




FRONTLINE TECH: INNOVATION FOR COMBAT OPERATIONS



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Simulation Training, Test & Threat (ST3)

Collective Training Reference Architecture

Modular Open Systems Approach



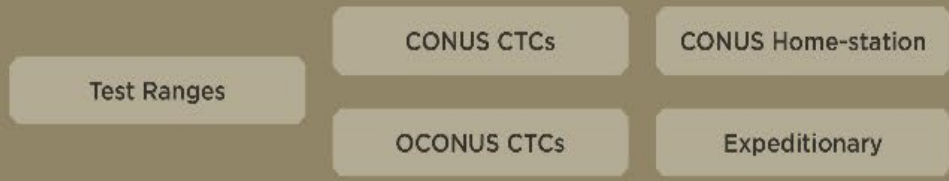
SENSOR LAYER

(Embedded or Appended)



TRANSPORT LAYER

(Commercial RF Solutions)



LVC CORE SERVICES LAYER

(Cloud Hosted)



Enterprise LVC for Multi-Domain Operations

- **Simulation:**
 - Unpredictable behaviors of non players that replicate threats or doctrine.
 - AI-enabled scenario generation and adaptive scenarios based on user skills.
- **Digital Twin:**
 - Compute infrastructure that supports persistent simulation environment for training, testing and analysis.
 - Gaming models leveraging real world data to support training and testing events.
- **Sensor Fusion:**
 - Weapon orientation module, CV Optics (day/night).
 - Embedded sensing, collect and publish data into operational and threat platforms.
- **Autonomy:**
 - Low cost, realistic moving platforms to include algorithms.
 - Instrumentation of autonomous ground platforms.
- **Immersive Tech:**
 - Augmented reality devices that operate in outdoor combat training environment.
 - XR tech for immersive collective training environment.
- **Small Network Device:**
 - 5G/SAT micro compute devices to instrumented Soldiers/weapon platforms during training and testing activities.
 - Network devices that operate in tactical and training mode.



ARMY VERSE (Persistent Simulation Environment)



Vision

To deliver decision dominance and accelerate capability delivery through an integrated, AI-powered modeling and simulation enterprise

Goal

Establish integrated digital engineering enterprise to extent models, simulations, artifacts, data and knowledge to enable decision superiority and combat readiness

Challenges

- Difficulty accessing data
- Siloed M&S Environment
- Improved Decision-Making
- Duplication of efforts
- High Cost
- Decision speed is very slow

Attributes

- Faster Time-to-Value
- Multi-agency/organization ease of use
- Model Marketplace
- Warfighting focused
- Automated data pipeline
- Accessible at PoN
- Scalable
- Cost Efficiency
- Secured

Accomplishment

- Established LVC Cloud in IL5
- Adopt commercial products
- Started Live/Constructive Integration
- XM30/FLAARA Digital Prototyping
- NVIDIA Tech Exchange
- UCF Digital Model Pilot



INDUSTRY EXCHANGE

MAY 2026



Innovation Focus Areas



U.S. ARMY



ESTABLISH RESILIENT, AI-ENABLED C2, SUSTAINMENT, PED, & PROTECTION

- Leverage AI-enabled C2 to improve decision-making, facilitate predictive logistics, additive/subtractive manufacturing, and next-gen power generation.



ESTABLISH PERSISTENT NETWORK OF ISR COLLECTORS

- Enhance situational awareness with a modular, open systems network of all-domain sensors to detect, track, and target enemy formations.



FIELD UNMANNED DIRECT AND INDIRECT FIRE SYSTEMS

- Deploy unmanned systems to generate new forms of mass, mitigate force structure limitations, and enhance defensive and offensive capabilities.



FIELD LAUNCHED EFFECTS

- Introduce new launched effects to defeat massed armored formations and increase lethality in the close fight.



DEVELOP COST-EFFECTIVE KINETIC & NON-KINETIC MUNITIONS

- Create affordable, precision-guided munitions that achieve desired effects, leveraging commercial technologies and innovative manufacturing methods to reduce costs and increase availability of lethal and non-lethal options.

PRIORITIZATION METHODOLOGY

Cost Effective:

- Achieve affordable Total Price per Kill in protracted conflict through low-cost, attritable, and regenerable solutions.

Technology Forward:

- Leverage unmanned, autonomous, and networked systems to maximize UGV and UAS capabilities, enabling precision and multi-domain operations while mitigating force structure limitations.

Scalable & Adaptable:

- Develop global magazine depth to deter threats across theaters, ensuring flexibility and responsiveness in a rapidly changing environment.





Innovation Focus Areas

U.S. ARMY

1. Capability/Technology Name:

- Provide the official name of the product or technology.

2. Company & Point of Contact (POC) / CAGE Code / UEI Code:

- Include the company name, POC name, title, email, and phone number.

3. Problem Statement:

- Clearly and concisely describe the specific military problem or capability gap this technology addresses.

4. Brief Description:

- In simple terms, explain what the technology is and how it works. Avoid overly technical jargon.
- *Additional attachment allowed for further details

5. Warfighting Function(s):

- List the primary and secondary warfighting functions this technology supports (e.g., Mission Command, Fires, Sustainment, Intelligence, etc.).

6. Technology & Manufacturing Readiness Level (TRL/MRL):

- Provide the current TRL and MRL of the technology to indicate its maturity and readiness for fielding.

7. Military Utility/Impact:

- Explain the "so what?" of the technology. How does it enhance lethality, survivability, or efficiency? What makes it a significant improvement over existing capabilities?

8. Rough Order of Magnitude (ROM) Cost:

- Provide an estimated cost for a pilot program, initial fielding, or other relevant procurement metric. This helps in understanding the potential financial commitment.

9. Action/Request from JIOP:

- State the specific action you are requesting from the Joint Innovation Outpost. This could be a request for a demonstration, funding for a pilot project, assistance with testing and evaluation, or other forms of support.



9-Line



PIT/ JIOP WEBSITE

This 9-line format provides a structured and efficient way for the JIOP to receive and evaluate new technology proposals from industry partners. It ensures that the initial information received is targeted and actionable, allowing for a more rapid and effective innovation process.

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SUNSHINE CHAPTER

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- Thanks for those who attend the Pre PALT social last night at Buffalo Wild Wings. Thanks for sponsoring Aechelon!
- Next AAAA Social is this Friday at Froggers sponsored by Cole.
- Next Pre PALT Social 13 April 2026 at BWW sponsored by TBD.
- T2COM's LTG Dave Francis will be in Orlando on 11 March 2026. Tech Grove. 0900-1100. <https://www.ausa.org/events/t2com>
- CFL AAAA MSG (Ret) Richards Golf Tourney, 19 June 2026 at Rio Pinar. Contact stevegrady64@gmail.com for more info.
- Army 251th Birthday Ball 20 Jun 26 Rosen Centre (TSIS hotel) featuring the Fly Guys. <https://www.ausasunshinearmyball.com/> future website
- AUSA SPC Salazar 4th Annual Memorial Golf Tourney 25 Sep 2026, Eagle Creek. Robertbiggers72@gmail.com.
- Any Army questions: Kevin Vizzarri kvizzarri@avtsim.com

