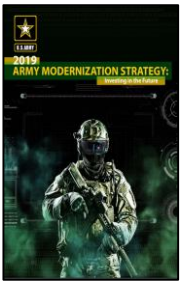


# Unleashing Data to Advance the National Defense Strategy

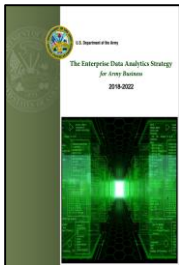
## DOD-TIBCO Strategic Alignment

A key component of delivering Overmatch in support of **Multi-Domain Operations** is the Department of Defense's ability to recalibrate its operating model. This is no small undertaking – but the stakes couldn't be higher. With near-peer competitors, the reinvention of **A2/AD operations**, and diminishing advantages across multiple spectrums, DoD's effectiveness in **connecting and unifying data sources** to provide **best courses of action** to commanders will dictate global hegemony for the coming decades.

### Army Modernization Strategy



### Enterprise Data Analytics Strategy



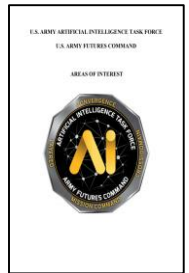
### DoD Data Strategy



### DOD Digital Modernization Strategy



### U.S. Army AITF Areas of Interest



Strategic Documents

CONNECT

UNIFY

PREDICT



Joint All Domain Operations

*Synchronized forces across domains*

*Disparate systems joined together*

*AI/ML to predict MD/MLCOAs & Data-Informed Decisions*



Senior Leader Decision Support

*Scalable automation across the enterprise*

*Visualize progress on National Defense Strategy initiatives*

*Democratized data analytics to bring predictive capabilities to sustainment operations*



Business Analytics

*Connect budgetary, procurement, inventory, logistics and personnel systems*

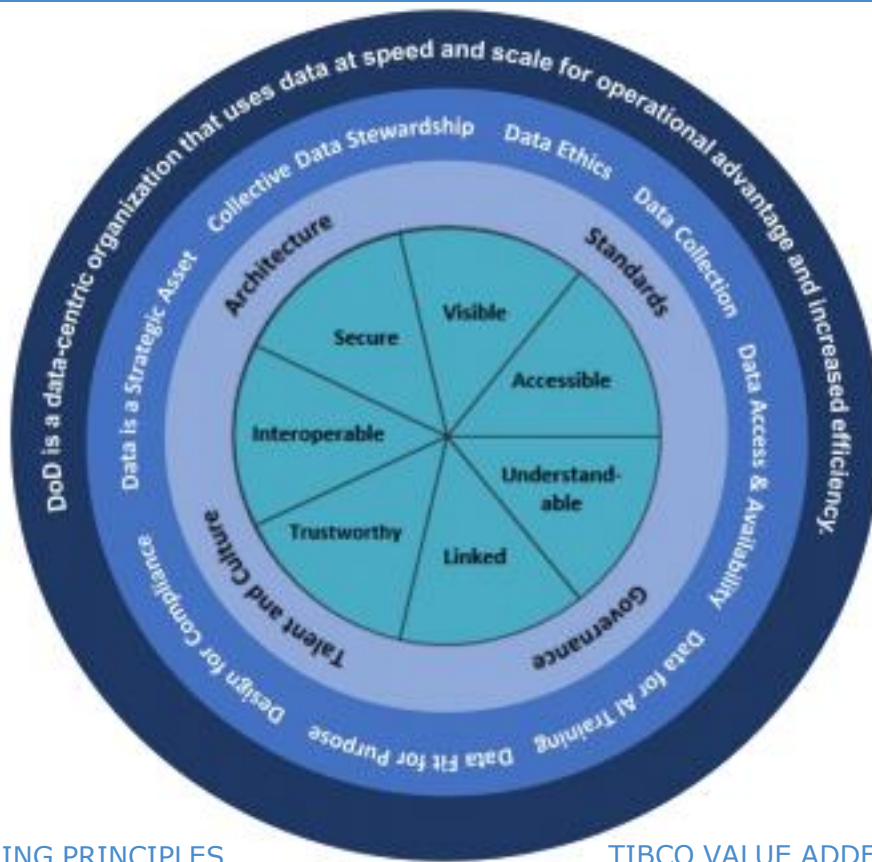
*Standardize and normalize complex, disparate data sources with minimal manual effort*

*A real-time, connected dashboard for every initiative, driving a shared set of assumptions*

**Aligned** ✓

**Strongly Aligned** ✓✓

**Uniquely Aligned** ✓✓✓



GUIDING PRINCIPLES

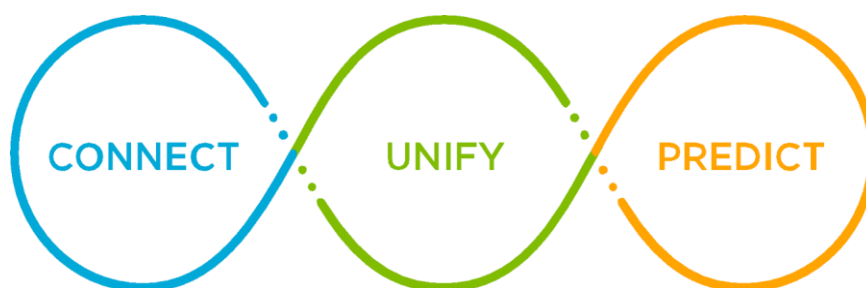
TIBCO VALUE ADDED

|  |  |
|--|--|
| Data is a Strategic Asset                    | Elevate the institutional status of data with industry leading best practices  |
| Collective Data Stewardship                  | Achieve accountability and responsibility with advanced user permission functionality to control the scope and capabilities of data stewards |
| Data Ethics                                  | TIBCO helps customers navigate ever-evolving regulatory and compliance requirements at scale   |
| Data Collection                              | TIBCO helps a variety of businesses across industries develop methods for identifying, capturing, and analyzing relevant data streams        |
| Enterprise-Wide Data Access and Availability | TIBCO has helped a variety of corporations enact organizational change to transition from need to know to the responsibility to provide      |
| Data for Artificial Intelligence Training    | TIBCO helps companies tailor and secure their data sets for application of advanced technologies like AI/ML                                  |
| Data Fit for Purpose                         | Through data virtualization, TIBCO enables companies to aggregate and disseminate data according to predetermined criteria                   |
| Design for Compliance                        | Regulatory and compliance oversight at scale are common use cases for TIBCO software – TIBCO enables audits and oversight                    |

**DOD must transform its people, processes, and technologies to meet the ever-growing demands of complexity. Becoming an AI-enabled force starts by connecting disparate sources of data.**

# DOD CURRENT SITUATION – ESSENTIAL CAPABILITIES & GOALS

| ESSENTIAL CAPABILITIES | TIBCO VALUE ADDED  |
|------------------------|--|
| Architecture           | TIBCO supports on-premise, cloud, and hybrid and has extensive experience with cloud migrations  |
| Standards              | TIBCO enables a variety of best-practices methods for the management and utilization of data assets, supporting open-use and restricted access scenarios |
| Governance             | With TIBCO, DOD can set the requisite approvals and capabilities according to a usage profile  |
| Talent and Culture     | TIBCO has guided a variety of entities across industries in their digital transformations, including human capital development to maximize return        |



| "VAULTIS" GOALS          | TIBCO VALUE ADDED   |
|--------------------------|---|
| Make Data VISIBLE        | Rapidly find and visualize the necessary data for the situation according to usage profile needs  |
| Make Data ACCESSIBLE     | Regardless of the source, with TIBCO's portfolio of APIs, DOD can reuse, create, retrieve, share, utilize, and manage data across its complex systems |
| Make Data UNDERSTANDABLE | TIBCO's dashboarding capabilities unify data sources with flexible taxonomy and processes   |
| Make Data LINKED         | TIBCO enables unique identifiers so that data is easily discovered, linked, retrieved, and referenced, and allows for customized metadata             |
| Make Data TRUSTWORTHY    | TIBCO wrote the doctrine for master data management best practices and enables commander control  |
| Make Data INTEROPERABLE  | Customizable data exchange specifications for multiple systems; TIBCO guides constituents on needed standards for interoperability                    |
| Make Data SECURE         | With industry leading encryption and protocols, TIBCO solutions are trusted with processing and transacting on the most sensitive information         |

**Upon connecting sources of data, unification and normalization must occur. TIBCO makes it easy to connect any data source, anywhere. Once connected, data can be transformed into predictive analytics, bringing facts to every situation.**

# DOD CURRENT SITUATION – AI STACK

**Practical** – NASA reduces time to review projects by 83%

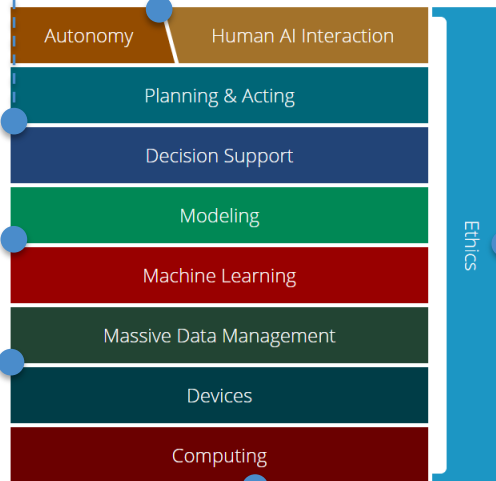
**Tactical** – DOD reduces time to review projects by 83%



**Practical** – USDA leverages big data to reduce hours waiting for reports to optimize production from 48 hours to zero  
**Tactical** – DOD uses big data to reduce detection to decision from 48 hours to zero

**Practical** – CargoSmart reduces fuel consumption by 3.5%

**Tactical** – BCTs reduce consumption of expendables by 3.5%, greatly decreasing supply chain needs and complexity



**Practical** – Compliance.ai uses TIBCO's API management to streamline compliance activities for the heavily regulated financial services industry

**Tactical** – DOD compiles millions of data points and scales compliance and ethical guarding activities across the enterprise



**Practical** – An Intelligence Agency is connecting data from assets (open source, IOT, ERP, etc) throughout the world on TIBCO's data platform

**Tactical** – DOD can adopt similar practices already being used in other areas of the national defense apparatus



**Practical** – NAVAIR uses IMINT for EW anomaly detection. Fedex uses the TIBCO platform to handle 38 billion data messages per day

**Tactical** – DOD combines data sets and transforms to become a data-informed military

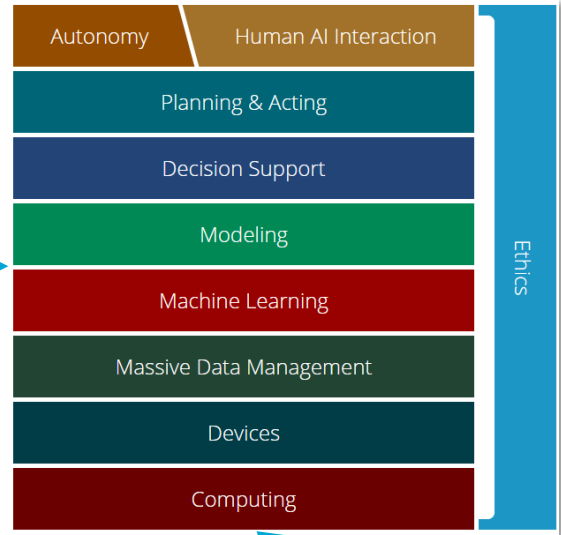


The TIBCO Platform meets the DOD Strategy and AI Stack requirements to help transform how DOD connects, unifies, and predicts using varied data sets from disparate sources and systems.

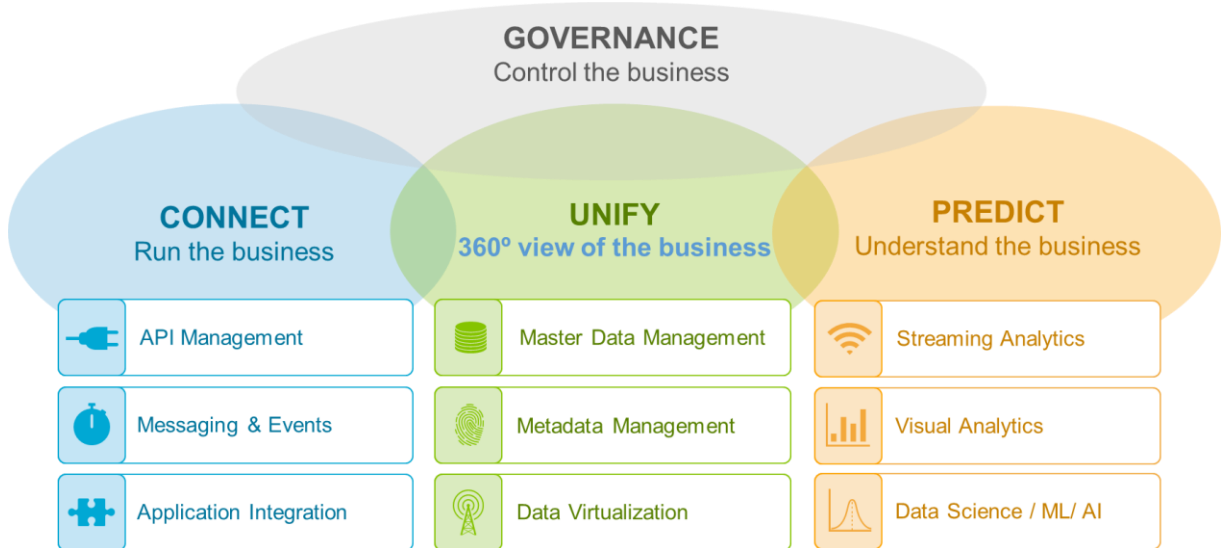
## DOD DATA STRATEGY



## CMU AI STACK



## TIBCO PLATFORM



**AI STACK + DOD DATA STRATEGY + TIBCO = Actionable Intelligence**

