

Managed Emergency Call Handling VESTA Service Guide

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1. INTRODUCTION

This Service Guide describes CenturyLink’s VIPER Managed Emergency Call Handling Solution (VESTA – MECH).

2. SOLUTION OVERVIEW

VESTA Managed Emergency Call Handling services offering is a configuration of specialized NG9-1-1 Customer Premises Equipment (CPE) and NG9-1-1 Call Management applications deployed in a Hosted Geo Diverse multitenant architecture and provisioned to serve multiple customer Public Safety Answering Points (“PSAPs”). The PSAPs can be distinct agencies, onboarding to the shared platform at distinct points in time

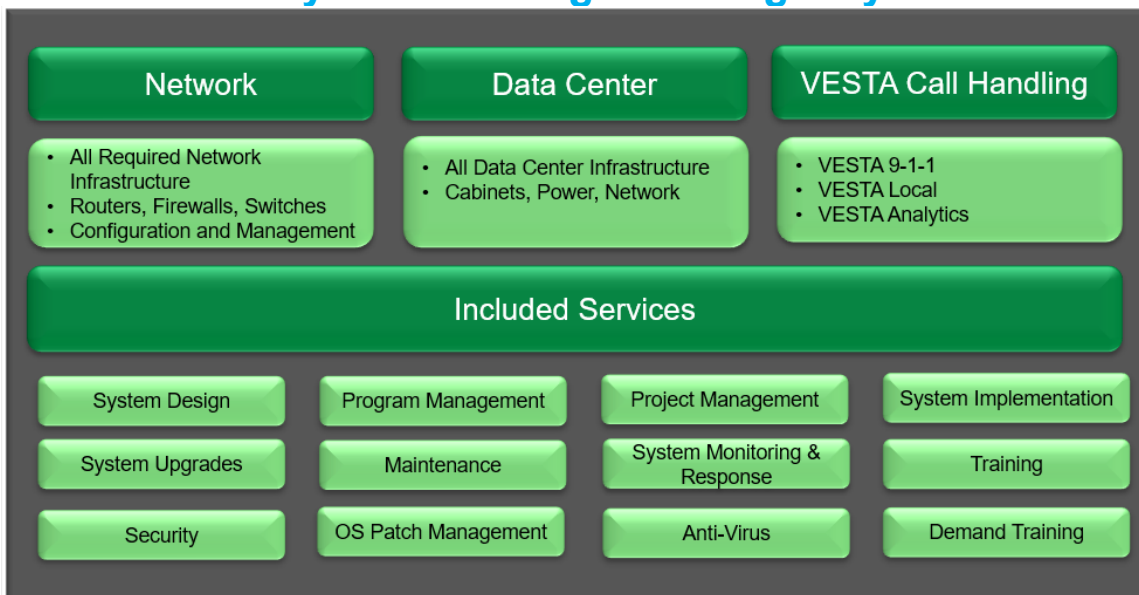
VESTA Core Call Processing, ALI Controllers, and Management servers resides in CenturyLink Data Centers; VESTA Call Taker CPE sits in the PSAP. Management of the Call Taking equipment is provided through the host over a dedicated Virtual Private Network (VPN).

The Services can support up to 50 PSAPs and 250 call handling positions on a single host. The primary factors which determine the final agency and position counts are Lines (Admin, Ringdown, etc.) 9-1-1 Trunks CenturyLink and annual call volumes. Since each agency has their own requirements which drive their quantity of lines, trunks, positions, and annual call volumes, CenturyLink will work with PSAPs to identify and forecast incremental growth for the hosts to avoid over-subscription on a single host.

When a VESTA system reaches capacity, CenturyLink will deploy additional geo-diverse VESTA instances for the next bank of 50 PSAPs / 250 positions.

3. VESTA MECH BUNDLE – INCLUDED SERVICES

CenturyLink’s Managed Emergency Call Handling Solution



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3.1 Included: VESTA 9-1-1 Call Handling – Basic

Services use the following mainstream release:

- Release 7.0 or later
- VESTA SFF Workstation
- 24” LCD Monitor
- Genovation 48-button Keypads

Functionality is as published in Motorola VESTA product bulletins and user guides

3.2 Included: VESTA Analytics - Enterprise

- (2) Mediant 1K Chassis
- (4) FXO 4 Port Cards for each Chassis (16 analog line connections)
- (1) PRI Card

Services

CenturyLink includes the following set of services with the Managed Emergency Call Handling solution covering

- Program Management
- Project Management – Dedicated for life of program
- System Design
- System Implementation
- System Upgrades – Includes all hardware and software required for upgrade
- System Maintenance – Onsite and Remote
- System Monitoring and Response
- Initial System Training
- Follow-up or Demand Training
- Security Monitoring
- OS Patch Management

Building Blocks Managed Emergency Call Handling Solution - Services			
Implementation Services	System Maintenance	System Admin and Change Management	Network Services
<ul style="list-style-type: none"> ➤ Program Management ➤ Project Management ➤ System Design ➤ System Installation ➤ System Testing ➤ System Training ➤ System Activation 	<ul style="list-style-type: none"> ➤ CenturyLink Onsite Maintenance <ul style="list-style-type: none"> ○ Core – 24 x 7 x 1 ○ PSAP – 24 x 7 x1** ➤ Remote Monitoring & Response ➤ OS Patch Management ➤ Anti-virus Services & Updates ➤ Application Updates 	<ul style="list-style-type: none"> ➤ CenturyLink System Admin (For any services requiring root access) ➤ Change Management ➤ Reporting 	<ul style="list-style-type: none"> ➤ Adaptive Network Security ➤ Network Monitoring & Response ➤ Circuit Tagging – All circuits are physically, and system tagged as critical 911 Services

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	➤ Hardware Updates / Refresh		
System Upgrades			
CenturyLink commits to performing minimum of one major system upgrade per year			
➤ CenturyLink will test new software releases in CenturyLink 911 lab and upon successful testing, software will be Approved for Field Use (AFU)			
➤ All CenturyLink and Vendor labor is included with the NG9-1-1 Managed PSAP Solution			
➤ If hardware platforms need to be upgraded or replaced, CenturyLink will provide replacement at no cost to customer			

- Anti-Virus Updates

3.3 CenturyLink’s Managed Emergency Call Handling Solution – Dedicated Resources

CenturyLink provides a dedicated team to service all program lifecycles

Program Manager	Has overall responsibility for program.
Project Managers – Implementations	Has overall responsibility for new implementations
Project Managers – Change Management	Has overall responsibility for upgrades, service packs, and change management
Trainers	Provides user and admin training to PSAPs for new implementations and upgrades Provides admin training as required by PSAPs
Sales Engineers	Provides all solution engineering
Service Managers	Ongoing support for customer; serves as interface between customers, vendors, CenturyLink NOCs, for all service issues
Technical Support Engineers	Final escalation tier for service issues, conduct all “acceptable for field use” (AFU) testing of new application releases in CenturyLink lab
Technicians	Field Technicians

3.4 CenturyLink’s Public Safety CPE ESInet for VESTA 9-1-1

Provides network connectivity between PSAPs and Host VESTA over a secure private network

- All layer 2 and layer 3 networks are provided by CenturyLink.

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- CenturyLink's carrier grade MPLS network provides all layer 3 connectivity between all Data Centers and remote PSAP
- Local access to PSAP from the CenturyLink MPLS backbone can be delivered over a variety of transports types. This can include:
 - NxDS1 – supports 1.5mb to 10.5mb
 - Ethernet Local Access (ELA) – Supports up to 1G
 - Wave Local Access (WLA)
 - Optical Wave Services (OWS) – Supports up to 10G
 - Optional Geo-Max – were available
- Layer 2 Connectivity between Data Centers – Ethernet or OWS
- CenturyLink will system tag and physically tag all NG911 circuits

3.5 Data Center Network

3.5.1 Overview

CenturyLink currently has turned up two data centers processing customer 911 traffic over the CenturyLink i3 Core ESInet. The i3 Core ESInet terminates at each data center where it passes calls into the CenturyLink Managed Emergency Call Handling solution.

The i3 Core ESInet is not part of the Managed Emergency Call Handling Solution. CenturyLink can provide a bundle offering at customer' request.

This i3 traffic is routed to the NG9-1-1 CPE Call Handling System (VESTA, System #). The host VESTA in turn routes the calls to the remote VESTA PSAP over the CenturyLink VESTA NG9-1-1 CPE ESInet.

3.5.2 Data Center Network

- CenturyLink has provided two fully diverse 1G MPLS over WLA (Wave Local Access) for all routed layer 3 ingress / egress traffic at each data center for VESTA 9-1-1
- CenturyLink has provided four 1G OWS circuits for layer 2 connectivity between data centers. These are configured in two separate link aggregation pairs and each pair are fully diverse
- **VESTA ESInet** – All VESTA host to remote traffic is routed over a pair of diverse 1G MPLS circuits at each data center.
- **Data Center to Data Center Connectivity** – CenturyLink deploys a pair of diverse link aggregated layer 2 OWS circuits for Data Center to Data Center Connectivity

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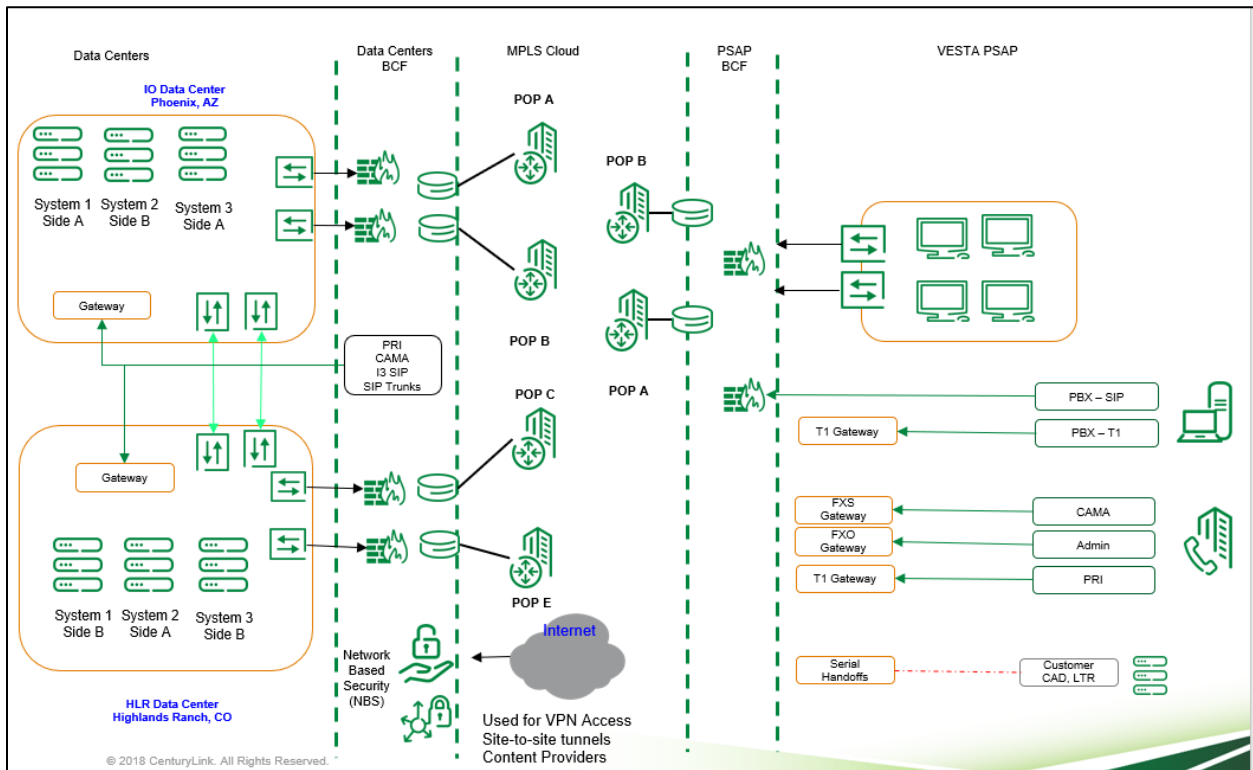


Figure 2.5.2 High Level Solution Design

3.5.3 PSAP Network

With the CenturyLink Managed NG9-1-1 PSAP solution, CenturyLink will provide all connectivity from the PSAP to the CenturyLink CPE NG9-1-1 ESInet. Providing a resilient diverse or redundant connection from CenturyLink MPLS POPs to the PSAP is very dependent on existing local service providers network. CenturyLink will make every attempt to ensure a minimum redundant set of circuits from a pair of PRIV devices at the CenturyLink POP through LEC network to the PSAP.

Where diversity or redundancy is not present, CenturyLink will advise customer of design limitations and optional solutions. All costs for deploying an optional solution would be the customer’s responsibility.

Drawing 2.5.3a – CenturyLink preferred design

Drawing 2.5.3b – Only 1 Meet Point is available

Drawing 2.5.3c – Only 1 Meet Point and CenturyLink POP is available

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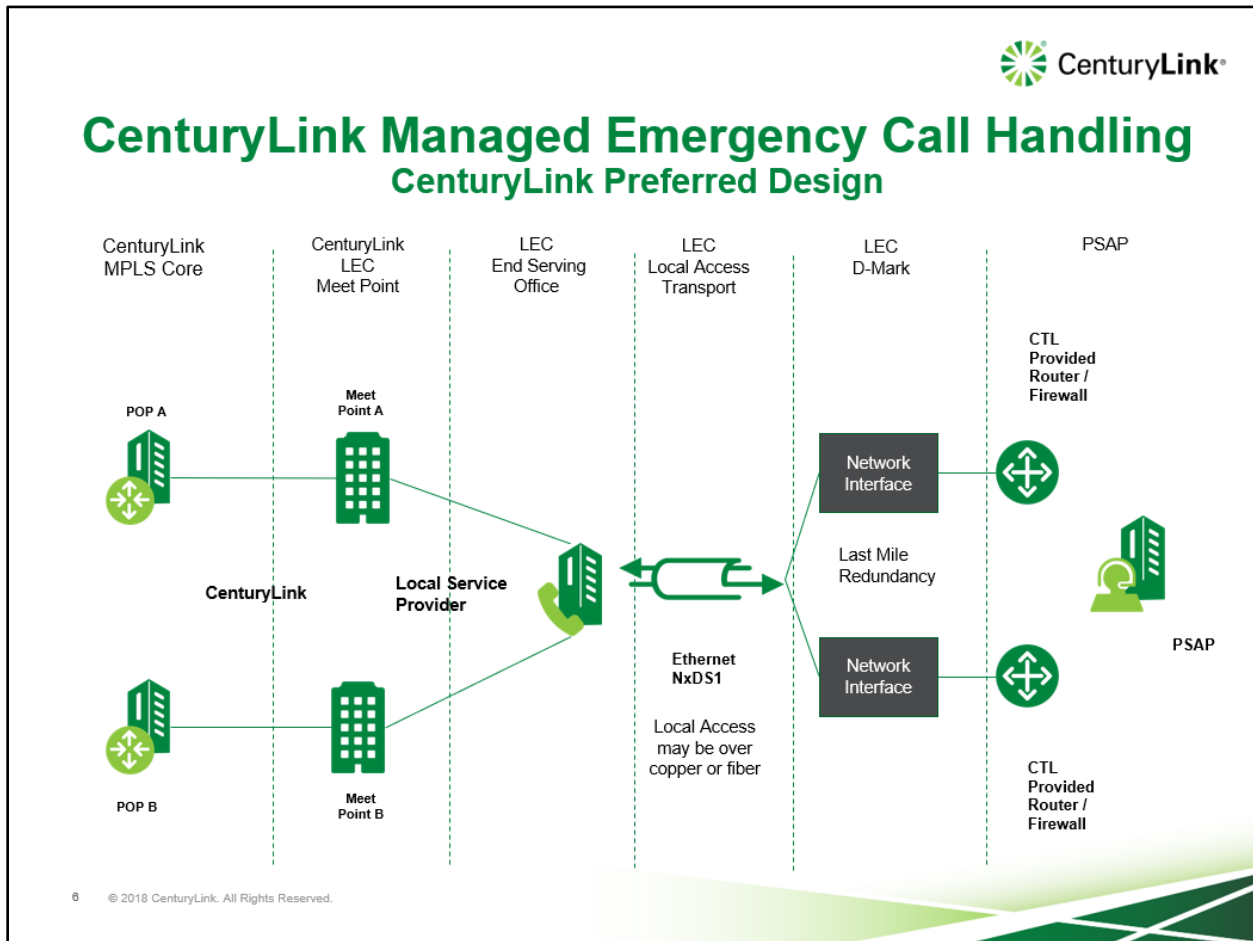


Figure 2.5.3a

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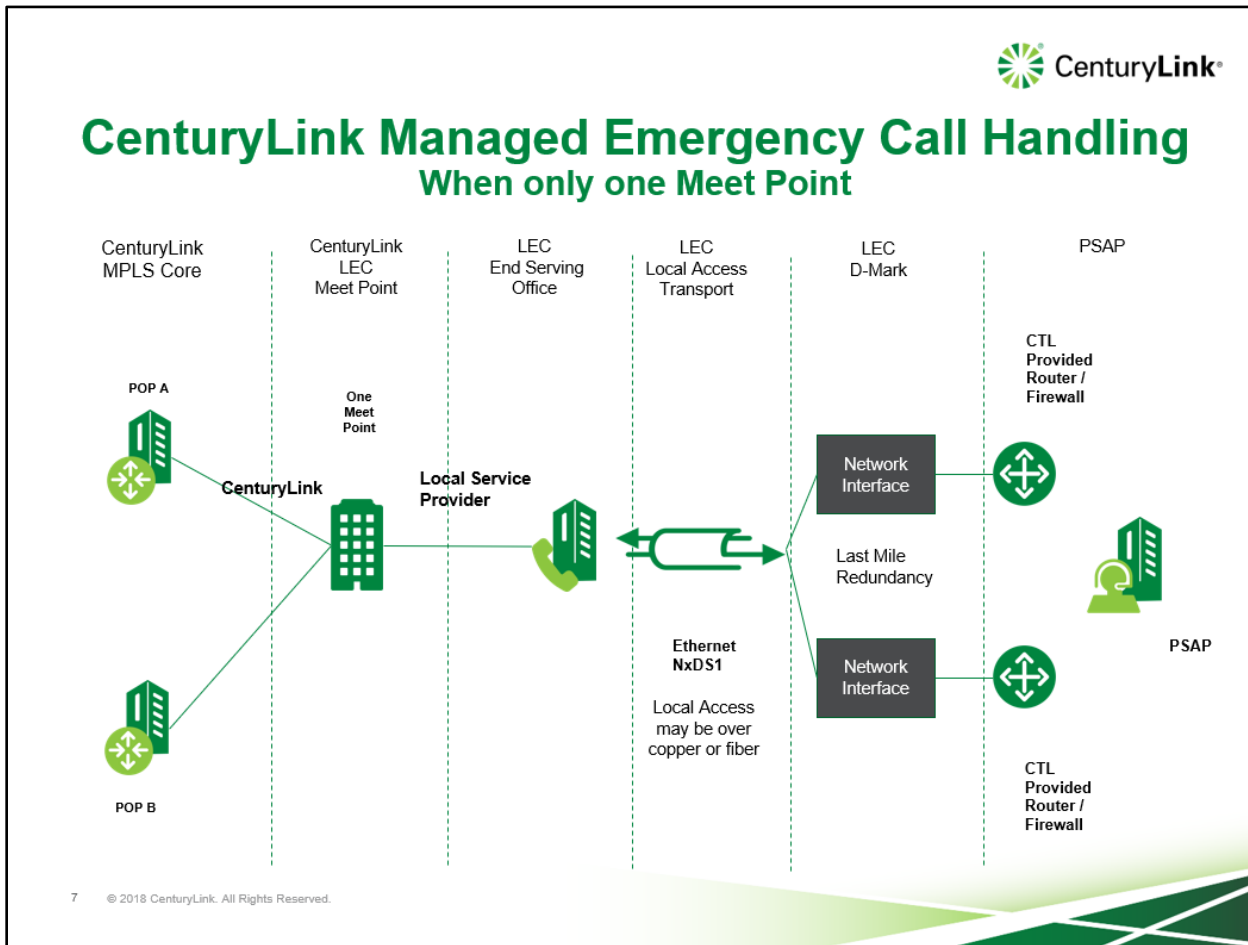


Figure 2.5.3B

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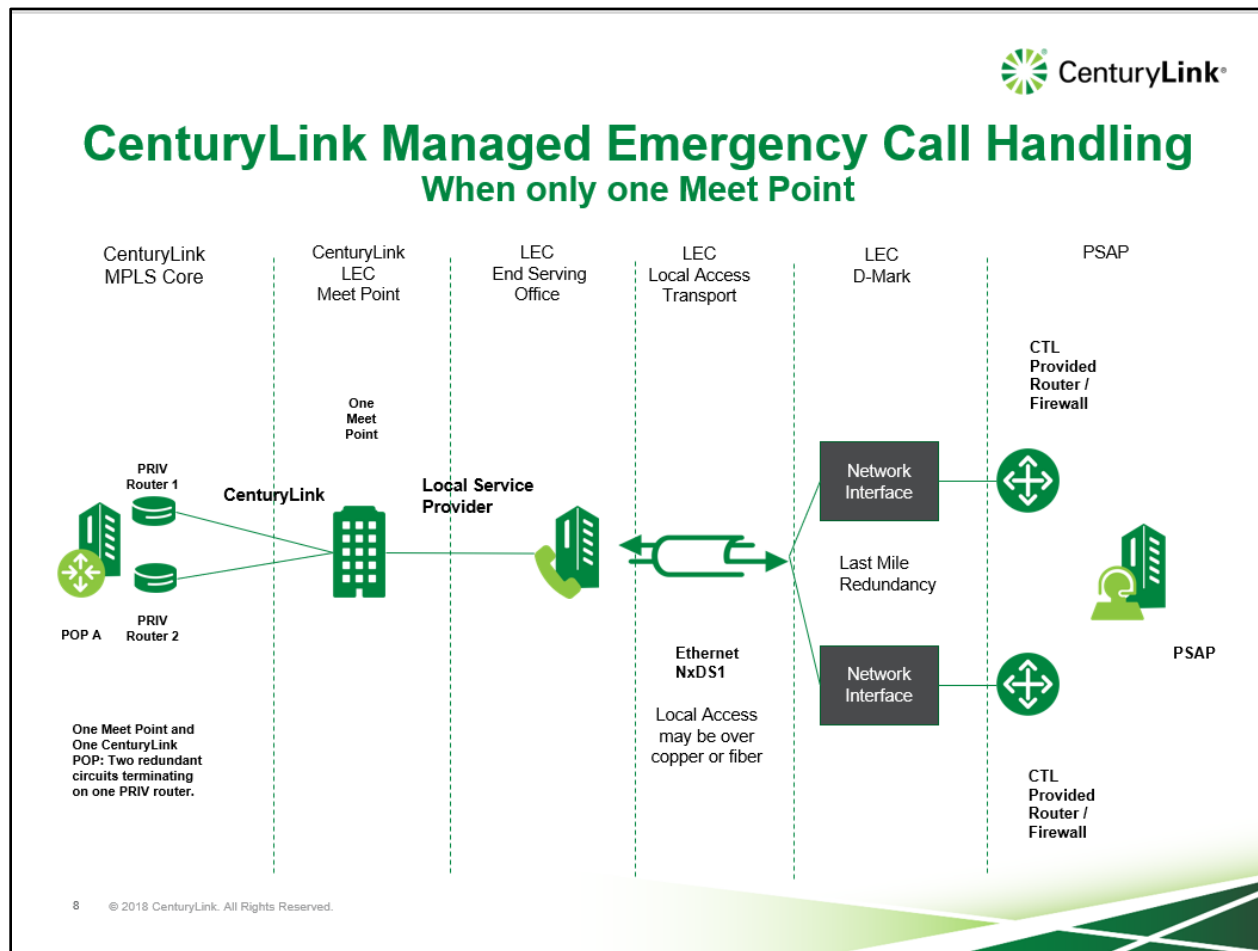


Figure 2.5.3c

3.6 PSAP Bandwidth

PSAP bandwidth is dependent on several variables that will be taken into consideration during PSAP design. The variables that need to be considered include, but may not be limited to:

- Position Count
- Conferencing
- On-Net Transfers
- Roaming or Hot Seating
- Admin Lines – including termination points
- Content Services (Rich Media, Video, Sensor Data, etc.)
- All of these services can impact the number of Concurrent SIP Sessions (CCS) and bandwidth requirements. PSAP bandwidth needs to be sized to handle number of CCS and overhead for system applications, control, and management.

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3.7 CenturyLink Tier 3 Data Centers

All NG9-1-1 Managed Hosted PSAP CPE equipment will be installed in physical secure cages provided by CenturyLink. Access to these data centers is strictly controlled. Only CenturyLink authorized 9-1-1 support teams will have access to cages where hosted CPE equipment is located.

3.7.1 Data Center Infrastructure Included:

- All required network extensions from Data Center carrier “meet me rooms” to CenturyLink CPE cages
- All equipment cages and racks
- Power and UPS
- Backup Power and UPS
- Network Timing Solution
- Premium Level Data Center Support
- All installation and maintenance

3.7.2 Data Security

3.7.2.1 Physical Security

All solution data is stored and backed up in CenturyLink data centers. Primary storage and backup devices are placed in CenturyLink secure cages. Access to these secure cages are limited to only authorized CenturyLink 911 support teams. All vendors must be escorted by CenturyLink 911 technicians.

3.7.2.2 Data Backups

CenturyLink backs up all system and customer data as required by manufacture best practices. Backup devices are installed and located at each data center to ensure data preservation. Only authorized CenturyLink 911 support teams and manufacture can physically access these devices and the data contained on devices

3.7.2.3 Data Access

As a normal practice, all customer (PSAP) data is stored in separate security domains, or sites, and each PSAP can only access their data. However, with proper authorization from each PSAP, permissions may be configured granting other agencies or entities access to PSAP data. This may be useful when a State or regional entity requires access to all PSAP MIS data. Federal Government compliance will require CenturyLink to obtain permission from each PSAP. Only after permission has been received by CenturyLink from the PSAP, will CenturyLink configure the permissions for other entities to access this data.

3.7.3 In Production Data Center Locations

CenturyLink has two data centers deployed and in production

- **Data Center 1:** IO Data Center – Phoenix AZ
- **Data Center 2:** Highlands Ranch Data Center – Highlands Ranch CO

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3.7.4 Optional Data Center Deployments

Optional regional data center deployments will be considered. Building new data center infrastructure will be done at additional cost to customer. Depending on deployment model and committed seats, CenturyLink may cover part or all the data center infrastructure build.

4. CenturyLink Managed Emergency Call Handling Solution – VESTA CPE Equipment

4.1 Overview

CenturyLink’s VESTA Managed Emergency Call Handling solution is deployed to provide the most resiliency and avoids any single points of failures. The CenturyLink Managed NG9-1-1 PSAP Solution includes a base set of hardware and applications included in the seat price. Optional hardware and applications can also be provided at customer request.

CenturyLink’s Managed Emergency Call Handling VESTA 9-1-1 Solution is available in two configurations:

- VESTA 9-1-1 Prime Standard Operations – ACD is not included
- VESTA 9-1-1 Advanced Operations – Includes ACD

Table below what CenturyLink is Including and is optional in CenturyLink’s **Managed Emergency Call Handling** / per-seat pricing

Included and Optional VESTA Applications			
Qty	Description	Included	Optional
	VESTA 9-1-1 Basic Bundle	✓	
1	ESInet Interface Module License	✓	
1	VESTA 9-1-1 Prime Standard Operations	✓	
1	VESTA 9-1-1 IRR Module	✓	
1	VESTA 9-1-1 Multi-Queue Display		✓
1	VESTA Activity View License	✓	
	VESTA CDR License	✓	
1	VESTA Text2-911 SMS License (Does not include TCC services) (Does not include installation of required SMS firewall)	✓	
	VESTA Basic Bundle with ACD		✓
1	ESInet Interface Module License	✓	
1	VESTA 9-1-1 Prime Standard Operations	✓	
1	VESTA 9-1-1 IRR Module	✓	
1	VESTA 9-1-1 Multi-Queue Display	✓	
1	VESTA Activity View License	✓	
1	VESTA CDR License	✓	

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1	VESTA Text2-911 SMS License (Does not include TCC services) (Does not include installation of required SMS firewall)	✓	
	VESTA Analytics	✓	
1	Analytics Site License - (Per Site, not seat)	✓	
Qty	Description	Included	Optional
1	Analytics Standard Seat License	✓	
1	Analytics User License	✓	
	VESTA Map Local	✓	
1	VMAP Local PREM License / MED	✓	
1	VMAP Local PREM License	✓	
1	8GB RAM DDR4	✓	
	Optional VESTA Applications		
	VESTA Heads-Up Display		✓
	VESTA Command Post		✓
Included and Optional VESTA Hardware			
Qty	Description	Included	Optional
	VESTA 9-1-1 Workstation Equipment	✓	
1	DKTP PRODESK Mini Workstation	✓	
1	24" LED Wide Screen FP Monitor (For VESTA 9-1-1)	✓	
1	24" LED Wide Screen FP Monitor (For VESTA Map Local)	✓	
1	48 Button Keypad with USB Cable 25FT	✓	
1	V911 SAM Box	✓	
1	SAM External Speaker	✓	
1	4W ELEC MIC Black Handset	✓	
1	KVM Arbitrator (2 or 4 Port)		✓
	VESTA 9-1-1 Admin PC		
	VESTA 9-1-1 Admin PC (With Vesta Activity View and includes (1) 22" FP LED Wide Screen Monitor)		✓
	VESTA 9-1-1 Phones / Voice Mail Options		
1	AASTRA 6731i Phone with Enhanced License Includes EIM, VESTA 9-1-1 CDR, and Analytics licenses		✓
1	VESTA Enhanced Soft Phone Bundle		✓

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	Includes EIM, VESTA 9-1-1 CDR, and Analytics licenses		
1	Cisco 2960-Plus POE Switches		✓
1	PSAP Managed Firewall Required for SIP interfaces to customer UCC		✓
	Gateways		
2	MED 1000B Chassis Bundle	✓	
4	MED FXO-LS Bundle	✓	
0	MED FXL-GS Bundle		✓
0	MED FXS Bundle		✓
1	MED 1000 1-SPAN Bundle	✓	
0	MED 1000 2-SPAN Bundle		✓
	Backroom Equipment		
1	19" Equipment Racks	✓	
2	VESTA LAN Switches	✓	
2	VESTA Routers	✓	
4	CDR Outputs	✓	
	Optional Required Hardware		
	Backroom and position UPS		✓
	Local Timing Device – Netclock		✓
	Cabling		✓

4.2 VESTA Host

VESTA Host equipment is deployed as a Geo-Diverse multitenant system. The CenturyLink **Managed Emergency Call Handling Solution** includes the following as required for each host data center:

- Co-Location Space for host system components
- All racks and power requirements
 - All VESTA 9-1-1 Application Servers
 - MDS and DDS servers
 - Analytics Servers
- Network Management Server
- Master Time Clock – Each host system
- Peripherals – KVM and monitors
- Backup Devices
- LAN switches
- Routers
- Patch Panels
- All cabling

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4.3 VESTA Core Services and PSAP Design

A Geo-Diverse VESTA 9-1-1 Solution runs in Active / Standby mode. CenturyLink deploys each VESTA 9-1-1 system alternating Side A and Side B at host data centers. Example:

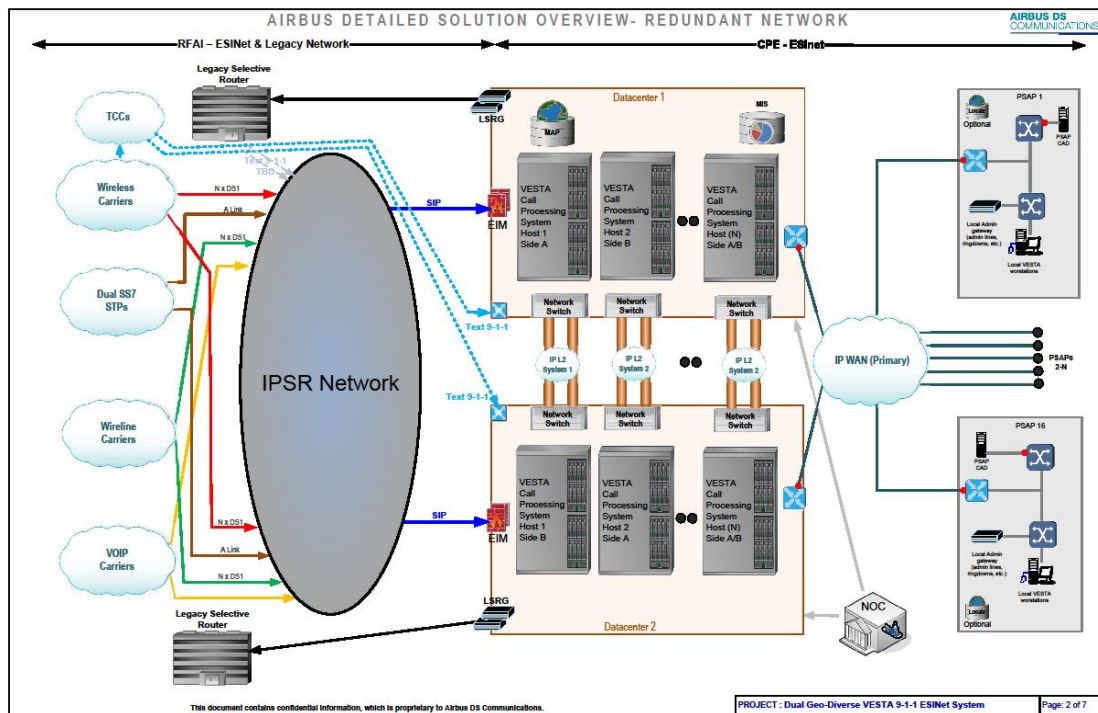
VESTA System 1 – Side A is deployed at DC1, Side B is deployed at DC2

VESTA System 2 – Side B is deployed at DC1, Side A is deployed at DC2

Application servers, such as Hosted Analytics, are deployed with single server. These will be installed at DC1

4.4 VESTA Design

VESTA in a Distributed GEO Diverse Configuration



5. System Installation

CenturyLink pricing includes all system installation of included system applications.

5.1 Included Installation Services

- Pre-site Survey
- Call Flow
- Core Equipment at Data Centers
 - CenturyLink provides all installation and configuration of Core VESTA NG9-1-1 CPE
- **PSAP Backroom Equipment** – CenturyLink will provide the following installations services:
 - Installation off equipment in CenturyLink or customer provided rack

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- Installation and configuration of all CenturyLink provided NG9-1-1 CPE ESInet routers
- Installation and configuration of all CenturyLink provided switches
- Installation and configuration of all VESTA or VIPER gateways
- Installation and configuration of any required CenturyLink application servers
- Installation and configuration of up to (4) serial handoffs for customer applications such as CAD and LTR
- **PSAP Position Equipment**
 - Installation and configuration of all CenturyLink provided VESTA front room equipment. This includes all Call Handling Positions, Admin Workstations, and Admin phones
- **Customer Requirements**
 - Customer is required to provide the following:
 - Power – Customer is responsible for providing all power to backroom and front room equipment
 - Customer is responsible for providing a location for all backroom equipment and must meet all environmental requirements of manufacture’s equipment
 - Cabling – Customer is responsible for providing all position cabling

5.2 CenturyLink Statement of Work (SOW)

CenturyLink will provide each PSAP customer with a customized SOW detailing all CenturyLink and Customer requirements

6. System Training

CenturyLink will provide the following system training to each PSAP

- Admin Training – CenturyLink will provide Admin Training to all PSAPs
- User Training – CenturyLink will provide all User Training to all PSAPs

7. System Maintenance

7.1 Monitoring and Response

7.1.1 Overview

CenturyLink provides a complete end-to-end monitoring solution of all network transport services, network equipment, and VESTA CPE applications and hardware

CenturyLink will have primary responsibility to investigate PSAP problems and determine if they are caused by CenturyLink or PSAP-owned equipment.

7.1.2 CenturyLink Managed NG9-1-1 PSAP ESInet

CenturyLink provides a NG9-1-1 PSAP ESInet with **Managed Emergency Call Handling Solution.**

CenturyLink will provide 365x7x24 monitoring and response of all CenturyLink provided network transport and terminating equipment.

All circuits provided by CenturyLink will be both System Tagged and Physically Tagged identifying them as critical NG9-1-1 infrastructure ensuring priority response and repair

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7.2 CenturyLink Managed NG9-1-1 CPE

CenturyLink provides remote monitoring of all CPE equipment in corporation with Motorola. Alarms are captured and responded to 365 x 7 x 24. Any alarms identified as critical or major, the affected PSAPs will be notified. Alarms will be resolved remotely and when required, a technician dispatch will be initiated by the CenturyLink 911 NOC.

7.3 Hardware

7.4 Included Covered Hardware

Any included hardware with the CenturyLink **Managed Emergency Call Handling** solution will be provided and replaced by CenturyLink. There will be no charge to PSAP for hardware or labor to replace for repairs and system upgrades.

7.5 Spares Crash Kits

CenturyLink will provide all manufacture critical spares within reasonable distance from PSAP. CenturyLink will identify where Crash Kits will be located during planning stages of each customer's implementation.

7.6 Exceptions

Customer will be responsible for replacement cost of any equipment not due to normal wear and tear, due to customer misuse or customer damage

Customer will be responsible for replacement cost of any equipment damaged due to "Acts of God", such as lighting, flooding, roof leaks, etc.

7.7 Preventative Maintenance

- CenturyLink will perform onsite PSAP preventative maintenance quarterly or 4 times a year
- CenturyLink will perform onsite Data Center Core preventative maintenance minimum monthly

7.8 Operating System Patch Management

- CenturyLink will install all OS patches as each manufacture tests and approves for field use
- OS Patches are normally released and installed monthly
- CenturyLink technicians will deploy all OS patches on all servers
- CenturyLink may push patches out to PSAP call taking positions and may require customer to reboot workstations
- CenturyLink Project Manager will schedule all OS patch dates with PSAP customers.

7.9 Application Patch Management – Security and / or Hotfixes

- CenturyLink will install all critical application patches as instructed by CPE equipment manufactures
- CenturyLink will install all application patches on all servers and critical system components. This may include routers, switches, or gateways
- CenturyLink will install all application patches on site if required.
- CenturyLink will remotely push all application patches to workstations when only a reboot is required

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- CenturyLink Project Manager will schedule all application updates with PSAP customer

7.10 Anti-Virus Updates

- CenturyLink will update all anti-virus definition files monthly as released by manufacture
- Updates will be pushed remotely, and no rebooting of workstations or servers will be required
- CenturyLink will notify customer of all scheduled pushes of definition files

7.11 Firmware and IOS updates

- CenturyLink will update gateway device firmware, firewall, router and switch IOS as recommended by manufacture

8. System Upgrades

8.1 Overview

CenturyLink's **Managed Emergency Call Handling** Solution per-seat pricing includes all system upgrades at no cost to PSAPs. CenturyLink will perform minimum of one upgrade per year that adds features and functionality to the VESTA CPE solutions. This does not include hotfixes or service packs to address software and hardware fixes which are covered under Section 8 of this document

- CenturyLink will provide all software required to for upgrade
- CenturyLink will provide any required hardware upgrades or hardware replacement to support the system upgrade
- CenturyLink will provide all field engineering and technician resources to implement upgrade

9. Software and Equipment EOL and EOS notices

9.1 EOL and EOS notices

CenturyLink will advise customer of all EOL (End of Life) and EOS (End of Services) with respective milestone dates.

9.2 EOL and EOS Process

When a manufacture announces a product will be going EOL, CenturyLink will evaluate:

- End of Sale date – Last day product can be purchased
- Last date to renew manufacture support services
- Will manufacture support beyond the EOS date?
- Availability of replacement devices beyond EOS date
- Criticality of device in call delivery

Devices determined unsupported before or after EOS date will be replaced by CenturyLink

10. Billable Move, Add, or Change Orders (MAC)

Any service or equipment not described in this service guide may be billable to customer.

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The following are examples of billable work activities:

- Add new call taking positions (*Monthly recurring rate would also apply*)
- Adding new admin or CAMA trunk gateways (*Monthly recurring rate would also apply*)
- Terminating new admin lines on existing system
- Interfacing to new admin phone system
- Interfacing to new logging recorder
- Interfacing to new CAD system
- Interfacing to new radio system
- Move or rearrangement of existing 9-1-1 equipment, network, wiring and cabling
- Damaged equipment NOT through normal “wear and tear”
 - Food and water spilled on equipment
 - Damage do to flooding, lightening, or other “Acts of God”
- Moving existing equipment at PSAP request
- Rewiring console furniture at PSAP request
- Moving equipment to new PSAP building

While the above are the most common examples of billable activities, the list is not inclusive of all possible billable MAC requests

10.1 Solution and Deployment Options

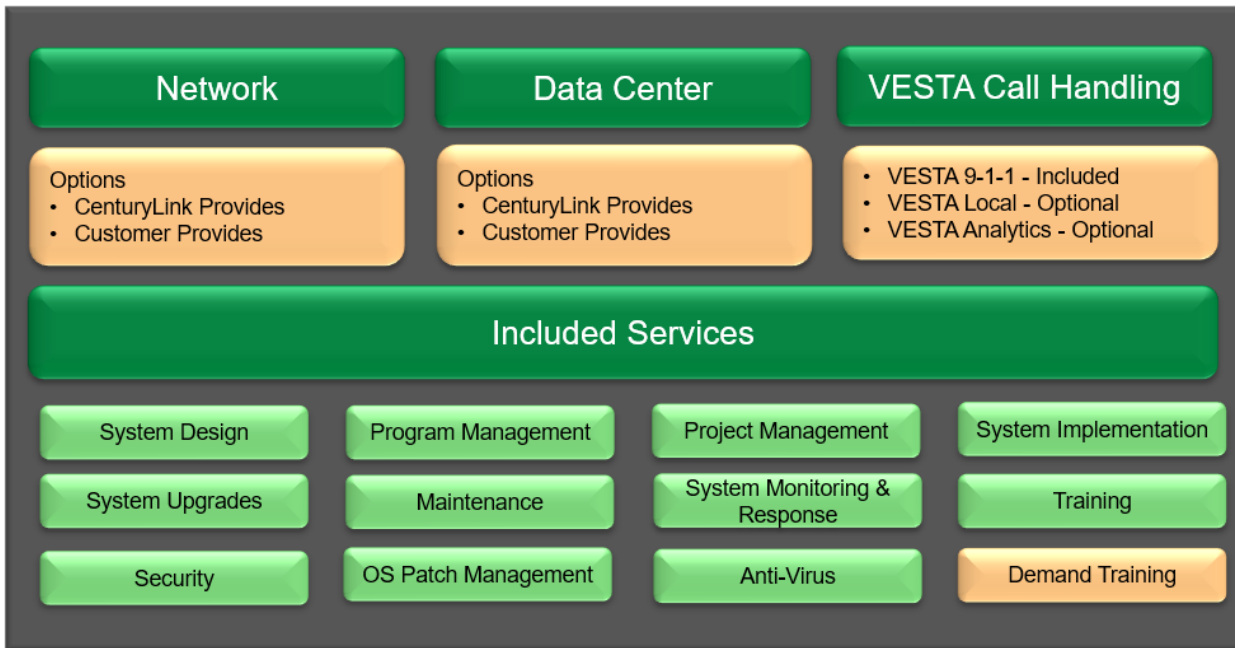
Turnkey Solution – CenturyLink’s VESTA Managed Emergency Call Handling is offered as a full turnkey solution and CenturyLink provides all solution building blocks (equipment, network, data centers, system installation, monitoring, maintenance, and system upgrades are included in the per-seat pricing for full term of the contract).

CenturyLink’s Managed Emergency Call Handling Turnkey Solution

Customer Solution – Optionally, customer may choose to deploy with a custom hybrid solution. With this option, CenturyLink provides some of the solution building blocks and customer provides some of the solution building blocks.

CenturyLink’s Managed Emergency Call Handling Custom Solution

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10.2 Legacy E9-1-1 and NG9-1-1 Core Services ESInet

CenturyLink's Managed Emergency Call Handling Solution does not include legacy E9-1-1 service or NG9-1-1 i3 Core Services. CenturyLink does provide all CPE hardware and CPE configuration services where customer's E9-1-1 services or/and NG9-1-1 services will terminate.

Customer may bundle CenturyLink's NG9-1-1 core services solution with the Managed NG9-1-1 PSAP solution. Service Guide for CenturyLink's NG9-1-1 Core Services can be provided by your CenturyLink Account Team.

11. CenturyLink Managed Emergency Call Handling Solution – Infrastructure Functional Building Blocks

11.1 Overview

CenturyLink provides all Infrastructure and services to deliver a fully managed, resilient, Geo-Diverse, Multitenant CPE solution.

11.2 Functional Building Blocks

The solution's infrastructure includes three key functional components:

- Network Infrastructure
- Host Data Center Infrastructure
- VESTA NG9-1-1 CPE Call Handling Solutions

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- Major VESTA Applications
 - VESTA 9-1-1
 - VESTA Analytics – Hosted Enterprise
 - VESTA Local

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Building Blocks VESTA Managed Emergency Call Handling		
Network	Data Center	VESTA Call Handling CPE
<p>Layer 3 Private CPE ESInet</p> <ul style="list-style-type: none"> <input type="checkbox"/> CenturyLink National MPLS Network <input type="checkbox"/> CenturyLink OWS <input type="checkbox"/> CenturyLink Ethernet <input type="checkbox"/> CenturyLink Geo-Max (Optional, Availability) <input type="checkbox"/> NxDS1, DS3, OC3 <p>Data Center Network</p> <ul style="list-style-type: none"> <input type="checkbox"/> All Layer 3 network connections to CenturyLink MPLS cloud is over two 1G OWS circuits at each data center <input type="checkbox"/> All Layer 2 network connections between data centers is over 1G diverse OWS circuits <input type="checkbox"/> Ability to terminate customer administrative telephony services at data center (PRI, SIP, TDM) <p>Remote PSAP Network</p> <ul style="list-style-type: none"> <input type="checkbox"/> Will be routed to diverse POPs <input type="checkbox"/> If infrastructure exist, will be diverse from serving POP to serving Central Office <input type="checkbox"/> Redundant last mile to PSAP <input type="checkbox"/> Optional Diversity Options – Last mile <p>Data CPE Hardware</p> <ul style="list-style-type: none"> <input type="checkbox"/> CenturyLink provides all routers, switches, firewalls 	<p>Tier 3 Data Centers</p> <ul style="list-style-type: none"> <input type="checkbox"/> Secure Building Access <input type="checkbox"/> 7x24x365 Security <input type="checkbox"/> Secure Cages and Cabinets <input type="checkbox"/> Power and UPS <input type="checkbox"/> Backup Power and UPS <input type="checkbox"/> Extensions from “Meet me Room” <p>VESTA Network</p> <ul style="list-style-type: none"> <input type="checkbox"/> Two 1G IQ Private Ports (MPLS) at each data center provides all layer 3 connectivity <ul style="list-style-type: none"> <input type="checkbox"/> Each circuit is physical diverse and terminate at diverse CenturyLink POPs <input type="checkbox"/> Two physically diverse 1G Point-to-Point OWS circuits provide layer 2 connectivity between data centers for Geo Diverse VESTA cores (Side A and Side B) <p>VESTA Geo-Diversity</p> <ul style="list-style-type: none"> <input type="checkbox"/> All equipment is deployed in Geo-Diverse Data Centers <input type="checkbox"/> Core Data Center Network Infrastructure – exceeds Five-9s reliability 	<p>VESTA 9-1-1</p> <ul style="list-style-type: none"> <input type="checkbox"/> VESTA 9-1-1 <ul style="list-style-type: none"> <input type="checkbox"/> ACD Option <input type="checkbox"/> VESTA Analytics - Enterprise <input type="checkbox"/> VESTA Map Local <p>Deployment Model</p> <ul style="list-style-type: none"> <input type="checkbox"/> VESTA – Geo Diverse / Multitenant <input type="checkbox"/> Critical Core System Components hosted in Geo-Diverse Data Centers. Side A in DC1, Side B in DC2 <p>PSAP CPE</p> <p>Includes all position workstation equipment</p> <ul style="list-style-type: none"> <input type="checkbox"/> CPU <input type="checkbox"/> SAM Box <input type="checkbox"/> (2) Monitors <input type="checkbox"/> Keyboard, Mouse <input type="checkbox"/> Ports for position recording <input type="checkbox"/> Ports for headset integration <input type="checkbox"/> Optional KVM, Geno Keypad <p>Includes Backroom Equipment</p> <ul style="list-style-type: none"> <input type="checkbox"/> Routers, Switches <input type="checkbox"/> CAD and LTR handoff <input type="checkbox"/> CAMA Gateways <ul style="list-style-type: none"> • Admin Gateway