

ATTACHMENT A - Description of Current Environment

VA has approximately 1,800 individual call centers, supported by approximately 9,300 contact center employees handling over 140 million phone contacts per year. Call volume breakdown¹:

- 66% VHA (VAMC)
- 28% VBA
- 5% VHA (non-medical)
- 1% NCA

As of December 2017, VA has 1,304 toll free numbers in use.² This number has increased since 2012, when an analysis of all VA toll free numbers in use was conducted. That study provided an estimated breakdown of the purpose of the toll free numbers as in the following table:

Main Facility	484	42%	Disaster	9	1%
Specialty Clinic or Other Local Use	132	11%	Nurse Triage	45	4%
Administrative Clinical Function	43	4%	Telehealth	26	2%
Human Resource (HR)	12	1%	Pharmacy	25	2%
Research	44	4%	AudioCare	37	3%
Conferencing	9	1%	Local Call Center	9	1%
Dictation	6	1%	National Call Center	106	9%
Fax Number	13	1%	To Be Disconnected	3	0%
Voice Mail	1	0%	Reserved	26	2%
Help Desk	33	3%			

Enterprise telephony solutions exist today which service the contact center needs of VBA, NCA, and VHA as well as VA Central Office (VACO). Additional call center needs are met through a diverse set of disparate telephony systems in place.

Wide Area Network (WAN) Environment

Summary

The Department of Veterans Affairs (VA) data network has evolved into the VA Mission Fabric. An open and scalable IP network that provides caregivers and staff the ability to stay connected anywhere and anytime, and provide efficient and effective care to the Veterans of our nation. The VA Mission Fabric data network builds on previous generations of technological success, including VISTA or CPRS, VA's nationwide Electronic Medical Record System as well as BCMA, VA's prescription distribution system which allows bedside connectivity and

¹ Reference: VEO presentation dated 12/12/17 "Contact Center Modernization"

² Reference: GSA EIS Inventory December 2017

prescription delivery. The VA Mission Fabric was built to serve these current generation applications, and continues to be enhanced to deliver next generation applications.

Enterprise Organizations and Healthcare Systems across the world have realized that the network can no longer be viewed simply as an expense. It no longer just provides simple services such as file and print services. The IP Network is critical and integrated into the day-to-day functions of almost every major Enterprise and Healthcare System in the world. VA is no exception. The VA Mission Fabric is critical to delivery of healthcare to our Nation's Veterans.

As such, careful planning must be given to the design and evolution of the VA Mission Fabric. These best practices and design principles must be used when planning and implementing the addition and evolution of the VA Mission Fabric.

VA Wide Area Network (WAN) Technology

The VA employs dual service provider (SP), dual router, multi-protocol label switched virtual private network (MPLSVPN) WAN connections at all primary sites (i.e. medical centers, regional offices, and top level NCA sites). Each service provider WAN is configured into a single common VPN.

The MyVA WAN architecture is based on a single domain with carrier redundancy at all major sites; and carrier redundancy at smaller sites as dictated by business needs. All VA sites connected to the MyVA WAN, including the VA Gateways (GW), are one hop away from any other VA site.

Traditional point to point circuits are only employed in situations where L3 MPLS VPN circuits will, due to imposed backhaul, cause excessive latency.

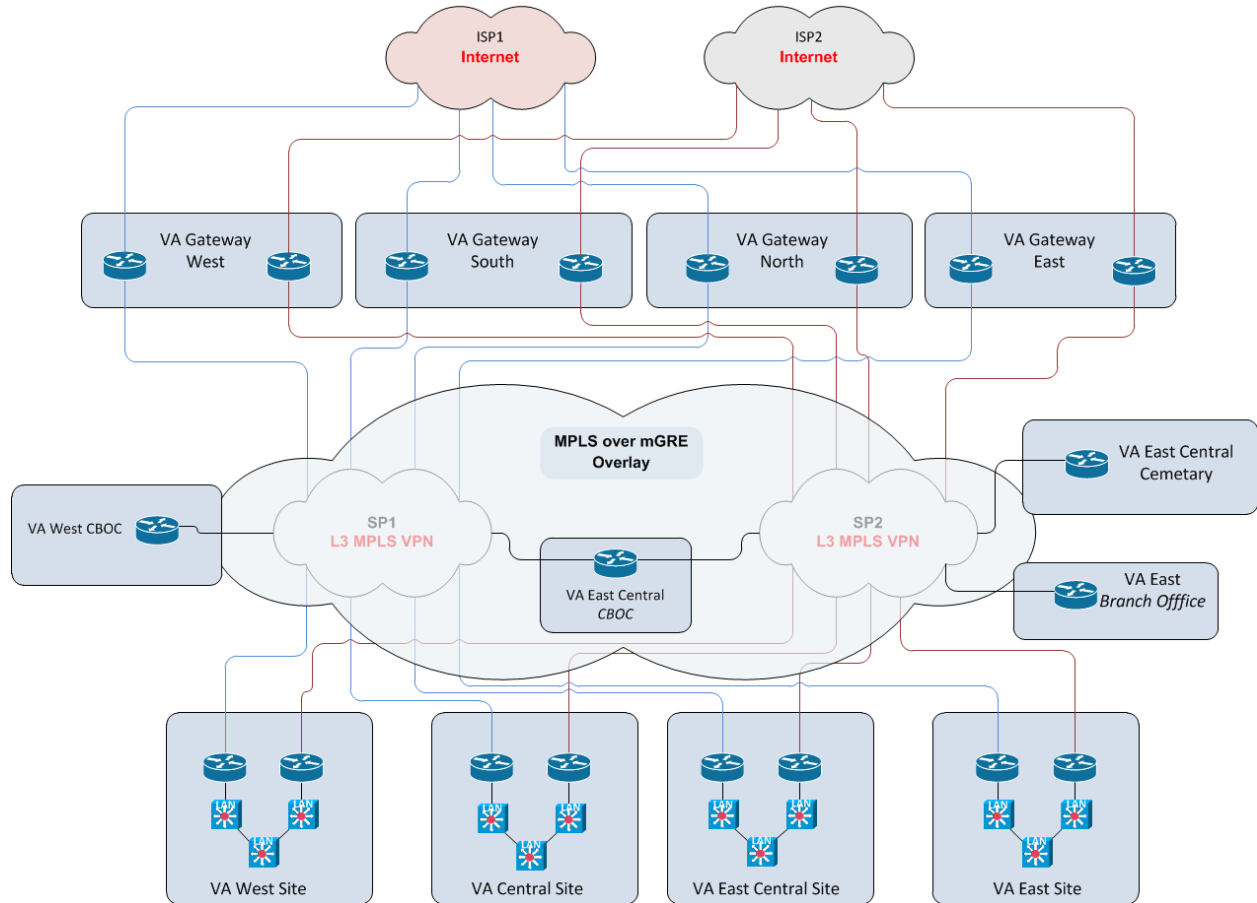
The VA's WAN technology provides:

- Significantly reduced latency due to the elimination of congestion points and fewer routing hops to any destination/resource inside the VA WAN
- Elimination of congestion points also reduces capacity planning complexity
- Reduced configuration complexity due to more streamlined traffic patterns and fewer routing hops
- Simplified troubleshooting due to simplified architecture and more direct data paths.

The simplified architecture (see figure 1 below) allows and ensures more direct and more easily understood traffic patterns. This will allow the VA to more clearly identify WAN architecture and traffic flows.

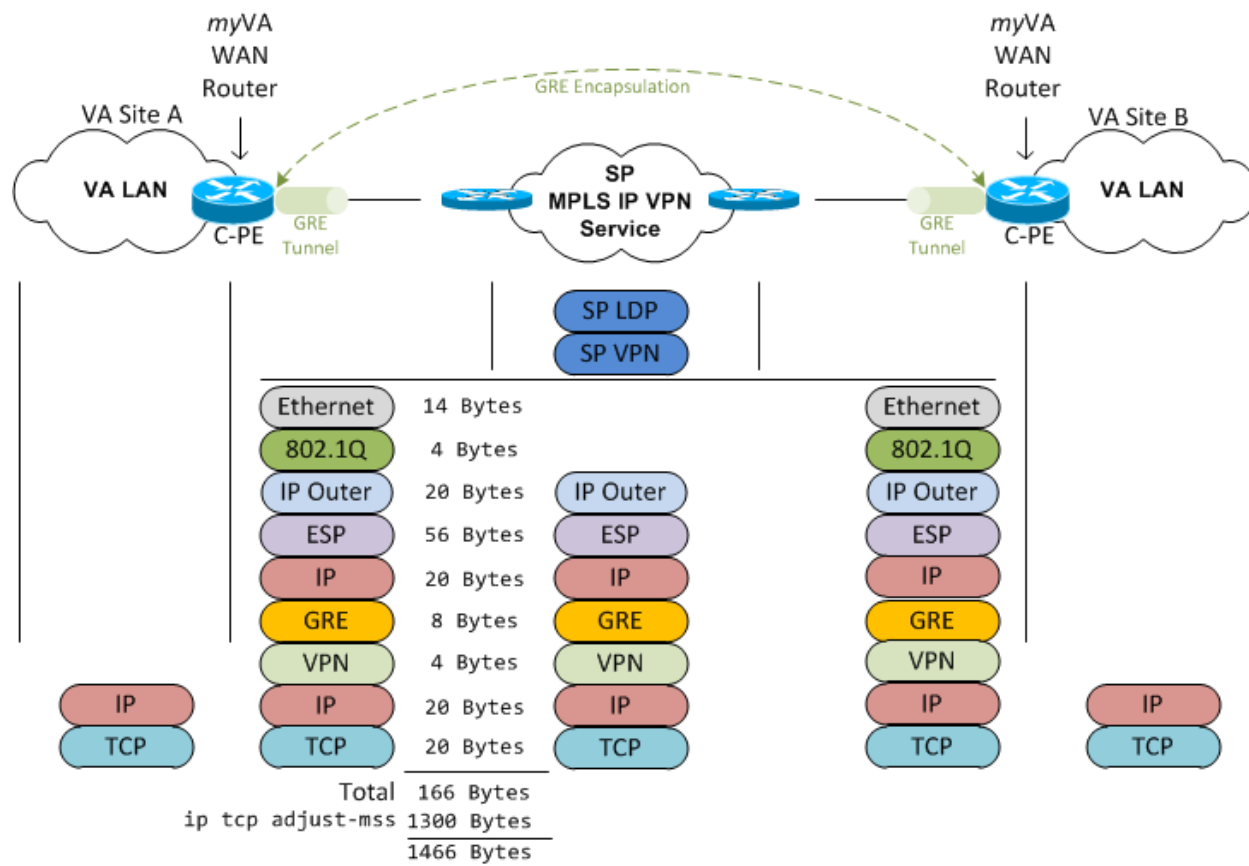
Figure 1

MyVA WAN



MPLS Layer 3 VPN over mGRE: Forwarding Plane

The MPLS L3 VPN over mGRE solution simplifies operations in that it requires a single IP address from each site for transport over the SP network. This solution is fully capable of supporting quality of service (QoS) as any type of service (ToS) markings in packets transiting the VA's WAN routers will be "reflected" to the outer header of the GRE packet, allowing the SP the ability to properly prioritize MyVA WAN traffic. In addition to marking, any ingress/egress QoS policies can also be applied such as policing, shaping, and/or scheduling prior to sending to the WAN.



Quality of Service (QoS)

The Department of Veterans Affairs employs a common architecture and baseline configuration for Quality of Service (QoS) on all VA data networks.

Today's networks need to support multiple kinds of traffic over single network links. Different kinds of traffic demand different treatments from the network. Just like a first class passenger is ready to pay the premium for superior service, customers of today are ready to pay extra for preferential treatment of their traffic. And just as we cannot have a separate airplane for each first class passenger, similarly we cannot have separate network connections for each of our customers. Therefore much of the bulk of network traffic has to flow through lines where first class traffic and other classes of traffic have to share the bandwidth (just like economy class passengers share the airplane with first class passengers). We can only differentiate at places where the traffic flows through active network elements which have the capability to differentiate. Examples of such entities are routers, switches and gateways.

Therefore, we need to ensure our networks:

- Can deliver multiple classes of service - that is they should be QoS conscious.
- Are Scalable - so that network traffic can increase without affecting network performance
- Can support emerging network intensive, mission critical applications which will be the key determinant of a success in the global world.

The objective of VA's QoS is being able to manage the network performance of applications across the network to ensure that critical systems are provided the network resources required to meet the performance targets defined in their respective Service Level Agreements.

QOS DESIGN PRINCIPLES

VA perform QoS classification and queuing in hardware rather than software when a choice exists. VA classifies and mark applications as close to their sources as technically and administratively feasible. This principle promotes end-to-end Differentiated Services/Per-Hop Behaviors. Sometimes endpoints can be trusted to set Class of Service (CoS) or Differentiated Services Code Point (DSCP) markings correctly, but this is not always recommended as users could easily abuse provisioned QoS policies if permitted to mark their own traffic. For example, if DSCP Expedited Forwarding (EF) received priority services throughout the enterprise, a user could easily configure the NIC on a PC to mark all traffic to DSCP EF, thus hijacking network priority queues to service their non-real time traffic. Such abuse could easily ruin the service quality of real time applications (like VoIP) throughout the enterprise.

QOS APPLICATION PRIORITIES

Queue management is fundamental to QoS. It enables bandwidth control and ensures traffic is dealt with at the level of urgency specified in the QoS policy.

To achieve this, two main queue types are required.

They are:

- 1. Weighted fair bandwidth distribution

This allocates bandwidth to applications based on their needs, and thereby sets maximum and minimum bandwidth limits. It ensures that applications, with lower priority for instance, cannot borrow bandwidth from other applications.

- 2. Priority

This ensures that high priority traffic is always given priority over other traffic, and thereby suffers less delay. It does this by 'graceful' dropping of lower priority packets via the RED mechanism when severe congestion occurs, dropping progressively more and higher priority packets, until congestion is eased.

Random early detection (RED), also known as random early discard or random early drop is an active queue management algorithm. It is also a congestion avoidance algorithm.

RED monitors the average queue size and drops packets based on statistical probabilities

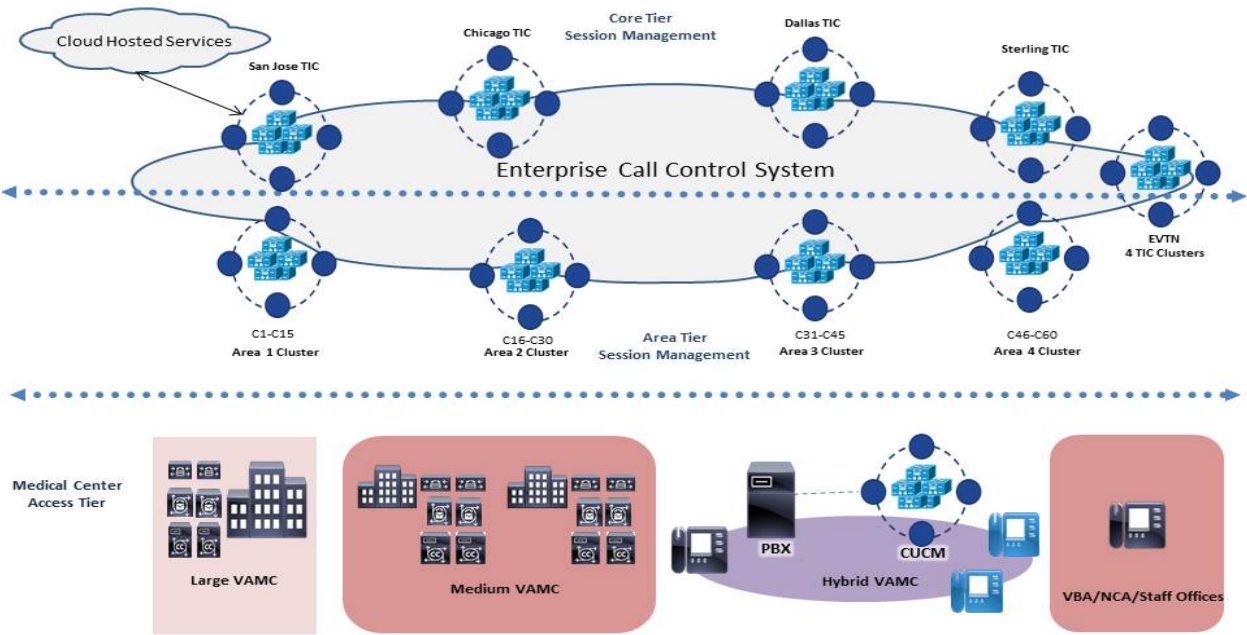
For each defined application CoS, the VA has assigned a corresponding priority. The below table lists the priority levels of VA defined QoS application classes, as well as the probability of packets from that application being dropped during extreme congestion.

Application / Item	APP CLASS TAG	Carrier CoS
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Voice RTP	EF/CS5	CoS1
VOIP	EF	CoS1
Video RTP	AF41	CoS2V
VIDEO-Clinical	AF41	CoS2V
VIDEO-Administrative	AF42	Cos2V
VoIP & IP Video Control	CS3	CoS2
PACS/Imaging/NTP/VirtualVA	AF31	CoS2
Pak_Priority	CS6	N/A
Mission Critical	AF21	CoS3
Mission oriented Internet bound	DF	CoS4
Non-mission oriented Internet bound	CS1	CoS5
Bulk transfer, not latency or bandwidth sensitive FTP/Backuptraffic	AF11	CoS5

Current Unified Communications (UC) Architecture

Current UC architecture ties into the WAN architecture at the VA gateways (see Figure C5.1).



VA Central Office (VACO)

VA Central Office (VACO) contact center needs are currently met by a government-owned Cisco Unified Contact Center Enterprise (UCCE) 11.6 SU2 solution with call control provided through Cisco Unified Call Manager (UCM) 11.5 SU3, which is co-managed by VA personnel and ATT Networkx contractors. See Figure C5.3.

Five major contact center business lines are supported using the VACO UCCE platform.

- White House Hotline
 - 60 agents (24x7)
 - 8 PRIs (dedicated to White House Hotline)
- Debt Management Center (DMC)
 - 120 agents (24x6)
 - 16 PRIs (dedicated to DMC)
- NCA Veteran Memorial Affairs
 - 40 agents
 - 8 PRIs (at 1100 St.)
 - 32 PRIs (at 810 Vermont – shared with main facility)
 - 10 PRIs (dedicated to NCA)
- Identity Access Management (IAA)
 - 10 agents
- Office of Inspector General (OIG)
 - 30 agents
 - 4 PRIs (at Techworld facility – shared with facility)
- Office of Small and Disadvantaged Business Unit (OSDBU)
 - 50 agents

The system is licensed to support 500 call agents and has the following capabilities:

- Skills based routing; levels of proficiency
- No self-service is currently configured, but IVR is provided (500 ports)
- 100% call recording/20% screen capture (Calabrio)
- Scheduled Callback
- Post Call Survey (Calabrio)
- Web chat (used by White House Hotline only)
- Text (used by White House Hotline only)
- Salesforce CRM (CTI integration)
- eGain Knowledge Management
- Softphones and hard phones
- Dual monitors
- Work Force Management (WFM) and Analytics (Calabrio)
- Quality Management (Calabrio)
- Cisco Call Detail Record (CDR) and Call Analytics (3 year record retention) (Cisco Variphy)
- Remote Phone Management (Cisco Variphy)

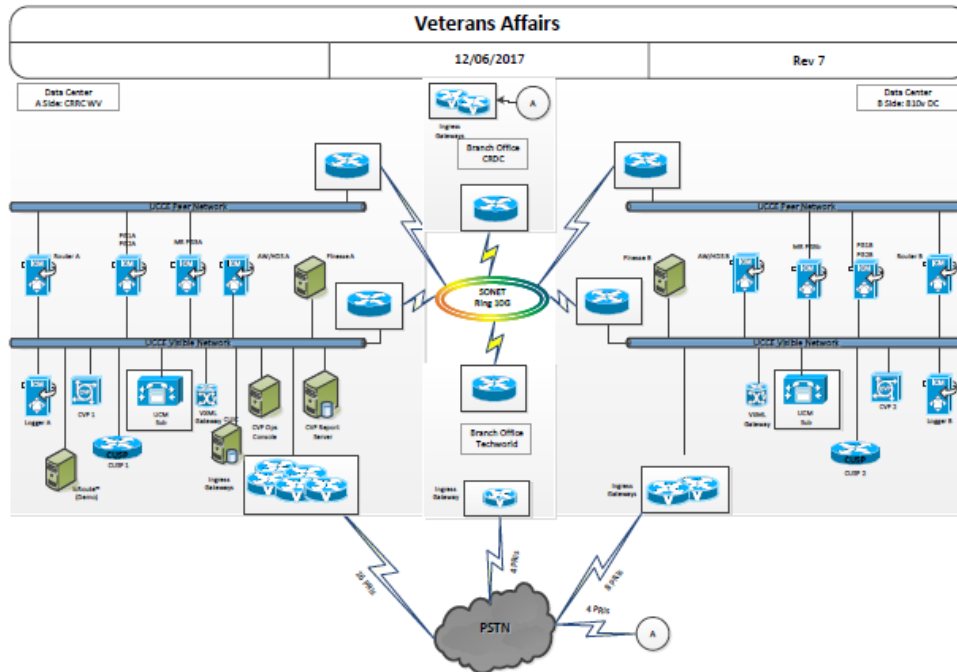


Figure C5.3

National Cemetery Administration (NCA)

NCA operates two major call center business operations. Memorial Affairs call center is supported off the VACO UCCE platform as discussed above. Additionally, NCA's burial scheduling call center supports 65 agents off of a Tadiran system (2 PRIs) located physically in St. Louis, MO.

Veterans Benefits Administration (VBA)

VBA's contact center needs are met through a government-owned Cisco Unified Contact Center Enterprise (UCCE) solution. Redundant cores are located in VA datacenters in Philadelphia, PA and Austin, TX. The system became operational in 2016 and is currently transitioning from a state of continued development to operational sustainment. See Figure C5.4

Call Center	FTE	Location(s)
Insurance Call Center	100	Philadelphia
Fiduciary Call Centers	300	Columbia SC; Indianapolis, Louisville, Milwaukee, Salt Lake City, Lincoln, San Juan
NCC's to include VSO	1,200	Cleveland, Philadelphia, Columbia, Nashville, St Louis, Salt Lake City, Phoenix
Pension	75	Philadelphia
Education Certification IVR	0	(self-service only)
MyVA311 IVR	0	(self-service only)
Education Call Center	350	Muskogee
Education School Call	25	Muskogee

- Web chat
- Text (capable, not utilized)
- Microsoft Dynamics CRM (CTI integration)
- eGain Knowledge Management
- Softphones and hard phones
- Dual and triple monitors
- Work Force Management (WFM) and Analytics (Nice)
- Quality Management (Nice)

Veterans Health Administration (VHA)

The following VHA contact center operations are supported on platforms that offer a full suite of contact center functionality.

- Office of Community Care (OCC) (formerly known as Health Administration Center (HAC))
 - Located in Denver, CO
 - Avaya
 - ~10,000 calls/day on average
- Member Services - Health Resource Center (HRC)
 - Located in Topeka, KS and Waco, TX
 - NEC (Topeka)
 - Avaya (Waco)
 - ~50,000 calls/day on average
- Member Services - Health Eligibility Center (HEC)
 - Located in Atlanta, GA
 - Avaya
 - ~1,000 calls/day on average
- Office of Mental Health and Suicide Prevention's (OMHSP) Veterans Crisis Line (VCL)
 - Located in Canandaigua, NY
 - Supported off Avaya solution implemented in VISN 2, which provides redundancy across VAMCs in the VISN
 - Avaya solution upgraded in 2016
 - Close business ties to Member Services
 - 24/7 business operation
 - 415 Call Agents
 - ~3,000 calls/day on average

The contact center operations in these five locations (Denver, CO; Waco, TX; Topeka, KS; Atlanta, GA; Canandaigua, NY) have the following capabilities:

- Skills based routing; levels of proficiency
- IVR self service
- 100% call recording/20% screen capture
- Scheduled Callback
- Outbound Call Campaigns

- Post Call Survey
- Web chat
- Text
- Microsoft Dynamics CRM (CTI integration)
- eGain Knowledge Management
- Softphones and hard phones
- Dual monitors
- Work Force Management (WFM) and Analytics
- Quality Management

An active project is currently underway that will consolidate four of the five existing telephony platforms and capabilities for these operations. The solution will support 1,743 call agents (with expansion capability) and will provide a geographically redundant Avaya platform with dual cores located in Denver and Waco and survivable remotes located in Atlanta and Topeka.

The following additional VHA contact center operations are supported on a diverse set of telephony systems:

- Special purpose call center operations are located in various locations (supported by local VAMC telephony solutions), including but not limited to:
 - Caregiver Support Hotline – Philadelphia, PA
 - Women Veterans Call Center – Durham, NC
 - Weekends, Holidays, Evenings, Nights (WHEN) Call Center – Dayton, OH (supports VAMC after hours needs for nurse triage coverage, etc.)
- VISN-VAMC Call Centers (supported by local VAMC telephony solutions) (See Figure C5.5)
 - Call trees implemented using ACD or Automated Attendant in most cases
 - Limited contact center functionality (e.g., only a few locations can support call recording; no IVR self-service; no web chat or text capabilities; no outbound call campaign, no Work Force Management, etc.)

VISN-VAMC CALL CENTERS AT A GLANCE

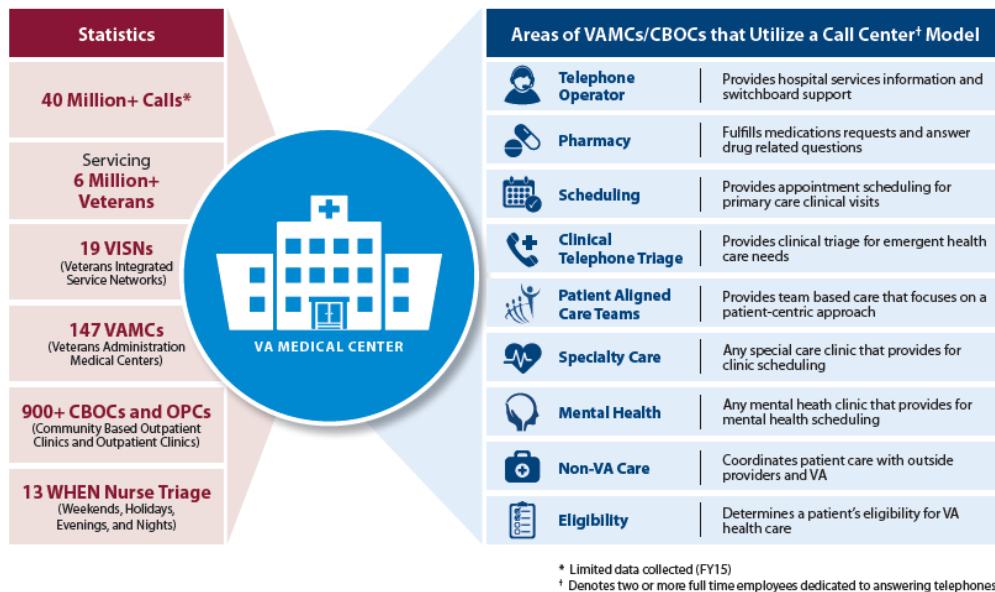


Figure C5.5

Storage Requirements

Storage capability is provided to meet 100% call recording/20% screen capture (where used) and allow 15-month online retrieval capability with records greater than 15 months in age, archived. Storage requirements set forth by National Archives and Retention Authority (NARA), are specifically as follows (Figure C5.6):

Subject Matter Area	Disposition Authority Number	Retention Requirement
Crisis Line Records	DAA-0015-2017-0001-0001	Destroy 4 year(s) after cutoff
Medical Advice	DAA-0015-2017-0001-0002	Destroy 4 year(s) after cutoff
Benefits	DAA-0015-2017-0001-0003	Destroy no sooner than 6 year(s) after cutoff but longer retention is authorized
Detailed Administration Information	DAA-0015-2017-0001-0004	Destroy 2 year(s) after cutoff
Routine Administrative Information	DAA-0015-2017-0001-0005	Destroy 7-30 days depending on business need of the organization

Figure C5.6

VISN-VAMC Telephony Architecture

Veterans Health Administration (VHA) is organized into five geographic districts with 18 Veteran Integrated Service Networks (VISN). Within these VISNs (Figure C5.7), there are approximately³:

- 170 VA Medical Centers (VAMC)
- 135 Extended Care/VA Community Living Centers
- 23 Health Care Centers
- 199 Multi-Specialty Community-Based Outpatient Clinics (CBOC)
- 545 Primary Care Community-Based Outpatient Clinics (CBOC)
- 296 Other Outpatient Services Sites
- 300 Vet Centers
- 80 Mobile Vet Centers

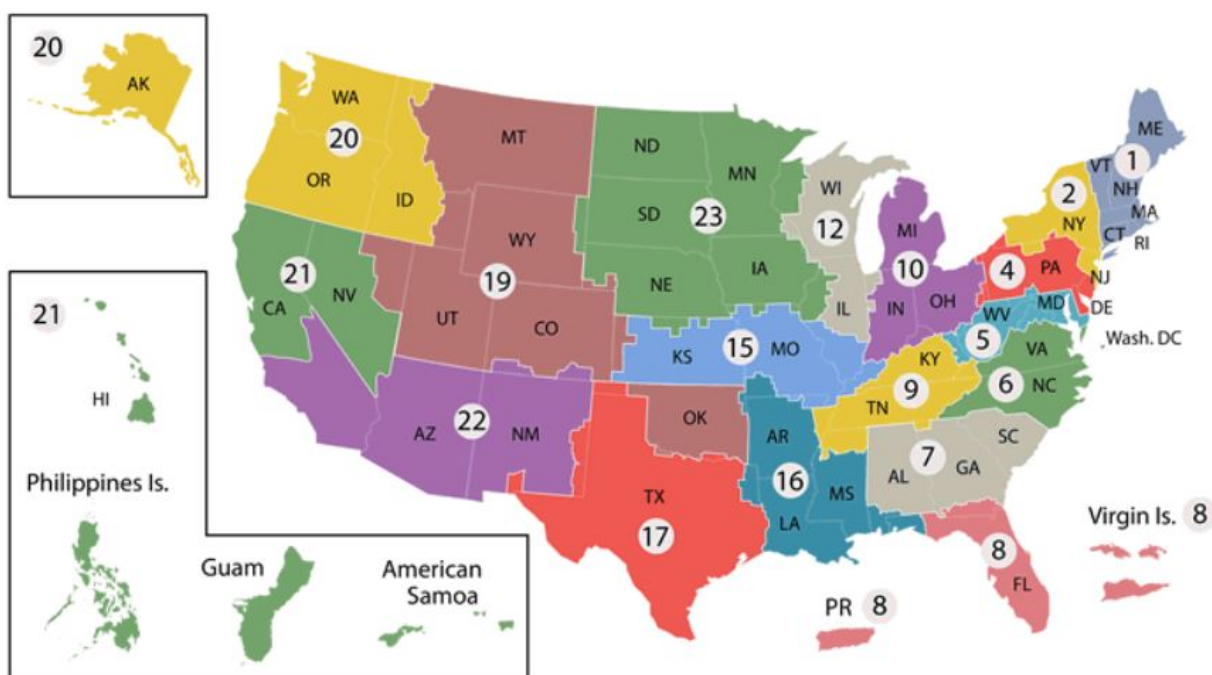


Figure C5.7

TECHNOLOGICAL INFRASTRUCTURE

Telephony infrastructure in place today, servicing VAMCs and the majority of outpatient clinic environments, is provided through the following Operating Equipment Manufacturer (OEM) solutions⁴ (Figure C5.8).

³ Reference: Under Secretary for Health's PowerPoint presentation titled, "VHAOverview" dated September 27, 2017.

Note: Recent VISN mergers are as follows: VISN 3 into VISN 2, VISN 11 into VISN 10, VISN 18 into VISN 22. Realignment of facilities into different VISNs are as follows: Oklahoma City from VISN 16 into VISN 19, West Texas from VISN 18 into VISN 17.

⁴ Note: Approximately 74 outpatient clinic facility's telephony services are currently covered by VHA facility contracts, and thus are not serviced by internal VA telephony solutions.

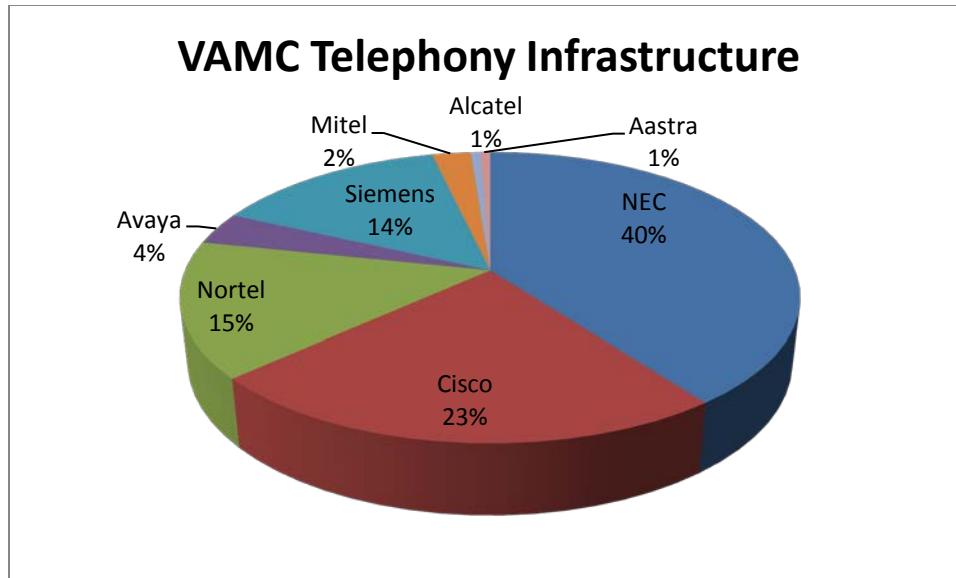


Figure C5.8

VHA's VA Medical Center facilities are listed below with their primary OEM currently in operation. It is important to note that a variety of additional solutions exist across the enterprise that provide telephony services to each facility's supported remote facilities such as Community Based Outpatient Clinics (CBOC). Approximately, 74 remote clinics receive their telephony services through their physical facility leases with telephony infrastructure not owned by VA; however, the majority of remote clinics leverage telephony infrastructure owned and managed by VA.

North Atlantic District		
VISN 1	<ul style="list-style-type: none"> Edith Nourse Rogers Memorial Veterans Hospital (Bedford, MA) Manchester VA Medical Center (Manchester, NH) Providence VA Medical Center (Providence, RI) VA Boston Healthcare System, Brockton Campus (Brockton, MA) VA Boston Healthcare System, Jamaica Plain Campus (Jamaica Plain, MA) VA Boston Healthcare System, West Roxbury Campus (West Roxbury, MA) VA Central Western Massachusetts Healthcare System (Leeds, MA) VA Connecticut Healthcare System, Newington Campus (Newington, CT) VA Connecticut Healthcare System, West Haven Campus (West Haven, CT) VA Maine Healthcare System - Togus (Augusta, ME) White River Junction VA Medical Center (White River Junction, VT) 	<ul style="list-style-type: none"> NEC NEC Cisco NEC NEC NEC NEC NEC NEC NEC Nortel Nortel
VISN 2	<ul style="list-style-type: none"> Albany VA Medical Center: Samuel S. Stratton (Albany, NY) Bath VA Medical Center (Bath, NY) Brooklyn Campus of the VA NY Harbor Healthcare System (Brooklyn, NY) Canandaigua VA Medical Center (Canandaigua, NY) Castle Point Campus of the VA Hudson Valley Health Care System (Wappingers Falls, NY) East Orange Campus of the VA New Jersey Health Care System (East Orange, NJ) Franklin Delano Roosevelt Campus of the VA Hudson Valley Health Care 	<ul style="list-style-type: none"> Avaya Avaya NEC Avaya Siemens Siemens Siemens

	System (Montrose) (Montrose, NY) <ul style="list-style-type: none"> James J. Peters VA Medical Center (Bronx, NY) (Bronx, NY) Lyons Campus of the VA New Jersey Health Care System (Lyons, NJ) Manhattan Campus of the VA NY Harbor Healthcare System (New York, NY) Northport VA Medical Center (Northport, NY) Syracuse VA Medical Center (Syracuse, NY) VA Western New York Healthcare System at Batavia (Batavia, NY) VA Western New York Healthcare System at Buffalo (Buffalo, NY) 	<ul style="list-style-type: none"> NEC Siemens NEC NEC Avaya Avaya Siemens
VISN 4	<ul style="list-style-type: none"> Altoona - James E. Van Zandt VA Medical Center (Altoona, PA) Coatesville VA Medical Center (Coatesville, PA) Erie VA Medical Center (Erie, PA) Lebanon VA Medical Center (Lebanon, PA) Philadelphia VA Medical Center (Philadelphia, PA) VA Butler Health Care Center (Butler, PA) VA Pittsburgh Healthcare System, H.J. Heinz Campus (Pittsburgh, PA) VA Pittsburgh Healthcare System, University Drive Campus (Pittsburgh, PA) Wilkes-Barre VA Medical Center (Wilkes-Barre, PA) Wilmington VA Medical Center (Wilmington, DE) 	<ul style="list-style-type: none"> Cisco Mitel NEC Mitel Nortel Nortel Nortel Nortel Mitel NEC
VISN 5	<ul style="list-style-type: none"> Baltimore VA Medical Center - VA Maryland Health Care System (Baltimore, MD) Beckley VA Medical Center (Beckley, WV) Clarksburg - Louis A. Johnson VA Medical Center (Clarksburg, WV) Huntington VA Medical Center (Huntington, WV) Martinsburg VA Medical Center (Martinsburg, WV) Perry Point VA Medical Center - VA Maryland Health Care System (Perry Point, MD) Washington DC VA Medical Center (Washington, DC) 	<ul style="list-style-type: none"> NEC Mitel NEC Cisco NEC NEC Avaya
VISN 6	<ul style="list-style-type: none"> Asheville VA Medical Center (Asheville, NC) Durham VA Medical Center (Durham, NC) Fayetteville VA Medical Center (Fayetteville, NC) Hampton VA Medical Center (Hampton, VA) Hunter Holmes McGuire VA Medical Center (Richmond, VA) Salem VA Medical Center (Salem, VA) Salisbury - W.G. (Bill) Hefner VA Medical Center (Salisbury, NC) 	<ul style="list-style-type: none"> NEC Cisco NEC NEC NEC Alcatel NEC
Southeast District		
VISN 7	<ul style="list-style-type: none"> Atlanta VA Health Care System (Decatur, GA) Birmingham VA Medical Center (Birmingham, AL) Carl Vinson VA Medical Center (Dublin, GA) Central Alabama Veterans Health Care System East Campus (Tuskegee, AL) Central Alabama Veterans Health Care System West Campus (Montgomery, AL) Charlie Norwood VA Medical Center (Augusta, GA) Ralph H. Johnson VA Medical Center (Charleston, SC) Tuscaloosa VA Medical Center (Tuscaloosa, AL) Wm. Jennings Bryan Dorn VA Medical Center (Columbia, SC) 	<ul style="list-style-type: none"> Siemens Siemens Siemens Siemens Siemens Siemens Cisco Siemens Siemens
VISN	<ul style="list-style-type: none"> Bay Pines VA Healthcare System (C.W. Bill Young VA Medical Center) (Bay 	<ul style="list-style-type: none"> NEC

8	<ul style="list-style-type: none"> Pines, FL) North Florida/South Georgia Veterans Health System, Gainesville Campus (Malcom Randall VA Medical Center) (Gainesville, FL) North Florida/South Georgia Veterans Health System, Lake City Campus (Lake City VA Medical Center) (Lake City, FL) VA Caribbean Healthcare System (San Juan, PR) James A. Haley Veterans' Hospital (Tampa, FL) Miami VA Healthcare System (Bruce W. Carter VA Medical Center) (Miami, FL) Orlando VA Medical Center (Orlando, FL) West Palm Beach VAMC (West Palm Beach, FL) 	<ul style="list-style-type: none"> Cisco Nortel NEC NEC Nortel NEC NEC
VISN 9	<ul style="list-style-type: none"> Lexington VAMC: Cooper Division (Lexington, KY) Lexington VAMC: Leestown Division (Lexington, KY) Memphis VA Medical Center (Memphis, TN) Mountain Home VAMC/Johnson City (James H. Quillen VA Medical Center) (Mountain Home, TN) Robley Rex VA Medical Center (Louisville, KY) Tennessee Valley Healthcare System - Alvin C. York (Murfreesboro) Campus (Murfreesboro, TN) Tennessee Valley Healthcare System - Nashville Campus (Nashville, TN) 	<ul style="list-style-type: none"> Cisco Cisco NEC Cisco NEC Cisco Cisco
Midwest District		
VISN 10	<ul style="list-style-type: none"> Aleda E. Lutz VA Medical Center (Saginaw, MI) Battle Creek VA Medical Center (Battle Creek, MI) Chalmers P. Wylie Ambulatory Care Center (Columbus, OH) Chillicothe VA Medical Center (Chillicothe, OH) Cincinnati VA Medical Center (Cincinnati, OH) Dayton VA Medical Center (Dayton, OH) John D. Dingell VA Medical Center (Detroit, MI) Louis Stokes Cleveland VA Medical Center (Cleveland, OH) Richard L. Roudebush VA Medical Center (Indianapolis VA Medical Center) (Indianapolis, IN) VA Ann Arbor Healthcare System (Ann Arbor, MI) VA Northern Indiana Health Care System - Marion Campus (Marion, IN) VA Northern Indiana Health Care System-Fort Wayne Campus (Fort Wayne, IN) 	<ul style="list-style-type: none"> NEC NEC Cisco NEC NEC Cisco NEC NEC NEC NEC NEC NEC
VISN 12	<ul style="list-style-type: none"> Captain James A. Lovell Federal Health Care Center (North Chicago, IL) Clement J. Zablocki Veterans Affairs Medical Center (Milwaukee, WI) Edward Hines Jr. VA Hospital (Hines, IL) Jesse Brown VA Medical Center (Chicago, IL) Oscar G. Johnson VA Medical Center (Iron Mountain, MI) Tomah VA Medical Center (Tomah, WI) VA Illiana Health Care System (Danville, IL) William S. Middleton Memorial Veterans Hospital (Madison, WI) 	<ul style="list-style-type: none"> NEC NEC NEC NEC NEC NEC NEC NEC
VISN 15	<ul style="list-style-type: none"> Harry S. Truman Memorial (Columbia, MO) John J. Pershing VA Medical Center (Poplar Bluff, MO) Kansas City VA Medical Center (Kansas City, MO) Marion VA Medical Center (Marion, IL) 	<ul style="list-style-type: none"> NEC NEC NEC NEC

	<ul style="list-style-type: none"> Robert J. Dole VA Medical Center (Wichita, KS) VA Eastern Kansas Health Care System - Colmery-O'Neil VA Medical Center (Topeka, KS) VA Eastern Kansas Health Care System - Dwight D. Eisenhower VA Medical Center (Leavenworth, KS) VA St. Louis Health Care System - Jefferson Barracks Division (Saint Louis, MO) VA St. Louis Health Care System - John Cochran Division (Saint Louis, MO) 	<ul style="list-style-type: none"> • NEC • NEC • NEC • NEC • NEC
VISN 23	<ul style="list-style-type: none"> Fargo VA Health Care System (Fargo, ND) Iowa City VA Health Care System (Iowa City, IA) Minneapolis VA Health Care System (Minneapolis, MN) Omaha VA Medical Center--VA Nebraska-Western Iowa HCS (Omaha, NE) St. Cloud VA Health Care System (St. Cloud, MN) VA Black Hills Health Care System - Hot Springs Campus (Hot Springs, SD) VA Black Hills Health Care System - Fort Meade Campus (Fort Meade, SD) VA Central Iowa Health Care System (Des Moines, IA) Grand Island VA Medical Center (Grand Island, NE) Royal C. Johnson Veterans Memorial Medical Center (Sioux Falls, SD) 	<ul style="list-style-type: none"> • Nortel • Nortel • Nortel • Nortel • Nortel • Nortel • Nortel • Nortel • Nortel • Nortel
Continental District		
VISN 16	<ul style="list-style-type: none"> Alexandria VA Health Care System (Pineville, LA) Central Arkansas Veterans Healthcare System (Eugene J. Towbin Healthcare Center) (North Little Rock, AR) Central Arkansas Veterans Healthcare System (John L. McClellan Memorial Veterans Hospital) (Little Rock, AR) G.V. (Sonny) Montgomery VA Medical Center (Jackson, MS) Gulf Coast Veterans Health Care System (Biloxi, MS) Michael E. DeBakey VA Medical Center (Houston, TX) Overton Brooks VA Medical Center (Shreveport, LA) Southeast Louisiana Veterans Health Care System (New Orleans, LA) Veterans Health Care System of the Ozarks (Fayetteville, AR) 	<ul style="list-style-type: none"> • Siemens • Siemens • Siemens • Siemens • NEC • NEC • Siemens • Siemens • Siemens
VISN 17	<ul style="list-style-type: none"> Amarillo VA Health Care System (Amarillo, TX) Central Texas Veterans Health Care System (Temple, TX) El Paso VA Health Care System (El Paso, TX) South Texas Veterans Health Care System (San Antonio, TX) VA North Texas Health Care System (Dallas, TX) VA Texas Valley Coastal Bend Health Care System (Harlingen, TX) West Texas VA Health Care System (Big Spring, TX) Doris Miller Department of Veterans Affairs Medical Center (Waco, TX) Kerrville VA Hospital (Kerrville, TX) Sam Rayburn Memorial Veterans Center (Bonham, TX) 	<ul style="list-style-type: none"> • Nortel • NEC • Cisco • NEC • NEC • NEC • Nortel • NEC • NEC • NEC
VISN 19	<ul style="list-style-type: none"> Eastern Oklahoma VA Health Care System (Jack C. Montgomery VAMC) (Muskogee, OK) Oklahoma City VA Health Care System (Oklahoma City, OK) VA Eastern Colorado Health Care System(ECHCS) (Denver, CO) VA Montana Health Care System (Fort Harrison, MT) VA Salt Lake City Health Care System (Salt Lake City, UT) Cheyenne VA Medical (Cheyenne, WY) 	<ul style="list-style-type: none"> • Siemens • Siemens • Cisco • Cisco • Cisco • Cisco

	<ul style="list-style-type: none"> • Grand Junction VA Medical Center (Grand Junction, CO) • Sheridan VA Medical Center (Sheridan, WY) 	<ul style="list-style-type: none"> • Cisco • Cisco
Pacific District		
VISN 20	<ul style="list-style-type: none"> • Alaska VA Healthcare System (Anchorage, AK) • Portland VA Medical Center (Portland, OR) • VA Puget Sound Health Care System - American Lake Division (Lakewood, WA) • VA Puget Sound Health Care System - Seattle Division (Seattle, WA) • Boise VA Medical Center (Boise, ID) • Jonathan M. Wainwright Memorial VA Medical Center (Walla Walla, WA) • Mann-Grandstaff VA Medical Center (Spokane, WA) • Roseburg VA Health Care System (Roseburg, OR) • VA Portland Health Care System - Vancouver Campus (Vancouver, WA) • VA Southern Oregon Rehabilitation Center (White City, OR) 	<ul style="list-style-type: none"> • Cisco • Cisco • Cisco • Cisco • Cisco • Cisco • Cisco • Cisco • Cisco • Cisco
VISN 21	<ul style="list-style-type: none"> • San Francisco VA Health Care System (San Francisco, CA) • Central California VA Health Care System (Fresno, CA) • Livermore (Livermore, CA) • Menlo Park (Menlo Park, CA) • VA Northern California Health Care System (Mather, CA) • VA Pacific Islands Health Care System (Spark M. Matsunaga VA Medical Center) (Honolulu, HI) • VA Palo Alto Health Care System (Palo Alto, CA) • VA Sierra Nevada Health Care System (Reno, NV) • VA Southern Nevada Healthcare System (N. Las Vegas, NV) 	<ul style="list-style-type: none"> • Cisco • Nortel • Cisco • Cisco • Siemens • Cisco • Cisco • Nortel • Cisco
VISN 22	<ul style="list-style-type: none"> • New Mexico VA Health Care System (Raymond G. Murphy VA Medical Center) (Albuquerque, NM) • Northern Arizona VA Health Care System (Prescott, AZ) • Phoenix VA Health Care System (Phoenix, AZ) • Southern Arizona VA Health Care System (Tucson, AZ) • VA Greater Los Angeles Healthcare System (GLA) (Los Angeles, CA) • VA Loma Linda Healthcare System (Jerry L. Pettis Memorial Veterans' Hospital) (Loma Linda, CA) • VA Long Beach Healthcare System (Long Beach, CA) • VA San Diego Healthcare System (San Diego, CA) 	<ul style="list-style-type: none"> • Cisco • Cisco • Cisco • Siemens • Aastra • Cisco • Nortel • Nortel

The telecommunications connectivity for VHA's remote sites, such as Outpatient Clinics (OPC), Community Based Outpatient Clinics (CBOC), Health Care Centers (HCC) and Vet Centers varies significantly based on size, location and complexity. A large number of the remote sites are connected to the parent facilities via circuit switched voice and data services. In some cases, call control is maintained out of the parent VAMC location. Depending on the size and veteran population served, other remote sites are configured with a voice switch with Automatic Call Distributor (ACD) as well as, in a small number of cases, Interactive Voice Recognition (IVR) capabilities. To address contingencies, there is normally a Plain Old Telephone Service (POTS) line in place or a survivable remote router to provide dial tone in the event of an emergency.

VHA's established standardized call flow (telephone tree) is implemented, as set forth in Assistant Deputy Under Secretary for Health and Administrative Operations (10NA) memorandum titled "Implementation of VHA's Standardized Telephone Tree" dated July 17, 2013. Additionally, per VHA's direction, the functionality for all VAMC, CBOC, and OPC facility's call trees to provide capability for callers to press 7 to reach VCL call agents immediately is in the process of being implemented. This initiative standardizes the welcome greeting (*"Welcome to the (CITY) VA Medical Center. If you are having a medical or mental health emergency hang up and dial 911. If you are having thoughts of suicide, press 7 now to be connected with the Veterans Crisis Line. Or, you may call 1-800-273-8255, then press 1. If you know your party's extension, dial it at any time."*) language at all VAMC, CBOC, and OPC facilities and ensures the calling party number (CPN) is passed to the VCL call agent.

Additionally, VAMC telephony solutions are configured (at minimum) to support VHA's approved call tree. (Figure C5.9)

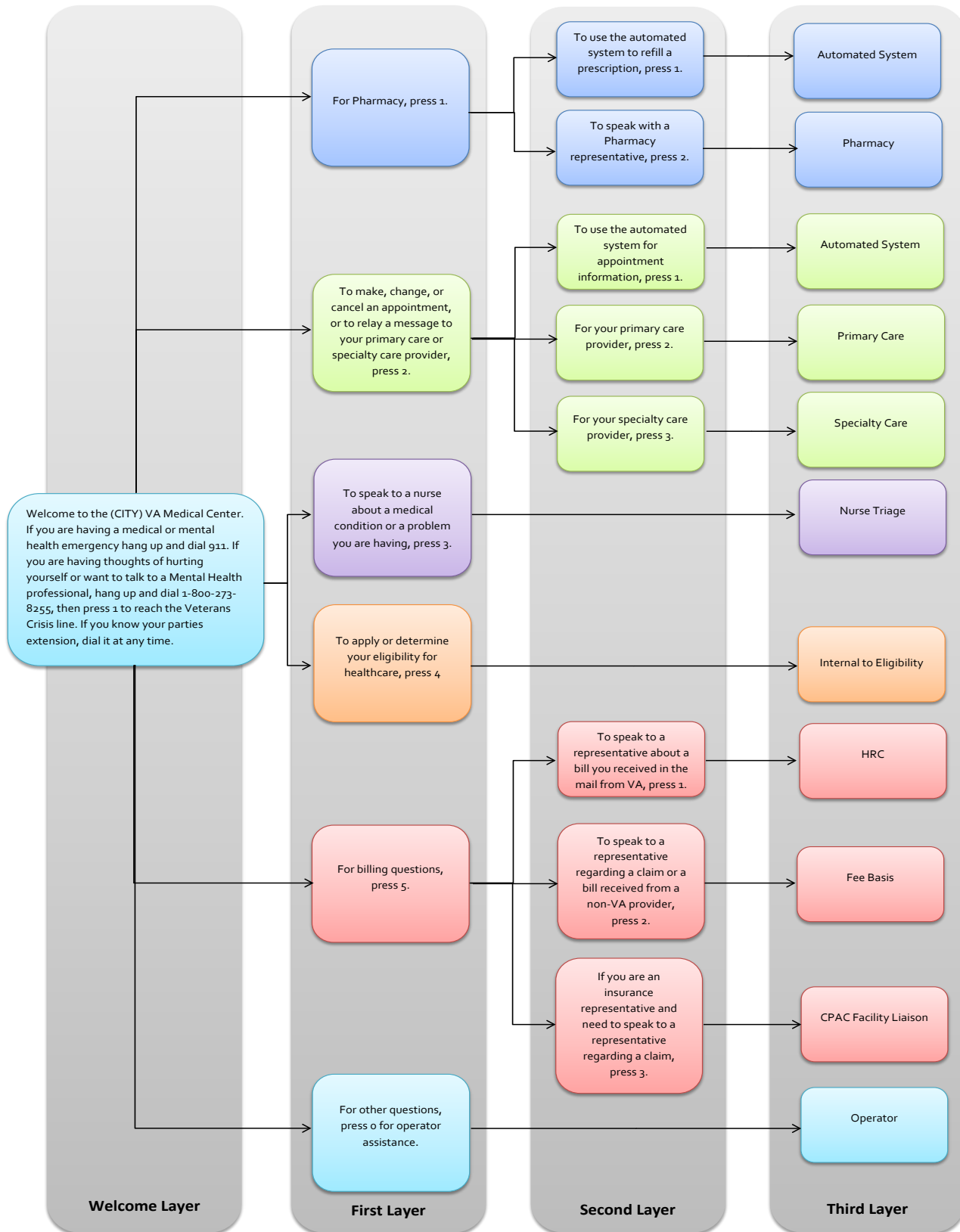


Figure C5.9