1.5.6 Managed Network Services (MNS) [C.2.9.1]

A Managed Network Services (MNS) solution allows Agencies to meet their network requirements without the worry of finding experienced people or selecting the appropriate equipment. A broad service portfolio, comprehensive service design, and implementation enable Agencies to quickly deploy a solution customized to match mission requirements and maintenance needs.

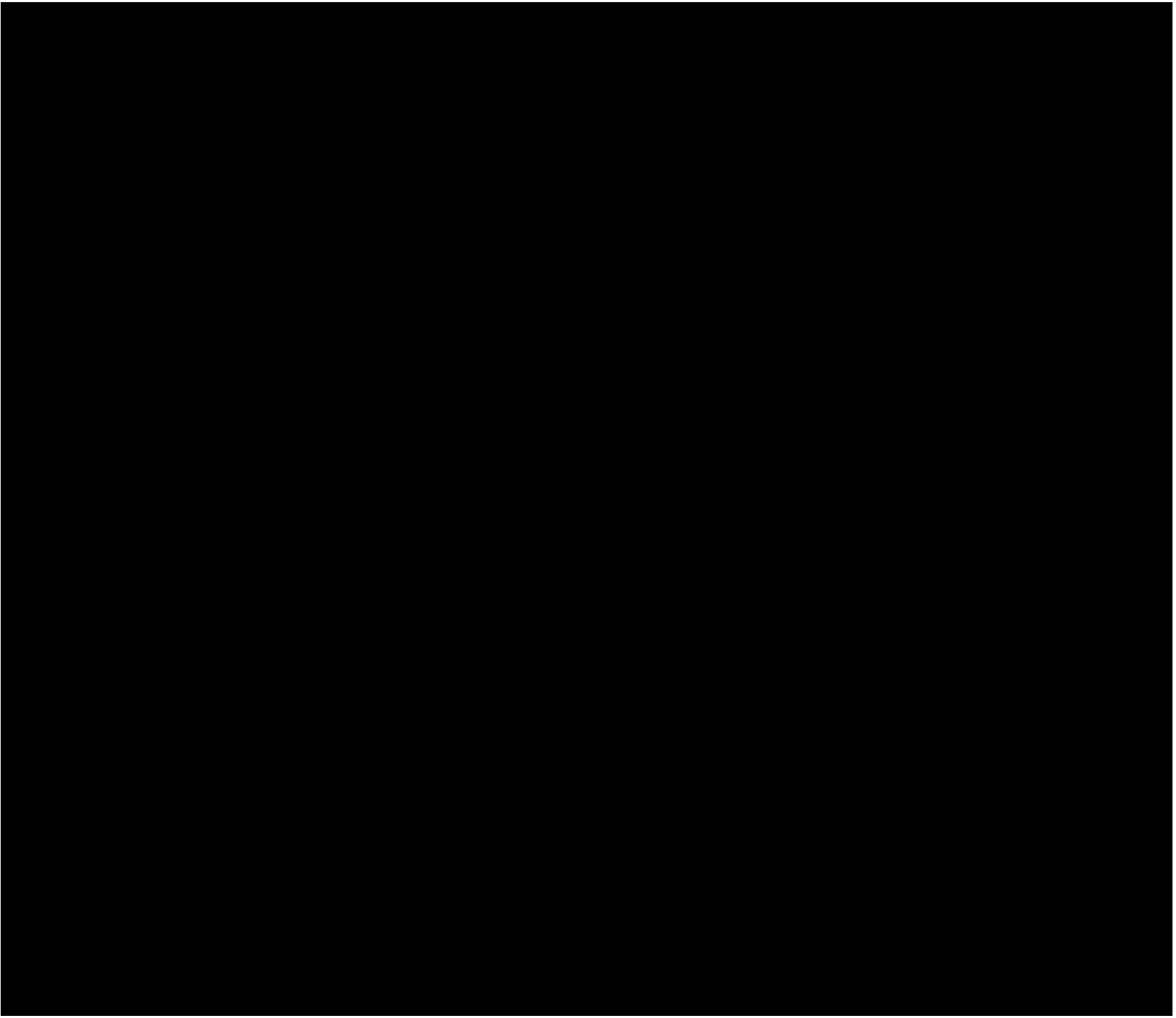
1.5.6.1 Technical Approach to Management and Applications Service Delivery [L.34.1.5.1]

1.5.6.1.a Approach to Service Delivery

(a) Analyze the service requirements specified in this solicitation and descr be the approaches to service delivery for each service.

Running a telecommunications network is not necessarily the goal of Government Agencies. Instead, Agencies should view the network as a tool that helps them fulfill their missions. AT&T has been offering Managed Network Services (MNS) to Government and commercial customers for more than 10 years. This experience has led to the development of our five-phase MNS approach (**Figure 1.5.6.1-1)**. This comprehensive MNS approach is flexible enough for use in a simple 25-site network or a complex 2,000-site network. AT&T understands that a *one-size-fits-all* approach does not accommodate the uniqueness of each Agency's managed service needs. The detailed steps in our service delivery approach are presented in Section 1.5.6.3.e.

> *"The company we had been using was a troubled carrier at the time and we didn't know where it was going in terms of bankruptcy. AT&T's network was in place and it worked. The fact that we weren't going to have to deal with stability issues gave us a level of comfort. "*
>
> --Jay Bendik, Director of IT Services
> Pinnacle Foods Corporation



Our MNS is delivered [redacted] using a proven approach of expert people, certified processes, best-in-class tools, and high-touch client servicing (**Table 1.5.6.1-1).**

Unlike our competitors AT&T views managed services as a full service offering. Our five phase MNS approach provides Agencies with "piece of mind" that their custom requirements are being considered and addressed rather than a "one size fits all" canned approach.

SERVICE APPROACH	DESCRIPTION
Expert Technical Professionals	• Established design centers of excellence, providing expert solution design services • [redacted] of operational management experience with commercial and Government customers • Trained and skilled professionals with skills in network management, business management, and help management • Extended Information Technology (IT) team members on a global basis
Proven Program Management, Implementation, and Help Management Processes	• Methodical design and engineering solution shaping processes • Rigorous implementation and operational processes that provide predictable results and on-time delivery [redacted] • Established and continual feedback on operational metrics, resulting in operational excellence • International Organization for Standardization (ISO) 9001 and Statement on Auditing Standards (SAS) 70 certifications
Expert Management Systems and Tools	[redacted] • E-bonded with transport and equipment suppliers to provide integrated solution [redacted] • Web-based portal for Agency access to valuable network, equipment, performance, exception reports, and ticketing information
High-Touch Client Servicing Modeling	• Assigned client advocates through lifecycle management team • Regularly planning and performance reviews to optimize investment

Table 1.5.6.1-1: Proven Managed Network Service. *Experienced people, proven processes, advanced tools, and client advocates deliver outstanding network performance to Agencies.*

Our five-phased approach offers many benefits to Agencies, providing the technologies and service delivery capabilities that contribute to the Agency's mission objectives and support their Federal Enterprise Architecture (FEA) efforts.

1.5.6.1.b Benefits to Technical Approach

(b) Describe the expected benefits of the offeror's technical approach, to include how the services offered will facilitate Federal Enterprise Architecture objectives (see http://www.whitehouse.gov/omb/egov/a-1-fea.html).

AT&T's Networx services, in general, and MNS, in particular, support the Government's vision of transformation through the Federal Enterprise Architecture (FEA). **Table 1.5.6.1-2** describes each service in relation to the

FEA, summarizes its contribution, and/or provides an example of how it facilitates FEA implementation.

SERVICE DELIVERY APPROACH	BENEFITS	FEA FACILITATION
Global coverage	• Provides ease of global implementation among all locations [redacted]	Horizontal and vertical information sharing
Designed and engineered	Offers Agency peace of mind that its network solution has been engineered to work the first time, every time	Performance measurement
Integrated Installation and Implementation Support	Having our project management, procurement, transport, and asset management systems integrated, [redacted]	• Performance measurement • E-Government
Fully managed solution	• Network facilities, network management, and monitoring on 24x7 basis, ensuring network reliability and availability • Reduces cost of ownership in network technology, improving return on investment within Agency's network	• Performance measurement • Budget/performance Integration
One-stop shopping	For global ordering and implementation, including access circuits on a global basis, with in-country support providing ease of implementation, saving time and ensuring network productivity	Budget/performance Integration
Electronic ordering	Provides Agencies with ability to submit moves, adds, changes, and deletes (MACDs) themselves to AT&T	E-Government
Network reports	• Enhanced customer reporting available from AT&T's managed services portal [redacted]	• Horizontal and vertical information sharing • Performance measurement • E-Government

Table 1.5.6.1-2: Federal Enterprise Architecture Benefits. *AT&T's MNS features all contribute to Agency FEA implementation efforts.*

AT&T's development of net-centric technologies supports solutions based on service oriented architecture (SOA), which uses standardized, web-adapted components. Our approach ensures that the criteria listed below are followed:

- Technical Reference Model capabilities are fully met and linked to the Service Component Reference Model (SRM) and Data Reference Model (DRM).
- These links are structured to support Business Reference Model (BRM) functions and provide line-of-sight linkage to mission performance and ultimate accomplishment per the Performance Reference Model (PRM)
- AT&T operates as an innovative partner through Networx to help achieve the vision of the FEA to enhance mission performance.

In addition to the benefits and FEA facilitations cited earlier, AT&T can assist specific departments and Agencies to meet other mission and business objectives through a comprehensive MNS offering.

1.5.6.1.c Major Issue to Service Delivery

(c) Describe the problems that could be encountered in meeting individual service requirements, and propose solutions to any foreseen problems.

In transitioning to any new service delivery model, whether it be a task order or fully outsourced service model, unforeseen issues could always arise. An experienced service provider, AT&T has the depth and experience that minimize a Government Agency's risk during this transition.

Table 1.5.6.1-3 lists the top 10 service delivery risks and our mitigation strategy. As with all large managed service projects, we enter each of these risks and others (after identification and characterization) into our risk-tracking database, and immediately take steps to mitigate it before it becomes an issue. Because risk management is more effective when all stakeholders are active in the process, AT&T works with the GSA, the client Agency, and our subcontractors in conducting risk mitigation activities.

RISKS	RISK DESCRIPTION	RISK MITIGATION
Business disruption	In our experience, all Agencies are concerned about business disruption when moving to a managed service; adequate planning can minimize this risk.	
Requirements changes	Requirements changes before and after service delivery contribute to budget overruns, schedule slips, and missed expectations.	
Complete and accurate location information	Location information is often inaccurate and site POCs are invalid.	
Schedule slippage	Many issues can contribute to schedule slippage; with a detailed project schedule, this risk is minimized.	

RISKS	RISK DESCRIPTION	RISK MITIGATION
Equipment functionality	Premises equipment often does not live up to manufacturer's claims and fails to deliver functionality that Agency expects.	
Resources shortfall	In indefinite delivery, indefinite quantity (IDIQ) contract of size and complexity of Networx, the challenge is to have appropriate skills and resources available when they are needed.	
Role confusion	Custom-managed service projects can experience role confusion between organizations.	
Jeopardy issues	In large projects, jeopardy issues arise during service delivery differences between quality provider and competitor in how they are handled.	
Communications	Poor communications between prime contractor, suppliers, and customers.	
Network facilities	Network facilities not available to be deployed when Agency requests service.	

Table 1.5.6.1-3: Top 10 AT&T Managed Service Delivery Lessons Learned and Risk Mitigation Strategies.
Agencies minimize risk by leveraging AT&T's experience and valuable lessons learned implementing MNS.

AT&T has taken steps to identify risk and provide risk mitigation associated with delivering MNS. AT&T is committed to service excellence and will work with the Agency to identify and resolve potential problems that might occur during service delivery.

1.5.6.2 Satisfaction of Management and Applications Performance Requirements [L.34.1.5.2]

1.5.6.2.a Service Quality and Performance

(a) Describe the quality of the services with respect to the performance metrics specified in Section C.2 Technical Requirements for each service.

AT&T is committed to offer the Government the highest quality in managed service; this commitment extends beyond simple promises. [redacted]

Table 1.5.6.2-1 lists our key performance indicators (KPIs) and acceptable quality levels (AQLs) for various service quality levels.

KEY PERFORMANCE INDICATOR (KPI)	SERVICE LEVEL	PERFORMANCE STANDARD (THRESHOLD)	PROPOSED SERVICE QUALITY LEVEL
Availability (Network End-to-End)	All	≥99.9%	[redacted]
Time to Restore (TTR) Service	With Dispatch	<8 hr	
	Without Dispatch	<4 hr	

[redacted]

Table 1.5.6.2-1: AT&T Managed Service Quality and Performance. [redacted]

AT&T's confidence in our ability to deliver these performance results is supported by past performance and is backed by stringent service credits.

AT&T will comply with and meet or exceed the MNS quality performance metrics specified in the RFP Section C.2.9.1.4.1 as illustrated in **Table 1.5.6.2-1.**

1.5.6.2.b Approach to Monitoring and Measuring Performance

(b) Describe the approach for monitoring and measuring the Key Performance Indicators (KPIs) and Acceptable Quality Levels (AQLs) that will ensure the services delivered are meeting the performance requirements.

KPIs are monitored to conform to the guidelines of the Global Customer Support Center (GCSC) AQLs using our automated integrated global enterprise management system (iGEMS) (**Table 1.5.6.2-2**). [redacted]

KPI	MONITORING AND MEASURING APPROACH
Availability (Network End-to-End)	[redacted]
Time to Restore (TTR)	[redacted]

Table 1.5.6.2-2: AT&T Managed Service Quality Measurement Approach. *The iGEMS platform collects, monitors, and measures service quality to provide enhanced accuracy for management and online reports to Agencies.*

AT&T has invested over $200 million in our iGEMS platform. Through the iGEMS, Agencies receive the technology, tools, and processes required for a comprehensive MNS. **Figure 1.5.6.2-1** shows our award winning iGEMs platform. [redacted]

"iGEMS wins Product of the Year Award for Outsourced Management"
--Network Magazine, 2002

[redacted]

"iGEMS offers a low-risk solution through our AT&T Labs-developed platform that delivers an award winning interface, e-bonding, and automated response."

[redacted]

Figure 1.5.6.2-1: AT&T Service Level Reporting. [redacted].

Our GCSC becomes a virtual extension of the Agencies' networking platforms through our iGEMS. The GCSC uses iGEMS to monitor and maintain the Agencies' networks on a 24x7 basis, anticipating as well as responding to the Agencies' networking needs. AT&T uses iGEMS for data collection and correlation and provides Service Level Agreement (SLA) measurements to Government Agencies through our web portal.

1.5.6.2.c Approach to Perform Service Delivery Verification

(c) Describe the offeror's approach to perform verification of individual services delivered under the contract, in particular the testing procedures to verify acceptable performance and Key Performance Indicator (KPI)/Acceptable Quality Level (AQL) compliance.

The first time the service is provided through the Networx contract, the performance must be verified. The KPIs will be monitored to certify that the service performance complies with the AQL. [redacted]

(**Table 1.5.6.2-3**). [redacted]

KPI	VERIFICATION APPROACH	TESTING PROCEDURES
Availability (Network End-to-End)	Monthly Service Quality Report	[redacted]
Time to Restore	Monthly Service Quality Report	[redacted]

Table 1.5.6.2-3: Monthly Service Quality Reviews. *SLA information is collected using our iGEMS platform and reported to Government Agencies on a monthly basis.*

Through a comprehensive verification process, Agencies and the GSA will receive concrete data that demonstrates the readiness of the MNS. AT&T follows detailed procedures to verify MNS by comparing the KPI data against the stated AQLs, as described in the Verification Test Plan.

1.5.6.2.d Performance Level Improvements

(d) If the offeror proposes to exceed the Acceptable Quality Levels (AQLs) in the Key Performance Indicators (KPIs) required by the RFP, describe the performance improvements.

[redacted] Table 1.5.6.2-4, [redacted]

[redacted]

KPI	PROPOSED AQL	AQL DELTA	PERFORMANCE LEVEL IMPROVEMENT AND BENEFITS
[redacted]			

Table 1.5.6.2-4: MNS Performance Improvements. *AT&T offers performance improvements that are and delivered to Government Agencies, rather than offering unsubstantiated promises.*

[redacted]. In so doing, AT&T understands the importance of having network and managed services perform to requirements. We propose low-risk solutions that are designed and implemented to deliver the desired performance.

AT&T offers low-risk solutions that are designed to deliver performance and meet Agency KPIs rather than making service claims covered by financial risk.

1.5.6.2.e Approach and Benefits for Additional Performance Metrics

(e) Describe the benefits of, and measurement approach for any additional performance metrics proposed.

The KPIs defined by the Government for the MNS will provide a comprehensive assessment for service verification and service performance monitoring. However, we understand Agencies needing more comprehensive KPIs. [redacted]

[redacted]

[redacted]

1.5.6.3 Satisfaction of Management and Applications Service Specifications [L.34.1.5.3]

1.5.6.3.a Service Requirements Description

(a) Provide a technical description of how the service requirements (e.g., capabilities, features, interfaces) are satisfied.

Agencies require a comprehensive MNS that includes design, engineering, implementation, management, and maintenance services. As shown in **Figure 1.5.6.3-1**, AT&T provides a comprehensive MNS with increasing levels of management support to meet an Agency's needs.

[redacted]

Figure 1.5.6.3-1: Comprehensive Managed Network Solution. *Agencies receive a comprehensive managed network solution—*[redacted]*—that maintains availability and reliability of their networks.*

Each of these management capabilities is supported by many varying feature types.

1.5.6.3.a.1 MNS Features

Table 1.5.6.3-1 demonstrates AT&T's compliance with the functional definition through a brief description of our MNS service offerings.

FEATURE	DESCRIPTION
Engineering and Design Services	Working with Agencies, AT&T designs and documents the Agency's network topology, applications, connectivity, projected traffic flows, and performance, based on Agency-provided information and Agency-specified requirements.
Network Engineering Documentation	AT&T develops the specifications, both physical and logical, for the MNS necessary to support the mutually agreed on goals, objectives, and requirements of the engineered solution. This includes, but is not limited to, network components, protocols, access capacity, permanent virtual circuits (PVCs), network and access redundancy, and traffic filtering and prioritization.
Project Management	Project Management includes the development project schedule and identification of all Agency and AT&T activities necessary to design and implement MNS. AT&T performs the following functions: • Oversees the connection and testing of access lines • Handles equipment ordering, provisioning, configuration, and software loading and testing • Provides configuration of backbone • Loads logical configurations and performs logical connectivity testing • Verifies that sites communicate with each other and GCSC, AT&T's networks management center.
Procurement	AT&T will procure and supply hardware, software, and firmware associated with the managed solution to include routers, switches, asynchronous transfer mode (ATM) devices, channel service unit/data service unit (CSU/DSU), hubs, integrated services digital network (ISDN) adapters, and modems.
Implementation	AT&T will implement solutions with varying technologies to include data, voice, video, and wireless. Implementation will consist of installation, configuration, test, and turn-up of networks services and customer premises equipment (CPE).
Monitoring 24x7	AT&T proactively monitors the Agency's network 24x7 to identify faults within the service boundaries. AT&T wide area network (WAN) transport problems are isolated, diagnosed, and resolved by the GCSC.
Data Feeds	[redacted]
Move, Add, Change, Disconnect (MACD)	AT&T will conduct all activities required for change management.
Address Management	AT&T will provide and manage an Agencies' address associated with the managed solution and equipment.
Agency Specific Network Operations Center (NOC)	AT&T will provide a customer single point-of-contact (POC) dedicated to the Government or a private NOC-dependent customizable to the Agency's needs.
Fault Management	In providing the Network monitoring and fault identification function, AT&T handles the following tasks: • Monitors CPE interfaces within the service boundary using [redacted] • Performs diagnostic testing of CPE interfaces and isolates, sectionalizes, and identifies faults as being physical or logical in nature • Maintains databases consisting of the logical configurations of Agency WAN, WAN site and network connectivity, software specifications, and Agency contact information • Provides trouble status to Agencies at regular intervals

FEATURE	DESCRIPTION
Configuration Management	• AT&T manages a database of specific information regarding the logical address configuration(s) of the routers, switches, CSU/DSU, modems, and software specifications. • [redacted] ■ [redacted]
Equipment Maintenance	AT&T will maintain all service enabling device (SED) equipment on behalf of the Government. We assume that the Government will purchase the maintenance through an SED or will be provided by the Government. AT&T will provide the Agency with the option to purchase maintenance and repair for Government Furnished Property if it is not maintained under a SED monthly maintenance charge.
Performance Management	AT&T's performance management process uses both software tools and engineering review to proactively detect any performance issues in the network. [redacted] or error conditions before they cause problems.
Live Network Testing	AT&T will use our Lab facilities in [redacted] to conduct customer testing of Agency requirements for specific solutions.
Electronic Ordering	Provides Agencies with the ability to submit MACDs themselves on AT&T **Business**Direct.
Electronic Ticketing	Provides Agencies with the ability to open, close, and track trouble tickets on AT&T **Business**Direct.
Network Reports	Reports available from AT&T **Business**Direct. Web-enabled customers reporting by CoS. Reports vary by technology and service type. [redacted]
	[redacted]

Table 1.5.6.3-1: Exceeding the MNS Functional Definition. *Compliance with the MNS functional definition is achieved through a comprehensive portfolio of service offerings.*

1.5.6.3.a.2 Interfaces

In accordance with the RFP, the MNS connects and interoperates with underlying Networx offerings (**Table 1.5.6.3-2**).

UNDERLYING NETWORX OFFERING	MNS SUPPORTED
Frame Relay	✓
ATM	✓
IP-Enabled Frame Relay (IPeFR)/ATM	✓
Internet Protocol (IP)	✓
VPN	✓
Private Lines	✓
Other services, as required	✓

Table 1.5.6.3-2: Transport Services Available for MNS. *Available to the Agencies are a variety of transport service options to build their unique MNS solution.*

1.5.6.3.b Attributes and Values of Service Enhancements

(b) If the offeror proposes to exceed the specified service requirements (e.g., capabilities, features, interfaces), describe the attributes and value of the proposed service enhancements.

AT&T is committed to providing premium MNS and offers a variety of additional service options to the Agencies [redacted]. **Table 1.5.6.3-3** provides a short service description and the benefits of the proposed service option.

SERVICE ENHANCEMENT	DESCRIPTION	BENEFIT
Custom KPIs and [redacted]	[redacted]	[redacted]

Table 1.5.6.3-3: Optional MNS Features. *AT&T offers a variety of additional services options that provide the Government with added benefits.*

1.5.6.3.c Service Delivery Network Modifications

(c) Describe any modifications required to the network for delivery of the services. Assess the risk implications of these modifications.

[redacted]

1.5.6.3.d Management and Applications Services Experience

(d) Describe the offeror's experience (including major subcontractors) with delivering the mandatory Management and Applications Services described in Section C.2 Technical Requirements.

Two examples of AT&T's ability to deliver management and applications services are described in **Table 1.5.6.3-4**.

Table 1.5.6.3-4: Experience Delivering Managed Services. *Success is measured by the ability to deliver solutions to Agencies that create value to their business.*

1.5.6.3.e Approach to Network Infrastructure Management

(e) For Managed Network Services (MNS), descr be the approach, process, and considerations for managing a network infrastructure (e.g., FRS, ATMS, IPS, IP-VPNs, CPE) supporting approximately 2000 users, at 25 locations across the Unites States. Based on the offeror's experience with similar projects, provide a discussion of how the offeror would investigate the requirements, design the solution, implement the plan, and deliver service that meets the Agency's performance requirements.

AT&T offers an MNS requirements determination, design, and implementation approach that is flexible enough to be used in a simple 25-site network or a complex 2,000-site network. Our requirements, design, implementation, and

lifecycle management approach for providing a managed service were shown previously in **Figure 1.5.6.3-1**. The remainder of this section provides a detailed discussion of our approach, processes, and considerations.

1.5.6.3.e.1 Project Planning

During the requirements and design phase, a project manager is assigned to effectively manage requirements gathering and design tasks, and sustain progress into baseline operations. The Project Manager directs activities, monitors progress, and manages risks to produce a quality deliverable to the Government. [redacted]

1.5.6.3.e.2 Requirements Definition

AT&T performs all tasks necessary to identify and describe mathematically and/or in textual detail the to-be managed network design requirements to meet all defined to-be network operational objectives. The analysis addresses the items listed below:

[redacted]

[redacted]

The following methods are used to collect the network requirements: [redacted]

[redacted]

1.5.6.3.e.3 Preliminary Design Document

AT&T performs all activities necessary to develop, verify, and test design specifications. A preliminary design specification is prepared with the drawings and/or programs necessary to develop hardware and software elements of the physical system. Specifications are based on identified physical components, internal/external interfaces, system functions, and system requirements. The preliminary design document has the following items:

[redacted]

[redacted]. As a result of this task, AT&T develops and delivers a preliminary design document.

1.5.6.3.e.4 Design Certification

Our experience shows that management and schedule risk far outweigh technical risk in network implementations of this nature. [redacted]

1.5.6.3.e.5 Site Survey

[redacted]

1.5.6.3.e.6 Site Preparation

If it is determined that the site has facility needs, such as special construction, power or space modification, or inside wire, the program team documents these requirements in the site survey report. If additional power, facility construction, or an analog line is needed, the requirements for the Government site POC and PMO are developed to order, using the appropriate internal Government methods for delivering this work.

1.5.6.3.e.7 Implementation and Installation

[redacted]

1.5.6.3.e.8 Test and Acceptance

[redacted]

1.5.6.3.e.9 Life Cycle Management

[redacted]

1.5.6.4 Stipulated Deviations

AT&T takes neither deviation nor exception to the stipulated requirements.

1.5.6.5 Enhanced Managed Network Service

[redacted]

1.5.6.5.1 EMNS – Service Description

[redacted]

[redacted]

Figure 1.5.6.5-1 [redacted]

Figure 1.5.6.5-1: Enhanced Managed Network Service Example.

[redacted]

[redacted]

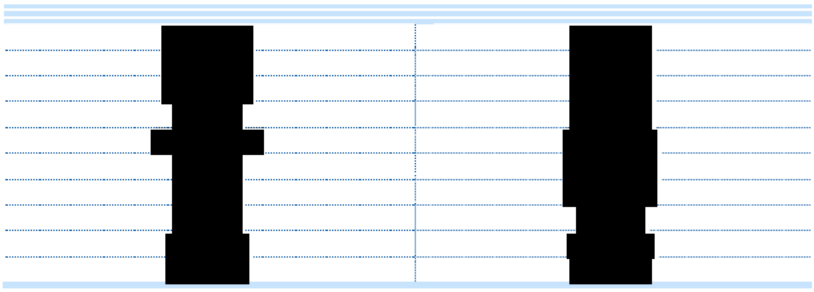


Table 1.5.6.5-1: Available EMNS Network Port Speeds. *Agencies will have the option to select one of the listed network port speeds for EMNS Managed Network Service.*

1.5.6.5.2 EMNS – EMNS Enhanced SED Service (ESEDS)

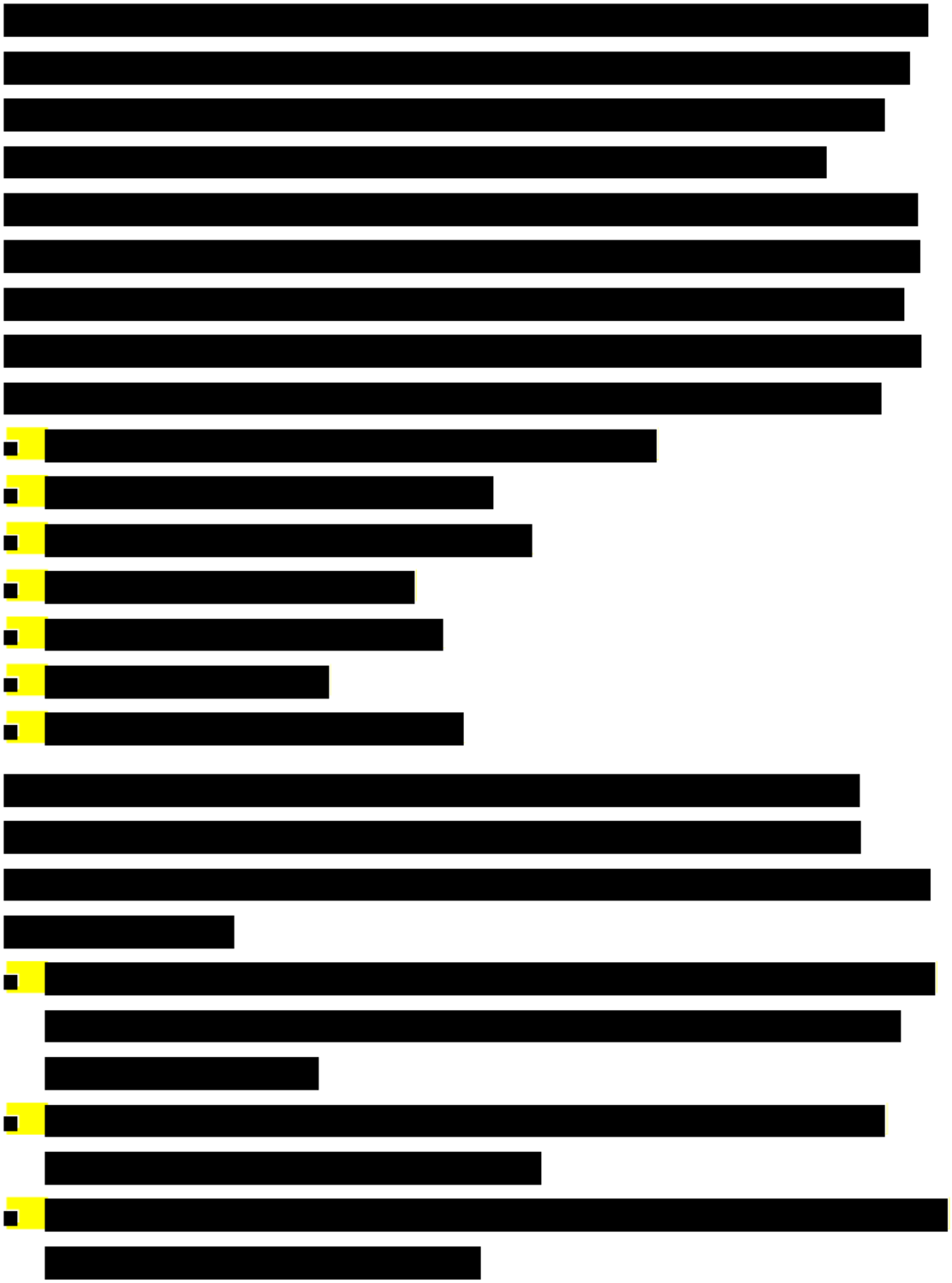
[redacted]

[redacted]

1.5.6.6 SOC Forensic Support

[redacted]

[redacted]



[redacted]

1.5.6.7 Advanced SOC Support

[redacted]

[redacted]

1.5.6.8 Multi-site MNS

[redacted]

1.5.6.8.1 Service Description

[redacted]

[redacted]

[redacted]

1.5.6.9 Managed VPN Exchange

[redacted]

1.5.6.9.1 Service Description

[redacted]

[redacted]

1.5.6.10 Secure Remote Access

[redacted]

1.5.6.10.1 Service Description

[redacted]

[redacted]

1.5.6.10.2 Endpoint Compliance

[redacted]

[redacted]

1.5.6.11 TIC Based DNS

[redacted]

1.5.6.11.1 Service Description

[redacted]

[redacted] **Figure 1.5.6.11.1-1** [redacted]

Figure 1.5.6.11-1: AT&T's Managed DNS Environment.

1.5.6.11.2 Key Performance Indicators (KPI)

The KPI associated with TIC Based DNS is DNS Service Availability. The DNS Service Availability KPI is as follows:

KEY PERFORMANCE INDICATOR (KPI)	SERVICE LEVEL	PERFORMANCE STANDARD (THRESHOLD)	ACCEPTABLE QUALITY LEVEL
Availability	Routine	100%	>99.999%

Table 1.5.6.11-1: TIC Based DNS KPI. *Agencies will experience high availability with the TIC Based DNS service.*

1.5.6.12 Platinum Managed Network Service

- Traffic Tap

[redacted]

[redacted]

1.5.6.12.1 Extended SED Management

1.5.6.12.1.1 On-site Evaluation of Government Furnished Equipment

[redacted]

[redacted]

[redacted]

1.5.6.12.1.3 Remote Power Management

[redacted]

Figure 1.5.6.12-1.

[redacted]

Figure 1.5.6.12-1: [redacted]

1.5.6.12.2 Managed Equipment Service

[redacted]

[redacted]

1.5.6.12.3 Platinum Lab Service

[redacted]

1.5.6.12.4 Managed Secondary Transport Service

[redacted]

1.5.612.5 Traffic Tap

[redacted]

[redacted]

1.5.6.12.6 Standby Network Operations Center (NOC)

[redacted]

1.5.6.12.7 Node Router Management

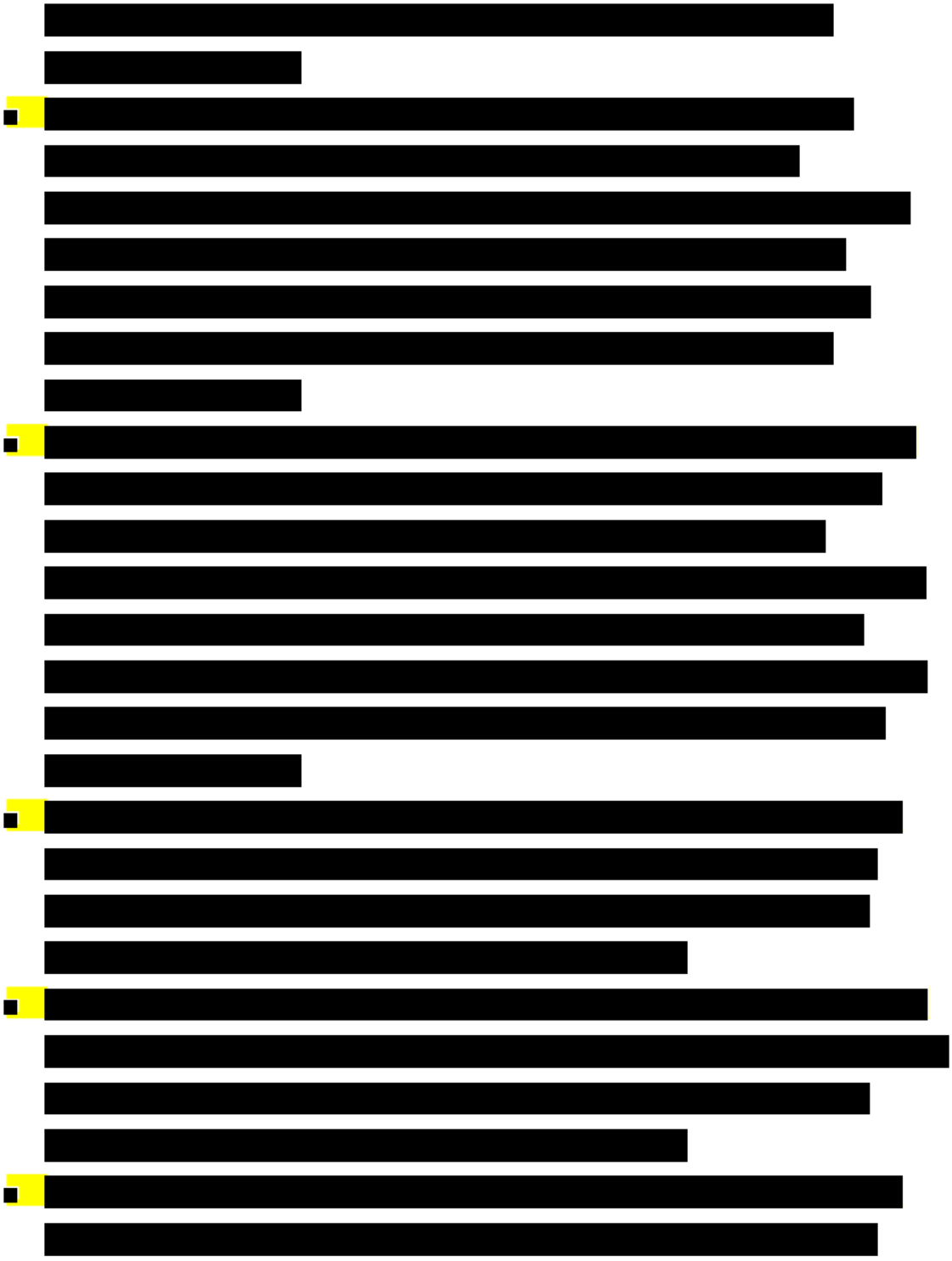
[redacted]

1.5.6.13 Alpine Managed Router or Switch Service

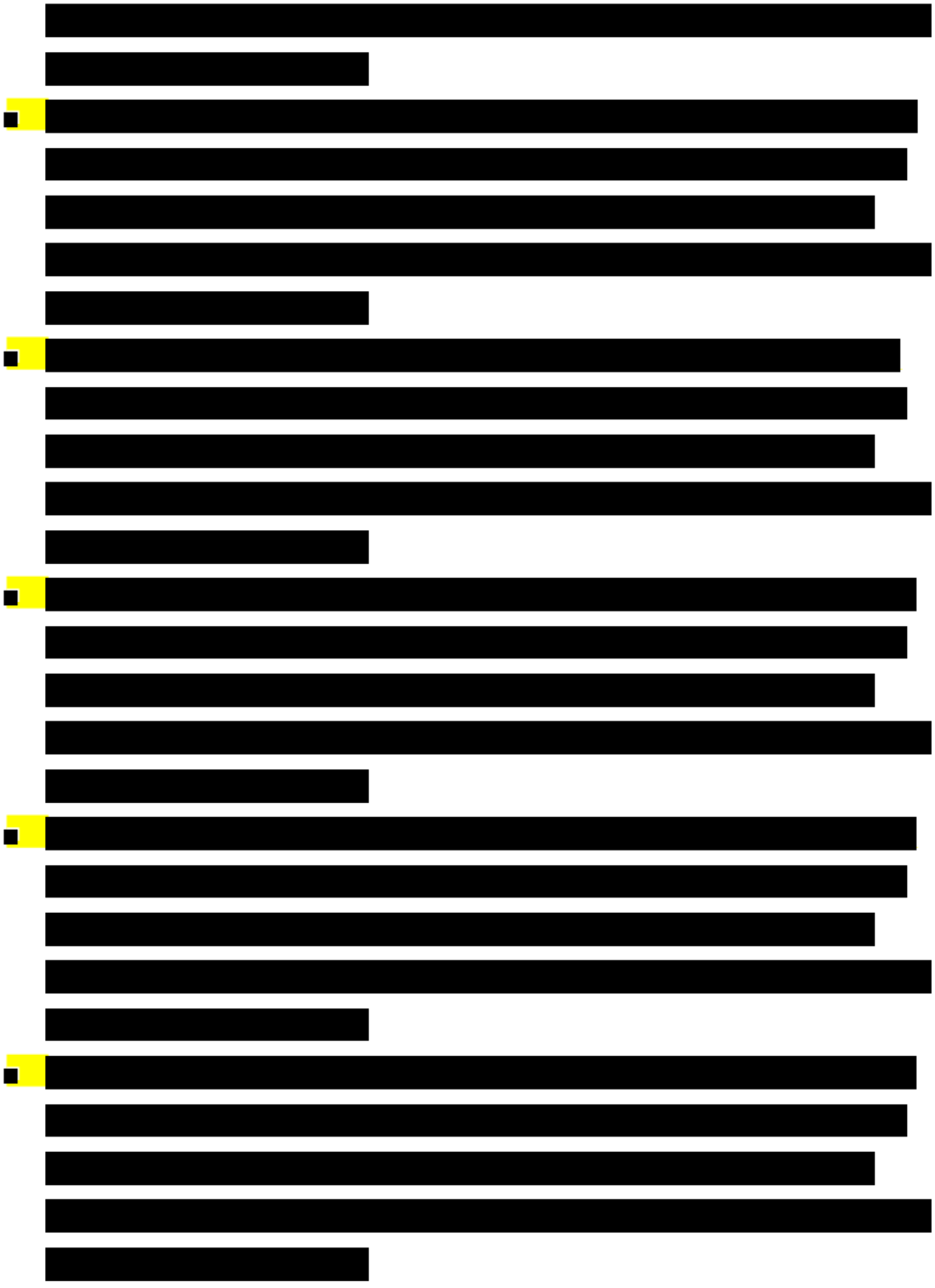
[redacted]

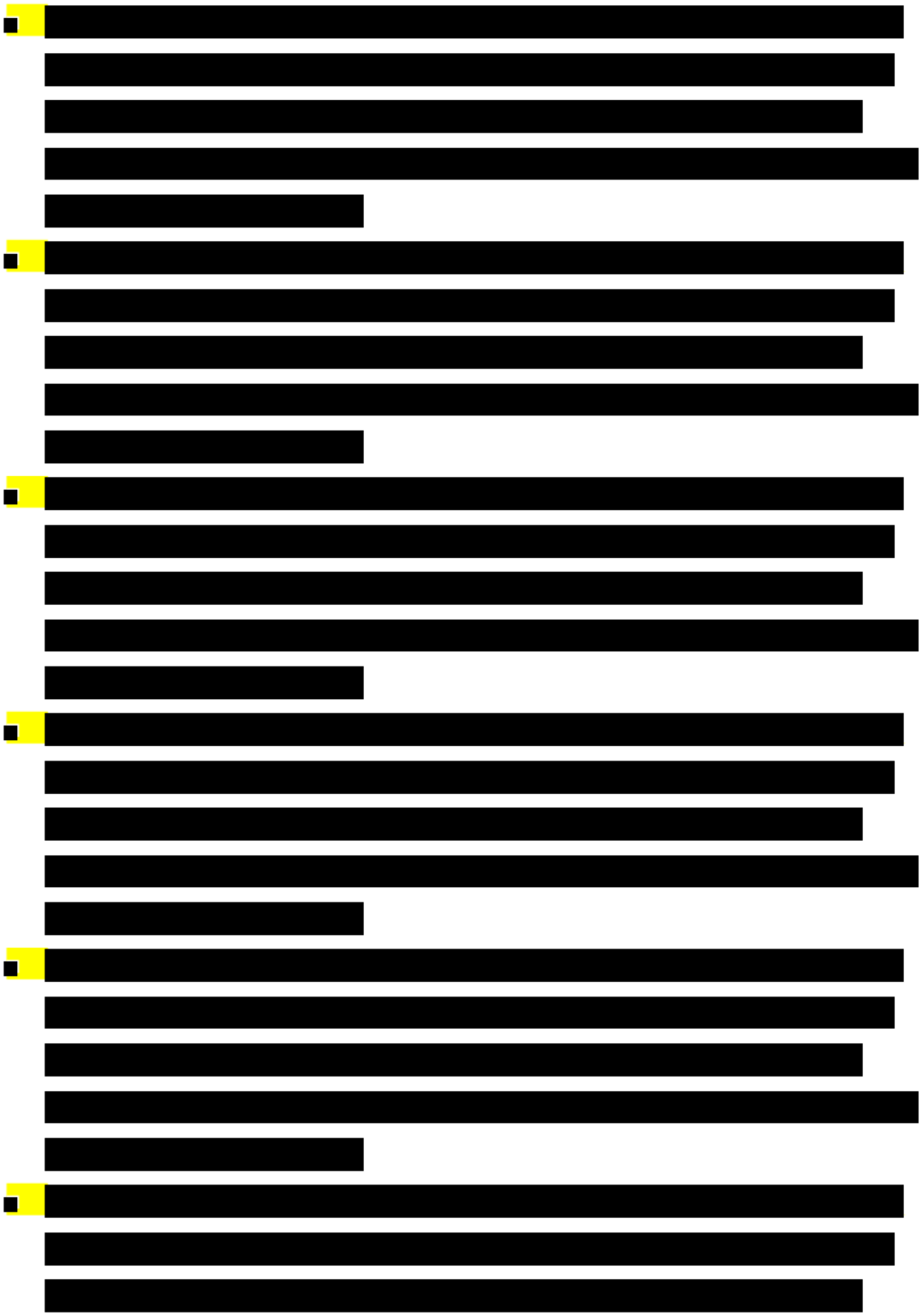
1.5.6.13.1 Service Description

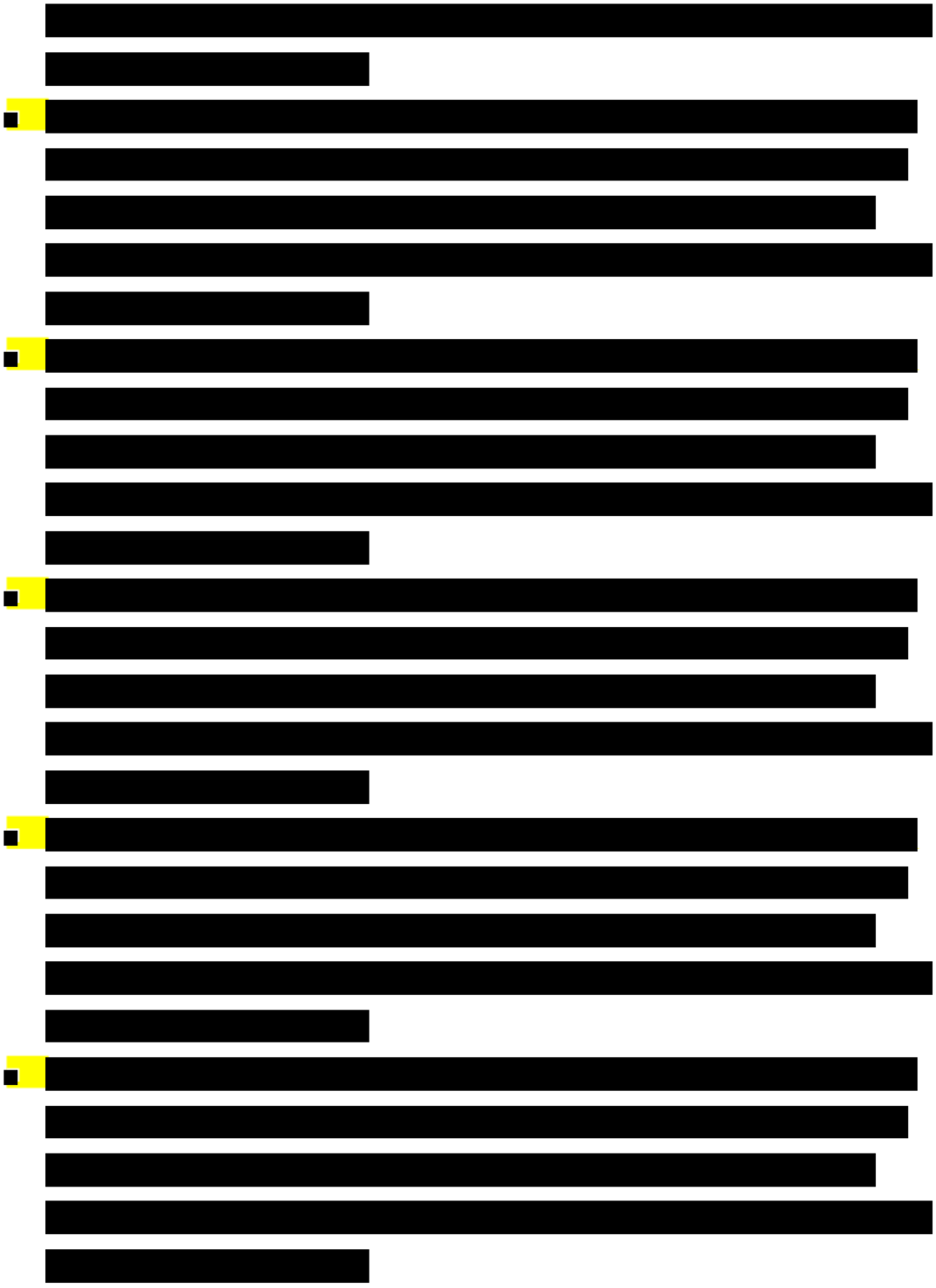
[redacted]



[redacted]







[redacted]

1.5.6.13.2 Customer Requirements

[redacted]

[redacted]

1.5.6.14 Managed Equipment Service

[redacted]

1.5.6.15 e911 Service

1.5.6.15.1 Service Summary

[redacted]

1.5.6.15.2 Solution Overview

[redacted]

[redacted]

1.5.6.15.3 Product Features and Functionality

E911 Anywhere®

[redacted]

Features

[redacted]

[redacted]

1.5.6.15.4 Web Administration Portal

[redacted]

Figure 1.5.6.15-1: Web Portal Tool. [redacted]

1.5.6.15.5 Responsibilities

[redacted]

Figure 1.5.6.15-2: System Responsibilities.

[redacted]

E911 Data Collection, Setup, Configuration, MACD and Validation

[redacted]

Figure 1.5.6.15-3: E911

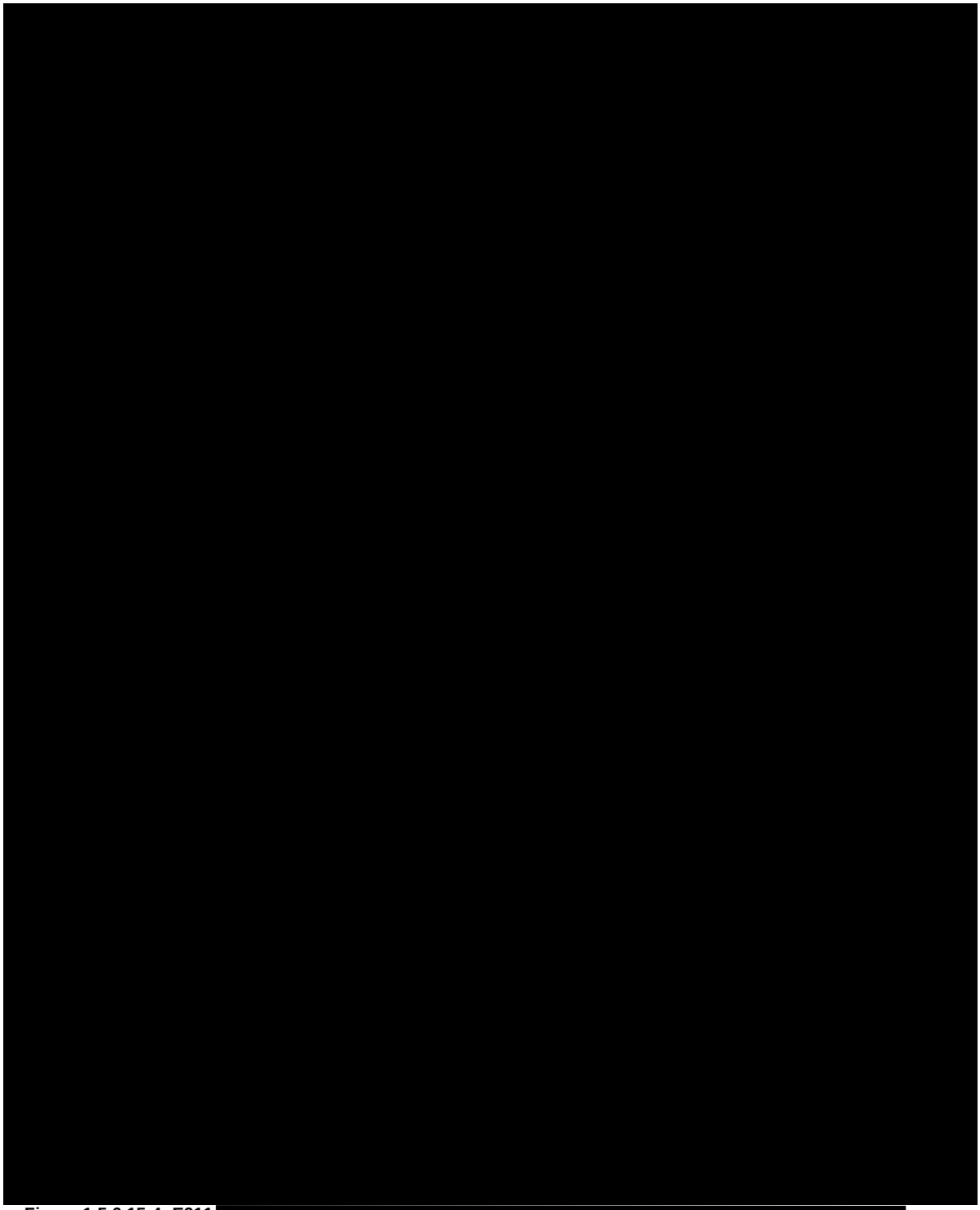


Figure 1.5.6.15-4: E911

1.5.6.15.6 Service Elements

[redacted]

[redacted]

1.5.6.15.7 EON Client for E911 Anywhere

[redacted]

Figure 1.5.6.15-5

[redacted]

Figure 1.5.6.15-5: EON for E911 Anywhere. *The EON client and E911 Manager combine to provide 9-1-1 call notifications and location information to security personnel to assist in first response to emergency situations.*

[redacted]

Service Functionality

[redacted]

[redacted] Figure 1.5.6.15-6.

[redacted]

Figure 1.5.6.15-6: [redacted]

[redacted]

Logging and Reporting

[redacted]

1.5.6.16 Commercial Connectivity Service

Introduction

[redacted]

[redacted]

[redacted]

1.5.6.16.1 Network-to-Network Connections

[redacted]

Figure 1.5.6.16-1: [redacted]

1.5.6.16.2 Requirements

[redacted]

[redacted]

1.5.6.16.3 Performance

[redacted]

1.5.6.16.4 Security

[redacted]

1.5.6.17 MobileIron Mobile Device Management Service from AT&T

AT&T's MobileIron solution gives the subscribing Agency control over their Government data located on compatible smartphones and tablets while in the field. Via the client-server architecture, Agencies can distribute and enforce a wide variety of policies within a defined and limited memory range on compatible mobile devices.

Agencies enact their desired policies through an elegant user interface hosted on a server (the Virtual Smartphone Platform, or VSP), which in turn securely controls client software residing on Agencies' or users' wireless devices. Agency telecommunications management personnel use the VSP to unobtrusively control only relevant work-related data, while leaving other data resident on the device solely to the discretion of users.

AT&T Mobility Solution Services will collect Agency policy requirements and integrate them into the MobileIron VSP and Sentry Software installed and configured remotely on the two servers.

The MobileIron client software is installed by downloading an application to the device. Following authentication by the VSP, MobileIron thereafter encrypts local data on the device. Optional MobileIron modules can enforce Agency policies regarding acceptable web browsing (MobileIron Web@Work), document copy/distribution and prevention/restriction (MobileIron Docs@Work) while within the client framework.

AT&T will provide additional optional services including; High Availability Design Engineering Services and Installation, and Validation Review and Report for a Basic System. The Validation review assesses the

effectiveness of one VSP and up to 2 Sentries by performing a review of an existing MobileIron implementation.

The High Availability option allows the subscribing Agency to optimize the MobileIron Solution's reliability with Engineering services to accommodate an additional VSP.

Customer Personal Data

Customer Personal Data includes, without limitation, name, phone number, email address, wireless location information or any other information that identifies or could reasonably be used to identify the subscribing Agency or its end users. Within the MobileIron VSP service solution, Customer Personal Data (CPD) may be transferred to or accessible by (i) AT&T personnel around the world; (ii) third parties who act on AT&T's or AT&T's supplier's behalf as subcontractors; and (iii) third parties (such as courts, law enforcement or regulatory authorities) where required by law.

Subscribing Agency Responsibility:

The subscribing Agency's end users must have a data plan on a compatible device with Short Messaging Service (SMS) capability.

The subscribing Agency is responsible for the configuration of the appropriate Domain Name System (DNS) prior to AT&T installation activities.

The VSP is accessed via a Web portal and requires a PC with Internet connection. Improper or incomplete software configuration and/or downloads performed by the subscribing Agency or its end users may result in service interruptions and/or device failures.

The subscribing Agency will only provide or make Customer Personal Data accessible when the subscribing Agency has the legal authority to do so and for which it has obtained the necessary consents from its end users, and will

camouflage or securely encrypt Customer Personal Data in a manner compatible with the VSP.

The subscribing Agency is responsible for providing end users with clear notice of AT&T's and the subscribing Agency's collection and use of Customer Personal Data obtained via the MobileIron solution and for obtaining end user consent to that collection and use. The subscribing Agency may satisfy it's notification requirements to AT&T by advising end users in writing that AT&T and its suppliers may collect and use Customer Personal Data by providing for end user review the relevant links to the Product Brief or other sales information that describes the MobileIron solution as well as to AT&T's Privacy Policy.

AT&T Mobile Iron VSP Service Clarifications:

The Virtual Smartphone Platform (VSP) may not be accessible at all times. Availability, security/privacy, delivery and timeliness of information are not guaranteed by AT&T.

The VSP software requires a VMware operating environment server or, where applicable, the purchase of a MobileIron appliance from AT&T.

VSP integration with enterprise public key infrastructure is not included with the set up and installation of MobileIron.

MobileIron VSP is subject to the software license agreement found at Appendix P.

1.5.6.18 MNS Business Connect Wireless Data Service Access for Commercial Connectivity Services

Business Connect data service access plans are intended for use with machine-to-machine and/or Wireless Wide Area Network (WWAN)

applications and not for support of individual remote or mobile workers using a laptop or Smartphone.

The Business Connect wireless data service works with select equipment features and service offerings. A compatible data-enabled wireless device (SED or AT&T approved customer-provided equipment) is required for this service.

AT&T provides wireless data services, including but not limited to, features that may be used with wireless data services and wireless content ("Services"). The absolute capacity of the wireless data network is limited. Accordingly, service is only provided for circumscribed purposes and pricing for Data Services is device dependent, based on the "transmit and receive" capacity of each device.

Fixed wireless deployments must be installed within an AT&T-owned wireless network coverage area (see wireless.att.com/coverageviewer). The performance of the Business Connect wireless service may be impacted by transmission limitations, terrain, in-building/in-vehicle use and capacity constraints. AT&T's wireless network is engineered for most common uses for Wireless Wide Area Network (WWAN) applications (e.g. machine-to-machine connections). However, except as may otherwise be specifically permitted, some continuous "heavy" or "long term" usage may cause extreme network capacity issues and interference, and will result in service interruptions.

Service may be subject to certain equipment and compatibility limitations including memory, storage, network availability, coverage, accessibility and data conversion limitations. Actual download speeds depend upon device characteristics, network, network availability and coverage levels, tasks, file characteristics, applications and other factors. Performance may be impacted by transmission limitations, terrain, in-building or in-vehicle use and capacity constraints.