, managing, and securing APIs at scale

Based on Apigee API Management Platform

API Developer Portal

Provides a single unified interface for builders to learn about, access, and manage APIs

Based on Drupal 9

Delta Connector

Provides a scalable and secure integration layer to present existing S3 Delta files to REST API endpoints

Based on custom microservices

GovCloud NIPR Environment

Enterprise Capability Lifecycle	Key Metrics	Desired Next Steps
• Over the past 24+ months, Apigee progressed through Advana's Enterprise Capability Lifecycle Framework to mature the solution across key milestones within the Pilot, Private Beta, Public Beta, and General Availability (GA) phase	• Developed and implemented 15+ API products within the API Developer Portal • Enabled 125K+ API calls, including 50K+ to Perceptor for AI/ML workloads	• Continue adoption of APIs and support mindset shift across DoD • Enable implementation of API Management Solution on SIPR to support high-side requirements

Open DAGIR Reference Architecture

OD Architecture Principles:

- Data parity across Open DAGIR platforms

- Platforms offer vendors a consistent set of minimum capabilities

- DoD owns its data
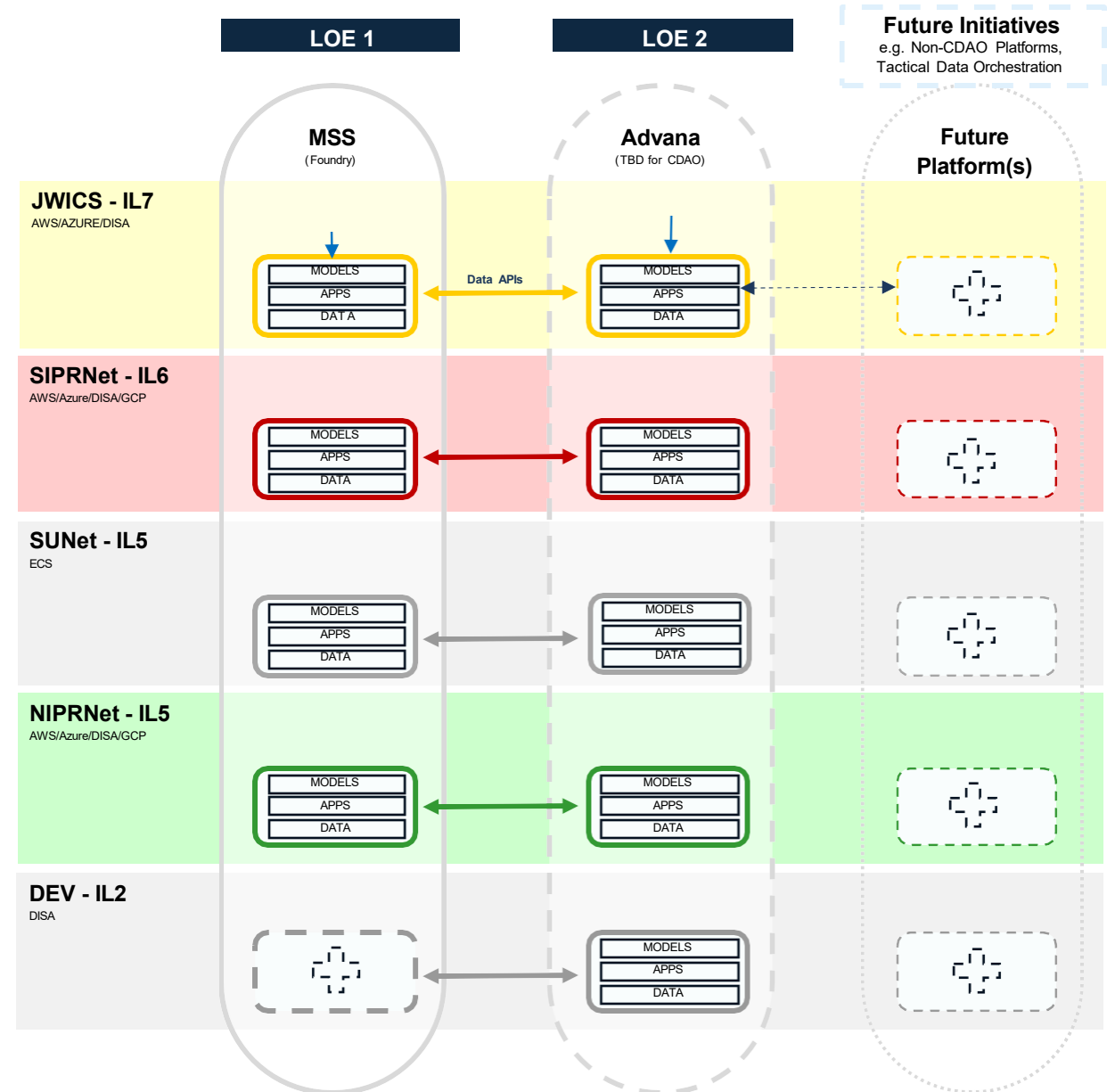
API Principles

1. **Find and embrace core industry specifications through experimentation**

   - Create working libraries of existing standards and define nomenclature

   - Publish updates annually to include nascent and emerging specifications based on government led working groups with industry input like IEEE

2. **Reference standards documentation in requirements Capabilities Development Documents**

3. **Create and implement conformance testing suites**

4. **Include standards in contracting process**

5. **Prohibit any UI functionality that is not exposed 100% in Application Programming Interfaces (APIs) or Software Developer's Kits (SDK), or other means necessary to achieve modularity. This includes documentation to define coding dialects**

6. **Retain access and rights to organically generated data**

Open DAGIR Definitions (1 of 2)

Open DAGIR Framework
A series of technical and acquisition principles that guide a system or program's ability to be interoperable and government owned while also driving innovation through increasing competition and outlining clear acquisition pathways from pilot to scale.

Open DAGIR Initiative
A series of CDAO led technical and acquisition efforts to demonstrate the value of Open DAGIR to accelerating the development of data and AI capabilities and onboarding of new technologies to CDAO's technical environment. They are meant to be highly experimental, focused on failing fast and rapidly iterating. Initiative 1 is extending Maven Smart System (MSS) to operate as a General-Purpose Platform (GPP) operating in the Open DAGIR framework and creating minimum viable versions of the DAGIR Enterprise Backbone services. Initiative 2 is extending Advana to operate as a GPP in the Open DAGIR framework and refining the DEB services to ensure parity across platforms.

Open DAGIR Operating Model
The product development workflow and acquisition pipeline that when combined allows CDAO to develop and contract with "Speed" with clear organizational pathways to "Scale."

DAGIR Enterprise Backbone
A minimal set of technical and non-technical services to establish parity and interoperability between platforms. Chief among these are the enterprise services that allow applications and platforms to become part of the Data Marketplace. These include but are not limited to:
• An enterprise Federated Data Catalog
• Federated Data Catalog search service
• A Federated Identity and Authorization Service
• An enterprise API Gateway for routing requests
• CDS Services for securely transporting data across IL boundaries

Platforms and services should interact with the backbone exclusively though generally-available APIs to ensure parity and interoperability. CDAO should manage those API endpoints, though they may route requests to one or more services provided by vendors or even hosted on Open DAGIR GPPs.

Open DAGIR Definitions (2 of 2)

General Purpose Platform (GPP)
A managed technical environment like Advana or MSS that allows:
- Users to ingest, store, transform, host, and publish data as data products while enforcing authorization boundaries
- Users to create and share data and analytical products
- Developers to write and deploy code in a commonly used general-purpose programming language like C, Java, or Python
- Third-party software and/or service vendors to offer solutions on the platform without giving the platform operators any rights to their intellectual property

Cross-Platform Applications
Platform agnostic solutions that solve a customer problem through integration of data, models, and delivery of an output in the form of a user interface / front end. Applications should be architected across CDAO platform solutions, leveraging the best Open DAGIR components to meet the mission need.

MSS
Maven Smart System – built on Palantir's Foundry.

Advana
Government owned and vendor operated digital architecture and analytics solution, repository of data from 500+ Department systems of record.

Acquisition Strategy

Bonnie Evangelista

Acting Deputy CDAO for Acquisition and Assurance, DoD CDAO

Capt. Richard Wahidi

Flight Commander, 771st Enterprise Sourcing Squadron, USAF

Current Acquisition Approach

- Advana support is currently performed under one (1) task order:
  - **Project Title:** Technology Synchronization of Business Operations (TSyBO)
  - **Acquisition Vehicle Used:** GSA Alliant 2
  - **Period of Performance:** 9 March 2021 – 14 February 2025

- The current business model relies upon a single system integrator and central procurement of all apps and platform services

- Areas of improvement for the future Advana acquisition strategy:
  - Limited competition
  - Limited agility to keep pace with emerging technology capabilities
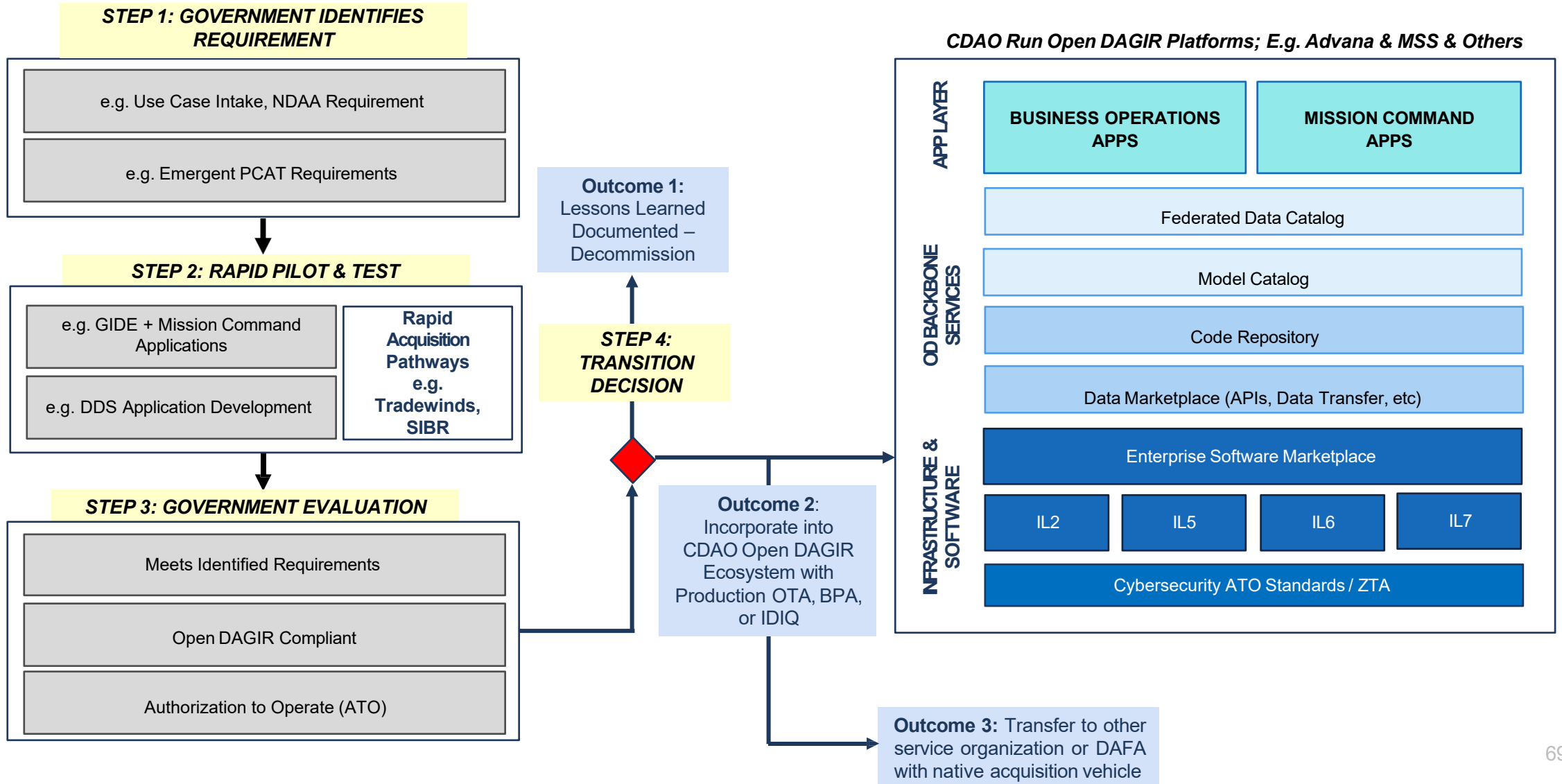 - High barrier to adoption at scale of Advana's self-service capabilities across DoD

Future Acquisition Approach

- Advana's acquisition strategy will enable:
  - A **competitive** vendor ecosystem to support all application and platform needs
  - **Scaled** adoption of Advana's mature capabilities, for both consumers and builders
  - **Decentralized** procurement of custom apps and AI-enhanced products across DoD
  - **Streamlined** procurement of emerging requirements under a broadly defined ordering vehicle

- Ordering vehicle details:
  - **Project Title:** Advancing AI Multiple Award Contract (AAMAC)
  - **Acquisition Strategy:** Unpriced multiple-award IDIQ contract
  - **Who Can Use:** Any DoD organization
  - (More details in later slides)

- To mature acquisition strategy and establish AAMAC, while continuing to execute its mission, the Advana program has planned several transition activities

Acquisition Timeline

Category	FY24		FY25				FY26
	QTR 4	QTR 1	QTR 2	QTR 3		QTR 4	QTR 1
Advana Enterprise MAC IDIQs (AFICC, EPS & MA)	Enterprise MAC IDIQ Base Awards					**Aug 2025**	
Infrastructure Mgmt (AFICC, EPS)	GSA Alliant 2		**31 Jan 2025**				
License Mgmt & Cloud (AFICC, EPS)	SBIR Phase 3	**20 Dec 2024**					
Data Engineering (AFICC, EPS)	GSA VETS 2		**16 Jan 2025**				
Biodefense (ACC-RI, MA)	AI Talent BOA	**29 Oct 2024**					
Financial Mgmt (ACC-RI, MA)	AI Talent BOA 2.0	**12 Nov 2024**					
DevSecOps Factory (ACC-RI, EPS)	DRAID	**3 Jan 2025**					
Incident Response (ACC-RI, MA)	TBD	**Nov 2024**					
Builder Relations (ACC-RI, MA)	TBD	**Dec 2024**					

Legend:
- ◆ Industry Eng Event
- ◭ Project Start
- ▲ Awards

Open DAGIR Test & Scale Acquisition Approach

STEP 1: GOVERNMENT IDENTIFIES REQUIREMENT

- e.g. Use Case Intake, NDAA Requirement
- e.g. Emergent PCAT Requirements

STEP 2: RAPID PILOT & TEST

- e.g. GIDE + Mission Command Applications
- e.g. DDS Application Development

Rapid Acquisition Pathways e.g. Tradewinds, SIBR

STEP 3: GOVERNMENT EVALUATION

- Meets Identified Requirements
- Open DAGIR Compliant
- Authorization to Operate (ATO)

Outcome 1: Lessons Learned Documented – Decommission

STEP 4: TRANSITION DECISION

Outcome 2: Incorporate into CDAO Open DAGIR Ecosystem with Production OTA, BPA, or IDIQ

Outcome 3: Transfer to other service organization or DAFA with native acquisition vehicle

CDAO Run Open DAGIR Platforms; E.g. Advana & MSS & Others

APP LAYER
- BUSINESS OPERATIONS APPS
- MISSION COMMAND APPS

OD BACKBONE SERVICES
- Federated Data Catalog
- Model Catalog
- Code Repository
- Data Marketplace (APIs, Data Transfer, etc)

INFRASTRUCTURE & SOFTWARE
- Enterprise Software Marketplace
- IL2 | IL5 | IL6 | IL7
- Cybersecurity ATO Standards / ZTA

Advancing AI MAC (AAMAC) Overview

- **Intent:** To establish a base of pre-qualified contractors who can collectively meet:
  - Possible analytics needs of DoD organizations
  - Possible needs of the Advana platform

- **Notional AAMAC acquisition details** (subject to change based on market research):
  - **Acquisition Strategy:** Unpriced multiple-award IDIQ contract
  - **Target Range of Initial Awards:** 50 – 70 IDIQ awards
  - **Contract Type:** Any contract type authorized based on order requirements
  - **Scope:** 29 Focus Areas covering a wide range of data, analytics, AI, & platform services
  - **Total Value:** $15B combined ceiling
  - **Who Can Use:** Any DoD organization
  - **Est. Ordering Periods:**
    - Basic: 1 August 2025 – 31 July 2030
    - Option: 1 August 2030 – 31 July 2035
  - **Competition Type:**
    - IDIQ awards will be competed using Full and Open competition
    - Future orders will be competed via one unrestricted pool and one or more small business pools

Award Process

- **Anticipated Evaluation Factors:**
  - Technical Experience (Acceptable/Unacceptable)
  - Small Business (Acceptable/Unacceptable)

- **Past performance evaluation factor will be waived, since the immediate objective is to create a pool of technically capable digital products and/or service providers**
  - Prior contract work quality to be considered on future orders

- **Price/cost evaluation factor will also be waived at IDIQ level due to broad range of requirements, and emerging nature of advanced analytics technology**
  - Prices will be competitively proposed based on specific order requirements

- **The Government intends to award to each and all qualifying offerors who can demonstrate at least X number of "Ability To" statements in a Focus Area and are acceptable in the small business factor**

- **To meet its target initial award range of 50 – 70 IDIQs, the Government will determine the number of Ability To statements required of offerors in the AAMAC Request for Proposal**

Focus Areas

- Focus Areas are self-descriptive capability areas that are anticipated to remain relevant to the Advana program

- The AAMAC Statement of Work has total of 29 Focus Areas

- **Which Focus Areas apply to you?**

Focus Areas – Which Apply to You?

1. Acquisition Analytics
2. Analytic Solutions
3. Artificial Intelligence/Machine Learning Solutions
4. Automation Solutions
5. Customer Support and Service Desk Operations
6. Cybersecurity
7. Data Engineering & Data Science Solutions
8. DevSecOps Solutions
9. Digital and Information Technology Analytics
10. Energy, Installation, and Environment Analytics
11. Enterprise Architecture
12. Enterprise Data Engineering and Operations
13. Financial Management Analytics
14. Governance

15. Health Analytics
16. Information Technology Resource Acquisition & Management
17. Intelligence and Security Analytics
18. Logistics Analytics
19. Operations and Maintenance
20. People Analytics
21. Planning and Programming Analytics
22. Policy Analytics
23. Procurement Analytics
24. Product Management
25. Readiness and Global Force Management Analytics
26. Research and Engineering Analytics
27. Software Development and Integration
28. Systems Engineering
29. Test, Evaluation, Validation, and Verification

Ability To Statements

- To contract with a broad, diverse set of capable digital products and services providers, the Advana program has developed several Ability To statements

- Individually, each Ability To statement represents unique technical competencies anticipated to remain relevant to the Advana program

- The AAMAC Statement of Work has total of **25** Ability To statements

- **Which Ability To statements apply to you?**

Ability To Statements (1-4)

Which of these apply to you?

1. Develop and maintain enterprise architectures to ensure the optimal structure, interoperability, and security of DoD data, analytic, and Artificial Intelligence/Machine Learning (AI/ML) systems, platforms, and solutions for department Systems Engineering.

2. Conduct premier Systems Engineering activities to design and deliver highly flexible, enterprise-scale data, analytic, and AI/ML system, platforms, and solutions across multiple deployment environments (e.g., cloud, hardware, edge devices) and multiple security environments.

3. Provide innovative and large-scale DevSecOps Solutions to speed the development and delivery, and enhance the security of data, analytic, and AI/ML systems, platforms, and solutions for the DoD.

4. Develop software and integrate commercial software to implement systems and platforms that provide enterprise-scale data, analytic, and AI/ML tools and services to the DoD to break down barriers to access state- of-the-art data, analytic, and AI/ML capabilities in DoD environments.

Ability To Statements (5-8)

Which of these apply to you?

5. Develop, employ, and operate innovative test, evaluation, validation, and verification tools and processes to ensure CDAO systems, platforms, and solutions operate as required before deployment into production.

6. Conduct comprehensive cybersecurity engineering, risk management, and authorization activities to ensure security controls, system authorization, and Zero Trust Architecture pillars are built into the CDAO systems, platforms, and solutions.

7. Provide comprehensive operations and maintenance services to deliver CDAO data, analytic, and AI/ML services to the DoD customers that provide high levels of availability and meets all establish service level agreements (SLA).

8. Design, implement, and maintain policy-based governance for managing the access and use of CDAO system, platform, and solution resources to provide more rapid and efficient access to data, analytic, and AI/ML services for authorized users.

Ability To Statements (9-12)

Which of these apply to you?

9. Plan for and conduct Enterprise Data Engineering and Operations to break down barriers to DoD data accessibility and visibility and provide a single point for DoD users to quickly and easily discover and access data for mission operations.

10. Implement and operate a world-class service desk that provides onboarding, access support, training, and troubleshooting/assistance to provide CDAO data, analytic, and AI/ML system and platform customers an exceptional user experience.

11. Plan for, negotiate for, acquire, and manage commercially procured I.T. resources, including software licenses, cloud capacity, and technical support, that are needed to support CDAO systems, platforms, and solutions.

12. Provide product management services to conceive, plan, implement, and deliver data, analytic, and AI/ML solutions that are optimized for customer needs and priorities.

Ability To Statements (13-16)

Which of these apply to you?

13. Plan, design, implement, and deliver high-quality data engineering and data science services to assist DoD organizations with their most challenging data problems and to consistently and persistently leverage data engineering and data science to address their mission/business problems.

14. Plan, design, implement, and deliver high-quality mission analytic solutions to assist DoD organizations with building analytic solutions to help them improve their ability to understand and make sense of their data.

15. Plan, design, implement, and deliver high-quality AI/ML solutions to assist DoD organizations with building AI/ML solutions to help them improve their ability to leverage their data to glean insights and make future predictions about their operations.

16. Plan, design, implement, and deliver high-quality robotic process automation (RPA) solutions to assist DoD organizations with building automation to help transfer repetitive and error-prone tasks from human to machines.

Ability To Statements (17-21)

Which of these apply to you?

17. Establish, implement, and operate a community operating model for large organizations to develop data products, analytic applications, and custom software from following the Software Development Lifecycle within CDAO data, analytic, and AI/ML systems and platforms to maximize their organization productivity.

18. Conduct continuous discovery and delivery of each product using modern product management principles and operating models.

19. Incubating novel and experimental technologies and scaling those to enterprise production environments in a DoD environment.

20. Developing responsible and ethical enterprise AI/ML products and workflows in a DoD environment, in accordance with applicable DoD policies.

21. Provide the DoD with Product management best practices towards the development and delivery of data, analytic, and AI products using DoD platforms and capabilities.

Ability To Statements (22-25)

Which of these apply to you?

22. Provide comprehensive IT development, configuration, maintenance, and cybersecurity support for IT Enterprise platforms, as well as full-scope system, application, network, storage, and security management support.

23. Support the development of innovative models and tools to be integrated into existing (i.e., Advana) and new DoD systems in support of specific functional area problems currently facing the Department. Specific functional areas include but are not limited to: intelligence, acquisition, human resources, real property management, readiness, IT, acquisition, financial management, supply chain, logistics, policy, and warfighting operations.

24. Provide data operations and governance including developing data access controls, workflows, integrating new tools and capabilities, providing capacity management, Configuration Management, and automation to a growing user population across multiple enterprise systems.

25. Deploy enterprise-scale ML/AI solutions into a usable, demonstratable, full-stack capability and provide a unique combination of expertise, data science exploration, algorithm development, statistical model validation, stakeholder verification of mission impact, and solution operationalization.

Linking the Two

An Offeror experienced in **cybersecurity capabilities** may demonstrate the following Ability To statement by providing work sample(s) and/or deliverable(s) linked to Focus Area # 6, Cybersecurity

- 6. Conduct comprehensive cybersecurity engineering, risk management, and authorization activities to ensure security controls, system authorization, and Zero Trust Architecture pillars are built into the CDAO systems, platforms, and solutions.

An Offeror experienced in **AI/ML capabilities** may demonstrate the following Ability To statement by providing work sample(s) and/or deliverable(s) linked to Focus Area # 3, Artificial Intelligence/Machine Learning Solutions

- 15. Plan, design, implement, and deliver high-quality AI/ML solutions to assist DoD organizations with building AI/ML solutions to help them improve their ability to leverage their data to glean insights and make future predictions about their operations.

An Offeror experienced in **logistics analytics** may demonstrate the following Ability To statement by providing work sample(s) and/or deliverable(s) linked to Focus Area # 18, Logistics Analytics

- 14. Plan, design, implement, and deliver high-quality mission analytic solutions to assist DoD organizations with building analytic solutions to help them improve their ability to understand and make sense of their data.

Participating in AAMAC

- **We need your Capabilities Statement!**

- Visit the Advana program sources sought notice currently posted on SAM.gov
  - **Notice ID: FA800324R0014**
  - **Title: "Advancing AI Multiple Award Contract (AAMAC)"**
  - **Published Date: 4 September**

- The sources sought includes:
  - A draft copy of the AAMAC Statement of Work
  - A questionnaire to help prepare/submit your Capabilities Statement

- All Capabilities Statements are due by **Friday, 4 October @ 12PM EST**

- Capabilities Statements consist of:
  - 1-page Cover Sheet
  - Up to 10-page Summary of Capabilities
  - (Optional) 1-page Acquisition Strategy Feedback addendum

Industry Day Feedback
Table-Based Discussions

Industry Day Feedback
Debrief

Bonnie Evangelista

Acting Deputy CDAO for Acquisition and Assurance, DoD CDAO