DPA27BZ02-DV001
Hyperdimensional Neurosymbolic Cyber Course-of-Action Planning and Replanning under Deception
Frequently Asked Questions (FAQs)

1. Target Computational & Network Envelope: Does DARPA anticipate the Phase I prototype COA generation and replanning engine to execute within a constrained, disconnected edge computing envelope (e.g., low-SWaP flight computer or mobile tactical server without cloud reachback), or is an unconstrained high-performance server environment assumed for Phase I feasibility demonstrations?
   A: The expectation is a mobile tactical server without real-time cloud connectivity.

2. State Pruning & Invariant Boundaries: Does the program encourage approaches that couple deterministic combinatorial context pruning with neurosymbolic state representations to enforce hard sub-second turn latency bounds under active adversarial obfuscation?
   A: A variety of proposed approaches are encouraged.

3. The topic accepts Phase-I-equivalent maturity in one or more listed areas. Does entry evidence need to demonstrate hyperdimensional/neurosymbolic representations already, or can demonstrated structured cyber COA/replanning components substantiate the entry requirement while that representation is developed during Phase II?
   A: No, you do not need to have a pre-existing hyperdimensional or neurosymbolic prototype to satisfy the entry requirement. Demonstrating mature, structured cyber COA generation, dynamic replanning, distributed reasoning systems or one or more of the other defined relevant areas is fully sufficient to clear the DP2 feasibility gate, provided you lay out a credible engineering path to transition these systems to an HDC/neurosymbolic architecture during Phase II.

4. What minimum cyber-environment scale and planning-task diversity should the integrated demonstration cover?
   A: There is no specifical minimum scale. The demonstration should show a representational system that generates and compares multiple COAs, manages rapid replanning under dynamic constraints, and executes lightweight coordination among distributed reasoning elements.

5. Will a common unclassified scenario or cyber-range interface be provided?
   A:There is no government-supplied cyber range or standard scenario provided. Offerors are expected to bring or build their own scenario and simulation testbed.

6. Are there required comparison baselines, replanning-latency measures or communications-load test conditions that must be specified in the initial proposal, before the Month 1 requirements review?
   A: No specific baseline thresholds, latency limits, or communication-load test conditions are mandated for the initial proposal.