AI TECHNOLOGY IMPACT FORUM

Craig Rees, President Shipcom AI

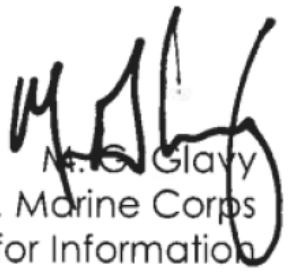
Marine Corps AI Strategy

The Marine Corps Artificial Intelligence (AI) strategy is a milestone in the Service's digital modernization effort.

AI provides a framework to support better and faster decision making, reducing minutes to seconds across a myriad of functions.

On the digital battlefield, from receipt of mission to the execution of tactical tasks, AI is an enabler for faster decision making and success.

"***Our fight for and with information needs AI now***."



M.G. Glavy
Lieutenant General, U.S. Marine Corps
Deputy Commandant for Information

Spending on **Digital Transformation** reached a staggering $1.6 trillion in 2022 and is projected to reach $3.4 trillion in 2026.

DMM As the Path to Exceeding the PRC's Materiel Pace

DMM is the disruptive enabler we need to accelerate capability delivery through a fully empowered digital workforce equipped to deliver integrated, innovative, and trusted capability across the lifecycle, with unprecedented industry and government collaboration. AFMC will achieve this vision through the execution of six key initiatives:

Instill a Digital-First Culture

AFMC will make a cultural shift to collaboration versus review, as DMM capabilities provide real-time interaction between government and industry.

Develop Digital Strategies

AFMC will ensure programs and organizations share a common vision of applying digital-first strategies to their work across all functional disciplines.

Structure and Secure Our Data

AFMC will deploy data standards, formats, and reference architectures for MAJCOM lifecycle use.

Provide Access to DMM Tools

AFMC will use and provide access to PLM tools, system and process modeling tools, design tools, and analytics tools across all functional disciplines.

Train Our Digital Workforce

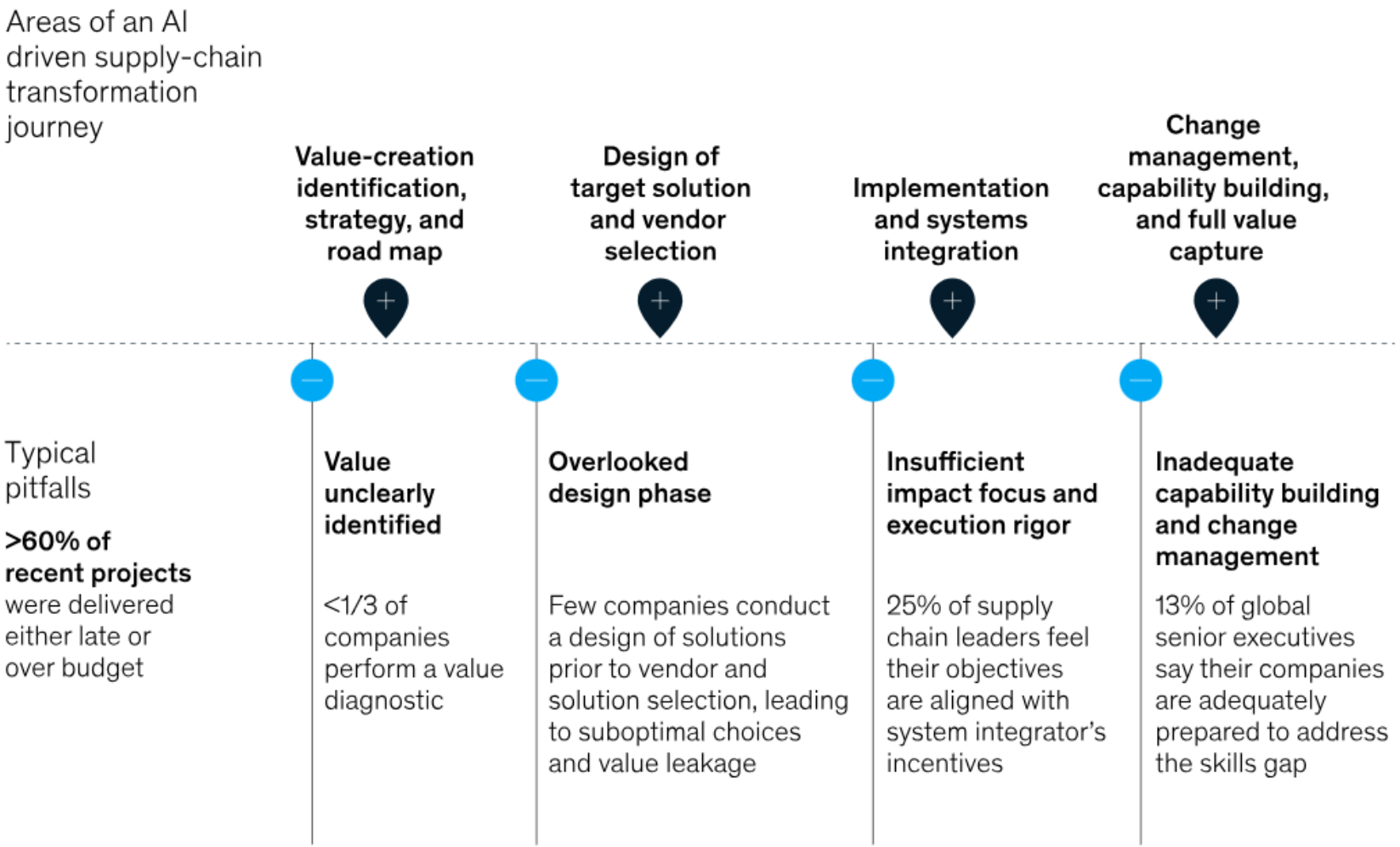
AFMC will train the workforce to use and understand the power of DMM tools.

Modernize IT Infrastructure

AFMC will upgrade IT infrastructure (characterized by speed, agility, connectivity, and accessibility) to set the foundation for DMM progress across the MAJCOM.

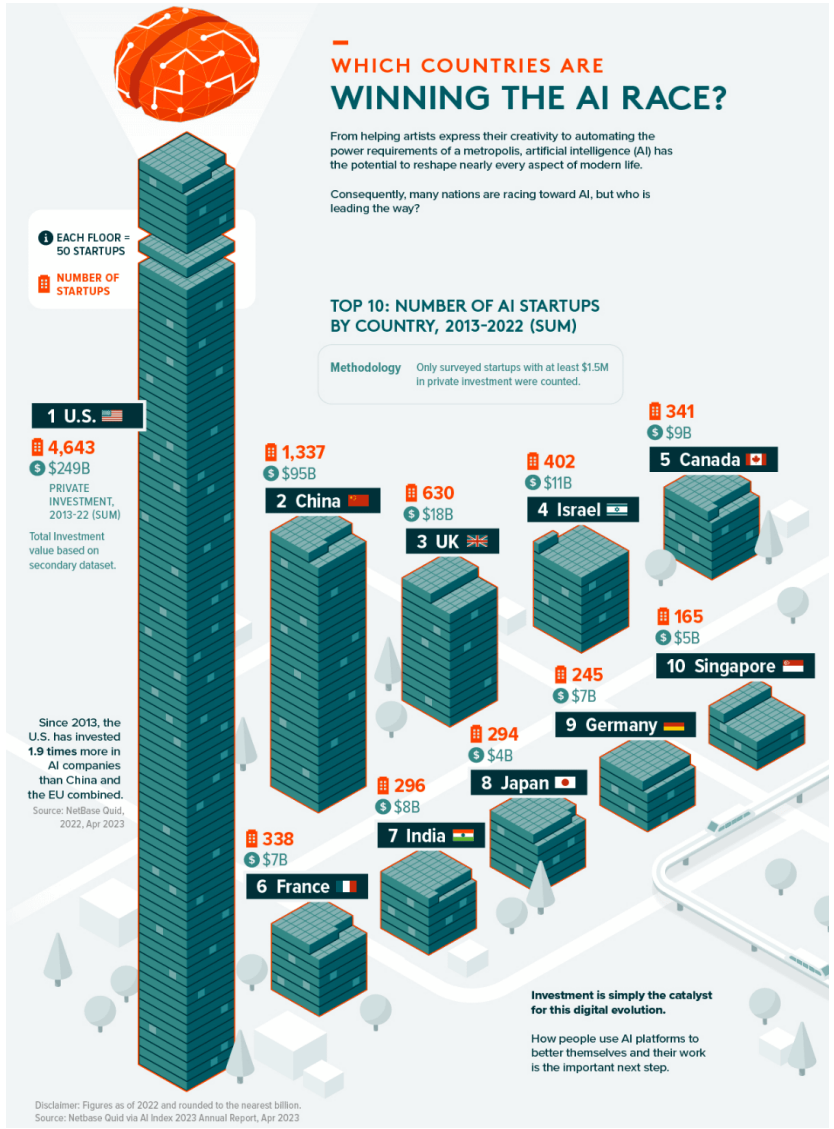
These six initiatives are required to realize DMM. Implementation requires resourcing and dedication to change from the status quo. Execution will yield acceleration.

Companies face common pitfalls along their planning transformation journey, leading to more than 60 percent of projects being late or over budget.



Source: McKinsey survey of global supply-chain leaders (December 4–18, 2020, n = 52)

Winning the AI Race



- Today the People's Republic of China (PRC) is outpacing the United States (U.S.) in fielding warfighting capability.
- The U.S. averages sixteen years to deliver a major weapons system.
- The PRC delivers systems in approximately seven years.
- That's nine years of the PRC being in the game before the U.S. even takes the field.
- This disparity in integrated capability delivery timelines must change—or the U.S. will lose.

DoD AI Hierarchy of Needs

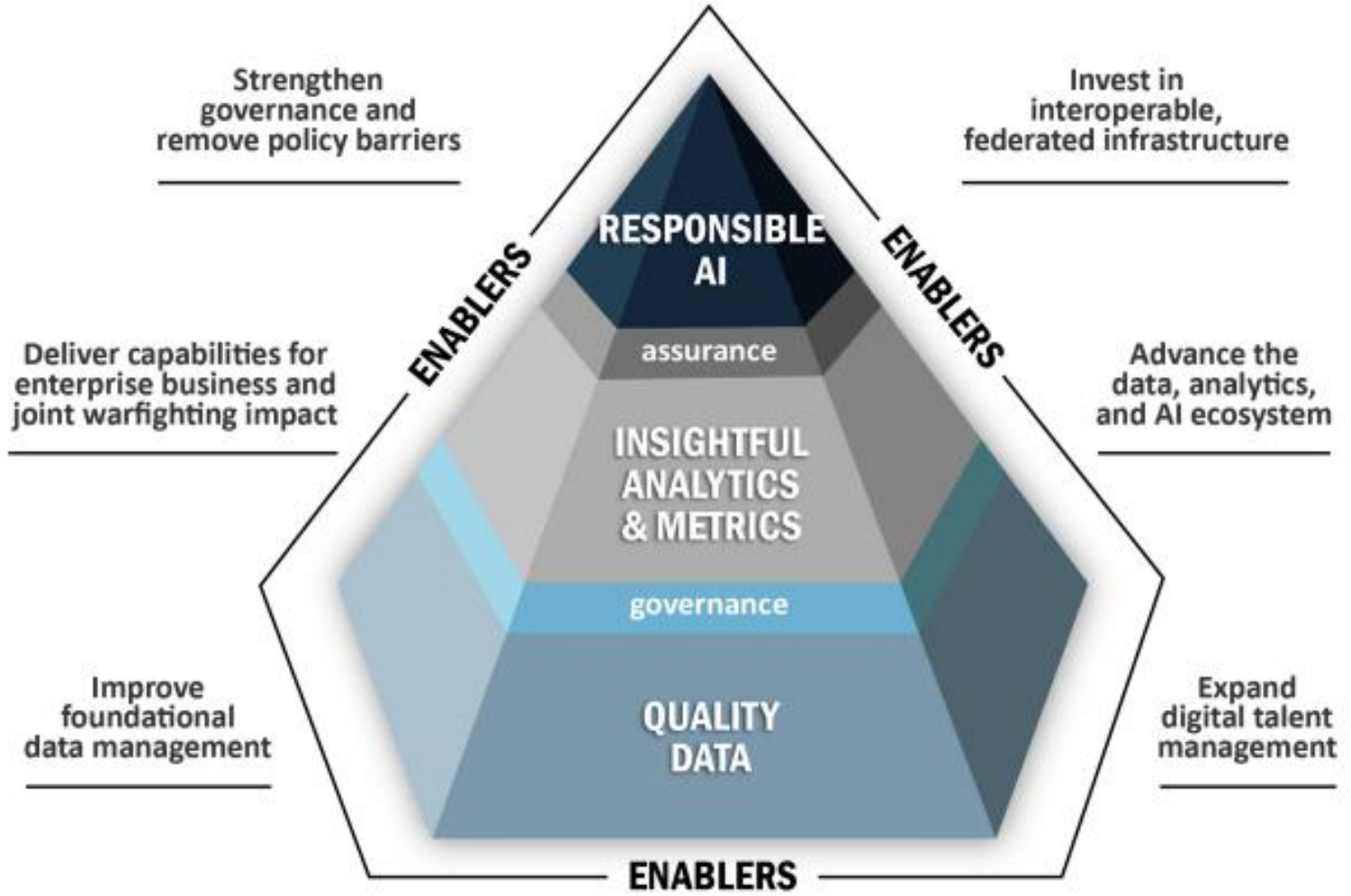


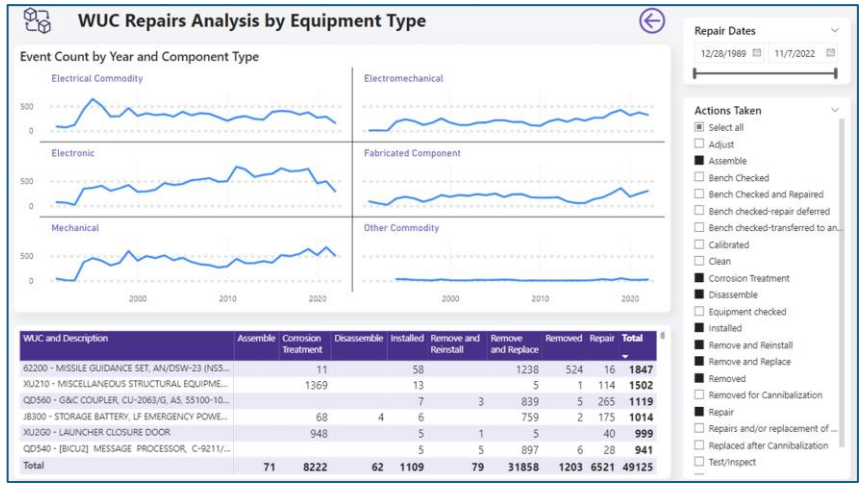
Figure 2: Strategic Goals and the AI Hierarchy of Needs

Role of Artificial Intelligence in Logistics

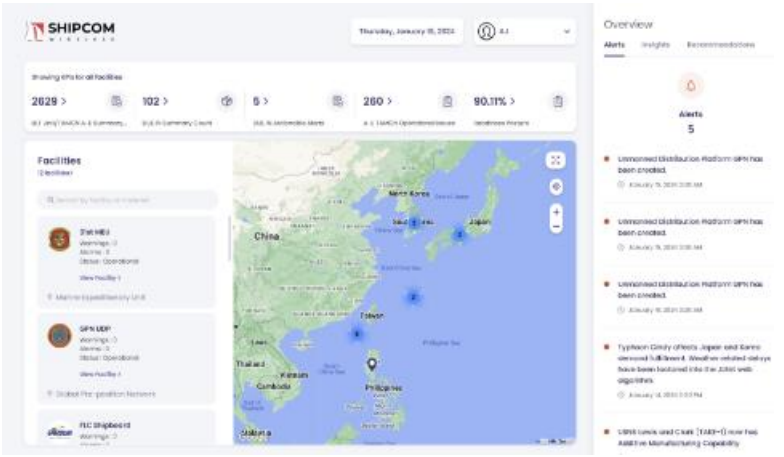
1. Enhance customer experience
2. Automate routine tasks
3. Accelerate data analysis
4. Process and filter large amounts of data
5. Automate and optimize logistics and maintenance processes

Leveraging AI for Contested Logistics

Forecasting Demand to Inform Allocation

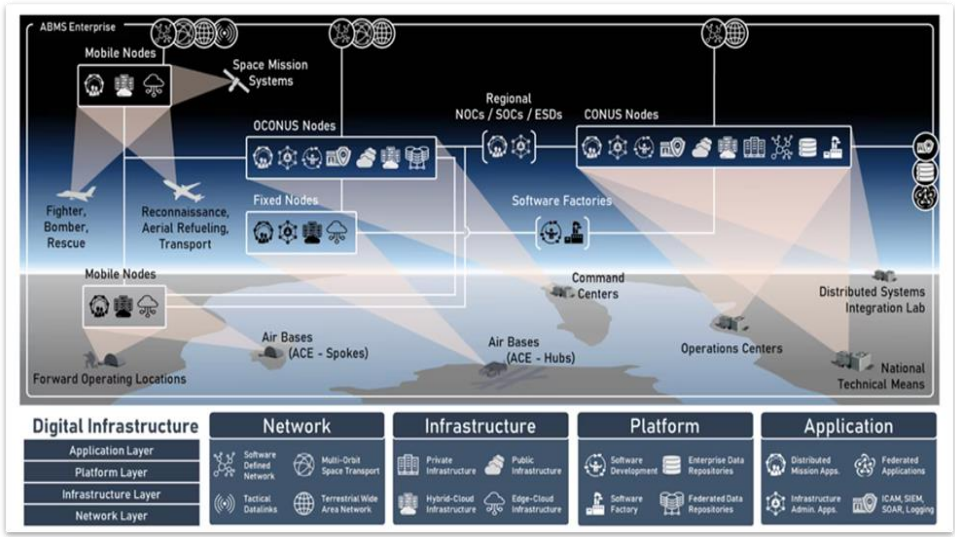


Automate and Adapt Route Planning



Minimize Disruptions to the Defense Supply Chain

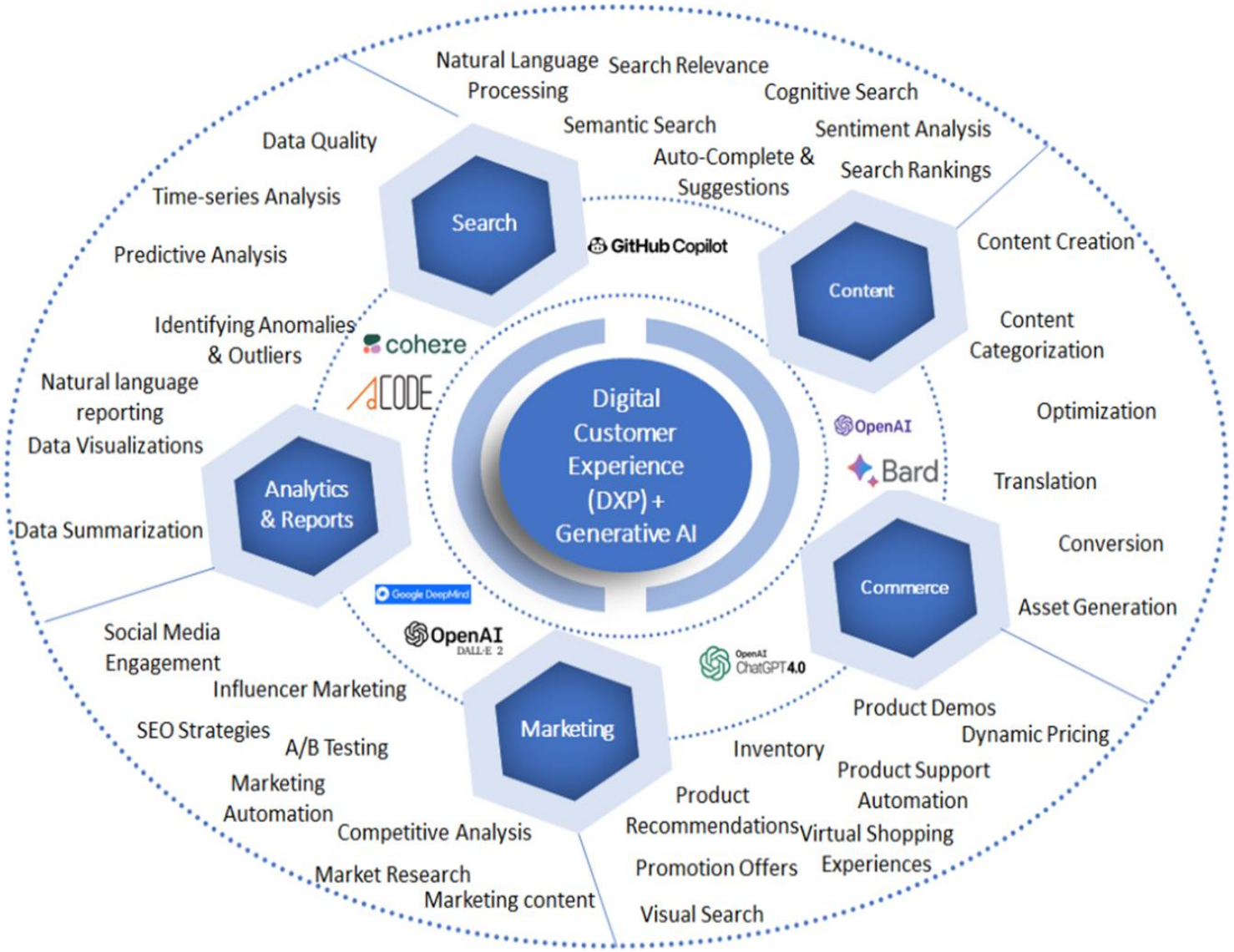
Joint Force Collaboration



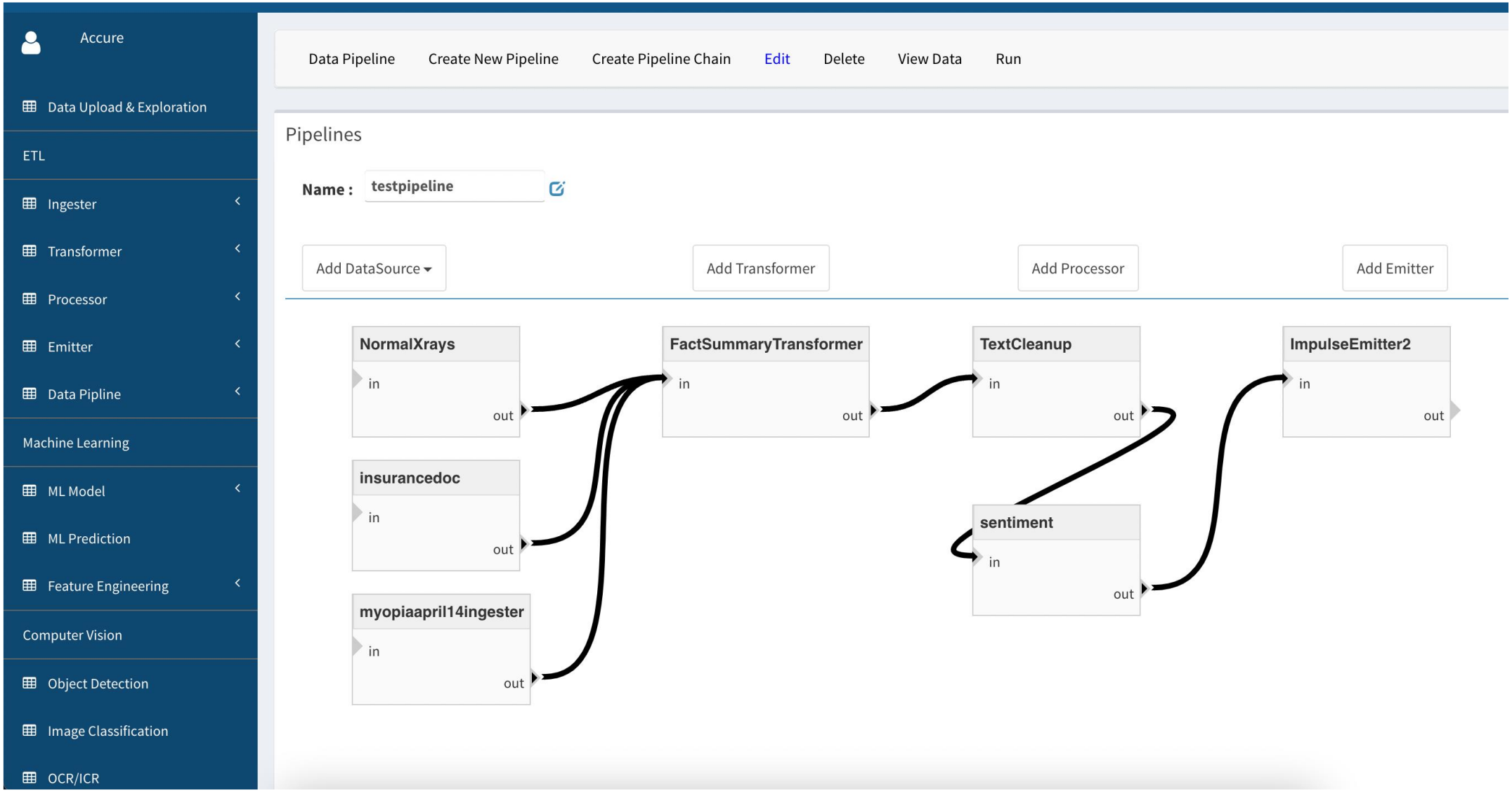
Cultivating an AI Ready Workforce

Archetype	Description	Concentration	Role Explanation
Lead AI	Decides policy and doctrine, including how AI tools can or will be used; builds AI vision and plan	Policy	• Creates overarching guidance on DOD AI use
		Command	• Ensures AI policy carried out by personnel they lead
		Agency/Function Lead	• Ensures AI policy carried out in non-combat agencies
Drive AI	Ensures appropriate AI tools and capabilities are developed and delivered across DOD	Acquisitions Manager	• Supports technology/capabilities through total life cycle
		Capability Manager	• Evaluates and develops force structure resources and reqs
		Technical Manager	• Defines the tech strategy across a project portfolio
		Product Manager	• Ensures the creation of AI-enabled tools, from start to finish
Create AI	Creates AI tools to meet current and future needs	AI Researcher	• Pushes DoD AI capability by preparing for future use cases
		AI/ML Engineer	• Builds, tests, codes, integrates, and delivers AI tools
		Testing & Evaluation Engineer	• Evaluates system capabilities, limitations, operational risks
		Data Scientist	• Applies AI tools to perform analytics and create solutions
		Deployment Engineer	• Manages integration, deployment, and operation of AI systems
Embed AI	Embedded with Employ AI, establishes AI systems and provides end-user support at tactical edge	Technician	• Deploys, maintains, adapts, and collects data for AI/ML systems at the tactical edge
Facilitate AI	Represents users to ensure appropriate AI tools are developed and delivered to address use cases	Product Owner	• Provides voice of customer; turns product vision into backlog
		UI/UX	• Designs AI tool interface for usability and accessibility
		Other Technical Experts	• Delivers discrete elements of system not specific to AI
Employ AI	End-users of AI tools, provide feedback on and requirements for AI tools	Operations	• Prepares for and delivers operational requirements
		Intelligence	• Gathers and analyzes info to support decision-making
		Logistics & Maintenance	• Enables troop / gear movement, maintain equipment
		Health	• Maintains health and wellbeing of the Warfighter
		Support	• Supports the Warfighter in non-combat requirements

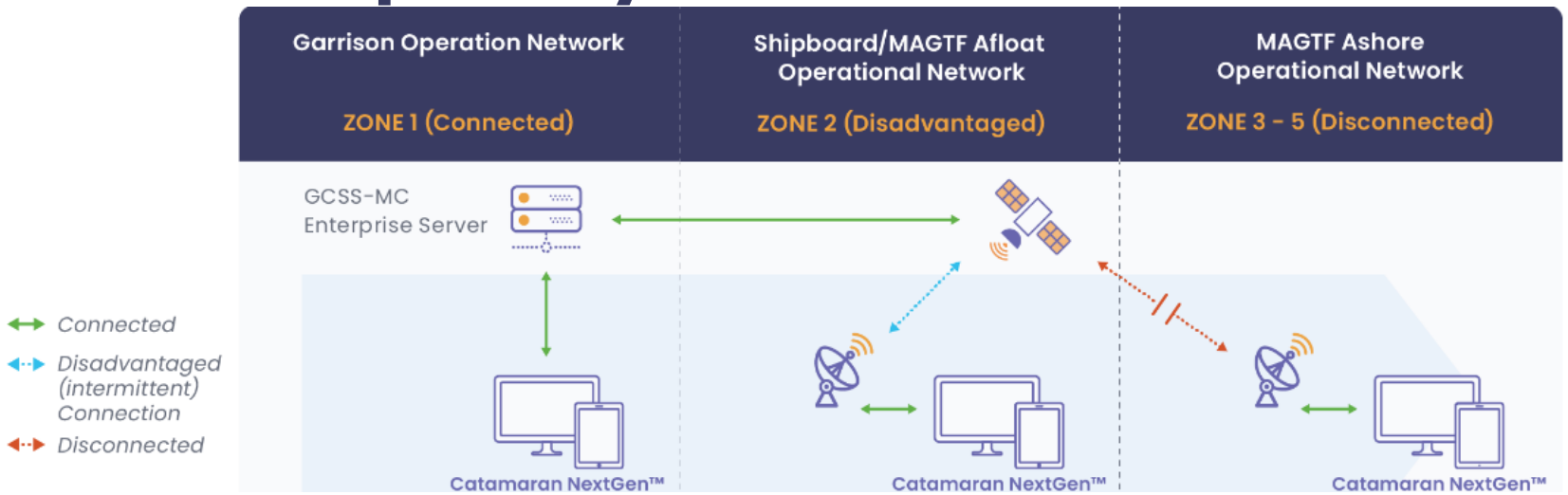
Future Evolution of Generative AI for Digital Customer Experience Platforms

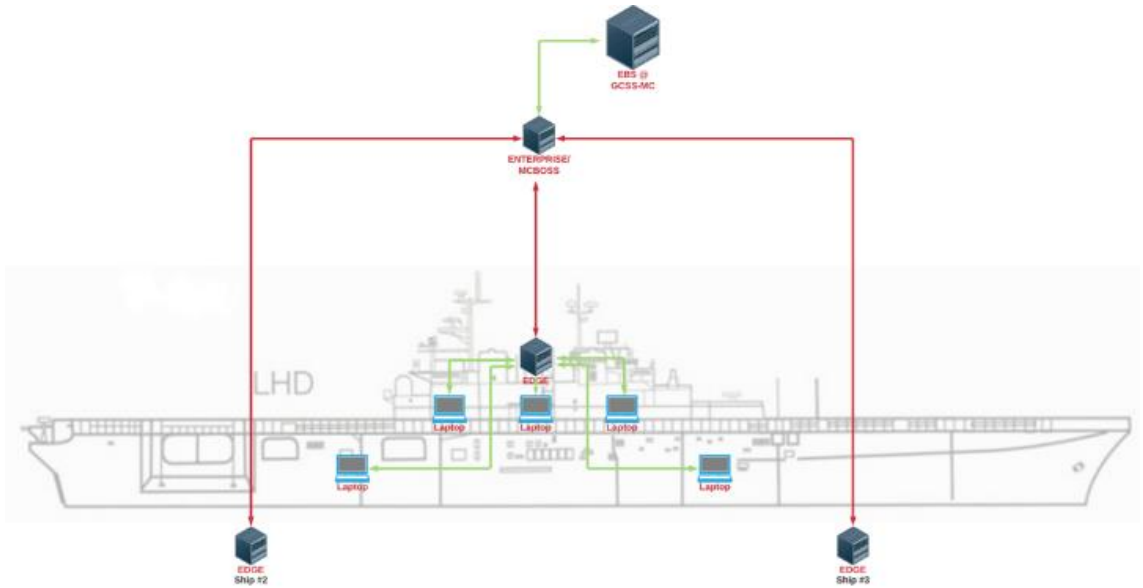


Shipcom AI – Democratizing Development



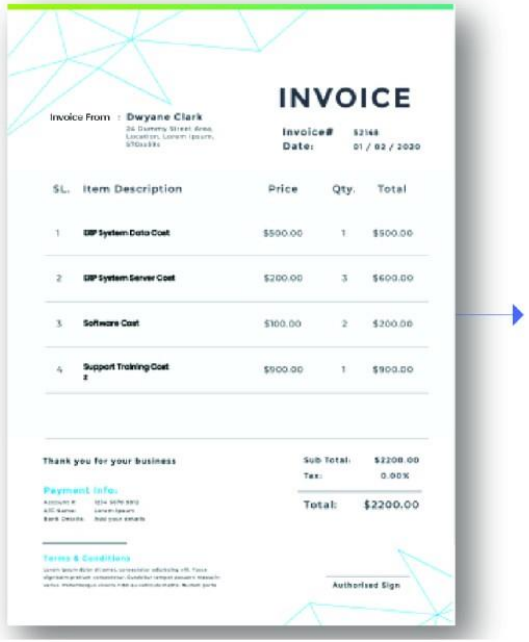
US Marine Corps – Maintenance and Supply Operational Capability in DDIL Environments





Using AI/Computer Vision module for Contract Reconciliation

OCR

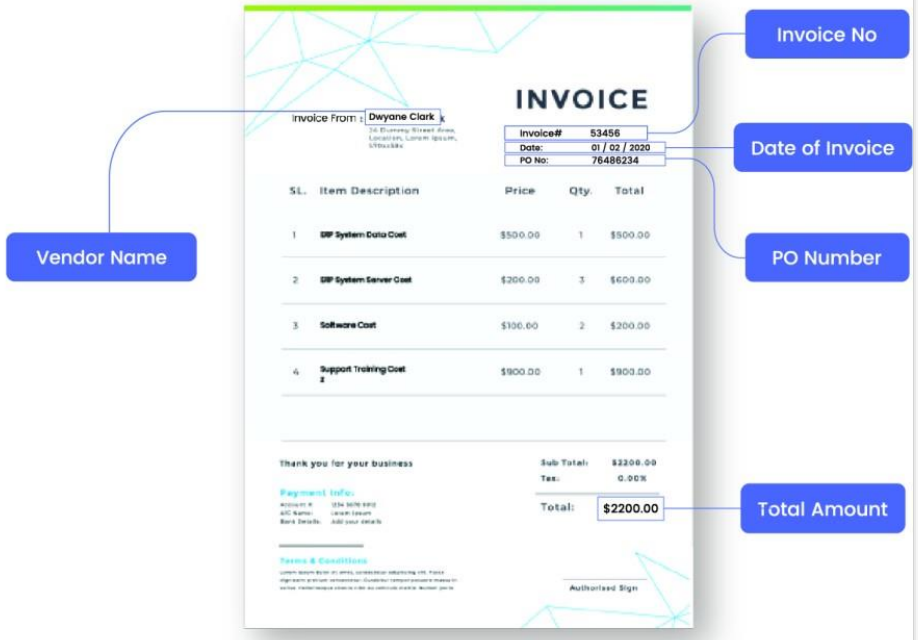


Invoice # 52145
Date 01 /02 / 2020
Dwyane Clark
24 Violet garden street, 23-10
Vendor address
76486234 17th Nov 2018
Item Details
ERP system Data Catalog
$500 Qty 1
ERP system Server Cloud
$200 Qty 1
Software Cost
$200 Qty 3
engineers from 1st Sep
$100 Qty 2
Invoice No:
168112 45473031
Thank you for your business
7578 Volume discount at 10%
Payment Info
Account Number
6821280 Total $2200

Text-Based
data Extraction

VS

AI

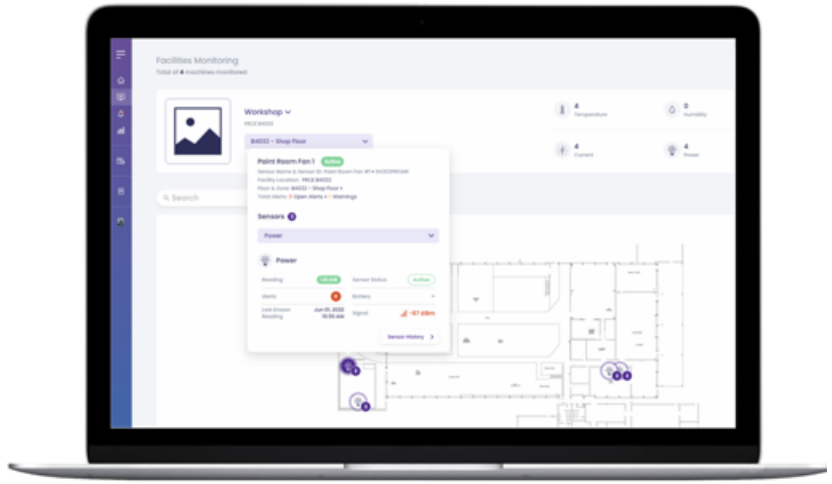


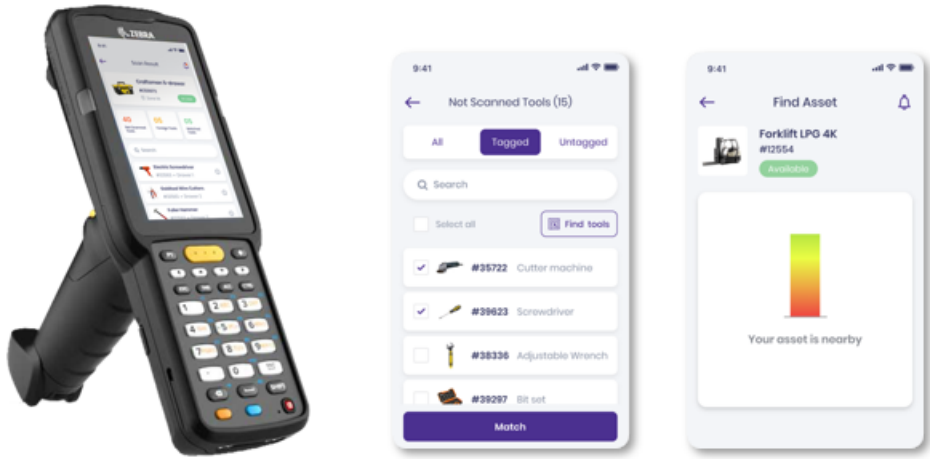
Key-value extraction
and insert into APA system

US Navy Fleet Readiness Center – Digital Track and Trace

Digital Tracking – ROI

- **Improved Inventory Accuracy and Management**: Reduces manual errors and provides real-time visibility into inventory levels.
- **Enhanced Operational Efficiency**: Streamlines processes, reduces the time spent on manual checks, and allows for quicker locating and managing of assets.
- **Reduced Loss and Misplaced Assets**: Identify and locate missing items. This reduces the costs associated with asset loss, shrinkage, and theft.
- **Labor and Resources**: Cut down on time taken related to perform manual tracking and inventory management.
- **Better Data and Decision Making**: Data can be analyzed to optimize asset usage, maintenance schedules, and overall operational strategies, leading to more informed decision-making and improved business outcomes.
- **Asset Reconciliation:** Identify unused or underutilized assets during commissioning process
- **Magnified Compliance Visibility:** Digitized compliance processes will help automate and improve compliance enforcement





Tracking and Maintenance