Decision Dominance through Anticipatory Intelligence

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Know your World. Shape your World. Data-Driven Decision Dominance.

- Background: G-3/5/7 Analytic Tool
- Predictive analytics using ARTEMIS
- Installation and community use cases

EMDS/G3AT informs on a broad range of Army functions

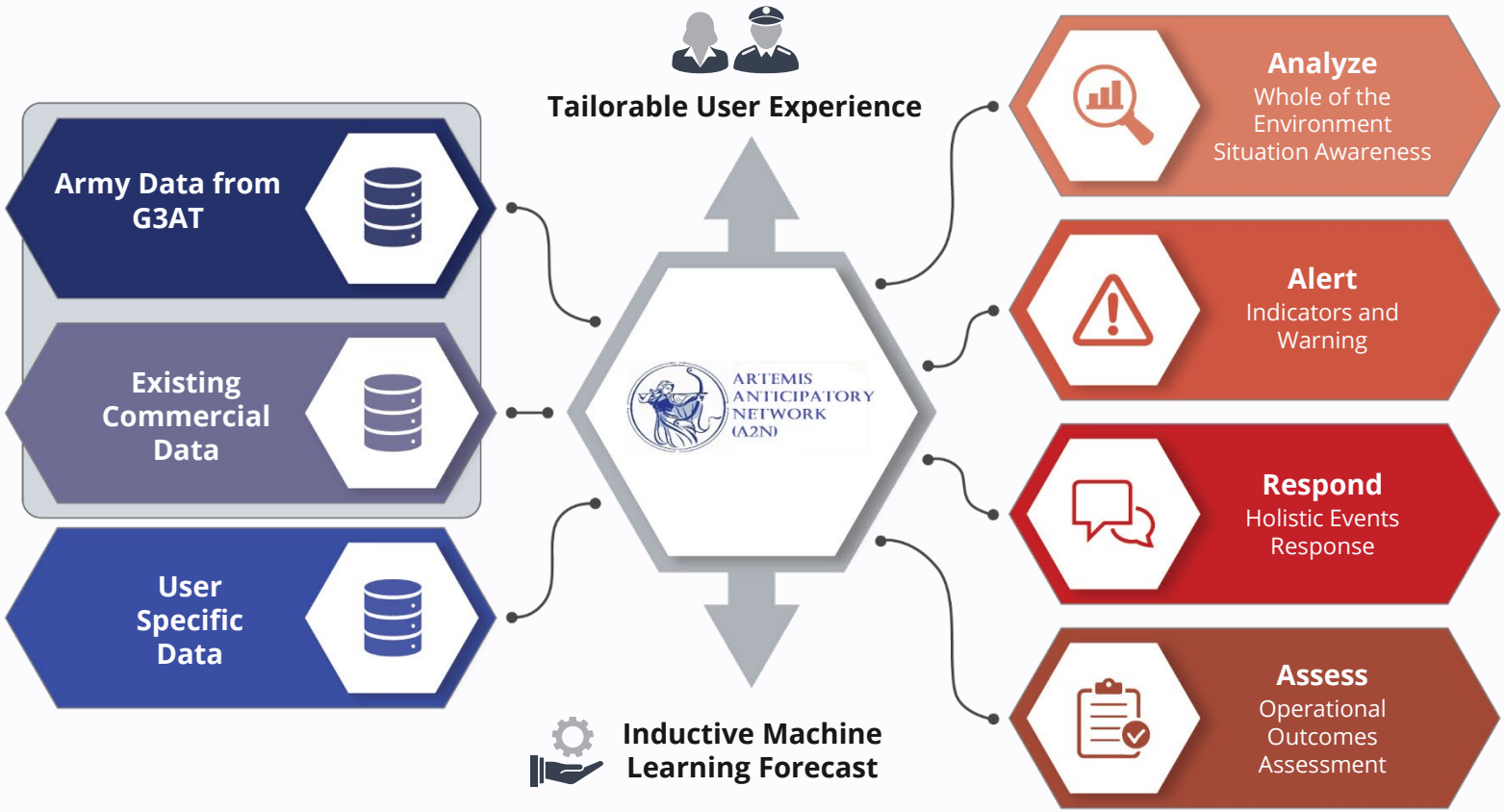
EMDS/G3AT:

Manages the ***retrieval and integration*** of disparate data & processes to create an automated ***common access point*** for holistic and detailed Army *Operating & Generating Force* data in order ***to enhance understanding and decision making***

To:

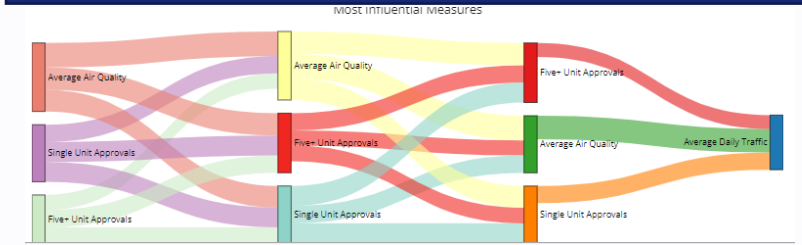
Develop, maintain and sustain the ***Army's premier web-enabled, decision support system to*** provide senior leaders and commanders the ability to see and analyze the force to ***enable sound, resource informed strategic and operational decision making.***

ARTEMIS is providing predictive analytic capability to G3AT

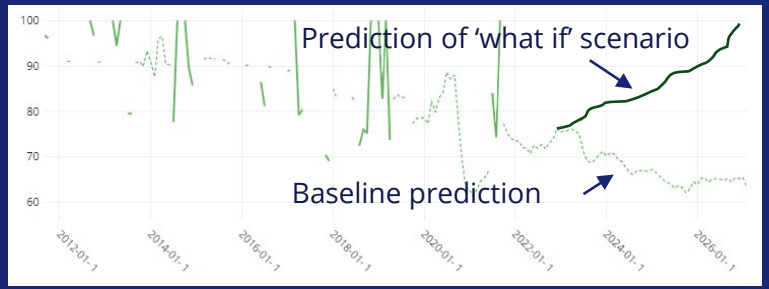


Sample of ARTEMIS features that aid decision making

Dirty and missing data intelligently corrected by **Tensor completion** – assumes actions cause reactions and there are hidden factors beyond provided data



Understanding and insight gained through **Machine Learning** by uncovering the most influential relationships between any user input and output selection



Exploring the impact and cascading effects of alternative courses of action through **scenario forecasting**

Use cases

Facility Return on Investment (ROI)

Active use case

- Problem:
  - Unable to measure and predict how facility investments affect Army strategic objectives like readiness
- Solution:
  - Several Army data sources compiled (Many utilized from G3AT)
  - ARTEMIS
    - Uncovers specific facility characteristics that influence readiness
    - Explores likely outcomes and cascading effects of alternative facility investment and management strategies

Improving soldier quality of life

Potential use case

- Problem:
  - What investments should the Army and broader installation community make to improve soldier quality of life
- Solution:
  - Compile Army, commercial, and community data
  - ARTEMIS
    - Identifies drivers affecting quality of life outcomes (i.e., soldier retention)
    - Explores which Army and community actions have the greatest impact on quality of life

Questions

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BIGBEAR.AI

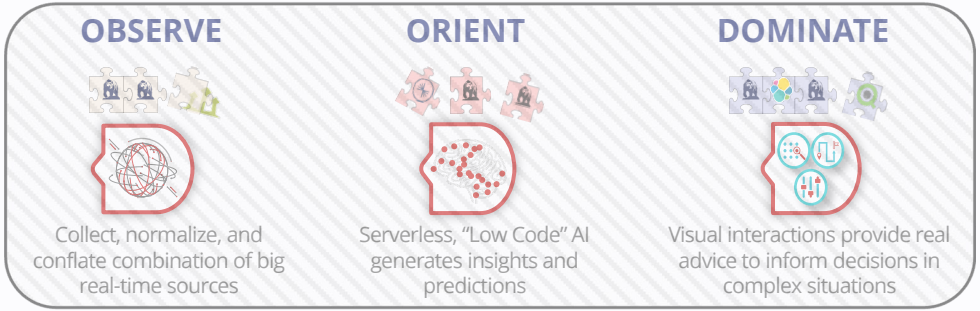
DECISION DOMINANCE

Composing the Future of Machine Learning Solutions

Client-focused Culture and Specialized Workforce

64% TS & TS / SCI Employees

- Cloud Systems Engineering
- Software Development
- Data Science – AI/ML
- Data Architecture
- Cyber Exploitation



pci	Cyber network exploit and infrastructure management
BIGBEAR.AI DECISION DOMINANCE	Big data exploitation for defense intelligence
ProModel Government Solutions	Decision optimization for force management
NuWave Solutions VISION | EXPERTISE | TEAMWORK	Course of action assessment and exploratory analysis

Products

ARTEMIS ANTICIPATORY NETWORK (A2N)

Available on NASA SEWP

Services

Full Spectrum Cyber

- Offensive Cyber Tool Development (OCO)
- Defensive Cyberspace Operations (DCO)
- Cybersecurity Engineering, and Compliance
- Cyber Infrastructure for Operations and Training
- Vulnerability Research and Technical Analysis

Digital Transformation

- Agile and SAFe Experts
- Performance Measurement and Metric Analytics
- DevSecOps, CI/CD, Software Factory
- Strategic Planning and Systems Engineering
- Logistics and Process Transformation

Decision Support Applications

- Course of Action Generation
- "What If" Impact Assessment
- Multi-domain Forecasting
- Automated All-Source Conflation
- Exploratory Investigation
- Self-service Reporting
- Allocation Optimization

Hybrid Clous & Enterprise IT

- Public, Private, Hybrid, Multi-Cloud Mgmt.
- Cloud Strategy, Change Management, & Migration
- Cloud Engineering, Automation, and Security
- Software-defined Infrastructure & PaaS
- Training, Certification, and Workforce Development