



U.S. ARMY
CYBER COMMAND

Army Radio Frequency (RF) Data Pilot

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Overall classification of this brief is
Unclassified – Distribution Statement A

OPERATE, DEFEND, ATTACK, INFLUENCE, INFORM!



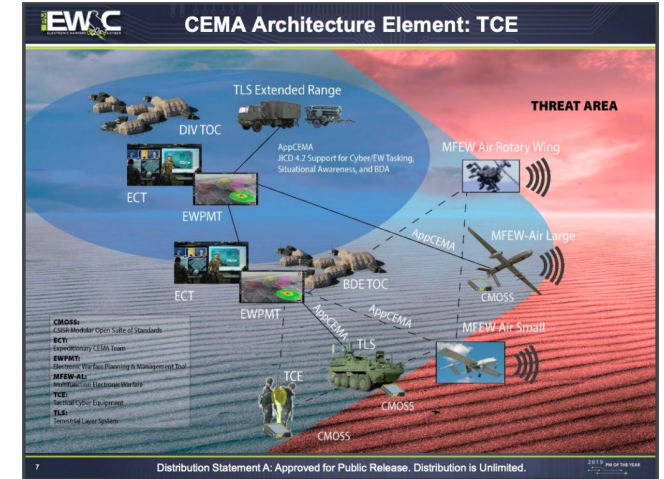
The Problem

Operational Environment:

- Rapid technological advancements changing the character of war
- More actors with a lower barrier of entry (SDRs, Sensors, Etc...)
- The ability to be seen in the EMS is lethal

Recent Army assessments:

- 2021 Cyber Center's "STARBLAZOR" Reprogramming study
- 2023 Army CEMA 120-Day Study
- 2023 HQDA EW Capabilities Portfolio Review
- 2024 CEMA Lessons Learned from Russian-Ukraine War Info Paper

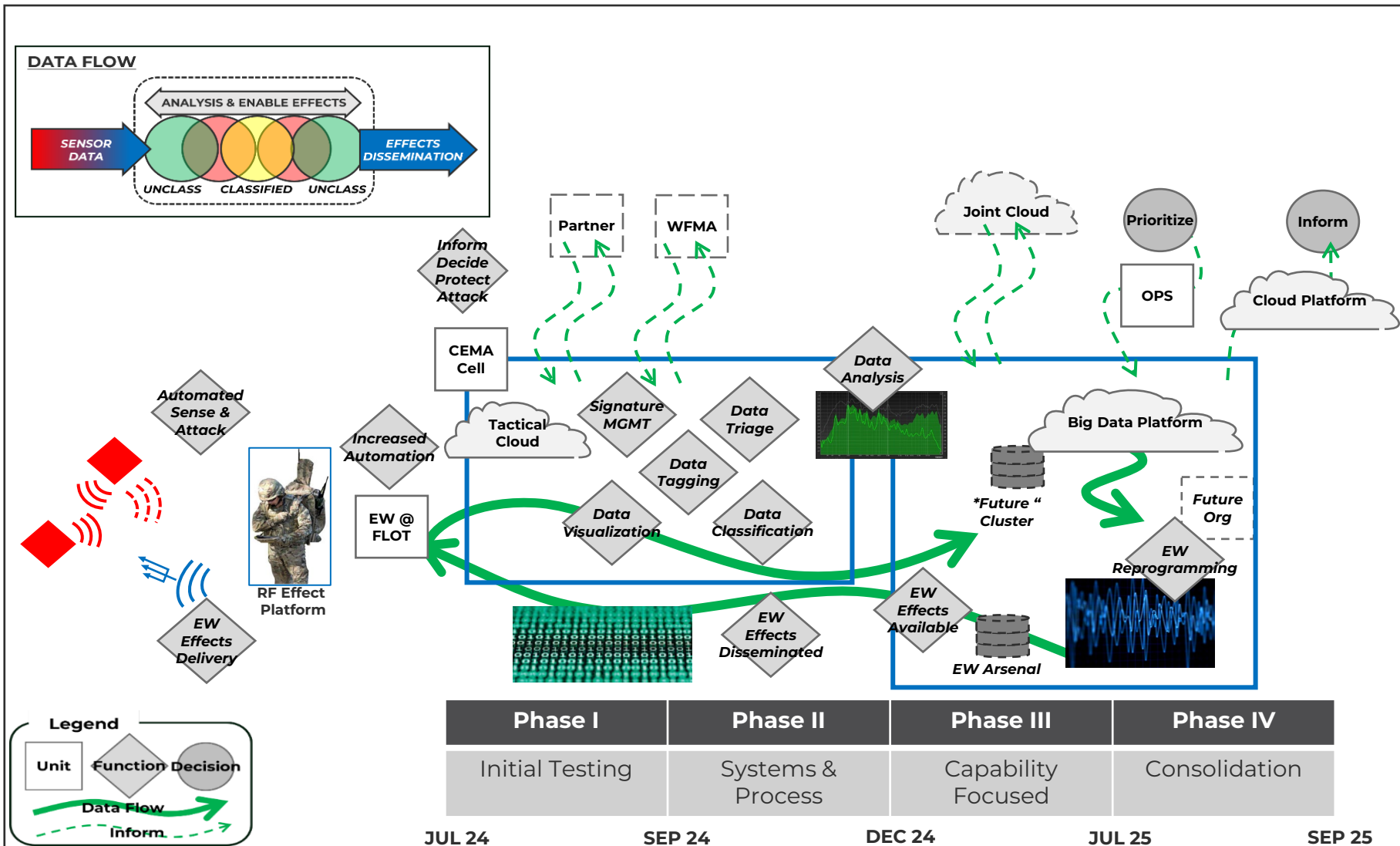


***concluded that* the US Army must improve its ability to:**

- Operate in the EMS with agility to maneuver and deliver effects at the operational pace





The RF Data Pilot conducts experimentation to identify enterprise requirements for RF data triage, transport, and follow-on data analysis and countermeasure / RF effects capability development

Concept of Operations



Data Environment Enabling Agility in the EMS

Learning Objectives

	<u>“How do we ...”</u>	<u>Associated Sub Tasks</u>
	<p>Objective 1: (Data)</p> <ul style="list-style-type: none"> - Capture, tag, classify, and RF data forward in theater - Transport RF data from theater and store in the Army’s BDP 	<ul style="list-style-type: none"> • Tailor and automate triage of RF signals as mission pertinent data. • ID RF data schema, transport, and data storage requirements to enable rapid RF data sharing • ID data governance and policy solutions to support RF data retention and reprogramming
	<p>Objective 2: (Data Integration)</p> <ul style="list-style-type: none"> - Visualize and share RF data to enable timely CEMA planning, decision making, and effects delivery 	<ul style="list-style-type: none"> • Integrate RF data between different Army battle command systems • Visualize EMS sensor data to enable planning and a common operational picture
	<p>Objective 3: (Policy & Systems)</p> <ul style="list-style-type: none"> - Identify organizational and policy requirements to enable RF reprogramming in support of operational requirements 	<ul style="list-style-type: none"> • ID roles and responsibilities by organization across the RF reprogramming enterprise • Determine authorities and processes to deliver RF effects to supported Army ground commander
	<p>Objective 4: (Inform Future Requirements)</p> <ul style="list-style-type: none"> - Drive future S&T Initiatives - Define common standards for RF effects development in Army CEMA requirements 	<ul style="list-style-type: none"> • Share resources and facilities to enable rapid and dynamic RF reprogramming • Inform Security Classification Guide • Hardware agnostic payloads via containerization/abstraction

Desired Outcomes

- Inform data architecture
- Identify data standards
- Refine policy supporting CEMA
- Align requirements, acquisition and S&T
- Inform organization design
- Demonstrate agility to the Operational Force



Opportunities for Industry Partners

- Adopt Modular Mission Payload concept
- Identify challenges with MMP concept and supporting architecture
- Identify areas that must be standardized that are not today
- Identify ways to create an RF Development Ecosystem





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Discussion



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