



Transport Services Performance Work Statement (PWS)

Table of Contents

1	Introduction	5
1.1	Background	5
1.2	HUD's Current Transport Services Environment	6
1.3	Goals and Objectives	8
1.4	Scope of Services	9
1.4.1	Equivalency Table	9
1.4.2	Networx Universal services.....	9
1.4.3	Service Locations.....	11
1.5	Contract Phases	11
1.5.1	Contract Transition-In	11
1.5.2	Contract - Operations and Maintenance [O&M]	13
1.5.3	Contract - Operational phase.....	14
1.5.4	Contract Transition Out	14
2	Acquisition Selection	14
3	HUDNET Transport Services Contractor Performance Work Statement	14
3.1	Place of Performance	15
3.2	Period of Performance	15
3.3	Requirements.....	15
4	Deliverables	16
4.1	Transport Services.....	16
4.2	Dedicated Network/Contract Program Management Resource Deliverables	23
5	Performance Measures	25
6	Pricing Instructions.....	25
7	Instructions to Contractors	29
7.1	General Instructions.....	29
7.2	Proposal Instructions.....	30
7.2.1	Technical Volume.....	31

7.2.2	PRICE VOLUME.....	33
8	Evaluation Criteria.....	33
8.1	Technical Approach.....	34
8.1.1	Architecture and Design	34
8.1.2	Transition Strategy.....	34
8.2	Management Approach.....	35
8.3	Past Performance.....	36
8.4	Price.....	36
	Appendix A: HUD Specific Requirements.....	38
	General Requirements.....	39
	Transition In.....	44
	Transport Services: Special Requirements.....	50
	Security Services including MTIPS (Managed Trusted Internet Protocol Services).....	50
	Service Planning.....	51
	Service Development and Deployment.....	52
	Service Management.....	53
	Service Level Agreements.....	54
	User Help Documentation.....	54
	Service Operations	56
	Service Operations – Electronic Interface	59
	Serviced Operations – Data Extract.....	60
	Service Operations – Help Desk	61
	Service Delivery.....	62
	Service Assurance	64
	Service Reporting.....	65
	Service Assurance – Continuous Improvement	68
	Network Data Feeds	69
	Optional Requirements	71
	Dedicated Network/Contract Program Management Resource Requirement	72

O&M Contract Phase Requirements – AM ² Transition In Phase	74
O&M Contract Phase Requirements – Cloud Integrator Transition In Phase	74
Transition Out Contract Phase Requirements	74
Future Services	76
Existing Network Engineering Guidelines.....	77
Appendix B: Federal/Agency-wide Laws, Policies, and Standards References.....	78
Appendix C: Acronyms and Abbreviations.....	83
Appendix D: Glossary	86
Appendix E: Video Teleconference Service.....	93
Appendix F: HUDNET Site Attributes	96
Appendix G: References.....	125

1 Introduction

The Department of Housing and Urban Development (HUD) is responsible for national policy and programs that address America's housing needs, improve and develop the nation's communities, and enforce fair housing laws. These statutory responsibilities encompass community planning and development, housing insurance and subsidy programs, fair housing and equal opportunity in HUD-assisted programs, access to housing for people with disabilities, the Government National Mortgage Association guarantee programs, and policy development and research on national housing issues.

1.1 Background

To achieve its mission, HUD has approximately 93 sites that are currently supported by IT infrastructure systems (e.g., LAN/WANs, production and test database environments, personal computers) and services (e.g., Help Desk) provided by the HUD Information Technology Services (HITS) managed services contracts. HITS lifecycle is coming to a close and HUD is planning to re-compete the HUD infrastructure support services. HUDNET is a family of infrastructure service delivery and service management contracts.

This solicitation represents the requirements necessary for transport [Communications and Networks] services delivery support. The Transport Services contract will provide an agency communications and wide area networks services along with a centralized network and management system. The Government envisions that a centralized network, with established Federal and HUD standards and guidelines, will reduce the management burden of the network and will allow for greater interoperability.

The management and maintenance of the HUD infrastructure is crucial to the achievement of HUD business and performance goals and meeting the escalating expectations of business customers and staff for high availability and reliable access to services and applications. The construction, maintenance and support of a highly optimized and reliable network infrastructure are an essential and strategic component to the successful delivery of business value and customer satisfaction. Changing business requirements and customer demands require a diverse set of skills and knowledge including industry-leading expertise in Internet Protocol (IP) communications, network security, mobile and wireless technologies, IP version 6

(IPv6) network management and transition planning, with a focus on translating business and strategic objectives into networking requirements. The network infrastructure operations must work closely with the technology and business stakeholders to create networking capabilities that not only satisfy current needs, but also address future requirements for enhanced business and operational capabilities enabled by IP-based networks.

1.2 HUD's Current Transport Services Environment

HUD's current Transport Services [WAN network] is provided by multi-vendor networks and administered, and managed by two HITS contractors. **Error! Reference source not found.** provides a high level network diagram of HUD's network. The current network consists of a total provisioned bandwidth of 6214 Mbps with connectivity to 93 HUD and HUD business partner sites [See Appendix F for list of sites]. The network and the Customer Premises Equipment [router switches etc.] are not owned by the Government. The current Contractor(s) provide a fully managed network service and support.

Remote access methods (e.g., dial, mobile, IP/VPN) are supported by the current HITS Data Centers contractor and will remain with the HITS Data Centers. The Network Contractor shall provide a network architecture and design that will support the current Remote Access method.

v1.0 12-22-2011



Figure 1: HUD's Current WAN Network

1.3 Goals and Objectives

Transport [Wide area Network infrastructure] services enable HUD to succeed in its overall mission by providing and managing a reliable, available, and technologically current network infrastructure. The Government is interested in achieving the following objectives under the Transport Services:

- Fully Managed Transport Services via Performance Based Contract leveraging GSA Network contract vehicle
- Deliver high availability, reliability, scalability, maintainability, and federally compliant security and practices that are verifiable and compliant with federal requirements
- Achieve high portability and security for mobile computing and remote access
- Advance the capabilities of existing information and network technology infrastructure and services
- Enhance business agility and cost management by creating a stable and scalable network environment
- Improve service through the implementation of a standard service management/delivery framework and associated processes (e.g., ITIL v3).
- Lower operating costs through better asset utilization and increased efficiency
- Transform the network operations environment to current, prevalent industry standards through integration, consolidation, virtualization, automation and convergence
- Provide a flexible portfolio of network infrastructure services based upon business and technical requirements
- Decrease risk through the use of tested industry-standard technologies and intelligent design to secure the network against attacks and malicious intrusions.
- Deploy technologies and tools that simplify network management, end-to-end application performance management, root cause analysis and problem resolution
- Implement industry best practices for network design and deployment methodologies that mitigate the likelihood of disruption to operations
- Implement shared services approach by allowing for common network management tools, as allowed by FISMA moderate security network environment.

This network infrastructure shall provide the following benefits based on deployment of this cohesive infrastructure framework:

- Robust and reliable service availability – increased uptime due to robustness and reliability of a high speed well designed wide area network
- Maximum operating flexibility – operating across standards-based networks allows for easy transition to changing business requirements and emerging technology

- Seamless interoperability – employment of standards-based network infrastructure allows for seamless operations and easier integration of applications across the network infrastructure landscape
- Operational simplification – allows for streamlining network operations and management through remote systems monitoring and restoration management; building and campus customer premise equipment will be operated unattended and restored through remote access by expert technicians distributed throughout the telecommunications infrastructure support center system
- Reduced infrastructure and services cost –Consolidation of transport services under a single contractor will provide cost savings and improve operational efficiency.

1.4 Scope of Services

1.4.1 EQUIVALENCY TABLE

The following table provides an equivalency reference of technical terminology used in this document to the technical terminology in the GSA Networkx Contract

HUD Terminology	GSA Terminology
WAN (Wide Area Network)	Network Based IP VPN (NBIP-VPNS)
MAN (Metropolitan Area Network)	Metro-Ethernet
IXP (Internet Exchange Point)	Peering Point
NTE (Network Terminal Equipment)	SED (Service Enabling Device)
Video Teleconference Service Mobile Equipment Pack (VTS-MEP)	SED (Service Enabling Device) for VTC

1.4.2 NETWORKX UNIVERSAL SERVICES

The Contractor shall provide the following Networkx Universal services in accordance with the identified references from Section C of the Networkx Universal contract. The Contractor shall provide pricing in the format specified in this PWS for services which are currently not on the Networkx contracts and are unpriced, and in the format specified in the Networkx Universal contract for the services already included in the Networkx Universal contract. Here is a list of services to be provided:

1. Dedicated Access Arrangements (C.2.16) – non-ICB CLINs, and ICB CLIN for DS1, DS3 and OC3c, OC12c and OC48c (C.2.16.2) and metro-Ethernet (C.2.16.2)
2. Network-based Internet Protocol – Virtual Private Network Service ((C.2.7.3))
 - Class of Service (CoS)
 - High Availability Options for CPE
 - Internet Gateway Service
 - Interworking Services
 - Key Management
 - Security Services
3. Managed Network Services (C.2.9.1.1)
 - Managed Design and Engineering Services
 - Network Devices
4. Support real-time data feeds that provide the Agency with managed equipment information, security data, and performance data as applicable. (ICB)
5. Managed Trusted Internet Protocol Service – (C.2.4.1.5.)
6. Service Enabling Devices (C.2.1.7) such as routers, media gateways and others, with the exception of Session Border Controllers (SBCs).
7. Training (C.3.7) shall be provided as basic Networkx Universal service as necessary. The Contractor shall not propose additional pricing for these services.
8. Telecommunication Service Priority (C.5.2.4) for services such as NBIP-VPNS on a site by site basis
9. Video Teleconferencing Service (C.2.8.1)
10. Project Management (C.2.9.1)

The Contractor, as part of providing Managed Network Services, shall provide a single point of contact (liaison) to HUD. The primary point of contact shall keep the HUD informed of any potential issues and recommend mitigation strategies.

The Contractor shall perform project management tasks and activities utilizing the PMP-PMBOK (Project Management Professional-Project Management Book of Knowledge) for the tools, methodology and deliverables.

The Contractor shall perform the following, but not inclusive, project management support functions during the Transition-in, Steady-state, and Transition-Out Phases:

- a. Manage all Contractor servicing activities
- b. Provide and maintain Project Schedule
- c. Maintain Action Items, Risk Register, Risk Mitigation and contingency plans
- d. Develop, update and maintain Lifecycle Servicing plans and Transition plans
- e. Provide regular status reports to HUD on the progress of the activities associated with Transition and Lifecycle Management phases
- f. Be staffed during the normal business hours, with personnel reachable at all times throughout the Transition Phases

HUD requirements for network services in future configurations or locations not specified in this PWS shall be considered to be within the scope. Field Office locations may change resulting in a change in service address.

The contractor shall provide all required personnel, management oversight, tools, processes, and other necessary resources to support fully this contract. HUD will coordinate between HUD, HUD 3rd party vendors, and other government agencies.

1.4.3 SERVICE LOCATIONS

The managed, enterprise-wide Transport services to be acquired through this contract shall be made available to all of the HUD's current sites. The sites are classified into the following:

- Data Centers
- HUD Headquarters
- Regional HUD Offices
- HUD Field Office Sites

Appendix F details the sites that are within the scope of this contract. The contractor shall support each HUD Site located in the United States, its territories, or in any international locations, regardless of size or geographic location.

1.5 Contract Phases

During the life of the contract there will be four distinct phases:

1.5.1 CONTRACT TRANSITION-IN

Upon Government approval of the Transition Plan, the Contractor will set up the base transport services based on requirements described in Appendix A. This task

involves the transition of the existing transport service components from existing HITS vendor for all HUD locations specified in Appendix F, meeting the specific mandatory and optional site requirements as noted.

The contractor's approach and execution of this transition will be the most important factor to the Government in evaluating the performance of the Contractor in the base period of this contract. The Government has identified three main features that the Contractor shall provide for transition:

- a) Risk minimization and mitigation;
- b) Continuity of Service;
- c) Strict adherence to the post-award schedule

The transition to the new network will require the contractor to coordinate efforts with HUD and the current network services providers. The overarching objective of this phase is a low risk and low impact (to end-users) transition as the Contractor establishes a network compliant with the requirements of this PWS. The Transition In period will include an overlap period of 30 days in service between the current service and the new service being implemented and tested by the Contractor for all the sites listed in Appendix F. The switch over to the new Contractor's service will happen after acceptance testing and approval by HUD. Contract transition activities will include those activities defined in Appendix A. The circuits provisioned to the existing data centers may be disconnected during the transition of data center contracts to new vendor(s) and new connections may be requested to new data center locations.

1.5.1.1 Transition- In Phase of AM² Service Management Contract

During this transition-in phase of the Automated Monitoring and Management Service Support (AM²) contract the Transport Services contractor shall provide additional services such as providing raw system performance data feeds etc. to the AM² Contractor.

1.5.1.2 Transition-In Phase of Data Center Service Delivery Contract(s)

During the transition-in phase of the Data Center Service Delivery Contract(s), the Transport Services Contractor shall provide network connectivity to the new data

center location. HUD may solicit additional services such as Remote Access, Mobile/Wireless, etc. In addition, HUD may do transport services contract management through a system integrator or through a HUD government representative.

1.5.2 CONTRACT - OPERATIONS AND MAINTENANCE [O&M]

1.5.2.1 Base Contract O&M

This phase consists of the on-going operations and maintenance of the WAN network environment after contract startup and transition activities have been completed. In this phase, the service objectives and requirements as defined in the Appendix A will be used to guide performance and ensure compliance with the agreed upon requirements. SLAs will take effect and on-going performance monitoring will be in place. As part of this phase implementation of an established service management/delivery framework and associated processes shall occur. Additionally, HUD shall have the option to submit service requests for adding services, moving of circuits, disconnect circuits etc.

1.5.2.2 Transition- In Phase of AM² Service Management Contract

During this transition-in phase of the AM² Service Management contract the Transport Services contractor shall provide additional services such as providing raw system performance data feeds etc. to the AM² Contractor.

1.5.2.3 Transition-In Phase of Data Center Service Delivery Contract(s)

During this transition-in phase of the Data Center Service Delivery Contract(s), the Transport Services Contractor shall provide network connectivity to new data center location. In addition, HUD may do transport services contract management with the support of a system integrator or through the Data Center Service Delivery Contractor(s).

HUD shall provide detailed requirements for each of the above mentioned transition in phases at an appropriate time during the acquisition planning stages of each of these contracts. These contracts are planned to be implemented within the FY 2013. The Key requirement shall be the addition/migration of transport

circuits from existing Data Center(s) to Data Center(s) that will be provided by new Data Center Contractor(s).

1.5.3 CONTRACT - OPERATIONAL PHASE

The “Operational Phase” is achieved after all infrastructure support service contracts have been fully implemented. It represents the on-going activities necessary to maintain the transport services and support including planning and implementing capacity increases, site migrations, new site additions, to keep infrastructure current, and monitoring performance.

This phase also provides the on-going operations and maintenance of the complete transport services environment in place after the Data Center and End User service transition activities have been completed. As in the Operations and Maintenance phase, the service objectives and requirements as defined in the PWS will be used during the Operational Phase to guide performance and ensure compliance with the agreed upon requirements. SLAs and on-going performance monitoring will be utilized.

1.5.4 CONTRACT TRANSITION OUT

The contractor shall provide transition phase-out support and various activities to transition support to HUD or a third-party service provider at the end of contract period as defined in the award. Contract phase-out activities will include those activities defined in the Contract Transition-out requirements listed in Appendix A

2 Acquisition Selection

HUD has selected the GSA Networx Universal acquisition program as recommended by OMB and the Federal CIO.

3 HUDNET Transport Services Contractor Performance Work Statement

This Performance Work Statement (PWS) defines the work to be performed by the Transport Services Contractor.

3.1 Place of Performance

Approximately 13,000 HUD staff and contractors are located at 93 sites across the United States. Under this solicitation, Transport Services as outlined in the PWS shall be provided to the locations identified in Appendix F.

3.2 Period of Performance

The period of performance for this contract will be a five (5) year period [1 year base with 4 one year option periods] consistent with the GSA Networx contract.

3.3 Requirements

The contractor shall describe its proposed methodology for delivering end-to-end managed transport services and compliance with security requirements described in Appendix A. The transport services requirements include Core Requirements and Optional Requirements. Optional Requirements are defined for contractors to provide cost estimates. HUD shall decide whether to order the optional services after award selection. Optional requirements shall be priced separately. Existing GSA Networx CLINs shall be used to price the transport services requirements. The contractor shall provide its high-level technical approach and architecture design for its proposed target architecture. Contractors shall provide CLIN based itemized pricing cost information for all designs for HUD's WAN based on sites and specification defined in Appendix F and detailed requirements specified in Appendix A. The contractor shall provide itemized CLIN based pricing for all designs. Contractors are encouraged to provide innovative and cost effective solutions, and to use the existing Networx CLINS to the greatest extent possible.

The Agency specific requirements are presented in tabular form in Appendix A.

Transition-In Period:

The contractor shall coordinate with HUD and the HITS incumbent Contractor(s) to assist in the migration to the new network environment. The Government stipulates the transition be successfully completed, including Pilot Activities and the Test and Acceptance period, within six months from the day the Government places the first order. The contractor shall agree to meet the SLAs for transition as defined in this document.

4 Deliverables

4.1 Transport Services

Under this solicitation, the following deliverables are required:

CRDL #	Description	Schedule	Appendix A Requirements Mapping
001	Daily Infrastructure Report: End of day status report of that day's work, service level issues from all major areas	Daily	TX-STAT-RPT-03 TX-STAT-RPT-07
002	Infrastructure Report: Report on WAN performance [Availability], bandwidth utilization, incident reports, problem trouble calls and resolution reports, MRTG graphs, Router performance reports,), ongoing projects, Security Monitoring Reports, Intrusion/Vulnerability Scan Reports	Weekly, Monthly, Quarterly	TX-STAT-RPT-01 TX-STAT-RPT-02 TX-STAT-RPT-03 TX-STAT-RPT-04 TX-STAT-RPT-05 TX-STAT-RPT-06 TX-STAT-RPT-07 TX-STAT-RPT-08 TX-STAT-RPT-09 TX-STAT-RPT-11 TX-STAT-RPT-12

CRDL #	Description	Schedule	Appendix A Requirements Mapping
003	Network Drawings: Updated total network connectivity drawings in a computerized form that depicts all production, development, and test infrastructure devices to include, at a minimum, circuit, routers, switches, servers, security devices, and appliances.	60 days after award; Monthly updates.	TX-STAT-RPT-11 TX-GEN-24 TX-GEN-01
004	"As-Built" Documentation: "As-built" documentation for all network devices (including firewalls) that are deployed in development, test, Quality Assurance (QA), production or other technical environments	Quarterly	TX-GEN-24 TX-GEN-01 TX-GEN-02
005	Circuit Documentation: Detailed circuit termination information (e.g., circuit ID including LEC access ID, termination, speed); Detailed documentation showing all firewall policy, group, object, etc. information	Quarterly	TX-GEN-01 TX-GEN-24
006	Engineering and Design Documentation - Provide, to HUD and the System Engineering Service Provider, Engineering and Design documents for Service Upgrades, enhancements, new technology adoption etc. that are performed after the transition in phase	As and when requested by HUD	TX-GEN-02 TX-GEN-24 TX-PLN-04

CRDL #	Description	Schedule	Appendix A Requirements Mapping
007	Agency Authorization to Operate Plan that includes but not limited to– Schedule for Final ATO	Within 30 days after contract award notice to proceed or with Final Transition-In Plan	TX-GEN-27 TX-GEN-28
008	Agency Security Tests and Evaluations (ST&E) Plan that must include all required FISMA Security Testing requirements	Within 60 days after task order notice to proceed during Transition-in Phase	TX-ENG-TST-03
009	Contractor Service Continuity of Operations (COOP) Plan	Within 60 days after task order notice to proceed- Updated semi annually	TX-OM-02 TX-PLN-05
010	Contractor Service Disaster Recovery (DR) Plan	Within 30 days after task order notice to proceed- updated semi-annually	TX-OM-02 TX-PLN-05

CRDL #	Description	Schedule	Appendix A Requirements Mapping
011	Agency Program Management (PMP) Plan	30 days ARO	TX-PLN-05 TX-TRN-IN-01 TX-TRN-IN-02 TX-TRN-IN-03 TX-TRN-IN-04 TX-TRN-IN-06 TX-TRN-IN-08
012	Agency Transition Plan	Draft 15 days ARO; updated 45 days ARO	TX-TRN-IN-01 TX-TRN-IN-02 TX-TRN-IN-03 TX-TRN-IN-04 TX-TRN-IN-06 TX-TRN-IN-07 TX-TRN-IN-08 TX-TRN-IN-09 TX-TRN-IN-11 TX-TRN-IN-14

CRDL #	Description	Schedule	Appendix A Requirements Mapping
013	Agency Service Maintenance Plan	With proposal submission-updated within 10 business days of any change	TX-PLN-05
014	Agency Service Acceptance Test Plan	With Final Transition Plan-updated semi-annually	TX-ENG-TST-03
015	Agency Escalation Plan	With proposal submission-updated within ten (10) business days of any change	TX-PLN-05
016	Agency Quality Control Plan	With proposal submission-updated within ten (10) business days of any change	TX-PLN-05
017	SLA Monthly Compliance Report (as specified in Transport Services contract)	Within five (5) business days after the end of the calendar month	TX-STAT-RPT-15

CRDL #	Description	Schedule	Appendix A Requirements Mapping
018	Trouble Management Performance Summary Report (as specified in Transport Services contract)	Within Fifteen (15) business Days after the end of the calendar month.	TX-GEN-21
019	Trouble Management Incident Performance Report (as specified in Transport Services contract)	Within five (5) business days after the end of the Calendar month.	TX-STAT-RPT-06 TX-STAT-RPT-07 TX-STAT-RPT-08 TX-STAT-RPT-09 TX-STAT-RPT-11
020	Order Processing Performance Report (as specified in Transport Services contract)	Within ten(10) business days after the end of the Calendar month.	TX-SVC-DEL-13
021	Service-Specific Performance Reports (as specified in Transport Services contract)	Within ten(10) business days after the end of the calendar month	TX-GEN-21 TX-STAT-RPT-11
022	All Standard Network Performance Reports not specified here-in	Per Transport Services Contract	TX-GEN-21

CRDL #	Description	Schedule	Appendix A Requirements Mapping
023	Prepare an overall summary report on all service requirements specified in the PWS as to whether the requirement has been achieved and correction plan for those that have not been achieved, including all third party independent reviews, etc.	Quarterly	All General Requirements
024	Risk Assessment and Mitigation Plan	During Transition-In Contract Phase and also during circuit migrations during contract period	TX-TRN-MGT-06 TX-STAT-RPT-14
025	Transition-In and Transition-Out Status Reports	Weekly during Transition-in and Transition-Out Phases	TX-TRN-MGT-08
026	Transition-In and New Add/Change network Security Test Reports	During System Testing Period before System Acceptance	TX-STAT-RPT-13 TX-STAT-RPT-14

NOTE: All MTIPS standard and optional reports as specified in the Transport Services contract--- Performance period per Transport Services contract.

4.2 Dedicated Network/Contract Program Management Resource Deliverables

CRDL #	Description	Schedule	Requirements Mapping
Transition-In Phase			
027	Transition-In Plan Progress Report	Weekly	Dedicated Management Requirements
028	Contractors Coordination Meeting Minutes	All Scheduled Meetings Provided within 2 business days after the meeting	Dedicated Management Requirements
029	Create and Maintain Communication Plan to coordinate between Vendor, HUD and Incumbent Transport Services Contractor(s)	15 days after contract start date	TX-DED-MGR-1, TX-DED-MGR-10
030	Add/Change Orders Provisioning SLA Report Review	Monthly	TX-DED-MGR-11
031	Incident/Problem Resolution Process Review	Monthly	TX-DED-MGR-04, TX-DED-MGR-11
XXX	Final ATO package including the Security Assessment Report, HUD Mission Critical Questionnaire, Privacy Impact Assessment, POAMs (if applicable).	120 days after contract start date	TX-GEN-28 TX-TRN-IN-26
Post Transition-In Phase			
032	Add/Change Orders Provisioning SLA Report Review	Monthly	TX-DED-MGR-11

CRDL #	Description	Schedule	Requirements Mapping
033	Provisioning SLA Management Reports	When Add/changes to circuits are requested.	TX-DED-MGR-11
034	Service Order Management Process/Incident/Problem Resolution Process Review	Every 6 months after Transition-In Phase	TX-DED-MGR-03, TX-DED-MGR-10
035	Provide Mean time to Incident/Problem Resolution Reports	Monthly	TX-DED-MGR-04 TX-DED-MGR-11

5 Performance Measures.

Performance and associated service level agreement terms and conditions under the task offeror shall conform, comply, and be administered in accordance with the NETWORX Universal SLA Guide 2.0.

6 Pricing Instructions

This section contains the price schedules for the services, related priced features, and Service Enabling Devices (SEDs) as described in Section 1.0 of this PWS. The Contractor shall propose pricing and associated CLINS required to meet all of the requirements as described in the Technical requirements Appendix A for the service locations described in Section 1.4 and identified in Appendix F. All prices shall conform to the format and structure defined herein. Any equipment, material, facility, site preparation, or service required in the performance of this contract for which a price is not specifically identified in the price tables will be considered to be included in the price of another item or not separately priced. Alternative price proposal may be provided. The Contractor is encouraged to offer price reductions on services which are currently on the Networx contracts and are priced. The Contractor shall propose prices for the entire period of performance of the Networx Universal contract defined in Section 3.2.

The Contractor shall use the Category column in the following Pricing Elements Table to populate the Category column in the Pricing Table

Pricing Elements		
Group	Category	Mandatory Optional
Transport	Bandwidth	M
	Managed Router Service	M
	Port	M
	MAN	M
	TSP	M
	POTS (OOB)	M

	Site Survey	M
	Extended Demarc	M (post award)
	Firewall & IDS Option on Site Router	O
	Backup Circuits	O
	Firewall & IDS Option on Backup Circuits	O
Security	MTIPS	M
Data Feed / Reports	Data Feeds	M
	Custom Reports	O
Video	Video Hardware	O
	Video Service	O
Support	Network Management Services	M
	Training	M
Other	Other: (Define)	

Table: Pricing Elements

The Contractor shall complete the pricing table below.

Base Period:

Category	CLIN	Quantity	Unit of Issuance	Firm-Fixed Price (FFP)	Total FFP

Total FFP for Base Period

\$ Total Base Period

Option Period 1:

Category	CLIN	Quantity	Unit of Issuance	Firm-Fixed Price (FFP)	Total FFP

Total FFP for Option Period 1

\$ Total Option Period 1

Option Period 2:

Category	CLIN	Quantity	Unit of Issuance	Firm-Fixed Price (FFP)	Total FFP

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Total FFP for Option Period 2

\$ Total Option Period 2

Option Period 3:

Category	CLIN	Quantity	Unit of Issuance	Firm-Fixed Price (FFP)	Total FFP

Total FFP for Option Period 3

\$ Total Option Period 3

Option Period 4:

Category	CLIN	Quantity	Unit of Issuance	Firm-Fixed Price (FFP)	Total FFP

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Total FFP for Option Period 4

\$ Total Option Period 4

7 Instructions to Contractors

7.1 General Instructions

1. **Technical and Administrative Questions:** Any assumptions shall be raised as questions. For any assumptions not submitted as questions, the Government's interpretation shall be binding. Further, any assumptions not submitted as questions may be considered a deficiency.

The HUD Contracting Officer (CO) is responsible for providing additional information and responding to inquiries. Technical and Administrative questions shall be submitted by Contractors via email to Jimmy Scott at jimmy.scott@hud.gov and Elvie A. Thompson at Elvie.A.Thompson@hud.gov not later than at 12:00 Noon EST on 7 November 2012. Questions via telephone, fax, or any means other than email shall not be accepted.

2. **Delivery of Proposal:** Proposals submitted in response to this solicitation must be received by **2:00 pm EST on 20 December 2012**. The proposal shall be delivered in two volumes – one for Technical and Management (Technical), and one for Price (Price). The proposal must be delivered as a hard copy of each volume along with an electronic copy on a virus-free CD. The hard copy must be in three-ring binders. Hard copy shall be deemed the "official" copy, and in the case of discrepancies between copies, the hard copy takes precedence.

Proposals received after the time and date specified for receipt will be considered late and may be excluded from further consideration. The outer envelope or wrapping of each offer shall be addressed as shown below.

Department of Housing and Urban Development
Attn: Jimmy Scott, Contracting Officer
451 7th Street SW
Room # 5186
Washington DC 20410

3. **Proposal Preparation Costs:** The Government will not pay any cost for the preparation or submission of a proposal.

4. **Modifications:** HUD reserves the right to amend the terms and conditions of this solicitation at any time prior to the conclusion of discussions. The Contracting Officer will advise Contractors if amendments are required.
5. The Contractor shall submit a formal request to amend its Network Universal contract within 14 calendar days of Task Order award as needed.

7.2 Proposal Instructions

The page count restrictions are listed in the Table below. Within the Technical volume, the Contractor shall describe any exceptions taken to HUD requirements.

The proposal shall be compatible with Microsoft Office 2007. All margins shall be at least one (1) inch. The font face shall be Times New Roman, and the font size shall be 12 point except in graphics. Font for graphics must be legible without magnification.

Proposal Volumes and Page Counts

Volume Number	Proposal Volumes	Maximum Pages	Format
1	Technical	75 pages with additional 15 pages for graphics	1 CDs, 1 bound in three-ring binder
2	Price	No page limit	1 CDs, 1 bound in three-ring binder

Each proposal volume shall include an index/table of contents of that volume's contents that identifies major paragraphs and subparagraphs by number and descriptive title as well as the corresponding page numbers. The table of contents is not included in the page count.

The Technical volume shall include an Executive Summary. The Executive Summary shall present a brief high-level overview of the Contractor's entire proposal, shall not exceed one (1) page, and shall contain no price information.

Each proposal volume shall include an exceptions section that identifies and explains in detail any exceptions, deviations, or conditional assumptions taken with the requirements of this PWS relative to the subject proposal volume. Any exception,

deviations, or conditional assumption must contain sufficient amplification and justification to permit evaluation. All benefits to the Government shall be fully explained for each exception taken. Such exceptions will not, of themselves, automatically cause a proposal to be determined unacceptable for award. A large number of exceptions, or one or more significant exceptions not providing benefit to the Government, may, however, result in rejection of your proposal as unacceptable for award. Should the Government determine an offeror exception is the result of a flaw in the Government's requirement and an amendment to the solicitation is required; the Government reserves the right to amend the solicitation to allow all offerors an opportunity to submit revised proposals based on the revised requirements.

Electronic copies shall use Microsoft Office 2007 files and be provided on CD that is not password protected. The pricing tables and schedules shall be provided in Microsoft Excel 2003.

The page maximums are inclusive of the executive summary, charts, graphs, tables, figures, matrices, acronym lists, etc. Every physical page counts towards the maximum page limitation, except section/tab dividers.

Each page within each volume and section shall be numbered using a consistent numbering scheme. This scheme shall also be used for all supporting documentation such as charts, figures, etc. included in each volume.

Each binder shall contain a cover sheet and spine that cites the Offeror's name, solicitation name and number, volume number, volume title, and if appropriate, the number of binders within the volume, e.g., Binder # of #. Paper size shall be 8 ½ by 11-inch white paper with printing on one side only. Header/footer information (which does not include any information to be evaluated) may be included in the 1" margin space. Fold outs for graphics, spreadsheets and/or organization charts are permissible up to 11" by 17", with printing on only one side, and secured with the volume. Graphics limitations are cited in the table above.

A proposal that fails to show compliance with these instructions may be considered nonresponsive and therefore removed from competition. In order that your technical proposal may be evaluated strictly on the merit of the material submitted, NO PRICE INFORMATION IS TO BE INCLUDED IN THE TECHNICAL VOLUME.

7.2.1 TECHNICAL VOLUME

The Contractor shall prepare its Technical volume to address the requirements specified in this solicitation.

The Technical volume of the proposal shall have the following sections: a) Executive Summary; b) Technical Approach; c) Management Approach; and d) Un-priced Pricing Table that shows CLINs proposed for the services.

The Contractor shall describe in its Technical response its approach to meeting the service, and equipment requirements specified in Section 3 and Appendix A of this solicitation. The Technical response shall specifically address the following:

1. **Technical Approach.** The Contractor shall demonstrate an understanding of HUD service requirements and operating environment as set forth in Section 3 and Appendix A of this solicitation.
 - a. **Architecture and Design** – The Contractor shall describe how it's proposed solution and other appropriate Networkx services will deliver the specified services.
 - b. **Transition Strategy.** The Contractor shall describe how its proposed solution will replace the HUD existing legacy service with no loss of functionality, how its proposed solution will be interoperable with the incumbent contractor's existing solution, and how it will provide appropriate security services and project management throughout the duration of the transition periods.
2. **Past Performance.** The contractor shall address in their proposals how well they performed under relevant contract efforts, and submit up to three (3) relevant past performance references. The contracts or orders referenced may have been with Federal, State, and/or City government agencies and commercial customers. Relevant past performance is defined as work that was the same or similar to the work described in the Statement of Work/PWS with a dollar value between \$25 - \$75 Million over a three (3) to five (5) year period of performance on contracts or orders that expired on or after 08/01/2009.
3. **Management Approach.** The Contractor shall demonstrate its capability to migrate HUD services from the existing configuration to the Contractor's Networkx Universal task order. The Contractor shall propose a schedule for completing the transport services migration focusing on efficiency and minimizing risk to HUD. The schedule shall be included as an attachment. The Contractor shall describe its approach to the project management of the HUD migration, including the project management process, procedures, and tools to be used. The Contractor shall develop an acceptance plan to demonstrate the service is installed properly, and meets the system functions and the performance objectives.

7.2.2 PRICE VOLUME

The Contractor shall price each service requirement.

When adding CLINs to address HUD-specific requirements, the Contractor shall price appropriate requirements using the appropriate tables in Section B, *Pricing*, of the Networx Universal contract for each year of the period of performance.

The Contractor shall enter prices in the format of the price tables defined or referenced in Section 6 of this PWS.

In preparing the Price volume of its proposal, the Contractor shall assume that the locations, services and features will remain constant throughout the period of performance. The Contractor shall provide a listing of any new CLINs proposed, and map these proposed CLINs to the technical requirements in its proposal. The Price volume of the proposal shall include the CLINs, quantities, pricing, extended pricing by year, the total for the entire period of performance, and any discounts offered. Any CLINs or services that are not currently in the Contractor's existing Networx Universal contract shall be identified with an asterisk and annotated as not currently under contract and placed on the list of new CLINs proposed.

8 Evaluation Criteria

The Contractor shall provide a fixed price proposal which includes past performance information, and shall conform to the GSA Networx Universal contract. HUD intends to award a Task Order to the Contractor whose proposal represents the best value to the Government, price and technical factors considered. HUD will consider the following factors [listing in descending order of importance] in its award decision.

1. Technical Approach
2. Past Performance
3. Management Approach
4. Price

Price will be a significant factor in the HUD award decision. The technical approach, past performance, and management approach when combined are more important than price.

The Government intends to award without discussions; however, the Government reserves the right to hold discussions if the Contracting Officer determines them to be in the Government's best interests. Therefore, the Contractor shall present its best offer that clearly meets all of the requirements of the PWS and fully complies with all solicitation requirements.

8.1 Technical Approach

Proposals will be evaluated against the following technical factors to determine compliance with the requirements, and the extent to which the proposal meets or fails to meet the requirements.

8.1.1 ARCHITECTURE AND DESIGN

Architecture and Design is an Element of the Technical Approach factor. The Contractor's architecture and design will be evaluated against the following to determine the extent to which:

1. The Contractor provides a comprehensive technical solution that is reasonable and effective for providing each of the services and features identified in Appendix A and for meeting the associated Performance Measures described in Section 5.
2. The Contractor provides innovative and any alternative approach to providing the services requested in Requirements section.
3. The Contractor's proposed solution meets or exceeds the Capabilities and Network Interface requirements described in Appendix A.
4. The Contractor's proposed solution provides a comprehensive and sound architecture that meets or exceeds the Capacity, Scalability and Expandability and Redundancy and Failover requirements described in Networkx SLA Guide 2.0 and Appendix F.
5. The Contractor's Technical Approach provides an for Security that is compliant with all Federal and HUD policies ; and
6. The Contractor's Technical Approach provides statements or evidence of 508 Compliance.
7. Assess the proposal's compliance with the stated requirements, including the Contractor's proposed solution architecture and functionality, relationship with the relevant OEMs, implementation approach, use of industry-standards and best practices and support for proactive and reactive incident and problem management.
8. Evaluate the Contractor's ability to support all of the HUD locations identified in this PWS.

8.1.2 TRANSITION STRATEGY

Transition Strategy is an element of the Technical Approach factor. The Contractor's Transition Strategy will be evaluated against the following:

1. The Contractor provides a comprehensive strategy that is reasonable and effective for providing each of the services and features identified in Section 1.4,

the requirements identified in Appendix A and for meeting the associated Performance Metrics described in Section 5 throughout the transition phase.

2. The Contractor provides innovative and any alternative approach to providing the transition services as requested in Section 1.5.
3. The Contractor's proposed solution provides a comprehensive and sound architecture that will ensure a successful transition from the existing provider with no loss of functionality.
4. The Contractor provides a plan for how they will manage the communication and coordination with the existing provider during the transition.
5. The Contractor's Transition Strategy provides a reasonable and effective approach for Security throughout the transition phases.
6. The Contractor's Transition Strategy will be evaluated to determine the extent to which it demonstrates sound business and technical processes that mitigates risk, and will provide a network design to replace the existing HUD transport services with no loss of functionality during transition.
7. How the Contractor will meet the requirements specified in Appendix A and the SLAs defined in Section 5 and specified in Appendix F throughout the transition.
8. How the proposed solution will be interoperable with the incumbent contractor's existing solution, and
9. How it will provide appropriate security services and project management throughout the duration of the transition.

8.2 Management Approach

The Contractor's Management Approach will be evaluated to determine the extent to which it demonstrates a comprehensive, sound, and reasonable approach to managing the solution implementation and transition.

The Government will evaluate the Contractor's Management Approach to determine whether it presents an effective means of control and oversight of the Contractor's and subcontractors' actions during the performance of the contract. The Contractor's Management Approach should demonstrate the Contractor's approach to manage the day-to-day project management operations, the required communications with the Government, the delivery of documents and plans required by the program and the Contractor's ability to maintain the security of the implemented solution.

Additionally, the following elements will be evaluated:

1. The Contractor's Management Approach demonstrates a reasonable and effective approach for Implementation and Transition;

2. The Contractor's Management Approach demonstrates a reasonable and effective approach for providing all of the required documentation and deliverables described in Section 4; and
3. The Contractor's proposal demonstrates a reasonable and effective approach to performing all of the Project Management tasks and activities in Section 1.4.2, and to meeting all of the Capacity Planning and Management requirements in Appendix A.

8.3 Past Performance

The Past Performance factor will be evaluated based upon the degree to which the offeror's:

1. Past performance reflects performance of projects similar in size, scope, and complexity to the requirements contained in the solicitation.
2. Past performance demonstrates the degree to which the offeror's role and responsibilities on prior contracts is similar in size, scope and complexity to the requirements contained in the solicitation.
3. Past performance reflects the offeror's description of innovations used and/or awards received that are directly attributable to the offeror's performance and applicable to the effort described in the solicitation.

The Government may use information obtained from other methods, e.g., CPARS or PPIRS, to evaluate Past Performance to add confidence to the Past Performance rating.

8.4 Price

While technical factors are more important than price, price remains a significant factor in the award decision. Contractors shall propose fixed unit prices that comply with the instructions of the PWS. For purposes of an award decision, the total evaluated price as set forth in the proposal instructions will be evaluated. Prices for all contract years are required.

The price evaluation of each proposal will take into account the Contractor's submitted Price Evaluation Model (bid model) and the Section 6 price tables. The Government will evaluate offers for award purposes by evaluating the prices in the Price Evaluation Model for the basic period of performance as well as all options. Evaluation of option years will not obligate the Government to exercise the option years. Offers containing any charges for failure to exercise any option year will be rejected. An offer that is

materially unbalanced as defined in FAR Part 15.404-1(g) may be rejected as being unacceptable. Funds will be obligated by the Government on the basis of Task Orders.

Appendix A: HUD Specific Requirements

The following section describes specific requirements in tabular form with HUD requirements numbers (REQ #). The requirements are organized in the following areas:

- General Requirements
- Transition In: Planning and Management Transport Services Requirements: Circuits to HUD Sites based on bandwidth specified in Appendix F.
- Security Services
- Service Planning
- Service Development and Deployment
- Service Management & Reporting
- Service Operations
- Service Assurance
- Transition Out

Note: The above categorization of requirements under Service Planning, Service Development and Deployment, Service Management, Service Operations, Service Assurance is based on ITIL v3.

General Requirements

This section describes the general requirements for Transport Services Contract.

<i>General REQ #</i>	<i>Description</i>
TX-GEN-01	<p>The contractor shall provide all HUD specific Network Inventory Data from contract approval to current dates electronically in a logical data structure to HUD within (30 days <Telecom Best Practice>) of a HUD request. HUD will restrict such requests to a maximum of (4 times per year <Telecom Best Practice>).</p> <p>Inventory Data contains but is not limited to: formal documentation, communications, IP addresses, network and site routers configurations, site attributes, site bandwidth, site bandwidth capacity utilization, intra wide area network traffic by site, internet connectivity traffic, circuit identifiers and bandwidth, exchange access circuit identifiers, diversity DLR, events failure, key service delivery fields, trouble reports, statistics, lists of federal and commercial business partners and related data sets including Federally mandated security reporting requirements etc. . The contractor shall provide these data/reports in addition to real-time data feeds on network performance, security monitoring, and service enable devices monitoring.</p>
TX-GEN-02	The contractor shall create and maintain the network inventory data and artifacts for the contract period unless notified by HUD
TX-GEN-03	The contractor shall map requirements specified in this document to existing GSA Network CLINs.
TX-GEN-04	The contractor shall provide performance-based, fixed-priced, secure, highly reliable, and available network infrastructure services that meet or exceed HUD customer requirements as defined in this PWS.
TX-GEN-05	The contractor shall operate within appropriate and effective financial and non-financial incentives to ensure that the interests, motivations, and behavior of the contractor are aligned with HUD's mission performance. Refer to performance requirements in this document.

<i>General REQ #</i>	<i>Description</i>
TX-GEN-06	The contractor shall continuously review, analyze, and take proactive measures with HUD approval to ensure that the HUD network infrastructure stays current with technological advances in the industry, while validating that network infrastructure investments are aligned with the HUD Strategic Plan, Enterprise Architecture and HUD mission objectives.
TX-GEN-07	The contractor shall use the service through the implementation of a standard service management/delivery framework and associated processes (e.g., ITIL v3,).
TX-GEN-08	The contractor shall implement a target architecture solution to upgrade, modernize, and bring the WAN network infrastructure to a state of maturity and technological advancement that achieves standardization of the environment in-line with HUD strategic plans mission objectives.
TX-GEN-09	The contractor may develop and provide innovative solutions that achieve standardization of the environment in-line with HUD strategic plans mission objectives requiring minimal capital outlay by HUD.
TX-GEN-10	The contractor shall provide transparency to customers and HUD Operations team members and HUD specified Systems Engineering Service Provider on service cost, performance, and satisfaction, demonstrated and documented through independent third party customer satisfaction surveys.
TX-GEN-11	The contractor shall establish a performance management information system that provides timely, accurate, and insightful data on program status and performance reporting.

<i>General REQ #</i>	<i>Description</i>
TX-GEN-12	The contractor shall deliver and maintain transport services in compliance with Federal and HUD IT management standards and guidelines at all times throughout performance (e.g., Executive Order 13423, Federal Electronics Challenge, Electronic Product Environmental Assessment Tool (EPEAT), Clinger-Cohen Act, Information Technology Management Reform Act (ITMRA), Federal Information Security Management Act (FISMA), Office of Management and Budget (OMB) Circulars A-11 & A-130 and other memorandum such as Trusted Internet Connections (TIC) and Federal Desktop Core Configuration (FDCC), HUD Directive Policy (TDP) 85-01, National Institute of Standards and Technology (NIST) 800 Series, Government Accountability Office (GAO) IT Investment Management (ITIM), etc.). See Appendix B for links to Federal and HUD related mandates, guidelines etc.
TX-GEN-13	The contractor shall ensure that the construction, maintenance and support of a highly optimized and reliable network infrastructure is an essential and strategic component to the successful delivery of business value and customer satisfaction
TX-GEN-14	The contractor team shall have depth of experience in managing changing business requirements and customer demands and meet a prescribed diverse set of skills and knowledge including industry-leading expertise in robust, reliable and cost effective network design, Internet Protocol (IP) communications, network security, mobile and wireless transport technologies, IP version 4 and IP version 6 (IPv6) network management and transition planning
TX-GEN-15	The contractor shall migrate and maintain the service delivery, service assurance, and capacity planning and management processes to a maturity level that is consistent with an IT process model or framework such as ITIL v3 during the contract
TX-GEN-16	The contractor shall perform network architecture and engineering design services in coordination with HUD and the Systems Engineering service contractor and shall require HUD approval for design acceptance

<i>General REQ #</i>	<i>Description</i>
TX-GEN-17	The contractor shall perform network installation and implementation services
TX-GEN-18	The contractor shall perform end to end network monitoring including WAN network circuits, service enable devices such as premise firewall/routers or any other hardware included as part of the network design, operating systems/software device configuration, logical and physical capacity of all devices that are part of the network design
TX-GEN-19	The contractor shall perform network administration and troubleshooting that includes incident and problem resolution in coordination with HUD and other Service Contractors
TX-GEN-20	The contractor shall perform network performance analysis and optimization on a periodic basis as defined in Section 3
TX-GEN-21	The contractor shall perform network proactive and continuous monitoring of end to end WAN circuits and service enabled devices that are part of the overall network design
TX-GEN-22	The contractor shall perform network upgrades including testing and providing test reports for system test acceptance to HUD
TX-GEN-23	The contractor shall perform WAN operations and maintenance
TX-GEN-24	The contractor shall electronically store, manage and provide HUD with network documentation, network diagrams and all design, planning and operational artifacts relating to the transport services [See Section 4 for Deliverables]
TX-GEN-25	The contractor shall provide wide area network security
TX-GEN-26	The contractor shall provide and maintain a secured high speed WAN infrastructure with the capacity to support HUD's business needs and provide service levels commensurate with mission critical business operations.

<i>General REQ #</i>	<i>Description</i>
TX-GEN-27	The contractor shall meet Federal Cyber Security requirements in accordance with the cyber security requirements specified under the Networx contract
TX-GEN-28	The contractor shall provide copies of three signed ATOs at the moderate level to demonstrate understanding and compliance with federal cyber security requirements
TX-GEN-29	The contractor shall provide HUD TSP (Telecom Service Priority) codes at all appropriate points as defined by the FCC (Federal Communication Committee) TSP program to cover datacenter
TX-GEN-30	The contractor shall provide and maintain the WAN service to HUD Headquarters (HQ), HUD Regional Offices, and HUD Field Offices (FO) sites to the premise router within the local office computer room.
TX-GEN-31	The contractor shall provide and manage the wide area network service to HUDs current data centers' Demarc.
TX-GEN-32	The contractor shall design the network to meet identified SLAs for each office location.

Transition In

This section describes the Service Transition In requirements for the Transport Services Contract.

Service Transition In-REQ #	Description
TX-TRN-IN-01	The contractor shall establish transition plans and schedules coordinated with HUD and incumbent contractors that address all elements required to meet the requirements of the PWS and resulting network architecture.
TX-TRN-IN-02	The contractor shall ensure that a transition management team leader is on-board who will be responsible for coordinating the transition with current contractors and HUD
TX-TRN-IN-03	The contractor shall ensure that interface/interconnection agreements (e.g., OLAs, Memoranda of Agreement (MOA)) with incumbents and business partners are in place. The contractor shall coordinate with HUD to ensure that such agreements are prepared, reviewed, and signed to facilitate and manage transition-in.
TX-TRN-IN-04	The contractor shall insure that appropriate subcontractor and supplier agreements are in place during the transition-in planning period of the contract.
TX-TRN-IN-05	The contractor shall insure that qualified personnel are identified, processed, and available at specific incremental turnover dates according to the HUD approved transition schedule.
TX-TRN-IN-06	The contractor shall insure that applicable contractor management systems and support tools are in place and operational at the time of transition-in phase.
TX-TRN-IN-07	The contractor shall establish status reporting requirements, including applicable HUD defined performance measurement reporting requirements.
TX-TRN-IN-08	The contractor shall establish and record HUD and contractor agreement on existing or new systems, plans, procedures, forms, and instructions to be used after transition.

TX-TRN-IN-09	The contractor shall establish transition-in inventory reconciliation before the end of transition-in period.
TX-TRN-IN-10	The contractor shall demonstrate sufficient knowledge of HUD operations and technical requirements measured through the delivery of network design documents and required transport services related documentation specified in Section 4 - Deliverables.
TX-TRN-IN-11	The contractor shall identify functions, tasks, systems, and facilities required to establish transition priorities and sequence in coordination with HUD and systems engineering services contractor
TX-TRN-IN-12	The contractor shall identify and track specific functions, tasks and milestones that result in contractor accountability related to transition activities.
TX-TRN-IN-13	The contractor shall align and integrate the schedules across teams to preclude any impacts to primary mission requirements.
TX-TRN-IN-14	The contractor shall define and document [Incumbent Contractors, Other Third Party Service contractors] responsibilities relating to Transport Services Transition-In
TX-TRN-IN-15	The contractor shall develop definitive transition readiness criteria including transition-in risk assessment and contingency plans for review with HUD.
TX-TRN-IN-16	The contractor shall provide access and training of new contractor support systems and applications for up to 15 HUD designated trainees.
TX-TRN-IN-17	The contractor shall provide tasks, data, and schedules to HUD that can be used for issuing applicable direction to the incumbent contractors for phase-down, coordination, and funding considerations.

TX-TRN-IN-18	The contractor shall provide end-user orientation and communication on services and help desk support and escalation procedures as part of the initial training services for all relevant contractor provided systems/applications/ processes and also when requested for refresher training during the duration of the contract. In addition, during transition phase of current tier 1 help desk to the automatic monitoring and management contractor, the contractor shall coordinate trouble ticketing calls and reporting etc., with incumbent contractor(s) and HUD. The contractor shall provide training to a minimum of 10 people per year.
TX-TRN-IN-19	The contractor shall develop procedures, reference manuals, and operational guides to support on-going operations and other pertinent information needed to properly takeover services from incumbent contractor(s).
TX-TRN-IN-20	The contractor shall perform and document 100% network inventory reconciliation
TX-TRN-IN-21	The contractor shall implement a detailed communication plan for transition-in phase that will include incumbents and HUD key operational personnel.
TX-TRN-IN-22	The contractor shall provide HUD with all necessary business and/or technical documentation including but not limited to transition plan, network design document, SLA management documentation, escalation procedures, provisioning help documentation, network management software client user guide etc.
TX-TRN-IN-23	The contractor shall provide training to introduce Government customers, programs, and technical staff to the tools, methodologies, and technical processes. The contractor shall provide training to a minimum of 10 people per year.
TX-TRN-IN-24	The contractor shall implement new procedures and processes for service planning, service management, service operations and service assurance tasks in coordination with HUD and Systems Engineering contractor.

TX-TRN-IN-25	The contractor shall provide HUD with documentation sufficient to support a HUD Authorization to Operate including the Security Assessment Report, HUD's Mission Critical Questionnaire, Privacy Impact Assessment, and any open Plans of Action and Milestones (POAMs).
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NOTE: Where not specified explicitly in the requirements, it is implied that transition is from incumbent contractor(s).

This section describes the Service Transition- in Management requirements for the Transport Services Contract.

Service Transition In: Management REQ #	Description
TX-TRN-MGT-01	The contractor shall provide a Transition provisioning project schedule within 45 business days of contract award
TX-TRN-MGT-02	The contractor shall provide a detailed transition plan within 45 business days of contract award
TX-TRN-MGT-03	A minimum of 10 HUD sites shall be operational within 60 business days of HUD approving the provisioning project schedule and detailed transition plan
TX-TRN-MGT-04	The HUD Wide Area Network and sites must be operational within 6 months of HUD approving the detailed transition plan

TX-TRN-MGT-05	The contractor shall provide a method to successfully initiate transition-in plan circuit provisioning orders with minimal resources from HUD to enter the orders into the service ordering system. Transition-in Phase batch service ordering of sites should be in a version controlled worksheet containing datasets agreed upon between the transport services contractor and HUD. When the dataset for a given site is complete HUD and the Contractor Project Manager will then mutually agree upon the service delivery schedule for the site.
TX-TRN-MGT-06	The contractor shall develop, manage, and maintain a transition Risk Assessment Plan (risk identification and risk mitigation) during transition and provide weekly updates to HUD
TX-TRN-MGT-07	The contractor shall manage risk and resolve issues during Transition and provide weekly updates to HUD
TX-TRN-MGT-08	The contractor shall provide transition status to HUD weekly
TX-TRN-MGT-09	The contractor shall provide a dedicated project manager for transition-in Phase of the contract for successful management of transition of transport services from incumbent contractors.
TX-TRN-MGT-10	The contractor shall coordinate and support weekly status meetings with HUD during the transition period, During such status meetings the Contractor shall, at a minimum, present to the Government accomplishments, issues, potential risk areas and mitigation plans
TX-TRN-MGT-11	The contractor shall be responsible for maintaining continuity of operations with no disruption of service during transition
TX-TRN-MGT-12	The contractor shall coordinate with HUD and incumbent IP Address services provider during re-IP Address task

Transport Services

This section describes the Transport Services requirements for the Transport Services Contract.

Transport Services- REQ #	Description
TX-TRN-SCP-01	The contractor shall migrate HUD's existing HITS WAN network functionality and associated network access transport from HUDs sites. See Appendix F for specific site attributes and scope requirements and Section 5 (Performance Measures) for specific SLA requirements.
TX-TRN-SCP-02	The contractor shall migrate HUDs existing HITS HIFMIP WAN functionality and transport to two (2) HUD sites (Denver and Raleigh).
TX-TRN-SCP-03	The contractor shall provide a network that is compatible with both IPv4 and IPv6 [Dual Stack] protocol compliant.
TX-TRN-SCP-04	The contractor shall migrate HUDs existing HITS TLS network, access functionality, and sites located in Washington, DC into the HUDNET wide area network. See Appendix F for specific site attributes and scope requirements and Section 5 (Performance Measures) for specific requirements.
TX-TRN-SCP-05	The contractor shall migrate HUDs existing HITS WAN infrastructure management data. (e.g., IP and IPv6 addresses in coordination with incumbent HUD service contractor(s))
TX-TRN-SCP-06	The contractor shall provision HUDs existing HITS WAN connectivity and functionality to the Sprint PIP network to the HUDNET WAN in compliance with Federal Interconnect Agreements. See Appendix F for specific site attributes and scope requirements and Section 5 (Performance Measures) for specific requirements.

Transport Services- REQ #	Description
TX-TRN-SCP-07	<p>Remote access methods (e.g., dial-up, mobile, IP/VPN) are supported by the current HITS Data Centers contractor and will remain with the HITS Data Centers.</p> <p>The Network Contractor shall provide a network architecture and design that will support the current Remote Access method.</p>

Transport Services: Special Requirements

This section describes the Transport Services Special Requirements for the Transport Services Contract.

Transport Services: REQ #	Description
TX-PRVDE-SOLU-01	The contractor shall provide a solution for the ordering and management of the POTS lines for out of band (OOB) managed router service at HUD sites. HUD prefers that the Transport Services contractor manages the POTS line for OOB management. See Appendix F for Site Attributes and Scope
TX-PRVDE-SOLU-02	The contractor shall provide a solution to provide the reporting of the availability and performance of the site WAN based on the network Demarc proximity to the LAN. See Appendix F for Site Attributes and Scope.

Security Services including MTIPS (Managed Trusted Internet Protocol Services)

Provide Security Services for HUD in accordance with the Network Contract.

Service Planning

This section describes the Service Planning and Management requirements for the Transport Services Contract.

Service Planning – Management REQ #	Description
TX-PLN-01	The contractor shall plan on providing inside/outside moves at 10% of existing HUD sites per year
TX-PLN-02	The contractor shall provide a network solution that meets the data needs of HUD's staff [Employees and Contractors] currently at 13,000
TX-PLN-03	The contractor shall engineer a solution to plan for a 20% increase in data traffic each year.
TX-PLN-04	The contractor shall provide Engineering and Design services for any additional network transport services requirements during contract period and after the initial network is setup during the transition-in phase
TX-PLN-05	The contractor shall provide HUD with the following plans: <ul style="list-style-type: none">• Service Maintenance Plan• Service Escalation Plan• Contractor Service DR Plan• Contractor Service COOP Plan• Program Management Plan• Service Quality Control Plan

Service Development and Deployment

This section describes the Service Development and Deployment requirements for the Transport Services Contract.

Service Development and Deployment- Engineering: System Acceptance Testing REQ #	Description
TX-ENG-TST-01	The contractor shall provide and manage System Acceptance Testing for all the network equipment provided to HUD. The contractor shall also provide Test Reports to HUD and the Systems Engineering Services Contractor.
TX-ENG-TST-02	The contractor shall provide support for System Acceptance Testing for HUD IT infrastructure services.
TX-ENG-TST-03	The contractor shall develop, review, and update system/project test plans, test specifications, and test procedures documentation.
TX-ENG-TST-04	The contractor shall provide technical support to HUD and its contractors during technical reviews, test readiness reviews, and technical meetings.
TX-ENG-TST-05	The contractor shall conduct system testing in accordance with approved system test procedures and provide a detailed report of test results upon completion.
TX-ENG-TST-06	The contractor shall develop and/or review system/equipment inspection and acceptance test plans, procedures and specifications.
TX-ENG-TST-07	The contractor shall prepare test requirements documentation for various network infrastructure requirements, programs, projects and systems to ensure comprehensive verification of salient and inherent capabilities.
TX-ENG-TST-08	The contractor shall review test plans, procedures and specification to ensure compliance with necessary Federal and HUD mandates and requirements specifically relating to security.

TX-ENG-TST-09	The contractor shall review supplied test plans, procedures and specifications for technical accuracy, adequacy and report findings to HUD and Systems Engineering Services Contractor.
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Service Management

This section describes the Service Management requirements for the Transport Services Contract.

Management - NOC REQ #	Description
TX-NOC-01	The contractor shall provide and maintain a 24x7x365 service escalation plan and process containing names, title, level, and phone numbers. Plan should contain a minimum of 3 hierarchical management levels. Plan must be approved by HUD
TX-NOC-02	<p>The contractor shall provide, manage and operate a 24x7x365 Network Control Center (NCC) or Network Operations Center (NOC) for management of all HUD transport, data and IP access, backbone network services, IXP, (NAP) interconnection points, network access security, infrastructure management data, managed premises router service, service surround support systems, MTIPS (TIC) technology and security services, and other managed network devices within their managed network. It excludes HUD Site specific switches that are behind the managed firewall/router and within LAN at each HUD Ste.</p> <p>The NCC/NOC must have a disaster recovery [DR] plan in place and provide HUD with copy of the DR plan.</p>

Service Level Agreements

This section describes the Service Level Agreement requirements for the Transport Services Contract.

Service Management: SLA Management REQ #	Description
TX-SLA-01	The contractor shall meet all SLAs as defined in the Networx Contract as amplified by Section 5.

User Help Documentation

This section describes the User Help Documentation requirements for the Transport Services Contract.

Service Management: Documentation REQ #	Description
TX-USR-HLP-01	The contractor shall provide online methods and procedures, and user help guides for the data that is provided to HUD resources.
TX-USR-HLP-02	The contractor shall provide online methods and procedures, and user help guides for the data that is provided to HUD resources for Service Order creation.
TX-USR-HLP-03	The contractor shall provide online methods and procedures, and user help guides for the data that is provided to HUD resources for Provisioning status
TX-USR-HLP-04	The contractor shall provide online methods and procedures, and user help guides for the data that is provided to HUD resources for real-time (data-feed) network health
TX-USR-HLP-05	The contractor shall provide online methods and procedures, and user help guides for the data that is provided to HUD resources for Trouble ticket creation/close, and tracking

TX-USR-HLP-06	The contractor shall provide online methods and procedures, and user help guides for the data that is provided to HUD resources for real-time Network capacity
TX-USR-HLP-07	The contractor shall provide online methods and procedures, and user help guides for the data that is provided to HUD resources for asset inventory data (e.g., IP addresses, routers, site attributes, and site bandwidth).
TX-USR-HLP-08	The contractor shall provide online methods and procedures, and user help guides for the data provided to HUD resources for the Network key process design and internal process metrics. (e.g., service ordering provisioning, trouble management, maintenance, capacity management, etc.)
TX-USR-HLP-09	The contractor shall provide online methods and procedures, and user help guides for the data provided to HUD resources to HUD for All Statistical Reports.
TX-USR-HLP-10	The contractor shall provide online methods and procedures, and user help guides for the data provided to HUD resources to create ad-hoc reports. (Data base structure, model, design, etc.)

Service Operations

This section describes the Service Operations requirements for the Transport Services Contract.

Service Operations and Maintenance REQ #	Description
TX-OM-01	The contractor shall ensure that the Network Termination Equipment (NTE) and cabling is tagged with appropriate HUD and network identification content.
TX-OM-02	The contractor shall provide its strategy for developing Disaster Recovery (DR) and Continuity of Operations (COOP) Plans for the Network Control Center, (NCC) or Network Operations Center (NOC) including models and processes
TX-OM-03	The contractor shall provide WAN engineering design in Visio, and installation support, planning, and coordination of WAN support activities, hardware and software updates and upgrades; and data network upgrades and maintain an electronic record of the configurations and changes in Excel.
TX-OM-04	The contractor shall provide, manage, configure, integrate, test, administer, and secure WAN networking services, including change management, capacity planning, problem management
TX-OM-05	The contractor shall provide Service Operations and Maintenance Services to all HUD sites. This includes, but is not limited to; the ordering, coordination, management of service planning tasks such as capacity planning etc., service delivery, service assurance, of Exchange Access physical and logical bandwidth and SED. Exchange access billing is to be incorporated into the Network billing. See Appendix F for Site attributes and scope
TX-OM-06	The contractor shall provide the WAN routing that is IPv6 and IPv4 [Dual Stack] compliant
TX-OM-07	The contractor shall provide and manage connectivity to/from/between HUD Headquarters (HQ), HUD Field Offices (FO), and HITS Data Centers (DC) to the HUD Wide area network and miscellaneous business partners. See Appendix F for Site Attributes and Scope

Service Operations and Maintenance REQ #	Description
TX-OM-08	The contractor shall provide managed router services at HUD Headquarters (HQ), HUD Regional Offices (RO), HUD Field Offices (FO), and HITS Data Centers that are connected to the HUD Wide area network and miscellaneous business partners. The contractor shall comply with Interconnection Agreements with business partners. See Appendix F for Site Attributes and Scope
TX-OM-09	The contractor shall provide software, software maintenance and upgrade for all managed equipment to no more than n-1 version.
TX-OM-10	The contractor shall provide and manage a connection from the HUD wide area network to a router at the Sprint PIP network. See Appendix F for Site Attributes and Scope
TX-OM-11	The contractor shall manage and assign HUDs wide area network infrastructure support data. E.g., IP and IPv4 IPv6 addresses
TX-OM-12	The contractor shall manage and maintain all Network Service resources (e.g., hardware, operating system (software and applications) that are required to provide wide area network services (e.g., WAN/ /Firewall/ Routers).
TX-OM-13	The contractor shall provide hardware and software refresh in accordance with contractor proposed/HUD approved cycles.
TX-OM-14	The contractor shall develop, implement, maintain, and deliver federal security documentation requirements [FISMA, NIST] for the HUD WAN
TX-OM-15	The contractor shall provide and manage inter-LATA and intra-LATA site location moves either via a change order or add and disconnect orders.
TX-OM-16	The contractor shall provide the router at the HUD office suite or room number (see Appendix F for site location/room number).

Service Operations and Maintenance REQ #	Description
TX-OM-17	<p>Route diversity is required at all HUD sites. The contractor shall maintain diversity through the service lifecycle and electronically publish the diversity DLR (Design Layout Record) artifact enabling HUD review.</p> <p>The Contractor shall notify HUD if diversity is not available and/or is cost prohibitive at a site</p>
TX-OM-18	<p>The contractor shall provide back-up bandwidth connectivity from the network POP to HUD sites at defined HUD sites listed in Appendix F</p>
TX-OM-19	<p>The contractor shall provide and maintain site service availability architecture (e.g., diversity, ring, site dual hot routers, etc.) at HUD Headquarters (HQ), HUD Regional Offices (RO), HUD Field Offices (FO), and Data Centers (DC) to support the HUD SLAs. See Appendix F for specific site attributes and scope requirements and Section 5 (Performance Measures) for specific requirements.</p>
TX-OM-20	<p>The contractor shall provide exchange access diversity to sites that require multiple circuits to meet HUDs bandwidth needs.</p> <p>Provisioning of additional site bandwidth that requires a new carrier system shall be diverse from the existing system. (e.g., a site has an existing DS3 system and an additional DS1 is required to support traffic volume, the new DS1 system will be diverse from the existing DS3 System).</p> <p>See Appendix F for Site Attributes and Scope</p>
TX-OM-21	<p>The contractor shall manage network equipment O/S and apply necessary patches, upgrades, install firmware and special security updates.</p>
TX-OM-22	<p>The contractor shall perform bandwidth management.</p>
TX-OM-23	<p>The contractor shall manage all network devices, ongoing monitoring, and individual WAN activation and de-activation in all supported buildings.</p>

Service Operations and Maintenance REQ #	Description
TX-OM-24	The contractor shall perform network systems management and troubleshooting (e.g., performance, problem, change and capacity monitoring and reporting).
TX-OM-25	The contractor shall ensure electronic records of all circuits, devices, and software provisioned are included in configuration management and keep updated configuration documentation for all routers, IP addressing schemas, network routing tables, cross connect systems, and general networking provisioning requirements and procedures.
TX-OM-26	The contractor shall support the coordination of service and technical events.
TX-OM-27	The contractor shall perform network systems management and troubleshooting and root cause analysis (e.g., performance, problem, change and capacity monitoring and reporting).
TX-OM-28	The contractor shall interface with other HUDNET service towers and providers to perform operational service surround activities
TX-OM-29	The contractor shall provide and manage the Managed Router Service to a HUD defined room/suite. The Networkx vendor shall provide and manage extended Demarc wiring.
TX-OM-30	The contractor shall manage bandwidth utilization at each site and trigger capacity planning when thresholds exceed 80% bandwidth utilization over an industry standard period.
TX-OM-31	The contractor shall provide video conferencing capabilities with external parties (other federal agencies and business partners)

Service Operations – Electronic Interface

This section describes the Service Operations - Electronic Interface requirements for the Transport Services Contract.

Service Operations- Electronic Interface REQ #	Description
TX-ELEC-INFCE-01	The contractor shall provide a web based interface providing the capability to create a trouble ticket and/or shall interface or use HUD's existing Trouble Ticketing system
TX-ELEC-INFCE-02	The contractor shall provide a web based interface providing the capability to initiate a service provisioning order.
TX-ELEC-INFCE-03	The contractor shall provide a web based interface providing the capability to populate a customer satisfaction survey.
TX-ELEC-INFCE-04	The contractor shall provide an web based interface for performance monitoring including displaying the Network Statistical reports
TX-ELEC-INFCE-05	The contractor shall provide the Network Statistical reports electronically for the following processes; service delivery, service availability, service assurance, capacity utilization, MTIPS, FISMA, Diversity, and customer satisfaction results
TX-ELEC-INFCE-06	The contractor shall provide the Network Statistical reports electronically in a structure that can be easily downloadable for additional data analysis.
TX-ELEC-INFCE-07	The contractor shall provide the Network Statistical reports electronically containing; all data, summarized data, visual diagrams displayed in various statistical reporting views (e.g., run charts histograms, control charts) , and graphical displays (geographic, service unit or microscopic highlights)

Serviced Operations – Data Extract

This section describes the Service Operations - Data Extract requirements for the Transport Services Contract.

Service Operations – Data Extract REQ #	Description
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Service Operations – Data Extract REQ #	Description
TX-DATA-EXT-01	The contractor shall provide a web based interface enabling an on-demand extraction of HUDNET Network asset inventory data (e.g.: site attributes, network and site routers, firewall configurations, MTIPS data, router configurations, circuit identifiers, diversity data, site specific bandwidth, etc.). Data extraction shall be for a specific asset or multiple assets. Data modeling and datasets shall be defined to allow correlation between the asset data.
TX-DATA-EXT-02	The contractor shall provide a web based interface enabling on-demand ad-hoc process and monitoring report creation by HUD users. The data sets for the ad-hoc report creation shall consist of event data for; service delivery, service assurance, bandwidth utilization, network health, SED physical and logical utilization and capacity MTIPS, processes.

Service Operations – Help Desk

This section describes the Service Operations – Help Desk requirements for the Transport Services Contract.

Service Operations – Help Desk REQ #	Description
TX-HD-01	The contractor shall provide a 24x7x365 Tier 1 network helpdesk
TX-HD-02	The contractor shall provide a 24x7x365 Tier 2 network helpdesk and provide fault isolation support as necessary when problem may span multi-vendor environments.
TX-HD-03	The contractor shall support a real-time electronic chat communication method with HUD technical staff and defined HUD resources [excluding direct end users]

Service Delivery

This section describes the Service Delivery requirements for the Transport Services Contract.

Service Delivery REQ #	Description
TX-SVC-DEL-01	The contractor shall manage orders associated with a project to have mutually agreed upon delivery dates established in the Service Delivery Project Plan (SDPP)
TX-SVC-DEL-02	The contractor shall respond to requests for service quotes and service delivery information requests in less than 3 business days
TX-SVC-DEL-03	The contractor shall provide an add, change service order confirmation within 2 business days
TX-SVC-DEL-04	The contractor shall establish and publish service delivery date intervals for all circuit types access speeds at existing HUD sites
TX-SVC-DEL-05	The contractor shall publish the service delivery due date for all circuit type speeds at new sites within 14 business days
TX-SVC-DEL-06	The contractor shall perform a site survey at any new HUD location within 14 business days after service order confirmation and notify HUD site manager and HUD HQ of site survey results within 14 days of completing the survey.
TX-SVC-DEL-07	The contractor shall notify POC no less than 5 business days before any service delivery site visits and equipment delivery dates
TX-SVC-DEL-08	The contractor shall perform the logical and physical disconnection of service and, if required, equipment removal within 30 business days of the receipt of the service order. The contractor shall perform validation of disconnect order prior to service disruption. The billing associated with a disconnection of service shall occur on the disconnect date.
TX-SVC-DEL-09	The contractor shall provide process capabilities for expedited orders

Service Delivery REQ #	Description
TX-SVC-DEL-10	The contractor shall meet published provisioning intervals for all bandwidth services including the Managed Router Service.
TX-SVC-DEL-11	The contractor shall contact HUD at least 15 business days in advance of scheduled network changes requiring service downtime or degradation for release approval
TX-SVC-DEL-12	The contractor shall provide an easy to use, efficient online service delivery service order entry interface enabling non-technical HUD users to create new service delivery service orders. The interface shall reduce the quantity of keystrokes and improve the data quality by pre-population, auto-population or dropdown selection of required provisioning fields. Required provisioning fields consist of, but not limited to; billing information, service order initiator, customer number, agency name, TSP, site attributes, technical contact, local contact, site address, category of service, class of service, bandwidth, diversity, site design, standard provisioning interval, and key event dates. The provisioning interface shall display the current or in-progress service delivery orders required provisioning fields. The contractor shall provide a process where privileged users can modify administrative content.
TX-SVC-DEL-13	The contractor shall provide real-time service order/service provisioning reporting for key provisioning events and the event status. Key provisioning events are; order receipt, order accepted, network design, local site contact date, site survey date, dispatch date for exchange access provider, equipment delivery date, dispatch date for managed router service, expected service completion date, actual service availability date, in service date (service in use). Provide status on key events (e.g., completed, not completed, expected complete date, impact on service completion date and service ability date). Provide status via order codes and order logs. The status and logs are to be populated with current information less than 30 minutes of the event actions.

Service Delivery REQ #	Description
TX-SVC-DEL-14	The contractor shall provide process capabilities for HUD to cancel an order, or change the due date of services on or before the agreed upon due date

Service Assurance

This section describes the Service Assurance requirements for the Transport Services Contract.

Service Assurance REQ #	Description
TX-SVC-ASR-TT-01	The contractor shall provide on-line access to trouble ticketing system for HUD and its infrastructure service management providers.
TX-SVC-ASR-TT-02	The contractor shall receive manual and automated trouble tickets from other service delivery contractors
TX-SVC-ASR-TT-03	The contractor shall incorporate an automated smart logic / decision tree tool for network monitoring and trouble ticket generation
TX-SVC-ASR-TT-04	The contractor service assurance cycle time measurement shall start when trouble report is opened. The contractor service assurance cycle time measurement ends when trouble report resolution is accepted by the Service Tower that initiated the trouble ticket
TX-SVC-ASR-TT-05	The contract shall ensure trouble ticket close status includes, at a minimum, the following information: No Trouble Found (NTF), Came Clear (CC), information request (INF), network internal failure, access failure, Managed router failure at site, Data center failure, LAN failure, Internet connection failure, capacity utilization approaching threshold

Service Reporting

This section describes the Service Reporting requirements for the Transport Services Contract.

Reports- REQ #	Description
Statistical Reports	
TX-STAT-RPT-01	The contractor Service Assurance Statistical Report shall provide statistics weekly, monthly, and rolling (18 month cycle <Statistical Process Control & Analysis Best Practice>)/ The Contractor shall provide HUD with an interface to generate custom user defined time period statistical reports on Performance, Security logs, bandwidth utilization at each Site and for each circuit.
TX-STAT-RPT-02	The contractor shall provide a Service Assurance Statistical Report which is segmented by the source/ method of trouble ticket creation. Source/ method are defined by the following categories. Network auto-generated trouble tickets, Trouble Tickets created by Contractor Staff, Trouble Tickets created by Networx staff as a result of a report from specific HUDNET Service Tower, and auto generated tickets from specific HUDNET Service Towers. This includes current HITS contractors during the transition phase.
TX-STAT-RPT-03	The contractor shall provide a Service Assurance Statistical Report displaying the quantity of trouble tickets by trouble ticket generated source.
TX-STAT-RPT-04	The contractor shall provide a Service Assurance Statistical Report displaying the quantity and percent of trouble tickets that were informational only

Reports- REQ #	Description
TX-STAT-RPT-05	The contractor shall provide a Service Assurance Statistical Report displaying the quantity and percent of trouble tickets that are closed by closing status.
TX-STAT-RPT-06	The contractor shall provide a Service Assurance Statistical Report displaying the time interval between referred out and referred in (closed-out) time to HUDNET Service Towers (Data Center, End User, etc.) and Networx service providers (exchange access, etc.)
TX-STAT-RPT-07	The contractor shall provide a Service Assurance Statistical Report displaying the time to restore of each failure.
TX-STAT-RPT-08	The contractor shall provide a Service Assurance Statistical Report displaying the percent, quantity and service restore times due to diversity and restoration back to defined architecture
TX-STAT-RPT-09	The contractor shall provide a Service Assurance Statistical Report displaying the Mean Time to Restore (MTTR)
TX-STAT-RPT-10	The contractor shall provide a diversity Statistical Report displaying the Diversity DLR (Design Layout Records)
TX-STAT-RPT-11	The contractor shall provide a Service Assurance Statistical Report displaying the Meantime Between Failures(MTBF)

Reports- REQ #	Description
TX-STAT-RPT-12	The contractor shall provide FISMA required Security reports.
TX-STAT-RPT-13	The contractor shall provide System Testing Reports [including security testing] during test and system acceptance period of any changes/upgrades or deployment of new network related circuits or equipment
TX-STAT-RPT-14	The contractor shall provide Risk Assessment and Mitigation Reports during Transition of new circuits or network equipment /changes to existing circuits or network equipment before deployment within 15 days from service provisioning requests.
TX-STAT-RPT-15	The contractor shall provide quarterly SLA compliance reports based on aggregated performance measurements for the SLAs defined in Section 5.
General Reports	
TX-GEN-RPT-01	The contractor shall provide HUD and the Systems Engineering Service contractor with white papers and reports on any proposed new technology adoption during the contract period.
TX-GEN-RPT-02	The contractor shall provide HUD and the Systems Engineering Service contractor with Engineering Design Reports during Transition-in phase and also during any changes/modifications to network during the contract period

Service Assurance – Continuous Improvement

This section describes the Service Assurance – Continuous Improvement requirements for the Transport Services Contract.

Service Assurance: Continuous Improvement REQ #	Description
TX-IMPRV-01	The contractor shall perform root cause analysis and provide a remediation action plan for all process events that do not meet the upper or lower control limits and provide the documentation to HUD monthly to demonstrate the effectiveness of the action plan.
TX-IMPRV-02	The contractor shall support process improvement initiatives in areas where the improvement impacts Network processes or technologies.
TX-IMPRV-03	The contractor shall ensure continuous improvement via six sigma methodology for all processes provided to HUD. (e.g., service delivery, service assurance, dataset management, capacity planning, and billing). Demonstrate to HUD the effects of process improvements on a monthly basis.
TX-IMPRV-04	The contractor shall demonstrate unit cost control and cost avoidance improvements to HUD on a quarterly basis.
TX-IMPRV-05	The contractor shall provide HUD the opportunity to participate in Network improvement and technology trials
TX-IMPRV-06	The contractor shall provide recommendations of new transport infrastructure technology (i.e.: logical and physical transport methods, q-bit. next generation routers, etc.)

Network Data Feeds

This section describes the Network Data Feeds requirements for the Transport Services Contract.

REQ # Real Time Network Data Feeds	Description
TX-RT-DATA-01	The contractor shall make real-time network data feeds available to HUD staff and HUD defined 3 rd party resources in a standard open source structured format. Real time data includes but is not limited to: Syslogs, SNMP polling, configuration data of SEDs, performance logs, security logs, and intrusion scan logs
TX-RT-DATA-02	The contractor shall make real-time capacity utilization, configuration changes, and SED (logical/physical memory) data feeds available to HUD staff and HUD defined 3 rd party resources in a standard open source structured format.
TX-RT-DATA-03	The contractor shall make real-time network health, configuration changes, and SED (logical/physical memory) data feeds available to HUD staff and HUD defined 3 rd party resources in a standard open source structured format.
TX-RT-DATA-04	The contractor shall make real-time Network Health, configuration changes, and SED (logical/physical memory) notifications including failures and service degradation and the impact affected site(s) to HUD staff capacity utilization data feeds available to HUD staff and HUD defined 3 rd party resources in a standard open source structured format.
TX-RT-DATA-05	The contractor shall make real-time FISMA security data feeds available to HUD staff and HUD defined 3 rd party resources in a standard open source structured format.
TX-RT-DATA-06	The contractor shall make real-time MTIPS security data feeds available to HUD staff and HUD defined 3 rd party resources in a standard open source structured format.

REQ # Real Time Network Data Feeds	Description
TX-RT-DATA-07	<p>The contractor shall make real-time trouble ticket data feeds available to HUD staff and HUD defined 3rd party resources in a standard open source structured format. Trouble ticket content shall consist of all trouble ticket fields including, but not limited to, ticket numbers, status, referred out (to-organization and time), time-clock, and logs.</p>
TX-RT-DATA-08	<p>The contractor shall make real-time service delivery data feeds available to HUD staff and HUD defined 3rd party resources in a standard open source structured format.</p>

Optional Requirements

The contractor shall describe its approach and capabilities to providing each of the optional services identified in this section.

Optional Requirements REQ #	Description
TX-OPTNL-01	<p>Security Services: The contractor shall provide the option to provide and maintain firewalls and security services at defined HUD sites [see Appendix F] :</p> <ul style="list-style-type: none"> • The Contractor shall ensure the firewall supports centralized security event logging • The Contractor shall provide firewall logs and Security related reports
TX-OPTNL-02	<p>Security Services: The contractor shall provide Incident Response Service</p>
TX-OPTNL-03	<p>The contractor shall provide managed Video Teleconferencing Services [VTS].</p> <p>The services shall include the complete video teleconferencing services functionality such as Gateway, Devices, SED, Support etc.</p> <p>See specific VTS requirements in Appendix E.</p>
TX-OPTNL-04	<p>Remote Access Services/VPN: The contractor shall provide the option to provide and manage a VPN solution. The solution shall support the following:</p> <ul style="list-style-type: none"> - Client based VPN for HUD laptops - Clientless VPN for personal PCs - iOS and Android support - 5000 concurrent users with failover - Business partner VPN connections - Remote Desktop Support

Dedicated Network/Contract Program Management Resource Requirement

This section describes the Operations Technical & Business Project Solutions Manager requirements for the Transport Services Contract.

The vendor shall provide a dedicated Operations Technical & Business Project Solutions Manager resource, as part of the as part of the Managed Networking Services (MNS) (C.2.9.1) to function as HUD's advocate for Transport Services Contract. This resource will act as the liaison between HUD and the Transport Services Contractor.

The contractor is the Agency's single point of accountability for all networks manage under this service, including operations, maintenance, and administration activities.

Resource REQ #	Description
TX-DED-MGR-01	The dedicated Operations Technical & Business Project Solutions Manager shall provide technical and business consultation services to support HUD in the Transport Services (e.g., service planning and management, service transition, service delivery, service assurance) and HUDNET Interfaces.
TX-DED-MGR-02	The Network dedicated Operations Technical & Business Project Solutions Manager shall function as HUD's advocate for Transport Services contract management through GSA Network and support HUD in activities such as, but not necessarily limited to: <ul style="list-style-type: none">• Add/Change of Transport Services Order Management• Coordination of Provisioning and Service Delivery related tasks for Add/Changes
TX-DED-MGR-03	Be the Single Point of Contact [SPOC] for managing process variations, coordination of activities relating to contract management, service delivery management etc.
TX-DED-MGR-04	Support service related escalations for provisioning, incidents, and problem resolution

Resource REQ #	Description
TX-DED-MGR-05	Manage Transport Services training needs for HUD staff (e.g., Networkx processes, procedures, application displays, and data schema)
TX-DED-MGR-06	Coordinate servicing events between Transport Services and the HUDNET Service Towers contractor(s) including System Engineering Service Contractor, Automatic Monitoring and Management Service Contractor
TX-DED-MGR-07	Provide Subject Matter Expert (SME) for order fulfillment, provisioning and service delivery of transport services through GSA Networkx contract vehicle
TX-DED-MGR-08	Recommend and implement enhancements for process, reports interfaces
TX-DED-MGR-09	Networkx HUD facing application interface enhancement
TX-DED-MGR-10	Support improvement of HUD to Networkx interface processes, Networkx service processes, and Networkx to other HUD Service Tower interface processes.
TX-DED-MGR-11	Schedule monthly meetings and provide status, statistics, action plans

O&M Contract Phase Requirements – AM² Transition In Phase

During the Operations and Management Contract Phase, the contractor shall meet the following requirements.

This section describes O&M Contract Phase Requirements for the AM² Transition-In Phase of the Transport Services Contract.

REQ #	Description
TX-RT-COMM-01	The contractor shall support a real-time electronic chat communication method with HUD staff and defined HUDNET resources
TX-RT-COMM-02	The contractor shall make real-time data feeds available to HUD staff and HUD defined AM ² contractor in a standard open source structured format.
TX-RT-COMM-03	The contractor shall make real-time capacity utilization data feeds available to HUD and HUD resources in a standard open source structured format.

Detailed requirements will be defined during the acquisition and transition in phase of the AM² Service provider.

O&M Contract Phase Requirements – Cloud Integrator Transition In Phase

This section describes O&M Contract Phase Requirements for the Cloud Integrator Transition-In Phase of the Transport Services Contract.

During the Phase, the Contractor shall provide provisioning of transport [circuits] along with necessary equipment [firewall, router, etc.] at the new Cloud Integrator [Data Center] service providers location. In addition, the services described under Future Services in this Appendix (below) may be solicited by HUD.

Transition Out Contract Phase Requirements

At the end of the contract period the Contractor shall provide the following Transition-Out services.

REQ #	Description
TX-PHAS-OUT-01	The contractor agrees to exercise best efforts and cooperation to ensure an orderly and efficient transfer to HUD or a third party service provider undertaking on behalf of HUD the services being performed by the Contractor.
TX-PHAS-OUT-02	The contractor shall identify a phase-out team to assist the Government with transition activities during the phase-out period.
TX-PHAS-OUT-03	The contractor shall assume a phase-out period of one hundred eighty (180) days
TX-PHAS-OUT-04	The contractor shall phase out all contract activities and perform transition activities by the end of the contract's original end date unless otherwise directed by the Government.
TX-PHAS-OUT-05	The contractor shall work with HUD and the successor to develop a mutually agreed upon detailed Phase-out Plan setting forth the respective tasks to be accomplished by each party in connection with the transition and a schedule pursuant to which such tasks and subtasks are to be completed.
TX-PHAS-OUT-06	The contractor shall continue providing support as defined in the service level agreements and contract requirements until date of final termination.
TX-PHAS-OUT-07	The contractor shall provide sufficient experienced personnel, including all personnel designated as Key Personnel under the contract, during the phase-out period to ensure that the services included in this contract are maintained at the required level of performance.
TX-PHAS-OUT-08	The contractor shall provide HUD with current versions of all relevant documentation (e.g., CONOPS, operational procedures, guidelines, performance reports, specifications for hardware and software) and other pertinent information needed by HUD to properly continue the services being performed by the contractor.
TX-PHAS-OUT-09	The contractor shall return to HUD all agency data in the contractor's possession in a standard format that HUD can use to populate standard COTS database environments.

REQ #	Description
TX-PHAS-OUT-10	Upon request, the contractor shall provide HUD with a current inventory of all assets Government and contractor owned used by the contractor in the performance of the contract along with full support in the reconciliation of this inventory.
TX-PHAS-OUT-11	The contractor shall provide HUD all warranty, licensing and renewal information and agreements for any materials purchased as a result of requirement TX-PHAS-OUT-13.
TX-PHAS-OUT-12	The contractor shall provide weekly status reports for transition-out on Transition Progress.

Future Services

HUD may need the following requirements at a future time. These are being provided for reference purposes and not for potential contractors to address in their proposal or provide cost estimates etc.

Future Services REQ #	Description
NX- FUT-01	Remote access and VPN may be included during the Cloud Integrator Service provider Transition In Phase
NX- FUT-02	The contractor shall provide the ability for users with mobile smart devices to access data and applications stored in the future HUDNET Data Centers.
NX -FUT-03	The contractor shall provide access to the Blackberry email server in the future HUDNET Data Center in a future phase
NX-FUT-04	The contractor shall provide the ability of all mobile devices (cell, DROID, IPOD, windows, etc.) to access data and applications stored in the future HUDNET Data Centers in a future phase.
NX-FUT-05	The contractor shall provide Voice Services and Full Unified Communications Services

Existing Network Engineering Guidelines

HUD is providing the existing network engineering guidelines in order to inform potential contractors about the current level of redundancy at key sites such as HUD Headquarters, Data Centers at Lanham, Charleston, Boulder, etc. HUD encourages contractors to provide innovative network design options that meet future HUDNET transport services requirements and SLA Performance definitions specified in this PWS.

Existing Engineering Guidelines	Description
	Core Sites Connectivity. HUD Headquarters has redundant circuits through the following: <ul style="list-style-type: none">• Private Line Connection• Transparent LAN Service providing 1 GB bandwidth• ATM Connection
TX-ENG-DSN-01	Each of these connections have their own routers
TX-ENG-DSN-02	All backup circuits to regional offices and field offices have their own routers. The Failover to the backup circuits must be automatic.

NOTE: These are only guidelines. The goal is for contractor to provide innovative solutions using the SLA guidelines on availability, redundancy and backup that are described in Section 5 and defined for each HUD location in Appendix F.

Appendix B: Federal/Agency-wide Laws, Policies, and Standards References

Reference Documents	Source
Clinger Cohen Act	http://www.cio.gov/Documents/it_management_reform_act_Feb_1996.html
Information Technology Management Reform Act (ITMRA)	http://www.whitehouse.gov/omb/memoranda/m96-20.html
Federal Information Security Management Act (P.L. 107-347, Title III), December 2002. Paperwork Reduction Act (P.L. 104-13), May 1995.	http://thomas.loc.gov/cgi-bin/query/F?c107:5:./temp/~c107nixsEC:e151997:
Guidance for Securing Microsoft Windows Vista	http://csrc.nist.gov/itsec/guidance_vista.html
Guidance for Securing Microsoft Windows XP Systems for IT Professionals	http://csrc.nist.gov/itsec/guidance_WinXP.html
National Institute of Standards and Technology (NIST) Special Publications (SP)	http://csrc.nist.gov/publications/PubsSPs.html
NIST standard 800 series	http://csrc.nist.gov/publications/PubsSPs.html
NIST Information Security Automation Program (ISAP) Automating Vulnerability Management, Security Measurement, and Compliance, Version 1.0 Beta, 5/22/2007	http://nvd.nist.gov/scap/docs/ISAP.doc
NIST Security Configuration Checklist:	http://checklists.nist.gov/
Federal Information Processing Standards	http://csrc.nist.gov/publications/PubsFIPS.html
Federal Information Processing Standards Publication (FIPS Pub) 201	http://www.csrc.nist.gov/publications/fips/fips201-1/FIPS-201-1-chng1.pdf
Homeland Security Presidential Directive 12 (HSPD-12), July 6,	http://www.dhs.gov/xabout/laws/gc_121761

Reference Documents	Source
2007	6624097.shtm#1
Homeland Security Presidential Directives HSPD-7 “Critical Infrastructure Identification, Prioritization, and Protection”	http://www.whitehouse.gov/news/releases/2003/12/20031217-5.html
Homeland Security Presidential Directive 23 (HSPD-23) January 8, 2008	http://www.fas.org/irp/offdocs/nspd/
Comprehensive National Cybersecurity Initiative, March 2, 2010	http://www.fas.org/irp/eprint/cnci.pdf
Presidential Decision Directive (PDD) 63, “Critical Infrastructure Protection”	http://www.fas.org/irp/offdocs/pdd/pdd-63.htm
Federal Desktop Core Configuration (FDCC): OMB M-07-11 <i>Implementation of Commonly Accepted Security Configurations for Windows Operating Systems</i>	http://www.whitehouse.gov/sites/default/files/omb/assets/omb/memoranda/fy2007/m07-11.pdf
Federal Desktop Core Configuration (FDCC): OMB M-07-18 <i>Ensuring New Acquisitions Include Common Security Configurations</i>	http://www.whitehouse.gov/sites/default/files/omb/assets/omb/memoranda/fy2007/m07-18.pdf
Office of Management and Budget (OMB) Circular A-11	http://www.whitehouse.gov/omb/circulars/a11/current_year/a11_toc.html
OMB Circular A-130	http://www.whitehouse.gov/omb/circulars/a130/a130trans4.html
OMB TIC Requirements, M-08-05, Implementation of Trusted Internet Connections (TIC), 20 November 2007	http://www.whitehouse.gov/omb/memoranda/fy2008/m08-05.pdf
OMB TIC Requirements, M-08-16, Guidance for Trusted Internet Connection Statement of Capability Form (SOC), 4 April 2008	http://www.whitehouse.gov/omb/memoranda/fy2008/m08-16.pdf
OMB memos applicable to IT systems, security, privacy and contracts	http://www.whitehouse.gov/omb/memoranda/index.html
GAO IT Investment Management	http://www.gao.gov/new.items/d04394g.pdf

Reference Documents	Source
USA PATRIOT Act (P.L. 107-56), October 2001.	http://thomas.loc.gov/cgi-bin/query/D?c107:4:./temp/~c107AaoSyF::
Privacy Act of 1974 (P.L. 93-579), December 1974.	http://www.defenselink.mil/privacy/documents/pa1974.pdf
Section 508 of the Rehabilitation Act	http://www.section508.gov/index.cfm?FuseAction=Content&ID=3
EPEAT (Electronic Product Environmental Assessment Tool)	http://www.epeat.net/
Federal Electronics Challenge (FEC)	http://www.federalectronicchallenge.net/
FAR Clauses Applicable to Electronics Stewardship	http://www.federalectronicchallenge.net/resources/docs/farprov.pdf
Federal Legislation and Executive Orders Relevant to the FEC	http://www.federalectronicchallenge.net/resources/docs/fec_regs.pdf
NARA Regulations at 36 CFR Chapter XII, Subchapter B, Records Management	http://www.archives.gov/about/regulations/subchapter/b.html
NARA Bulletin 2008-05	http://www.archives.gov/records-mgmt/bulletins/2008/2008-05.html
NARA Bulletin 2010-05	http://www.archives.gov/records-mgmt/bulletins/2010/2010-05.html
Government Paperwork Elimination Act	http://www.archives.gov/records-mgmt/policy/electronic-signature-technology.html
Federal Advisory Committee Act	http://www.archives.gov/federal-register/laws/fed-advisory-committee/
E-Government Act of 2002	http://www.archives.gov/about/laws/egov-act-section-207.html
Government in the Sunshine Act	http://www.gsa.gov/graphics/ogp/SunshineAct_R2B-x3-g_0Z5RDZ-i34K-pR.pdf

Reference Documents	Source
Federal Records Act 44 USC Chapters 21, 29, 31 & 33	http://www.archives.gov/records-mgmt/laws/
Freedom of Information Act	http://www.archives.gov/foia/
Information Technology Infrastructure Library (ITIL) v3	http://www.itil-officialsite.com/

Appendix C: Acronyms and Abbreviations

AM²	Automated Monitoring & Management
ATO	Authority to Operate
BGP	Border Gateway Protocol
COOP	Continuity of Operations
Demarc	Demarcation point
DKIM	Domain Keys Identified Mail
DMZ	De-Militarized Zone
DS	Denial of Service
EA	Enterprise Architecture
FIPS	Federal Information Processing Standard
FISMA	Federal Information Security Management Act
FO	Field Offices
FOIA	Freedom of Information Act
GRPA	Government Performance and Results Act of 1993
GTR	Government Technical Representative
HITS	U.S. Department of Housing and Urban Development Information Technology System
HQ	Headquarters
HSPD-12	Homeland Security Presidential Directive
HUD	US Department of Housing and Urban Development
HUDNET	U.S. Department of Housing and Urban Development IT Infrastructure Services Framework

ICMP	Internet Control Message Protocol
IP	Internet Protocol
IPV4	Internet Protocol Version 4
IPV6	Internet Protocol Version 6
IT	Information Technology
ITIL	Information Technology Infrastructure Library
ITMRA	IT Management Reform Act of 1996 or Clinger-Cohen Act
IXP	Internet Exchange Point
LAN	Local Area Network
MAN	Metropolitan Area Network
Mbps	Megabits per second
MOA	Memoranda of Agreement
MTIPS	Managed Trusted Internet Protocol Services
NIST	National Institute of Standards and Technology
NTE	Network Termination Equipment
NTP	Notification to Proceed
OCIO	Office of the Chief Information Officer
OMB	Office of Management and Budget
OOB	Out of Band
PMP	Project Management Professional
PMBOK	Project Management Book of Knowledge
PLS	Private Line Service
PMA	President's Management Agenda

PMO	Program Management Office
PMP	Program Management Plan
POTS	Plain old telephone service
SBU	Sensitive But Unclassified
SED	Service Enabling Device
SLA	Service Level Agreement
SNMP	Simple Network Management Protocol
SOC	Trusted Internet Connection Statement of Capability
SPF	Sender Policy Framework
SPOC	Single Point of Contact
SSL	Secured Socket Level
TCO	Total Cost of Ownership
TCV	TIC Compliance Validation
TermA/Term Z	Termination A / Termination Z
TIC	Trusted Internet Connection
TSP	Telecommunications Service Priority
WAN	Wide Area Network

Appendix D: Glossary

Term	Definition
Acquisition	Procurement of appropriate goods and/or services at the best possible total cost of ownership (TCO) to meet the needs of the purchaser in terms of quality and quantity, time, and location. Corporations and public bodies often define processes intended to promote fair and open competition for their business while minimizing exposure to fraud and collusion.
Asset	Component of a business process. Assets can include people, accommodation, computer systems, networks, paper records, fax machines, etc.
Availability	Ability of a component or service to perform its required function at a stated instant or over a stated period of time. It is usually expressed as the availability ratio, i.e., the proportion of time that the service is actually available for use by the customers within the agreed service hours.
Change	The addition, modification or removal of approved, supported or baseline hardware, network, software, application, environment, system, PC build or associated documentation.
Change Management	Process of controlling changes to the infrastructure or any aspect of services, in a controlled manner, enabling approved changes with minimum disruption.
Cloud Computing	A pay-per-use model for enabling convenient, on-demand network access to a shared pool of configurable and reliable computing resources (e.g., networks, servers, storage, applications, services) that can be rapidly provisioned and released with minimal consumer management effort or

Term	Definition
	service provider interaction. (NIST definition)
Configuration Management	The process of identifying and defining Configuration Items in a system, recording and reporting the status of Configuration Items and Requests For Change, and verifying the completeness and correctness of Configuration Items.
Continuity of Operations (COOP)	Refers to the preparations and institutions maintained by the United States Government, providing survival of Federal government operations in the case of catastrophic events.
Contract	A legally binding agreement between two or more parties which, if it contains the elements of a valid legal agreement, is enforceable by law or by binding arbitration. A legally enforceable contract is an exchange of promises with specific legal remedies for breach.
Contract Management	The management of contracts made with customers, vendors, partners, or employees. Contract management includes negotiating the terms and conditions in contracts and ensuring compliance with the terms and conditions, as well as documenting and agreeing on any changes that may arise during its implementation or execution. It can be summarized as the process of systematically and efficiently managing contract creation, execution, and analysis for the purpose of maximizing financial and operational performance and minimizing risk.

Term	Definition
Cost	The value of money that has been used up to produce something and hence is not available for use anymore. Cost may be one of acquisition, where the amount of money expended to acquire it is counted as cost. Money is the input that is gone in order to acquire it. Acquisition cost may be the sum of the cost of production as incurred by the producer, and further costs of transaction incurred by the acquirer over and above the price paid to the producer.
Cost Effectiveness	Ensuring that there is a proper balance between the <u>Quality</u> of Service on the one side and expenditure on the other. Any investment that increases the costs of providing IT services should always result in enhancement to service quality or quantity.
Data Center	A facility used to house computer systems and associated components, such as telecommunications and storage systems. It generally includes redundant or backup power supplies, redundant data communications connections, environmental controls (e.g., air conditioning, fire suppression) and security devices.
Disaster Recovery	The process, policies and procedures related to preparing for recovery or continuation of technology infrastructure critical to an organization after a natural or human-induced disaster. Disaster recovery is a subset of business continuity. While business continuity involves planning for keeping all aspects of a business functioning in the midst of disruptive events, disaster recovery focuses on the IT or technology systems that support business functions.
End-user	Economics and commerce define an end-user as the person who uses a product. The end-user or consumer may differ from the person who purchases the product.

Term	Definition
Environment	A collection of hardware, software, network communications and procedures that work together to provide a discrete type of computer service. There may be one or more environments on a physical platform, e.g., test, production. An environment has unique features and characteristics that dictate how they are administered in similar, yet diverse manners
Federal Acquisition Regulation (FAR)	The principal set of rules in the Federal Acquisition Regulation System. This system consists of sets of regulations issued by agencies of the Federal government to govern what is called the "acquisition process," which is the process through which the Government purchases ("acquires") goods and services.
Governance	The structure, process, and procedure to control operations and changes to performance objectives. Governance must include a set of metrics to indicate the health and progress of the program in the most vital areas.
IT Infrastructure	IT infrastructure consists of the equipment, systems, software, and services used in common across an organization, regardless of mission/program/project. An IT Infrastructure also serves as the foundation upon which mission/program/project-specific systems and capabilities are built."
Local Area Network (LAN)	A computer network covering a small physical area, like a home, office, or small groups of buildings, such as a school, or an airport. The defining characteristics of LANs, in contrast to wide area networks (WANs), include their usually higher data-transfer rates, smaller geographic area, and lack of a need for leased telecommunication lines. ARCNET, Token Ring and other technologies have been used in the past, but <u>Ethernet</u> , over <u>twisted pair</u> cabling, and Wi-Fi are the two most common technologies currently in

Term	Definition
	use.
Mobile Computing	Mobile Computing is "taking a computer and all necessary files and software out into the field."
Performance	Accomplishment of a given task measured against preset standards of accuracy, completeness, cost, and speed.
Performance Metrics	A measure of an organization's activities and performance. Performance metrics should support a range of stakeholder needs from customers, shareholders to employees. While traditionally many metrics are financial based, inwardly focusing on the performance of the organization, metrics may also focus on the performance against customer requirements and value. In project management, performance metrics are used to assess the health of the project and consist of the measuring of six criteria: time, cost, resources, scope, quality, and actions.
Program Management	The process of managing several related projects, often with the intention of improving an organization's performance. Program Management also emphasizes the coordinating and prioritizing of resources across projects, managing links between the projects and the overall costs and risks of the program.
Remote Access	Pertaining to communication with a data processing facility from a remote location or facility through a data link. One of the more common methods of providing this type of remote access is using a Virtual Private Network (VPN).

Term	Definition
Risk Management	The identification, assessment, and prioritization of risks (defined in ISO 31000 as <i>the effect of uncertainty on objectives</i> , whether positive or negative) followed by coordinated and economical application of resources to minimize, monitor, and control the probability and/or impact of unfortunate event or to maximize the realization of opportunities.
Service Level Agreement (SLA)	A negotiated agreement between two parties where one is the customer and the other is the service provider. This can be a legally binding formal or informal "contract" (see internal department relationships).
Service Tower	A collection of infrastructure services that are similar and related in nature, and serve a specific, singularly definable purpose.
Total Cost of Ownership	The total cost of all the resources used in supplying a service, i.e., the sum of the direct costs of producing the output, a proportional share of overhead costs and any selling and distribution expenses. Both cash costs and notional (non-cash) costs should be included, including the cost of capital.
Unified Communications (UC)	The integration of real-time communication services such as instant messaging (chat), presence information, telephony (including IP telephony), video conferencing, call control and speech recognition with non-real-time communication services such as unified messaging (integrated voicemail, e-mail, SMS and fax). UC is not a single product, but a set of products that provides a consistent unified user interface and user experience across multiple devices and media types.
Wide Area Network (WAN)	A computer network that covers a broad area (i.e., any network whose communications links cross metropolitan, regional, or national boundaries. This is in contrast with personal area networks (PANs), local area networks (LANs),

Term	Definition
	<p>campus area networks (CANs), or metropolitan area networks (MANs) which are usually limited to a room, building, campus or specific metropolitan area (e.g., a city) respectively.</p>

Appendix E: Video Teleconference Service

The Contractor shall provide Video Teleconference Service (VTS) at all HUD Regional, Field and HQ sites, excluding the HITS Data Centers (see Appendix F – HUDNET Site Attributes). The transport bandwidth to support the Video Teleconference Service has already been included in the bandwidth requirements.

The Contractor shall provide the following Video Teleconference Service (VTS) capabilities:

- Connectivity of HUD's external partners and HUD defined invitees
- Connectivity via HUDS MPLS Network, Internet or PSTN
- On-demand and reservation-based video teleconferencing.
- Two way video, one way video with interactive voice, and/or the instant sharing of various types of documents/data files among VTS participants as an adjunct to the video teleconferencing session.
- Document sharing (data conferencing) which enables conference participants to interactively view, edit, and share or transfer data files and documents.
- Audio conference add-on capability to support non-video conference participants in a VTS call.
- Different modes of VTS operations:
 - Dial Out mode: Centralized arrangements where the conference bridge operator initiates a call and dials each participant at least 15 minutes prior to the conference start time.
 - Meet Me (Dial In) mode: Each participant is responsible for individually initiating a call and dialing into the conference bridge.
 - Mixed Dial mode: A combination or mix of both dial out and meet me (dial in) callers.
- During a multi-point conference, the addition of a party to, or the deletion of a party from, the conference will be indicated by a tone or by a verbal or visual announcement.
- Multipoint video conference capabilities:
 - Voice Activation. The video signal transmitted to all VTS conference call locations is automatically switched by voice activation when the speaker's audio signal exceeds a preset level for a specified amount of time.
 - Continuous Presence. Multiple VTS locations may be viewed simultaneously on the same video screen. If the number of locations participating in the video conference exceeds the number being viewed via continuous presence, the selection of the video from a participating location that is displayed can be coordinated between the VTS operator and the participants.
 - Chairperson Control. The chairperson, in control of the VTS, sends his or her own video or selects a return video from one of the participating locations to be sent to all participating locations. The chairperson has the capability of

transferring control of the video teleconference to another presenter at his or her location.

- Lecture Control (Broadcast Video with Audio Return Only). The video from the lecturer's location is transmitted to all VTS participants. Audio, but no video, is returned to the lecturer's location from all other participating locations. The lecturer can select one or all of the audio signals for transmission to all participants.
- Reservation system capabilities:
 - Schedule a multi-point or point-to-point VTS conference within 30 minutes after the advance reservation request, and to schedule a VTS conference up to one year in advance by voice, fax, or electronic means.
 - VTS users can cancel a video teleconference prior to the scheduled start time of the video teleconference.
 - Based on availability of bridging capacity and required network functions, request a delay in the scheduled termination time of a VTS conference, which is already in progress, is granted if the request is made at least 20 minutes before the scheduled terminating time of the VTS.
 - Ability for VTS authorized users to schedule one or more video teleconferences by time and day of week either as a single event or recurring event on a daily, weekly, monthly or other periodic basis.
 - Allows users with operating at different (disparate) data rates/speeds to connect and conference at their preferred speed.
 - Ability to add participants or join a conference.
- Ability for VTS users to request operator assistance to resolve technical issues during a video conference.
- Additional features that are described in Section C.2.8.1.2 Features of the Networkx contracts and are listed below:
 - Attended Service.
 - Certification.
 - Coding Conversion (Transcoding).
 - Rate Adaptation.
 - Security - Sensitive but Unclassified (SBU).
 - Security - Classified [Optional].
- The Contractor shall meet all other service and technical capabilities that are detailed in Section C.2.8.1.1.4 of the Networkx contracts, including but not limited to audio and video synchronization, video format conversion capability Codec's
- The Contractor shall meet all VTC Performance Metrics that are detailed in Section C.2.8.1.x.x of the Networkx contracts

VTC Service Enabling Devices (SED)

In addition to providing the Video Teleconference Service (VTS), the Contractor shall also provide VTC Service Enabling Devices (SED) at all HUD sites. In this document, HUD references the VTC-SED as the Video Teleconference Service Mobile Equipment Pack (VTS-MEP).

The VTS-MEP shall contain the electronic and AC power management components to manage and control the capturing, presentation, transmission, and, reception of audio and video in an easy to move media cart.

The Contractor shall provide a single VTS-MEP to each of HUDs 87 local and regional sites and 5 VTS-MEP to the HUD HQ site.

The VTS-MEP shall be built and configured and installed for use at HUD locations with minimal support from HUD. HUD also requires that the video teleconferencing equipment units have maintenance and repair model associated with the unit.

The Contractor shall also provide desktop clients and HD cameras at the HUD sites.

The following table contains the equipment and units to support headquarters and all regions for the mobile video requirement.

Description	Qty
Media Cart	
Mobile Media Center supporting High Definition Mobile Video and Audio Teleconferencing Configuration. Cart includes, but not limited to: cart, shelving for components, cabling for all the mobile video/audio equipment connectivity, HDMI, cable and other output ports, power supply unit and distribution ability, and appropriate hardware kits to provide a stabilized, safe, and easy to move unit.	92
VTC System	
HD VTC System	92
LCD Display	
55-inch 1080p HD LCD monitor (minimum)	92
Multi-Point Control Unit	
MCU HD/SD Sessions	10
Desktop Client	125
HD Desktop Cameras	125

Appendix F: HUDNET Site Attributes

	HUD SITE	Transition to Network	Existing Bandwidth		Transition in Initial Phase	City	State	HUD Site Type	Transition in Initial Phase	Circuit Bandwidth	Existing Circuit Purpose	Comments	Network SLA-Refer to Section 5 for SLA Definition
HUD Site Common Name	Site Postal Address	NPA-NXX											See Definition in Section 5-Service Backup and Restoration SLA Definitions
Anchorage Field Office	3000 C Street Suite 401 Anchorage, AK 99503	907-677	Anchorage	AK	Field Office	Yes	3xT1	ATM Access					SLA-03

Birmingham Field Office	950 22nd St North Suite 900 Birmingham, AL 35203-5301	205-731	Birmingham	AL	Field Office	Yes	4xT1	ATM Access	SLA-03
Little Rock Field Office	425 West Capitol Avenue Suite 1000 Little Rock AR 72201-3488	501-918	Little Rock	AR	Field Office	Yes	4xT1	ATM Access	SLA-03
Phoenix Field Office	One N. Central Avenue Suite 600 Phoenix AZ 85004	602-379	Phoenix	AZ	Field Office	Yes	5xT1	ATM Access	SLA-03
Tucson Field Office	6245 E. Broadway Blvd. Ste. 350 Tucson AZ 85711	520-670	Tucson	AZ	Field Office	Yes	2xT1	ATM Access	SLA-03
San Francisco Regional Office	600 Harrison St. 3rd Floor San Francisco CA 94107-1300	415-489	San Francisco	CA	Regional Office	Yes	DS3	ATM Access	SLA-02

Fresno Field Office	855 M Street Suite 970 Fresno CA 93721	559-487	Fresno	CA	Field Office	Yes	2xT1	ATM Access	SLA- 03
Los Angeles Field Office	611 W. Sixth Street Suite 801 Los Angeles CA 90017	213-894	Los Angeles	CA	Field Office	Yes	8xT1	ATM Access	SLA- 03
Sacramento Field Office	John E. Moss Federal Building 650 Capitol Mall Room 4-200 Sacramento CA 95814	916-498	Sacramen to	CA	Field Office	Yes	2xT1	ATM Access	SLA- 03
San Diego Field Office	Symphony Towers 750 B Street Suite 1600 San Diego CA 92101-8131	619-557	San Diego	CA	Field Office	Yes	2xT1	ATM Access	SLA- 03
Santa Ana Field Office	Santa Ana Federal Building 34 Civic Center Plaza Room 7015 Santa Ana CA 92701-4003	714-796	Santa Ana	CA	Field Office	Yes	8xT1	ATM Access	SLA- 03

Boulder HIFMIP	IBM Data Center 6300 Diagonal Highway Boulder, CO 80301		Boulder	CO	Data Center (HIFMIP) (See Notation 2 below)	Yes	3xT1	Access to HIFMIP MPLS (see Notation 2 below)	SLA-02
Denver Regional Office	1670 Broadway 25th Floor Denver CO 80202		Denver	CO	Regional Office	Yes	DS3	ATM Access	SLA-02
Hartford Field Office	One Corporate Center 20 Church Street 10th Floor Hartford CT 06103-3220		Hartford	CT	Field Office	Yes	4xT1	ATM Access	SLA-03
Washington DC Headquarters	L'Enfant Plaza: 470/490 L'Enfant Plaza, SW, Washington, DC 20024	Most likely NPA/NN X	Washington	DC	HQ	Yes	100Mbps	MAN multiplexed to a 1GB MAN connection at Lanham Data Center	SLA-02

Washington DC Headquarters	The Portals: 1250 Maryland Ave SW, Washington, DC 20024	Most likely NPA/NN X 202-203	Washington	DC	HQ	Yes	100Mbps	MAN multiplexed to a 1GB MAN connection at Lanham Data Center	SLA-02
Washington DC Headquarters	Washington Office Center: 409 3 rd Street, SW, Washington, DC 20024	Most likely NPA/NN X 202-203	Washington	DC	HQ	Yes	100Mbps	MAN multiplexed to a 1GB MAN connection at Lanham Data Center	SLA-02

Washington DC Headquarters	Weaver Bldg.: 451 7th Street SW, Washington, DC 20410	Most likely NPA/NN X 202-203	Washington	DC	HQ	Yes	1Gbps	MAN multiplexed to a 1GB MAN connection at Lanham Data Center	SLA-01
Washington DC Headquarters	Potomac Center: 550 12th Street SW, Washington, DC 20472	Most likely NPA/NN X 202-203	Washington	DC	HQ	Yes	100Mbps	MAN multiplexed to a 1GB MAN connection at Lanham Data Center	SLA-02

Washington DC Headquarters	Capitol View: 425 3rd Street SW, Washington, DC 20024	Most likely NPA/NN X 202-203	Washington	DC	HQ	Yes	100Mbps	MAN multiplexed to a 1GB MAN connection at Lanham Data Center	SLA-02
Washington DC Headquarters	Weaver Bldg.: 451 7th Street SW, Washington, DC 20410	Most likely NPA/NN X 202-203	Washington	DC	HQ	Yes	OC-3	Pt.-to-Pt. PLS to Charleston, WV Data Center (Term A) (see Notation 3 below)	SLA-01

Washington DC Headquarters	Weaver Bldg.: 451 7th Street SW, Washington, DC 20410	Most likely NPA/NN X 202-203	Washington	DC	HQ	No	Business Partner FEMA	N/A
Washington DC Headquarters	Weaver Bldg.: 451 7th Street SW, Washington, DC 20410	Most likely NPA/NN X 202-203	Washington	DC	HQ	No	Business Partner GSA	N/A
Washington DC Headquarters	4701 Forbes BLVD Lanham, MD 20706	Most likely NPA/NN X 202-203	Washington	DC	HQ	No	Business Partner Soza	N/A

Washington, DC Field Office	820 First Street NE Suite 300 Washington DC 20002-4205	202-275	Washington	DC	HQ	Yes	4xT1	ATM Access(See Notation 4 Below)	SLA-03
Wilmington Field Office	920 North King Street Suite 404 Wilmington DE 19801-3016	302-573	Wilmington	DE	Field Office	Yes	2xT1	ATM Access	SLA-03
Orlando, FL Data Center DR	12506 Lake Underhill Rd. Orlando, FL 32825		Orlando	FL	Data Center DR	Yes	OC3	ATM Access	SLA-01
Orlando, FL Data Center DR	12506 Lake Underhill Rd. Orlando, FL 32825		Orlando	FL	Data Center DR	Yes All HIFMIP MPLS Network (See Notation 2 below)	3xT1	Bandwidth Connectivity HIFMIP MPLS Network (See Notation 2 below)	NA

Orlando, FL Data Center DR	12506 Lake Underhill Rd. Orlando, FL 32825		Orlando	FL	Data Center DR	No	OC3 to Global IP	Connecti on to 45meg Global IP	This connection to the Global IP is to be deleted and the Global IP connection is to be provided by Transport Contractor MTIPS Solution 1 See Notation 1 below
Orlando, FL Data Center DR	12506 Lake Underhill Rd. Orlando, FL 32825		Orlando	FL	Data Center DR	No	OC3	Pt.-to-Pt. PLS to Lanham, MD Data Center (Term A)	NA
Jacksonville Field Office	Charles E. Bennett Federal Building 400 W. Bay Street Suite 1015 Jacksonville FL 32202		Jacksonvil le	FL	Field Office	Yes	6xT1	ATM Access	SLA- 03

Miami Field Office	909 SE First Avenue Suite 500 Miami FL 33131		Miami	FL	Field Office	Yes		4xT1	ATM Access		SLA- 03
Orlando Field Office	3751 Maguire Boulevard Room 270 Orlando FL 32803-3032	407-648	Orlando	FL	Field Office	Yes		2xT1	ATM Access		SLA- 03
Tampa Field Office	500 E. Zack Street Suite 402 Tampa FL 33602	813-228	Tampa	FL	Field Office	Yes		2xT1	ATM Access		SLA- 03
Atlanta Regional Office	40 Marietta Street Five Points Plaza Atlanta GA 30303-2806	404-331	Atlanta	GA	Regiona l Office	Yes		DS3	ATM Access		SLA- 02
Atlanta Enforcement Center	Richard B. Russell Federal Building 75 Spring Street Room 1070 Atlanta, GA 30303		Atlanta	GA	Field Office	Yes		3xT1	ATM Access (See Notation 4 Below)		SLA- 03

Honolulu Field Office	1132 Bishop Street Suite 1400 Honolulu HI 96813-4918	808-457	Honolulu	HI	Field Office	Yes	3xT1	ATM Access	SLA-03
Des Moines Field Office	210 Walnut Street Room 239 Des Moines IA 50309-2155	515-284	Des Moines	IA	Field Office	Yes	4xT1	ATM Access	SLA-03
Boise Field Office	800 Park Boulevard Plaza IV, Suite 220 Boise ID 83712-7743	208-334	Boise	ID	Field Office	Yes	2xT1	ATM Access	SLA-03
Chicago Regional Office	Ralph Metcalfe Fed Building 77 West Jackson Boulevard Chicago IL 60604-3507	312-353	Chicago	IL	Regional Office	Yes	DS3	ATM Access	SLA-02
Indianapolis Field Office	151 North Delaware Street Suite 1200 Indianapolis IN 46204-2526	317-226	Indianapolis	IN	Field Office	Yes	4xT1	ATM Access	SLA-03

Kansas City Regional Office	400 State Avenue Room 200 Kansas City KS 66101-2406	913-551	Kansas City	KS	Regiona l Office	Yes		DS3	ATM Access		SLA- 02
Louisville Field Office	601 West Broadway Room 110 Louisville KY 40202	502-582	Louisville	KY	Field Office	Yes		4xT1	ATM Access		SLA- 03
New Orleans Field Office	Hale Boggs Federal Building 500 Poydras Street 9th Floor New Orleans LA 70130	504-671	New Orleans	LA	Field Office	Yes		4xT1	ATM Access		SLA- 03
Shreveport Field Office	401 Edwards Street Room 1510 Shreveport LA 71101-5513	318-226	Shrevepor t	LA	Field Office	Yes		2xT1	ATM Access		SLA- 03
Boston Regional Office	10 Causeway Street Room 301 Boston MA 02222-1092	617-994	Boston	MA	Regiona l Office	Yes		DS3	ATM Access		SLA- 02

Lanham MD Data Center/NOC	4701 Forbes BLVD Lanham, MD 20706	301-306-8000	Lanham	MD	Data Center/ NOC	Yes	OC3	ATM Access	SLA-01
						Yes All HIFMIP MPLS Network (See Notation 2 below)		Connectivity HIFMIP MPLS Network (See Notation 2 below)	
Lanham MD Data Center/NOC	4701 Forbes BLVD Lanham, MD 20706	301-306-8000	Lanham	MD	Data Center/ NOC		3xT1		NA
									This connection to the Global IP is to be disconnected and the Global IP connection is to be provided by Transport Contractor MTPS Solution. (See Notation 1 Below)
Lanham MD Data Center/NOC	4701 Forbes BLVD Lanham, MD 20706	301-306-8000	Lanham	MD	Data Center/ NOC	No	OC3 to Global IP	Connect on to 155 meg Global IP	
Lanham MD Data Center/NOC	4701 Forbes BLVD Lanham, MD 20706	301-306-8000	Lanham	MD	Data Center/ NOC	Yes	1xT1	Connect on to PIP Cloud	SLA-01

Lanham MD Data Center/NOC	4701 Forbes BLVD Lanham, MD 20706	301-306-8000	Lanham	MD	Data Center/ NOC	Yes	1GB MAN	Wash DC Metropolitan Area Network (MAN)	SLA-01
Lanham MD Data Center/NOC	4701 Forbes BLVD Lanham, MD 20706	301-306-8000	Lanham	MD	Data Center/ NOC	No	DS3	Pt.-to-Pt. PLS to Charleston, WV Data Center (Term A)	NA
Lanham MD Data Center/NOC	4701 Forbes BLVD Lanham, MD 20706	301-306-8000	Lanham	MD	Data Center/ NOC	No	OC3	Pt.-to-Pt. PLS to Orlando, FL Data Center (Term Z)	NA
Baltimore Field Office	10 South Howard Street 5th Floor Baltimore MD 21201-2505	410-962	Baltimore	MD	Field Office	Yes	6xT1	ATM Access	SLA-03
Bangor Field Office	Chase Building One Merchants Plaza Suite 601 Bangor ME 04401-4919-4919	207-945	Bangor	ME	Field Office	Yes	2xT1	ATM Access	SLA-03

Detroit Field Office	477 Michigan Avenue Detroit MI 48226-2592	313-226	Detroit	MI	Field Office	Yes	6xT1	ATM Access	SLA- 03
Flint Field Office	Phoenix Building 801 South Saginaw 4th Floor Flint MI 48502	810-766	Flint	MI	Field Office	Yes	2xT1	ATM Access	SLA- 03
Grand Rapids Field Office	99 Monroe Avenue NW Suite 402 Grand Rapids MI 49503-2633	616-456	Grand Rapids	MI	Field Office	Yes	3xT1	ATM Access	SLA- 03
Minneapolis Field Office	International Centre 920 Second Avenue South Suite 1300 Minneapolis MN 55402	612-370	Minneapo lis	MN	Field Office	Yes	6xT1	ATM Access	SLA- 03
Financial Management Center	2380 McGee Suite 400 Kansas City, MO 64108	816-426	Kansas City	MO	Field Office	Yes	3xT1	ATM Access	SLA- 03

St. Louis Field Office	1222 Spruce Street Suite 3207 St Louis MO 63103-2836	314-418	St Louis	MO	Field Office	Yes	4xT1	ATM Access	SLA-03
Jackson Field Office	McCoy Federal Building 100 W. Capitol Street Room 910 Jackson MS 39269-1096	601-965	Jackson	MS	Field Office	Yes	4xT1	ATM Access	SLA-03
Helena Field Office	Paul G. Hatfield U.S. Courthouse 901 Front Street Suite 1300 Helena MT 59626	406-449	Helena	MT	Field Office	Yes	2xT1	ATM Access	SLA-03
Raleigh NC HIFMIP	IBM Data Center Bldg 201 RM J106-C 3039 Cornwallis Road Raleigh, NC 27709		Raleigh	NC	Data Center (HIFMIP) (See Notation 2 below)	Yes	3xT1	Access to HIFMIP MPLS (See Notation 2 below)	SLA-02

Greensboro Field Office	Asheville Building 1500 Pincroft Road Suite 401 Greensboro NC 27407-3838	336-457	Greensboro	NC	Field Office	Yes	6xT1	ATM Access	SLA-03
Fargo Field Office	657 2nd Avenue North Room 366 Fargo ND 58108	701-239	Fargo	ND	Field Office	Yes	2xT1	ATM Access	SLA-03
Omaha Field Office	Edward Zorinsky Federal Building 1616 Capitol Avenue Suite 329 Omaha NE 68102-4908	402-492	Omaha	NE	Field Office	Yes	4xT1	ATM Access	SLA-03
Manchester Field Office	Norris Cotton Federal Building 275 Chestnut Street 4th Floor Manchester NH 03101	603-666	Manchester	NH	Field Office	Yes	3xT1	ATM Access	SLA-03

Newark Field Office	One Newark Center 13th Floor Newark NJ 07102-5260	973-622	Newark	NJ	Field Office	Yes	6xT1	ATM Access	SLA-03
Albuquerque Field Office	500 Gold Avenue SW, P.O. Box 906 7th Floor, Suite 7301 Albuquerque NM 87103-0906	505-346	Albuquerque	NM	Field Office	Yes	3xT1	ATM Access	SLA-03
Las Vegas Field Office	300 S. Las Vegas Blvd. Suite 2900 Las Vegas NV 89101-5833	702-366	Las Vegas	NV	Field Office	Yes	3xT1	ATM Access	SLA-03
Reno Field Office	745 West Moana Lane Suite 360 Reno NV 89509-4932	775-824	Reno	NV	Field Office	Yes	2xT1	ATM Access	SLA-03
New York Regional Office	26 Federal Plaza Suite 35-102 New York NY 10278-0068	212-264	New York	NY	Regional Office	Yes	DS3	ATM Access	SLA-02

Albany Field Office	52 Corporate Circle Albany NY 12203-5121	518-464	Albany	NY	Field Office	Yes	4xT1	ATM Access		SLA- 03
Buffalo Field Office	Lafayette Court 465 Main Street 2nd Floor Buffalo NY 14203-1780	716-551	Buffalo	NY	Field Office	Yes	6xT1	ATM Access		SLA- 03
Syracuse Field Office	James M. Hanley Federal Court House 100 South Clinton Street Syracuse NY 13261-7025	315-477	Syracuse	NY	Field Office	Yes	2xT1	ATM Access		SLA- 03
Columbus Field Office	200 North High Street Columbus OH 43215-2463	513-684	Columbus	OH	Field Office	Yes	4xT1	ATM Access		SLA- 03
Cincinnati Field Office	632 Vine St Fifth Floor Cincinnati OH 45202	216-522	Cincinnati	OH	Field Office	Yes	3xT1	ATM Access		SLA- 03
Cleveland Field Office	1350 Euclid Avenue Suite 500 Cleveland OH 44115-1815	614-469	Cleveland	OH	Field Office	Yes	6xT1	ATM Access		SLA- 03

Oklahoma City Field Office	301 NW 6th Street Suite 200 Oklahoma City OK 73102	405-609	Oklahoma City	OK	Field Office	Yes	7xT1	ATM Access	SLA- 03
Tulsa Field Office	Williams Center Tower II 2 West Second Street Suite 400 Tulsa OK 74103	918-292	Tulsa	OK	Field Office	Yes	3xT1	ATM Access	SLA- 03
Portland Field Office	400 SW 6th Avenue Suite 700 Portland OR 97204-1632	971-222	Portland	OR	Field Office	Yes	4xT1	ATM Access	SLA- 03
Data Center DR (SunGard)	401 N. Broad St. Philadelphia, PA 19108		Philadelphi a	PA	Data Center DR (SunGard)	Yes	OC3	ATM Access	SLA- 01

Data Center DR (SunGard)	401 N. Broad St. Philadelphia, PA 19108		Philadelphia	PA	Data Center DR (SunGard)	No		Global IP	Ethernet Connection to 150 meg Global IP (See Notation 1 Below).	This connection to the Global IP is to be disconnected and the Global IP connection is to be provided by Transport Contractor MTPS Solution (See Notation 1 Below)
Data Center DR (SunGard)	401 N. Broad St. Philadelphia, PA 19108		Philadelphia	PA	Data Center DR (SunGard)	No		OC3	Pt.-to-Pt. PLS to Charleston, WV Data Center (Term Z)	NA
Philadelphia Regional Office	The Wanamaker Building 100 Penn Square, East Philadelphia PA 19107-3380	215-656	Philadelphia	PA	Regional Office	Yes		DS3	ATM Access	SLA-02

Pittsburgh Field Office	William Moorhead Federal Building 1000 Liberty Avenue, Suite 1000 Pittsburgh PA 15222-4004	412-644	Pittsburgh	PA	Field Office	Yes	4xT1	ATM Access	SLA-03
San Juan Field Office	235 Federico Costa Street Suite 200 San Juan PR 918	787-766	San Juan	PR	Field Office	Yes	4xT1	ATM Access	SLA-03
Providence Field Office	121 South Main Street Suite 300 Providence RI 02903-7104	401-277	Providence	RI	Field Office	Yes	3xT1	ATM Access	SLA-03
Columbia Field Office	1835 Assembly Street 13th Floor Columbia SC 29201-2480	803-765	Columbia	SC	Field Office	Yes	4xT1	ATM Access	SLA-03
Sioux Falls Field Office	4301 West 57th Street Suite 101 Sioux Falls SD 57108	605-330	Sioux Falls	SD	Field Office	Yes	2xT1	ATM Access	SLA-03

Knoxville Field Office	710 Locust Street, SW Suite 300 Knoxville TN 37902-2526	865-545	Knoxville	TN	Field Office	Yes		4xT1	ATM Access		SLA-03
Memphis Field Office	200 Jefferson Avenue Suite 300 Memphis TN 38103-2389	901-544	Memphis	TN	Field Office	Yes		3xT1	ATM Access		SLA-03
Nashville Field Office	235 Cumberland Bend Suite 200 Nashville TN 37228-1803	615-736	Nashville	TN	Field Office	Yes		4xT1	ATM Access		SLA-03
Ft. Worth Regional Office	801 Cherry Street Unit #45 Suite 2500 Ft. Worth TX 76102	817-978	Ft Worth	TX	Regional Office	Yes		DS3	ATM Access		SLA-02
Dallas Field Office	525 Griffin Street Room 860 Dallas TX 75202-5032	214-767	Dallas	TX	Field Office	Yes		2xT1	ATM Access		SLA-03
Ft. Worth Enforcement	819 Taylor St., Suite 13A47, Fort Worth, TX 76102		Ft Worth	TX	Field Office	Yes		2xT1	ATM Access		SLA-03

Houston Field Office	1301 Fannin Suite 2200 Houston TX 77002	713-718	Houston	TX	Field Office	Yes	5xT1	ATM Access	SLA-03
Lubbock Field Office	1205 Texas Avenue Room 511 Lubbock TX 79401-4093	806-472	Lubbock	TX	Field Office	Yes	2xT1	ATM Access	SLA-03
San Antonio Field Office	One Alamo Center 106 South St. Mary's Street Suite 405 San Antonio TX 78205-3625	210-475	San Antonio	TX	Field Office	Yes	4xT1	ATM Access	SLA-03
Salt Lake City Field Office	125 South State Street Suite 3001 Salt Lake City UT 84138	801-524	Salt Lake City	UT	Field Office	Yes	3xT1	ATM Access	SLA-03
Richmond Field Office	600 East Broad Street Richmond VA 23219-4920	800-842	Richmond	VA	Field Office	Yes	4xT1	ATM Access	SLA-03

Burlington Field Office	95 Saint Paul Street Suite 440 Burlington VT 05401-4486	802-951	Burlington	VT	Field Office	Yes	2xT1	ATM Access		SLA-03
Seattle Regional Office	909 First Avenue Suite 200 Seattle WA 98104-1000	206-220	Seattle	WA	Regional Office	Yes	DS3	ATM Access		SLA-02
Spokane Field Office	US Courthouse Building 920 W. Riverside Suite 588 Spokane WA 99201-1010	509-368	Spokane	WA	Field Office	Yes	2xT1	ATM Access		SLA-03
Milwaukee Field Office	310 West Wisconsin Avenue Room 1380 Milwaukee WI 53203-2289	414-297	Milwaukee	WI	Field Office	Yes	4xT1	ATM Access		SLA-03
Charleston WV Data Center	2020 Union Carbide DR. South Charleston, WV 25303	304 748-5858	Charleston	WV	Data Center	No	OC3	Pt.-to-Pt. PLS to Lanham, MD Data Center (Term Z)		NA

Charleston WV Data Center	2020 Union Carbide DR. South Charleston, WV 25303	304 748- 5858	Charleston n	WV	Data Center	No	OC3	Pt.-to-Pt. PLS to SunGard Data Center (Term A)	NA
Charleston WV Data Center	2020 Union Carbide DR. South Charleston, WV 25303	304 748- 5858	Charleston n	WV	Data Center	Yes	OC3	ATM Access	SLA- 01
Charleston WV Data Center	2020 Union Carbide DR. South Charleston, WV 25303	304 748- 5858	Charleston n	WV	Data Center	Yes All HIFMIP MPLS Network (See Notatio n 2 below)	3xT1	Connecti vity HIFMIP MPLS Network (See Notatio n 2 below)	NA

Charleston WV Data Center	2020 Union Carbide DR. South Charleston, WV 25303	304 748- 5858	Charleston	WV	Data Center	No	Global IP	Ethernet Connection to 150 meg Global IP. (See Notation 1 Below)	This connection to the Global IP is to be disconnected and the Global IP connection is to be provided by Transport Contractor MTIPS Solution (See Notation 1 Below)	
Charleston Field Office	405 Capitol Street Suite 708 Charleston WV 25301-1795	304-347	Charleston	WV	Field Office	Yes	3xT1	ATM Access		SLA- 03
Casper Field Office	150 East B Street Room 1010 Casper WY 82601-1969	307-261	Casper	WY	Field Office	Yes	2xT1	ATM Access		SLA- 03
MTIPS Service Connection 1	Networkx TBD	TBD	TBD	TBD	Internet Connection	Yes	500Mbps	Global IP		SLA- 01
MTIPS Service Connection 2	Networkx TBD	TBD	TBD	TBD	Internet Connection	Yes	500Mbps	Global IP		SLA- 01

Notation 1: The Transport Contractor shall provide the primary and back-up MTIPS portal at the contractors defined MTIPS IXP sites. The primary and back-up MTIPS portal shall each support 500 Megabits of traffic.

Notation 2: The sites serviced by the HIFMIP MPLS Network (Boulder, CO and Raleigh, NC) and the current ATM to the HIFMIP MPLS Network shall be incorporated into the Transport Contractor's Network infrastructure. HUD will decommission the HIFMIP MPLS Network.

Notation 3 - The point to point Private Line Circuit (PLS) between Washington, DC Headquarters to the Charleston, WV Data Center (OC3) shall be incorporated into the Transport Contractors Network infrastructure.

Notation 4 – Potential use of MAN

Appendix G: References

Networx Fair Opportunity and PWS Guide Rev 1	http://www.gsa.gov/graphics/fas/FairOpportunityandSOWGuideRevision1.pdf
Networx Best Practices: Creating a Statement of Work v1.0	http://www.gsa.gov/graphics/fas/FINALNetworxBestPractices.pdf
Networx Service Level Agreement (SLA) Management Guide v2.0	http://www.gsa.gov/graphics/fas/NetworxSLAManagementGuide.pdf

ORDER FOR SUPPLIES OR SERVICES

PAGE OF PAGES
1 14

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

1. DATE OF ORDER 08/25/2015		2. CONTRACT NO. (If any) GS00T07NSD0007		6. SHIP TO: a. NAME OF CONSIGNEE HUD-Q	
3. ORDER NO. DU100F-13-T-00005		4. REQUISITION/REFERENCE NO.			
5. ISSUING OFFICE (Address correspondence to) US Department of HUD Office of the Chief Procurement Officer 451 Seventh Street, SW Room 5256 Washington DC 20410-1000				b. STREET ADDRESS 451 7TH STREET, SW	
				c. CITY WASHINGTON	e. ZIP CODE 20410
7. TO: CAROL BROWN				f. SHIP VIA	
a. NAME OF CONTRACTOR AT&T CORP.-8				8. TYPE OF ORDER	
b. COMPANY NAME				<input type="checkbox"/> a. PURCHASE <input checked="" type="checkbox"/> b. DELIVERY REFERENCE YOUR: _____ Please furnish the following on the terms and conditions specified on both sides of this order and on the attached sheet, if any, including delivery as indicated.	
c. STREET ADDRESS 3033 CHAIN BRIDGE RD				Except for billing instructions on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract.	
d. CITY OAKTON		e. STATE VA	f. ZIP CODE 22185		
9. ACCOUNTING AND APPROPRIATION DATA See Schedule				10. REQUISITIONING OFFICE OFFICE OF CHIEF INFORMATION OFFICER	

11. BUSINESS CLASSIFICATION (Check appropriate box(es)) <input type="checkbox"/> a. SMALL <input type="checkbox"/> b. OTHER THAN SMALL <input type="checkbox"/> c. DISADVANTAGED <input type="checkbox"/> d. WOMEN-OWNED <input type="checkbox"/> e. HUBZone <input type="checkbox"/> f. SERVICE-DISABLED <input type="checkbox"/> g. WOMEN-OWNED SMALL BUSINESS (WOSB) ELIGIBLE UNDER THE WOSB PROGRAM <input type="checkbox"/> h. EDWOSB				12. F.O.B. POINT Destination	
13. PLACE OF a. INSPECTION Destination		b. ACCEPTANCE Destination		14. GOVERNMENT B/L NO.	
				15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date)	
				16. DISCOUNT TERMS NET 30 PROMPT PAY	

17. SCHEDULE (See reverse for Rejections)

ITEM NO. (a)	SUPPLIES OR SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	Tax ID Number: 13-4924710 DUNS Number: Not Available HUD Network Infrastructure and Support Services. This is a Fixed Price task order awarded pursuant to the terms and conditions of the GSA Network Universal Continued ...					
SEE BILLING INSTRUCTIONS ON REVERSE	18. SHIPPING POINT	19. GROSS SHIPPING WEIGHT		20. INVOICE NO.		17(h) TOTAL (Cont. pages)
	21. MAIL INVOICE TO:				\$18,245,223.03	
	a. NAME	HUD-FTW ACCOUNTING				
	b. STREET ADDRESS (or P.O. Box)	6AF, 801 CHERRY STREET UNIT #45 STE 2500				\$18,245,223.03
c. CITY	d. STATE	e. ZIP CODE				
FORT WORTH		TX	76102		17(i) GRAND TOTAL	

22. UNITED STATES OF AMERICA BY (Signature)

23. NAME (Typed)
ELVIE A. THOMPSON
TITLE: CONTRACTING/ORDERING OFFICER