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Mod: AS728 (Verizon) 05/14/14-GS11T08BJD6001

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## J.1 Acronyms

The acronyms or abbreviations used in this Request for Proposals (RFP) are defined in this section. Definitions of many of these terms are provided in Section J.2, Glossary of Terms.

Acronym	Term
AAL	ATM Adaptation Layer
ACO	Administrative Contracting Officer
ACT	Accounting Control Transaction
ADPCM	Adaptive Differential Pulse Code Modulation
ADR	Alternate Dispute Resolution
AHC	Agency Hierarchy Code
ANSI	American National Standards Institute
AQL	Acceptable Quality Level
ARS	Automatic Route Selection
ASCII	American Standard Code of Information Interchange
ASTP	Agency-Specific Transition Plan
ATIS	Alliance for Technology Information Standards
ATM	Asynchronous Transfer Mode
ATMF	Asynchronous Transfer Mode Forum
ATMS	Asynchronous Transfer Mode Service
ATS	Audio teleconferencing Service
AWG	American Wire Gauge
BAC	Billing Account Code
BGP	Border Gateway Routing Protocol
BICSI	Building Industry Consulting Services Institute
BPN	Business Partner Network
BRI	Basic Rate Interface
BSBH	Busy Season Busy Hour
BSS	Business Support Systems
CBR	Constant Bit Rate
CC	Cancellation Charge
CCR	Central Contractor Registration

Acronym	Term
CCSP	Command Communications Survivability Program
CDR	Call Detail Records
CD-ROM	Compact Disc-Read Only Memory
CDVT	Cell Delay Variation Tolerance
Centrex	CENTRAL office EXchange
CFR	Code of Federal Regulations
CIC	Carrier Identification Code
CIR	Committed Information Rate
CJCSI	Chairman of the Joint Chiefs of Staff Instruction
CLASS	Custom Local Area Signaling Services
CLEC	Competitive Local Exchange Carrier
CLIN	Contract Line Item Number
CLS	Cloud Services
CO	Contracting Officer or Central Office
Codec	Coder/DECoder
CompPAS	Comparison of Publicly Available Services
COOP	Continuity of Operations Plan
COR	Contracting Officer's Representative
COS	Class of Service and Continuity of Service
COTR	Contracting Officer's Technical Representative
COTS	Commercial-Off-The-Shelf
CPE	Customer Premises Equipment
CPNI	Customer Proprietary Network Information
CSDS	Circuit Switched Data Services
CSU	Channel Service Unit
CTP	Cutover Test Plan
DAP	Directory Access Protocol
DAR	Designated Agency Representative
DC	Disconnect Charge
DC	District of Columbia
DFS	Dark Fiber Service
DHCP	Dynamic Host Configuration Protocol
DID	Direct Inward Dialing

Acronym	Term
DINS	Deinstallation Charge
DISA	Defense Information Systems Agency
DISN	Defense Information Systems Network
DNS	Domain Name Service
DoD	Department of Defense
DOD	Direct Outward Dialing
DP	Dial Pulse
DS0	Digital Signal Level 0
DS1(2,3)	Digital Signal Level 1 (2, 3) for a digital carrier system
DSN	Defense Switched Network
DSU	Data Set Unit
DTE	Data Terminal Equipment
DTMF	Dual-Tone Multi-Frequency
DTS	Dedicated Transmission Service or Digital Telecommunications System
DUNS	Data Universal Numbering System
DWDM	Dense Wavelength Division Multiplexing
ECSA	Exchange Carrier Standards Association
EDFA	Erbium-doped Fiber Amplifiers
EDI	Electronic Data Interchange
EIA	Electronic Industries Association
EPA	Environmental Protection Agency
ESF	Extended Super Frame Format
ESNet	Energy Sciences Network
EST	Eastern Standard Time
FAR	Federal Acquisition Regulation
FAS	Federal Acquisition Service
FCC	Federal Communications Commission
FDDI	Fiber Distributed Data Interface
FED-STD	Federal Standard
FEMA	Federal Emergency Management Agency
FIPS	Federal Information Processing Standards
FIPS-PUB	FIPS Publication
FLSA	Fair Labor Standards Act

Acronym	Term
FOUO	For Official Use Only
FRAD	Frame Relay Access Device
FRS	Frame Relay Service
FSDP	Fiber Service Delivery Point
FTR	Federal Telecommunications Recommendations
FTS	Federal Technology Service
FY	Fiscal Year
G&A	General and Administrative
GAO	General Accounting Office
Gb/s	Gigabits per second
GDIXC	Government Designated Interexchange Carrier
GDR	GSA Designated Representative
GES	Gigabit Ethernet Service
GFP	Government Furnished Property
GOS	Grade of Service
GSA	General Services Administration
GSII	Government Services Information Infrastructure
GWAC	Government Wide Acquisition Contract
HSSI	High Speed Serial Interface
HTTP	Hypertext Transport Protocol
HUBZONE	Historically Underutilized Business Zone
IAB	Internet Activities Board
IAS	Internet Access Service
ICB	Individual Case Basis
ICEA	Insulated Cable Engineers Association
ID	Identification number
IDDD	International Direct Distance Dialing
IDIQ	Indefinite Delivery, Indefinite Quantity
IEEE	Institute of Electrical and Electronics Engineers
IETF	Internet Engineering Task Force
IMC	Interagency Management Council
IMPAC	International Merchant Purchase Authorization Card
IMUX	Inverse Multiplexer

Acronym	Term
IP	Internet Protocol
IPS	Internet Protocol Internetworking Service
IRS	Internal Revenue Service
ISCP	Integrated Service Control Point
ISDN	Integrated Services Digital Network
ITS	Integrated Technology Service
ITU	International Telecommunications Union
IXC	Inter-eXchange Carrier
JPEG	Joint Photographic Experts Group
Kb/s	Kilobits per second
LAN	Local Area Network
LATA	Local Access and Transport Area
LC	Location Code
LDAP	Lightweight Directory Access Protocol
LEC	Local Exchange Carrier
LNP	Local Number Portability
MAA	Metropolitan Area Acquisition
MAE	Merit Access Exchange
MB	Megabyte
Mb/s	Megabytes per second
MBS	Maximum Burst Size
MDF	Main Distribution Frame
MDG	Minimum Dollar Guarantee
MGCP	Media Gateway Control Protocol
MLPP	Multilevel Precedence and Preemption
MOA	Memorandums of Agreement
Modem	Modulator/demodulator
MPIN	Marketing Partner Identification Number
MPOP	Minimum Point of Presence
MRC	Monthly Recurring Charge
MUX	Multiplexer
N/A	Not Applicable
NA	Not Available

Acronym	Term
NAC	Network Access Charge
NANP	North American Numbering Plan
NBD	Normal Business Day
NCA	Not Commercially Available
NCR	National Capital Region
NCS	National Communications System
NEC	National Electric Code
NFPA	National Fire Protection Association
NISPOM	National Industry Security Program Operating Manual
NIUF	North American ISDN Users Forum
NOC	Network Operations Center
NPA	Numbering Plan Area
NPAC	Number Portability Administration Center
NRSC	Network Reliability Steering Committee
NS/EP	National Security and Emergency Preparedness
NSP	Not Separately Priced
NTMS	National Telecommunications Management Structure
NTSC	National Television Systems Committee
NZDS	Non-zero dispersion shifted
OA&M	Operations, Administration, and Maintenance
OC	Optical Carrier
OCD	Operational Capability Demonstration
ODC	Other Direct Cost
OEM	Original Equipment Manufacturer
ONBD	Outside Normal Business Day
ORCA	Online Representations and Certifications Application
ORM	Optically Remote Module
OSHA	Occupational Safety and Health Administration
OSS	Operational Support Systems
PAL	Phase Alternation by Line
PBS	Public Buildings Service
PBX	Private Branch eXchange
PC	Personal Computer

Acronym	Term
PCB	Polychlorinated Biphenyl
PCO	Procurement Contracting Officer
PCR	Peak Cell Rate
PEC	Program Evaluation Committee
PIC	Pre-subscribed Interexchange Carrier
PICC	Pre-subscribed Interexchange Carrier Charges
PMM	Price Management Mechanism
POP	Point of Presence
POP	Post Office Protocol
PRI	Primary Rate Interface
PSN	Public Switched Network
PSS	Packet Switched Service
PSTN	Public Switched Telephone Network
PTMP	Preliminary Transition Management Plan
PVC	Permanent Virtual Circuit
QoS	Quality of Service
RFC	Request for Comment
RFP	Request for Proposals
RTP	Real-Time Transport Protocol
SBU	Sensitive but Unclassified
SCP	Service Control Points
SCR	Sustained Cell Rate
SDLC	Synchronous Data Link Control
SDP	Service Delivery Point
SDPID	Service Delivery Point Identifier
SDV	Service Disabled Veteran-Owned
SECAM	Système Electronique Couleur Avec Memoire
SF	Standard Form
SIC	Service Initiation Charge or Standard Industry Classification
SIP	SMDS Interface Protocol
SIP	Session Initiation Protocol
SLC	Subscriber Line Charges
SMDI	Station Message Desk Interface

Acronym	Term
SMTP	Simple Mail Transport Protocol
SNA	System Network Architecture
SNAL	Subscriber Network Access Circuit
SNMP	Simple Network Management Protocol
SOA	Semiconductor Optical Amplifiers
SONET	Synchronous Optical NETwork
SPID	Service Profile Identifier and Directory
SQAC	(WITS) System Quality Assurance Center
SS7	Signaling System Number 7
SSA	Source Selection Authority
STP	Signaling Transfer Point
SURVIVIR	Surveillance and Visual (V) Reporting system
SVC	Switched Virtual Circuit
TBD	To Be Determined
TCIF	Telecommunications Industry Forum
TCP	Transmission Control Protocol
TEDC	Total Evaluated Discounted Cost
TESP	Telecommunications Electric Service Priority
TFS	Toll Free Service
TIN	Taxpayer Identification Number
TLS	Transparent LAN Service
TMA	Telecommunications Management Associates
TOPS	Telecommunications Ordering and Pricing System
TS	Teleconferencing Service
TSAA	Terminating Services Access Arrangement
TSP	Telecommunications Service Priority
TSS	Telecommunications Services Sector
U.S.C.	United States Code
UBR	Unspecified Bit Rate
UBS	Unclassified But Sensitive
UL	Underwriters Laboratories
UNI	User-to-Network Interface
US	United States

Acronym	Term
USA	User Security Access
USF	Universal Service Fund
UTP	Unshielded Twisted Pair
V&H	Vertical and Horizontal Coordinates
VBR	Variable Bit Rate
VBR-NRT	Variable Bit Rate Not Real Time
VC	Virtual Circuit
VCC	Virtual Channel Connection
VCI	Virtual Channel Identifier
VDSL	Very-High-Speed Digital Subscriber Loop
VIP	Voice over Internet Protocol (VoIP) Service
VoIP	Voice over Internet Protocol
VPC	Virtual Path Connection
VPI	Virtual Path Identifier
VS	Voice Services
VTS	Video Teleconferencing Service
WACS	Wire and Cabling Service
WITS	Washington Interagency Telecommunications System
WITS2001	Washington Interagency Telecommunications System - 2001
WUF	WITS Ultra call Forwarding
xDSL	(any) Digital Subscriber Line

## J.2 Glossary of Terms

Term	Definition
<b>311 Service</b>	A non-emergency service whereby a caller dials a common telephone number – 311 – for assistance.
<b>911 Service</b>	An emergency reporting system whereby a caller dials a common telephone number – 911 – for all emergency service.
<b>Access circuit</b>	The access facilities provided between the Service Delivery Point (SDP) and the Point of Presence (POP) and/or the Local central office.

<b>Term</b>	<b>Definition</b>
<b>Account code</b>	A code that identifies the caller so that the cost of the call can be billed to the appropriate party.
<b>Additional directory number</b>	A feature that provides multiple numbers within a single, main directory listing.
<b>Administrative Contracting Officer</b>	The Administrative Contracting Officer is responsible for administering the contract after contract award. ACOs include contracting officers from GSA (GSA ACO) and customer agencies (Agency ACO).
<b>Agency</b>	A term used to identify all federal agencies, authorized federal contractors, agency-sponsored universities and laboratories, and, when authorized by law or regulation, state, local, and tribal Governments. See also "customer."
<b>Agency Billing Code</b>	A Government-provided code that identifies a specific billing account for an agency allowed to order WITS 3 services.
<b>Agency Hierarchy Code</b>	A twenty eight digit number that is assigned by the Government to uniquely identify GDIXC billing information.
<b>Alphanumeric</b>	A term pertaining to a character set that contains letters, digits, and sometimes other characters, such as punctuation marks.
<b>Alternate call directory listings</b>	A feature that allows alternate numbers to be indicated under a directory listing.
<b>Analog</b>	In telephone transmission, the signal being transmitted—voice, video, or image—is "similar to" the original. In telecommunications, analog means telephone transmission and/or a switch which is not digital.
<b>Analog data</b>	Data represented by a physical quantity that is considered to be continuously variable and whose magnitude is made directly proportional to the data or to a suitable function of the data.
<b>Associated Government Fee(s)</b>	Fee(s) representing any direct or indirect costs incurred by the Government associated with the WITS2001 program such as, but not limited to, the contract management fee.
<b>Asynchronous transmission</b>	Data transmission in which the instant that each character or block of characters starts is arbitrary.
<b>Authorization Code</b>	A code that, once entered, can permit the user to gain access to a system or service.
<b>Automatic Call Back</b>	Allows a user to place a call back on a busy line. When the called station goes on-hook, the originating station is rung and, when answered, the original call is automatically placed.
<b>Automatic Route Selection (ARS)</b>	A process for routing calls automatically, based on the area code (NPA) and exchange code (NXX) of the called number.
<b>Availability</b>	<p>The proportion of total time that the service was available for use during the reporting period, which is usually one month. For purposes of the contract, the operational availability is defined as follows:</p> $\text{Availability} = \frac{\text{Total Uptime} \times 100}{\text{Total Uptime} + \text{Total Downtime}}$

<b>Term</b>	<b>Definition</b>
	Total uptime is the total amount of time the service is available within the reporting period. Total downtime is the total amount of time that the service is unavailable. Total downtime includes scheduled maintenance downtime if the service is unavailable for use.
<b>b/s</b>	Bits per second
<b>Bandwidth</b>	(a) The bandwidth of a device is the difference between the limiting frequencies within which performance with respect to some characteristic falls. (b) The difference between the limiting frequencies of a continuous frequency band.
<b>Base price</b>	The price for providing service with no features.
<b>Basic capability</b>	A basic capability is a service function that is included in the base price of the service.
<b>Basic rate</b>	The transmission speed supported by the basic interface structure of an ISDN system that is composed of two B (64 kb/s) and one D (16 kb/s) channels, as defined in CCITT I-412.
<b>Billing Account Codes (BAC)</b>	A three-digit number that is assigned by the Government to uniquely identify the agency cost center on the service order and the invoice.
<b>Billing/billed</b>	The process of creating an invoice or a bill.
<b>Binary digit (bit)</b>	The binary notation of either of the characters 0 or 1.
<b>Blocking</b>	The process of denying access to, or use of, a facility, system, or component.
<b>Blocking caller-paid information phone numbers</b>	The capability to block caller-paid calls from a station to an "information" number or Directory Assistance (e.g., 411 or 202-555-1212).
<b>Blocking of selected numbers</b>	The capability to block calls incoming from pre-determined numbers.
<b>Cable</b>	Any communications channel having a bandwidth greater than a voice-grade telecommunications channel.
<b>Call</b>	Any demand to set up a connection. A unit of traffic measurement.
<b>Call blocking</b>	The capability to block unwanted incoming calls based on user-specified numbers.
<b>Call consultation</b>	A feature that allows a user to alternate between a party on hold and an existing conversation.
<b>Call Detail Record (CDR)</b>	A record of certain characteristics of a telephone call, including the time and duration of the call, the called number, the calling number (if available), and the charge.
<b>Call forward - busy line</b>	A feature that permits calls attempting to terminate to a busy station line to be redirected to a predetermined line when the called station is in use.

Term	Definition
<b>Call forward - don't answer</b>	A feature that provides for forwarding of incoming calls to a predetermined line when the called station line does not answer within a prescribed time.
<b>Call forward - variable</b>	A feature that allows a user to choose to reroute incoming calls to another specified telephone number.
<b>Call forwarding - off-net</b>	A feature that allows all calls destined to a station to be routed to another off-net station, designated during activation, regardless of the busy or idle state of the called station. This feature can be activated or canceled by the station user or by the attendant.
<b>Call hold</b>	A feature that allows a station user to "hold" any call in progress by flashing and then dialing a "hold" code, thus freeing the line for the purpose of originating another call or returning to a previously held call.
<b>Call hunting</b>	See hunting.
<b>Call park</b>	The capability to allow a call to be parked at a directory number for retrieval by another line or trunk.
<b>Call pickup</b>	A feature that allows a station user to answer any calls directed to another station line within his own preset pickup group by dialing a pickup code from an idle or busy station. If more than one station line in the pickup group is ringing, the individual call to be answered will be selected by the system.
<b>Call trace</b>	Allows the user on any line to initiate identification of the calling party by dialing a code.
<b>Call transfer</b>	A feature that allows a station user to transfer any call in progress to another station within the same system without the assistance of the attendant.
<b>Call waiting</b>	A feature that allows a call to a busy station line to be held waiting while a tone signal is directed towards the busy station user. (Only the called station user hears this tone.)
<b>Caller ID</b>	A basic capability that provides the calling number to the terminating station.
<b>Caller or calling party</b>	A person, program, or item of equipment that originates a call.
<b>Calling number suppression</b>	A feature that provides the capability to the originating user to block the station number from being passed to the terminating station.
<b>Cancel</b>	A type of service order that removes items from service and terminates billing before the items have been accepted. Compare with "disconnect."
<b>Centrex</b>	A Central Office Exchange - service that provides, from a telephone company central office switch or a functionally equivalent switch that is not part of the network, basic capabilities and features comparable to those of a line or provided by a PBX..
<b>Centrex-like line</b>	A central switched-based service that provides a subscriber with a single, voice-grade telephonic communications channel that is directly connected to a contractor-owned or -leased

Term	Definition
	serving office. A Centrex-like line can be used to place or receive one call at a time.
<b>Channel</b>	(a) A connection between the initiating and terminating nodes of a circuit. (b) A path along which signals can be sent; e.g., data channel, output channel.
<b>Class of Service (COS)</b>	A designation assigned to describe the service treatment and privileges given to a particular terminal.
<b>Clear channel</b>	A full 64 kb/s channel for transferring user information. Signaling is communicated over a separate channel. Contrast with a 56 kb/s channel in which signaling is communicated over the same channel (in-band signaling).
<b>Clear channel capability</b>	A channel able to provide full 64 kb/s for user information transfer.
<b>CLIN</b>	A Contract Line Item Number (CLIN) is a service, feature, or item of equipment for which a price has previously been established in Section B of the contract. Contrast with items priced as "ODCs" or "Other Direct Costs".
<b>Cloud Services</b>	Cloud computing is a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction. This cloud model is composed of five essential characteristics, three service models, and four deployment models. (As Per NIST SP800-145)
<b>Codec</b>	An assembly consisting of a coder and a decoder in the same equipment used to convert analog signals to a digital format for transmission over a digital communication channel and for reconverting the quasi-digital signal to an analog signal. Contrast with modem.
<b>Collocated</b>	In the same room of the same customer location.
<b>Commercially available</b>	See "commercially available telecommunications service." .
<b>Commercially available telecommunications service</b>	The service, or service-related feature, as applied to a telecommunications service in a geographic area, is "commercially available" when it is currently provided by one or more entities who are providers of telecommunications services to one or more other entities, independent from the service provider, for their own legal commercial purposes and is available to the general public."
<b>Committed Information Rate (CIR)</b>	The maximum rate at which the service provider agrees to transfer data during normal network conditions on a cell- or packet-switched circuit.
<b>Compatibility</b>	A property of systems that allows the exchange of necessary information directly and in usable form. Implies use of identical or compatible protocols.
<b>Conference calling</b>	A feature that allows a station user to establish a multiparty conference connection.

Term	Definition
<b>Confidentiality</b>	The concept of holding sensitive data in confidence, limited to an appropriate set of individuals or organizations.
<b>Contracting Officer</b>	The Contracting Officer is responsible for administering the contract. It is a generic term for “Administrative Contracting Officer” and “Procuring Contracting Officer.”
<b>Contracting Officer’s Representative</b>	The Contracting Officer’s Representative is responsible for monitoring compliance with the non-technical aspects of the contract.
<b>Contracting Officer’s Technical Representative</b>	The Contracting Officer’s Technical Representative is responsible for monitoring compliance with the technical aspects of the contract.
<b>Constant Bit Rate</b>	CBR is used to support applications, such as voice and video, where a steady flow of information required because variable delays would negatively impact the information content.
<b>Customer</b>	A term used in this RFP to designate an agency cost center that purchases services or equipment. See also “agency.”
<b>Customer Premises Equipment</b>	Equipment owned, leased, or under the control of the Government and physically located at the Government’s premises.
<b>Cutover</b>	The physical changing of circuits or lines at a telecommunications location from one configuration to another.
<b>Dark Fiber Service (DFS)</b>	DFS is acquired as a facility which will allow the customer to the unconditional right to use of the fiber route, this means capacity such as a fiber pair in a fiber-optic cable, or the entire fiber-optic cable.
<b>Data</b>	The representation of facts, concepts, or instructions in a formalized manner suitable for communication, interpretation, or processing by humans or by automatic means.
<b>Data Call Setup</b>	Provides three methods to set up a data call: 1) data terminal (keyboard) dialing; 2) voice terminal dialing; and 3) dedicated line.
<b>Data line privacy</b>	A feature that protects analog data calls from being interrupted by any of the system’s overriding or ringing features.
<b>Data Terminal Equipment (DTE)</b>	Digital end instruments that convert the user information into data signals for transmission or reconvert the received data signals into user information.
<b>Dedicated Transmission Service (DTS)</b>	The private-line transmission of voice, data, or video signals.
<b>Delay</b>	The interval of time between origination and receipt of a signal.
<b>Demarcation point</b>	The point where the service provider brings in the wiring that connects to the customer’s telecommunications system.
<b>Dense Wavelength Division Multiplexing (DWDM)</b>	A fiber-optic transmission technique that employs light wavelengths to transmit data by parallel-by-bit or serial-by-character.
<b>Designated Agency</b>	The Designated Agency Representative (DAR) will be

Term	Definition
<b>Representative</b>	nominated by their agency, and delegations will be granted by the GSA or agency ACO. The DAR is responsible for ordering services.
<b>Dial pulse</b>	A direct current pulse produced by a telephone instrument interrupting a steady current at a sequence and rate determined by an operator-selected digit and the operating characteristic of the instrument.
<b>Dial Tone Denial</b>	Used in conjunction with Priority Treatment (see Section C.6.1.1), enables critical personnel to make outgoing calls during conditions of severe system overload.
<b>DID/DOD Trunks</b>	Direct Inward Dialing (DID)/Direct Outward Dialing (DOD) trunks connect the customer's CPE with the central office, are associated with a specific block of telephone numbers, and carry the customer's on-net and off-net traffic.
<b>Digit display</b>	A feature that provides the capability of displaying digits at the station.
<b>Digital data</b>	Data represented by discrete values or conditions, as opposed to analog data.
<b>Digital Signal 0 (DS0)</b>	A digital signal rate of 64 kb/s. The worldwide standard speed for digitizing one voice conversation using Pulse Code Modulation (PCM).
<b>Digital Signal 1 (DS1)</b>	A digital signal rate of 1.544 Mb/s.
<b>Digital Signal 3 (DS3)</b>	A digital signal rate of 44.736 Mb/s.
<b>Direct Inward Dialing (DID)</b>	The capability of dialing a call from an external party directly to a station without the assistance of an attendant.
<b>Direct Outward Dialing (DOD)</b>	The capability allowing an internal user to place a call to an outside party without the assistance of an attendant.
<b>Directory Assistance</b>	A service that provides the subscriber with access to commercial Directory Assistance services (e.g., NPA-555-1212).
<b>Disconnect</b>	A type of service order that removes items from service and terminates billing even though the items have been accepted. Compare with "cancel."
<b>Distinctive ringing</b>	A feature providing the capability of distinguishing between internal or DID calls based on the station ringing pattern.
<b>DS0</b>	A North American term for a digital carrier facility that transmits a digital signal at 56 kb/s (in-band signaling) or 64 kb/s (clear channel).
<b>DS1</b>	A North American term for a digital carrier facility that transmits a digital signal at 1.536 megabits per second (Mb/s) information rate. A DS1 trunk can carry 24 DS0 channels.
<b>DS3</b>	A North American term for a digital carrier facility that transmits a digital signal at 43.008 megabits per second (Mb/s) information rate. A DS3 trunk can carry 28 DS1 channels.
<b>Dual service</b>	A feature providing the capability of temporarily terminating

Term	Definition
	calls to a second line as well as to the primary line.
<b>Dual-Tone Multi-Frequency (DTMF) signaling</b>	A telephone signaling method employing standard combinations of two specific voice band frequencies, one from a group of four low frequencies and the other from a group of four higher frequencies.
<b>E&amp;M signaling</b>	An arrangement whereby communication between a portion of a circuit and a separate signaling unit is accomplished over two leads: the "E" (or "Ear") lead which receives open or ground signals from the signaling unit, and the "M" (or "Mouth") lead which transmits battery or ground signals to the signaling units.
<b>Effective Billing Date</b>	The date on which a quoted price becomes effective.
<b>Electronic access</b>	The capability to access information via on-line access (dedicated or dial-up), E-mail, or facsimile.
<b>Electronics Industries Associations (EIA)</b>	A Washington, DC trade organization of manufacturers which sets standards for manufacture of electronics equipment.
<b>Encryption</b>	A process to convert plain text into an unintelligible form by means of a cryptosystem.
<b>End-to-end</b>	Telecommunications service from the originating user's terminal to the destination user's terminal.
<b>Erlang</b>	A measurement of telephone traffic. One Erlang is equal to one full hour of use, or 60x60=3600 seconds of phone conversation. Traffic measured in 100 call seconds (CCS) can be converted into Erlangs by multiplying by 100 and then dividing by 3600.
<b>Erlang B</b>	A probability distribution to estimate the number of telephone trunks needed to carry a given amount of traffic. Erlang B assumes that, when a call arriving at random finds all trunks busy, it is not immediately retried (the blocked calls cleared assumption).
<b>Evaluated for reasonableness</b>	Assessments made on information to ensure that it lies within a certain range and/or conforms with applicable standards
<b>Extended Superframe Format (ESF)</b>	A T1 or DS1 framing standard used in Wide Area Networks (WAN) whereby 24 frames, rather than 12, are grouped together.
<b>Facilities</b>	The transmission, switching, and other network assets used to provide telecommunications services. A facilities-based service provider owns these assets; a reseller does not.
<b>Fair and Reasonable</b>	A transaction that is fair to both parties, considering the agreed-upon conditions, promised quality, and timeliness of contract performance. FAR 15.402(a) requires contracting officers to ensure that supplies and services are purchased under negotiated contracts at fair and reasonable prices
<b>FAS/FTS</b>	The Federal Acquisition Service (formerly known as the Federal Technology Service), administered by the General Services Administration, provides domestic and international telecommunications services to Government agencies.
<b>Feature</b>	A feature is a service function that may be priced separately

Term	Definition
	from the basic price of the service.
<b>Feature Group D</b>	Also referred to as “equal access,” Feature Group D provides trunk-side Local Access and Transport Area (LATA) access, affording call supervision to an Interexchange Carrier and a uniform access code (10XXX).
<b>Federal Communications Commission (FCC)</b>	The FCC is a Federal regulatory agency that was created by the Communications Act of 1934. It regulates the provision of interstate telecommunications services within the United States.
<b>Fiber Distributed Data Interface (FDDI) Network Service (FNS)</b>	A Local Area Network (LAN) service available from the Local Exchange Carrier in several formats, including Ethernet and Token Ring. Access to the LAN is provided through an FDDI interface.
<b>Fiber optics</b>	A technology that uses light as a digital information carrier.
<b>Flexible disconnect, both/either party</b>	The capability to disconnect a call when either or both parties hang up.
Foreign Central Office (FCO)	A service that enables the subscriber to receive dial tone from a central office other than the subscriber's designated central office via a route that is geographically diverse from the route between the subscriber's location and their designated central office.
<b>Foreign Exchange (FX) Service</b>	A service that enables the subscriber to have an NPA-NXX outside the subscriber's serving area.
<b>Four-wire circuit</b>	A transmission circuit that consists of two pairs of two-wire circuits. One pair is used to transmit and the other to receive. A four-wire circuit costs more than a two-wire circuit but provides better reception. All long distance trunks are four-wire circuits. Subscribers can request and pay more to get a four-wire local access connection.
<b>Frame relay</b>	A data communications transmission protocol, similar to packet switching that is optimized for reliable transport facilities (such as fiber optic transport) that transmit at a low bit-error rate.
<b>Full-duplex operation</b>	A mode of operation in which simultaneous communication in both directions may occur between two terminals. Contrast with half duplex or simplex operation in which communications occur in only one direction at a time.
<b>Gateway</b>	A network node in a communication network equipped for interfacing with a network using different protocols.
<b>Gigabit Ethernet Service (GES)</b>	GES is Ethernet running at one thousand million bits per second. “Normal” Ethernet runs at 10 million bits per second, or one hundred million bits per second.
<b>Grade of service (GOS)</b>	The probability of a call being blocked during a call attempt, expressed as a decimal fraction, during the busy hour.
<b>Ground start</b>	A supervisory signal from a terminal to a switch in which one side of the line is temporarily grounded.
<b>Group dialing plan</b>	A feature that provides the capability to customize the dialing

Term	Definition
	plan (e.g., one- or two-digit dialing) for a defined group of stations within the system.
<b>Hard copy</b>	In telecommunications systems, a permanent reproduction of any part of the data transmitted through the system. The reproduction may be generated by equipment such as teletypewriter pages, facsimile pages, or computer printouts.
<b>Hot Line</b>	Provides for the automatic nondial placement of a call to an endpoint when the originator goes off-hook.
<b>Hunting</b>	The capability to route incoming calls through a series of stations. If the first station is busy, the calls will be routed to the second station in the series, and so on.
<b>Identification</b>	The process that enables recognition of an entity by a system, generally by the use of unique machine-readable user names.
<b>Immediate Start</b>	A form of trunk signaling where pulsing is required to be received about 120 milliseconds after receipt of the connected signal.
<b>Implementation</b>	The process of adding new services or changing existing services.
<b>In writing</b>	The term "in writing" refers to a printed, hard-copy form or to a form that is electronically-accessible via on-line messaging and/or a database. Verbal communication alone is not to be considered "in writing."
<b>Integrated Services Digital Network (ISDN)</b>	A network that provides end-to-end digital connectivity to support a wide range of services, including voice and non-voice services, to which users have access by a limited set of standard multipurpose user network interfaces, as defined in the CCITT I series. See Basic Rate and Primary Rate.
<b>Integrity</b>	The assurance that the received data has not been altered in an unauthorized manner from the original transmission.
<b>Intercept</b>	The process by which calls which cannot reach their destination are diverted to a station attendant or a recording.
<b>Intercom</b>	The capability to reach another station within an intercom group by dialing one or two digits.
<b>Interconnection</b>	The linking together of systems, which are not necessarily interoperable.
<b>Interexchange Carrier</b>	Any service provider offering inter-Local Access and Transport Area telecommunications services.
<b>Internetworking</b>	The process of interconnecting a number of individual networks to provide a path from a terminal or a host on one network to a terminal or a host on another network. The networks involved may be of the same type or they may be of different types. However, each network is distinct, with its own addresses, internal protocols, access methods, and administration.
<b>Interoperability</b>	The ability of each service provider to effectively and efficiently transfer all information and control data within its own network and between its network and those of other service providers

Term	Definition
	so that a given service offering operates transparently and without performance degradation for users.
<b>Invoice</b>	A due and payable itemized list of goods and services from a contractor which states quantities, prices, charges, and other supporting data needed to verify these charges.
<b>Invoicing</b>	The process of preparing and forwarding a list of charges to the Government for services rendered by the contractor.
<b>kB</b>	Kilobyte
<b>kb/s</b>	Kilobits per second
<b>kHz</b>	Kilohertz
<b>Kilobyte (kB)</b>	The term designating 1000 bytes.
<b>Last number redial</b>	The capability of redialing the last number dialed by pressing a feature code or button.
<b>Latency</b>	The time it takes information to transit between SDPs, including propagation delay and processing delay (e.g., the time required to establish the route or perform other switching tasks).
<b>Line Hunting</b>	See Hunting.
<b>Link level</b>	The conceptual level of control in data transmission or data processing logic existing in the station that is responsible for maintaining control of the data link.
<b>Local access connection</b>	The service provided from the subscriber's Service Delivery Point (SDP) to the service provider's central office. It also includes any service provided by the contractor's central office as part of the monthly port service.
<b>Local Area Network (LAN)</b>	A data communications system that (a) lies within a limited spatial area, (b) has a specific user group, (c) has a specific topology, and (d) is not part of the Public Switched Network but may be connected to it.
<b>Local service</b>	The telecommunications services rendered within a Local Access and Transport Area (LATA).
<b>Location Code</b>	The Location Code (LC) uniquely identifies a building.
<b>Logon</b>	The procedure that is followed by a user in beginning a period of on-line terminal operation.
<b>Long distance service</b>	The telecommunications services rendered between Local Access and Transport Areas (LATAs).
<b>Loop start</b>	A supervisory signal given by a telephone after the loop path to the central office is completed.
<b>Mandatory Taxes and Surcharges</b>	Taxes (as defined in Section H.16) and surcharges and fees (as defined in Section H.27) that are itemized and separately billed.
<b>Maximum Burst Size</b>	Maximum Burst Size is the maximum number of cells that can be passed to the service provider's network in a single burst at a rate that exceeds the Sustained Cell Rate but does not exceed the Peak Cell Rate assigned to the Variable Bit Rate

Term	Definition
	connection.
<b>Megabyte (MB)</b>	The term for 1,048,576 (2 <sup>20</sup> ) bytes.
<b>Message waiting indication</b>	A visual or aural indication at a station that a message is waiting.
<b>Microwave</b>	A term applied to radio frequency wavelengths less than 30 centimeters long, corresponding to a frequency of one GHz or greater.
<b>Migration</b>	The process of planning for and transferring services from an existing network to another.
<b>Mileage</b>	The distance in miles between the two end points of a circuit.
<b>Minimum Point of Presence (MPOP)</b>	The point, normally at the Main Distribution Frame or MDF of a building, where the Local Exchange Carrier's entrance cable is terminated and cross-connected to the inside wiring that serves the building.
<b>Modem</b>	The acronym for Modulator-DEModulator. Modems are used for converting digital signals into quasi-analog signals for transmission over analog communication channels and for reconvertng the quasi-analog signals into digital signals. Contrast with codec.
<b>Move</b>	A move is a change in the customer's terminal location within the same building.
<b>Multiple Appearance Directory Numbers</b>	A directory number that is assigned more than once to one or more telephone sets.
<b>Multiple Appearance Preselection and Preference</b>	Provides multi-line appearance voice terminal users with options for placing or answering calls on selected appearance.
<b>Multiplexing</b>	The division of a transmission facility into two or more channels by: (1) splitting the frequency band transmitted by the channel into narrower bands, each of which constitutes a distinct channel (frequency-division multiplexing); (2) by allotting this common channel to several different information channels, one at a time (time-division multiplexing); or (3) simultaneously sharing the frequency and time slots using "orthogonal" digital signals (code division multiplexing).
<b>Narrowband</b>	A data stream, as in narrowband data, narrowband switched services, or narrowband signal, whose digital signal representation has an essential spectral content that is limited to that which can be contained within a voice channel of nominal four-kHz bandwidth.
<b>National Security/Emergency Preparedness (NS/EP) requirements</b>	The features, as used in this document, that maintain a state of readiness or respond to and manage an event or crisis (local, national, or international) that causes or could cause injury or harm to the population, damage to or loss of property, or degrade or threaten the security of the United States.
<b>NBD</b>	The Normal Business Day (NBD), is defined in Section B.1.3, to extend from 7 a.m. to 7 p.m. Monday through Friday, excluding Federal holidays.

<b>Term</b>	<b>Definition</b>
<b>Network</b>	An interconnection of three or more communicating entities and three or more nodes.
<b>Network Interface Device (NID)</b>	A physical point of demarcation between the customer's equipment and the network as defined by the FCC and the Public Utility Commission (PUC).
<b>North American Numbering Plan (NANP)</b>	A numbering plan that allows all stations conforming to the 10-digit dialing pattern of the Public Switched Network to be accessed. The pattern is of the form NPA-XXX where NPA equals Numbering Plan Area (Area Code); N = 2-9; P = 0-9; A = 0-9; and X = 0-9.
<b>Not Commercially Available</b>	A service or service-related feature that is not currently provided by one or more telecommunications providers to the general public within the WITS 3 service area. Refer also to the definition of commercially available telecommunications service.
<b>Notice to Commence Work</b>	Time at which the contractor assumes responsibility to provide services under the contract. There may be multiple Notices to Commerce Work depending on the type of service.
<b>NPA-NXX</b>	The NPA is the Numbering Plan Area, also known as the area code, and NXX is the designator for the first three digits of a seven-digit local telephone number, known as the Exchange Code, that identifies the serving central office.
<b>NPA-NXX group</b>	A group of NPA-NXXs that for distance-sensitive billing purposes are at the same location.
<b>NTSC standard</b>	The North American Television Standards Committee standard for the generation, transmission, and reception of television communications where a 525-line picture is the standard vs. the European Phase Alternation Line (PAL) and Systeme Electronique Couleur Avec Memoir (SECAM) systems, which use more lines to form the picture.
<b>Number Portability</b>	A feature enabling the subscriber to keep the same phone number when the telephone service provider changes.
<b>OC-n</b>	Optical Carrier - Type n. For example, OC-1 operates at a line payload rate of 51.840 Mb/s; OC-3 at 155.520 Mb/s; OC-12 at 594.432 Mb/s; and OC-48 at 2.488 Gb/s.
<b>Off-hook time out</b>	The capability of a switch to detect and react to an off-hook condition over a period of time before reception of dialing information or after call disconnect.
<b>Off-net call</b>	A call between two or more stations, at least one of which is connected to an SDP and at least one of which is not.
<b>Off-net location</b>	A location for which services not are being provided to a subscriber.
<b>On-line</b>	The electronic availability on demand from a computer-based system without mounting removable media such as magnetic tape or disks.
<b>On-net call</b>	A call between two or more stations, each of which is connected to a SDP.

Term	Definition
<b>On-net location</b>	A home or office location for which services are being provided to a subscriber.
<b>Operator assistance</b>	The live or mechanical assistance by the service provider's operator center for calls completed or billed.
<b>Operator assistance busy line verification</b>	A feature that allows an operator to determine whether a busy line is in use.
<b>Operator assistance busy line verification with interrupt</b>	A feature that allows an operator to break into an existing conversation and converse with one or both parties.
<b>Optical Carrier</b>	A sinusoidal waveform that operates at optical frequencies and is modulated by voice, video, or data signals.
<b>Optically Remote Module (ORM)</b>	An extension of the host switch that is connected by an optical fiber and replicates the line-control functions of the host switch at a remote location.
<b>Other Direct Costs (ODC)</b>	The costs associated with services that are within the scope of the contract but are not priced under the pricing structures provided in Section B.
<b>Outage</b>	A telecommunication service condition wherein a user is deprived of service because of a malfunction of the communication system.
<b>Outside Normal Business Day (ONBD)</b>	Outside the Normal Business Day (ONBD); as defined in Section B.1.3 to be any time other than the Normal Business Day.
<b>Packet</b>	A grouping of a sequence of binary digits in data communication, including data and control signals that is transmitted and switched as a composite whole. The data control signals, and possibly error control information, are arranged in a specific format. The packet can be of fixed or variable length.
<b>Packet switching</b>	A system in which messages are broken down into smaller units called packets, which are then individually addressed and routed through the network.
<b>Peak Cell Rate</b>	Peak Cell Rate is the highest available rate of information transfer on a Variable Bit Rate connection, and the continuous cell rate allowed for a Constant Bit Rate connection.
<b>Point of Presence (POP)</b>	An Interexchange Carrier's point of interface with a Local Exchange Carrier.
<b>Post dialing delay</b>	The time from the dialing of the last digit to the moment the phone rings at the receiving location.
<b>Price</b>	The charge for the associated price element.
<b>Price element</b>	The service component to be priced. An offeror may propose more than one price element for each service type/price combination. See the list of eligible price elements listed with the associated prices.
<b>Primary directory listing</b>	A listing in the telephone directory published by the dominant Local Exchange Carrier in the customer's exchange area of the

Term	Definition
	station number which is designated as the customer's main billing number. It contains the name of the customer, or the name under which a business is regularly conducted, as well as the address and telephone number of the customer.
<b>Primary rate</b>	The transmission rate supported by the ISDN primary rate interface, defined on CCITT I.412 as 1,536 kb/s and composed of 23 B (64 kb/s) and one D (64 kb/s) channels.
<b>Privacy</b>	A feature that provides the capability for a user to prevent others from entering into a connection on a multi-appearance line.
<b>Private Branch Exchange</b>	Telephone switching equipment that conforms to the Electronics Industries Association (EIA) standards RS-464 and RS-464-1 and meets FCC registration requirements for interconnection to the Public Switched Network.
<b>Procuring Contracting Officer</b>	The Procuring Contracting Officer is responsible for the procurement prior to contract award.
<b>Provisioning</b>	The act of supplying telecommunications service to a user, including all associated transmission, switching, equipment, software, wiring, value-added services, and support systems.
<b>Public Switched Network (PSN)</b>	Any common carrier network that provides circuit switched services to public users.
<b>Redacted</b>	For purposes of this RFP, edited to remove sensitive material from a document that is provided to the public.
<b>Replaced date</b>	The date on which a quoted price is replaced.
<b>Robbed-bit signaling</b>	A DS1 or T1 signaling mechanism. Bit robbing is the technique to steal bits from the speech path for in-band signaling and use the rest of the bits to create the original electrical analog signal; i.e., the original sound.
<b>Robustness</b>	The network shall be "robust;" i.e., in the event of failure of any system or component, the network will continue to function and will process critical calls..
<b>Scalability</b>	The scalability of the network is a measure of the extent to which it can serve traffic volumes far in excess of those projected in the Government's <i>Traffic Model</i> that appears in WITS Hosting Center.
<b>Service Delivery Point (SDP)</b>	The point at which a service is delivered by the contractor to the user. The SDP is the interface point for the physical or logical delivery of a service, is one of the points at which performance parameters are measured to determine compliance with the contract, and the point used by the contractor to identify the charges for services rendered.
<b>Service due date</b>	The date when the contractor commits that the service order will be completed.
<b>Service functionality</b>	A service functionality is a basic capability or a feature.
<b>Service order</b>	The means by which GSA Contracting Officer's Representatives (CORs) and agency CORs order, change, cancel, or disconnect services and equipment.

<b>Term</b>	<b>Definition</b>
<b>Set-up charge</b>	A charge to compensate the contractor for preparations and technical support prior to the start of a scheduled audio or video teleconference.
<b>Shared ISDN PRI D Channel</b>	A PRI configuration in which the D channel is shared (e.g., several PRIs having a 24B+ 0D configuration share a D channel).
<b>Signaling</b>	The information exchange concerning establishment and control of a connection and management of the network, in contrast to user information transfer.
<b>Signaling System Number 7</b>	An out-of-band digital signaling system used by common carriers for call control.
<b>Signaling Transfer Point (STP)</b>	The STP in a common-channel signaling network is a packet switch that provides for the transfer of signaling messages from one signaling link to another.
<b>SONET</b>	A Synchronous Optical Network (SONET) is a fiber optic communication network that transports both asynchronous and synchronous digital signals using the Synchronous Transport Signal (STS) format.
<b>Specification</b>	A document intended primarily for use in a procurement that clearly and accurately describes the essential technical requirements for items, materials, or services, including the procedure by which it will be determined that the requirements have been met.
<b>Speed calling</b>	A feature that allows a station user to reach any of a preselected group of stations by dialing single-digit codes.
<b>Start date</b>	The date on which a quoted price becomes effective.
<b>Station</b>	A data terminal or voice terminal used to access a network.
<b>Station-to-station dialing</b>	A feature that allows a station user to directly dial other stations within the same system without the assistance of the attendant.
<b>Stop date</b>	The date on which a quoted price is no longer effective.
<b>Subscriber</b>	One that uses telecommunications service.
<b>Sustained Cell Rate</b>	Sustained Cell Rate is the maximum rate at which Variable Bit Rate cells may be constantly transmitted with a high assurance that no cells will be lost.
<b>Synchronous transmission</b>	Digital transmission in which the time interval between any two similar significant instants in the overall bit stream is always an integral number of unit intervals.
<b>System Quality Assurance Center (SQAC)</b>	The SQAC, located at the Headquarters of the GSA's National Capital Region, is used by the Government to oversee the WITS contractor's compliance with contractual requirements.
<b>T1</b>	The digital service that provides transmission between two stations at an aggregate data rate of 1.544 Mb/s. Also known as DS1 service.
<b>T3</b>	The digital service that provides transmission between two stations at an aggregate data rate of 44.736 Mb/s. Also

<b>Term</b>	<b>Definition</b>
	known as DS3 service.
<b>Telecommunications</b>	Any process that permits the passage of information from a sender to one or more receivers in any usable form by means of any electromagnetic system.
<b>Teleconferencing</b>	A conference between persons remote from one another but linked by a telecommunications system.
<b>Three-way conference calling</b>	See conference calling.
<b>Tie trunk</b>	A dedicated circuit linking two PBXs.
<b>Total Evaluated Discounted Cost</b>	The Total Evaluated Discounted Cost (TEDC) for an offer represents the present value over the entire contract period (including option years) of all costs to the Government for mandatory voice services, including the cost of basic service, features, and any other costs related to mandatory service requirements. The TEDC will not include the cost of optional or additional services proposed by the offeror.
<b>Traffic</b>	<ol style="list-style-type: none"> <li>1. The information moved over a communications channel.</li> <li>2. A quantitative measurement of the total messages and their length, expressed in calls, Erlangs, one hundred call seconds (CCSs), or other units, during a specified period of time.</li> </ol>
<b>Transition</b>	The process of planning for and transferring services from the WITS2001 service to the WITS 3 service.
<b>Transmission facility</b>	The physical wires, amplifiers, and other equipment used to transmit an electrical signal.
<b>Trouble</b>	Failure of a system or circuit or item of equipment or software to perform to specification.
<b>TSP Level Change</b>	The change from one to another of five Telecommunications Service Priority (TSP) levels.
<b>TSP Provisioning</b>	The priority installation of a new circuit.
<b>TSP Restoration</b>	A term which establishes and maintains a restoration priority for a circuit.
<b>Two-Wire Circuit</b>	A transmission circuit composed of two wires - signal and ground - used to both send and receive information. SVS local access connections are generally two-wire circuits.
<b>Value-Added Service</b>	A service that extends the basic service, such as Video Teleconferencing Service over Asynchronous Transfer Mode Service or Frame Relay Service over Dedicated Transmission Service.
<b>Vanity number</b>	A directory number that can be dialed using a meaningful alphanumeric representation.
<b>Variable Bit Rate</b>	A Variable Bit Rate is a flow of information that is bursty. Used to support applications such as e-mail where a Constant Bit Rate is not required.
<b>Virtual circuit</b>	A communication arrangement in which data from a source user may be passed to a destination user over various real

Term	Definition
	circuit configurations during a single period of communication.
<b>Virtual Local Area Network</b>	An internetworking arrangement in which a logically separate Local Area Network functions as though it were part of the client's Local Area Network.
<b>Voice mail</b>	A voice messaging system.
<b>Voice over Internet Protocol (VoIP)</b>	VoIP refers to voice communications over the public Internet or any packet network employing the TCP/IP protocol suite.
<b>Wink start</b>	A short-duration off-hook signal.
<b>xDSL</b>	A generic name for a Digital Subscriber Line (DSL), a form of transmission over a local access connection whereby the bit rate to the subscriber is much higher than the bit rate from the subscriber. See also ADSL.

### **J.3 WITS Service and Location Information**

The purpose of this section is to identify NPA-NXXs currently served by the WITS program. Additionally, customer location and quantities are provided by service.

For pricing purposes, the WITS 3 service area shall be defined by the NPA-NXXs currently assigned by the North American Numbering Plan Administrator (NANPA).<sup>1</sup>

#### **J.3.1 WITS Numbering Plan Areas (Separately Published)**

A listing of the NPA-NXXs served by WITS is provided in the WITS 3 Hosting Center.

**Table J.3-1. WITS NPA-NXXs (Separately Published)**

**Table J.3-2. Additional WITS NPA-NXXs (Separately Published)**

#### **J.3.2 WITS Location and Quantity Information (Separately Published)**

The current WITS network service requirements are described by location and quantity in the WITS 3 Hosting Center.

### **J.4 Reserved**

### **J.5 Duties and Minimum Qualifications of Contractor's Key Personnel**

This section specifies the duties and minimum qualifications of the contractor's key personnel referenced in Section C.7.1. The Government may waive some of these minimum qualifications on a case-by-case basis if exceptional candidates are proposed. Prior to replacing an individual identified as a key person, the

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<sup>1</sup> NANPA *Local Exchange Routing Guide (LERG)*.

contractor shall obtain the Government's formal approval of the proposed substitute according to Section H.10.2.

### **J.5.1 Program Manager**

**Duties.** Serve as the contractor's interface with the Government's Administrative Contracting Officer (ACO), the Contracting Officer's Representatives (CORs), and other designated personnel. Responsible for all aspects of the development and implementation of assigned project. Takes project from original concept through final implementation. Defines project scope and objectives. Develops detailed work plans, schedules, project estimates, resource plans, and status reports. Conducts project meetings and is responsible for project tracking and analysis. Ensures adherence to quality standards and manages the integration of vendor tasks and tracks and reviews vendor deliverables. Provides technical and analytical guidance to project team. Recommends and takes action to direct the analysis and solutions of problems. Responsible for formulating and enforcing work standards, establishing schedules, reviewing work in progress and managing personnel. Responsible for the overall contract performance. Shall not serve in any other capacity under this contract.

**Qualifications.** A Bachelor's degree in Computer Science, Information Systems, Engineering, or another related scientific or technical discipline, and/or a Master's Degree in Business Administration. This position requires a minimum of 15 years of experience, of which at least six years must be in the telecommunications or data processing industries. Must have a minimum of five years of specialized experience working with voice and data telecommunications service providers and equipment providers and managing the implementation of major telecommunications systems and networks. Must have demonstrated customer interface skills and experience with project tracking systems. Must also have a proven ability to manage multiple, concurrent task orders of this type and complexity and a working knowledge of Internet.

### **J.5.2 Customer Service Manager**

**Duties.** The Customer Service Manager is responsible for managing the Customer Service Center and supervising the Customer Service Representatives, who regularly interact with subscribers. This person and the personnel in the Customer Service Center represent the contractor in responding to subscribers on matters concerning the service quality, service order processing, and trouble reporting. The manager must have a complete understanding of the contractor's operational support processes.

**Qualifications.** A Bachelor's degree from an accredited institution in Business Administration, Engineering, or Computer Science. Must have a minimum of 10 years of progressive voice and data telecommunications experience, of which at least five must be specialized in customer service or service order processing. Two years of additional experience may be substituted for each year of required college education. Must have excellent supervisory and interpersonal skills.

### J.5.3 Contract Manager

**Duties.** Responsible for assisting in the development and preparation of contractual documents for business, government, or third party relationships. Analyzes contracts for accuracy and continuity and reports findings. Assists in negotiating terms and/or conditions with the government regarding WITS 3. Has authority to commit modifications to the contract on contractor's behalf.

**Qualifications.** Bachelor's Degree in accounting, business, finance, law, contracts, economics, industrial marketing, quantitative methods, organization and management or other applicable business disciplines. A minimum of five (5) years experience in procurements, including experience in Federal contract administration. Knowledge of Federal Acquisition Regulations. Must have strong organizational and communication skills.

### J.5.4 Billing Manager

**Duties.** Responsible for the billing and management of all customer accounts. Provides all deliverables associated with the collection of direct bill customer's accounts. Collects and forwards associated government fees on direct bill accounts to the Government. Resolves all customer billing disputes and provides the government all associated credits/debits and details. Provides monthly invoice(s) to the Government.

**Qualifications.** Bachelor's degree in finance and/or accounting. A minimum of five years experience in billing operations.

### J.5.5 Security Manager

**Duties.** Acts as the process owner for all ongoing activities that serves to provide appropriate access to and protect the confidentiality and integrity of customer and business information in compliance with government policies and standards. Serves as an internal information security consultant to the government. Documents internal security policies and procedures, and ensures proper measures are implemented when accessing locations and/or equipment carrying government traffic. Provides oversight to the government with information security clearance on the information security policies and procedures. Performs information security risk assessments and acts as an internal auditor. Reviews all system-related security planning throughout the network and acts as a liaison regarding information systems. Monitors compliance with information security policies and procedures, referring problems to the program manager. Monitors access control to assure appropriate access levels are maintained. Prepares contingency plans.

**Qualifications.** Bachelor's Degree required. Minimum five (5) years experience in systems and networking. Minimum two (2) years of information technology experience in security policies, practices and procedures. Demonstrated experience using security monitoring software, and security management tools.

## **J.6 General Instructions for Formatting Invoice Files**

This attachment defines the record formats that shall be submitted by the contractor to GSA for processing in the TOPS billing system. All records defined are submitted in the same file. The file shall contain all charges for any given account. Multiple files may be submitted based on different billing cycles, however any single customer account shall be complete within a single file. Multiple accounts may be in the same file.

### **J.6.1 Product/Service Categories**

The following are the 3 categories which all products/services will generally fall under. Listed under each category is a list of record types that should be used when submitting invoices for a particular type of product/service. Detail definition and layout of each record type is provided below.

1. Product Only
  - a) 01-General invoice information
  - b) 03-Payments
  - c) 04-Adjustments
  - d) 05-Customer Information
  - e) 06-Service Instance Information
  - f) 07-Recurring Charges
  - g) 08-Non-Recurring Charges
  - h) 12-Messages
  - i) 13-Summary Charges and Taxes
  - j) 99-Trailer
2. Line/Circuit Billing with no Usage
  - a) Same record types, as the Product Only Category, are to be used. However, there would be more Service Instance Information records that capture the line level charges.
3. Line/Circuit Billing with Usage
  - a) In addition to the record types for the Product Only Category, the following record types are also to be used for local and/or long distance usage charges. The usage file is to be submitted separately.
    - i) 02-Taxes for IXCs
    - ii) 09-Usage Charges
    - iii) 10-Tariff Products
    - iv) 11-Other Charges and Credits
    - v) 13-Summary Charges and Taxes

## J.6.2 File and Field Definition Notes

### J.6.2.1 General Notes

1. The delivered file name must include the date and time the invoice was processed and an identifier of the unique process group. A specific means must also be used to define the group of accounts within this file uniformly from month to month.
2. Every record is fixed at 600 characters (bytes) long.
3. All data is ASCII characters with no delimiters between fields.
4. Every record must end with a line feed character.
5. All fields are fixed length as depicted in the following worksheets.
6. Any field without data is space filled.
7. Text fields are left justified and space filled.
8. Numeric fields are left justified and space filled except for rate/currency fields which are right justified and space filled.
9. Price/currency fields are in cents with no commas or periods or other punctuation except for a leading minus sign when appropriate. Data is right adjusted in the field e.g., 100 = \$1.00. Rate fields 07 and 08 are an exception and assume four decimal places e.g., 49100 = \$4.91.
10. Negative values have a negative sign (-) to the left of the number.
11. Each file contains one and only one General Invoice Information record type 01.
12. Payment records with record type 03 apply at the billing account number (BAN) level. There is a 03 record type for each payment received within a billing cycle.

### J.6.2.2 Field Definition Notes

1. Account ID is of the format: NNNNNNNNNN.CCCCC.LLLLL
  - a. NNNNNNNNNN is a contractor account number or BAN. Normally a fictitious 10 digit telephone number. Must be unique for each account.
  - b. CCCCC is an Agency Billing Account Code (BAC) supplied by the Government (5 characters padded to the left with 0's if necessary, it can be alphanumeric)
  - c. LLLLL is a Location Group identifier (5 characters padded to the left with 0's if necessary)
  - d. When not using CCCCC or LLLLL, the accompanying period separator is not used. LLLLL is never used when CCCCC is not used.
2. The Account ID does not use the Location Group ID portion.

3. Date field of the format MMDDYYYY, containing no punctuation/separation characters.
4. Time field of the format HHMM, containing no punctuation/separation characters.

**J.6.3 Record Type Definitions**

**J.6.3.1 Record 01-General Invoice Information**

The following record type is used for the general information of the invoice.

General Invoice Information Record				
	Field	Starting Byte Position	Size (Bytes)	Description
1	Record Type ID	1	2	Hard Coded - '01'
2	Account ID	3	30	Account ID of the BAN or BAC
3	Invoice number	33	10	Invoice number
4	Payment due date	43	8	Payment due date (MMDDYYYY)
5	Statement date	51	8	Statement date (MMDDYYYY)
6	Start date of cycle	59	8	Begin bill period date (MMDDYYYY)
7	End date of cycle	67	8	End bill period date (MMDDYYYY)
8	Total amount due	75	18	Total invoice amount due
9	Contract number	93	24	Contract number
10	Tax Payer ID	117	10	Service Provider Tax Payer ID
11	Filler	127	474	Space Filler

**J.6.3.2 Record 02-IXC Taxes and Additions and Changes to Service**

The following record type lists the IXC Taxes and Additions and Changes to Service, by IXC provider, applied to this invoice. This record type is only present for contracts with usage-related charges.

Taxes and Additional Charges Record				
	Field	Starting Byte Position	Size (Bytes)	Description
1	Record Type ID	1	2	Hard Coded - '02'
2	Carrier	3	30	IXC Carrier
3	Carrier Description	33	80	Description of the carrier charge
4	Carrier Amount	113	18	Carrier charge amount
5	Text Message	131	255	Text message
6	Filler	386	386	Space Filler

### J.6.3.3 Record 03-Payments

The following record type contains the payment transactions for the invoice.

Payments Record				
	Field	Starting Byte Position	Size (Bytes)	Description
1	Record Type ID	1	2	Hard Coded - '03'
2	Payment amount	3	30	Payment Amount
3	Effective date	21	6	Effective date of payment (MMDDYYYY)
4	Payment Description	29	30	Description of payment
5	Check/Service Order Number	59	18	Check Number or Service Order Number when paying with a credit card
6	Credit Card Authorization Code	74	8	Credit Card Authorization Code when paying with a credit card
7	Transaction type	80	10	Type of payment code. <b>See table below</b>
8	Filler	90	381	Space Filler

Transaction Type Code		
Description	Invoice Billing Code	Balance Forward Billing Code
Prompt Pay	-64	N/A
Credit Card Pre-Payment	-63	-1063

Credit Card Orders	-62	-1062
EFT Payment	-61	-1061
Credit Card Payment	-60	-1060
Check Payment	1	-101
Check Prepayment	2	N/A

#### J.6.3.4 Record 04-Adjustments

This record type contains the adjustments made during the billing period.

Adjustments Record				
	Field	Starting Byte Position	Size (Bytes)	Description
1	Record Type ID	1	2	Hard Coded - '04'
2	Account ID	3	30	Account ID of the BAN or BAC
3	Adjustment Type	33	6	An identifier for each type of adjustment. (See table below.)
4	Adjustment Description	39	45	Description of the adjustment
5	Amount of the Adjustment	84	18	Adjustment amount
7	Adjustment Date	102	8	Adjustment date (MMDDYYYY)
8	Filler	110	491	Space Filler

Adjustment Type Identifiers	
Description	Code
AGF Discount	'100' or '500'
Standard Adjustment	'999'
Prompt Pay discount	'2222'

#### J.6.3.5 Record 05-Customer Information

This record type contains the bill information for the BAN or BAC.

Customer Information Record				
	Field	Starting Byte Position	Size (Bytes)	Description
1	Record Type ID	1	2	Hard Coded - '05'
2	Account ID	3	30	Account ID of the BAN or BAC
3	Bill first name	33	28	First Name
4	Bill last name	61	56	Last Name
5	Bill company	117	56	Company name
6	Bill address 1	173	75	Address line 1
7	Bill address 2	248	75	Address line 2
8	Bill address 3	323	75	Address line 3
9	Bill city	398	26	City
10	Bill state	424	28	State
11	Bill zip	452	16	Zip code
12	Location group	468	5	Location group id
13	Filler	473	128	Space Filler

### J.6.3.6 Record 06-Service Instance Information

This record type contains information for the BAC, Working Telephone Number (WTN), or circuit number level.

Service Instance Information Record				
	Field	Starting Byte Position	Size (Bytes)	Description
1	Record Type ID	1	2	Hard Coded - '06'
2	Account ID	3	30	Account ID of the BAN or BAC
3	Service instance identifier	33	30	BAN, BAC, WTN, or circuit
4	Circuit ID	63	24	Circuit ID
5	Service start date	87	8	Begin date of the service (MMDDYYYY)
6	Service Delivery Point	95	30	Service Delivery Point
7	Filler	125	30	Space Filler
8	Filler	155	446	Space Filler

**J.6.3.7 Record 07-Recurring Charges**

This record type provides the means to bill all recurring charges for services and products.

Recurring Charges Record				
	Field	Starting Byte Position	Size (Bytes)	Description
1	Record Type ID	1	2	Hard coded - '07'
2	Account id	3	30	Account ID of the BAN or BAC
3	Service instance identifier	33	30	Telephone number, circuit ID or BAC/Account information for this item.
4	Delivery Order	63	40	Delivery order number
5	Task Order	103	40	Task Order Number
6	Service Order Number & Service Order line number	143	18	Service order number (as identified on the Service Order)
7	Effective Date	161	8	Effective start date of the transaction (MMDDYYYY) (usually, date of installation)
8	CLIN	169	12	CLIN
9	Quantity	181	16	Number of charges (Can be aggregated only if Delivery Order, Task Order and Service Order numbers, Effective Date, CLIN and Action Code are identical)
10	Action Code	197	2	<b>See Action Code Table below</b>
11	Description	199	65	Description of the charge, a clear definition
12	Rate	264	20	Rate of the charge
13	Amount Billed	284	18	Amount billed
14	Service Delivery Point	302	30	Service Delivery Point
15	Filler	332	30	Space Filler
16	Charge Category	362	2	Future use – numeric field
17	Filler	364	237	Space filler

Action Code Table	
Cancellation Charge	CC
Disconnect charge	DC
De-installation	DN
Hard change	HC
Monthly Recurring	RC
Maintenance	MT
Purchase	PN
Installation or Service Initiation	IN
Hourly Rate	HR
Setup Period Charge (NBD)	IS
Additional Period Charge (NBD)	TM
Setup Period charge (ONBD)	IP
Additional Period Charge (ONBD)	TP
Price Per Call, Hour or Minute	NR
Price per Mb/s bandwidth	RB
Price per MB storage	RM
Per Mile recurring charge	RL

### J.6.3.8 Record 08-Non-Recurring Charges

This record type provides the means to bill all non-recurring charges for services and products.

Non-Recurring Charges Record				
	Field	Starting Byte Position	Size (Bytes)	Description
1	Record Type ID	1	2	Hard coded - '08'
2	Account id	3	30	Overall Account ID: See Note 1

Non-Recurring Charges Record				
	Field	Starting Byte Position	Size (Bytes)	Description
3	Service instance identifier	33	30	Telephone number, circuit ID or BAC/Account information for this item.
4	Delivery Order	63	40	Delivery order number
5	Task Order	103	40	Task Order Number
6	Service Order Number & service order line number	143	18	Service order number (as identified on the Service Order)
7	Effective Date	161	8	Effective start date of the transaction or date the charge was incurred (MMDDYYYY)
8	CLIN	169	12	CLIN
9	Quantity	181	16	Number of charges. This field can be number of message units, CSD call counts or similar quantities.
10	Action Code	197	2	Action code (See Action Code Table on Recurring Charges.)
11	Description	199	65	Description of the charge, a clear definition.
12	Rate	264	20	Rate of the charge
13	Amount Billed	284	18	Amount billed
14	Transaction Type	302	3	A code for each type of Non-recurring charge. See Transaction Type Table.
15	Service Delivery Point	305	30	WTN or Circuit specific tracking number
16	Filler	335	30	Space Filler
17	Charge Category	365	2	Future use – numeric number
15	Filler	367	234	Space filler

Transaction Type Table	
Charge Type	Code
Message Units	'2'
Directory Assistance	'4'

Transaction Type Table	
Charge Type	Code
National Directory Assistance	'16'
ISDN Usage	'17'
Base Line Charge	'26'
Directory Assistance Call Complete	'22'
Local Measured	-
Local Message	-
Other Non-recurring charges	'999'

### J.6.3.9 Record 09-Usage Charges

This record type is used for all detail usage information. This record type is only present for contracts with usage-related charges.

Usage Charges Record				
	Data Item	Starting Byte Position	Max Characters	Description
1	Record Type ID	1	2	Hard coded - '09'
2	Account id	3	30	Overall Account ID: See Note 1 and 2.
3	Service instance identifier	33	30	Usually identifies a telephone number or circuit ID.
4	Date and time of call	63	12	Date and time of call (MMDDYYYYhhmm)
	Number called	75	24	Phone number called
4	Location called	99	30	Location called
8	Call Duration	129	10	Call duration in minutes
9	Call charges	139	18	Amount of call
10	Rate Period	157	1	See Rate Period Table
11	Calling Location	158	30	Origination location
12	Origination telephone number	188	24	Calling telephone number or number that incurs the charges
13	Call Type	212	6	See Call type Table
14	Service Provider	218	30	Usually the contractor's name, but may be an IXC or other provider
15	Additional Call Type	248	20	Additional Call Type defines the call type such as 'Collect', 'Direct' or

Usage Charges Record				
	Data Item	Starting Byte Position	Max Characters	Description
				similar other appropriate definition.
16	Extended Description	268	80	Additional Information as necessary
17	State Tax	348	18	Any applicable state taxes
18	Local Tax	366	18	Any applicable local taxes
19	Other line charges/surcharges	384	18	As applicable
20	Module Tax and surcharge	402	18	As applicable
21	County tax	420	18	Any applicable county taxes
22	CLIN	438	12	CLIN number
23	Action Code	450	26	Action code. For IXC calls, this field needs to be hard coded to "NR"
24	Service Delivery Point	452	30	WTN or Circuit specific tracking number
25	Filler	482	30	Space Filler
26	Filler	512	446	Space filler

Rate Period	Description
1	Day
2	Eve
3	Night
4	Carrier Specific
5	Carrier Specific
6	Carrier Specific
7	Regular
8	Discount
9	Economy

Call Type	Charge Description
1	IntraLata/LD Toll call provided by contractor
6	IXC itemized calls (provided by: IXC)

Call Type	Charge Description
7	Calling Card call (provided by: contractor or IXC)
8	Operator Assisted call (provided by: contractor or IXC)
11	Other Usage (provided by: contractor)
23	Operator Busy
24	Operator Interrupt
25	Operator Collect
99	Taxes

### J.6.3.10 Record 10-Tariff Products

The following record type is used to show the detail of USOC and/or POFPOE charges at the BAN, BAC, BAC/LG, WTN or Circuit ID level, if applicable. This record type is only present for contracts with usage-related charges.

Tariff Products Record				
	Field	Starting Byte Position	Size (Bytes)	Description
1	Record Type ID	1	2	Hard coded - '10'
2	Account id	3	30	Account ID of the BAN or BAC
3	Service instance identifier	33	30	Telephone number, circuit ID or BAC/Account information for this item.
4	Quantity	63	80	Quantity
5	Product code	143	5	Non-Contract product code
6	Description	148	80	Charge description
7	Amount	228	18	Amount billed
8	Date	246	8	Transaction date (MMDDYYYY)
9	Order number	254	25	Order number
10	Service Delivery Point	279	30	Service Delivery Point
11	Filler	309	30	Space Filler
12	Filler	339	446	Space Filler

### J.6.3.11 Record 11-Other Charges and Credit

The following record type is used to account for charges not otherwise listed, such as governmental and local regulatory pass through.

Other Charges and Credits Record				
	Field	Starting Byte Position	Size (Bytes)	Description
1	Record Type ID	1	2	Hard Coded - '11'
2	Account ID	3	30	Account ID of the BAN or BAC
3	Service Instance Identifier	33	30	BAN, BAC, BAC/LG, WTN or Circuit id
4	Description	63	80	Description of the charge
5	Amount	143	18	Amount billed
6	Start date	161	8	Start date of charge (MMDDYYYY)
7	End Date	169	8	End date of charge (MMDDYYYY)
8	Order Number	177	25	Order Number
9	Quantity	202	80	Quantity
10	Service Delivery Point	282	30	Service Delivery Point
11	Filler	312	30	Space Filler
12	Filler	342	259	Space Filler

### J.6.3.12 Record 12-Messages

The following record type contains the detail of all the messages that are on the invoice.

Messages Record				
	Field	Starting Byte Position	Size (Bytes)	Description
1	Record Type ID	1	2	Hard Coded - '12'
2	Message ID	3	6	The message identifier for the message text
3	Message Text	9	592	The messages as they appear on the bill for the BAN and BAC level accounts

### J.6.3.13 Record 13-Summary Charges and Taxes

The following table summarizes all charges for each account within this file, including taxes and surcharges.

Summary Charges and Taxes Record				
	Field	Starting Byte Position	Size (Bytes)	Description
1	Record Type ID	1	2	Hard Coded - '13'
2	Account ID	3	30	Account ID of the BAN or BAC
3	Contract Products and Services	33	18	Aggregate amount of Products and Services for this account (Pre-tax)
4	Contract Tax Description	51	30	Description of the Tax
5	Contract Tax Amount	81	18	Contract tax amount
6	Local Tariff Products and Services	99	18	Aggregate amount of Local Tariff Products and Services
7	Number of Message Units	117	18	Total number of message units. Not applicable at BAN level.
8	Number of Directory Assisted Calls	135	18	Total number of directory assisted calls. Not applicable at BAN level.
9	Number of National Directory Assisted Calls	153	18	Total number of national directory assisted calls. Not applicable at BAN level.
10	Local Tariff Tax Description	171	30	Description of the Tax
11	Local Tariff Tax Amount	201	18	Local tariff tax amount
12	Filler	219	382	Space Filler

**J.6.3.14 Record 99-Trailer**

This record type contains a record count of each of the record types in file.

Trailer Record				
	Field	Starting Byte Position	Size (Bytes)	Description
1	Record Type ID	1	2	Hard Coded - '99'
2	Record Type -01 – count	3	18	Count of Record Type 01
3	Record Type -02	21	18	Count of Record Type 01

Trailer Record				
	Field	Starting Byte Position	Size (Bytes)	Description
	- count			
4	Record Type -03 - count	39	18	Count of Record Type 01
5	Record Type -04 - count	57	18	Count of Record Type 01
6	Record Type -05 - count	75	18	Count of Record Type 01
7	Record Type -06 - count	93	18	Count of Record Type 01
8	Record Type -07 - count	111	18	Count of Record Type 01
9	Record Type -08 - count	129	18	Count of Record Type 01
10	Record Type -09 - count	147	18	Count of Record Type 01
11	Record Type -10 - count	165	18	Count of Record Type 01
12	Record Type -11 - count	183	18	Count of Record Type 01
13	Record Type -12 - count	201	18	Count of Record Type 01
14	Record Type -13 - count	219	18	Count of Record Type 01
15	Total Count	237	20	Total count for all the records in the file + 1
16	Filler	257	343	Space Filler

**J.7 Requirements Cross Reference Tables (Separately Published)**

WITS 3 cross reference tables are incorporated within the WITS 3 Hosting Center.

**J.8 Small, Small Disadvantaged, and Women-Owned Small Business Subcontracting Plan Outline**

GENERAL SERVICES ADMINISTRATION (GSA)  
SMALL, SMALL DISADVANTAGED, AND WOMEN-OWNED SMALL BUSINESS  
SUBCONTRACTING PLAN OUTLINE  
(MODEL)

The following outline meets the minimum requirements of 15 U.S.C. Section 637 d(8) and the ended to replace any existing corporate plan which may be more extensive. If assistance is needed to locate small business sources, contact (name of organization and phone number).

Identification Data:

Company Name: \_\_\_\_\_

Address: \_\_\_\_\_

Item/Service: \_\_\_\_\_

1. TYPE OF PLAN: (Check only 1).

INDIVIDUAL PLAN: *In this type of plan all elements are developed specifically for this contract and are applicable for the full term of this contract.*

MASTER PLAN: *In this type of plan, goals are developed for this contract; all other elements are standard. The master plan must be approved once every 3 years. Once incorporated into a contract with specific goals, it is valid for the life of the contract.*

COMMERCIAL PRODUCTS PLAN: *This type of plan is used when the contractor sells large quantities of off-the-shelf commodities to many Government agencies.*

*Plans/goals are negotiated with the initial agency on a company-wide basis rather than for*

*individual contracts. The plan is effective only during year approved. The contractor must*

*provide a copy of the initial agency approval, AND MUST SUBMIT AN ANNUAL SF 295 TO*

*WITH A BREAKOUT OF SUBCONTRACTING PRORATED FOR*

2. GOALS: *State separate dollar and percentage goals for small business, small disadvantaged business, and women-owned small business in the following format.*

A. Estimated dollar value of all planned subcontracting, i.e., to all types of business

concerns under this contract is:

Estimated Dollar Value Of All Planned Subcontracting				
Base	1 <sup>st</sup> Option	2 <sup>nd</sup> Option	3 <sup>rd</sup> Option	4 <sup>th</sup> Option
\$	\$	\$	\$	\$

B. Estimated dollar value and percentage of planned subcontracting with large businesses (all business concerns classified as other than small) is:

Subcontracting To Large Business Concerns				
Base	1 <sup>st</sup> Option	2 <sup>nd</sup> Option	3 <sup>rd</sup> Option	4 <sup>th</sup> Option
\$	\$	\$	\$	\$

%	%	%	%	%
---	---	---	---	---

C. Estimated dollar value and percentage of planned subcontracting to small business concerns is: (Include Small Disadvantaged and Women-owned Small Business)

<b>Subcontracting to Small Business Concerns</b>				
Base	1 <sup>st</sup> Option	2 <sup>nd</sup> Option	3 <sup>rd</sup> Option	4 <sup>th</sup> Option
\$	\$	\$	\$	\$
%	%	%	%	%

D. Estimated dollar value and percentage of planned subcontracting to small disadvantaged business concerns is:

<b>Subcontracting To Small Disadvantaged Business Concerns</b>				
Base	1 <sup>st</sup> Option	2 <sup>nd</sup> Option	3 <sup>rd</sup> Option	4 <sup>th</sup> Option
\$	\$	\$	\$	\$
%	%	%	%	%

E. Estimated dollar value and percentage of planned subcontracting to women-owned small business concerns is:

<b>Subcontracting To Women-Owned Small Business Concerns</b>				
Base	1 <sup>st</sup> Option	2 <sup>nd</sup> Option	3 <sup>rd</sup> Option	4 <sup>th</sup> Option
\$	\$	\$	\$	\$
%	%	%	%	%

F. Products and/or services to be subcontracted under this contract, and the types of businesses supplying them, are: (Check all that apply).

<b>Business Category or Size</b>					
Product Service	Standard Industry Code	Large	Small Business	SDB	WOSB

(Attach additional sheets if necessary.)

F.1 Explain the methods used to develop the subcontracting goals for small, small disadvantaged, and women-owned small business concerns.

F.2 Explain how the product and service areas to be subcontracted were established, how the areas to be subcontracted to small, small disadvantaged and women-owned small businesses were determined.

F.3 How the capabilities of small, small disadvantaged and women-owned small businesses were determined.

F.4 Identify all source lists used in the determination process.

G. Indirect and overhead costs \_ HAVE BEEN or \_ HAVE NOT BEEN included in the dollar and percentage subcontracting goals stated above. (Check 1.)

H. If indirect and overhead costs HAVE BEEN included, explain the method used to determine the proportionate share of such costs to be allocated as subcontracts to small, small disadvantaged and women-owned business concerns.

3. PROGRAM ADMINISTRATOR:

*FAR 19. 704(a)(2) requires information about the company employee who will administer the subcontracting program. Please provide the name, title, address, phone number, position within the corporate structure and the duties of that employee.*

Name:

---

Title:

---

Address:

---

Telephone: \_\_\_\_\_

Position:

---

Duties: The Program Administrator shall have general overall responsibility for the Contractors subcontracting program, i.e., developing, preparing, and executing individual subcontracting plans and monitoring performance relative to this particular plan. These duties included but are not limited to, the following activities.

A. Developing and promoting company/division policy statements that demonstrate the company's/division's support for awarding contracts and subcontracts to small, small disadvantaged, and women-owned small business concerns.

B. Developing and maintaining bidders' lists of small, small disadvantaged, and women-owned small business concerns from all possible sources.

C. Ensuring periodic rotation of potential subcontractors on bidders' lists.

D. Assuring that small, small disadvantaged, and women-owned small businesses are included on the bidders' list for every subcontract solicitation for products and services they are capable of providing.

E. Ensuring that subcontract procurement "packages" are designed to permit the maximum possible participation of small, small disadvantaged, and women-owned small businesses.

F. Reviewing subcontract solicitations to remove statements, clauses, etc., which might tend to restrict or prohibit small, small disadvantaged, and women-owned small business participation.

G. Ensuring that the subcontract bid proposal review board documents its reasons for not selecting any low bids submitted by small, small disadvantaged, and women-owned small business concerns.

H. Overseeing the establishment and maintenance of contract and subcontract award records.

I. Attending or arranging for the attendance of company counselors at Business Opportunity Workshops, Minority Business Enterprise Seminars, Trade Fairs, etc.

J. Directly or indirectly counseling small, small disadvantaged and women-owned small business concerns on subcontracting opportunities and how to prepare bids to the company.

K. Providing notice to subcontractors concerning penalties for misrepresentations of business status as small, small disadvantaged, or women-owned small business for the purpose of obtaining a subcontract that is to be included as part or all of a goal contained in the contractor's subcontracting plan.

L. Conducting or arranging training for purchasing personnel regarding the intent and impact of Section 8(d) of the Small Business Act on purchasing procedures.

M. Developing and maintaining an incentive program for buyers which supports the subcontracting program.

N. Monitoring the company's performance and making any adjustments necessary to achieve the subcontract plan goals.

O. Preparing and submitting timely reports.

P. Coordinating the company's activities during compliance reviews by Federal agencies.

#### 4. EQUITABLE OPPORTUNITY

*FAR 19.704(a)(3) requires a description of the efforts the contractor will make to ensure that small, small disadvantaged, and women-owned small business concerns will have an equitable opportunity to compete for subcontracts. These efforts include, but are not limited to, the following activities:*

A. Outreach efforts to obtain sources:

Contacting minority and small business trade associations

Contacting business development organizations

Requesting sources from the Small Business Administration's Procurement Automated Source System(PASS)

Attending small, minority, and women-owned business procurement conferences and trade fair

B. Internal efforts to guide and encourage purchasing personnel:

Presenting workshops, seminars and training programs

Establishing, maintaining and using small, small disadvantaged and women-owned business source lists, guides and other data for soliciting subcontracts

Monitoring activities to evaluate compliance with the subcontracting plan

C. Additional efforts: (Please describe.)

5. CLAUSE INCLUSION AND FLOW DOWN

*FAR 19.704(a)(4) requires that your company include FAR 52.2198, "Utilization of Small, Small Disadvantaged, Women-owned Small Business Concerns," in all subcontracts that offer further subcontracting opportunities. Your company must require all subcontractors, except small business concerns, that receive subcontracts in excess of \$500,000 (\$1,000,000 for construction) to adopt and comply with a plan similar to the plan required by FAR 52.219-9, "Small, Small Disadvantaged, and Women-Owned Small Business and Business Subcontracting Plan."*

Your company agrees that the clause will be included and that the plans will be reviewed against the minimum requirements for such plans. The acceptability of percentage goals for small, small disadvantaged, and women-owned small business concerns must be determined on a case-by-case basis depending on the supplies and services involved, the availability of potential small, small disadvantaged, and women-owned small business subcontractors and prior experience. Once the plans are negotiated, approved, and implemented, the plans must be monitored through the submission of periodic reports, including Standard Form (SF) 294 and SF 295 reports.

In accordance with policy letters published by the Office of Federal Procurement Policy, such assurance shall describe the offer's procedures for the review, approval and monitoring for compliance with such subcontracting plans.

6. REPORTING AND COOPERATION

*FAR 19.704(a)(5) requires that your company (1) cooperate in any studies or surveys as may be required, (2) submit periodic reports which show compliance with the subcontracting plan; (3) submit Standard Form (SF) 294, "Subcontracting Reports for Individual Contracts," and SF 295, "Summary Subcontract Report," in accordance with the instructions on the forms; and (4) ensure that subcontractors agree to submit SF 294 and SF 295.*

*Both the Director, Office of Small and Disadvantaged Business Utilization and the Small Business Specialist must receive the report(s) within 30 days after the close of each calendar period. That is:*

<u>Calendar Period</u>	<u>Report Due</u>	<u>Date Due</u>	<u>Send Report To</u>
------------------------	-------------------	-----------------	-----------------------

10/01–03/31	SF 294	04/30	Contracting Officer/Small Business Technical Advisor
04/01–09/30	SF 294	10/30	Contracting Officer/Small Business Technical Advisor
10/01–09/30	SF 295	10/30	Director, Office of Small and Disadvantaged Business Utilization

\* SF295 shall also be submitted to the SBA Commercial Market Representative

Small Business Technical Advisor's address is:  (To Be Completed by Contracting Officer)	Director, Office of Small and Disadvantaged Business Utilization address is:  (To Be Completed by Contracting Officer)
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**7. RECORDKEEPING**

*FAR 19.704(a)(6) requires a list of the types of records your company will maintain to demonstrate the procedures adopted to comply with the requirements and goals in the subcontracting plan. these records will include, but not be limited to, the following:*

- A. Small, small disadvantaged, and women-owned small business concern source lists, guides, and other data identifying such vendors.
- B. Organizations contacted for small, small disadvantaged, and women-owned small business sources.
- C. On a contract-by-contract basis, records on all subcontract solicitations over \$100,000 which indicate for each solicitation (1) whether small business concerns were solicited, and if not, why not; (2) whether small disadvantaged business concerns were solicited, and if not, why not; (3) whether women-owned small business concerns were solicited, and if not, why not; and (4) reasons for the failure of solicited small, small disadvantaged, and women-owned small business concerns to receive the subcontract award.
- D. Records to support other outreach efforts, e.g., contacts with minority and small business trade associations, attendance at small, minority, and women-owned small business procurement conference and trade fairs.
- E. Records to support internal activities to (1) guide and encourage purchasing personnel, e.g., workshops, seminars, training programs, incentive awards; and (2) monitor activities to evaluate compliance.
- F. On a contract-by-contract basis, records to support subcontract award data including the name, address and business size of each subcontractor. (This item is not required for company or division-wide commercial product plans).

G. Other records to support your compliance with the subcontracting plan:  
(Please describe)

8. TIMELY PAYMENTS TO SUBCONTRACTORS

*FAR 19.702 requires your company to establish and use procedures to ensure the timely payment of amounts due pursuant to the terms of your subcontracts with small, small disadvantaged, and women-owned small business concerns.*

Your company has established and uses such procedures:

9. DESCRIPTION OF GOOD FAITH EFFORT

*Maximum practicable utilization of small, small disadvantaged, and women-owned small business concerns as subcontractors in Government contracts is a matter of national interest with both social and economic benefits. When a contractor fails to make a good faith effort to comply with a subcontracting plan, these objectives are not achieved, and 15 U.S.C. 637(d)(4J(F) directs that liquidated damages shall be paid by the contractor.*

In order to demonstrate your compliance with a good faith effort to achieve the small, small disadvantaged, and women-owned small business subcontracting goals, outline the steps your company plans to take. These steps will be negotiated with the contracting officer prior to approval of the plan.

The contractor is advised that this subcontracting plan will be made a material part of the contract and that the submission of the SF294 and SF295 will be made a line item deliverable in the contract.

10. SIGNATURES REQUIRED

This subcontracting plan was SUBMITTED by:

Signature: \_\_\_\_\_

Typed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

This subcontracting plan was REVIEWED by:

Signature: \_\_\_\_\_

Title: Small Business Specialist:

Typed Name: \_\_\_\_\_

Date: \_\_\_\_\_

This subcontracting plan was REVIEWED by:

Signature: \_\_\_\_\_

Title: Small Business Administration Representative (PCR)

Typed Name: \_\_\_\_\_

Date: \_\_\_\_\_

This subcontracting plan was CONCURRED by:

Signature: \_\_\_\_\_

Title: Director, Office of Small and Disadvantaged Business Utilization:

Typed Name: \_\_\_\_\_

Date: \_\_\_\_\_

This subcontracting plan was ACCEPTED by:

Signature: \_\_\_\_\_

Title: Contracting Officer:

Typed Name: \_\_\_\_\_

Date: \_\_\_\_\_

### **J.9 SF-294 - Subcontracting Report Form for Individual Contracts**

[Contractor is required to use the Electronic sub-Contracting Reporting System (eSRS) at [www.eSRS.gov](http://www.eSRS.gov).]

### **J.10 SF-295 - Summary Form for Quarterly Subcontract Reports**

[Contractor is required to use the Electronic sub-Contracting Reporting System (eSRS) at [www.eSRS.gov](http://www.eSRS.gov).]

### **J.11 GSA Form 527 - Contractor's Qualifications and Financial Information**

[Upon the offeror's request, the Contracting Officer will supply GSA Form 527 (available at [www.gsa.gov/forms](http://www.gsa.gov/forms)).]

### **J.12 Technical Support Labor Category Descriptions**

The contractor is encouraged to provide technical support services that further enhance the value of its voice and data service offerings. The contractor shall determine which labor categories to provide and shall set the qualifications associated with those labor categories. As guidance, Section C.3.3.3, Technical Support, lists a collection of general labor categories representative of the needs of WITS 3 customers. As further guidance, a description of the duties of each of the labor categories listed in Section C.3.3.3 is provided below.

#### **LAN/WAN Integrator**

Duties: Responsible for overall integration of WITS 3 service delivery arrangements involving LANs and WANs including: the planning, design, installation, maintenance, management and coordination of agency LAN/WAN interfaces with the WITS 3 network (may include local, metropolitan, and wide

area networks). Has responsibility for technical architecture and recommendations related to customer LANs/WANs. Maintains technical currency and studies vendor products to determine those which best meet agency needs. Presents information to management which may result in purchase and installation of hardware, software, and telecommunication equipment. Contributes technically to complex problems in the area of local and wide area networking, communications, and related hardware/software (e.g., bridges, gateways, routers, multiplexers, hubs). Recommends network security procedures and policies. Works with many network topologies and protocols (e.g., IP, MPLS, Frame Relay) as well as with multiple operating system environments (e.g., Desktop, Server, NOS).

### **Senior Database Analyst/Programmer**

Duties: Under general direction, designs, implements, and maintains complex databases, access methods, device allocations, validation checks, organization, protection and security, documentation, guidelines, and statistical methods. Includes maintenance of database dictionaries, overall monitoring of standards and procedures, and integration of systems through database design. Works at the highest level of all phases of database management.

### **Database Analyst/Programmer**

Duties: Under general supervision, design, implement, and maintain moderately complex databases, access methods, device allocations, validation checks, organization, protection and security, documentation, guidelines, and statistical methods. Includes maintenance of database dictionaries and integration of systems through database design. Work will be performed in most phases of database management.

### **Senior Applications Systems Analyst**

Duties: Formulates and defines system scope and objectives. Devises or modifies procedures to solve complex problems involving computer equipment capacity and limitations, operating time, and form of desired results. Prepares detailed specifications from which programs will be written. Analyzes and revise existing system logic difficulties and documentation as necessary. Has full technical knowledge of all phases of applications systems analysis. Also has duties instructing, directing, and checking the work of other systems analysis personnel. Responsible for quality assurance review. Functions as project leader. Communicates with technical and managerial personnel to determine applicable programs, agency plans, and other factors affecting systems design requirements.

### **Applications Systems Analyst**

Duties: Under general direction, formulates and defines system scope and objectives. Devises or modify procedures to solve complex problems involving computer equipment capacity and limitations, operating time, and form of desired results. Prepares detailed specifications from which programs will be written. Analyze and revise existing system logic problems as required and document as

necessary. Works at the highest technical level of all phases of applications systems analysis activities. Works with various telecommunications technologies and computer-based modeling tools.

### **Systems Engineer**

Duties: Performs engineering functions which include studies, analyses, and implementation. Identify, evaluate, and implement information technology to integrate organizations systems and interface with customers and suppliers; enable users to access and manipulate information across a wide variety of technology platforms and organizational boundaries. Evaluates functions from an enterprise and strategic perspective. Designs, implements, and operates network management systems that support telecommunications operations. Works at the corporate level in the development of strategic and enterprise plans.

### **Voice Communications Specialist – Planning and Implementation**

Duties: Ensures that adequate and appropriate planning is provided for hardware and communications facilities. Develops and implement methodologies for analysis, installation and support of voice communications systems. Provides coordination in the analysis, acquisition, and installation of hardware and software. Interfaces with internal/external customers and vendors to determine system needs. Manages the training and activities of a staff responsible for system and network planning and analysis activities. Performs tasks involving billing/chargeback as required.

### **Data Communications Specialist – Planning and Implementation**

Duties: Ensures that adequate and appropriate planning is provided for hardware and communications facilities to develop and implement methodologies for analysis, installation and support of distributed processing systems. Provides coordination in the analysis, acquisition, and installation of hardware, software, and facilities. Manages the training and efforts of a staff engaged in system and network planning, analysis, and monitoring activities.

### **Organizational Development Manager**

Duties: Responsible for assisting agencies in organizing and managing their telecommunications and other related services in a multi-vendor environment. Duties include directing tasks related to organization analysis, performance criteria and measurements, task analysis, and development and presentation of training curricula for large organizations.

### **Organizational Development Specialist**

Duties: Supports tasks related to organization analysis, development of operating procedures, and training. Analyzes organizational functions, develops operating procedures, develops performance criteria and measurements, develops training curricula and conducts training in a telecommunications organization.

### **Communications Analyst**

Duties: Under general direction, assists in the planning, design, and implementation of communications networks. Responsible primarily for the assessment and optimization of network design through review and assessment of user needs, conduct feasibility studies for large projects, develop requests for proposals, evaluate vendor products, and make recommendations on selection. Analyzes traffic flow, client requirements, operating procedures, and traffic study techniques. Performs technical and economic studies of existing telephone systems. Communicates with technical and managerial personnel to determine applicable programs, agency plans, and other factors affecting telecommunications systems design requirements.

### **Senior Communications Analyst**

Duties: This position is similar to a senior telecommunications technician in that the Senior Communications Analyst must be familiar with all aspects of voice and data telecommunications services. This individual will interact with end users and determine the most appropriate way to resolve their telecommunications issues. Specific functions, include processing service requests and inquiries; negotiating service orders, assigning and tracking telephone numbers; verification of programming and cable facilities, building voice mail boxes/application; tracking and preparing billing media, and dispatching technicians. The Senior Communications Analyst will also perform test, analysis, and record-correction functions; prepare cut sheets and floor plans; and provide end user training.

### **Cable Installer**

Duties: Performs installation of telephone, coaxial, and fiber optic cables, including vertical and horizontal cable pairs to the desktop. Locates and diagnoses signal transmission defects using various test equipment and visual inspection. Uses tools and related test equipment, ground power equipment, and pressure equipment. Prepares necessary written reports. Communicates effectively with technical and management personnel, as required.

### **Cable Splicer**

Duties: Performs splicing, inspecting, maintaining, overhauling, repairing, and installing splice cases for telephone, coaxial, fiber optic, and outside plant cable. Locates and diagnoses signal transmission defects using various test equipment and visual inspection. Uses cable splicing and lineman's tools and related test equipment, ground power equipment, and pressure equipment. Communicates effectively with technical and management personnel, as required.

### **Training Specialist**

Duties: Using course material, provides training to customers as specified in the task order. Develops and provide end-user training on voice/data telecommunications services and/or hardware and system operation. Prepares student materials, including handouts, completion certificates, and course critique

forms. Conducts formal classroom courses, workshops, and seminars, as needed.

### **Technical Draftsman**

Duties: Provides drafting support, both manual and computer aided, for other skill categories in documenting current or existing systems, proposed systems, technical job drawings, etc., as required, with an emphasis on telecommunications documentation and outside plant facilities wiring. Communicates effectively in writing and orally with all levels of technical and management personnel

### **Technical Writer/Editor**

Duties: Prepares and edits telecommunications documentation incorporating information provided by the client, specialists, analysts, engineers, and operations personnel. Documentation emphasizes telecommunications and data systems and associated terminology. Duties include the writing, editing, and graphic presentation of technical information for both technical and non-technical personnel. Interprets technical documentation standards and prepares documentation according to defined standards. Communicates effectively in writing and orally with all levels of technical and management personnel, as required.

### **Data Entry Operator**

Duties: Applies experience and judgment in selecting procedures to be followed and in searching for, interpreting, selecting, and coding items to be entered into a machine-readable format from a variety of source documents.

### **Business Operations Manager – Ft. Belvoir, Pentagon**

Duties: On site business manager responsible for overall installation including telecommunications orders, trouble tickets, billing questions, receiving on site spare parts, etc.

### **Telecommunications Technician**

Duties: Monitors vendors' installation of equipment, and performing system testing and evaluation activities. Inspects and review hardware installation, wiring, power, grounding, system database validation, and other activities to ensure quality installation of services for the client. Performs adjunct installation, deinstallation, and relocation activities including, but not limited to, site preparation and installation and/or removal of cabling and wiring systems, terminal equipment, automated data processing services, and associated hardware and software. Tests quality assurance of voice and data switching equipment. Installs and/or maintain LAN/WAN equipment or networks of LANs/WANs. Communicates effectively in writing and verbally with all levels of technical and management personnel, as required. Performs network testing, analysis, and optimization. Applies transmission engineering principles to

existing networks to ensure receipt of quality voice and data telecommunications services.

### **Senior Telecommunications Technician**

Duties: Provides in-depth analysis of trouble conditions and facilitate repair efforts. Works independently or coordinate a team of technicians as necessary. Monitors vendors' installation of equipment, and perform/coordinate system testing and evaluation activities. Inspects and reviews hardware installation, wiring, power, grounding, system database validation, and other activities to ensure quality installation of services for the client. May perform adjunct installation, deinstallation, and relocation activities including, but not limited to, site preparation and installation and/or removal of cabling and wiring systems, terminal equipment, automated data processing services, and associated hardware and software. May be assigned to tasks requiring quality assurance testing of voice and data switching equipment. May install and/or maintain LAN/WAN equipment or networks of LANs/WANs. Is expected to communicate effectively in writing and verbally with all levels of technical, engineering, and management personnel, as required. Coordinates the repair of large or complex troubles. Performs in the area of network testing, analysis, and optimization. Able to apply transmission-engineering principles to existing networks to ensure receipt of quality voice and data telecommunications services

### **Program Manager**

Duties: Responsible for all phases of contract management, work flow, and resource management; and for the quality of the program and deliverables, timeliness, minimization of problems, risk assessment and program performance.

### **Project Manager**

Duties: Overall responsibility for company performance on specific programs or projects. Functions as the leader, manager, and coordinator of all contributing disciplines and resources in the completion of projects or management of the program. Engage in: assigning tasks; establishing and maintaining task schedules; maintaining liaison between appropriate engineering personnel and the customer to ensure effective coordination of all projects or program efforts; preparing and adhering to project cost and staffing plans; preparing plans, proposals, and briefings. Also provide management of contract negotiations and company representation with customers and subcontractors as required.

### **Senior Developer**

Duties: Responsible for the design and engineering of the Web site and be the customer interface for all technical Web development issues.

### **Senior Programmer**

Duties: Perform all advanced programming associated with the development or modification of a Web page and will also be responsible for database development and management (SQL and MS Access) as it applies to the Internet.

### **Applications Project Manager**

Duties: Coordinate all tasks associated with the Web-authoring project and will ensure that all tasks are completed on time and meet the customer requirements.

### **Graphic Designers**

Duties: Efficient in the use of Adobe PhotoShop, Illustrator and various desktop publishing and draw programs. Advanced in the production of animations, both through gifs and Macromedia Flash. Proficient in HTML and optimizing graphic file size for quick download.

### **Mid-Level Developer**

Duties: Customize ASP pages and java scripts, basic level proficiency in graphic design and possess good supervisory and training skills in working with junior developers.

### **Junior Developer**

Duties: The Junior Developer is an entry-level developer who has good overall computer literacy. Junior Developers work under the supervision of the Mid-Level Developer to ensure the quality of their work.

### **Asbestos Hazardous Materials Systems Technician**

Duties: Works on Customer Premises on the customer's side of the Rate Demarcation Point. Performs work in connection with placement, rearrangement, and removal of wire and cable, and associated equipment in or on customers' buildings. In connection with these duties:

- Connects wire and cable to terminals and attaches various kinds of hardware to wires, cables or buildings.
- Performs verification tests for basic line status.
- Erects and removes framework.
- Transports, uncrates and inventories equipment.
- Provides assistance to other personnel as they perform their required tasks.
- State certified.
- Trained and equipped to perform all installation and maintenance in connection with potentially Hazardous Environments, such as working in ceilings with asbestos wrapped pipes or Lead painted walls.
- Equipped with the consumables needed to work in this environment, but are not equipped with vehicles.
- Installs, erects and removes framework, conduit, tubing, core drills and makes penetrations within an environment where he may disturb asbestos containing materials (ACM).

- Performs work including installation, rearrangement, and maintenance for products and services such as copper, fiber optics, broadband video services and CAT 5.

### **Senior Asbestos Hazardous Materials Systems Technician**

Duties: In addition to the duties described in the Asbestos Hazardous Materials Systems Technician Job Description, Senior Asbestos Hazardous Materials Systems Technicians are trained and equipped to perform all activities needed for the installation and maintenance of basic analog and digital services on customer premises or in the Network, with the following exceptions:

- Protocol Analysis of digital facilities.
- Services that require end-to-end measurement and adjustment of transmission levels.
- Multiplexed installation and maintenance, copper or fiber optic based.
- Installation, rearrangement, or maintenance on common equipment associated with key or electronic key equipment.

### **Documentation Specialist**

Duties: Responsible for the creation and maintenance updating of required technical documentation (both hardware and software) and technical training materials. Works with project and staff managers and engineers on content and format of documentation. Works with little guidance. Provides documentation project planning and direction. Reports to Project Manager.

### **Senior Network Systems Engineer**

Duties: Participates in engineering projects and network implementations involving the extension and application of highly advanced engineering and networking principles and concepts. Capable of networking design implementation. Performs work that may include a variety of complex features and requires multi- or interdisciplinary approaches. Conducts advanced and state-of-the-art assignments under general supervision. Provides technical information for, and final technical editing of, all documents and proposals. Provides diagnosis of, and resolution for, complex networking and engineering problems.

### **Senior Applications Systems Engineer**

Duties: Communicates during installation with TIER III and IV engineers and product designers as well as with customers to coordinate administration and troubleshooting of systems being installed. Responsible for test of all installed equipment and is capable of operating and understanding test devices such as frequency and data signal generators, oscilloscopes, transmission measuring equipment, volt-ohm meters. Responsible for documenting installation work activities and coordinating those activities with customers.

- Installs system hardware, maintenance and administration terminals, modems and any associated PC ancillary equipment.
- Connects all equipment requiring power-to-power source provided.
- Runs cables to main distributing frame or cross-connect field. Connect modems for remote access by offsite engineers.
- Assembles and installs specially designed furniture as required to support the application, including but not limited to other adjunct devices such as remote recorders telephone jacks, hand/headsets, clocks, special button strips, radio circuit interface equipment, etc.
- Performs system translations and administrative tasks, coordinating with customers or responsible project managers.
- Tests and troubleshoots using remote engineering support, product developers and designers prior to cutover to ensure equipment and design integrity.
- Provides support during cutover.
- Performs software and hardware upgrades.

### **Engineering Assistant**

Duties: Uses standard design techniques (including computerized tools), planning documents and other records to perform work (other than that of a clerical nature) required to:

- Analyze service and trunk orders.
- Design and lay out trunk and special service circuits (including the calculation of transmission levels and the specification of equipment settings).

Prepares or directs the preparation of Circuit Orders and Circuit Layout Records for field forces. Provides technical consultation with field forces in connection with trunk and special circuit design matters. May use computer terminal to obtain records information. Uses standard design techniques (including computerized tools), planning documents and other records and self-prepared field notes to perform work (other than that of a clerical nature) required to design and prepare complete outside plant engineering work plans and to prepare data (including detail and facing sheets and memoranda) for approval by management in connection with cost estimates for specific estimates and work orders. Negotiates and coordinates on outside plant engineering matters, including rights of way, with field forces, private owners, customers and third party representatives in the building industry, other utilities and government agencies. May use computer terminal to obtain records information.

### **Call Center Project Management**

Duties: Provides project management services to oversee the entire call center implementation.

- Oversees all project tasks
- Provides and maintain a master plan
- Coordinates efforts with customer and vendor project managers and personnel

### **Call Center Field Engineer**

Duties: Installs call center applications, including on-site pre-installation planning; remote pre-installation support (telecommunications service coordination, etc.) onsite support for installation, and on-site support for system cutover, as follows:

- Cut over remote agents and supervisors
- Create or configure new agents, nodes, applications, views and skill groups
- Build or load normal, holiday, or emergency routing
- Add or move agents or major components such as a server, supervisor station, or contact server
- Perform upgrades, moves, changes, and adds
- Create customized reports
- Provide recommendations on back-up procedures

### **Call Center Application Design Engineer**

Duties: Designs, integrates, and supports comprehensive communications solutions featuring voice, data, and mixed-media applications. Documents the requirements and the functional design specification. Defines acceptance criteria for implementation. Develops, tests and installs the solution

### **Wire Technician**

Duties: Performs installation of various telephone, coaxial, and fiber optic cables, which may include vertical and horizontal cables. Performs installation, deinstallation, and relocation activities including but not limited to site preparation and installation and/or remove of cable and wire systems. Performs installation of voice and LAN cabling to meet specific requirements of the manufacturer and BICSI with regard to the requirements of category 5 and 6 voice and LAN cable. Uses complex test equipment to perform quality assurance of voice and LAN wire to meet BICSI specifications. Keeps and provides detailed records and drawings of cable and wiring plants. Communicates effectively in writing and verbally with all levels of technical and management personnel, as required.

### **Repair Service Clerk**

Duties: Under general direction, receives service problems from customers and/or computer systems and then refers them to the appropriate work groups. Analyzes telecommunications troubles, test line conditions and advises

customers of status of the trouble report. Maintains thorough computer systems line records. Interacts with other service centers to resolve troubles. Operates computer terminals and other office machines such duplicating equipment.

### **Voice Mail Administrator**

Duties: Under general direction, receives and processes requests for Octel Voice Mail services. Performs analysis on troubles to accomplish resolution. Maintains database and hardware on the Octel 350 platform systems. Demonstrates good oral communications with the customer and other work groups involved in providing telecommunications services. Maintains thorough computer systems line records. Interacts with other service centers to resolve troubles. Operates computer terminals and other office machines such as duplicating equipment.

### **Voice Mail Clerk**

Duties: Under general direction, receives and processes requests for Octel Voice Mail services. Performs analysis on troubles to accomplish resolution. Demonstrates good oral communications with the customer and other work groups involved in providing telecommunications services. Maintains thorough computer systems line records. Interacts with other service centers to resolve troubles. Operates computer terminals and other office machines such duplicating equipment.

### **Special Clerk**

Duties: Under general direction prepares reports with emphasis on accuracy; analyze and summarize data. Has the experience to operate various office machines such as computer terminals and reproducing machines. Is proficient in the use of Microsoft Word, Microsoft Excel, Microsoft Power Point and other related office suite products. Can communicate with customers and outside business firms to accomplish job tasks.

### **Repair Center Team Leader**

Duties: This is a management supervisory position. The Team Leader is responsible for the "single point of contact" center that receives trouble reports from customers, receives and dispatched orders from the customer and functions as central point for customer issues. The team leader is responsible for the repair clerks, maintenance administrators, voice mail clerks and the voice mail administrator. The team leader may also function as the project manager for customer projects.

### **Central Office Technician**

Duties: Under general direction, monitors, analyzes, and repairs switching related equipment. Assists with or performs system and equipment installations, acceptance testing, and initialization. Extracts routine system and customer reports as required. Maintains accurate and complete records. Performs distribution frame wiring as required. Performs testing, analyzes data, and interprets manuals and wiring diagram to locate and clear trouble conditions in

switching equipment, computer systems, data networks, and associated peripherals. Demonstrates good oral communications with the customer and other work groups involved in providing telecommunications services. Maintains thorough computer systems line records. Interacts with other service centers to resolve troubles. Operates computer terminals and other office machines such as duplicating equipment

### **Storekeeper**

Duties: Under general direction, orders, receives, and takes inventory of supplies, cable, materials, and tools. Selects, addresses (labels), and stages supplies for distribution. Performs general office functions, including verifying shipments for accuracy, documenting discrepancies, and issuing claims. Communicates clearly and effectively with suppliers and customers.

### **Maintenance Administrator**

Duties: Receives trouble reports via computer terminals or directly from customers. Screens and tests customer reported problems to facilitate repair efforts. Contacts customers to negotiate dates and times; accesses arrangements as necessary to facilitate trouble resolution. Maintains customer records, prepares technician dispatch activity logs, functions as the customer's representative to other work groups. Monitors repair and installation workloads to meet commitment times.