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Section C: Descriptions/Specifications/Work Statement

List of Figures and Tables

C.1 Connections II Contract Scope

C.1.1 Authorized Users

This contract is for the use of all federal agencies, authorized federal contractors, agency-sponsored universities and laboratories and, as authorized by law or regulation, state, local, and tribal governments, and other organizations. All organizations listed in General Services Administration (GSA) Order ADM 4800.2F (as updated) are eligible.

C.1.2 Geographic Scope

The minimum geographic requirement is contractors shall provide services within the Continental United States. Connections II contractors are not required to deliver services in foreign countries, but can propose solutions on task orders based on their company's ability to deliver those services in the specified geographic area.

C.1.3 Operational Scope

The Connections II scope includes all labor and equipment necessary to support communications and networking solutions at the Local Area Network (LAN), building, campus, and enterprise level. Labor categories specify both professional and technical expertise to support the full solution life cycle, including, but not limited to, analysis, planning, design, specification, implementation, integration and management of network services and equipment. The scope also includes any new labor and equipment that may emerge in the marketplace for providing comprehensive telecommunications over the life of the contract. Construction, alteration, and repair support services are only in scope as necessary to offer a complete telecommunications solution provided that it is integral to and necessary for the effort stated in the task order. There shall be no order placed for which construction, alteration, or repair is the principal purpose of the order.

The direct provision of network services, such as services that provide transport and access to and between customer sites, such as those provided by Incumbent Local Exchange Carriers, Competitive Local Exchange Carriers, Wireless Telephone Carriers, Interexchange Carriers, Satellite Providers, or Internet Service Providers **are out of scope**.

C.1.4 Connections II Solutions

The Connections II acquisition encompasses a broad range of solution focus areas. The four solution types detailed in Table C-1 below are provided to demonstrate the core capabilities of this contract, without limiting its scope. Combinations of any or all of the four solution types are possible and encouraged when proposing a solution to a task order opportunity. Connections II solutions include the ability to provide labor only services, equipment only purchases, as well as total agency solutions. If specified in the task order, solutions may incorporate a site survey or requirements analysis phase.

Table C-1. Connections II Solution Types

Communications and Networking. Planning and construction of communications networks together with sensors, servers and storage to support and optimize resource management and the distribution of information to empower decision-makers; includes equipment to support information distribution in a variety of forms such as voice, video, and data and between humans and machines.
Building/Campus Facility Preparation. All site preparation to support telecommunications distribution systems such as cabling and wiring, power systems, associated support structures and services and incidental construction.
Operations, Administration, and Management (OA&M). **T**he functions needed to manage a complex communications network such as maintaining the system configuration, including an inventory of equipment and assignment of network addresses; tracking performance data such as adherence to SLAs and network capacity monitoring; diagnosing and repairing faults and maintaining a help desk; collecting accounting information for billing; maintaining secure network operation; and coordination of all these functions.
Customer Service and Technical Support. Provide support on behalf of an agency such as help desk, Website and electronic bulletin board construction and maintenance; back office support such as billing, planning, and financial support, etc.
Note: For all Solution Types, the contractor may: 1. Provide labor or equipment or both. 2. Provide solutions and support for legacy facilities. 3. Provide solutions which are combinations of any or all of the above four solution types.

The actual locations where the equipment and services are used are defined by the orders

C.1.5 Organization of this Statement of Work

The functional requirements for Connections II labor and equipment are provided in Section C.2, and those requirements for contractor management and operations of the contract are provided in Section C.3.

C.2 Connections II Equipment and Services

This section includes requirements that hold for all task orders under Connections II.

Connections II contractors shall provide all equipment necessary for each solution type. After award, the contractor may request a modification to the contract using Section G.2 [Contract Modifications] to include additional products. Similarly for the labor list in Section J.1 [Labor Categories], after award the contractor may request a modification to the contract to include additional labor categories.

C.2.1 General Requirements

The contractor shall meet the following general requirements in providing, installing, operating, and maintaining required products and services.

C.2.1.1 Performance and Quality

The reliability of equipment delivered under this contract shall be specified in the orders. The contractor shall supply Mean Time Between Failure (MTBF) and Mean Time to Repair (MTTR) data (if available) to allow calculation of the serial reliability of the system supported by the products delivered and ensure its proper functioning. The contractor shall be capable of providing reliability calculations for the systems delivered under this contract in accordance with Telcordia standard SR-332 (Issue Number 02) "Reliability Prediction Procedure for Electronic Equipment" or other standards specified in the task order.

The contractor shall be capable, in response and performance of a task order, of committing to a specified performance level and/or quality of service level in a Service Level Agreement (SLA). The SLA may include network metrics (e.g., availability, response time), billing metrics (e.g., the error rate of charges billed under the contract), customer service metrics (e.g., the percentage of calls to the customer service function that were answered in less than 30 seconds), and security metrics (e.g., the probability of detecting attempted intrusions into the system and the associated false-alarm rate). The contractor shall describe to the customer how the data will be collected and provide to the customer an acceptable reporting mechanism that tracks the requirements agreed to in the SLA.

Basic requirements for the SLA may include but are not limited to:

1. A specified level of customer support
2. Overall system availability
3. Overall system response time
4. Maximum system restoration time
5. Provisions for system security
6. Negative incentives for under performance
7. Maintenance response times

C.2.1.2 Environmental Constraints

The contractor shall provide components that will operate satisfactorily under environmental conditions that apply to the area specified in the order.

C.2.1.3 Electromagnetic Compatibility

The equipment shall meet Federal Communications Commission (FCC) Part 15 (Code of Federal Regulations (CFR) Title 47) requirements or as otherwise stated in the task order. For international orders, the equipment shall conform to the area and local standards that apply.

C.2.1.4 Accessibility to the Disabled (Section 508 Requirements)

The contractor shall provide equipment and services, including the contract management and operations services set out in Section C.3, that meet the requirements of the Code of Federal

Regulations (CFR) title 36: Parks, Forests, and Public Property, Part 1194 Electronic and Information Technology Accessibility Standards, subparts A through D.

An Agency's Ordering Contracting Officer may accept Electronic and Information Technology (EIT) that uses designs and/or technologies that do not meet applicable Technical Standards of Subpart B but do provide disabled federal employees or citizens with equivalent or greater access to information. This is referred to as "equivalent facilitation" and contractors offering equivalent facilitation may be considered by the OCO along with those that strictly meet the Technical Standards of Subpart B.

C.2.1.5 Encryption

When a task order calls for encryption of information that is not classified, or the order states that certain information is sensitive and needs protection, the contractor shall use equipment that is certified under Federal Information Processing Standard (FIPS) 140-2 for protection of that information, or as otherwise specified in the task order. A list of equipments that are certified under this standard may be found at http://csrc.nist.gov/groups/STM/cmvp/documents/140-1/1401val2004.htm. Note that the certified cryptographic equipment may be part of a larger device, such as a Personal Computer (PC).

C.2.1.6 Special International Requirements (Homologation)

Homologation is the process of certifying a particular component part/system/technical unit with the appropriate government agency in that country or territory. Equipment to be sold or used in a foreign country under the Connections II contract shall be approved for use in that country, meaning that it shall be homologated in that country if necessary. The contractor shall provide evidence of homologation in the country of interest, such as a certificate or statement from the manufacturer, to the Ordering Contracting Officer (OCO) or the GSA contracting officer (in the case of contract modification) when requested.

C.2.1.7 Installation and Testing

If specified in the task order, the contractor shall submit a draft *Acceptance Test Plan* to the Ordering Contracting Officer (OCO) of all proposed equipment, services, and systems to be tested for government review and approval. Upon approval, the contractor shall prepare a final *Acceptance Test Plan* prior to the start of acceptance testing. Acceptance shall be as defined in Section E.2 [Definitions].

If so tasked, the contractor shall adhere to the specifications of the original equipment manufacturer (OEM) for the area under consideration and shall install and test all equipment and systems in accordance with accepted industry standards that apply to the area under consideration. The contractor shall clear, correct, and restore any components or subsystems that fail the acceptance tests and shall submit, if so tasked, a set of as-built drawings to the OCO.

C.2.1.8 Maintenance

Equipment maintenance shall be conducted in accordance with the OEM's specifications or as otherwise specified in the task order.

C.2.1.9 Warranty Service

The contractor shall provide, at no additional cost to the government, a minimum one-year system warranty (or the warranty provided by the OEM, whichever is longer) for all hardware and software purchased under this contract, including all equipment supplied, installed, and integrated by the contractor. The equipment warranty shall provide for repair and distribution of updated software to all users who purchased the software under this contract. The contractor shall provide to the OCO for their review and approval a written description of the warranty service associated with each product and service delivered under the contract at the time of acceptance.

The contractor shall repair or replace malfunctioning equipment covered by warranty within five business days or as specified in the order. The contractor shall provide to the government a point of contact for the warranty during the Normal Business Day (7AM – 7PM Local Time) or for a longer period if so specified in the order. The warranty shall begin at the time the final system acceptance form is signed.

C.2.1.10 Spares Inventory

If specified in the task order, the contractor shall be capable of providing spare parts and be responsible for spares inventory or replenishment for all contractor-furnished and installed equipment. The contractor shall be capable of providing a *Recommended Spare Parts List* for each system. This list shall include part description, part number, manufacturer, address, phone number, and recommended quantities. The contractor may be tasked with providing an *Equipment Integrated Logistics Plan* to cover the issue of sparing. This plan should include a methodology for providing the needed spares and protection for the network to avoid long delays in obtaining parts. The customer may choose to purchase spare parts and retain these spares on site. Such spares will be purchased at the customer's expense.

C.2.1.11 Maintenance of Legacy Equipment

The contractor shall provide legacy equipment maintenance as a separate order or as part of an order. For the purposes of this contract, legacy equipment is any equipment not purchased under the Connections II contract.

C.2.1.12 Sustainable Equipment, Services, and Solutions

Connections II seeks to promote the sustainable stewardship of telecommunications and networking assets in order to reduce or eliminate their environmental and energy impacts through continuous improvements in design, material selection, reuse, de-manufacturing, and recycling. Specific sustainability requirements will be specified at the task order level. The goal

is for the equipment, services, and solutions procured under this contract to support the following government environmental performance standards, criteria, and guidance set out within the following sources and their successors:

1. Executive Order (EO) 13514: Federal Leadership in Environmental, Energy and Economic Performance.
2. The Electronic Product Environmental Assessment Tool (EPEAT).
3. The U.S. Green Building Council Leadership in Energy and Environmental Design (LEED) Program
4. The Energy Independence and Security Act of 2007 (EISA 2007) including the purchase of Energy Star and Federal Energy Management Program (FEMP)-designated products.

The contractor shall develop, maintain, and periodically update a Sustainable Equipment, Services and Solutions Plan, at no cost to the government, that documents how the contractor intends to provide telecommunications and networking assets that will reduce negative impacts on the environment. The Plan shall provide sufficient detail for the government to determine that the contractor reasonably understands their sustainability approach. The Plan shall describe the processes and practices the contractor will employ to ensure that environmentally responsible and resource efficient solutions are delivered to Connections II customers.

The government intends to modify the contract as sustainability standards, criteria, and guidance evolve.

C.2.2 Communications and Networking Solutions

The contractor shall provide complete or portions of communications networks that span a single building or location to an entire enterprise with several locations separated by large distances. These networks shall carry all types of information formats such as data, voice, and video. The equipment provided shall cover the complete range of communications such as switches and routers for local area networks (LANs), private branch exchanges (PBX), video teleconferencing equipment, and the computer hardware and software necessary to implement the solution. The contractor shall also coordinate communications services from other GSA contracts when required, and be capable of integrating legacy equipment into the solution. The Communications and Networking solution type may be combined with any or all other solution types.

C.2.2.1 Communications and Networking Equipment Types

The following table is representative of the types of equipment and related software that the contractor shall be capable of providing for the Communications and Networking solution type.

Table C-2. Communications and Networking Equipment Types

Type	Descriptions
Voice over Internet Protocol (VoIP) PBXs	Delivery of voice communications using packet-switching, usually on a server with a software application that provides PBX features common to circuit-switched units; complete system would include telephone instruments for voice, a gateway to connect to the Public Switched Telephone Network (PSTN), switches and routers to connect to a local packet network and to an external packet network such as the Internet
Routers	Enterprise-wide: 2 million Packets per Second (pps), supports Quality of Service (QoS) and Multiprotocol Label Switching (MPLS), up to four Gigabits per Second (Gbps) Ethernet ports, range of physical layers including short (SX) and long (LX) wave optics Edge routing: embedded high-speed firewalls and 5 Gbps ports, at least Triple Digital Encryption Standard (3DES) and Advanced Encryption Standard (AES), supports 500,000 Internet Protocol version 4 (IPv4) routes and 20,000 IPv6 routes, Simple Network Management Protocol (SNMP)
Firewalls	A device to protect an enterprise network connected to an external network such as the Internet from damaging traffic such as viruses; operates at capacities that serve the range of small to large enterprises; may be standalone at the interface between the enterprise and external networks, or as part of a Demilitarized Zone (DMZ)
Workgroup Switches	Port speeds 10 Mbps to at least 1 Gbps, physical layers: Unshielded Twisted Pair (UTP), multimode (50µ), single mode (1310 nm and/or 1550 nm) Virtual LAN (VLAN) capability (Institute of Electrical and Electronic Engineers (IEEE) 802.1q), SNMP, supports Power over Ethernet (PoE), and IPv6
Backbone Switches	Port speeds up to 10 Gbps, layer 3 switching support for IPv6 and MPLS; also support for SNMP, Remote Monitoring (RMON), and PoE, hardware firewall is a plus; Packet over SONET (POS) at rates to at least OC-3 and T1/E1 ports to the Public Switched Telephone Network (PSTN)
Telephone Station Instruments	Equal to or better than the telephones commonly used in the commercial market place; compatible with time division multiplexing (TDM) PBXs and IP networks (VoIP PBX)
Gateway Devices (VoIP PBXs)	Connects a packet-switched PBX to either the Internet or the PSTN; checks as to whether a requested Transmission Control Protocol (TCP) session is legitimate
Gateway Devices (LAN to mainframe)	These devices shall support Linux™ and Windows™ operating systems and the workgroup switches mentioned above
Wireless Internet Protocol (IP) PBXs	Basic functionality common in the industry; includes base stations (fixed transceivers) and wireless telephones for wireless access to users within a building; operates on unlicensed radio frequencies or licensed frequencies provided by the contractor; capable of providing full or partial coverage of the building premises; also includes wireless handsets that provide building and campus coverage, including roaming capability away from the building
Synchronous Communications Servers	Transmission Control Protocol (TCP)/IP for interoperability with IEEE 802.3 equipment and TCP/IP hosts; file transfer using Kermit, Serial Line Internet Protocol (SLIP), and Point-to-Point Protocol (PPP), authentication schemes such as Packet-level Procedure (PAP), Challenge-Handshake Authentication Protocol (CHAP), Remote Authentication Dial-In User Service (RADIUS), or Kerberos; supports SNMP
Asynchronous	IEEE 802.3 and TIA RS-232E compliant; full RS-232E functions configurable by the user,

Type	Descriptions
Communications Servers	provide virtual terminal services to a networked host as well as terminal emulation for existing terminal types (e.g., VT-100, IBM 327x), printer server, and modem pool functions
Audio and Video Conferencing Equipment – general	All audio/video equipment to interface with circuit-switched or packet (including IP) networks, dial-in and dial-out, auto setup: meet me (conduct session without schedule) and preset (scheduled conference using authorization code), password protected, host-controlled access, private side conference, verification of disconnects, music-on-hold, listen only (controllable by moderator), incorporate pre-recorded announcements, toll-quality voice, connections to PBXs, private lines, Central Office (CO) lines, or Virtual Private Networks (VPNs); conform to FTR 1080B-2002.
Video Teleconferencing Rooms	Typically holds up to 25 people, usually around a conference table; acoustically treated to reduce reverberation; usually two large flat screens for video; can control lighting for easy viewing; several cable and/or wireless connections distributed around the room/table to office LAN or direct connection to external network such as the Internet; adequate space behind screens for equipment and maintenance
Roll-about Carts	Provides mobile, self-contained video teleconferencing for use throughout a building, especially in conference rooms; large screen, at least 20 inches; video camera, microphones and speakers; several power outlets and cable and/or wireless connections to local network or directly to external network such as the Internet
Desktop Videoconferencing Units	Generally for one person at each end of the connection; can use PC with built-in or external camera, loudspeakers integrated with a PC or externally mounted; either internal or external microphone, or use of headset
Video cameras	Capabilities of commercial products of amateur and professional quality, such as built-in omni-directional microphone, direct connection to local or external network; may include Compact Disc (CD)/Digital Versatile Disc (DVD) storage for video/audio recording
Microphones	Capabilities of commercial products of amateur and professional quality
Video recorders	Capabilities of commercial products of amateur and professional quality, usually with DVD storage
Electronic blackboards	Capabilities of commercial products
Video Surveillance	Motion detection, pre and post-alarm monitoring, remote access, remote video monitoring, video display in full color, image authentication, archiving
Microwave Systems	Licensed and/or unlicensed frequencies, point-to-point connections or mesh applications; voice, data, and video, contractor to provide a backup plan and continuous monitoring
Free-space Optical Systems	Approximately two mile range; automatic or manual pointing; window or tripod mount; meets applicable regional and local standards, codes, and regulations; includes monitoring capability using SNMP
Land Mobile Radio Systems (LMR)	Portable and stationary units and all required hardware to communicate over predefined frequencies, use licensed frequencies that are available to the government in the area, or acquire licensed frequencies
Satellite Earth Stations	Provide voice, data, and video links to private networks or the PSTN, speeds up to but not limited to OC-3c, portable with auto-positioning, employ government and commercial satellite networks

Type	Descriptions
Wireless LANs	Rates up to at least 802.11g specifications with some or all of these security features: management station to authorize user equipment for operation on the wireless network, detect and deny service to unauthorized equipment, detect and prevent insertion attacks, protect on-air information using Wi-Fi Protected Access 2 encryption or stronger; centralized management capabilities: store descriptions of the wireless network equipment and configuration, monitor network operation such as what equipment is active and to what it is connected, include trouble shooting tools. Otherwise adhere to IEEE 802.11-2007
Network Operating Systems	Will interoperate with widely-deployed operating systems such as JUNOS, Cisco IOS, BSD, and Novell Netware
Legacy – Circuit Switched PBXs	Feature set common to the industry such as voice mail with direct access to messages, caller Identification (ID), call waiting indication, conference and multi-party calling, and last Number Redial, may be expandable to VoIP
Legacy – key systems	Supports small office such as with 40 telephones with up to 30 lines (not with maximum telephone capacity), and support analog T1, T1 Direct Inward Dialing (DID), and SIP trunks to the PSTN; caller ID, call forwarding, conferencing
Legacy – Other	Other hardware and software including but not limited to: Asynchronous Transfer Mode (ATM) switches, hubs and concentrators, transceivers, repeaters and bridges, access servers, multiplexor, digital loop carrier (DLC) systems

C.2.3 Building/Campus Facility Preparation

Building/Campus Facility solutions include all work incidental to support telecommunications distribution, such as the installation, operation and maintenance of power systems including Uninterruptible Power Systems (UPS); cable and wiring with attendant racks and panels and including campus interconnections; construction including the addition of raised flooring; Heating, Ventilation, and Air Conditioning (HVAC); and environmentally controlled housing. The contractor shall provide required connectivity between buildings using appropriate cabling and wiring, and related trenching, ducting, grounding, and lightning protection systems in accordance with the task order and/or appropriate standards. Note that other types of interconnection, such as microwave, are available from the Communications and Networking Solutions solution type.

Site preparation work done by the contractor under this contract shall conform to applicable federal, regional and local codes and shall conform to accepted industry installation and construction practices. All work and code compliance shall be subject to government review and approval prior to the start of work. The contractor shall provide the tools and test equipment to perform the site preparation as required by the order. The contractor shall retain ownership of the tools and test equipment unless otherwise specified in the order. The government will furnish facilities and utilities to the contractor that already are installed at the site, including light, heat, ventilation, and power. The contractor shall provide temporary utilities that are not available in the work area and coordinate any disconnection of utilities.

The contractor shall provide building additions and/or changes as required, as long as they are incidental to the preparation of the site for any one or all of the solution types. Installation of raised flooring is one such addition. Raised flooring shall include cable trays and race-ways as required by the task order. HVAC construction shall be limited to new or upgraded installations necessary to support telecommunication equipment. The contractor shall expand or modify power systems to provide appropriate environmental control and electrical power to support the telecommunications installation. Power systems delivered under this contract shall meet applicable regional and local standards, codes, and regulations. The contractor shall install or modify lighting and receptacles in accordance with the requirements of the order. Lighting systems and receptacles delivered under this contract shall meet applicable regional and local standards, codes, and regulations.

The Building/Campus Facility Preparation solution type may be combined with any or all other solution types.

C.2.3.1 BUILDING/CAMPUS FACILITY PREPARATION EQUIPMENT TYPES

The following table is representative of the types of equipment and related software that the contractor shall be capable of providing for the Building/Campus Facility Preparation solution type.

Table C-3. Building/Campus Facility Preparation Equipment Types

Type	Descriptions
Equipment Enclosures	Overhead lighting, wall receptacles (min. one per 10'), built-in ladder (for underground enclosures), alarm system (door, temperature, humidity, high CO_2 or CO, intrusion, power off), fire extinguisher per OSHA 29 CFR 1910.157
Racks	Steel and aluminum, conforming to IT (19") and telephony (23") standards
Patch Panels	Rack or wall mount, copper and fiber, accept plugs for a variety of sizes, such as RJ-45, SC
Cable – copper and Fiber	Conforming to American National Standards Institute (ANSI)/Telecommunications Industry Association (TIA)-568-C.1 section 7.4 for inside cabling and TIA/EIA-758A Customer-owned Outside Plant Telecommunications Infrastructure Standard for outside cabling
Uninterruptable Power Supplies (UPS)	Provides standby power with near-instantaneous switching to a devices or devices to maintain operation in the event of main power failure; different size units may serve a single device such as a PC, up to several racks of servers in a datacenter; hold times may be relatively short, perhaps 15 or 20 minutes to allow a diesel generator to come on line, up to a few hours for smaller devices such as PCs

C.2.4 Operations Administration & Management (OA&M)

Operations, administration, and management solutions cover the functions needed to manage a complex communications network such as maintaining the system configuration, including an inventory of equipment and assignment of network addresses; tracking performance data such as adherence to SLAs and network capacity monitoring; diagnosing and repairing faults and

maintaining a help desk; collecting accounting information for billing; maintaining secure network operation; and coordination of all these functions[1]. The OA&M solution type may be combined with any or all other solution types.

C.2.4.1 Operations Administration & Management Equipment Types

The following table is representative of the types of equipment and related software that the contractor shall be capable of providing for the Operations, Administration & Management solution type. The requirements are stated functionally. Where a type is a software program, the functional specification is meant to include the software and the hardware platform. When responding to orders that are largely of the Operations Administration & Management equipment type, the contractor is free to use equipment from any other solution type.

Table C-4. Operations, Administration & Management Equipment Types

Type	ISO Functional Area	Descriptions
All-in-One Management	Fault, configuration, performance, security	Serves at least 2,000 appliances and most core management functions
Application Discovery	Configuration	Hardware and software to inventory all items connected to customer's network (excluding common carrier); loads data into monitoring tool; maintains Configuration File
Consolidated Event Management	Performance	Collects event streams from a variety of devices and presents a single, consistent view of the current state of all managed systems
Fault Monitoring	Fault	Hardware and software associated with identifying fault conditions, isolating sources of faults, and performing root-cause analysis; accepts a variety of inputs including SNMP
Service Monitoring	Performance	Hardware and software to track SLAs
Service Desk with Workflow Database	Fault	Hardware and software to record trouble reports and issue trouble tickets; includes Artificial Intelligence (AI) interface for common trouble solutions for tier 1 agents
Security Support	Security	Hardware and software associated with risk analyses, vulnerability analyses, and analyses of physical and software security operations, both active and passive
Telecom Expense Management	Accounting	Simplifies invoice-to-payment process by validating charges, handling dispute management, creating reports, and analyzing bills to reduce costs

C.2.5 Customer Service and Technical Support

Customer Service and Technical Support Solutions include installation and maintenance of systems, tools, and resources that provide direct interaction with customers such as help desks,

[1] ISO/IEC 7498-4; 4.5 OSI Management functional areas

website and electronic bulletin board construction and maintenance, and back office support including billing, planning and financial support.

The contractor shall support the customer in performing billing, account management and back office functions specified in the order. The tasks may include, but are not limited to:

- Identifying requirements
- Managing specified billing and account management functions
- Preparing bills for specified services
- Processing user billing inquiries
- Preparing specified payment documentation
- Supporting the customer in collecting late payments
- Auditing specified activities that relate to the customer's telecommunications infrastructure

The Customer Service and Technical Support solution type may be combined with any or all other solution types

C.2.5.1 Customer Service and Technical Support Equipment

The following table is representative of the types of equipment and related software that the contractor shall be capable of providing for the Customer Service and Technical Support solution type.

Table C-5. Customer Service and Technical Support Equipment Types

Type	Descriptions
Automatic Call Distribution (ACD) Systems	Skills-based routing, supports at least 50 agents, includes integral interactive voice response (IVR) capabilities and agent stations with screen pops; supports multi-media links with customers, call routing to remote agents, auto attendant, alarms for callers in queue, call-back message support
Telephone Recorders	Includes logging and a management system, allows the call center to monitor, log, review, retrieve and catalog voice and data, also quality monitoring, evaluation, reporting and coaching; graphical interface, data accessible via LAN, WAN, or Internet
Auto-Dialing	Standalone and integrated with ACD or other related equipment
Workforce Management	Calculator and scheduling software for workforce management of call center and other customer and technical support staff
Customer Contact	Track customer contacts, screen pops and have an information database with learning capability to support tier 1 agents in diagnosing problems, multimedia support for contacts
Servers	To support the various equipment types in this and other solution types such as VoIP PBXs, gateways for VoIP applications, bastion servers to implement Demilitarized Zones (DMZs), communications servers, OA&M monitoring equipment, and ACDs

C.3 Contract Management and Operations

C.3.1 Customer Service

Unless otherwise specified in the order, users shall be able to access the contractor's customer service function during the Normal Business Day (7AM – 7PM Local Time) by dialing a toll-free number or by accessing the contractor's Web page. These access points shall be the customer's primary points of contact with the contractor for operational issues such as task ordering. The contractor's customer service function shall assist users experiencing difficulty and shall provide training where required. The contractor also shall make customer service representatives available to users for requirements planning or billing reconciliation.

C.3.2 Task Ordering

The contractor shall, at a minimum, meet the following task ordering requirements:

1. **Provide online ordering information.** The Contractor shall develop and maintain a current, publicly available webpage accessible via the Internet. At a minimum, the webpage shall include the following items:
    a. The Basic Contract
    b. Contractor DUNS number
    c. Prompt payment terms
    d. Contact information including the Contractor's Program Manager and Contract Manager
    e. Ordering instructions
2. **Provide task order proposals**. The contractor shall provide task order proposals within five business days following receipt of a Task Order Request (TOR) or as specified by the OCO. If more time is required, the contractor shall negotiate with the OCO a date to provide the proposal. Task order proposals shall be provided in a mutually acceptable format and delivery method.
3. **Archive orders**. Copies of all orders shall be maintained by the contractor for the length of the contract and shall be available for government inspection within 10 business days after the government's formal request. Archived information shall be provided in a mutually acceptable format and delivery method.

C.3.3 Supply Chain Risk Management (SCRM)

Connections II vendors shall include a Supply Chain Risk Management (SCRM) Plan to address counterfeit and illegally modified products. The SCRM Plan will be reviewed prior to selection.

The Connections II contractor's supply chain consists of organizations, people, activities, information, resources, along with information and communication technology (ICT) equipment, subcomponents and software. The products that are sold, configured, installed

and/or maintained under the Connections II contract are provided by Connections II contractors who act as re-sellers of ICT equipment and component OEMs. "Genuine ICT" are ICT equipment, components and software that are authentic – that is, as represented by their suppliers, whether named brand products or commodity products specified only by performance characteristics.

The contractor shall develop, maintain, and periodically update a SCRM Plan, at no cost to the government, to reduce supply chain risks to performance and security of the products sold, installed and maintained throughout the Connections II product/solution life cycle. The Plan shall provide sufficient detail for the government to determine that the contractor reasonably understands its supply chain. The contractor shall ensure that Genuine ICT will be available under the Connections II contract and shall manage the risk to ensure that counterfeit or illegally modified products are not shipped. The Plan shall describe the processes and practices the contractor will employ to ensure that Genuine ICT is delivered to Connections II customers.

The SCRM Plan shall address, at a minimum, how the contractor:

1. Ensures within its processes that requirements for Genuine ICT are imposed upon its direct suppliers, whether the direct supplier is a systems integrator, reseller or OEM. The requirements for assurance and supporting evidences shall include:
    a. That the contractor performs reasonable steps to ensure their SCRM Plan will be performed for ICT in its delivered and installed configuration.
    b. That the equipment resellers from whom the contractor purchases ICT have valid licenses for OEM equipment and software.
    c. That the ICT OEM is exercising quality control to ensure that counterfeit or illegally modified hardware or software components are not incorporated into the OEM product.
    d. That the contractor ensures traceability of assurance and evidence of genuineness of ICT back to the licensed product and component OEMs.
2. Ensures that products and components are not repaired and shipped as new products and components provided to the Government.
3. Ensures that supply channels are monitored for counterfeit throughout the product life cycle to include maintenance and repair.
4. Ensures independent verification and validation of assurances and supporting evidence, as required.

The government intends to modify the contract as National Institute for Science and Technology (NIST) SCRM guidelines and standards evolve, and the contractor shall update its SCRM Plan to include such modifications at no cost to the government.

C.3.4 Billing

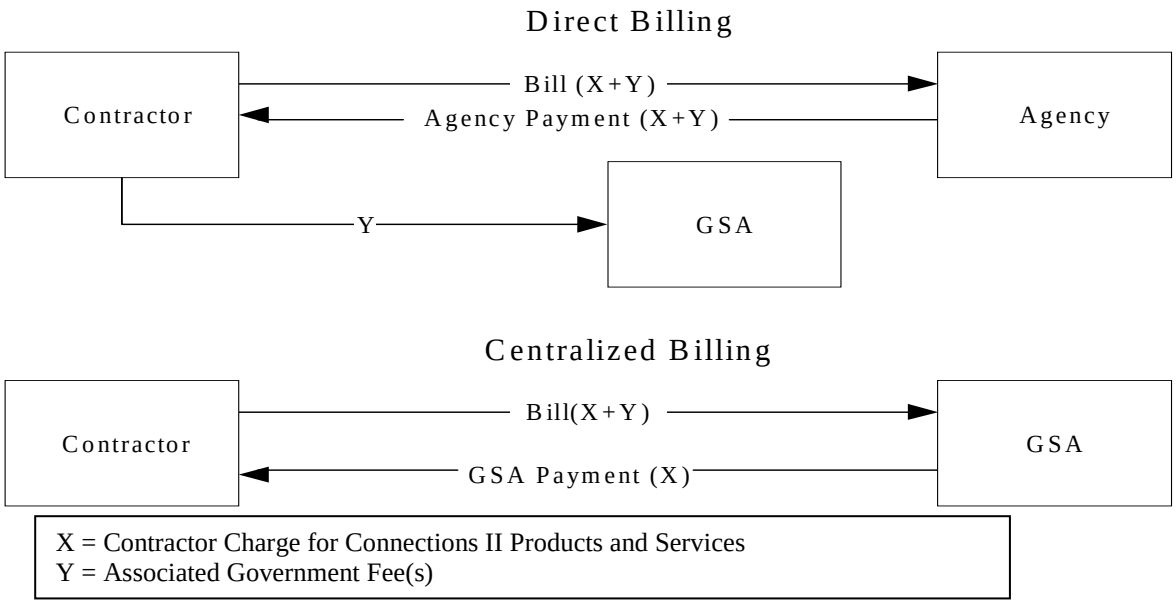
The contractor shall be capable of directly billing each customer at the address given by the customer in the order and shall also have the capability to centrally bill designated customers through GSA. The concepts of direct and centralized billing are defined below and illustrated in Figure C-1:

1. Direct Billing: The contractor shall bill each customer's cost center that is using direct billing and provide supporting billing data. Each such customer will verify the bill and directly pay the contractor.
2. Centralized Billing: The contractor shall bill GSA via a machine-readable billing file prepared for centrally-billed customers only and provide supporting data for verifying charges. The contractor shall follow the format for centralized billing files as described in Section G.5.1.3 [Additional Centralized Billing Requirements]. GSA will pay the centralized bill.

The contractor shall be responsible for the collection of charges from directly billed Connections II customers. GSA is not responsible for any charges directly billed to any Connections II customer. GSA is responsible for the collection of charges from centrally billed customers.

All Associated Government Fee (AGF) payments for direct-billed customers shall be sent to GSA via Electronic Funds Transfer (EFT). See Section G.5.2 [Associated Government Fee].

Figure C-1. Direct and Centralized Billing



The contractor shall be capable of delivering bills and billing verification data to GSA and the customers electronically for viewing and file transfer using a format and a medium that are acceptable to the government and the contractor.

C.3.5 Training

The contractor shall provide training if specified in the order. Tasks may include courseware development and instructing customer personnel. Training methods may include formal classroom training, interactive video, computer-assisted training, Internet-based training, individual tutoring, and other methods specified in the order. Unless otherwise specified in the order, training shall be completed within five business days after the equipment or service is accepted; and class size for classroom training shall be limited to 20 students.

C.3.6 Inventory Management

The contractor shall establish and maintain an *Inventory File* of equipment and services purchased under a task order. Each record of this file shall include the OEM's name and contact number, maintenance contractor's name and local repair number, the date of acceptance, the date maintenance was performed (if available), a description of the maintenance action (if available), and the date that the warranty ends. In addition, the record shall contain the task order number and CLINs as written in the task order. The customer may task the contractor to store other information in this file.

C.3.7 Codes, Regulations, and Standards

Throughout this Statement of Work (SOW), references are made to codes, regulations, and standards. The contractor shall comply with the latest versions of these codes, regulations, and standards throughout the duration of the contract. If a question arises regarding which codes, regulations, or standards to apply to a particular order, the contractor shall seek clarification from the ordering agency prior to filling the order.

The contractor and all of its personnel and subcontractors shall adhere to applicable standards in Public Law 91-596, 1926.956, 1910.146 Occupational Safety and Health Act (OSHA), Telecommunication Standard 29 Code of Federal Regulations (CFR) 1910.268, the National Electric Code (NEC), (from the National Fire Protection Association NFPA 70), as well as local safety regulations for the site specified in the order. For international orders, the contractor shall adhere to the safety regulations that apply to the area under consideration or that are specified in the order.

Where multiple standards are cited, the order of precedence shall be industry forum specification, IETF, followed by IEEE, followed by ANSI, followed by Telcordia, and followed by International Telecommunications Union Telecommunications Standards Section (ITU-TSS), unless otherwise specified.

C.3.8 Permits and Licenses

Unless otherwise specified in the order, the contractor shall obtain necessary permits and licenses to perform the work specified, including necessary approvals from the building owner or landlord. All work done by the contractor under this contract shall comply with all local codes that are applicable to the area served.