

Topic: N121-106

Fuse Integration, Inc.

Technologies/Methods for enabling Transactional Interfaces

Tactical Troubleshooting Tool (T3) integrates Tactical Data Link configuration settings from multiple legacy systems onboard US Navy ships into a centralized browser-based interface and distributes them via a pub-sub framework to remote, authorized users. Developed by a team of experienced engineers with warfighter input, this project streamlines the process for troubleshooting multi-TDL network connectivity issues by providing a collaborative, real-time environment to view network status and configurations, and recommend corrective actions. T3 interfaces directly with the Common Data Link Management System (CDLMS) but can be configured to interface with other TDL systems. The initial transition target is Command and Control Program Office (PMW 150). Fuse is pursuing opportunities to apply this dynamic, flexible system to DoD and civilian applications that require a remote, global view of aggregated data.

Technology Category Alignment:

Satellite Communications (SATCOM)

Robotics/Automated Material Handling Equipment

Shipyards/Shipbuilding

Supply; Storage

Satellite Communications (SATCOM)

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Supply; Storage

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Satellite Communications (SATCOM)

Shipyards/Shipbuilding

Robotics/Automated Material Handling Equipment

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Robotics/Automated Material Handling Equipment

Protection, Sustainment, and Warfighter Performance

Medical Chem-Bio Defense

Military Infectious Diseases

Propulsion and Extreme Environments

Fixed Wing Vehicles (includes UAS)

Survivability

Maintainability/Sustainability

Unmanned Ground and Sea Vehicles

Corrosion

Advanced Computing/Software Development

Networks and Communications

Modular/Open/Reconfigurable Architectures

RF Components for sensing, transmission and communication

Electronics Integration

Broadband/Multispectral Components and Systems

Sensors, Electronics and Photonics

Radio Frequency (RF) (non-EW)

Survivability

Broadband/Multispectral Components and Systems

RF Components for sensing, transmission and communication

Radio Frequency (RF) (non-EW)

Networks and Communications

Guidance, Navigation & Control (GN&C) and Data Links

RF Components for sensing, transmission and communication
Networks and Communications
Cognitive/Adaptive Capabilities
Preemptive/Proactive Effects
Broadband/Multispectral Components and Systems
Advanced Computing/Software Development
Networks and Communications
Personalized Assessment, Education, and Training
System Interfaces & Cognitive Processes
Aircraft Propulsion, Power and Thermal
Modeling, Simulation & Test Infrastructure
Rotary Wing Vehicles
Fixed Wing Vehicles (includes UAS)
Fixed Wing Vehicles (includes UAS)
Acoustic, Seismic and Magnetic
Rotary Wing Vehicles
Structures and Protection
Energy storage
Unmanned Ground and Sea Vehicles
Mobility
Power and Energy
Synthesis/Analytics/Decision Tools
Information Collection/Management
Advanced Computing/Software Development
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Microelectronics and Nanoelectronics
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Aircraft Propulsion, Power and Thermal
Power Generation/Energy Conversion
High Energy Lasers (HEL)

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Assuring Effective Missions
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Biomedical Informatics / Health Information Systems & Technology
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High Energy Lasers (HEL)
EO/IR Components for sensing, transmission and communication

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Power Control and Distribution
Acoustic, Seismic and Magnetic
Fixed Wing Vehicles (includes UAS)
Aircraft Propulsion, Power and Thermal
Rotary Wing Vehicles
EO/IR Components for sensing, transmission and communication
Satellite Communications (SATCOM)
Networks and Communications
Trust Foundations
Electro-Optical/Infrared (EO/IR)
Unmanned Ground and Sea Vehicles
Maintainability/Sustainability
Modularity
Survivability
Electro-Optical/Infrared (EO/IR)
Sensors, Electronics and Photonics
EO/IR Components for sensing, transmission and communication
RF Components for sensing, transmission and communication
Networks and Communications
Broadband/Multispectral Components and Systems
Electronics Integration
Protection, Sustainment, and Warfighter Performance
Clinical & Rehabilitative Medicine
Combat Casualty Care
Medical Chem-Bio Defense
Energy storage
Protection, Sustainment, and Warfighter Performance
Human Computer Interfaces (HCI) for Decision Making
Synthesis/Analytics/Decision Tools
Undersea Weapons
Human Computer Interfaces (HCI) for Decision Making
Information Collection/Management

Synthesis/Analytics/Decision Tools
Power and Energy
Propulsion and Extreme Environments
RF Components for sensing, transmission and communication
Fixed Wing Vehicles (includes UAS)
Broadband/Multispectral Components and Systems
Preemptive/Proactive Effects
Radio Frequency (RF) (non-EW)
Energy storage
Manufacturing Technology for Affordability
Power and Energy
Structures and Protection
Synthesis/Analytics/Decision Tools
Fixed Wing Vehicles (includes UAS)
Advanced Computing/Software Development
Trust Foundations
Integrating Architecture and Capability Demonstrations
Unmanned Ground and Sea Vehicles
Aircraft Propulsion, Power and Thermal
Synthesis/Analytics/Decision Tools
EO/IR Components for sensing, transmission and communication
Networks and Communications
Preemptive/Proactive Effects
Electro-Optical/Infrared (EO/IR)
Sensors, Electronics and Photonics
Scalable Teaming of Autonomous Systems
Networks and Communications
Unmanned Ground and Sea Vehicles
Acoustic, Seismic and Magnetic
Test, Evaluation, Validation, and Verification
Propulsion and Extreme Environments
Fixed Wing Vehicles (includes UAS)
Networks and Communications
Mobility
Unmanned Ground and Sea Vehicles
Fixed Wing Vehicles (includes UAS)
Rotary Wing Vehicles
Manufacturing Technology for Affordability
Readiness
Aircraft Propulsion, Power and Thermal
Propulsion
Protection, Sustainment, and Warfighter Performance
Individual Warfighter
Synthesis/Analytics/Decision Tools
Collaborative Analysis and Decision-making
Survivability
Modeling, Simulation & Test Infrastructure

Fixed Wing Vehicles (includes UAS)
Human/Autonomous System Interaction and Collaboration
Scalable Teaming of Autonomous Systems
Synthesis/Analytics/Decision Tools
Acoustic, Seismic and Magnetic
Undersea Weapons
Frameworks for Interoperability
Information Collection/Management
Synthesis/Analytics/Decision Tools
Maintainability/Sustainability
Human/Autonomous System Interaction and Collaboration
Machine Perception, Reasoning and Intelligence
Protection, Sustainment, and Warfighter Performance
RF Components for sensing, transmission and communication
Networks and Communications
Advanced Electronic Protection Techniques and Technology
Survivability
Sensors, Electronics and Photonics
Information Collection/Management
Synthesis/Analytics/Decision Tools
EO/IR Components for sensing, transmission and communication
RF Components for sensing, transmission and communication
Fixed Wing Vehicles (includes UAS)
High-Speed/Hypersonics
Synthesis/Analytics/Decision Tools
Electromechanical conversion
Energy storage
Power Control and Distribution
Power Generation/Energy Conversion
Electronics Integration
Energy storage
Power Control and Distribution
Power Generation/Energy Conversion
Survivability
Fixed Wing Vehicles (includes UAS)
Networks and Communications
Energy storage
Power Generation/Energy Conversion
Unmanned Ground and Sea Vehicles
Electromechanical conversion
Energy storage
Power Control and Distribution
Power Generation/Energy Conversion
Thermal Transport and Control
Thermal Transport and Control
Protection, Sustainment, and Warfighter Performance
Modeling, Simulation & Test Infrastructure

Microelectronics and Nanoelectronics
RF Components for sensing, transmission and communication
Modularity
Acoustic, Seismic and Magnetic
EO/IR Components for sensing, transmission and communication
Broadband/Multispectral Components and Systems
Guidance, Navigation & Control (GN&C) and Data Links
Sensors, Electronics and Photonics
Maintainability/Sustainability
Manufacturing Technology for Affordability
Corrosion
Readiness
Test, Evaluation, Validation, and Verification
Advanced Computing/Software Development
Synthesis/Analytics/Decision Tools
Distributed/Coordinated/Net-Enabled Systems
Aircraft Propulsion, Power and Thermal
Energy storage
Thermal Transport and Control
High Energy Lasers (HEL)
Power and Energy
Mobility
Modularity
Electronic Materials
RF Components for sensing, transmission and communication
Manufacturing Technology for Affordability
Personalized Assessment, Education, and Training
Protection, Sustainment, and Warfighter Performance
System Interfaces & Cognitive Processes
Propulsion and Extreme Environments
Structures and Protection
Test, Evaluation, Validation, and Verification
Electronics Integration
RF Components for sensing, transmission and communication
Acoustic, Seismic and Magnetic
Electro-Optical/Infrared (EO/IR)
Sensors, Electronics and Photonics
Electronics Integration
Information Collection/Management
Maintainability/Sustainability
Acoustic, Seismic and Magnetic
Structures and Protection
Protection, Sustainment, and Warfighter Performance
Manufacturing Technology for Affordability
Electronics Integration
Rotary Wing Vehicles
Test, Evaluation, Validation, and Verification

Maintainability/Sustainability
Acoustic, Seismic and Magnetic
EO/IR Components for sensing, transmission and communication
Broadband/Multispectral Components and Systems
Guidance, Navigation & Control (GN&C) and Data Links
Sensors, Electronics and Photonics
Fixed Wing Vehicles (includes UAS)
Human/Autonomous System Interaction and Collaboration
Personalized Assessment, Education, and Training
EO/IR Components for sensing, transmission and communication
Electro-Optical/Infrared (EO/IR)
Radio Frequency Weapons (RFW)
Sensors, Electronics and Photonics
RF Components for sensing, transmission and communication
EO/IR Components for sensing, transmission and communication
Scalable Teaming of Autonomous Systems
Test, Evaluation, Validation, and Verification
Biomedical Informatics / Health Information Systems & Technology
Information Collection/Management
Protection, Sustainment, and Warfighter Performance
Individual Warfighter
Readiness
Acoustic, Seismic and Magnetic
Fixed Wing Vehicles (includes UAS)
Rotary Wing Vehicles
Corrosion
Readiness
Structures and Protection
EO/IR Components for sensing, transmission and communication
RF Components for sensing, transmission and communication
Networks and Communications
Maintainability/Sustainability
Networks and Communications
Cognitive/Adaptive Capabilities
Unmanned Ground and Sea Vehicles
System Interfaces & Cognitive Processes
Fixed Wing Vehicles (includes UAS)
Rotary Wing Vehicles
Test, Evaluation, Validation, and Verification
Maintainability/Sustainability
Fixed Wing Vehicles (includes UAS)
Rotary Wing Vehicles
Human Computer Interfaces (HCI) for Decision Making
Synthesis/Analytics/Decision Tools
Fixed Wing Vehicles (includes UAS)
Personalized Assessment, Education, and Training
Electronic Materials

RF Components for sensing, transmission and communication
Manufacturing Technology for Affordability
Radio Frequency (RF) (non-EW)
Sensors, Electronics and Photonics
RF Components for sensing, transmission and communication
EO/IR Components for sensing, transmission and communication
Fixed Wing Vehicles (includes UAS)
Human/Autonomous System Interaction and Collaboration
System Interfaces & Cognitive Processes
EO/IR Components for sensing, transmission and communication
Broadband/Multispectral Components and Systems
Survivability
High Energy Lasers (HEL)
EO/IR Components for sensing, transmission and communication
Broadband/Multispectral Components and Systems
Survivability
High Energy Lasers (HEL)
Manufacturing Technology for Affordability
Ordnance
Corrosion
EO/IR Components for sensing, transmission and communication
Electro-Optical/Infrared (EO/IR)
Propulsion and Extreme Environments
Fixed Wing Vehicles (includes UAS)
High-Speed/Hypersonics
Guidance, Navigation & Control (GN&C) and Data Links
Protection, Sustainment, and Warfighter Performance
Human Computer Interfaces (HCI) for Decision Making
Synthesis/Analytics/Decision Tools
Computational Research Engineering Acquisition Tools and Environment
Maintainability/Sustainability
Frameworks for Interoperability
EO/IR Components for sensing, transmission and communication
Human/Autonomous System Interaction and Collaboration
Machine Perception, Reasoning and Intelligence
Electro-Optical/Infrared (EO/IR)
Guidance, Navigation & Control (GN&C) and Data Links
Fixed Wing Vehicles (includes UAS)
Advanced Computing/Software Development
Unmanned Ground and Sea Vehicles
Advanced Computing/Software Development
Human Computer Interfaces (HCI) for Decision Making
Information Collection/Management
Synthesis/Analytics/Decision Tools
Test, Evaluation, Validation, and Verification
EO/IR Components for sensing, transmission and communication
Manufacturing Technology for Affordability

Electro-Optical/Infrared (EO/IR)
Guidance, Navigation & Control (GN&C) and Data Links
High-Speed/Hypersonics
Collaborative Analysis and Decision-making
Integrating Architecture and Capability Demonstrations
Corrosion
Propulsion and Extreme Environments
Guidance, Navigation & Control (GN&C) and Data Links
Machine Perception, Reasoning and Intelligence
Test, Evaluation, Validation, and Verification
Synthesis/Analytics/Decision Tools
Acoustic, Seismic and Magnetic
Undersea Weapons
Networks and Communications
Assuring Effective Missions
Resilient Infrastructure
Trust Foundations
Advanced Computing/Software Development
Trust Foundations
Advanced Electronic Protection Techniques and Technology
EO/IR Components for sensing, transmission and communication
Human/Autonomous System Interaction and Collaboration
Machine Perception, Reasoning and Intelligence
Electro-Optical/Infrared (EO/IR)
Guidance, Navigation & Control (GN&C) and Data Links
Propulsion and Extreme Environments
Structures and Protection
RF Components for sensing, transmission and communication
Sensors, Electronics and Photonics
RF Components for sensing, transmission and communication
Information Collection/Management
Preemptive/Proactive Effects
Radio Frequency (RF) (non-EW)
Sensors, Electronics and Photonics
Machine Perception, Reasoning and Intelligence
Advanced Computing/Software Development
Human Computer Interfaces (HCI) for Decision Making
Information Collection/Management
Synthesis/Analytics/Decision Tools
Machine Perception, Reasoning and Intelligence
Advanced Computing/Software Development
Assuring Effective Missions
Trust Foundations
Modular/Open/Reconfigurable Architectures
Human Computer Interfaces (HCI) for Decision Making
Information Collection/Management
Synthesis/Analytics/Decision Tools

Maintainability/Sustainability
RF Components for sensing, transmission and communication
Synthesis/Analytics/Decision Tools
Collaborative Analysis and Decision-making
Electronics Integration
Survivability
Acoustic, Seismic and Magnetic
Sensors, Electronics and Photonics
Electronics Integration
Test, Evaluation, Validation, and Verification
Advanced Computing/Software Development
Conceptual, Computational, and World-Wide Environmental Representation
Simulation Information Technology
Aircraft Propulsion, Power and Thermal
Fixed Wing Vehicles (includes UAS)
Information Collection/Management
Survivability
Guidance, Navigation & Control (GN&C) and Data Links
Space and Terrestrial Environmental Monitoring
EO/IR Components for sensing, transmission and communication
Advanced Electronic Protection Techniques and Technology
Unmanned Ground and Sea Vehicles
Electro-Optical/Infrared (EO/IR)
Sensors, Electronics and Photonics
Energy storage
Unmanned Ground and Sea Vehicles
Aircraft Propulsion, Power and Thermal
High-Speed/Hypersonics
Power Generation/Energy Conversion
Manufacturing Technology for Affordability
Radio Frequency Weapons (RFW)
Energy storage
High Energy Lasers (HEL)
Radio Frequency Weapons (RFW)
Power and Energy
Fixed Wing Vehicles (includes UAS)
Rotary Wing Vehicles
Corrosion
Readiness
Structures and Protection
Fixed Wing Vehicles (includes UAS)
Rotary Wing Vehicles
Maintainability/Sustainability
Readiness
Maintainability/Sustainability
Structures and Protection
Power and Energy

Propulsion and Extreme Environments
Readiness
Maintainability/Sustainability
EO/IR Components for sensing, transmission and communication
Microelectronics and Nanoelectronics
EO/IR Components for sensing, transmission and communication
Microelectronics and Nanoelectronics
Electronics Integration
Aircraft Propulsion, Power and Thermal
Power Generation/Energy Conversion
Propulsion and Extreme Environments
Maintainability/Sustainability
Unmanned Ground and Sea Vehicles
Corrosion
Readiness
Structures and Protection
RF Components for sensing, transmission and communication
Networks and Communications
Broadband/Multispectral Components and Systems
Radio Frequency (RF) (non-EW)
Radio Frequency Weapons (RFW)
RF Components for sensing, transmission and communication
Advanced Electronic Protection Techniques and Technology
Cognitive/Adaptive Capabilities
Modular/Open/Reconfigurable Architectures
Radio Frequency (RF) (non-EW)
Propulsion and Extreme Environments
Structures and Protection
Modularity
Energy storage
Power Generation/Energy Conversion
Rotary Wing Vehicles
Survivability
Manufacturing Technology for Affordability
Structures and Protection
Electronic Materials
Electronics Integration
RF Components for sensing, transmission and communication
Advanced Electronic Protection Techniques and Technology
Electronics Integration
Power Control and Distribution
Mobility
Power and Energy
RF Components for sensing, transmission and communication
Survivability
Protection, Sustainment, and Warfighter Performance
Sensors, Electronics and Photonics

Protection, Sustainment, and Warfighter Performance
Energy storage
Power Control and Distribution
Power Generation/Energy Conversion
Power and Energy
Electromechanical conversion
Fixed Wing Vehicles (includes UAS)
Guidance, Navigation & Control (GN&C) and Data Links
Corrosion
Power Generation/Energy Conversion
Modularity
Survivability
Unmanned Ground and Sea Vehicles
Power and Energy
Aircraft Propulsion, Power and Thermal
Fixed Wing Vehicles (includes UAS)
Energy storage
Power and Energy
Human/Autonomous System Interaction and Collaboration
Machine Perception, Reasoning and Intelligence
Human Computer Interfaces (HCI) for Decision Making
Synthesis/Analytics/Decision Tools
System Interfaces & Cognitive Processes
Machine Perception, Reasoning and Intelligence
Personalized Assessment, Education, and Training
System Interfaces & Cognitive Processes
Acoustic, Seismic and Magnetic
Undersea Weapons
Human/Autonomous System Interaction and Collaboration
Machine Perception, Reasoning and Intelligence
Synthesis/Analytics/Decision Tools
Acoustic, Seismic and Magnetic
Synthesis/Analytics/Decision Tools
Advanced Electronic Protection Techniques and Technology
Broadband/Multispectral Components and Systems
Cognitive/Adaptive Capabilities
Fixed Wing Vehicles (includes UAS)
Ordnance
Propulsion
Propulsion and Extreme Environments
Survivability
Human/Autonomous System Interaction and Collaboration
Synthesis/Analytics/Decision Tools
System Interfaces & Cognitive Processes
Acoustic, Seismic and Magnetic
Undersea Weapons
Power Generation/Energy Conversion

Maintainability/Sustainability
Unmanned Ground and Sea Vehicles
Machine Perception, Reasoning and Intelligence
Synthesis/Analytics/Decision Tools
Acoustic, Seismic and Magnetic
Modeling, Simulation & Test Infrastructure
Undersea Weapons
Computational Research Engineering Acquisition Tools and Environment
Design and Integration
Manufacturing Technology for Affordability
Structures and Protection
Energy storage
Power Generation/Energy Conversion
EO/IR Components for sensing, transmission and communication
Fixed Wing Vehicles (includes UAS)
Advanced Electronic Protection Techniques and Technology
Electro-Optical/Infrared (EO/IR)
Human Computer Interfaces (HCI) for Decision Making
Synthesis/Analytics/Decision Tools
Synthesis/Analytics/Decision Tools
Maintainability/Sustainability
Biomedical Informatics / Health Information Systems & Technology
Combat Casualty Care
Military Operational Medicine
Personalized Assessment, Education, and Training
System Interfaces & Cognitive Processes
Ordnance
Propulsion
Propulsion and Extreme Environments
Electronic Materials
EO/IR Components for sensing, transmission and communication
Microelectronics and Nanoelectronics
Electro-Optical/Infrared (EO/IR)
Test, Evaluation, Validation, and Verification
EO/IR Components for sensing, transmission and communication
Microelectronics and Nanoelectronics
Networks and Communications
Networks and Communications
Aircraft Propulsion, Power and Thermal
Electro-Optical/Infrared (EO/IR)
EO/IR Components for sensing, transmission and communication
Fixed Wing Vehicles (includes UAS)
Unmanned Ground and Sea Vehicles
Electro-Optical/Infrared (EO/IR)
Sensors, Electronics and Photonics
Broadband/Multispectral Components and Systems
Cognitive/Adaptive Capabilities

Electro-Optical/Infrared (EO/IR)
Biomedical Informatics / Health Information Systems & Technology
Advanced Computing/Software Development
Synthesis/Analytics/Decision Tools
Biomedical Informatics / Health Information Systems & Technology
Personalized Assessment, Education, and Training
Protection, Sustainment, and Warfighter Performance
Modeling, Simulation & Test Infrastructure
Fixed Wing Vehicles (includes UAS)
Rotary Wing Vehicles
Human Computer Interfaces (HCI) for Decision Making
System Interfaces & Cognitive Processes
Human Computer Interfaces (HCI) for Decision Making
Information Collection/Management
Synthesis/Analytics/Decision Tools
Human Aspects of Operations in Military Environments
System Interfaces & Cognitive Processes
Rotary Wing Vehicles
Machine Perception, Reasoning and Intelligence
Synthesis/Analytics/Decision Tools
Unmanned Ground and Sea Vehicles
Fixed Wing Vehicles (includes UAS)
Machine Perception, Reasoning and Intelligence
Scalable Teaming of Autonomous Systems
Unmanned Ground and Sea Vehicles
Personalized Assessment, Education, and Training
Electronics Integration
Power Control and Distribution
Design and Integration
Maintainability/Sustainability
Modularity
Biomedical Informatics / Health Information Systems & Technology
Survivability
Protection, Sustainment, and Warfighter Performance
EO/IR Components for sensing, transmission and communication
Fixed Wing Vehicles (includes UAS)
Networks and Communications
Design and Integration
Mobility
Human Computer Interfaces (HCI) for Decision Making
Design and Integration
Modularity
Unmanned Ground and Sea Vehicles
System Interfaces & Cognitive Processes
Fixed Wing Vehicles (includes UAS)
Information Collection/Management
Electro-Optical/Infrared (EO/IR)

Broadband/Multispectral Components and Systems
Power Control and Distribution
Power Generation/Energy Conversion
Modeling, Simulation & Test Infrastructure
Radio Frequency Weapons (RFW)
EO/IR Components for sensing, transmission and communication
Networks and Communications
Electro-Optical/Infrared (EO/IR)
Sensors, Electronics and Photonics
EO/IR Components for sensing, transmission and communication
Survivability
Unmanned Ground and Sea Vehicles
Electro-Optical/Infrared (EO/IR)
Undersea Weapons
Personalized Assessment, Education, and Training
System Interfaces & Cognitive Processes
Acoustic, Seismic and Magnetic
Undersea Weapons
RF Components for sensing, transmission and communication
Networks and Communications
Networks and Communications
Electronic Materials
RF Components for sensing, transmission and communication
Broadband/Multispectral Components and Systems
Energy storage
RF Components for sensing, transmission and communication
Power Control and Distribution
Assuring Effective Missions
Resilient Infrastructure
EO/IR Components for sensing, transmission and communication
Preemptive/Proactive Effects
Electro-Optical/Infrared (EO/IR)
Guidance, Navigation & Control (GN&C) and Data Links
Scalable Teaming of Autonomous Systems
Networks and Communications
Trust Foundations
Guidance, Navigation & Control (GN&C) and Data Links
Electronics Integration
EO/IR Components for sensing, transmission and communication
Design and Integration
Mobility
Sensors, Electronics and Photonics
Machine Perception, Reasoning and Intelligence
Information Collection/Management
Synthesis/Analytics/Decision Tools
Collaborative Analysis and Decision-making
RF Components for sensing, transmission and communication

Information Collection/Management
Networks and Communications
Broadband/Multispectral Components and Systems
Radio Frequency (RF) (non-EW)
Microelectronics and Nanoelectronics
Broadband/Multispectral Components and Systems
Electro-Optical/Infrared (EO/IR)
Sensors, Electronics and Photonics
Fixed Wing Vehicles (includes UAS)
Rotary Wing Vehicles
Machine Perception, Reasoning and Intelligence
Collaborative Analysis and Decision-making
Human/Autonomous System Interaction and Collaboration
Machine Perception, Reasoning and Intelligence
Advanced Computing/Software Development
Information Collection/Management
Maintainability/Sustainability
Aircraft Propulsion, Power and Thermal
Combat Casualty Care
Military Infectious Diseases
Power Generation/Energy Conversion
Acoustic, Seismic and Magnetic
Fixed Wing Vehicles (includes UAS)
Networks and Communications
Machine Perception, Reasoning and Intelligence
Synthesis/Analytics/Decision Tools
Assuring Effective Missions
Survivability
Maintainability/Sustainability
EO/IR Components for sensing, transmission and communication
Machine Perception, Reasoning and Intelligence
Unmanned Ground and Sea Vehicles
Electro-Optical/Infrared (EO/IR)
Propulsion
Power and Energy
Propulsion and Extreme Environments
Machine Perception, Reasoning and Intelligence
Networks and Communications
Unmanned Ground and Sea Vehicles
Acoustic, Seismic and Magnetic
Protection, Sustainment, and Warfighter Performance
Machine Perception, Reasoning and Intelligence
Information Collection/Management
Maintainability/Sustainability
Electro-Optical/Infrared (EO/IR)
Integrated Weapon Demonstrators (IWD)
Fixed Wing Vehicles (includes UAS)

Networks and Communications
Cognitive/Adaptive Capabilities
Distributed/Coordinated/Net-Enabled Systems
Radio Frequency (RF) (non-EW)
Electronics Integration
Machine Perception, Reasoning and Intelligence
Scalable Teaming of Autonomous Systems
Test, Evaluation, Validation, and Verification
Information Collection/Management
Unmanned Ground and Sea Vehicles
Information Collection/Management
Biomedical Informatics / Health Information Systems & Technology
Human Computer Interfaces (HCI) for Decision Making
Information Collection/Management
Personalized Assessment, Education, and Training
Protection, Sustainment, and Warfighter Performance
Modular/Open/Reconfigurable Architectures
Human Computer Interfaces (HCI) for Decision Making
Assuring Effective Missions
System Interfaces & Cognitive Processes
Modeling, Simulation & Test Infrastructure
Electronics Integration
Fixed Wing Vehicles (includes UAS)
Readiness
Sensors, Electronics and Photonics
EO/IR Components for sensing, transmission and communication
High Energy Lasers (HEL)
Sensors, Electronics and Photonics
Information Collection/Management
Networks and Communications
Modular/Open/Reconfigurable Architectures
Modularity
Computational Research Engineering Acquisition Tools and Environment
Design and Integration
Manufacturing Technology for Affordability
Structures and Protection
Sensors, Electronics and Photonics
Personalized Assessment, Education, and Training
Protection, Sustainment, and Warfighter Performance
RF Components for sensing, transmission and communication
Fixed Wing Vehicles (includes UAS)
Networks and Communications
Distributed/Coordinated/Net-Enabled Systems
Survivability
Electronics Integration
Collaborative Analysis and Decision-making
Computational Research Engineering Acquisition Tools and Environment

Design and Integration
Modeling, Simulation & Test Infrastructure
EO/IR Components for sensing, transmission and communication
Fixed Wing Vehicles (includes UAS)
Electro-Optical/Infrared (EO/IR)
Fixed Wing Vehicles (includes UAS)
Maintainability/Sustainability
Readiness
Microelectronics and Nanoelectronics
Machine Perception, Reasoning and Intelligence
Information Collection/Management
Electro-Optical/Infrared (EO/IR)
Protection, Sustainment, and Warfighter Performance
Sensors, Electronics and Photonics
Protection, Sustainment, and Warfighter Performance
System Interfaces & Cognitive Processes
Advanced Computing/Software Development
Computational Research Engineering Acquisition Tools and Environment
Fixed Wing Vehicles (includes UAS)
Rotary Wing Vehicles
Acoustic, Seismic and Magnetic
RF Components for sensing, transmission and communication
Fixed Wing Vehicles (includes UAS)
Acoustic, Seismic and Magnetic
Radio Frequency (RF) (non-EW)
Protection, Sustainment, and Warfighter Performance
Aircraft Propulsion, Power and Thermal
Fixed Wing Vehicles (includes UAS)
Power Generation/Energy Conversion
Rotary Wing Vehicles
Protection, Sustainment, and Warfighter Performance
Energy storage
Power Control and Distribution
Power and Energy
Propulsion and Extreme Environments
Ordnance
Energy storage
Power and Energy
Test, Evaluation, Validation, and Verification
Synthesis/Analytics/Decision Tools
Modular/Open/Reconfigurable Architectures
Collaborative Analysis and Decision-making
Readiness
Structures and Protection
Aircraft Propulsion, Power and Thermal
Corrosion
Propulsion and Extreme Environments

WHO

SYSCOM: SPAWAR

Sponsoring Program: Navy Command and Control Program Office, (PMW 150)

Transition Target: Command and Control Processor System

TPOC: (858)537-0652

Other transition opportunities: The Fuse T3 system can reach out anywhere and extract user-defined data from any source and display integrated data in one centralized user interface. This can be used for almost any tactical mission that requires remote access to real-time data such as law enforcement agencies, maritime industry, U.S. Coast Guard, and other DoD platforms such as the Automated Digital Network System, Maritime Patrol and Reconnaissance Aircraft, and unmanned aerial vehicle platforms.

Notes: Fuse understands the needs of tactical data link users, and develops systems that enables real time TDL data to be shared across Internet Protocol (IP) networks. Decoupling TDL information from rigid hardware architectures gives the DoD new ways to work with near real time tactical information coming from the tactical edge and provides visibility into real time network status.



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WHAT

Operational Need and Improvement: Navy Mission Commanders and decision-makers require insight into the status of critical tactical communications systems. These systems are very complex and therefore rely on proper configuration to remain operational. US Navy Joint Interface Control Officers (JICOs) and engineering subject matter experts (SMEs) require a system that enables a global view of network connectivity along with remote insight into individual ships' tactical data link (TDL) configuration settings to enable troubleshooting support.

Specifications Required: Requirements include: global view of ship's network status, user-tailorable displays, user-created groups to compare a specific set of ships' configurations, an overall indicator of system status for each link, provide for each link type a "status at a glance" of end-user identified Top Issues, "pop-up" link status and timestamp for last received data, proactive tools which allow the end-user to input specific parameters and have them cross-checked across a specified group with automatic alerts as to which settings are non-compliant, display Information Assurance (IA) patch status.

Technology Developed: T3 is a hardware agnostic software solution that is currently being updated to interface seamlessly with the C2P Tech Refresh System. T3 can easily be adapted to a virtual machine (VM). System components include a Bridge Tactical Router (BTR) that interfaces directly with the Command and Control Processor (C2P) and a T3 Web Server. The BTR will create a secure Internet Protocol (IP) network connection and enable a distribution framework sending data to the secure web server ashore.

Warfighter Value: T3 increases the availability of mission critical data links. The system provides an overall assessment of TDL network health to commanders and decision-makers. T3 also enables direct collaboration with the Engineering SMEs to solve configuration issues in real-time. Existing T3 capabilities such as group dashboards and the SITREP tool allow for pro-active adjustments to network settings and decision aids for network planning. T3 also translates to significant sustainment savings by reducing travel requirements and cost for Program Office Engineers, who can now remotely view system elements vice physically traveling to ships to perform diagnostics.

WHEN

Contract Number: N68335-17-C-0449

Milestone	Risk Level	Measure of Success	Ending TRL	Date
Interface Design Document	Low	Completed IDD	TRL 6	TBD
Internal Acceptance Test	Low	Meet requirements outlined in Fuse internal Test Plan	TRL 7	TBD
Independent Validation and Verification as part of C2P 4.0	Low	Meet requirements outline in IV&V Test Plan	TRL 8	TBD
Deployment to the Fleet	Low	T3 in use in operational capacity	TRL 9	TBD

HOW

Projected Business Model: Fuse's balance of experience in operations and systems engineering, blended through our Fuse Process, helps to ensure that the solutions we develop meet the user needs for the environments in which they will be employed. Fuse has developed a software based solution that can be licensed to other commercial organizations to run on any system.

Company Objectives: Identify other potential DoD applications for this capability/technology. Explore opportunities with other agencies/commercial partners that have similar network monitoring and management needs.

Potential Commercial Applications: The Fuse T3 system can reach out anywhere and extract user-defined data from any source and display integrated data in one centralized user interface. This can be used for almost any tactical mission that requires remote access to real-time data such as law enforcement agencies, maritime industry, U.S. Coast Guard, and other DoD platforms such as the Automated Digital Network System, Maritime Patrol and Reconnaissance Aircraft, and Unmanned Aerial Vehicle (UAV) platforms.