

**APPENDIX 9 TO SCHEDULE 3.3
TO THE
COMPREHENSIVE INFRASTRUCTURE
AGREEMENT**

VOICE AND VIDEO TELECOM SERVICES SOW

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This is Appendix 9 (Voice and Video Telecom Services SOW) to Schedule 3.3 (Statements of Work) to the Comprehensive Infrastructure Agreement between the Commonwealth and Vendor (the "Agreement"). Unless otherwise expressly defined herein, the capitalized terms used herein shall have the meaning assigned to them in Appendix 11 (SOW Definitions) to Schedule 3.3 or in the Agreement.

1.0 Voice and Video Telecom Services Overview and Objectives

1.1 Voice and Video Telecom Services Overview

This Appendix 9 (Voice and Video Telecom Services SOW) is the Statement of Work (or "SOW") that sets forth the roles and responsibilities of the Parties for the Voice and Video telecommunications services ("Voice and Video Telecom Services") provided under the Agreement as part of the Services. Voice and Video Telecom Services are the Services and activities, as further detailed in this SOW, required to provide and support the Commonwealth. Vendor is responsible for the full provisioning, engineering, operations and administration of current and emerging Voice and Video Telecom Services including existing contracts, but not limited to the following Services:

- Customer Premise Phone Equipment
 - PBX
 - Key Systems
 - Handsets
- Voice Network:
 - Local Service (dial tone)
 - Long Distance (e.g. private line, public switched)
 - Calling Cards
 - Centrex
 - Inbound toll-free (Dedicated & Switched)
 - Voice over IP (VoIP)
- Voice Messaging
- Directory Listing Services
- Audio and Data Conferencing
- Contact Center Technology Services, including:
 - Interactive Voice Response (IVR)
 - Automated Call Distribution (ACD)
 - Computer Telephony Integration (CTI)
- Fax Broadcasting
- Foreign Language Translation Service

- **Wireless Services**
 - Paging
 - Smartphone (e.g., Blackberries) services provisioning
 - Cellular Service (includes push-to-talk) procurement and provisioning
- **Video Services**
 - Video Conferencing
 - Webcasting and Streaming Services (e.g., Governor's speeches)

In addition to the Services described in this SOW, Vendor is responsible for providing the Services described in Appendix 1 (Cross-Functional Services SOW) to Schedule 3.3 (Statements of Work).

1.2 Service Objectives

The following are the key high-level Service objectives Vendor shall ensure the Commonwealth achieves through Voice and Video Telecom Services:

- Meet Commonwealth business needs for highly available, scalable, reliable, and secure Voice and Video Telecom Services
- Provide Voice and Video Telecom Services with features and functions that meet End-User needs and meet Commonwealth business requirements
- Provide Services that can leverage operational scale and best practices to achieve optimum commercial price performance
- Provide administrative, operational and management support
- Achieve the Service Levels specified in Section 4 below

2.0 Service Environment

2.1 Scope of the Infrastructure to be Supported

This paragraph describes the scope of Services described in Section 2. This includes assets, facilities and locations, personnel, policies and procedures, licenses and agreements and work-in-process. Schedules and attachments are associated with each section to allow for quarterly updates and changes. The following sub-sections and related SOW Addenda further describe and scope a number of Voice and Video Telecom Services elements to be supported and/or with which Vendor shall comply. Service Environment Addenda are to be maintained by Vendor, reviewed with VITA, updated by Vendor and made available to VITA on a quarterly basis.

2.1.1 Hardware and Software

- a. A listing and description of all hardware to be supported as part of Voice Telecom Services (including VoIP) is provided in Addendum 1 – Voice and Video Telecom Hardware.
- b. A listing and description of the software and utilities to be supported as part of Voice and Video Telecom Services (including VoIP) is provided in Addendum 2 – Voice and Video Telecom Software.

- c. A listing and description of the voice and video communications circuits to be supported as part of Voice and Video Telecom Services is provided in Addendum 3 – Voice and Video Telecom Circuits.

2.1.2 Service Locations

A description and location of all Commonwealth facilities and office locations requiring Voice and Video Telecom Services is provided in Addendum 4 – VITA-specified Commonwealth Facilities and in Addendum 5 - Eligible Customers currently receiving these services under the existing VITA telecommunications contracts.

2.1.3 Personnel

Vendor will be responsible for providing appropriately skilled staffing for the Voice and Video Telecom environment to meet the Roles and Responsibilities and Service Levels set forth in this SOW.

2.1.4 Policies, Procedures and Standards

A description of the applicable policies, procedures, standards and regulatory compliance requirements with which Voice and Video Telecom Services will comply is provided in Schedule 13 (Commonwealth Policies) to the Agreement and in the Procedures Manual.

2.1.5 Agreements and Licenses

A list of Voice and Video Telecom Services related agreements and licenses is provided in Schedule 2.2 (Contracts).

2.1.6 Current Projects

The Commonwealth currently has a number of Current Projects planned or in progress that are included in the scope of this SOW and are the responsibility of Vendor to complete within the time frames specified by the Commonwealth. A list of these Current Projects is provided in Schedule 28.29 (Current Projects).

3.0 Voice and Video Telecom Services Requirements

3.1 Service Descriptions and Roles & Responsibilities

In addition to the Services, activities, and roles and responsibilities described in Appendix 1 (Cross-Functional Services SOW) to Schedule 3.3, Voice and Video Telecom Services include the following Services, activities and roles and responsibilities.

3.1.1 General Responsibilities

The following table identifies the General roles and responsibilities associated with this SOW. An “X” is placed in the column under the Party that will be responsible for performing the task. Vendor responsibilities are indicated in the column labeled “Vendor.”

Table 1. General Roles and Responsibilities

General Roles and Responsibilities	Vendor	VITA
1. Provide Voice and Video Telecom Services strategies and requirements		X
2. Provide Voice and Video Telecom Services design and engineering to meet Commonwealth strategies and requirements	X	
3. Provide administrative support for specialized services (e.g., fax broadcasting, foreign language translation) as outlined in existing contracts with third parties.	X	
4. Approve Voice and Video Telecom Services design and engineering		X
5. Acquire, install, operate, manage and maintain all Voice and Video Telecom Services for all Eligible Customers	X	
6. Provide fraud prevention, detection and reporting	X	
7. Acquire all Voice and Video Telecom Services and associated infrastructure	X	
8. Manage and maintain the equipment and circuits for all Commonwealth facilities	X	
9. Coordinate with voice and video telecommunications services providers	X	
10. Coordinate with Commonwealth and VITA for premise-based infrastructure	X	
11. Coordinate Service delivery with Help Desks, as well as other support groups within each of the other Towers in coordination with Eligible Customers	X	
12. Provide VIP Support Services as necessary	X	

3.1.2 Customer Premise Phone Equipment

Customer Premise Phone Equipment Services are the activities necessary to provide access to telephone services to Eligible Customers. These Services include providing planning and assessment, implementation and ongoing operation, monitoring, management and maintenance of the Customer Premise Phone Equipment.

The Customer Premise Phone Equipment includes IP phones, consoles, and, optionally at individual Eligible Customer's request, handsets and auxiliary equipment, e.g., basic and feature-rich single-line telephones, multi-line telephones, headsets, speakerphones, and add-on modules. The Parties recognize that the deployment of VoIP Services requires that users be notified and trained on accessing emergency calling services and that call location data be collected and delivered to the appropriate Public Safety Answering points. The Party responsible for performing such tasks varies based on the facilities where the VoIP Services are deployed. The Parties shall address all such emergency calling issues in the operational document to be developed no later than August 1, 2010. The following table identifies the Customer Premise Phone Equipment roles and responsibilities that Vendor and VITA will perform.

Table 2. Customer Premise Phone Equipment Roles and Responsibilities

Customer Premise Phone Equipment Roles and Responsibilities	Vendor	VITA
1. Provide telephone service requirements (e.g., locations, number of handsets, functions and features)		X
2. Provide premise telephone equipment design and engineering to meet Commonwealth requirements	X	

Customer Premise Phone Equipment Roles and Responsibilities	Vendor	VITA
3. Approve premise telephone equipment design and engineering		X
4. Provision End-User access to Emergency 911 services (subject to the limitations and obligations described in the operational document referenced above)	X	
5. Provide adaptive voice telecommunications services and equipment as required by laws affecting the support of the disabled	X	
6. Manage and maintain private dial plan	X	
7. Acquire, install, configure, operate, monitor and maintain Customer Premise Phone Equipment and associated peripherals	X	

3.1.3 Voice Network Services

Voice Network Services are the activities required to provision and support local service, long distance service, toll-free inbound services, Centrex service, and IP Voice Services to Commonwealth End-Users requiring local, intrastate, interstate, and international calling from the Commonwealth's facilities. The following table identifies the Voice Network Services roles and responsibilities that Vendor and VITA will perform.

Table 3. Voice Network Roles and Responsibilities

Voice Network Roles and Responsibilities	Vendor	VITA
1. Provide Voice Network Services strategies and requirements, including specific Centrex requirements such as location and number of handsets, functions and features.		X
2. Provide Voice Network Services design and engineering to meet Commonwealth strategies and requirements	X	
3. Approve Voice Network Services design and engineering		X
4. Provide local, long distance and Centrex Voice Network Services	X	
5. Provide telephone calling cards and management (including administrative functions, e.g., access profiles)	X	
6. Provide local, long distance and Centrex usage monitoring and reporting	X	
7. Provision local, long distance and Centrex services (including directory access and operator-assisted services)	X	

3.1.4 Voice Messaging

Voice Messaging Services are the activities required to support the efficient storage and retrieval of voice messages enterprise wide. The following table identifies the Voice Messaging roles and responsibilities that Vendor and VITA will perform.

Table 4. Voice Messaging Roles and Responsibilities

Voice Messaging Roles and Responsibilities	Vendor	VITA
1. Provide Voice Messaging Services strategies and requirements		X
2. Provide Voice Messaging Services design and engineering to meet Commonwealth strategies and requirements	X	
3. Approve Voice Messaging Services design and engineering		X
4. Provide Voice Messaging Services	X	
5. Provide Voice Messaging usage monitoring and reporting	X	

Voice Messaging Roles and Responsibilities	Vendor	VITA
6. Provide Voice Messaging storage capacity management	X	
7. Provide voice message retention management per Commonwealth requirements and external regulations	X	
8. Perform voice mailbox moves, adds and changes	X	
9. Provide End-User tools for managing own voice mailboxes	X	
10. Provide new End-User training material	X	

3.1.5 Directory Listing Services

Directory Listing Services activities include facilitating access to directory information, providing State operator services and performing activities required to publish “Blue Pages” (listing of State Government services that is included in the White Pages telephone directories) to End-Users. Publishing the Blue Pages directory includes activities such as creating and maintaining the information listed in Blue Pages as well as interfacing with carriers and publishers of White Pages phone books. Directory Listing Services features include access to and retrieval of information from a repository of directory information. The following table identifies the Directory Listing roles and responsibilities that Vendor and VITA will perform.

Table 5. Directory Listing Services Roles and Responsibilities

Directory Listing Services Roles and Responsibilities	Vendor	VITA
1. Provide Directory Listing Services strategies and requirements		X
2. Provide recommendations to meet Commonwealth strategies and requirements	X	
3. Approve Directory Listing Services recommendations		X
4. Provide and maintain the infrastructure for a searchable on-line repository of state employee directory information	X	
5. Provide and maintain the infrastructure for a searchable on-line repository of state agency directory information	X	
6. Provide tools and procedures to update directory information in real time	X	
7. Provide End-User read-only Web access to the directory	X	
8. Provide administrative support to maintain and update the directory in accordance with Commonwealth rules and conforming to Service Levels	X	
9. Provide White Pages and Yellow Pages directories annually	X	
10. Coordinate with providers of Blue Page Directories to provide them with up-to-date contact information, as defined by each State Agency, annually	X	

3.1.6 Audio and Data Conferencing Services

Audio and Data Conferencing Services that are the activities required to provide End-Users with audio conference and data sharing capabilities. Audio and Data Conferencing Services include planning and assessment, implementation, training, and ongoing management. The following table identifies the Audio and Data Conferencing Services roles and responsibilities that Vendor and VITA will perform.

Table 6. Audio and Data Conferencing Services Roles and Responsibilities

Audio and Data Conferencing Services Roles and Responsibilities	Vendor	VITA
1. Develop Audio and Data Conferencing Services strategies and requirements		X
2. Design Audio and Data Conferencing Services to meet Commonwealth strategies and requirements	X	
3. Approve Audio and Data Conferencing Services		X
4. Provide local, intrastate, national and international audio conferencing services and support	X	
5. Provide operator support for the setup of conferencing sessions	X	
6. Provide desktop collaboration capabilities through data conferencing for up to 50 seats in a given conference	X	
7. Provide audio conferencing facilities that can accommodate up to 350 participants	X	
8. Provide additional support services for monitoring/recording	X	
9. Deliver monthly summary reports by host, showing month-by-month and YTD information on conference activity.	X	

3.1.7 Wireless Services

Wireless Services activities include paging, smartphone (e.g., Blackberry) service and cellular service (including push-to-talk) procurement and provisioning. The following table identifies the Wireless Services roles and responsibilities that Vendor and VITA will perform.

Table 7. Wireless Services Roles and Responsibilities

Wireless Services Roles and Responsibilities	Vendor	VITA
1. Provide Wireless Services strategies and requirements		X
2. Provide Wireless Services design and engineering to meet Commonwealth strategies and requirements	X	
3. Approve Wireless Services design and engineering		X
4. Provision pager, smartphone and cellular phone services		X
5. Provide administrative services required to support the use of wireless equipment including service initiation/termination and asset management	X	
6. Provide Wireless Services usage monitoring and reporting according to requirements established by VITA	X	
7. Provide acquisition, break/fix and replace services for wireless equipment	X	

3.1.8 Video Services

Video Services are the activities that provide End-Users with capabilities for video conferences, video productions, Webcasting and streaming services (e.g., Governor's speeches) and audio-visual support services for the Governor's Office and VITA. Webcasting and streaming video services enable the broadcasting of important events such as Governor's speeches over the Internet. Video Services include planning and assessment, implementation, training, and ongoing management. The following table identifies the Video Services roles and responsibilities that Vendor and VITA will perform.

Table 8. Video Services Roles and Responsibilities

Video Services Roles and Responsibilities	Vendor	VITA
1. Develop Video Services strategies and requirements		X
2. Design Video Services to meet Commonwealth strategies and requirements	X	
3. Approve Video Services design		X
4. Provide support for the following video conferencing capabilities: <ul style="list-style-type: none"> - Point-to-point calls - Multi-point calls - Presentation capabilities, such as MS PowerPoint and laptop presentations, electronic whiteboard integration, document camera, DVD and VCR presentations 	X	
5. Integrate audio conferencing into video conference meetings upon request	X	
6. Acquire and support video conferencing associated infrastructure (e.g., bridges, camera, TV sets, electronic classroom)	X	
7. Monitor and support calls in progress	X	
8. Maintain and manage video conference calendar, reservations and room scheduling	X	
9. Manage video room clock coordination	X	
10. Deliver monthly summary reports by host, showing month-by-month and YTD information on conference activity.	X	
11. Provide provisioning support for video conferencing	X	
12. Identify and define requirements for video production Services		X
13. Provide capabilities for Webcasting and streaming video for important events (e.g., Governor's speeches)	X	

3.1.9 Contact Center Technology Services

Contact Center Technology Services activities include toll-free call processing and call flow with integrated ACD, IVR, CMS, CTI and CRM integration. Contact Center Technology Services include planning and assessment, implementation, and ongoing management necessary to deploy Contact Center Technology Services enterprise wide. The following table identifies the Contact Center Technology Services roles and responsibilities that Vendor and VITA will perform.

Table 9. Contact Center Technology Service Roles and Responsibilities

Contact Center Technology Services Roles and Responsibilities	Vendor	VITA
1. Provide Contact Center Technology Services strategies and requirements		X
2. Recommend Contact Center Technology Services to meet Commonwealth strategies and requirements	X	
3. Approve Contact Center Technology Services		X
4. Provision, customize and configure Contact Center Technology	X	
5. Provision inbound toll free calls	X	
6. Provide administrative support for inbound toll free calls	X	

Contact Center Technology Services Roles and Responsibilities	Vendor	VITA
7. Coordinate with Eligible Customers and external carriers to fulfill requests concerning toll-free Services including new orders, cancellations, moves, adds and changes	X	
8. Design and implement customized call flow	X	
9. Perform agent/queue moves, adds and changes, including desktop connectivity	X	
10. Provide "Call Logger" capability (to record calls)	X	
11. Design all queues based on customer requirement that provide agent mobility	X	
12. Provide call flow and queue design documentation to each Eligible Customer	X	
13. Provide consultation to contact center owners in developing new or modifying existing ACD applications	X	
14. Provide the appropriate traffic analysis and call reports to manage the environment (e.g., trunk utilization for all trunk groups, call detail by location)	X	
15. Monitor IVR functionality, host, and PBX connectivity	X	
16. Review and approval of traffic analysis and call reports		X
17. Perform traffic analysis and provide recommendations regarding performance optimization	X	
18. Approve recommendations regarding performance organization		X
19. Provide schedule of changes to implement recommendations regarding performance organization	X	
20. Approve changes to implement recommendations regarding performance organization		X

3.1.10 Operations, Administration, and Management

The following table identifies the Operations and Administration roles and responsibilities that Vendor and VITA will perform.

Table 10. Operations, Administration, and Management Roles and Responsibilities

Operations, Administration, and Management Roles and Responsibilities	Vendor	VITA
1. Provide VITA with a detailed explanation of outages that identify the regional impact, source of outage, and preventative measures being taken to prevent future similar outages	X	
2. Manage End-User accounts (e.g., account set up, password resets, account deletions and terminations) and provide administrative support (Online Directory services to maintain and update the directory in accordance with the Service Levels) for all Voice Telecom Services according to Commonwealth information security policies	X	
3. Provide proactive and reactive Voice Telecom Services fraud and security management and reporting	X	
4. Provide, administer, implement, and manage Service Requests for physical and logical installations, moves, adds and changes (IMACs)	X	
5. Notification to Help Desk of Priority 1, 2, or 3 outage	X	

3.2 Exclusions

The following items are specifically excluded from this SOW:

- Call Centers for Virginia Employment Commission and Department of Motor Vehicles
- Infrastructure equipment and software for support of e911
- Two-way Radio for all agencies but VITA

3.3 Service Specific Milestones

Milestones specific to the deployment of Voice and Video Telecom Services are identified in Schedule 3.2 to the Agreement.

3.4 Statement of Technical Approach

Vendor's technical approach for the Services under this SOW shall, at a minimum, be consistent with and similar to the technical approach described in Addendum 6 to this SOW. Vendor shall, at any time during the Term, make minor modifications to its technical approach, so long as such modifications are consistent with and similar to the technical approach described in Addendum 6, without executing a formal contract modification.

4.0 Service Management

4.1 Objectives

A key objective of this Agreement is to attain Service Levels with Performance Credits where business is impacted through failure to meet significant mission critical Systems or Services, Critical Milestones or objectives, or when Service performance requirements are not met. Service Levels are detailed in the following sections.

Vendor shall provide written reports to VITA regarding Vendor's compliance with the Service Levels specified in this SOW as described in Schedule 3.12 (Service Level Methodology).

4.2 Definitions

Appendix 11 (SOW Definitions) to Schedule 3.3 (Statements of Work) of the Agreement provides a list of terms that apply to this SOW and the following Service Levels.

4.3 Service Level Requirements

The following minimum Service Levels are required. The Service Level methodology is detailed in Schedule 3.12 (Service Level Methodology) of the Agreement. **All times referenced are Eastern Time.**

Table 11. Voice Telecom Service Availability Service Levels

DEFINITION	Availability of the voice communications Network, including all circuits and all associated hardware (includes blocked calls).
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			VOICE TELECOM AVAILABILITY SERVICE LEVEL REQUIREMENTS	
Performance Credit	Service Type	Service Measure	Performance Target	Minimum Performance %
\$1,725 per Location per month	Voice over IP (VoIP) – All Locations (Penalty credit cannot exceed 50% of the VoIP revenue installed and active during the measurement interval for the site)	Availability per Location		99.90%
		Formula	Availability (%) = 100% - Unavailability (%) Where Unavailability is defined as: (\sum Outage Duration x 100%) ÷ (Schedule Time – Planned Outage)	
		Measurement Interval	Measure Monthly, Report Monthly	
		Measurement Tool	HP ServiceCenter and other support tools	

Table 12. IP Voice Telecom Performance Service Levels Definition

Definition	IP Voice Performance includes the ability of the Network components to deliver packets timely and accurately for IP Voice quality of service. All performance criteria are to be measured at the site router – criteria is not to be aggregated and averaged for all circuits and network components. Maximum packet size is 128 bytes.
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Network Performance Service Level Requirements				
Performance Credit	Service Type	Service Measure	Performance Target	Minimum Performance %
\$5,750 per month	Jitter (Real-Time Classes of Service)	Variation in timing, or time of arrival, of received packets. (Penalty credit cannot exceed 50% of the VoIP revenue of generated by the impacted router installed and active during the measurement interval for the site)	< 10 ms	98%
		Formula – Jitter	$J = \Delta T_i - \Delta T_{i-1}$ For two consecutive packets i and i+1: $T_i =$ time 1 st byte of packet i is received by the destination port	

Network Performance Service Level Requirements				
Performance Credit	Service Type	Service Measure	Performance Target	Minimum Performance %
			(ingress time) T_{i+1} = time 1 st byte of packet i+1 is received by the destination port (ingress time) T_i' = time 1 st byte of packet i is sent by the source port (egress time) T_{i+1}' = time 1 st byte of packet i+1 is sent by the source port (egress time) and $\Delta T_i = T_{i+1} - T_i$ (ΔT_i is the time interval between packets at ingress) $\Delta T_i' = T_{i+1}' - T_i'$ ($\Delta T_i'$ is the time interval between packets at egress)	
		Measurement Interval	Monitor Random Subset of routers; measure each complaint, Measure Monthly, Report Monthly	
		Measurement Tool	HP ServiceCenter and other support tools	

5.0 Referenced SOW Addenda

SOW Addenda	Description
Addendum 1*	Voice and Video Telecom Hardware
Addendum 2*	Voice and Video Telecom Software
Addendum 3*	Voice and Video Telecom Circuits
Addendum 4*	VITA-specified Commonwealth Facilities
Addendum 5*	Eligible Customers currently receiving voice and video telecom services under the existing VITA telecommunications contracts
Addendum 6	Statement of Technical Approach

* The Parties shall mutually agree upon these Addenda during the Interim Phase