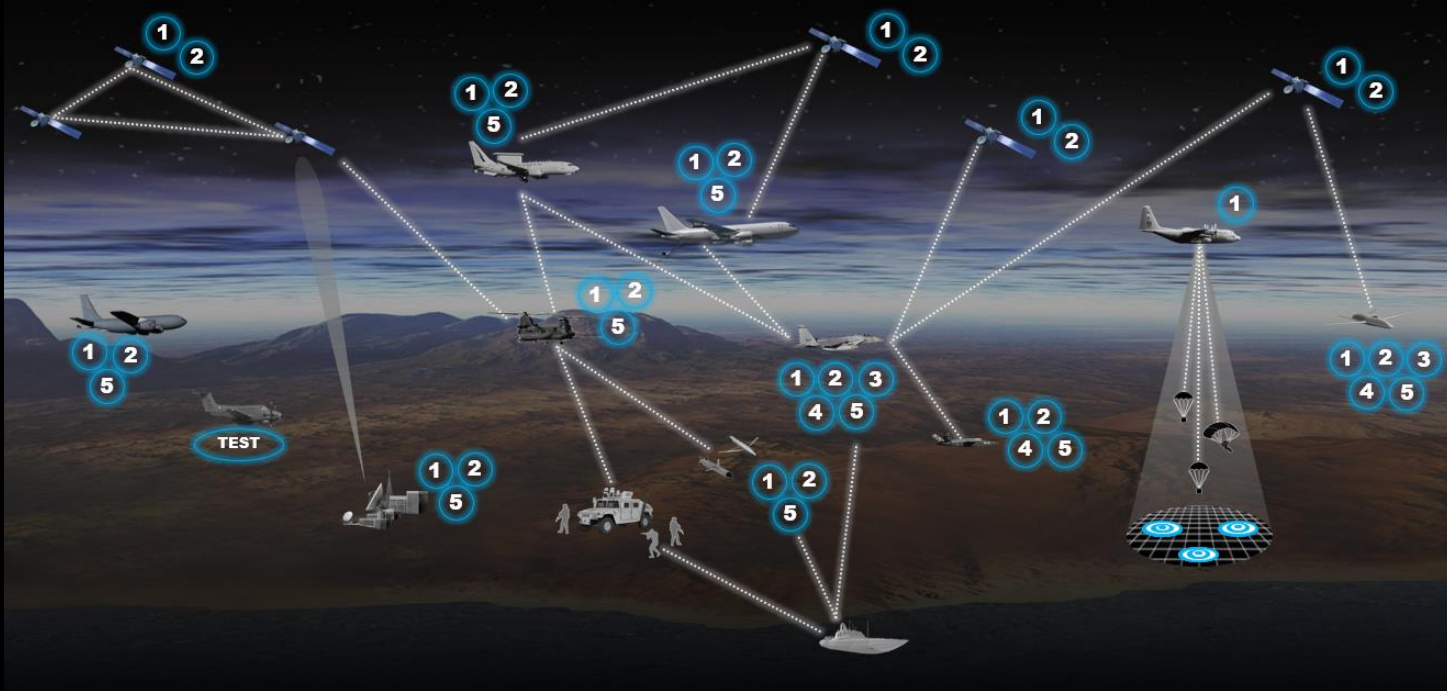




## PHANTOMWORKS



## AMP | Advanced Mission Planning

Pre-Planning & Real-Time Warfighting Mission Capabilities in a Multi-Domain Battlespace

### 1 BMOS | Battle Management Optimization Services

Automated Mission Planning Tools  
Cooperative Pre-Mission  
Dynamic Planning Across Assets

### 2 DCP | Decentralized Collaborative Planner

Leverage Existing Planning Capabilities  
Machine Level Coordination  
Automated Mission Planning Across Disparate Nodes  
Dynamic Planning for Multi-Domain Operations

### 3 IRMA | IR Management Aid

Pilot Aid for Real-Time IR Situational Awareness  
Susceptibility & Cues to Delay Tracks

### 4 DART | Depression Angle Reference Tracking Algorithm

Pilot Aid for Airborne RCS Assessment & Mission Systems

### 5 SLEDGE | Simulated Layered Effectiveness & Detectability Graphical Environment

Mission Planning Visualization Hub  
Interactive All-Domain, Multi-Spectral,  
& Multi-Static Threats



# DCP | Decentralized Collaborative Planner

## Rapid Decision Planning & Execution Across Multi-Domain Nodes

### Kill-Chain Advantage

- Streamline multi-domain pre-mission and dynamic real-time planning and increase mission effectiveness
- Enhanced scalability & resilience of the real-time mission via distributed planning
- Maintain multi-domain kill chain timelines in a rapidly changing tactical environment

### Overview

Service that leverages existing domain-specific planning capabilities to provide machine-to-machine level coordination for automated mission planning across disparate nodes

### Capabilities

- Disparate node task planning
- Configurable task decomposition methods
- Operational & tactical nodes for cooperative air-space planning
- Autonomous mission management

### Architecture Functionality

- Meta task request or assignment from UI or parent node
- Decompose task into sub-task with constraints
- Flow task into mission planner component to request availability & performance metrics
- Aggregate & generate COA coordinate & assignments
- Manage response to mission alerts

### Specifications

#### Software Service

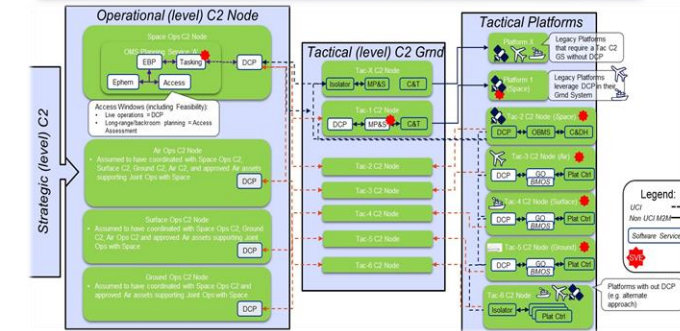
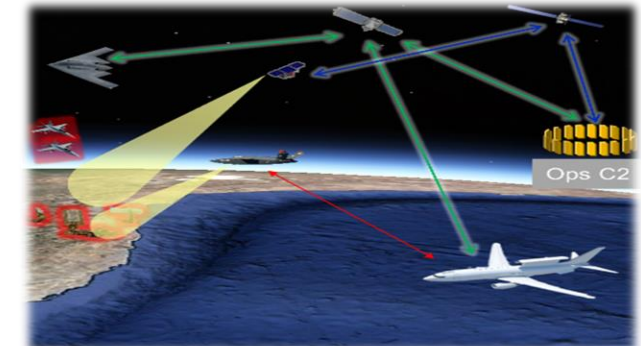
- Hierarchical Task Network (HTN) technology
- Provide cooperative mission planning & execution
- Dynamic resource management
- Sensing, communication, & weapon resources across planning nodes / domains

#### Machine-to-Machine (M2M) Coordination

- Tactically relevant
- Adjust to battlespace as changes occur

#### Industry & Government Specs

- OMS
- UCI



Collaborative Planning for Downed Airmen Pulse Op

