Skayl LLC
Scalable Model-Driven Protocol Mediation and Systems Integration

The integration of disparate technologies in Systems of Systems (SoS) is complex, costly and resource intensive. Skayl's PHENOM + CinC (Configurable infrastructure Capability) provides integration scalability, flexibility, dependability, security and value. PHENOM is a software-based integration ecosystem providing interoperability solutions for mission-critical, real-time data communication including aviation, command & control, medical devices, and smart cities. PHENOM's advanced semantic architecture enables automated data discovery and a unique, fully configurable integration infrastructure. Phase II is complete, and Phase III negotiations are underway. Skayl's principals are subject matter experts heavily involved in the leadership of architectures and standards including the FACE™ Technical Standard, UCS, NATO STANAG (Standardization Agreement) 4586 and other STANAGs. Skayl's goal is to provide the government with tools that enable rapid, cost-effective integration and testing for application in mission-critical, real-time data communications.

Technology Category Alignment:
- Satellite Communications (SATCOM)
- Robotics/Automated Material Handling Equipment
- Shipyards/Shipbuilding
- Supply; Storage
- Satellite Communications (SATCOM)
- Satellite Communications (SATCOM)
- Supply; Storage
- Supply; Storage
- Satellite Communications (SATCOM)
- Satellite Communications (SATCOM)
- Shipyards/Shipbuilding
- Robotics/Automated Material Handling Equipment
- Robotics/Automated Material Handling Equipment
- Robotics/Automated Material Handling Equipment
- 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
Survivability
Unmanned Ground and Sea Vehicles
Radio Frequency (RF) (non-EW)
Power Generation/Energy Conversion
Energy storage
Power and Energy
Sensors, Electronics and Photonics
Maintainability/Sustainability
Advanced Computing/Software Development
EO/IR Components for sensing, transmission and communication
Microelectronics and Nanoelectronics
Networks and Communications
Mobility
Broadband/Multispectral Components and Systems
Sensors, Electronics and Photonics
Structures and Protection
Electro-Optical/Infrared (EO/IR)
Human/Autonomous System Interaction and Collaboration
Maintainability/Sustainability
System Interfaces & Cognitive Processes
Aircraft Propulsion, Power and Thermal

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
Survivability
Unmanned Ground and Sea Vehicles
Radio Frequency (RF) (non-EW)
Power Generation/Energy Conversion
Energy storage
Power and Energy
Sensors, Electronics and Photonics
Maintainability/Sustainability
Advanced Computing/Software Development
EO/IR Components for sensing, transmission and communication
Microelectronics and Nanoelectronics
Networks and Communications
Mobility
Broadband/Multispectral Components and Systems
Sensors, Electronics and Photonics
Structures and Protection
Electro-Optical/Infrared (EO/IR)
Human/Autonomous System Interaction and Collaboration
Maintainability/Sustainability
System Interfaces & Cognitive Processes
Aircraft Propulsion, Power and Thermal
Power Generation/Energy Conversion
High Energy Lasers (HEL)
Propulsion
Biomedical Informatics / Health Information Systems & Technology
Protection, Sustainment, and Warfighter Performance
Modeling, Simulation & Test Infrastructure
Maintainability/Sustainability
Mobility
Personalized Assessment, Education, and Training
RF Components for sensing, transmission and communication
Broadband/Multispectral Components and Systems
Sensors, Electronics and Photonics
Radio Frequency (RF) (non-EW)
Radio Frequency Weapons (RFW)
Energy storage
Power Generation/Energy Conversion
Thermal Transport and Control
Unmanned Ground and Sea Vehicles
Acoustic, Seismic and Magnetic
RF Components for sensing, transmission and communication
Guidance, Navigation & Control (GN&C) and Data Links
Survivability
High-Speed/Hypersonics
Power Generation/Energy Conversion
Acoustic, Seismic and Magnetic
Radio Frequency Weapons (RFW)
Electronic Materials
Electronics Integration
RF Components for sensing, transmission and communication
Electromechanical conversion
Energy storage
Power Control and Distribution
Power Generation/Energy Conversion
Thermal Transport and Control
EO/IR Components for sensing, transmission and communication
RF Components for sensing, transmission and communication
Fixed Wing Vehicles (includes UAS)
Fixed Wing Vehicles (includes UAS)
Distributed/Coordinated/Net-Enabled Systems
High-Speed/Hypersonics
Propulsion and Extreme Environments
Energy storage
Ordnance
Human Computer Interfaces (HCI) for Decision Making
Information Collection/Management
Synthesis/Analytics/Decision Tools
EO/IR Components for sensing, transmission and communication
Rotary Wing Vehicles
Protection, Sustainment, and Warfighter Performance
System Interfaces & Cognitive Processes
RF Components for sensing, transmission and communication
Fixed Wing Vehicles (includes UAS)
Rotary Wing Vehicles
Broadband/Multispectral Components and Systems
Radio Frequency Weapons (RFW)
Maintainability/Sustainability
Propulsion and Extreme Environments
Electro-Optical/Infrared (EO/IR)
Modeling, Simulation & Test Infrastructure
Radio Frequency (RF) (non-EW)
Machine Perception, Reasoning and Intelligence
Assuring Effective Missions
Modular/Open/Reconfigurable Architectures
Personalized Assessment, Education, and Training
Fixed Wing Vehicles (includes UAS)
Machine Perception, Reasoning and Intelligence
System Interfaces & Cognitive Processes
Electro-Optical/Infrared (EO/IR)
Fixed Wing Vehicles (includes UAS)
Power Generation/Energy Conversion
Unmanned Ground and Sea Vehicles
Power and Energy
Modeling, Simulation & Test Infrastructure
Ordnance
Aircraft Propulsion, Power and Thermal
Test, Evaluation, Validation, and Verification
Power Generation/Energy Conversion
Mobility
Maintainability/Sustainability
Power Generation/Energy Conversion
Maintainability/Sustainability
Acoustic, Seismic and Magnetic
Test, Evaluation, Validation, and Verification
Maintainability/Sustainability
Corrosion
RF Components for sensing, transmission and communication
Fixed Wing Vehicles (includes UAS)
Networks and Communications
RF Components for sensing, transmission and communication
Fixed Wing Vehicles (includes UAS)
Rotary Wing Vehicles
Fixed Wing Vehicles (includes UAS)
EO/IR Components for sensing, transmission and communication
Fixed Wing Vehicles (includes UAS)
Information Collection/Management
Electro-Optical/Infrared (EO/IR)
Aircraft Propulsion, Power and Thermal
Aircraft Propulsion, Power and Thermal
Propulsion and Extreme Environments
Modeling, Simulation & Test Infrastructure
EO/IR Components for sensing, transmission and communication
RF Components for sensing, transmission and communication
Fixed Wing Vehicles (includes UAS)
Fixed Wing Vehicles (includes UAS)
Distributed/Coordinated/Net-Enabled Systems
Human/Autonomous System Interaction and Collaboration
Machine Perception, Reasoning and Intelligence
Scalable Teaming of Autonomous Systems
Human Computer Interfaces (HCI) for Decision Making
Synthesis/Analytics/Decision Tools
Combat Casualty Care
Military Infectious Diseases
Military Operational Medicine
Readiness
Maintainability/Sustainability
Survivability
Energy storage
Power Generation/Energy Conversion
Unmanned Ground and Sea Vehicles
Propulsion
Undersea Weapons
Human Computer Interfaces (HCI) for Decision Making
Personalized Assessment, Education, and Training
System Interfaces & Cognitive Processes
Acoustic, Seismic and Magnetic
Fixed Wing Vehicles (includes UAS)
Fixed Wing Vehicles (includes UAS)
Information Collection/Management
Networks and Communications
Survivability
Modeling, Simulation & Test Infrastructure
Fixed Wing Vehicles (includes UAS)
Fixed Wing Vehicles (includes UAS)
Human/Autonomous System Interaction and Collaboration
Scalable Teaming of Autonomous Systems
Test, Evaluation, Validation, and Verification
Information Collection/Management
Synthesis/Analytics/Decision Tools
Fixed Wing Vehicles (includes UAS)
Human/Autonomous System Interaction and Collaboration
Human Computer Interfaces (HCI) for Decision Making
System Interfaces & Cognitive Processes
Electronics Integration
Aircraft Propulsion, Power and Thermal
Energy storage
Thermal Transport and Control
Maintainability/Sustainability
Personalized Assessment, Education, and Training
Human Aspects of Operations in Military Environments
Electronics Integration
RF Components for sensing, transmission and communication
Electromechanical conversion
Energy storage
Power Generation/Energy Conversion
Acoustic, Seismic and Magnetic
EO/IR Components for sensing, transmission and communication
RF Components for sensing, transmission and communication
Fixed Wing Vehicles (includes UAS)
Fixed Wing Vehicles (includes UAS)
Broadband/Multispectral Components and Systems
RF Components for sensing, transmission and communication
Preemptive/Proactive Effects
Survivability
Modeling, Simulation & Test Infrastructure
Mobility
Modularity
Survivability
Unmanned Ground and Sea Vehicles
Radio Frequency Weapons (RFW)
Aircraft Propulsion, Power and Thermal
Power Generation/Energy Conversion
Modeling, Simulation & Test Infrastructure
Propulsion
Biomedical Informatics / Health Information Systems & Technology
Biomedical Informatics / Health Information Systems & Technology
Electro-Optical/Infrared (EO/IR)
High Energy Lasers (HEL)
EO/IR Components for sensing, transmission and communication
Networks and Communications
Sensors, Electronics and Photonics
Electro-Optical/Infrared (EO/IR)
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
Clinical & Rehabilitative Medicine
Combat Casualty Care
Power Generation/Energy Conversion
Energy storage
High Energy Lasers (HEL)
Power Generation/Energy Conversion
Energy storage
Acoustic, Seismic and Magnetic
Undersea Weapons
RF Components for sensing, transmission and communication
EO/IR Components for sensing, transmission and communication
Preemptive/Proactive Effects
Broadband/Multispectral Components and Systems
Advanced Computing/Software Development
Trust Foundations
Preemptive/Proactive Effects
Fixed Wing Vehicles (includes UAS)
Personalized Assessment, Education, and Training
Manufacturing Technology for Affordability
Protection, Sustainment, and Warfighter Performance
Protection, Sustainment, and Warfighter Performance
Personalized Assessment, Education, and Training
Broadband/Multispectral Components and Systems
Manufacturing Technology for Affordability
Guidance, Navigation & Control (GN&C) and Data Links
Unmanned Ground and Sea Vehicles
Fixed Wing Vehicles (includes UAS)
Acoustic, Seismic and Magnetic
Manufacturing Technology for Affordability
High Energy Lasers (HEL)
Energy storage
Power Generation/Energy Conversion
Energy storage
Unmanned Ground and Sea Vehicles
High Energy Lasers (HEL)
Fixed Wing Vehicles (includes UAS)
Trust Foundations
Personalized Assessment, Education, and Training
Unmanned Ground and Sea Vehicles
Fixed Wing Vehicles (includes UAS)
Acoustic, Seismic and Magnetic
Fixed Wing Vehicles (includes UAS)
Unmanned Ground and Sea Vehicles
Fixed Wing Vehicles (includes UAS)
Survivability
Protection, Sustainment, and Warfighter Performance
Survivability
Preemptive/Proactive Effects
EO/IR Components for sensing, transmission and communication
Advanced Computing/Software Development
Personalized Assessment, Education, and Training
Manufacturing Technology for Affordability
Acoustic, Seismic and Magnetic
EO/IR Components for sensing, transmission and communication
Maintainability/Sustainability
Energy storage
RF Components for sensing, transmission and communication
Guidance, Navigation & Control (GN&C) and Data Links
Undersea Weapons
Fixed Wing Vehicles (includes UAS)
Survivability
Undersea Weapons
Unmanned Ground and Sea Vehicles
Fixed Wing Vehicles (includes UAS)
Distributed/Coordinated/Net-Enabled Systems
Preemptive/Proactive Effects
Preemptive/Proactive Effects
Acoustic, Seismic and Magnetic
High Energy Lasers (HEL)
Fixed Wing Vehicles (includes UAS)
Energy storage
Fixed Wing Vehicles (includes UAS)
Protection, Sustainment, and Warfighter Performance
Maintainability/Sustainability
Protection, Sustainment, and Warfighter Performance
Survivability
Undersea Weapons
Fixed Wing Vehicles (includes UAS)
Maintainability/Sustainability
Manufacturing Technology for Affordability
Personalized Assessment, Education, and Training
Acoustic, Seismic and Magnetic
Unmanned Ground and Sea Vehicles
Trust Foundations
Distributed/Coordinated/Net-Enabled Systems
Broadband/Multispectral Components and Systems
High Energy Lasers (HEL)
Personalized Assessment, Education, and Training
Microelectronics and Nanoelectronics
Preemptive/Proactive Effects
Microelectronics and Nanoelectronics
Networks and Communications
Personalized Assessment, Education, and Training
Manufacturing Technology for Affordability
Propulsion
Manufacturing Technology for Affordability
Personalized Assessment, Education, and Training
Manufacturing Technology for Affordability
Trust Foundations
Trust Foundations
Distributed/Coordinated/Net-Enabled Systems
Survivability
 Agile Operations
Personalized Assessment, Education, and Training
Protection, Sustainment, and Warfighter Performance
Human/Autonomous System Interaction and Collaboration
Human Computer Interfaces (HCI) for Decision Making
Synthesis/Analytics/Decision Tools
Information Collection/Management
Human Aspects of Operations in Military Environments
Information Collection/Management
Synthesis/Analytics/Decision Tools
Synthesis/Analytics/Decision Tools
Machine Perception, Reasoning and Intelligence
System Interfaces & Cognitive Processes
Human/Autonomous System Interaction and Collaboration
Human Computer Interfaces (HCI) for Decision Making
Information Collection/Management
Synthesis/Analytics/Decision Tools
EO/IR Components for sensing, transmission and communication
Electro-Optical/Infrared (EO/IR)
Sensors, Electronics and Photonics
Electronic Materials
Manufacturing Technology for Affordability
Preemptive/Proactive Effects
Electro-Optical/Infrared (EO/IR)
Broadband/Multispectral Components and Systems
EO/IR Components for sensing, transmission and communication
Test, Evaluation, Validation, and Verification
Radio Frequency Weapons (RFW)
Manufacturing Technology for Affordability
Power and Energy
RF Components for sensing, transmission and communication
Electronic Materials
Human/Autonomous System Interaction and Collaboration
Human Computer Interfaces (HCI) for Decision Making
Synthesis/Analytics/Decision Tools
Information Collection/Management
Unmanned Ground and Sea Vehicles
Power Generation/Energy Conversion
Information Collection/Management
Synthesis/Analytics/Decision Tools
Trust Foundations
Fixed Wing Vehicles (includes UAS)
Rotary Wing Vehicles
Survivability
Corrosion
Structures and Protection
Manufacturing Technology for Affordability
Undersea Weapons
Human/Autonomous System Interaction and Collaboration
Test, Evaluation, Validation, and Verification
Sensors, Electronics and Photonics
Electro-Optical/Infrared (EO/IR)
High Energy Lasers (HEL)
Information Collection/Management
Personalized Assessment, Education, and Training
Human Aspects of Operations in Military Environments
System Interfaces & Cognitive Processes
Rotary Wing Vehicles
Unmanned Ground and Sea Vehicles
Maintainability/Sustainability
Corrosion
Structures and Protection
Modeling, Simulation & Test Infrastructure
RF Components for sensing, transmission and communication
Cognitive/Adaptive Capabilities
Modular/Open/Reconfigurable Architectures
Unmanned Ground and Sea Vehicles
Radio Frequency (RF) (non-EW)
Power Control and Distribution
Clinical & Rehabilitative Medicine
Combat Casualty Care
Military Operational Medicine
Preemptive/Proactive Effects
Acoustic, Seismic and Magnetic
Undersea Weapons
Manufacturing Technology for Affordability
Fixed Wing Vehicles (includes UAS)
Advanced Computing/Software Development
Information Collection/Management
RF Components for sensing, transmission and communication
Machine Perception, Reasoning and Intelligence
Advanced Computing/Software Development
Cognitive/Adaptive Capabilities
Modular/Open/Reconfigurable Architectures
Synthesis/Analytics/Decision Tools
Unmanned Ground and Sea Vehicles
Modeling, Simulation & Test Infrastructure
RF Components for sensing, transmission and communication
Synthesis/Analytics/Decision Tools
Modeling, Simulation & Test Infrastructure
Trust Foundations
Trust Foundations
Modular/Open/Reconfigurable Architectures
Test, Evaluation, Validation, and Verification
Military Infectious Diseases
Radio Frequency (RF) (non-EW)
Aircraft Propulsion, Power and Thermal
Power Generation/Energy Conversion
Propulsion and Extreme Environments
EO/IR Components for sensing, transmission and communication
Electro-Optical/Infrared (EO/IR)
High Energy Lasers (HEL)
Thermal Transport and Control
Mobility
Protection, Sustainment, and Warfighter Performance
Test, Evaluation, Validation, and Verification
Advanced Computing/Software Development
Modeling, Simulation & Test Infrastructure
Fixed Wing Vehicles (includes UAS)
Human/Autonomous System Interaction and Collaboration
Scalable Teaming of Autonomous Systems
System Interfaces & Cognitive Processes
Human/Autonomous System Interaction and Collaboration
Scalable Teaming of Autonomous Systems
Advanced Computing/Software Development
Human Computer Interfaces (HCI) for Decision Making
Networks and Communications
Electronics Integration
Information Collection/Management
Microelectronics and Nanoelectronics
RF Components for sensing, transmission and communication
Networks and Communications
Advanced Electronic Protection Techniques and Technology
Radio Frequency Weapons (RFW)
Human/Autonomous System Interaction and Collaboration
Fixed Wing Vehicles (includes UAS)
Rotary Wing Vehicles
Test, Evaluation, Validation, and Verification
Acoustic, Seismic and Magnetic
Modeling, Simulation & Test Infrastructure
Aircraft Propulsion, Power and Thermal
Rotary Wing Vehicles
Fixed Wing Vehicles (includes UAS)
Electronic Materials
Aircraft Propulsion, Power and Thermal
Energy storage
Power and Energy
Mobility
Modularity
Unmanned Ground and Sea Vehicles
Rotary Wing Vehicles
Fixed Wing Vehicles (includes UAS)
Propulsion and Extreme Environments
Modeling, Simulation & Test Infrastructure
EO/IR Components for sensing, transmission and communication
Broadband/Multispectral Components and Systems
Distributed/Coordinated/Net-Enabled Systems
High Energy Lasers (HEL)
Aircraft Propulsion, Power and Thermal
Energy storage
Power and Energy
Energy storage
Power Generation/Energy Conversion
Power and Energy
RF Components for sensing, transmission and communication
Advanced Electronic Protection Techniques and Technology
Radio Frequency (RF) (non-EW)
Guidance, Navigation & Control (GN&C) and Data Links
RF Components for sensing, transmission and communication
Radio Frequency (RF) (non-EW)
Radio Frequency Weapons (RFW)
Sensors, Electronics and Photonics
Acoustic, Seismic and Magnetic
EO/IR Components for sensing, transmission and communication
Machine Perception, Reasoning and Intelligence
Electro-Optical/Infrared (EO/IR)
Advanced Computing/Software Development
Synthesis/Analytics/Decision Tools
Acoustic, Seismic and Magnetic
Maintainability/Sustainability
Propulsion and Extreme Environments
Structures and Protection
Maintainability/Sustainability
Mobility
Corrosion
Structures and Protection
Sensors, Electronics and Photonics
Electro-Optical/Infrared (EO/IR)
Radio Frequency Weapons (RFW)
Sensors, Electronics and Photonics
Acoustic, Seismic and Magnetic
Advanced Computing/Software Development
Acoustic, Seismic and Magnetic
Advanced Computing/Software Development
Acoustic, Seismic and Magnetic
Machine Perception, Reasoning and Intelligence
Information Collection/Management
Synthesis/Analytics/Decision Tools
Distributed/Coordinated/Net-Enabled Systems
Acoustic, Seismic and Magnetic
Machine Perception, Reasoning and Intelligence
Information Collection/Management
Networks and Communications
Synthesis/Analytics/Decision Tools
RF Components for sensing, transmission and communication
Aircraft Propulsion, Power and Thermal
High-Speed/Hypersonics
Propulsion and Extreme Environments
Guidance, Navigation & Control (GN&C) and Data Links
Maintainability/Sustainability
RF Components for sensing, transmission and communication
Human Computer Interfaces (HCI) for Decision Making
Information Collection/Management
Synthesis/Analytics/Decision Tools
Maintainability/Sustainability
Power and Energy
Personalized Assessment, Education, and Training
Acoustic, Seismic and Magnetic
Modeling, Simulation & Test Infrastructure
Human/Autonomous System Interaction and Collaboration
Advanced Computing/Software Development
Maintainability/Sustainability
System Interfaces & Cognitive Processes
Structures and Protection
Survivability
Acoustic, Seismic and Magnetic
Guidance, Navigation & Control (GN&C) and Data Links
Fixed Wing Vehicles (includes UAS)
Rotary Wing Vehicles
Fixed Wing Vehicles (includes UAS)
Information Collection/Management
Maintainability/Sustainability
Electro-Optical/Infrared (EO/IR)
Modeling, Simulation & Test Infrastructure
Fixed Wing Vehicles (includes UAS)
Rotary Wing Vehicles
Fixed Wing Vehicles (includes UAS)
Structures and Protection
EO/IR Components for sensing, transmission and communication
Sensors, Electronics and Photonics
Structures and Protection
Fixed Wing Vehicles (includes UAS)
Aircraft Propulsion, Power and Thermal
Rotary Wing Vehicles
Fixed Wing Vehicles (includes UAS)
Power Generation/Energy Conversion
Propulsion and Extreme Environments
RF Components for sensing, transmission and communication
Maintainability/Sustainability
Fixed Wing Vehicles (includes UAS)
Aircraft Propulsion, Power and Thermal
High-Speed/Hypersonics
Propulsion
Aircraft Propulsion, Power and Thermal
Electro-Optical/Infrared (EO/IR)
RF Components for sensing, transmission and communication
Networks and Communications
Distributed/Coordinated/Net-Enabled Systems
Radio Frequency (RF) (non-EW)
EO/IR Components for sensing, transmission and communication
Networks and Communications
Sensors, Electronics and Photonics
RF Components for sensing, transmission and communication
Networks and Communications
Distributed/Coordinated/Net-Enabled Systems
Radio Frequency (RF) (non-EW)
EO/IR Components for sensing, transmission and communication
Test, Evaluation, Validation, and Verification
Electro-Optical/Infrared (EO/IR)
Modeling, Simulation & Test Infrastructure
Fixed Wing Vehicles (includes UAS)
Fixed Wing Vehicles (includes UAS)
Structures and Protection
Modeling, Simulation & Test Infrastructure
Networks and Communications
Trust Foundations
Fixed Wing Vehicles (includes UAS)
Test, Evaluation, Validation, and Verification
Unmanned Ground and Sea Vehicles
Modeling, Simulation & Test Infrastructure
Machine Perception, Reasoning and Intelligence
Synthesis/Analytics/Decision Tools
Cognitive/Adaptive Capabilities
Preemptive/Proactive Effects
Propulsion and Extreme Environments
Manufacturing Technology for Affordability
Ordnance
Propulsion
Machine Perception, Reasoning and Intelligence
Networks and Communications
Assuring Effective Missions
Trust Foundations
Cognitive/Adaptive Capabilities
High-Speed/Hypersonics
Corrosion
Power and Energy
Sensors, Electronics and Photonics
Acoustic, Seismic and Magnetic
Structures and Protection
Human Computer Interfaces (HCI) for Decision Making
Maintainability/Sustainability
Corrosion
Structures and Protection
Energy storage
Power and Energy
Survivability
Propulsion and Extreme Environments
Sensors, Electronics and Photonics
Ordnance
Aircraft Propulsion, Power and Thermal
Fixed Wing Vehicles (includes UAS)
Power Generation/Energy Conversion
Power and Energy
RF Components for sensing, transmission and communication
Radio Frequency (RF) (non-EW)
Protection, Sustainment, and Warfighter Performance
Readiness
Structures and Protection
Undersea Weapons
Machine Perception, Reasoning and Intelligence
Broadband/Multispectral Components and Systems
Electro-Optical/Infrared (EO/IR)
Radio Frequency (RF) (non-EW)
Electronics Integration
RF Components for sensing, transmission and communication
Sensors, Electronics and Photonics
Sensors, Electronics and Photonics
Maintainability/Sustainability
Sensors, Electronics and Photonics
RF Components for sensing, transmission and communication
Preemptive/Proactive Effects
Power Control and Distribution
Acoustic, Seismic and Magnetic
Power Control and Distribution
Acoustic, Seismic and Magnetic
Fixed Wing Vehicles (includes UAS)
Aircraft Propulsion, Power and Thermal
Rotary Wing Vehicles
Aircraft Propulsion, Power and Thermal
Aircraft Propulsion, Power and Thermal
Power Control and Distribution
Propulsion and Extreme Environments
Propulsion
EO/IR Components for sensing, transmission and communication
Satellite Communications (SATCOM)
Networks and Communications
Trust Foundations
Electro-Optical/Infrared (EO/IR)
RF Components for sensing, transmission and communication
Networks and Communications
Advanced Electronic Protection Techniques and Technology
Distributed/Coordinated/Net-Enabled Systems
Radio Frequency (RF) (non-EW)
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
Lower Atmosphere Battlespace Environments
Human/Autonomous System Interaction and Collaboration
Machine Perception, Reasoning and Intelligence
Human Computer Interfaces (HCI) for Decision Making
Survivability
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
Readiness
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
Test, Evaluation, Validation, and Verification
Maintainability/Sustainability
Modularity
Networks and Communications
Cognitive/Adaptive Capabilities
Unmanned Ground and Sea Vehicles
System Interfaces & Cognitive Processes
Human/Autonomous System Interaction and Collaboration
Test, Evaluation, Validation, and Verification
Human Computer Interfaces (HCI) for Decision Making
Information Collection/Management
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
RF Components for sensing, transmission and communication
Fixed Wing Vehicles (includes UAS)
Networks and Communications
Radio Frequency (RF) (non-EW)
Guidance, Navigation & Control (GN&C) and Data Links
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
Microelectronics and Nanoelectronics
RF Components for sensing, transmission and communication
Radio Frequency (RF) (non-EW)
Radio Frequency Weapons (RFW)
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
Advanced Computing/Software Development
Human Computer Interfaces (HCI) for Decision Making
Information Collection/Management
Networks and Communications
Synthesis/Analytics/Decision Tools
Human/Autonomous System Interaction and Collaboration
Human Computer Interfaces (HCI) for Decision Making
Personalized Assessment, Education, and Training
System Interfaces & Cognitive Processes
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
RF Components for sensing, transmission and communication
Electro-Optical/Infrared (EO/IR)
Radio Frequency (RF) (non-EW)
Guidance, Navigation & Control (GN&C) and Data Links
EO/IR Components for sensing, transmission and communication
Microelectronics and Nanoelectronics
EO/IR Components for sensing, transmission and communication
Microelectronics and Nanoelectronics
Electronics Integration
Readiness
Structures and Protection
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
RF Components for sensing, transmission and communication
Survivability
Radio Frequency (RF) (non-EW)
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
Unmanned Ground and Sea Vehicles
Acoustic, Seismic and Magnetic
Undersea Weapons
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
RF Components for sensing, transmission and communication
Electronic Materials
RF Components for sensing, transmission and communication
Broadband/Multispectral Components and Systems
Energy storage
EO/IR Components for sensing, transmission and communication
RF Components for sensing, transmission and communication
Networks and Communications
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
Readiness
Sensors, Electronics and Photonics
Structures and Protection
Electronics Integration
Networks and Communications
None
None
None
Aircraft Propulsion, Power and Thermal
None
None
Fixed Wing Vehicles (includes UAS)
None
None
None
None
None
None
None
None
None
None
None
None
None
None
None
None
None
None
None
None
None

Contact:
Sonya Hand
sonya@skayl.com
(410) 848-4946
https://www.skayl.com/

SYSCOM: NAVAIR
Contract: N68335-18-C-0219


Tech Talk: https://atsi.adobeconnect.com/ph6nrnr3if3q/
Pending SYSCOM Review

Scalable Model-Driven Protocol Mediation and Systems Integration
Skayl LLC

**WHO**

**SYSCOM:** NAVAIR  
**Sponsoring Program:** NAVY PMA 209

**Transition Target:** Our solutions are initially targeted to government and prime customers who design, deliver, and sustain complex Systems of Systems (SoS) in environments such as aviation, UAS, fleet management, and command and control.

**TPOC:**  
(301)757-3804

**Other transition opportunities:** This technology is applicable in industries that rely on large, complex SoS and mission-critical, real-time data. Other potential transition targets include aerospace, medical devices, and smart city applications such as public safety, traffic management, and power.

**Notes:** Image depicts Skayl's Configurable Infrastructure Capability (CinC™) (pronounced sync), the first truly scalable, configurable integration infrastructure driven by a formal, model-based approach. CinC leverages data models and, using configurable templates, generates products for systems using a variety of messaging technologies and standards - products that integrate directly into client's runtime code.

**WHAT**

**Operational Need and Improvement:** The Navy must design, deliver, and sustain complex SoS in environments such as Battle Groups and Aircraft Carriers while facing rapidly changing environments, tight budgets, and aggressive schedules. Current methods do not meet the demands of exponential technology growth, complexity, and access to information. SoS integration is one of the most significant challenges facing today’s systems engineers. With the development of each new system, there is a combinatorial expansion in the integration effort. Unless the current trend is changed, the projected integration cost of these disparate systems could easily exceed the cost of the systems themselves. The Navy is looking for an intelligent, template-based solution that supports “optimal” system-specific infrastructures. CinC was designed to enable the customization and optimization of a point-to-point solutions but the scalability and ease of management characterized by a Enterprise Service Bus (ESB).

**Specifications Required:** Support of multiple data-centric interfaces and integration patterns with various optimization constraints. Optimized protocol mediation enabling interoperability across technologies and message formats. Products generated from a user-friendly tool that interface directly into client's runtime code. Initial interfaces for Navy application to include FACE™ Technical Standard Editions 2.1 and 3.0. With a FACE compatible template, CinC acts as a Configurable Transport Service (TS). In addition to FACE, CinC can be configured to generate code for use with numerous other messaging technologies and standards including CORBA, DDS, RTSJ, AWS, and ESB.

**Technology Developed:** The integration of disparate technologies in SoS is complex, costly and resource intensive. Skayl’s CinC (Configurable infrastructure Capability) provides integration scalability, flexibility, dependability, security and value. The technology relies on mathematical algorithms and advanced modeling and documentation approaches that support scalable, configurable infrastructure and automate the generation of optimized products that integrate directly into client’s runtime code. The technology is accessed through simple, graphical configuration management software.

**Warfighter Value:** CinC provides a framework upon which capabilities can be developed, enhancing affordability and speed to fleet by reducing integration and testing time, decreasing errors, and eliminating duplication of effort.

**WHEN**

**Contract Number:** N68335-18-C-0219

<table>
<thead>
<tr>
<th>Milestone</th>
<th>Risk Level</th>
<th>Measure of Success</th>
<th>Ending TRL</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>End of Phase I</td>
<td>Med</td>
<td>Research and plan for a configurable and flexible transport service segment that streamlines integration through mediation and protocol bridging. Early development on beta PHENOM.</td>
<td>TRL 3</td>
<td>January 2018</td>
</tr>
<tr>
<td>Army FACE™ TIM Demo of configurable transport service</td>
<td>Low</td>
<td>Successful demo of beta CinC: rapid, live integration of legacy STANAG 4586 vehicle simulator with Army CMS</td>
<td>TRL 4</td>
<td>September 2018</td>
</tr>
<tr>
<td>Start of Phase II Extension (Air Force) and Start of Phase III (US Army IME W911W6-20-D-0002)</td>
<td>Med</td>
<td>Application of the beta configurable transport services (CinC)</td>
<td>TRL 5</td>
<td>November 2019</td>
</tr>
<tr>
<td>End of Phase II</td>
<td>Med</td>
<td>Commercial application of CinC</td>
<td>TRL 6 or 7</td>
<td>March 2020</td>
</tr>
</tbody>
</table>

**HOW**

**Projected Business Model:** Our business model involves selling licenses via subscription to stand-alone CinC or to PHENOM + CinC, bundled with tool training (initial in-person plus ongoing on-line webinars) and a certain number of monthly support hours. PHENOM is Skayl's collaborative advanced data modeling design and maintenance tool. PHENOM + CinC is updated with new features and increased usability every 2-3 weeks. The portal may be accessed as an on-line SaaS or installed at the customer’s location with regular update drops. These licenses are sold to the government as well as primes and are expected to transition into commercial industries.

**Company Objectives:** We anticipate the SBIR/STTR Transition Program (STP) program will facilitate further transition of our technology, providing market research and introductions to government and industry decision-makers in need of dramatically more efficient integration, testing, and maintenance of large, complex, real-time systems. In the short-term, Skayl's goal is to secure a minimum of two Phase III agreements with the subscriptions with the DoD. We are currently in a NAVY Phase III for work with the Army Integrated Mission Equipment for Vertical Lift Systems (IME) (W911W6-20-D-0002). In the long-term, Skayl plans to roll out a hardware solution and mediation configuration service. This will serve as our entry into the Internet of Things (IoT) space. The hardware solution will be comprised of a pre-packaged installation of our software solution and will allow a customer to integrate a new device or change how they use current devices.

**Potential Commercial Applications:** This technology is applicable in industries that rely on large, complex SoS and mission-critical, real-time data. Other potential transition targets include aerospace, medical devices, and smart city IoT applications such as public safety, traffic management, and power. Our vision is to “integrate the unintegratable.” We believe that we can completely eliminate vendor lock and allow people to focus on innovative work, constantly making progress, and eliminating the need for countless man-hours writing code. Automatic mediation will no longer be an option: our core technology will be commoditized and pushed down into hardware, present in all computers sold. We have already initiated this discussion with major brand CPU hardware manufacturers.

**Contact:** Sonya Hand, Director of Strategy & Marketing  
sonya@skayl.com  
410-848-4946