

## ATTACHMENT J-10

### Sample Task Order (STO) #3 - SATELLITE SYSTEMS ENGINEERING AND TECHNICAL SUPPORT SERVICES

#### 1 Background

**1.1 INTRODUCTION:** The US Government Organization (USGO) is developing an Everything Over Internet Protocol (EOIP) architecture with commercial satellite communications services as its primary means of communications for Senior Leadership. This EOIP architecture incorporates iDirect, Linkway, and Advantech IP Modems, IP switches and routers, IP Accelerators, Cisco Call Managers, voice switches, frequency converters, and other equipment. The development of the IP-based architecture creates the requirement for engineering and technical support to assist USGO with engineering design and integration efforts.

**1.2 OBJECTIVE:** The objective of this procurement is to obtain engineering design support and integration services for the integration of products into the EOIP architecture for assurance of interoperability with other components of the system.

**1.3 SCOPE:** Services to be provided include, but are not limited to, assistance to the USGO in the areas of system documentation, integration, information assurance accreditation, test and evaluation, engineering, technical, operational, maintenance and training support for the EOIP system. Staff must be certified in the following areas:

- Cisco Certified Network Associate (CCNA)
- Cisco Certified Voice Professional (CCVP)
- iDirect Hub Installer certified
- Certified Information Systems Security Professional (CISSP) certification

Support is required in the following areas:

- Communications satellite engineering and terminal design (fixed and mobile)
- Application of satellite resource capacity, coverage, and availability from the COMSATCOM owner/operators
- Satellite Access Requests (SARs) and Gateway Access Requests (GARs) for operational and training missions
- Configuration and operation of various types of Communications Security (COMSEC) equipment and Satellite Communications encryption devices
- Satellite Communications electromagnetic interference and radio frequency interference identification, characterization, and geo-location
- Voice Over Internet Protocol (VOIP)
- Network Monitoring Systems (NMS)
- Spread Spectrum Technologies

- US Government policies relating to use of COMSATCOM
- Federal and DoD Information Assurance requirements

## 2 Requirements

- 2.1 The Contractor shall perform the following required assignments for a network with eight gateways with one central operations center with redundant capability in another location (all sites are CONUS-based with locations provided in Section 2.3.1):
- 2.1.1 Engineering Design Support: Develop an Architecture Design Document that identifies the design of the EOIP system architecture, identification of network resource requirements and Quality of Service categories.
  - 2.1.2 Test and Evaluation Support: Develop a Test and Evaluation plan that provides recommendations for improvements on integration and maintenance of EOIP systems, subsystems, or components.
  - 2.1.3 Implementation Support: Support the implementation of a multi-hub, terrestrially connected network that supports a distributed NMS. Perform system and equipment integration in accordance with Government-approved documentation, drawings, test plans and procedures. Provide technical support during the integration of hardware and software systems or subsystems.
  - 2.1.4 IP System Management: From a central Network Operations Center, two full time equivalents (FTEs) are currently required to remotely manage and configure equipment at the USGO gateways. The Contractor shall be responsible for configuring assorted telecommunications equipment, including iDirect, Linkway, and Advantech IP Modems, IP switches and routers, IP Accelerators, Cisco Call Managers, voice switches, frequency converters, and other equipment in accordance with established parameters. Equipment configuration changes shall be accomplished at least four hours prior to mission activation and deactivation unless otherwise authorized by government personnel. The Contractor shall create modem configuration files, switch and router configuration files, and voice equipment configurations.
    - 2.1.4.1 The Contractor shall be responsible for remotely accessing and de-accessing users into the IP/SATCOM networks and assist users with troubleshooting SATCOM and IP network problems. When contacted by other NOCs, users or managers, the Contractor shall access and de-access users from the networks within 15 minutes or as directed.
    - 2.1.4.2 The Contractor shall be required to coordinate with external offices and agencies and Commercial SATCOM vendor NOCs, USGO NOCs, and other communications planners, managers and operators. The Contractor must be able to communicate effectively and clearly both orally and in written form.

- 2.1.4.3** The Contractor shall develop network diagrams and cut-sheets based on analyses and provide the documents to the government.
- 2.1.4.4** The Contractor shall develop and deliver an IP Management Plan.
- 2.1.5** Operational Support: Two FTEs are currently providing technical support and configuration management support of EOIP communication systems for fixed and mobile platforms, to include support for deployed users as required. The Contractor shall develop and provide system hardware and software documentation, including system operator manuals, equipment maintenance manuals, operator guides, and operating system software.
- 2.1.5.1** The Contractor shall provide status reporting on equipment status, network status, and network utilization using software applications and products provided by the government. The Contractor shall create and manage trouble tickets. The Contractor shall update SATCOM and IP network utilizations and status reports daily. The Contractor shall contribute to daily, monthly and annual resource utilization reports.
- 2.1.5.2** The Contractor shall perform passphrase management in accordance with established Standard Operating Procedures (SOPs) and Techniques, Tactics and Procedures (TTPs). Passphrase management includes issuing passphrases, maintaining the passphrase database, and daily utilization reporting. Passphrases shall be issued within four hours of the written request.
- 2.1.5.3** The Contractor shall provide Windows system administration support to system servers. The Contractor shall be responsible for system administration, maintaining back-ups/restoral capability, firewall management, and system security to include maintaining IA compliance. This task does not require a dedicated position.
- 2.1.5.4** The Contractor shall participate in Government conducted technical testing in accordance with designated testing procedures on EOIP communication systems for fixed, tactical and mobile platforms.
- 2.1.6** Training Support: The Contractor shall develop a Training Plan to provide USGO personnel with classroom training for operation and maintenance of EOIP Technologies and remote systems germane to the EOIP system, concurrent with other integration, engineering, and technical support efforts. Training is required yearly for up to 20 personnel.
- 2.2** The Contractor shall submit a Plan of Action and Milestones (POA&M) for the engineering design support and integration services approach it will provide for the integration of products into the EOIP architecture. The POA&M shall, at a minimum, address the deliverables listed in Section 2.6.1.

## 2.3 Performance

- 2.3.1 Locations: The primary NOC is located in the Washington DC/National Capital Region, and the alternate NOC is located in Denver, Colorado. The eight gateways are located in San Diego, CA, Tampa, FL, Aberdeen, MD, Norfolk, VA, Houston, TX, Seattle, WA, Chicago, IL, and Newark, NJ.
- 2.3.2 Period of Performance: The period of performance for this effort will be 12 months. The anticipated work schedule is to be based on a 40-hour work week (5 days per week at 8 hours per day) at a Firm Fixed Price.

## 2.4 Government Support

- 2.4.1 Government Furnished Equipment: The Government will provide all system components, test equipment, and special tools for the EOIP system integration.
- 2.4.2 Systems Hardware/Equipment: The following equipment is Government furnished (GFE): Cisco routers, all iDirect equipment, Riverbed IP Accelerators, Shout 900 Voice Gateways.

## 2.5 Security

- 2.5.1 All contractor personnel assigned to this task shall be US citizens, undergo background checks prior to their assignment, and be clearable to a SECRET security clearance.
- 2.5.2 The Contractor shall comply with all USGO security procedures. Although the Contractor may be provided access to SECRET information in order to accomplish tasks, documents generated shall not include classified information unless directed by the Government and in accordance with classification guidelines and standards for documentation.

## 2.6 Deliverables

- POA&M
- Architecture Design Document
- Training Plan
- Test and Evaluation Plan
- IP Address Management Plan

## 2.7 Pricing

 The Contractor shall provide fixed prices for the items listed below:

- Architecture Design Document (per Section 2.1.1)
- Test and Evaluation Plan (per Section 2.1.2)
- IP System Management Support (per Section 2.1.4)
- Operational Support (per Section 2.1.5)

- Training Plan (per Section 2.1.6)

In addition, the Contractor shall provide pricing detail for each of the above items, including labor categories and number of hours for each category as necessary. Each proposed labor category shall include position title and definition.

(END OF ATTACHMENT J-9)