

FY14

PSAP GRANT PROGRAM APPLICATION



VIRGINIA INFORMATION
TECHNOLOGIES AGENCY
Integrated Services Division



FY14 PSAP GRANT PROGRAM APPLICATION

HOW TO APPLY/DEADLINE

The grant application is available and accessible from VITA's Integrated Services Program's website

(<http://www.vita.virginia.gov/isp/default.aspx?id=8578>). Upon completion of the application, it is to be submitted to the PSAP Grant Manager, Lisa Nicholson, at lisa.nicholson@vita.virginia.gov. Any supporting documentation must also be submitted along with the application, including mandatory budgets for projects (if applicable).

After submission, the PSAP Grant Manager will assign a Grant ID and send an e-mail notification to the project contact e-mail address listed on the application received.

All funding requests must be submitted using the grant application. Technical assistance is available from VITA's Public Safety Communications (PSC) staff throughout the grant process. The FY14 PSAP Grant Application Cycle starts July 1, 2012 and concludes on October 31, 2012 at 5:00 pm.

ALL APPLICABLE SECTIONS MUST BE COMPLETED IN ITS ENTIRETY OR THE APPLICATION WILL BE CONSIDERED INCOMPLETE AND NOT ACCEPTED FOR CONSIDERATION.



FY14 PSAP GRANT APPLICATION

PROJECT TITLE

Town of Chincoteague 911 BCM upgrade grant

GRANT APPLICANT PROFILE/PROJECT CONTACT

PSAP/HOST PSAP NAME: Town of Chincoteague

CONTACT TITLE: Chief of Police

CONTACT FIRST NAME: Edward

CONTACT LAST NAME: Lewis

ADDRESS 1: 6150 Community Drive

ADDRESS 2: [Click here to enter text](#)

CITY: Chincoteague

ZIP CODE: 23336

CONTACT EMAIL: elewis@chincoteague-va.gov

CONTACT PHONE NUMBER: 757-336-3155

CONTACT MOBILE NUMBER: [Click here to enter text](#)

CONTACT FAX NUMBER: 757-336-6970

REGIONAL COORDINATOR: Lyle Hornbaker

HOST PSAP AND PARTICIPATING PSAPS/LOCALITIES

Town of Chincoteague

_____	_____
_____	_____
_____	_____
_____	_____

GRANT TYPE

Individual PSAP

Regional Initiative

Consolidation

Secondary Consolidation



GRANT PROGRAM TYPE

Continuity and Consolidation

Enhancement

TIER

Out of Service

Non-Vendor Supported*

Technically Outdated*

Strengthen

Not Applicable

***If technically outdated or non-vendor supported, application MUST include age and/or version of hardware/software.**

VERSION: BCM 3.7

YEARS of HARDWARE/SOFTWARE: 3 years (installed in 2009)

PROJECT FOCUS CPE

If "Other" selected, please specify: [Click here to enter text](#)

FINANCIAL DATA

Amount Requested: \$ 150,000

Total Project Cost: \$ 240,844

STATEMENT OF NEED

With assistance from VITA in 2009, The Town of Chincoteague completed an upgrade to our PSAP communications center that added wireless and mapping capability. We are now faced with obsolete equipment and software that can no longer be supported by Verizon, and a mandate to upgrade again for a Next Generation/IP compatible system.



The Town of Chincoteague has been informed by Verizon that they will no longer provide technical support for the 911 Center following the end of our maintenance contract in June 2013. Our center performs an important dispatch function for our island community as well as the US Coast Guard, National Park Service and the US Fish and Wildlife Service with local knowledge and access to a peak season recreational population with over 1 million visits per year (25,000/day peak-season). Facing a potential 911 center failure in the peak season is a public safety crisis. Based on the current estimate provided by Verizon, and without significant grant assistance, the Town of Chincoteague will no longer be able to fund the independent E 911 service.

The current version of our BCM in the Vesta Pallas is 3.7. That version is more than 2 versions old and will no longer be supported from Avaya in the next few months. The latest version of software they will support is BCM 4.0, but that will only be supported until October of next year. The upgrade kit from 3.7 to 4.0 is no longer available. The newest version of the BCM, 5.0/6.0 will be supported until 2016, but in order to purchase that, a Purchase Order would have to be sent to Cassidian by November 1, 2012.

As of January 1, 2013, Verizon is no longer selling the Vesta Pallas product, and Cassidian is no longer selling it either. The newest Vesta Platform is Vesta 4.x, which is a forklift to our current equipment. Vesta 4.x is Cassidian's only product being offered for up to 5 years of service at this time. It is positioned for NG911, as there is no telephony piece in the backroom, nothing but servers and gateways. Our current Vesta Pallas licenses will upgrade to Vesta 4.x with the next upgrade, however that is pretty much the only carry over from our current system to the next.

The required upgrade will maintain operational readiness of the system through 2018 and will prepare the Town of Chincoteague for NG 911 solutions that can maximize use of our new broadband connectivity. Without financial assistance, the Town of Chincoteague will be faced with a sudden reassessment of the long sustainability of maintaining an independent PSAP. Full funding is requested under the Continuity grant program and consideration is also requested for additional funding under the Enhancement grant program for NG911 compatibility



Describe how the grant will be maintained and supported in the future, if applicable:

The Town of Chincoteague has the demonstrated capability to administer a VITA grant to accomplish the proposed PSAP upgrade.

A 5 year maintenance and support contract through Verizon is proposed. This annual cost has been supported in the past by the Town of Chincoteague even though the fees for technical support have doubled as a result of the last upgrade.

COMPREHENSIVE PROJECT DESCRIPTION

Provide a thorough, concise, and complete description of the project, including an outline of the goals and objectives, implementation strategy, and a work plan:

The proposed project is to upgrade the current non-supported BCM system. Enclosed is a detailed copy of the cost estimate prepared by Verizon Enterprise Solutions. The first goal is to assure continuation of support services until a decision about the PSAP grant can be identified. With award of grant, the Town of Chincoteague Town Council must approve the project and agree to any remaining capital expense or continue to seek alternative solutions.

Acquisition of the necessary system hardware and software upgrades is anticipated within approximately 30 to 60 days of grant award. Installation, testing and full operation of the new system will be completed within approximately 90 days from grant award, including training for all personnel. This upgrade will support future technologies by ensuring readiness of the Town of Chincoteague E911 communications center for NG 911 solutions that are compatible with other Virginia PSAPs. As an independent PSAP, the Town of Chincoteague will be able to continue to provide superior service to the public and support to Department of Interior agencies.



FOR CONTINUITY AND CONSOLIDATION OR ENHANCEMENT PROJECTS:

PROJECT TIMELINE – Select each applicable phase of the project and indicate the estimated completion date. Sample activities for each phase can be found in the PSAP Grant Program Guidelines as well as on the addendum to this form.

PROJECT PHASE	ESTIMATED COMPLETION DATE
<input checked="" type="checkbox"/> INITIATION (Project approved by appropriate stakeholders)	07 / 01 / 13
<input checked="" type="checkbox"/> DESIGN/PLANNING (Project, system, or solution requirements are developed)	08 / 01 / 13
<input checked="" type="checkbox"/> ACQUISITION (Selected system or solution is procured)	08 / 15 / 13
<input checked="" type="checkbox"/> IMPLEMENTATION (Selected system or solution is configured and installed)	09 / 15 / 13
<input checked="" type="checkbox"/> TESTING/COMPLETION (Selected system or solution is tested and put in production)	10 / 1 / 13

Identify the longevity or sustainability of the project.

The current system has lasted three years with the proper maintenance. Continuing technical support funded by the Town of Chincoteague has been essential to quickly resolve approximately 2 repair calls per month on various issues. The sustainability of the current system has been compromised by the rapid conversion of the industry standard to advanced IP systems. The lifecycle and related support policies of the equipment and software manufacturers are driving a change that the Town of Chincoteague is not prepared to meet without assistance. If a new system upgrade is installed with the expectation of at least a 5 year support period, the Town will continue to fund an annual maintenance agreement for that period.



Describe how this project supports the Virginia Statewide Comprehensive 9-1-1 Plan.

Virginia's Next Generation 911 Implementation Plan, dated March 2012, describes a rapidly advancing communications environment that must be supported with an advanced Internet Protocol (IP) based 9-1-1 emergency communications system. This system must communicate with traditional analog networks, new technologies, and share/receive data between Virginia's 911 call centers. The proposed project is a direct response to the Statewide Comprehensive 911 Plan, and is driven by the technology industry.

REGIONAL INITIATIVE (if applicable)

The relationship of the initiative to the participating PSAPs: N/A

This project will allow the Town of Chincoteague to remain an independent PSAP that is uniquely qualified to provide service on our isolated barrier island location. Existing agreements to provide dispatch services to the adjacent National Seashore and National Wildlife Refuge will be continued.

The alternative is not recommended, which would be to discontinue independent operations and place the burden on the Eastern Shore of Virginia 911 Communications Center to expand and consolidate service areas at a time when they are under an equal fiscal constraint.

Intended collaborative efforts:

N/A



Resource sharing:

N/A

How does the initiative impacts the operational or strategic plans of the participating agencies:

N/A

CONSOLIDATION (Primary or Secondary) - (if applicable)

How would a consolidation take place and provide improved service:

N/A

How should it be organized and staffed:

N/A



What services should it perform:

N/A

How should policies be made and changed:

N/A

How should it be funded:

N/A

What communication changes or improvements should be made in order to better support operations:

N/A



BUDGET AND BUDGET NARRATIVE

List the planned expenditures to be made with grant funds. (NOTE: In lieu of a line item breakdown, an itemized cost schedule or detailed vendor prepared quote may be submitted as an attachment.) Briefly explain the reason for each requested budget item and provide the basis for its cost:

See the detailed vendor prepared quote attached. A brochure from Cassidian describes the Vesta Sentinel system and solution components that have been proposed for the Town of Chincoteague PSAP upgrade. According to our communications with Verizon Enterprise Solutions, interim upgrades are no longer available or supported and a full upgrade is required.

The Town of Chincoteague requests that the full amount the upgrade be considered for funding under the PSAP grant program. This full upgrade is an unbudgeted liability. Any cost not funded through the grant program will be reviewed by the Town Council and the necessary funds will be identified prior to moving forward with the grant.

EVALUATION

How will the project be evaluated and measured for achievement and success:

The project's success will be measured on the continued operational readiness of the Town of Chincoteague PSAP and implementation of the Virginia NG 911 plan framework through working with the VITA PSC Division.



FINANCIAL AND PROGRAMMATIC REPORT

PROJECT PHASES

ACTIVITIES

PHASE

SAMPLE ACTIVITIES

INITIATION

(Project approved by appropriate stakeholders)

- Project concept is documented
- Cost estimates are obtained
- Town Council approval or endorsement is received
- PSAP grant application is filed
- Appropriated grant funds are approved
- Budgetary estimates are finalized

DESIGN/PLANNING

(Project, system, or solution requirements are developed)

- Requirements are documented
- Components to be purchased are identified
- General design is documented

ACQUISITION

(Selected system or solution is procured)

- RFP (or other bid related processes) are drafted
- Proposals are evaluated
- Contract is signed
- Purchase orders are issued
- Quotes are obtained/grant funds draw down

IMPLEMENTATION

(Selected system or solution is configured and installed)

- Purchased components are delivered and installed
- Training is performed

TESTING/COMPLETION

(Selected system or solution is tested and put in production)

- Performance of system/solution is validated
- System/solution goes "live"



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VESTA[®] 4 – Sentinel[®] 4

General Product Overview

August 2012

v1.0

Why VESTA® 4 and Sentinel® 4?

NG9-1-1 CTI solution for advanced emergency operations centers

- Delivers geo-diverse 9-1-1 call processing capabilities to emergency call center operations with up to 250 call-taking positions and up to 600 trunks and lines
- Supports today's NG9-1-1 and E9-1-1 networks for voice and location data, while prepared for seamless transition to tomorrow's text and multimedia applications
- No single point of system failure – automatic server switchover, full-featured “hot” redundant ANI/ALI controllers, dual network connections for maximum redundancy
- Fully integrated IP soft-switch for 9-1-1 automated call distribution and administrative call handling with integrated auto-attendant and voicemail
- Remote full-featured IP answering positions and mobile, self-contained satellite-capable PSAP operations
- Integrates easily with Cassidian Communications applications – CAD, mapping and emergency notification – plus third-party radio, PBX, DLR and IP selective routing systems, for a completely customized solution using COTS hardware

The industry benchmark for robust NG9-1-1 call processing

Deployment Flexibility

Advanced IP architecture designed from the ground up with inherent flexibility and scalability allows for multiple deployment configurations

- Centralized Systems
- Multiple Sites with Remote PSAPs
- Geo-Diverse (Dual and Multi-Site)
- Centralized Trunking
- Hosted Solutions
- Efficient Virtualized Solutions



The CommandPost™ mobile call processing solution adds flexibility and instant on-site capability to any deployment model

Modern Solution for a New Generation

Agency Profile

- Up to 250 call-taking positions, including remote answering positions and CommandPosts
- Typical call volume up to **5,000,000+** calls per year
- Planning for consolidation and/or collaboration with multiple PSAPs and agencies
- Desires an all-IP solution capable of delivering advanced next generation 9-1-1 services
- Requires connectivity to E9-1-1 and / or NG9-1-1 networks
- Uses ANI / ALI, Wireless Phase I / II, or NENA i3 location identification
- Benefits from backup, overflow, and redirection of calls among multiple sites
- Seeks redundant, survivable systems with ultra-high reliability and low maintenance
- Single-site, multi-site, geo-diverse, and CPE-based centralized / hosted deployments

Functional Integration

- Radio Dispatch
- Mapping with Wireless Location
- Computer-Aided Dispatch (CAD)
- Management Information Systems



Solution Building Blocks

- **Proven SIP call handling technology** from Cassidian Communications
 - Deployed in over 650 PSAPs with over 3,000 positions today
- **New call taking console** converges VESTA® and Sentinel® best features
 - Time tested and proven by over three thousand PSAPs
- **Groundbreaking capabilities** increase operational effectiveness and improve management efficiencies for PSAP call taking
 - Forward-looking solution meets the evolving needs of 9-1-1



Solution Components

Multimedia Distribution Service (MDS)

- Deployed on redundant servers (MDS A and B)
- SIP based telephony and ACD functions

Data Distribution Service (DDS)

- Deployed on redundant servers (DDS A and B)
- Manages data functions
 - ALI, CAD, Data, IM, Resource Monitoring, etc.

Call Taking Console

- Call Taker's application
 - Call Control and Information, plus related functions
- Audio Management

CommandPost™ Mobile Call Taking Solution

- Ruggedized portable call taking laptop computer
- Instant on-site call taking over any IP connection

ESInet Interface Module (EIM)

- Native connectivity to i3 networks

Activity View

- Monitoring application for call taking status and activities
- Includes a display panel mode for wall mounting and viewing

Ancillary Components

- Media gateways, alarm panel, network equipment, IP phones, NetClock, firewall

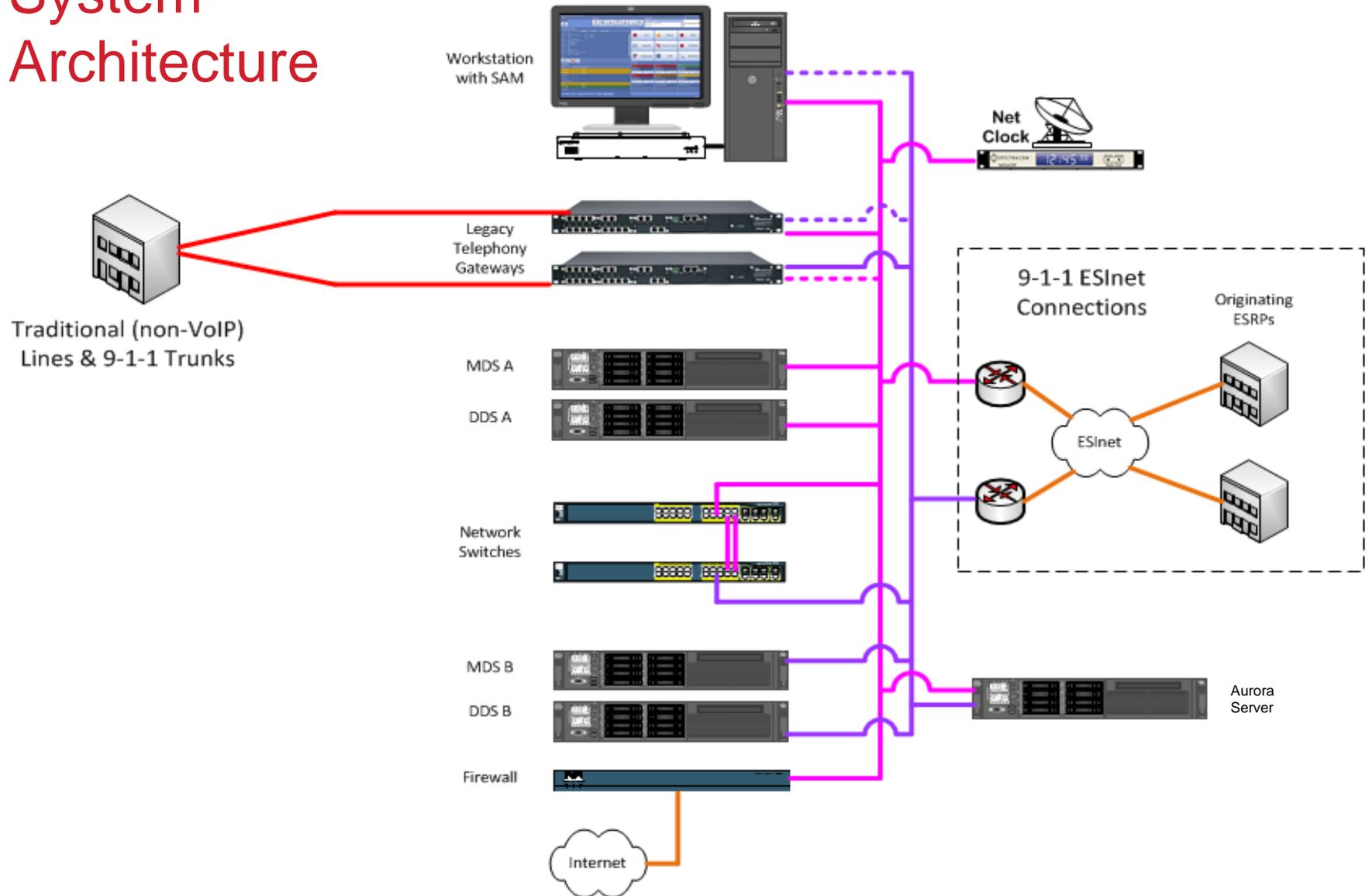


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System Architecture

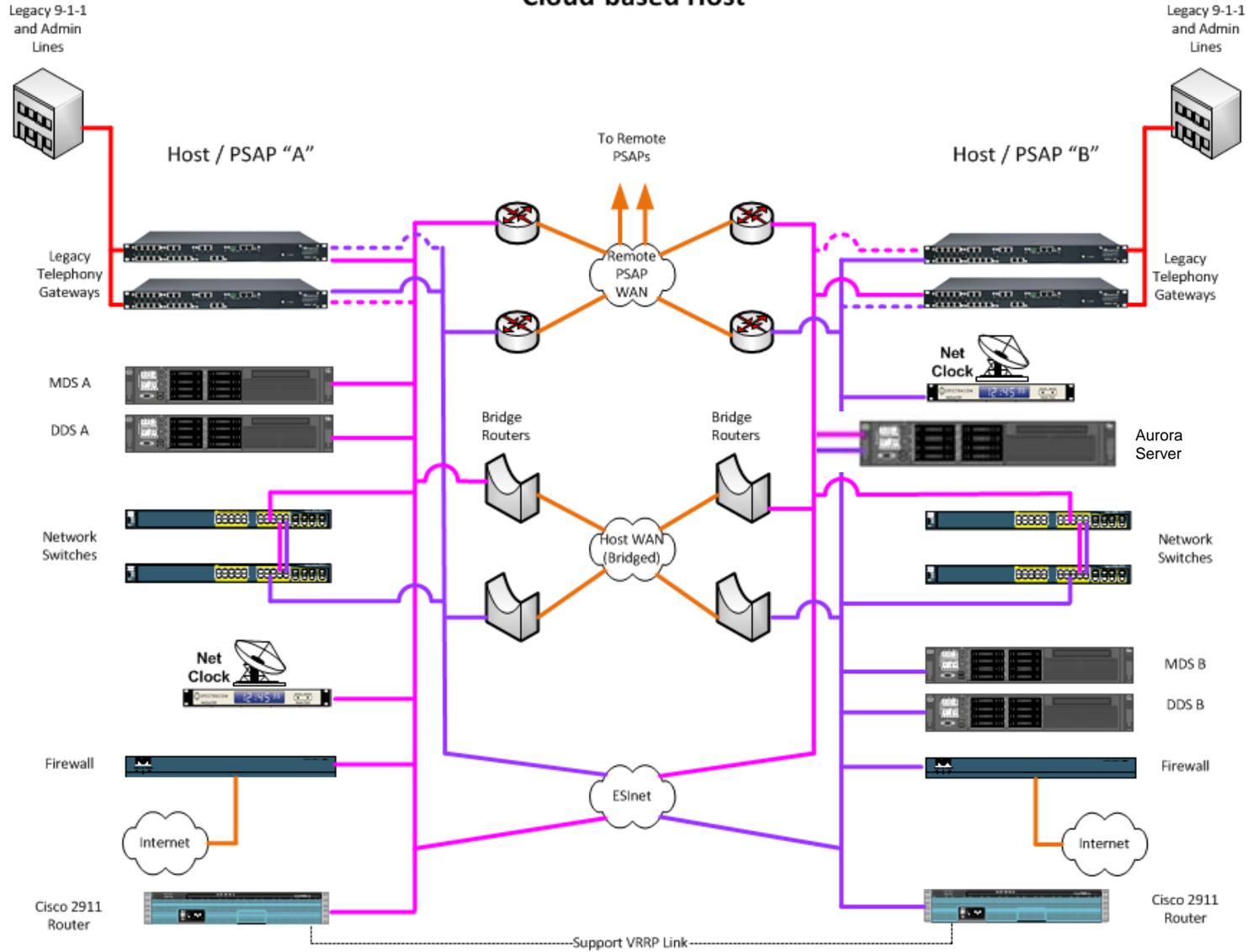
System Architecture

Typical Single PSAP Network



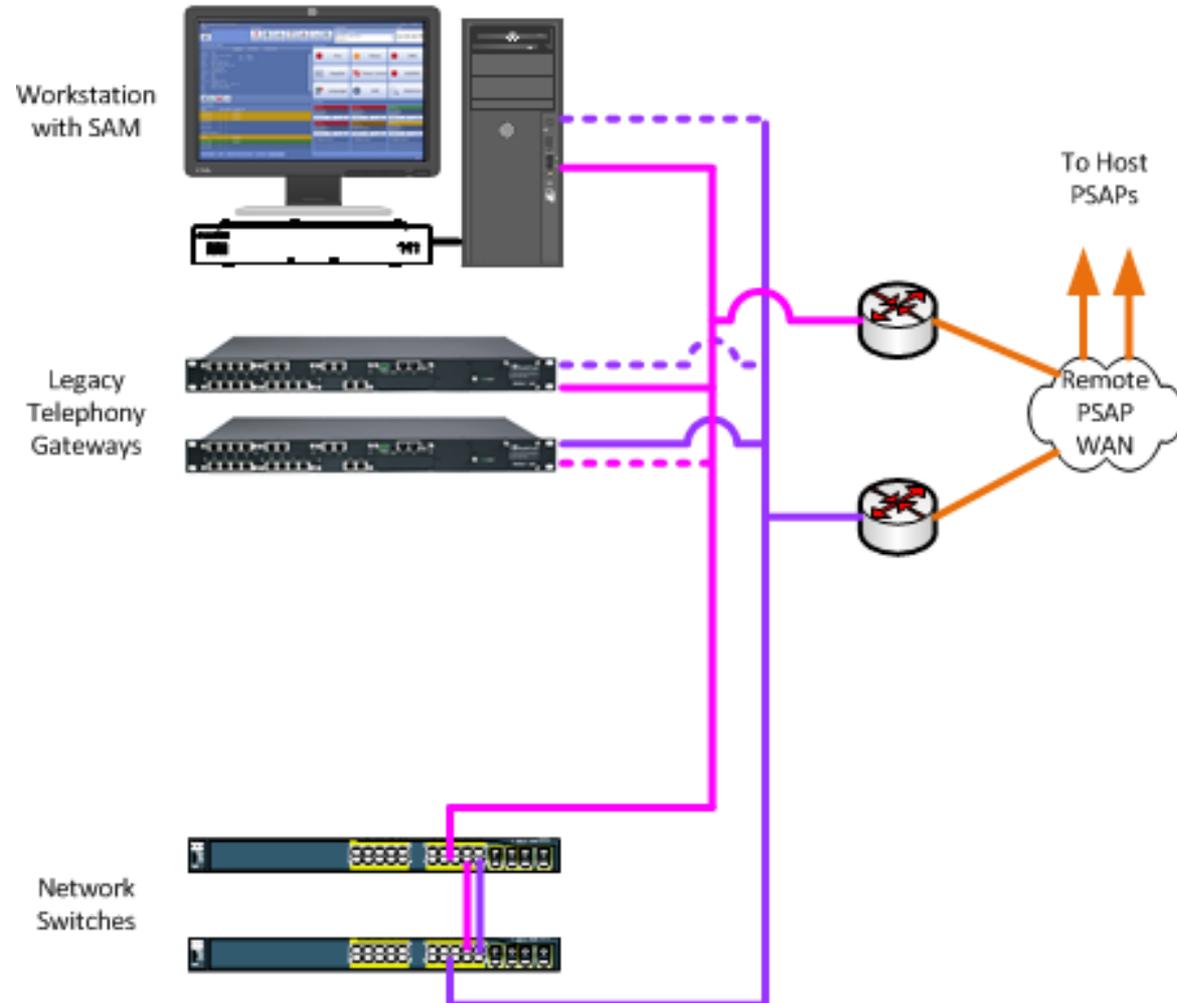
Hosted Deployment

Typical Geo-Diverse Cloud-based Host

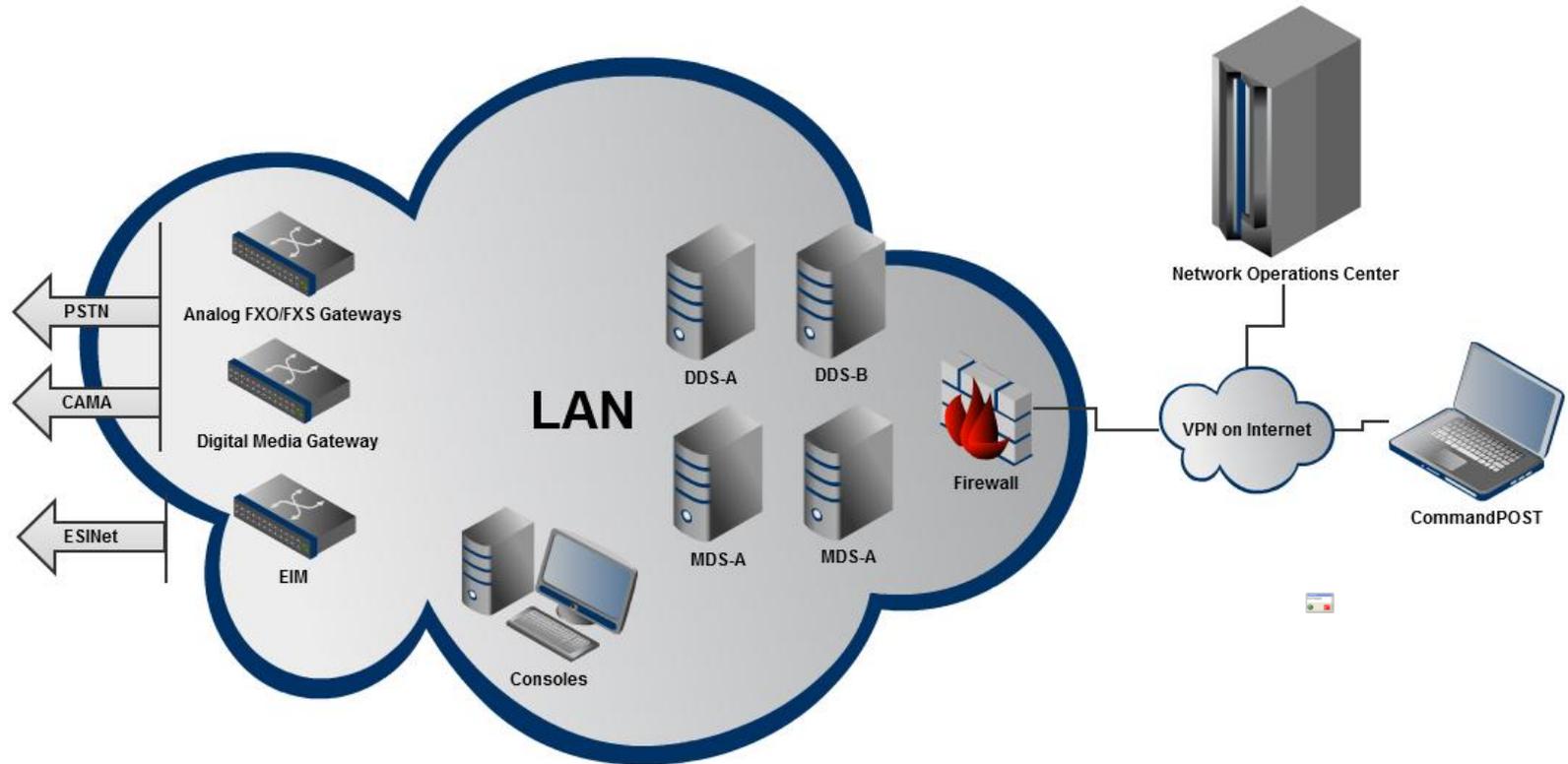


Remote Networking

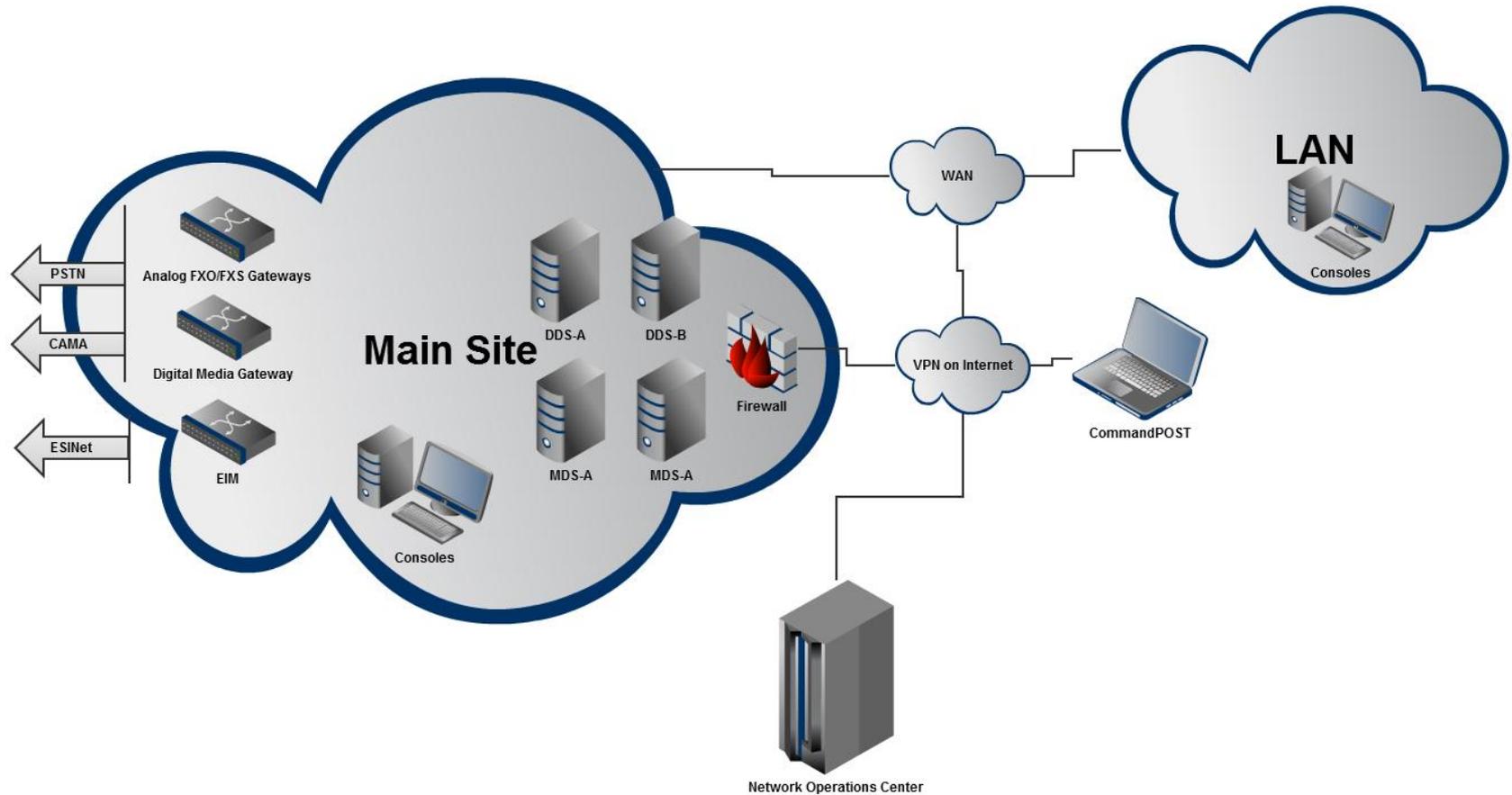
Typical Remote PSAP Network



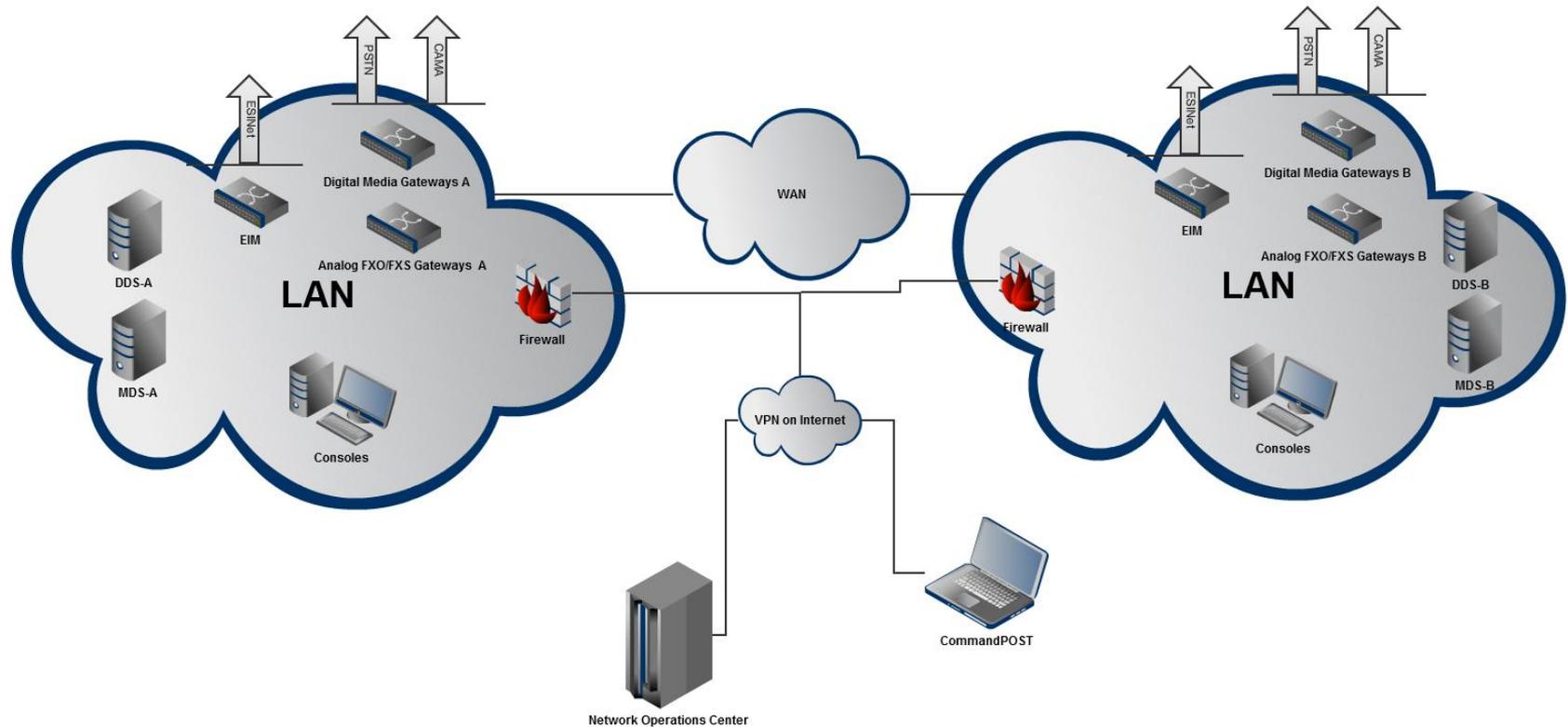
Single Site Centralized Deployment



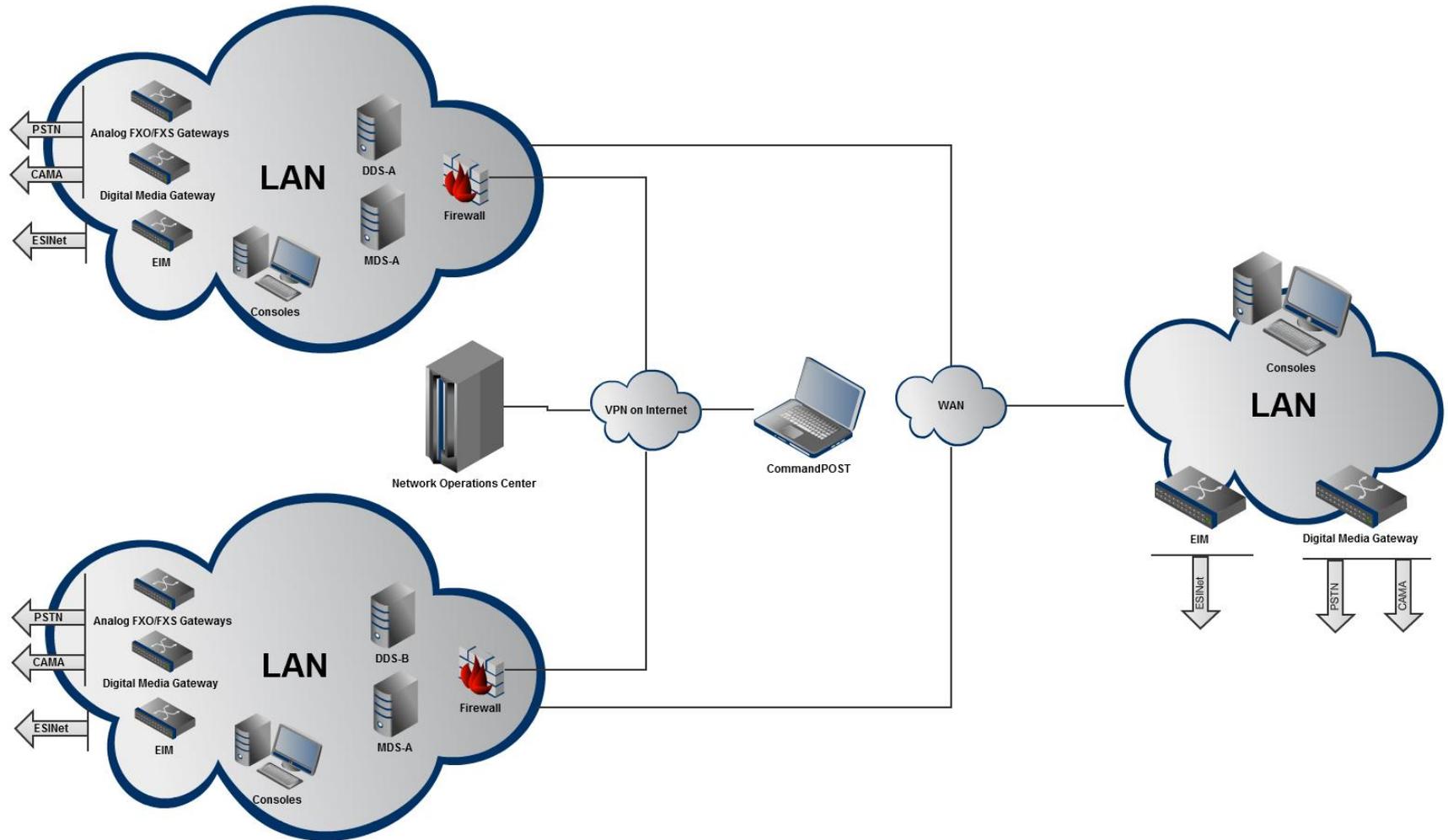
Multi-Site Centralized Deployment



Dual Site Geo-Diverse Deployment



Multi-Site Geo-Diverse Deployment



Virtualized Server Solution

Partitioning

- Multiple virtual servers (VS) run on one physical box

Isolation

- Each VS is safely separated from every other VS

Encapsulation

- All information concerning VS is saved in file format

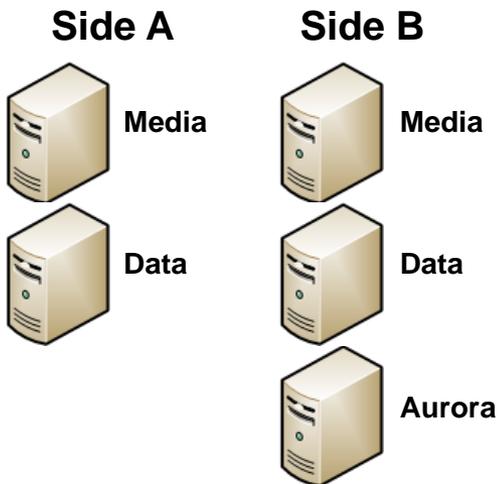
Hardware Independence

- VS run “as is” after migration to new HW platforms

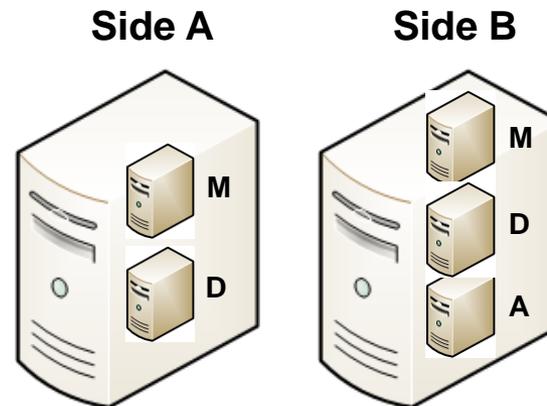
Benefits

- Reduced rack space requirements
- Centralized management / maintenance
- Efficient use of computing resources
- Lower electrical and cooling needs
- Fewer network connections to maintain
- Easier to secure, backup, and restore
- **Lower total cost of ownership!**

Dedicated Server Model



Virtualized Server Model



**Each VS runs
a separate
operating
system and
protected
applications**



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System Features

ACD Capabilities

- ACD Call Routing Schemes
 - Longest Idle – Next call directed to agent who has been idle the longest
 - Circular – Calls are directed to each agent in turn
 - Linear – Calls are directed to agents according to a list
- Overflow Queues
 - Call overflows to alternate queues based on maximum wait time, maximum queue length, or last agent sign-out
- Answer Modes – Caller Audio Message Options
 - Welcome Audio – Plays before call enters ACD queue
 - Queued Audio – Plays while the call is in the queue

ACD Capabilities *(cont.)*

- Post Call Processing
 - Allows an automatic configured amount of time after the completion of a call before the agent is returned to the Ready status
 - Defined in the user profile
- Re-queue on No Answer
 - In the event that a call is not answered at a console, the system will automatically re-queue the call to the top of the appropriate ACD queue
- Re-queue on Failure
 - In the event a call is dropped from a console due to a console or network failure, the system will automatically re-queue the call to the appropriate ACD queue
- Agent and Workstation based Routing
 - Offers operational flexibility based on PSAP organization
 - Configure incoming calls to be routed to specific agents or workstations
 - Typically, call routing for specific call types or for the whole agency will be using a unique distribution method – workstation based or agent based

Automatic Location Information (ALI)

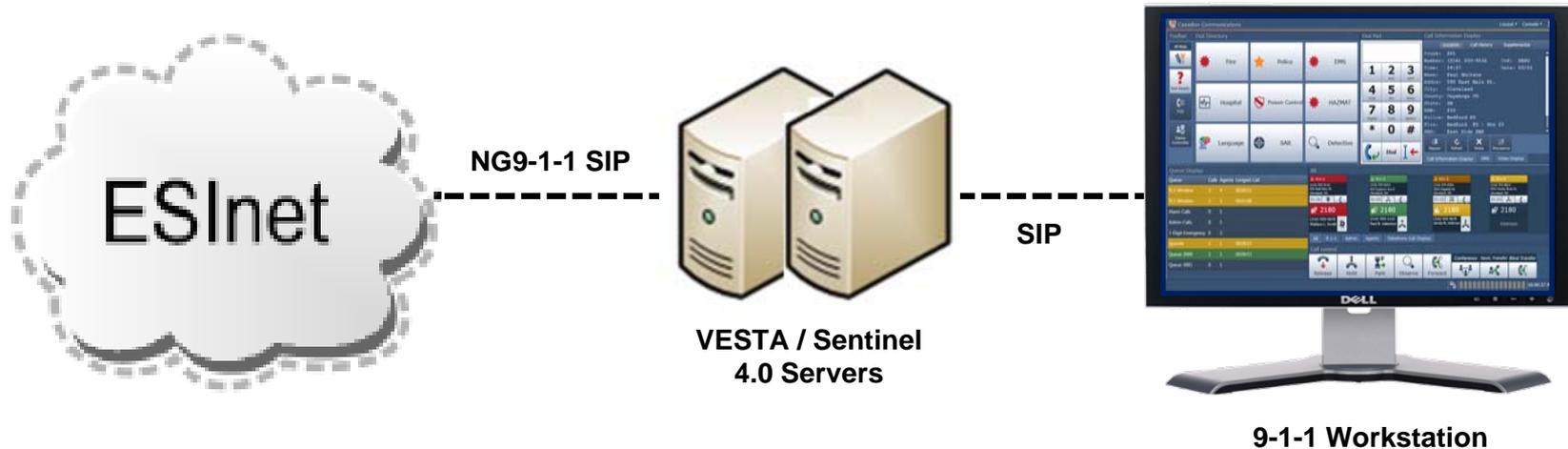
- 16 ALI groups
- Multiple ALI Protocols
- Pre-Answer ALI
- Automatic ALI rebids
- Manual ALI
- ALI Parsing
 - Class of Service extraction
 - ESN extraction
 - CPN extraction
- Multiple ALI services supported
- Priority, simultaneous and alternating request modes



The platform also supports NENA i3 location identification, shown here with the ORION™ Vela® advanced mapping solution

ESInet Interface Module (EIM)

- Receive 9-1-1 calls from Next Generation 9-1-1 networks
- Native NENA i3 network processing

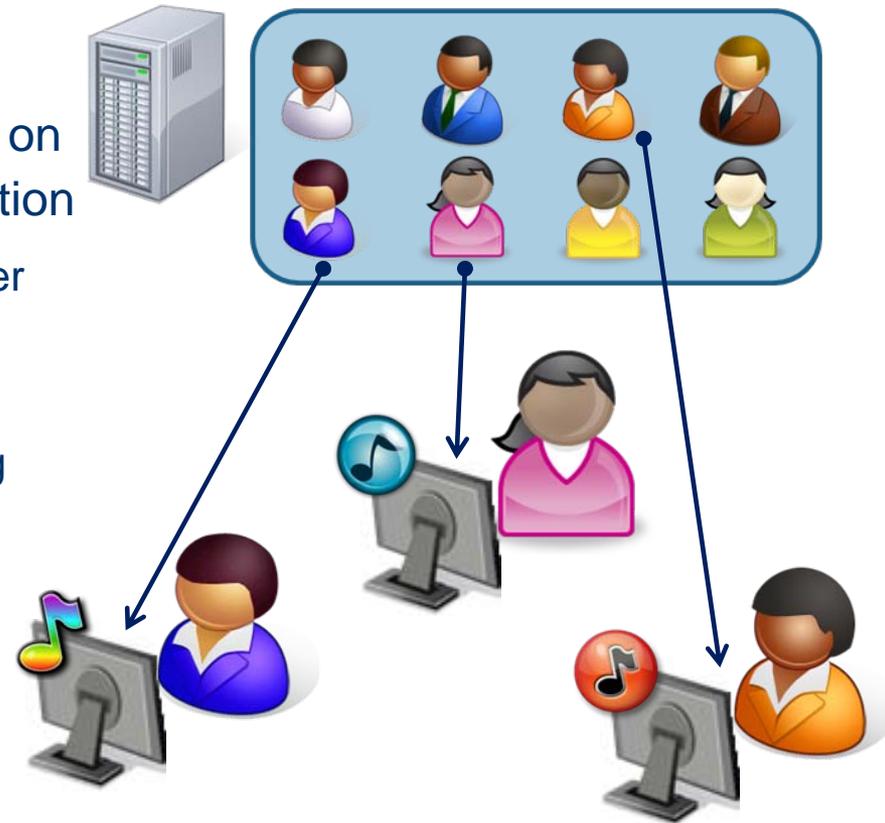


Supports wireline, wireless, and IP voice calls, plus future multimedia data formats from next generation networks

Centralized Configuration

Call-taker configuration can be maintained on the server and accessed from any workstation

- Centralized storage and management of user and workstation configuration files
- Configuration includes console layout, user permissions, contact list, and asset mapping
- Administrators can create, load, modify, and save user and workstation configurations
- Supports distribution of automated agent greetings, volume settings, and TTY files
- Centrally stored user-specific greetings
- Efficient updating of multiple workstations for maintenance, layout, and configuration changes

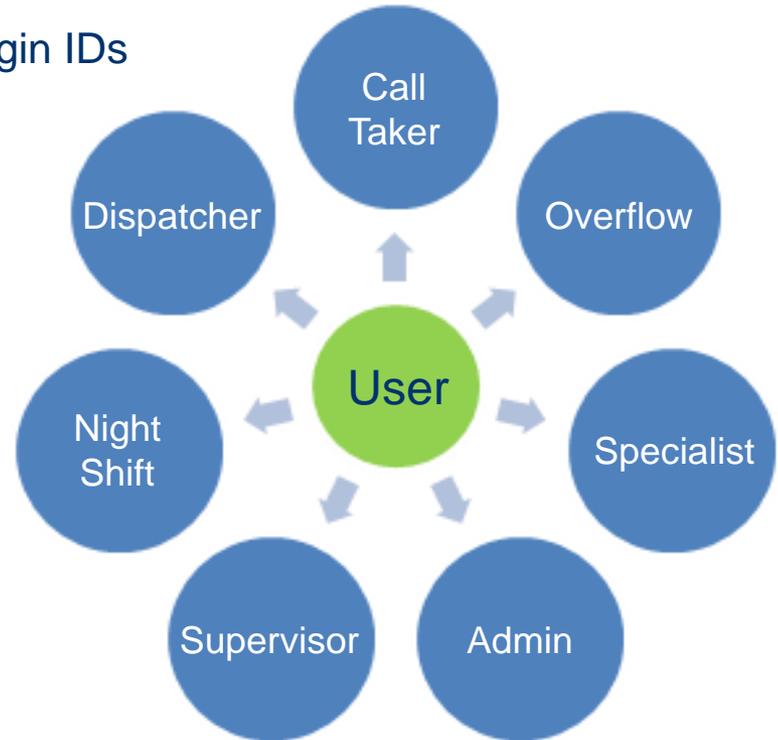


Profiles are stored centrally and accessed locally from any location

Configuration changes scale as a PSAP grows without the cumbersome automated scripts for wide-scale updates

User Role Management

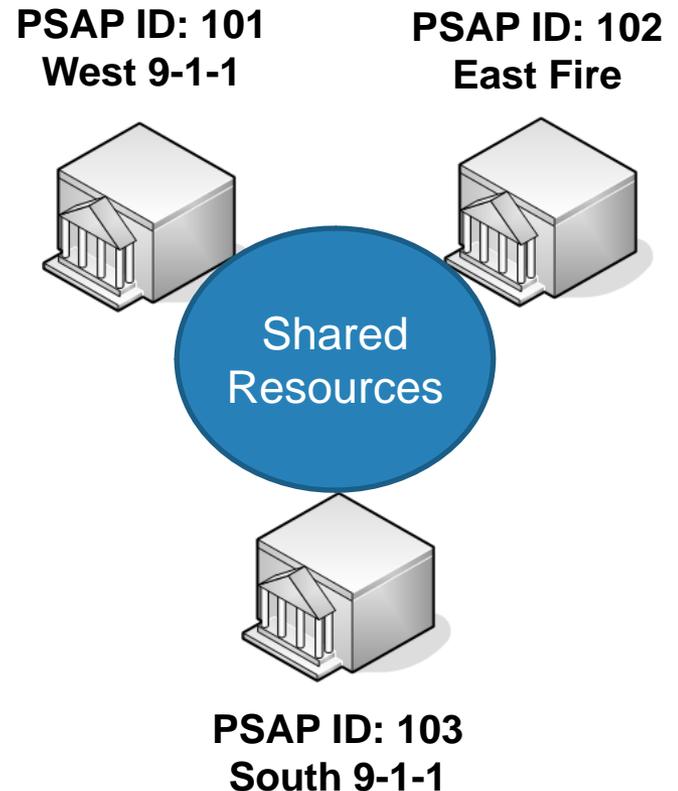
- System supports multiple roles per user
 - Eliminates the need to have multiple user login IDs
 - User selects proper role at login
 - Role details loaded upon successful login
 - Change roles to suit operational needs
- User profile defines the following:
 - PSAP ID (optional)
 - Permissions and configuration
 - Agent Directory Number (optional)
 - For agent based routing
 - Application Layouts associated to Role
 - Call Appearances
 - Contact List
 - Dial Directory Layout



A user may perform different roles at various times across multiple sites. Current role selected at login.

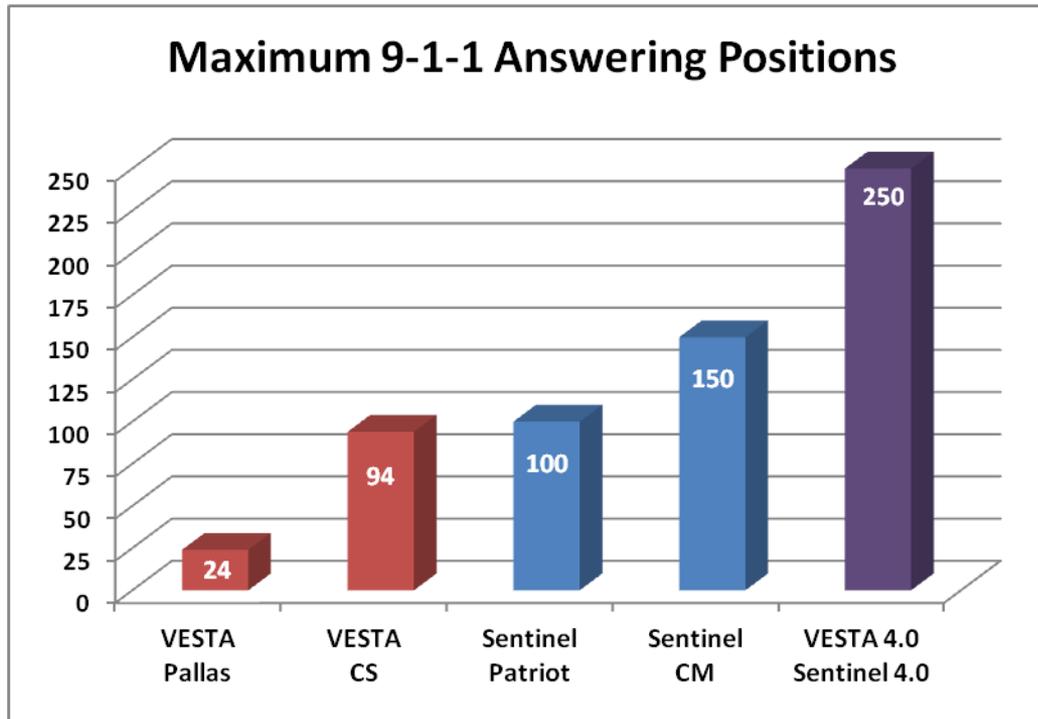
Multi-PSAP Support

- Enables the segregation of resources and users on a per-PSAP or per-agency basis
- Supports up to 100 PSAP IDs per system
- Resources are assigned to each PSAP
 - Line Groups, CDR printers, ALI Discrepancy Routing, User Roles
- When a user logs in to a position, the user role sets the PSAP ID for the user and position for the duration of the login
 - Abandoned Calls presented only for the specific PSAP
 - Held call visibility limited to the specific PSAP
 - Agent lists for the assigned PSAP
 - Activity View information specific to the PSAP
- Current and historical reporting by PSAP



Most Scalable Call Processing Platform

- Capacity Improvements
 - 250 Users
 - 600 Lines (physical lines or virtual / DID lines)
 - 200 ACD Queues



- Support multiple sites from robust centralized or distributed infrastructure
- Efficiently distribute calls across sites according to a variety of ACD schemes
- Remote sites can survive in case of WAN outage
- Backup, overflow, and disaster recovery options

Data Migration

- VESTA and Sentinel Migration Tool
 - A tool to export / import data from an existing VESTA or Sentinel system
 - Auto-Dial database for VESTA systems
 - Phone Book for Sentinel Systems



Call History Records from existing VESTA MagIC and Sentinel Patriot Stats systems can be migrated into the Aurora 2.0 MIS solution



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Call Taking Console

New Console User Interface

- Fully configurable – can resemble VESTA, Sentinel, combination, or as desired
 - Utilizes multiple panels to define different functions
 - Each panel may stand alone or be nested in a tabbed interface
- Multiple layouts can be created and saved
 - Layout is loaded based on the user role at login

The screenshot displays the Cassidian Communications console interface. The top bar includes the company logo, title, and navigation options like 'Layout' and 'Console'. The main area is divided into several functional panels:

- Call Information Display:** Shows details for a call from (216) 555-9132, including time (14:57), name (Paul Smitson), address (540 East Main St, Cleveland, Cuyahoga CO), and police/fire information.
- Dial Directory:** A grid of icons for various services: Fire, Police, EMS, Hospital, Poison Control, HAZMAT, Language, SAR, Detective, Air Surveillance, Bridge Authority, DA office, FBI, Juvs, and Sheriff.
- Queue Display:** A table showing call queue status:

Queue	Calls	Agents	Longest Call
911 Wireline	0	3	00:00
911 Wireless	1	3	18:12
ESNet	0	0	00:00
Admin	0	0	00:00
Highway Patrol 4	1	1	18:06
Language	0	0	00:00
Supervisor	0	0	00:00
911	0	0	00:00
- Dial Status:** Shows 'Conference Mode' as 'Ready' and 'Idle'.
- Clock:** Shows the time as 4:23:29 PM.
- Bottom Panel:** Includes 'In Calls' for 2180-1 and 2180-2, and a grid of buttons for 'Admin 1-6' and 'Police 1-2'.

Console User Interface *(cont.)*

- The console User Interface is designed for maximum usability, efficiency and customization
- Base Layout – Containers, Toolbars and Tool Windows
- Assets are mapped within Container windows:
 - Call Appearances and Function Buttons
- Tool Windows provide specialized functions
 - Dial Directory, Call Information Display, TTY, IRR

Ready Not Ready TTY Agents Recent Calls

Dial Status
Conference Mode Ready Idle

Clock
4:23:29 PM

Call Information Display
Call Info List

Trunk: 201
Number: (216) 555-9132 CoS: RESD
Time: 14:57 Date: 03/21
Name: Paul Smitson
Addr: 540 East Main St.
City: Cleveland
County: Cuyahoga CO
State: OH
ESN: 233
Police: Bedford PD
Fire: Bedford FD - Stn 25
Lat:
Long:

Manual Request Update Clear Incorrect Location

Dial Directory
Top Back

Search

Fire	Police	EMS
Hospital	Poison Control	HAZMAT
Language	SAR	Detective
Air Surveillance	Bridge Authority	DA office
FBI	Jails	Sheriff

ESN Priority Abandon... Contact Search Dial Pad

911	911
911	911
911	911
911	911
Alarm	Alarm
County 1	County 2
Admin 1	Admin 2
Admin 3	Admin 4
Admin 5	Admin 6
Police 1	Police 2

Queue Display

Queue	Calls	Agents	Longest Call
911 Wireline	0	3	00:00
911 Wireless	1	3	18:12
ESInet	0	0	00:00
Admin	0	0	00:00
Highway Patrol 4	1	1	18:06
Language	0	0	00:00
Supervisor	0	0	00:00
311	0	0	00:00

In Calls	2180-1	2180-2
(216) 555-9132 312 East Main St. Cleveland, 233	Bedford PD (216) 554-3000	
2180-3	2180-4	2180-5

Priority Release Hold Conference Spvd. Transfer

Call Appearances

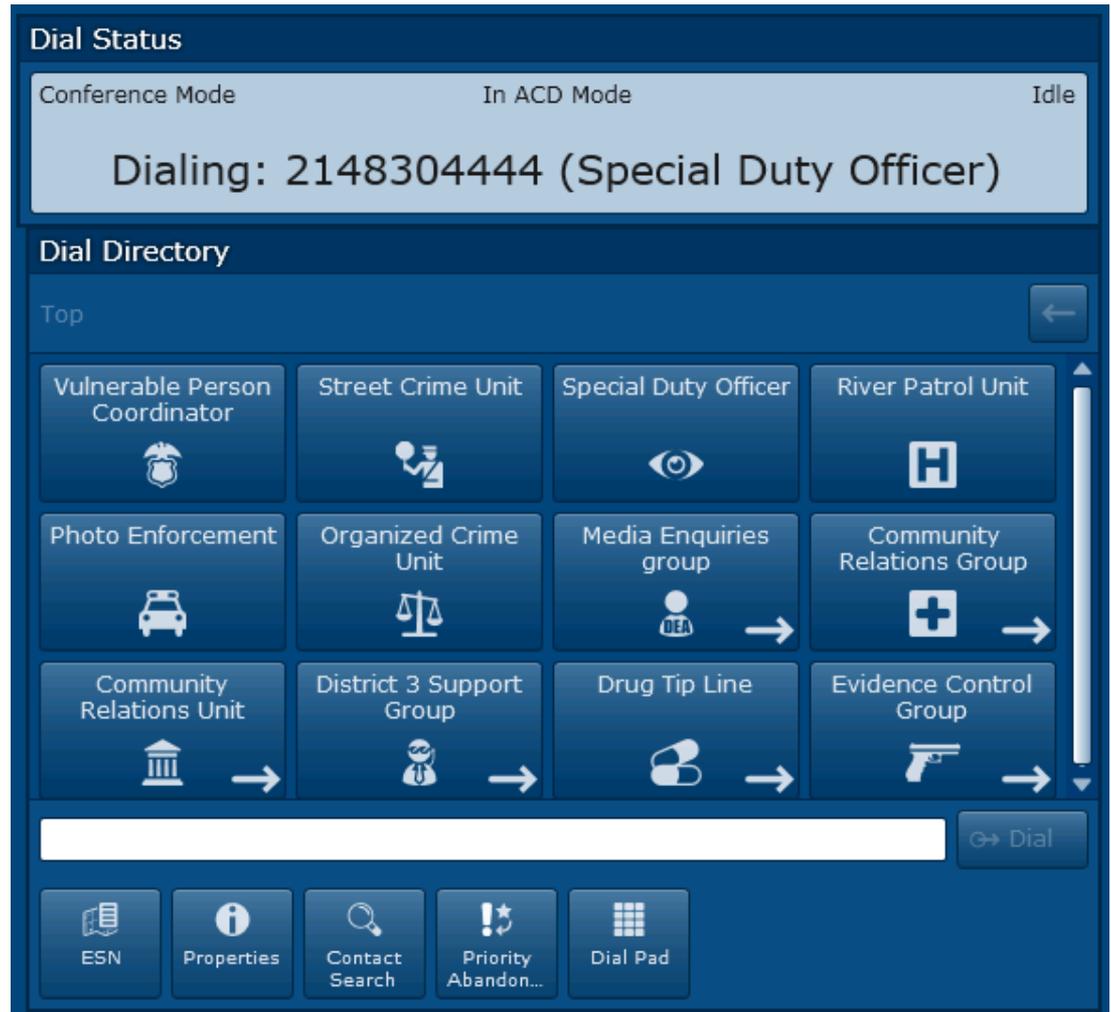
- Call Appearances are a key component of call handling
- Call Appearance Assets configured and mapped with layout design
- Four (4) types of call appearances
 - Personal Call Appearance
 - Individually manage single call or conference call participant (up to 10 per pos.)
 - In-Calls Appearance
 - Dedicated to receiving calls from the ACD (1 per pos.)
 - Shared Call Appearance
 - Represents shared system lines and trunks (up to 600 per system and per pos.)
 - Multi Call Appearance
 - Receive, queue & present multiple ringing calls (up to 200 per system & per pos.)
- Call Appearances provide a visual and audible differentiation of 9-1-1 vs. Administrative Calls (emergency icon, color and alert sound)

Tool Windows

- “Dial-Directory” window for contact list search and speed dialing
- Call Information Display for showing information about received emergency and administrative calls
- TDD-TTY – standard TTY window
- Instant Recall Recorder – access short term voice recording of telephone and radio activity

Dial Directory

- Enhanced auto-dial
- Touch screen friendly
- New selectable icons for contacts



Dial Directory

- Windows associated with Dial Directory
 - Dialing Status, Work Area, Tool Window, Manual Dial
 - Recent Calls, Contact Search, Dial Pad
- Dial Directory Functions
 - Advanced Contact Search – Search results displayed as characters are entered
 - ESN Group Button – provides a layout of contacts associated to the call's ESN
 - Priority Abandoned Callback – Priority selection of the next abandoned call to callback
 - Recent Calls button – Shows incoming and outgoing calls
 - Agent List – Displays a list of logged in agents, their position name and their roles
 - Dial agents directly from this location
- Work Area Buttons can be contacts or groups
- Groups contain contacts or other groups and therefore allows multiple levels of contact nested pages



Agent Window

Cassidian Communications Layout ▾ Console ▾ ? _

Agents

Agent Name	Console Name	Role	User Info
John Smith	911 Main 1	911 Call Taker	Training
Mary Baker	911 Main 2	911 Call Taker	Spanish
Paul Storm	Fire Pos 1	Fire Dispatch	
Harold Milks	Fire Pos 2	Fire Command	
Jerry Park	EMS Pos 1	EMS Dispatch	

➔ Dial

4:19:32 PM

Call Information Display

- Caller and Location Information
 - Trunk
 - Caller Name, Number, Address
 - Local Emergency Services
- Saved Calls Window
 - Detailed list of previous calls
 - Shows detailed ALI information
- Control functions
 - Manual ALI
 - Update ALI
 - Clear ALI
 - Incorrect Location Report

The screenshot shows the Cassidian Communications interface for a Call Information Display. The header includes the company logo and name, along with navigation options for 'Layout', 'Console', and a help icon. The main display area shows the following call information:

Trunk: 201
Number: (216) 555-9132
Time: 14:57
Name: Paul Smitson
Addr: 540 East Main St.
City: Cleveland
County: Cuyahoga CO
State: OH
ESN: 233
Police: Bedford PD
Fire: Bedford FD - Stn 25
Lat:
Long:

At the bottom of the interface, there are four control buttons: 'Manual Request' (with a question mark icon), 'Update' (with a refresh icon), 'Clear' (with an 'X' icon), and 'Incorrect Location' (with a location pin icon). The bottom right corner shows the time '4:26:23 PM'.

Conferencing

- Each conference party is represented on a PCA
- Individual parties can be put on hold
- The conference (all parties) can be put on hold
- Supports up to 10 conference parties



New conference image available shortly

Console ACD Features

- ACD Ready / Not Ready
 - Option to login and be in Ready or Not Ready mode
 - Going Not Ready with incoming In-Calls re-queues the call
 - Going Not Ready while on a call will NOT drop the call (as VESTA does)
 - Optional Post Call processing returns to Not Ready after completion of the call
- Refuse Call
 - Refusing an incoming call will re-queue the call and put position in Not Ready
- ACD Queue Display
 - Shows real time ACD queue information
- ACD Call Display
 - ACD Call List per queue, including concise ALI
- Auto-answer ACD Call
- Selective Answer ACD Call (if permitted by Administrator)

TTY Tool Window

Complete Functionality

- 9-1-1 Workstation
 - CommandPost Laptop
 - Preconfigured Messages
 - ASCII and Baudot Support
- Hearing Carry Over (HCO)
 - Voice Carry Over (VCO)
 - Tabbed Organization
 - Toggle between TTY and Voice call at any time

The screenshot displays the TTY Tool Window interface. On the left, a call log shows the following text:

```
2302
911 what is your emergency q ga

Caller
THERE IS A FIRE NEXT DOOR

2302
what address to send help q ga
```

Below the call log, it indicates "Characters Pending: 0" and a "Send" button. The main area on the right is a "Messages" list with tabs for "General", "Police", "Fire", "EMS", and "American Sign". The messages list contains:

- 911 WHAT IS YOUR EMERGENCY Q GA
- WHAT IS YOUR PHONE NUMBER Q GA
- WHAT IS YOUR NAME Q GA
- WHAT ADDRESS TO SEND HELP Q GA (highlighted in yellow)
- STAY CALM HELP IS ON THE WAY GA
- STAY NEXT TO YOUR TTY HD

At the bottom of the window, there are buttons for "Detect TTY", "Voice", "Mode", and "Session Control". The status bar shows "Mode: Baudot (Voice Carry Over)" and "Session Owner: This Console". At the very bottom, there are tabs for "Shared Call Appearances", "Multiple Call Appearances", and "TTY".

Sound Arbitration Module (SAM)

Feature Description

- Manages VESTA/Sentinel's 4.0 audio systems and controls external audio devices
- Flexible and fully featured:
 - 3 jackboxes, all with rotary volume controls and Mute buttons
 - Large number of user volumes
 - Auto-detect for type of jackbox microphone
 - Auxiliary audio input ports
 - Selectable internal or external speaker



SAM supports headset jackboxes for operator, supervisor, and trainee, plus audio relay and connections for Instant Recall Recorder (IRR), radio dispatch, bypass and logging, and an external speaker

Provides greater connectivity and control over attached audio devices on Sentinel 9-1-1 Windows 7 workstations

IRR – Telephone and Radio

The screenshot displays the 'Instant Retrieval - Advanced' application window. The main area is a table listing recordings with columns for Date/Time, Duration, Sta.#, Station Name, Flag, and Attachment. Below the table is a toolbar with buttons for Save, Stop, Pause, Attach, Delete, Select Date, and Search. The bottom section features a 'Playback Control' area with a volume slider, a waveform display showing the current position at 04:09:06.6p, a speed control set to 100%, and checkboxes for AGC, Loop (set to 6), and Auto Pitch Correction. A 'Selection' area on the right includes a date filter for 03/14/11 and a Refresh button. The status bar at the bottom indicates 'Playback active - Size: 0.03 MB, Duration: 0:00:07' and provides a tip: 'Hold CTRL key for multiple playback'.

Date/Time	Duration	Sta.#	Station Name	Flag	Attachment
03/14/11 04:09:02p	0:00:07	1	Telephone		(R) 9-1-1 call, ANI: 9517190034
03/14/11 04:04:18p	0:04:28	1	Telephone		(R) 9-1-1 call, ANI: 9517190033
03/14/11 04:03:18p	0:00:52	1	Telephone		(R) 9-1-1 call, ANI: 9517190032
03/14/11 03:58:02p	0:02:24	1	Telephone		(R) 9-1-1 call, ANI: 9517190028
03/14/11 03:54:27p	0:03:14	1	Telephone		(R) 9-1-1 call, ANI: 9517190027
03/14/11 03:53:59p	0:00:20	1	Telephone		(R) 9-1-1 call, ANI: 9517190026
03/14/11 03:52:48p	0:00:59	1	Telephone		(R) 9-1-1 call, ANI: 9517190025
03/14/11 03:49:41p	0:00:02	1	Telephone		(R) 9-1-1 call, ANI: 9517190032
03/14/11 03:49:24p	0:00:01	1	Telephone		(R) 9-1-1 call, ANI: 9517190025
03/14/11 03:48:40p	0:00:42	1	Telephone		(R) Admin call, circuit: INTERCOM1 Caller ID: 2201, S
03/14/11 03:47:42p	0:00:03	1	Telephone		(R) 9-1-1 call, ANI: 9517190022
03/14/11 03:46:49p	0:00:46	1	Telephone		(R) Admin call, circuit: INTERCOM1
03/14/11 03:46:35p	0:00:08	1	Telephone		(R) Admin call, circuit: INTERCOM1
03/14/11 03:40:20p	0:00:03	1	Telephone		(R) 9-1-1 call, ANI: 9517190022

- Dual Channel Recording
- Playback Control
- Choose Recording for Playback
- Sort Recordings by Category
- Search Criteria
- Save / Send Files
- Attach Notes



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Peripherals

Servers and Workstations

Servers

- HP ML350 G8
 - Xeon Dual Core Xeon Processor
 - 4 GB of RAM

- DL380 G8
 - Quad Core Xeon Processor
 - 6 GB of RAM



Workstation

- HP z210
- HP z220



Standard IP Phone feature

Standard Phone Feature Description

- Aastra 6757i and 6757i CT (cordless)
- Single Line supported
- Call Forward & Transfer; Call Waiting, Call Timer
- Caller and calling line information
- Local 3-way Conference
- Do Not Disturb, Missed Call Notification
- Expansion module used for speed dials only
- Requires standard phone license per unit



**Supports up to 3 M675i
Expansion Modules**

Power

- IEEE 802.3af Power over Ethernet (integrated)
- AC adapter (48V DC) included



**M675i – 20 soft-keys with LEDs,
offering up to 60 available keys**

Enhanced IP Phones

- Aastra 6757i and 6757i CT (cordless)
- Support for 3 up to expansion modules
- Shared Call Appearances for system lines
 - Up to 60 using 3 expansion modules
- Phone login / logout to ACD
 - IP Phone DN routing only, agent based routing not supported
- ALI display for emergency calls
- Requires enhanced phone license per unit



Polycom Phones – Supported for existing Sentinel Patriot Customers



Polycom 550



Polycom 650



Polycom 321 / 331

Phone Features

- Single Line Appearance
- Call Answer
- Call Release
- Call on Hold
 - Exclusive hold only
- Call Forward
- Call Park / Unpark
- Call Mute
- Call Transfer
- Speed dials
- Redials

Polycom SoundStation IP 6000 Support

Feature Description

- Polycom HD Voice
- Patented Acoustic Clarity Technology
- 12-foot microphone pickup
- Industry-leading SIP software
- Robust interoperability
- High-resolution display

Protocol Support

- IETF SIP (RFC 3261 and companion RFCs)

Power

- IEEE 802.3af Power over Ethernet (built in)
- Optional external universal AC power supply



Delivers superior IP performance for small to midsize conference rooms

Available for new systems

AudioCodes Media Gateways

MP114 FXS – 4 port (rj-11)

MP118 FXS – 8 port (rj-11)

- FXS = Foreign eXchange Subscriber
- Converts analog CAMA (911) trunks or ringdown circuits to VoIP
- Always deployed in pairs
- Supports “dry” ringdowns



MP114 FXO – 4 port (rj-11)

MP118 FXO – 8 port (rj-11)

- FXO = Foreign eXchange Office
- Converts analog loopstart / POTS line to VoIP
- Always deployed in pairs
- Supports “dry” ringdowns
- Supports decoding CallerID (USA and Canada)
- Supports “wet” ringdowns



Mediant 2000 1 Port

Mediant 2000 2 Ports

- Convert digital TDM (T1) trunks to VoIP
- Supports T1/E1/J1 digital interfaces
- Supports ISDN PRI and CAS type (loop start, ground start, E&M, CAMA) signaling
- AC and DC powering options



AudioCodes Mediant 1000 Gateway

- Mediant 1000 Gateway brings 2 important additions
 - Modular Design
 - Support for 2 Ethernet Ports



Benefits

- Analog FXO
- FXO with ground start signaling
- FXS (CAMA, ring down)
- ECS-1000 Selective Router on analog FXS ports
- Trunk modules, digital T1 interfaces

AudioCodes Mediant 1000 Gateway

Improved connectivity options

Miscellaneous Hardware

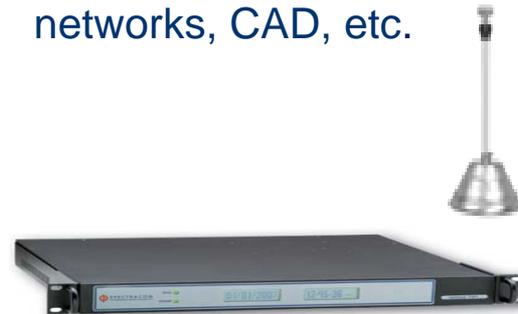
Ethernet Switches

- HP 2610 ProCurve
 - 24 or 48 ports
 - With or without PoE
- CISCO Catalyst 2960
 - Required for VoIP recording



NetClock

- Product Features for Public Safety
- Meets NENA PSAP Master Clock Standard #04-002
- Synchronizes 9-1-1 systems, computer networks, CAD, etc.



Miscellaneous Hardware

Genovation Keypad

- USB External Keypad



Enterprise Firewall

- McAfee S1104
- Dual Use
 - Technical Support
 - CommandPOST



Alarm Panel (Optional)

- Audible Alerts
- Cut-Off Switch
- Alarm Relay Contact



CommandPost™ Mobile Call Processing Solution



Full-featured remote and backup operations extend public safety reach and provide disaster recovery options

Primary Uses

- Backup and overflow operations
- On-site emergencies
- Special event coverage
- Business continuity
- Disaster recovery

Primary Benefits

- Service at the point of need
- Full application functionality
- No user retraining required

- Dual firewall support for VPN access
- Requires 9-1-1 application seat license
- Rugged laptop and case included
- USB headset not included

Satellite-capable IP PSAP can be securely deployed to any location without advance notice (Details in IP Networking Guide)



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Activity View

Activity View

- Real time monitoring of PSAP activities
- Up to 7 activity views including
 - Active Calls (ANI, ALI, ...)
 - Call Taker
 - Group Status
 - Group ACD
 - Trunk View
 - Line View
 - Queue View
- Customizable colors and thresholds alert to conditions that require action
- Display up to 5 marquee messages to inform call-takers of events
- Status and alarming functions

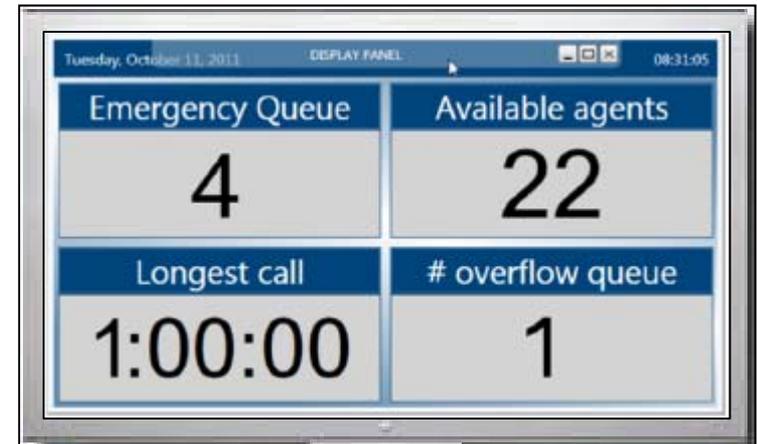
The screenshot displays the Cassidian Activity View software interface, which is used for real-time monitoring of PSAP activities. The interface is organized into several panels:

- Active Calls:** A table showing call details such as CPN, Call ID, Call Type, ANI / Dialed Number, ESN, Source, Src. Operator ID, and Status. Example rows show calls with IDs 564327 and 564392, both of type 9-1-1, with status 'Queued'.
- Call-taker:** A table showing call-taker information including Answ Position, Ext., Operator ID, Group, Status, Party, ANI / Dialed Number, and Duration. Example rows show operators 100 and 101 in the PHONES group, both with status 'idle'.
- Group Status:** A summary table for group performance, including Available, Group, Busy, Unavailable, and Logout counts. Example row: 18 Available, PHONES Group, 0 Busy, 13 Unavailable, 0 Logout.
- Group Information:** A table providing detailed group metrics for various groups like Test and PHONES, including 911LQ, 911H, 911LH, 911A, 911LA, ADMQ, ADMQ, ADMH, ADMLH, ADMA, and ADMLA values.
- Trunk:** A table showing trunk status, ANI, Call-taker, and Operator ID. Example rows include 911Queue (idle), Emerg1 (idle), and FromJaguarLine2 (idle).
- Line:** A table showing line status, Caller ID / Dialed Number, and Call-taker. Example rows include Admin1 (idle) and AyrlnChdrE... (idle).
- ACD Queue:** A table showing queue performance metrics such as Name, Number of Calls, and Longest Call Duration. Example rows include 911Queue (0 calls, 00:00:00 duration), 911Queue2 (0 calls, 00:00:00 duration), AdminQueue (0 calls, 00:00:00 duration), EmergencyQueue (0 calls, 00:00:00 duration), FromJaguarQ1 (0 calls, 00:00:00 duration), and Im Test PQ (0 calls, 00:00:00 duration).

A red banner at the bottom of the screenshot reads: "New Activity View image to be available shortly".

Activity View Display Panel Support

- High-visibility display panel lets supervisors quickly check key performance indicators
 - Formatting options allow color-coding of KPI value thresholds for at-a-glance status
- Customizable display of readily-available activity information from Sentinel Monitor
- Utilizes a simplified format suitable for large wall-mounted displays



The screenshot shows a 'DISPLAY PANEL' window with a blue header bar containing the date 'Tuesday, October 11, 2011' and the time '08:31:05'. The panel is divided into four quadrants by a white grid. The top-left quadrant is labeled 'Emergency Queue' and shows the number '4'. The top-right quadrant is labeled 'Available agents' and shows the number '22'. The bottom-left quadrant is labeled 'Longest call' and shows the time '1:00:00'. The bottom-right quadrant is labeled '# overflow queue' and shows the number '1'.

Emergency Queue	Available agents
4	22
Longest call	# overflow queue
1:00:00	1

Customizable display format enables PSAP managers to respond quickly to changing conditions in the call center



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System Compatibility

System Compatibility

Applications

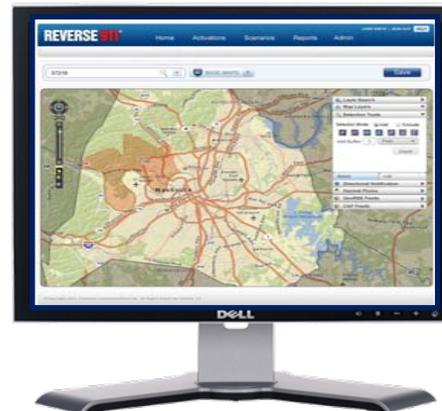
- Aurora 2.0 (MIS)
- ORION Vela 3.0 (Mapping)
- ORION MapStar 5.3 (Mapping)
- ORION ARIES 4.1 (CAD)
- ORION DataSync 4.1

Managed Services

- Monitoring and Response
- Anti-Virus Protection
- Patch Management
- Disaster Recovery

Miscellaneous

- PresenTense Time Server
- AudioCodes Mediant 1000 / 2000 Media Gateways
- AudioCodes MediaPack MP-11x Analog Gateways



Managed Services – Secure Facilities



Service Management Center (SMC)

- State of the art technical facility manned by live technicians at all times
- Staffed by specialists skilled in all product, network, and security aspects
- Mirrored sites in California and Tennessee for geo-diverse data redundancy
- Biometric access controls protect sensitive data from unauthorized access
- Secure high-speed connections to firewalled customer installations

Continuous monitored system protection delivers peace of mind and lets you focus on your primary public safety mission

Managed Services – Service Offerings

*Assess threats and detect potential problems before they impact service.
Recover quickly if service interruption becomes unavoidable.*

Monitoring & Response

- Proactive remote monitoring of key systems to help avert a failure combined with a comprehensive response plan should a failure become inevitable

Patch Management

- Automatic deployment of pre-tested and certified operating system critical security patch updates

24 x 7 x 365
MONITORING
& RESPONSE

Virus Protection

- Automatic distribution of anti-virus definition updates for detection and removal of viruses, Trojan horses, worms, and dangerous spyware

Disaster Recovery

- Automatic data backups and real-time snapshots of remotely monitored systems quickly restore workstations and servers in case of system failure

Maximize system uptime and speed recovery in the event of unavoidable service interruptions

Key Messages

The New Generation for Emergency Call Processing

- An all-new user experience and top-tier feature set leverages over 40 years of cumulative public safety success into the NENA i3 call processing era.

Common Upgrade Path for all VESTA and Sentinel Platforms

- Combines the best features of VESTA and Sentinel, grounded by Cassidian Communications advanced SIP call processing technology and advanced i3 network connectivity, eliminating platform tradeoffs and compromises.

Nothing Else Like it on the Market Today

- From scalability to deployment flexibility, from user interface customizability to call flow configurability, from robustness to virtualization ... nobody comes close!

VESTA 4.0 and Sentinel 4.0 set the new industry standard for full-featured Next Generation 9-1-1 SIP call processing

Tools and Resources

Technical Documentation

- Release Notes
- Product Guide
- Console User Guide
- Phone User Guide
- Upgrade Procedure
- Administration Guide
- Configuration Guide
- MDS Configurator Help
- DDS Configurator Help
- Voicemail Help
- Console Configurator Help
- Voicemail User Guide for IP Phone
- Supplement for VESTA CS and VESTA Pallas
- Activity View
- Installation Guide
- IRR Operator and Installation Guide
- SAM Installation Guide
- IP Networking Guide
- CommandPost Firewall and VPN Configuration
- CommandPost Quick Reference Card

Sales Tools

- PCN VESTA 4.0 and Sentinel 4.0
- Product Bulletin
- Product Overview Presentation
- Targeted Migration Presentations
- Sales Training Webinar
- Why VESTA 4.0 and Sentinel 4.0?
- Target Customer Profile
- 50 Word Tradeshow Description



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Backup

Follow up Releases in 4Q-2012 and 1Q-2013

Cassidian will be delivering smaller feature releases on a rapid schedule after the initial delivery of 4.0. The list and dates below are plan of intent and are subject to change in terms of content and release date.

R2 Beta – Mid October 2012

- Virtualized Servers – VESTA & Aurora
- Centralized Configuration Advanced
- Multi-PSAP support
- Multiple Roles per user
- Observe (Silent Monitor)
- Emergency Help Button
- Mute All / Selective Button

R3 – Beta Mid November 2012

- ACD Queue Display on Console
- Display Panel Audible alerts
- Display Panel additional data fields
- IP Phone SCA (Join / Unhold)
- IP Phone ESInet transfer / conference
- IP Phone – ACD Ready / Not Ready
- ACD routing using Agent Skill Priority
- IP I/O Relay Unit
- IRR Integrated UI

R4 – Beta December 2012

- Held Call Time out - Recall to Console
- Held Call Time out – Re-queue to ACD
- Drop Last ESInet conference party
- Call Notes / History
- Supplemental Call Information
- Satellite/Data Transfer
- Caller DTMF detect and display

Release 4.1 – Beta Q1 2012

- SIP Trunking
- Message Wizard
- Instant Messaging
- Held and Parked Call Window
- Advanced Abandoned Call Management
- Conference Participant Window
- Selective Answer from ACD Queue View
- Workstation and Phone Icons Display Panel Multi-monitor per PC
- Telephony Call Display UI
- SAM Aux Audio Port #2



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VESTA[®] 4 – Sentinel[®] 4

General Product Overview

August 2012

v1.0

Why VESTA® 4 and Sentinel® 4?

NG9-1-1 CTI solution for advanced emergency operations centers

- Delivers geo-diverse 9-1-1 call processing capabilities to emergency call center operations with up to 250 call-taking positions and up to 600 trunks and lines
- Supports today's NG9-1-1 and E9-1-1 networks for voice and location data, while prepared for seamless transition to tomorrow's text and multimedia applications
- No single point of system failure – automatic server switchover, full-featured “hot” redundant ANI/ALI controllers, dual network connections for maximum redundancy
- Fully integrated IP soft-switch for 9-1-1 automated call distribution and administrative call handling with integrated auto-attendant and voicemail
- Remote full-featured IP answering positions and mobile, self-contained satellite-capable PSAP operations
- Integrates easily with Cassidian Communications applications – CAD, mapping and emergency notification – plus third-party radio, PBX, DLR and IP selective routing systems, for a completely customized solution using COTS hardware

The industry benchmark for robust NG9-1-1 call processing

Deployment Flexibility

Advanced IP architecture designed from the ground up with inherent flexibility and scalability allows for multiple deployment configurations

- Centralized Systems
- Multiple Sites with Remote PSAPs
- Geo-Diverse (Dual and Multi-Site)
- Centralized Trunking
- Hosted Solutions
- Efficient Virtualized Solutions



The CommandPost™ mobile call processing solution adds flexibility and instant on-site capability to any deployment model

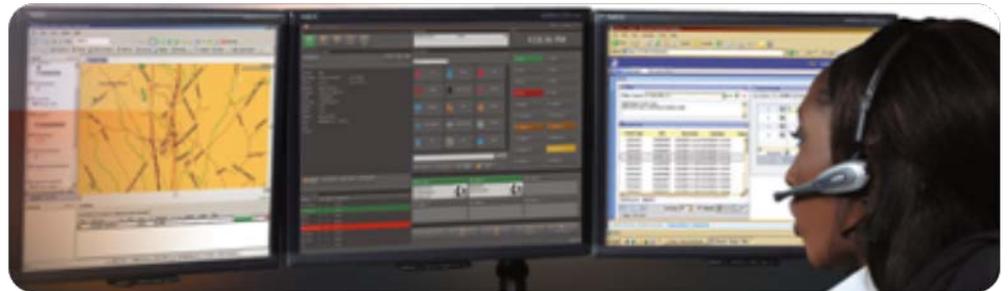
Modern Solution for a New Generation

Agency Profile

- Up to 250 call-taking positions, including remote answering positions and CommandPosts
- Typical call volume up to **5,000,000+** calls per year
- Planning for consolidation and/or collaboration with multiple PSAPs and agencies
- Desires an all-IP solution capable of delivering advanced next generation 9-1-1 services
- Requires connectivity to E9-1-1 and / or NG9-1-1 networks
- Uses ANI / ALI, Wireless Phase I / II, or NENA i3 location identification
- Benefits from backup, overflow, and redirection of calls among multiple sites
- Seeks redundant, survivable systems with ultra-high reliability and low maintenance
- Single-site, multi-site, geo-diverse, and CPE-based centralized / hosted deployments

Functional Integration

- Radio Dispatch
- Mapping with Wireless Location
- Computer-Aided Dispatch (CAD)
- Management Information Systems



Solution Building Blocks

- **Proven SIP call handling technology** from Cassidian Communications
 - Deployed in over 650 PSAPs with over 3,000 positions today
- **New call taking console** converges VESTA[®] and Sentinel[®] best features
 - Time tested and proven by over three thousand PSAPs
- **Groundbreaking capabilities** increase operational effectiveness and improve management efficiencies for PSAP call taking
 - Forward-looking solution meets the evolving needs of 9-1-1



Solution Components

Multimedia Distribution Service (MDS)

- Deployed on redundant servers (MDS A and B)
- SIP based telephony and ACD functions

Data Distribution Service (DDS)

- Deployed on redundant servers (DDS A and B)
- Manages data functions
 - ALI, CAD, Data, IM, Resource Monitoring, etc.

Call Taking Console

- Call Taker's application
 - Call Control and Information, plus related functions
- Audio Management

CommandPost™ Mobile Call Taking Solution

- Ruggedized portable call taking laptop computer
- Instant on-site call taking over any IP connection

ESInet Interface Module (EIM)

- Native connectivity to i3 networks

Activity View

- Monitoring application for call taking status and activities
- Includes a display panel mode for wall mounting and viewing

Ancillary Components

- Media gateways, alarm panel, network equipment, IP phones, NetClock, firewall

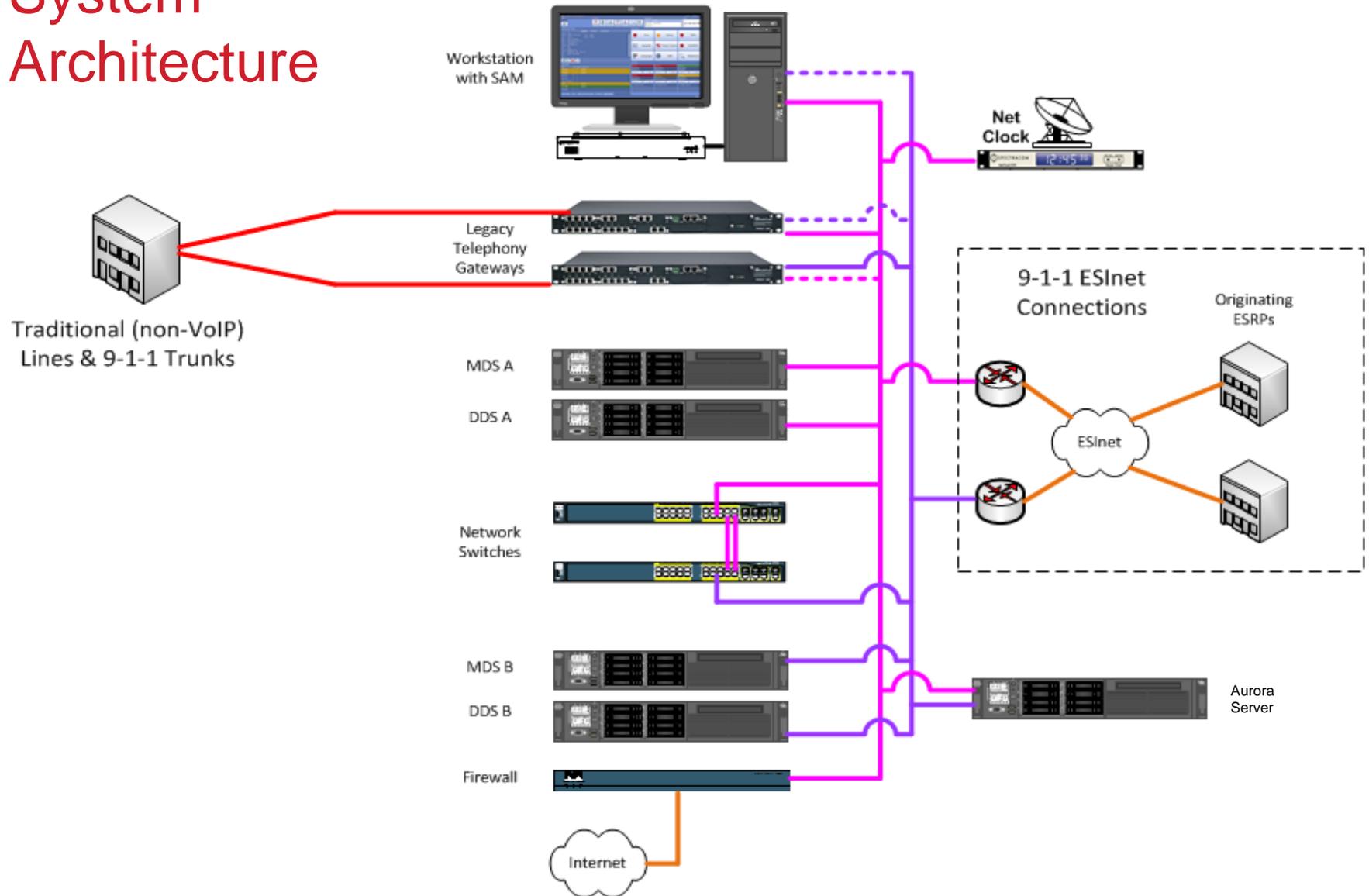


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System Architecture

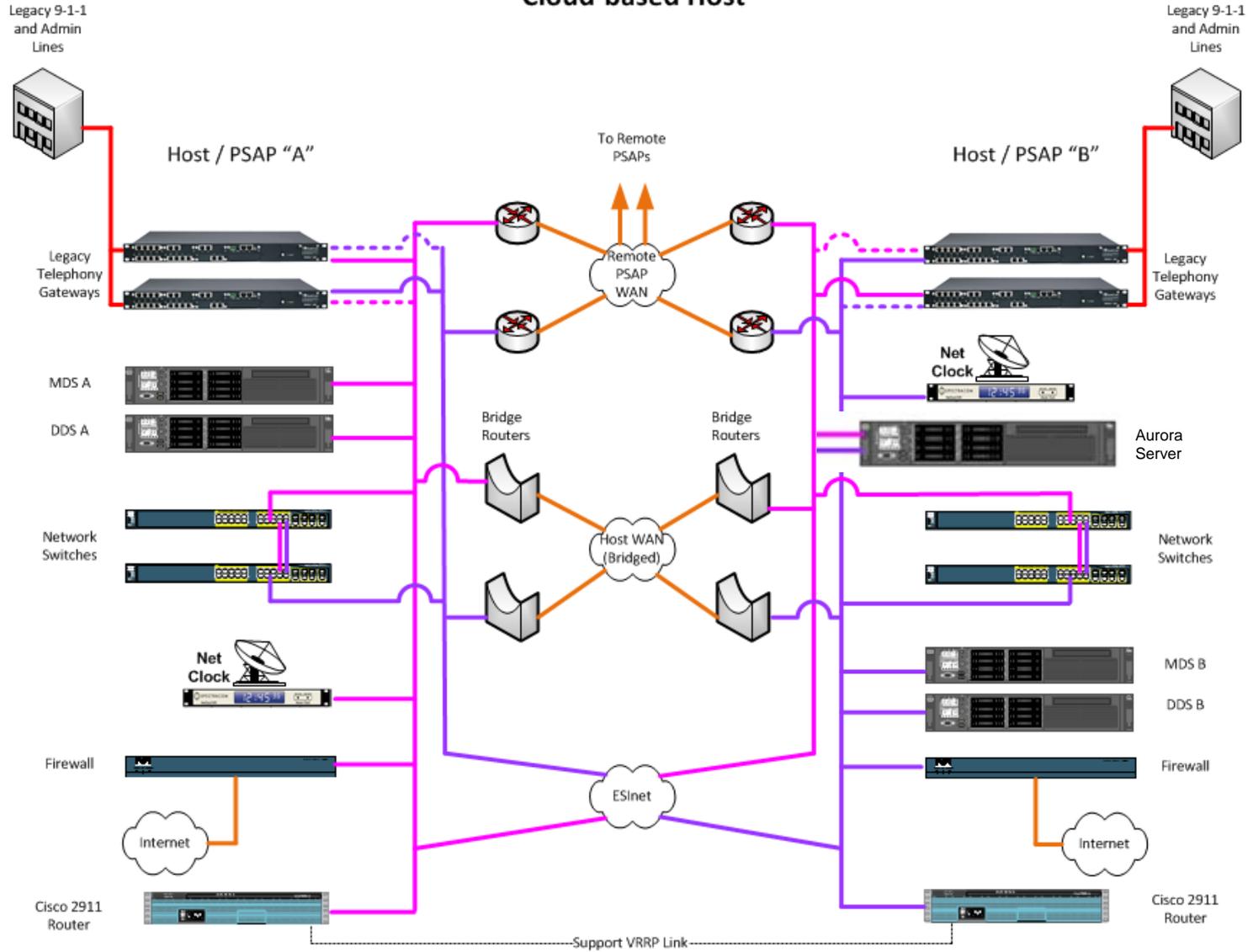
System Architecture

Typical Single PSAP Network



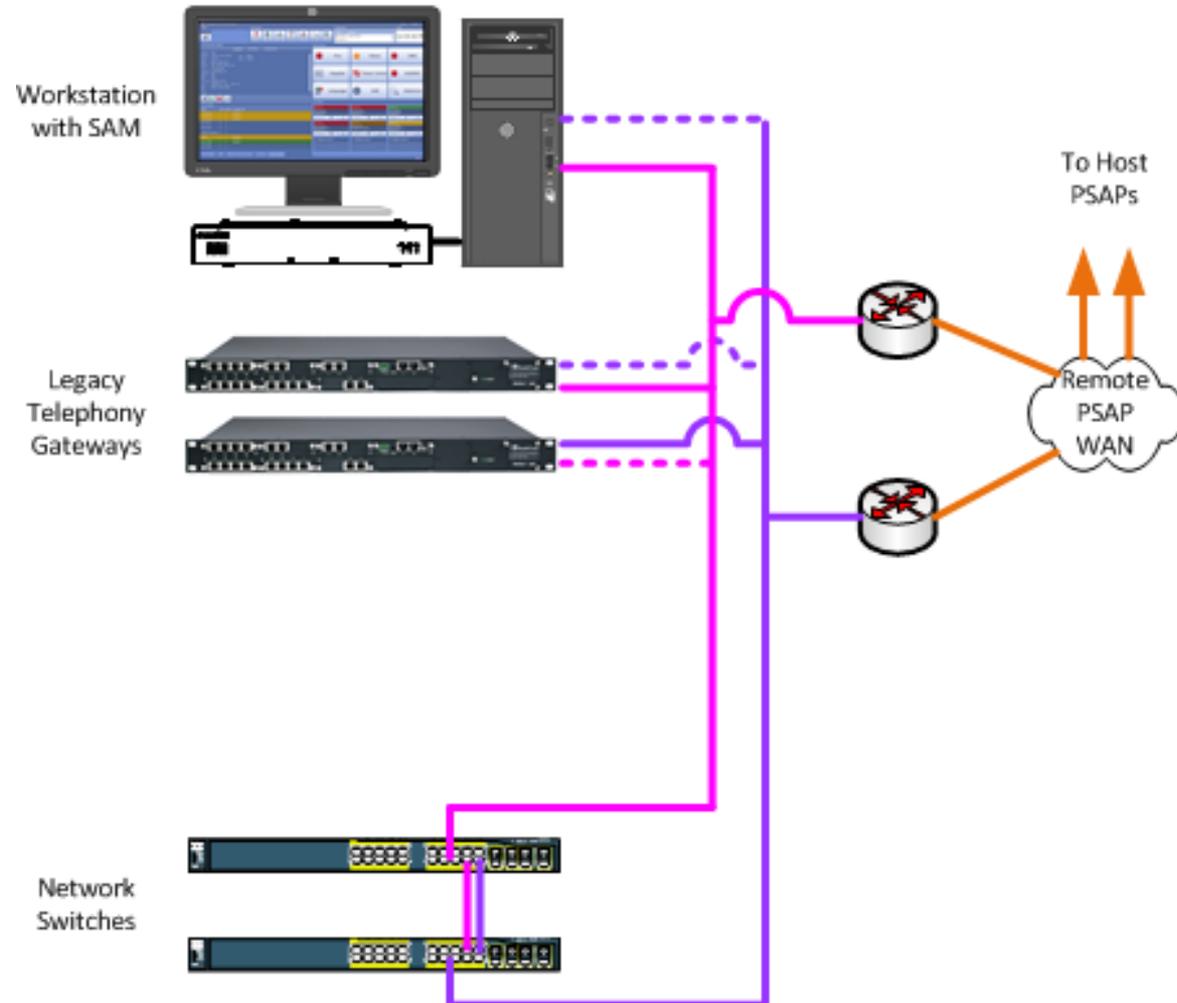
Hosted Deployment

Typical Geo-Diverse Cloud-based Host

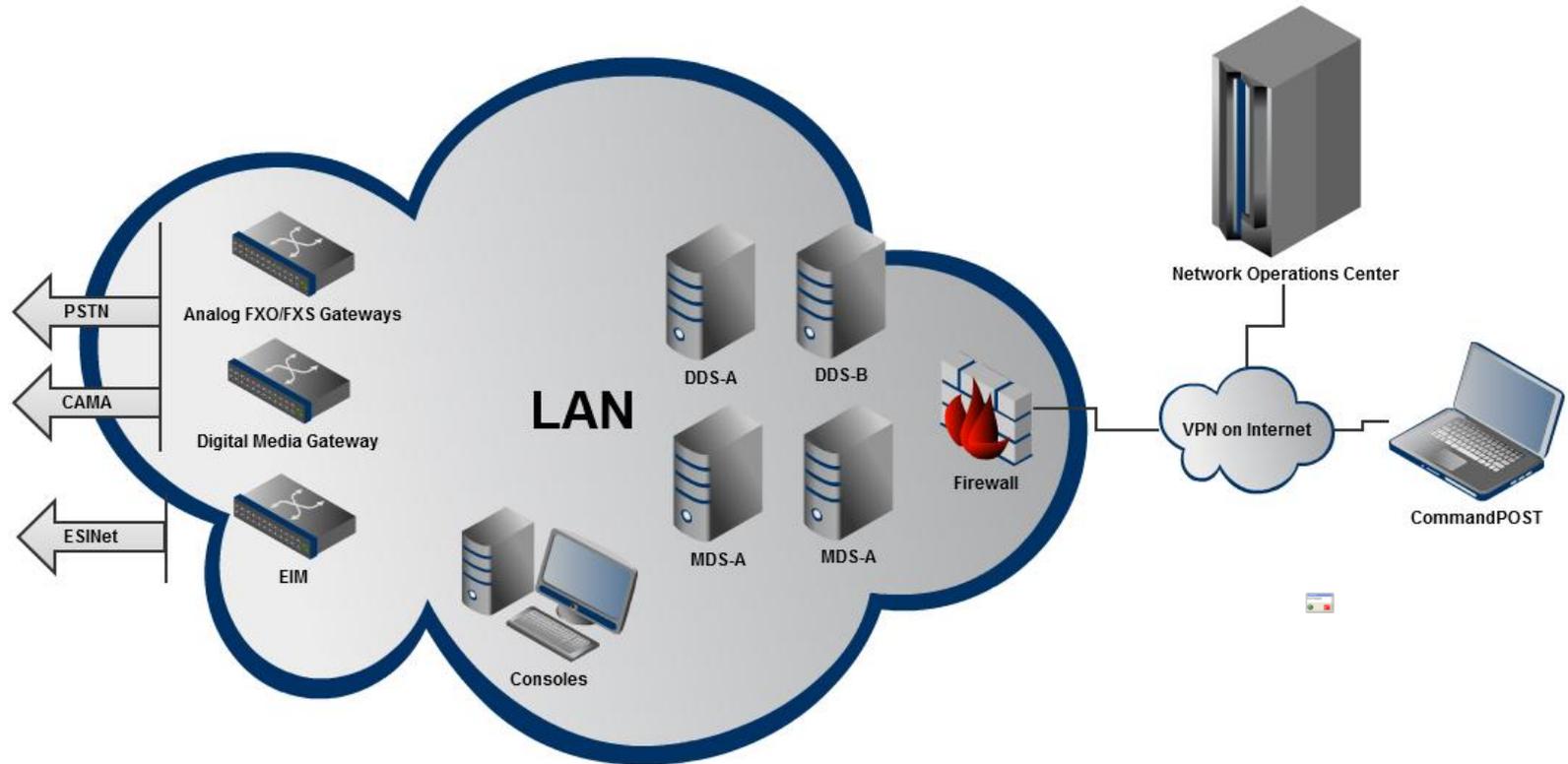


Remote Networking

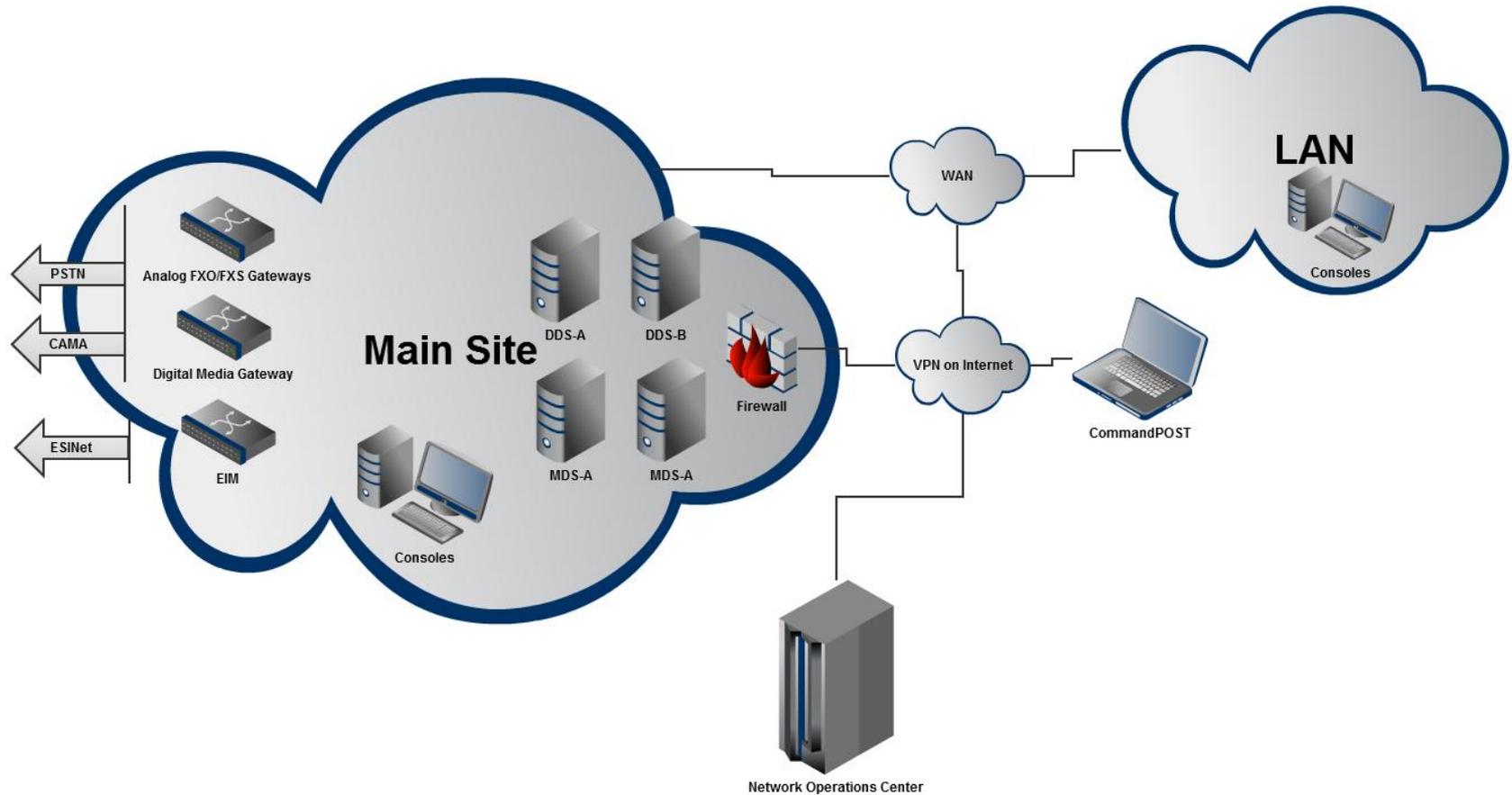
Typical Remote PSAP Network



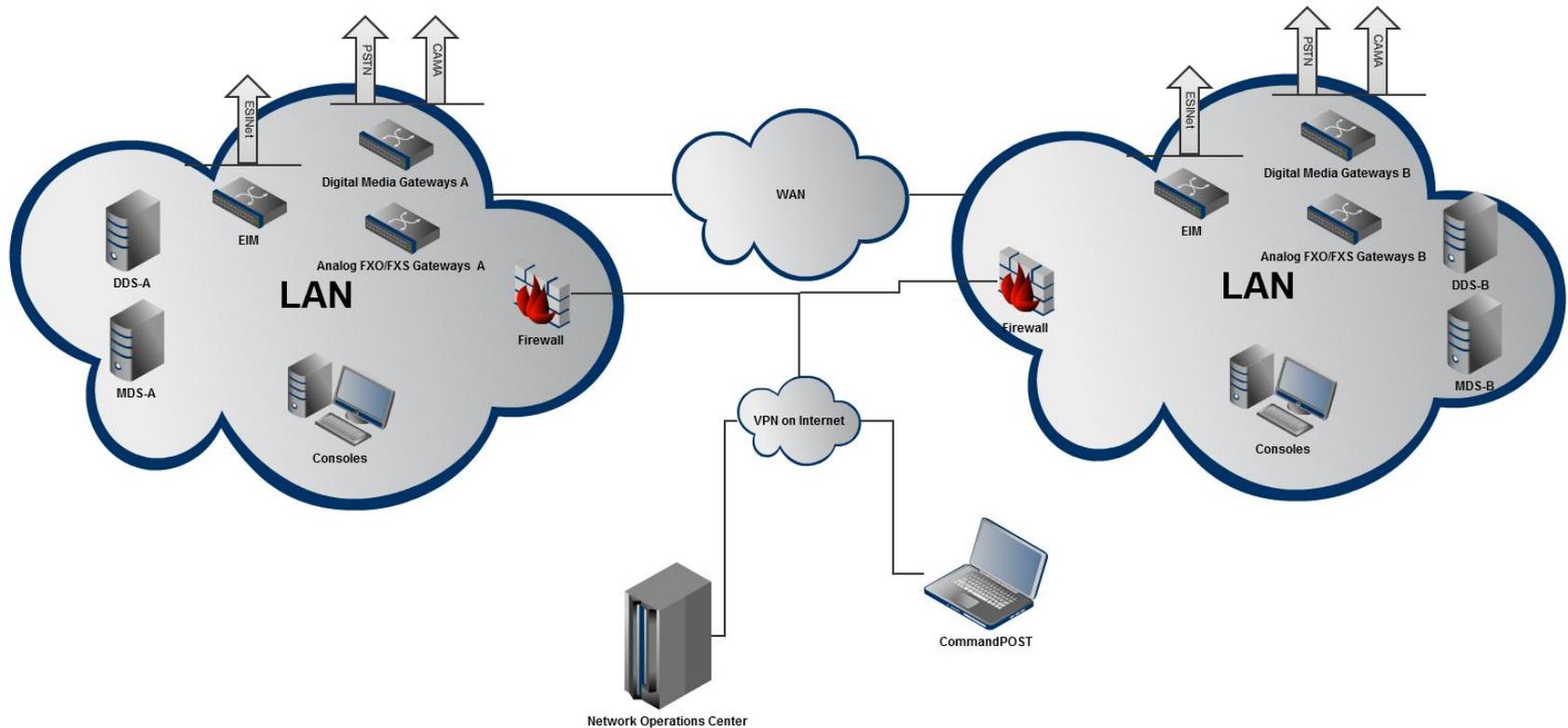
Single Site Centralized Deployment



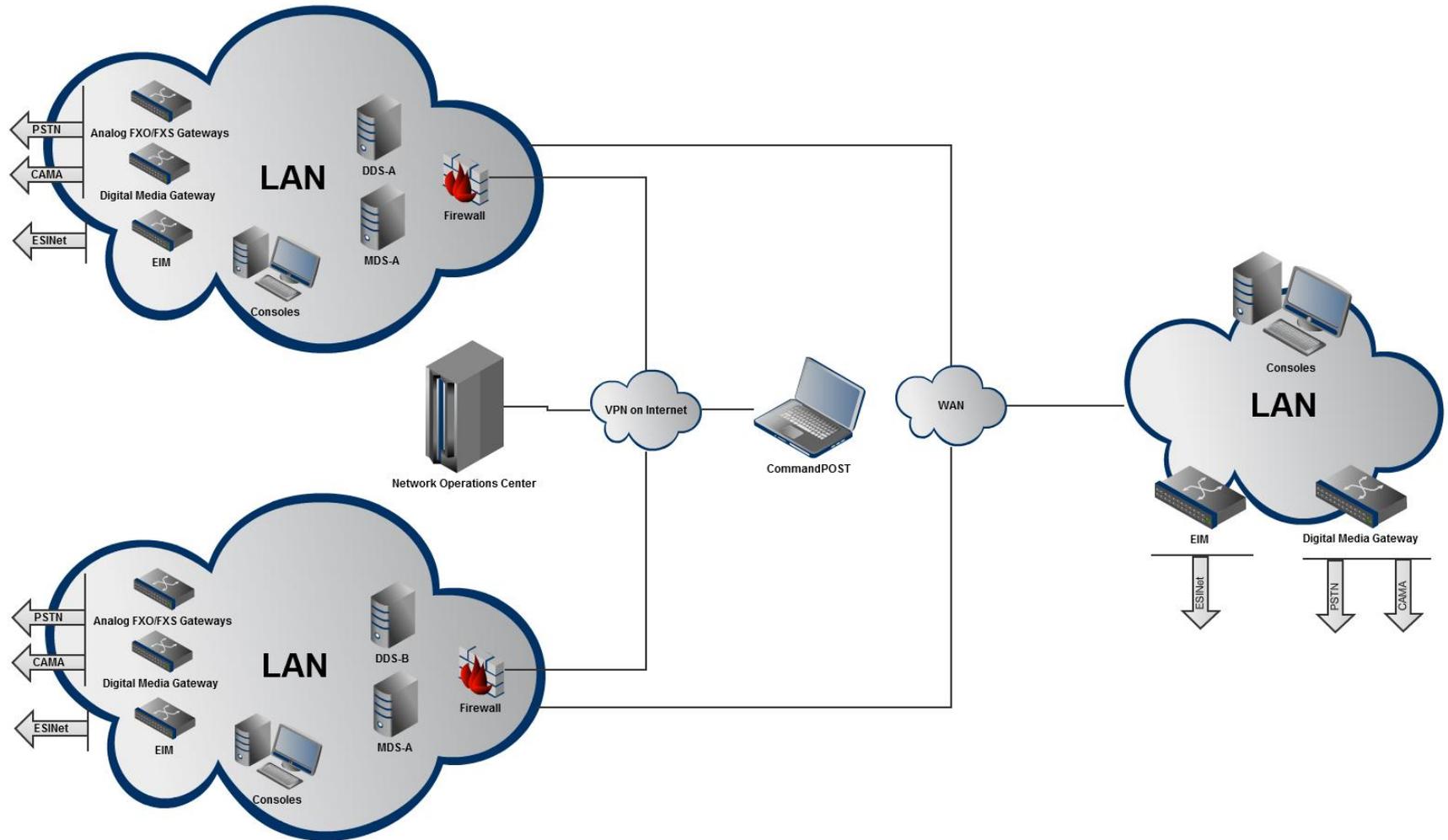
Multi-Site Centralized Deployment



Dual Site Geo-Diverse Deployment



Multi-Site Geo-Diverse Deployment



Virtualized Server Solution

Partitioning

- Multiple virtual servers (VS) run on one physical box

Isolation

- Each VS is safely separated from every other VS

Encapsulation

- All information concerning VS is saved in file format

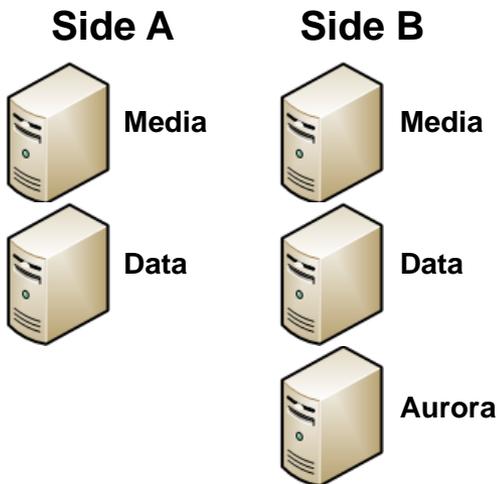
Hardware Independence

- VS run “as is” after migration to new HW platforms

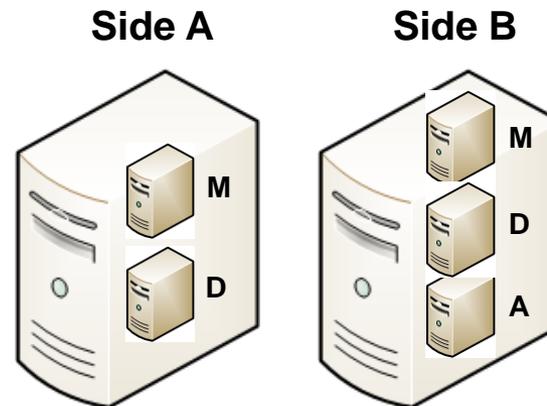
Benefits

- Reduced rack space requirements
- Centralized management / maintenance
- Efficient use of computing resources
- Lower electrical and cooling needs
- Fewer network connections to maintain
- Easier to secure, backup, and restore
- **Lower total cost of ownership!**

Dedicated Server Model



Virtualized Server Model



**Each VS runs
a separate
operating
system and
protected
applications**



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System Features

ACD Capabilities

- ACD Call Routing Schemes
 - Longest Idle – Next call directed to agent who has been idle the longest
 - Circular – Calls are directed to each agent in turn
 - Linear – Calls are directed to agents according to a list
- Overflow Queues
 - Call overflows to alternate queues based on maximum wait time, maximum queue length, or last agent sign-out
- Answer Modes – Caller Audio Message Options
 - Welcome Audio – Plays before call enters ACD queue
 - Queued Audio – Plays while the call is in the queue

ACD Capabilities *(cont.)*

- Post Call Processing
 - Allows an automatic configured amount of time after the completion of a call before the agent is returned to the Ready status
 - Defined in the user profile
- Re-queue on No Answer
 - In the event that a call is not answered at a console, the system will automatically re-queue the call to the top of the appropriate ACD queue
- Re-queue on Failure
 - In the event a call is dropped from a console due to a console or network failure, the system will automatically re-queue the call to the appropriate ACD queue
- Agent and Workstation based Routing
 - Offers operational flexibility based on PSAP organization
 - Configure incoming calls to be routed to specific agents or workstations
 - Typically, call routing for specific call types or for the whole agency will be using a unique distribution method – workstation based or agent based

Automatic Location Information (ALI)

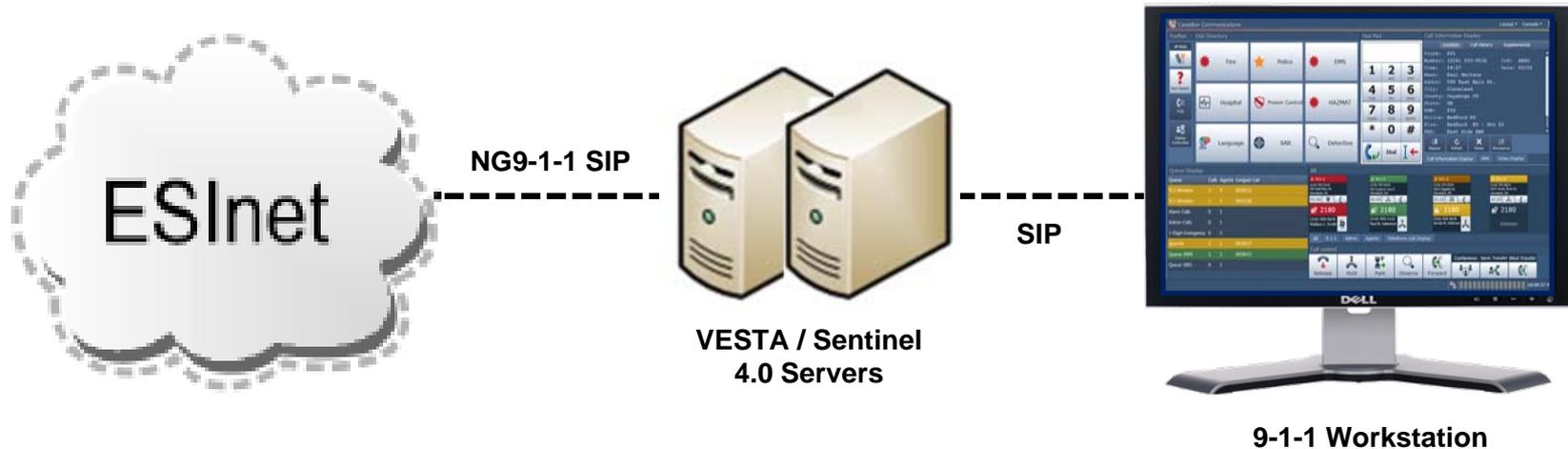
- 16 ALI groups
- Multiple ALI Protocols
- Pre-Answer ALI
- Automatic ALI rebids
- Manual ALI
- ALI Parsing
 - Class of Service extraction
 - ESN extraction
 - CPN extraction
- Multiple ALI services supported
- Priority, simultaneous and alternating request modes



The platform also supports NENA i3 location identification, shown here with the ORION™ Vela® advanced mapping solution

ESInet Interface Module (EIM)

- Receive 9-1-1 calls from Next Generation 9-1-1 networks
- Native NENA i3 network processing

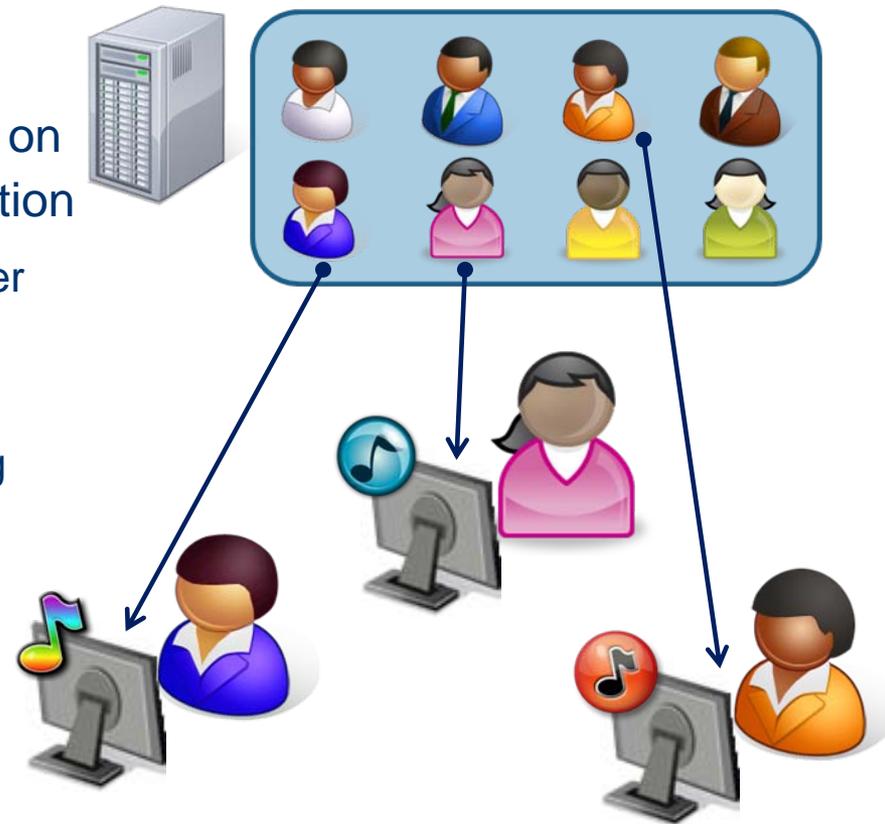


Supports wireline, wireless, and IP voice calls, plus future multimedia data formats from next generation networks

Centralized Configuration

Call-taker configuration can be maintained on the server and accessed from any workstation

- Centralized storage and management of user and workstation configuration files
- Configuration includes console layout, user permissions, contact list, and asset mapping
- Administrators can create, load, modify, and save user and workstation configurations
- Supports distribution of automated agent greetings, volume settings, and TTY files
- Centrally stored user-specific greetings
- Efficient updating of multiple workstations for maintenance, layout, and configuration changes

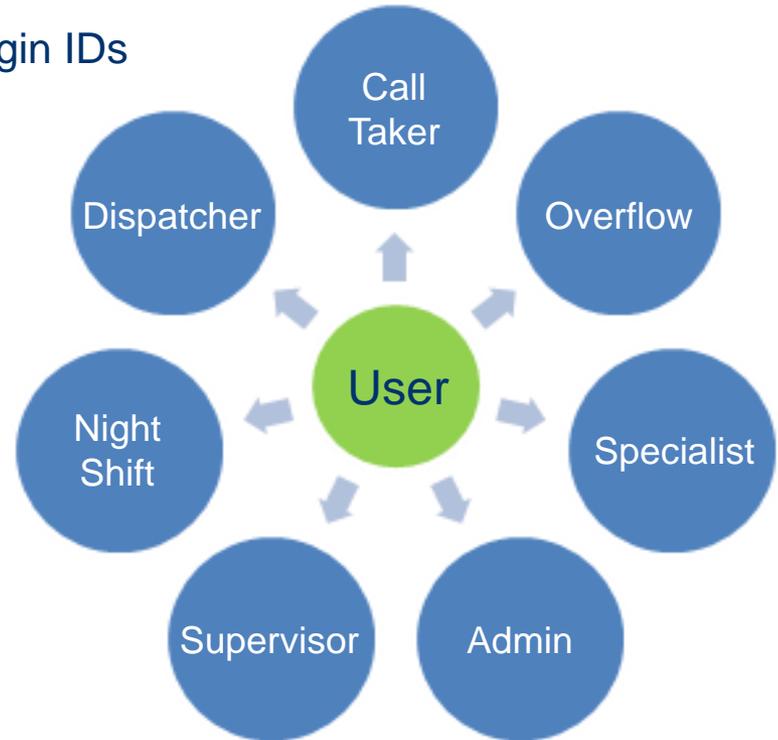


Profiles are stored centrally and accessed locally from any location

Configuration changes scale as a PSAP grows without the cumbersome automated scripts for wide-scale updates

User Role Management

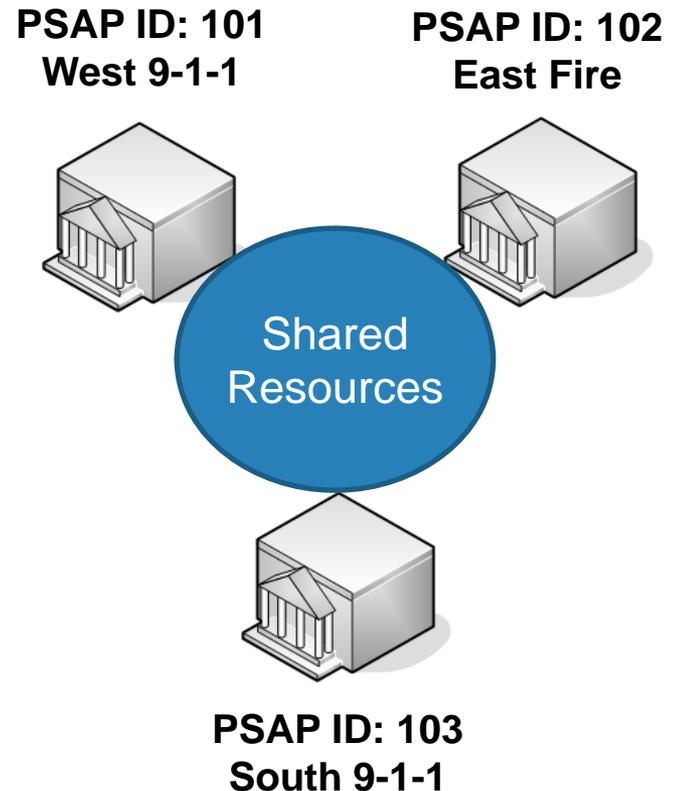
- System supports multiple roles per user
 - Eliminates the need to have multiple user login IDs
 - User selects proper role at login
 - Role details loaded upon successful login
 - Change roles to suit operational needs
- User profile defines the following:
 - PSAP ID (optional)
 - Permissions and configuration
 - Agent Directory Number (optional)
 - For agent based routing
 - Application Layouts associated to Role
 - Call Appearances
 - Contact List
 - Dial Directory Layout



A user may perform different roles at various times across multiple sites. Current role selected at login.

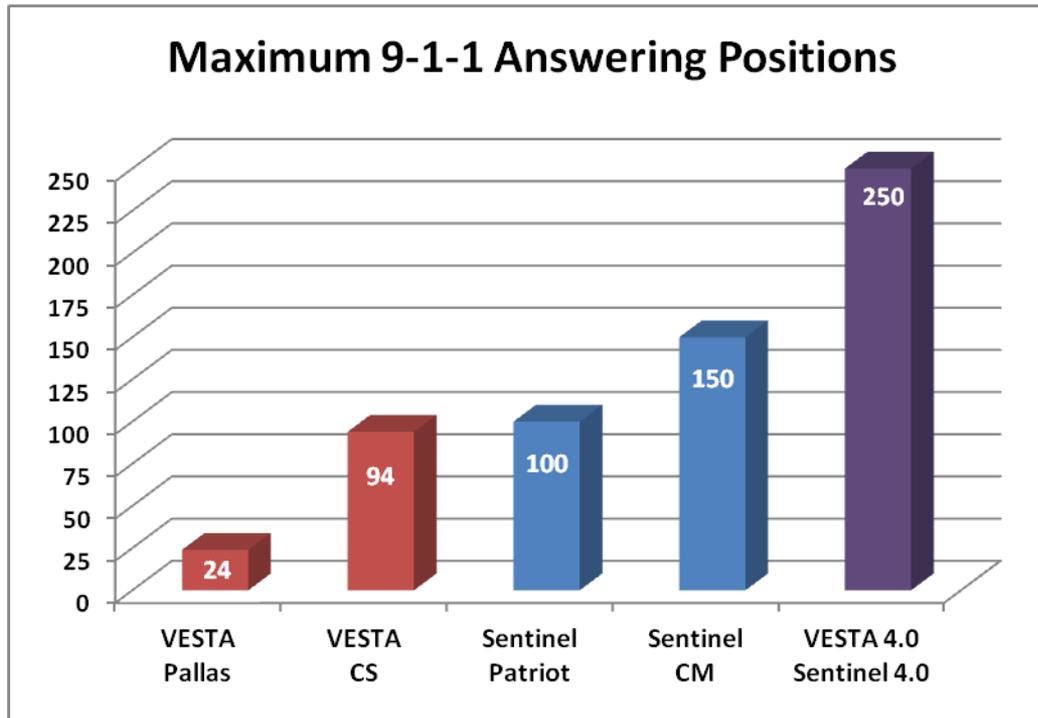
Multi-PSAP Support

- Enables the segregation of resources and users on a per-PSAP or per-agency basis
- Supports up to 100 PSAP IDs per system
- Resources are assigned to each PSAP
 - Line Groups, CDR printers, ALI Discrepancy Routing, User Roles
- When a user logs in to a position, the user role sets the PSAP ID for the user and position for the duration of the login
 - Abandoned Calls presented only for the specific PSAP
 - Held call visibility limited to the specific PSAP
 - Agent lists for the assigned PSAP
 - Activity View information specific to the PSAP
- Current and historical reporting by PSAP



Most Scalable Call Processing Platform

- Capacity Improvements
 - 250 Users
 - 600 Lines (physical lines or virtual / DID lines)
 - 200 ACD Queues



- Support multiple sites from robust centralized or distributed infrastructure
- Efficiently distribute calls across sites according to a variety of ACD schemes
- Remote sites can survive in case of WAN outage
- Backup, overflow, and disaster recovery options

Data Migration

- VESTA and Sentinel Migration Tool
 - A tool to export / import data from an existing VESTA or Sentinel system
 - Auto-Dial database for VESTA systems
 - Phone Book for Sentinel Systems



Call History Records from existing VESTA MagIC and Sentinel Patriot Stats systems can be migrated into the Aurora 2.0 MIS solution



CASSIDIAN

Call Taking Console

New Console User Interface

- Fully configurable – can resemble VESTA, Sentinel, combination, or as desired
 - Utilizes multiple panels to define different functions
 - Each panel may stand alone or be nested in a tabbed interface
- Multiple layouts can be created and saved
 - Layout is loaded based on the user role at login

The screenshot displays the Cassidian Communications console interface. The top bar includes the company logo, title, and navigation options like 'Layout' and 'Console'. The main area is divided into several functional panels:

- Call Information Display:** Shows details for a call from (216) 555-9132, including time (14:57), name (Paul Smitson), address (540 East Main St, Cleveland, OH), and police/fire information.
- Dial Directory:** A grid of icons for various services: Fire, Police, EMS, Hospital, Poison Control, HAZMAT, Language, SAR, Detective, Air Surveillance, Bridge Authority, DA office, FBI, Juvs, and Sheriff.
- Queue Display:** A table showing call queues and agent status.

Queue	Calls	Agents	Longest Call
911 Wireline	0	3	00:00
911 Wireless	1	3	18:12
ESNet	0	0	00:00
Admin	0	0	00:00
Highway Patrol 4	1	1	18:06
Language	0	0	00:00
Supervisor	0	0	00:00
911	0	0	00:00
- In Calls:** Shows active calls for Bedford PD (216) 554-3000 and Highway Patrol 4 (216) 554-3000.
- Dial Status:** Shows 'Ready' and 'Idle' states.
- Right Panel:** A grid of buttons for quick dialing, including 911, Alarm, County 1, County 2, Admin 1-6, and Police 1-2.

Console User Interface *(cont.)*

- The console User Interface is designed for maximum usability, efficiency and customization
- Base Layout – Containers, Toolbars and Tool Windows
- Assets are mapped within Container windows:
 - Call Appearances and Function Buttons
- Tool Windows provide specialized functions
 - Dial Directory, Call Information Display, TTY, IRR

Ready Not Ready TTY Agents Recent Calls

Dial Status
Conference Mode Ready Idle

Clock
4:23:29 PM

Call Information Display
Call Info List

Trunk: 201
Number: (216) 555-9132 CoS: RESD
Time: 14:57 Date: 03/21
Name: Paul Smitson
Addr: 540 East Main St.
City: Cleveland
County: Cuyahoga CO
State: OH
ESN: 233
Police: Bedford PD
Fire: Bedford FD - Stn 25
Lat:
Long:

Manual Request Update Clear Incorrect Location

Dial Directory
Top Back

Search

Fire	Police	EMS
Hospital	Poison Control	HAZMAT
Language	SAR	Detective
Air Surveillance	Bridge Authority	DA office
FBI	Jails	Sheriff

ESN Priority Abandon... Contact Search Dial Pad

911	911
911	911
911	911
911	911
Alarm	Alarm
County 1	County 2
Admin 1	Admin 2
Admin 3	Admin 4
Admin 5	Admin 6
Police 1	Police 2

Queue Display

Queue	Calls	Agents	Longest Call
911 Wireline	0	3	00:00
911 Wireless	1	3	18:12
ESInet	0	0	00:00
Admin	0	0	00:00
Highway Patrol 4	1	1	18:06
Language	0	0	00:00
Supervisor	0	0	00:00
311	0	0	00:00

In Calls	2180-1 (216) 555-9132 312 East Main St. Cleveland, 233	2180-2
2180-3	2180-4 Bedford PD (216) 554-3000	2180-5

Priority Release Hold Conference Spvd. Transfer

Call Appearances

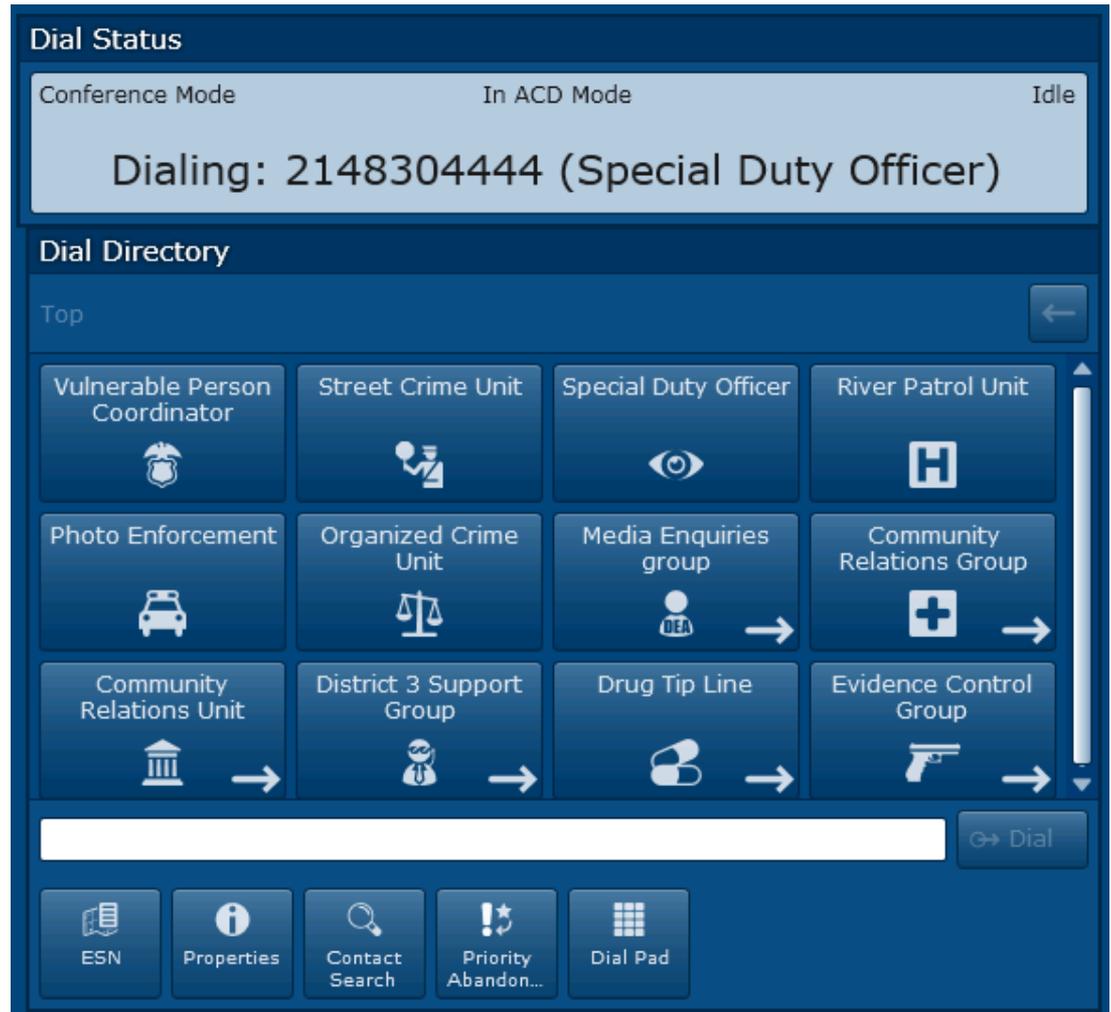
- Call Appearances are a key component of call handling
- Call Appearance Assets configured and mapped with layout design
- Four (4) types of call appearances
 - Personal Call Appearance
 - Individually manage single call or conference call participant (up to 10 per pos.)
 - In-Calls Appearance
 - Dedicated to receiving calls from the ACD (1 per pos.)
 - Shared Call Appearance
 - Represents shared system lines and trunks (up to 600 per system and per pos.)
 - Multi Call Appearance
 - Receive, queue & present multiple ringing calls (up to 200 per system & per pos.)
- Call Appearances provide a visual and audible differentiation of 9-1-1 vs. Administrative Calls (emergency icon, color and alert sound)

Tool Windows

- “Dial-Directory” window for contact list search and speed dialing
- Call Information Display for showing information about received emergency and administrative calls
- TDD-TTY – standard TTY window
- Instant Recall Recorder – access short term voice recording of telephone and radio activity

Dial Directory

- Enhanced auto-dial
- Touch screen friendly
- New selectable icons for contacts



Dial Directory

- Windows associated with Dial Directory
 - Dialing Status, Work Area, Tool Window, Manual Dial
 - Recent Calls, Contact Search, Dial Pad
- Dial Directory Functions
 - Advanced Contact Search – Search results displayed as characters are entered
 - ESN Group Button – provides a layout of contacts associated to the call's ESN
 - Priority Abandoned Callback – Priority selection of the next abandoned call to callback
 - Recent Calls button – Shows incoming and outgoing calls
 - Agent List – Displays a list of logged in agents, their position name and their roles
 - Dial agents directly from this location
- Work Area Buttons can be contacts or groups
- Groups contain contacts or other groups and therefore allows multiple levels of contact nested pages



Agent Window

Cassidian Communications Layout ▾ Console ▾ ? _

Agents

Agent Name	Console Name	Role	User Info
John Smith	911 Main 1	911 Call Taker	Training
Mary Baker	911 Main 2	911 Call Taker	Spanish
Paul Storm	Fire Pos 1	Fire Dispatch	
Harold Milks	Fire Pos 2	Fire Command	
Jerry Park	EMS Pos 1	EMS Dispatch	

➔ Dial

4:19:32 PM

Call Information Display

- Caller and Location Information
 - Trunk
 - Caller Name, Number, Address
 - Local Emergency Services
- Saved Calls Window
 - Detailed list of previous calls
 - Shows detailed ALI information
- Control functions
 - Manual ALI
 - Update ALI
 - Clear ALI
 - Incorrect Location Report

The screenshot shows the Cassidian Communications interface for a Call Information Display. The header includes the company logo and name, along with navigation options for Layout, Console, and a help icon. The main display area shows the following call information:

Trunk: 201
Number: (216) 555-9132
Time: 14:57
Name: Paul Smitson
Addr: 540 East Main St.
City: Cleveland
County: Cuyahoga CO
State: OH
ESN: 233
Police: Bedford PD
Fire: Bedford FD - Stn 25
Lat:
Long:

At the bottom of the interface, there are four control buttons: Manual Request, Update, Clear, and Incorrect Location. The time 4:26:23 PM is displayed in the bottom right corner.

Conferencing

- Each conference party is represented on a PCA
- Individual parties can be put on hold
- The conference (all parties) can be put on hold
- Supports up to 10 conference parties



New conference image available shortly

Console ACD Features

- ACD Ready / Not Ready
 - Option to login and be in Ready or Not Ready mode
 - Going Not Ready with incoming In-Calls re-queues the call
 - Going Not Ready while on a call will NOT drop the call (as VESTA does)
 - Optional Post Call processing returns to Not Ready after completion of the call
- Refuse Call
 - Refusing an incoming call will re-queue the call and put position in Not Ready
- ACD Queue Display
 - Shows real time ACD queue information
- ACD Call Display
 - ACD Call List per queue, including concise ALI
- Auto-answer ACD Call
- Selective Answer ACD Call (if permitted by Administrator)

TTY Tool Window

Complete Functionality

- 9-1-1 Workstation
 - CommandPost Laptop
 - Preconfigured Messages
 - ASCII and Baudot Support
- Hearing Carry Over (HCO)
 - Voice Carry Over (VCO)
 - Tabbed Organization
 - Toggle between TTY and Voice call at any time

The screenshot displays the TTY Tool Window interface. On the left, a call log shows the following text:

2302
911 what is your emergency q ga

Caller
THERE IS A FIRE NEXT DOOR

2302
what address to send help q ga

Characters Pending: 0

At the bottom left, there are four buttons: Detect TTY, Voice, Mode, and Session Control. Below these buttons, the text reads "Mode: Baudot (Voice Carry Over)".

On the right side, there is a "Messages" list with the following items:

- 911 WHAT IS YOUR EMERGENCY Q GA
- WHAT IS YOUR PHONE NUMBER Q GA
- WHAT IS YOUR NAME Q GA
- WHAT ADDRESS TO SEND HELP Q GA (highlighted in yellow)
- STAY CALM HELP IS ON THE WAY GA
- STAY NEXT TO YOUR TTY HD

At the bottom right, there is a "Send" button. The text "Session Owner: This Console" is visible in the bottom right corner.

Sound Arbitration Module (SAM)

Feature Description

- Manages VESTA/Sentinel's 4.0 audio systems and controls external audio devices
- Flexible and fully featured:
 - 3 jackboxes, all with rotary volume controls and Mute buttons
 - Large number of user volumes
 - Auto-detect for type of jackbox microphone
 - Auxiliary audio input ports
 - Selectable internal or external speaker



SAM supports headset jackboxes for operator, supervisor, and trainee, plus audio relay and connections for Instant Recall Recorder (IRR), radio dispatch, bypass and logging, and an external speaker

Provides greater connectivity and control over attached audio devices on Sentinel 9-1-1 Windows 7 workstations

IRR – Telephone and Radio

The screenshot displays the 'Instant Retrieval - Advanced' application window. The main area is a table with columns for Date/Time, Duration, Sta.#, Station Name, Flag, and Attachment. Below the table is a toolbar with buttons for Save, Stop, Pause, Attach, Delete, Select Date, and Search. At the bottom is a playback control section with a volume slider, a waveform display, and various playback options like AGC, Loop, and Auto Pitch Correction.

Date/Time	Duration	Sta.#	Station Name	Flag	Attachment
03/14/11 04:09:02p	0:00:07	1	Telephone		(R) 9-1-1 call, ANI: 9517190034
03/14/11 04:04:18p	0:04:28	1	Telephone		(R) 9-1-1 call, ANI: 9517190033
03/14/11 04:03:18p	0:00:52	1	Telephone		(R) 9-1-1 call, ANI: 9517190032
03/14/11 03:58:02p	0:02:24	1	Telephone		(R) 9-1-1 call, ANI: 9517190028
03/14/11 03:54:27p	0:03:14	1	Telephone		(R) 9-1-1 call, ANI: 9517190027
03/14/11 03:53:59p	0:00:20	1	Telephone		(R) 9-1-1 call, ANI: 9517190026
03/14/11 03:52:48p	0:00:59	1	Telephone		(R) 9-1-1 call, ANI: 9517190025
03/14/11 03:49:41p	0:00:02	1	Telephone		(R) 9-1-1 call, ANI: 9517190032
03/14/11 03:49:24p	0:00:01	1	Telephone		(R) 9-1-1 call, ANI: 9517190025
03/14/11 03:48:40p	0:00:42	1	Telephone		(R) Admin call, circuit: INTERCOM1 Caller ID: 2201, S
03/14/11 03:47:42p	0:00:03	1	Telephone		(R) 9-1-1 call, ANI: 9517190022
03/14/11 03:46:49p	0:00:46	1	Telephone		(R) Admin call, circuit: INTERCOM1
03/14/11 03:46:35p	0:00:08	1	Telephone		(R) Admin call, circuit: INTERCOM1
03/14/11 03:40:20p	0:00:03	1	Telephone		(R) 9-1-1 call, ANI: 9517190022

Playback Control: Volume, Position (04:09:02.5p to 04:09:09.3p), Index=4.1 sec., Speed (100%), Selection (Date 03/14/11), Refresh, AGC, Loop (6), Auto Pitch Correction.

Playback active - Size: 0.03 MB, Duration: 0:00:07 | Hold CTRL key for multiple playback

- Dual Channel Recording
- Playback Control
- Choose Recording for Playback
- Sort Recordings by Category
- Search Criteria
- Save / Send Files
- Attach Notes



CASSIDIAN

Peripherals

Servers and Workstations

Servers

- HP ML350 G8
 - Xeon Dual Core Xeon Processor
 - 4 GB of RAM

- DL380 G8
 - Quad Core Xeon Processor
 - 6 GB of RAM



Workstation

- HP z210
- HP z220



Standard IP Phone feature

Standard Phone Feature Description

- Aastra 6757i and 6757i CT (cordless)
- Single Line supported
- Call Forward & Transfer; Call Waiting, Call Timer
- Caller and calling line information
- Local 3-way Conference
- Do Not Disturb, Missed Call Notification
- Expansion module used for speed dials only
- Requires standard phone license per unit



**Supports up to 3 M675i
Expansion Modules**

Power

- IEEE 802.3af Power over Ethernet (integrated)
- AC adapter (48V DC) included



**M675i – 20 soft-keys with LEDs,
offering up to 60 available keys**

Enhanced IP Phones

- Aastra 6757i and 6757i CT (cordless)
- Support for 3 up to expansion modules
- Shared Call Appearances for system lines
 - Up to 60 using 3 expansion modules
- Phone login / logout to ACD
 - IP Phone DN routing only, agent based routing not supported
- ALI display for emergency calls
- Requires enhanced phone license per unit



Polycom Phones – Supported for existing Sentinel Patriot Customers



Polycom 550



Polycom 650



Polycom 321 / 331

Phone Features

- Single Line Appearance
- Call Answer
- Call Release
- Call on Hold
 - Exclusive hold only
- Call Forward
- Call Park / Unpark
- Call Mute
- Call Transfer
- Speed dials
- Redials

Polycom SoundStation IP 6000 Support

Feature Description

- Polycom HD Voice
- Patented Acoustic Clarity Technology
- 12-foot microphone pickup
- Industry-leading SIP software
- Robust interoperability
- High-resolution display

Protocol Support

- IETF SIP (RFC 3261 and companion RFCs)

Power

- IEEE 802.3af Power over Ethernet (built in)
- Optional external universal AC power supply



Delivers superior IP performance for small to midsize conference rooms

Available for new systems

AudioCodes Media Gateways

MP114 FXS – 4 port (rj-11)

MP118 FXS – 8 port (rj-11)

- FXS = Foreign eXchange Subscriber
- Converts analog CAMA (911) trunks or ringdown circuits to VoIP
- Always deployed in pairs
- Supports “dry” ringdowns



MP114 FXO – 4 port (rj-11)

MP118 FXO – 8 port (rj-11)

- FXO = Foreign eXchange Office
- Converts analog loopstart / POTS line to VoIP
- Always deployed in pairs
- Supports “dry” ringdowns
- Supports decoding CallerID (USA and Canada)
- Supports “wet” ringdowns



Mediant 2000 1 Port

Mediant 2000 2 Ports

- Convert digital TDM (T1) trunks to VoIP
- Supports T1/E1/J1 digital interfaces
- Supports ISDN PRI and CAS type (loop start, ground start, E&M, CAMA) signaling
- AC and DC powering options



AudioCodes Mediant 1000 Gateway

- Mediant 1000 Gateway brings 2 important additions
 - Modular Design
 - Support for 2 Ethernet Ports



Benefits

- Analog FXO
- FXO with ground start signaling
- FXS (CAMA, ring down)
- ECS-1000 Selective Router on analog FXS ports
- Trunk modules, digital T1 interfaces

AudioCodes Mediant 1000 Gateway

Improved connectivity options

Miscellaneous Hardware

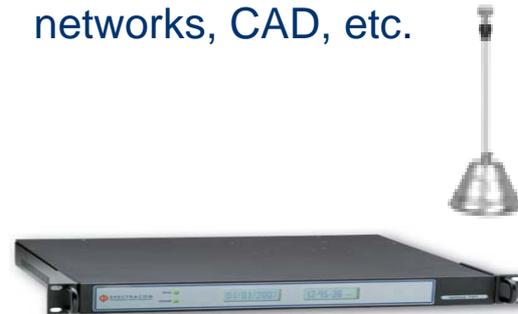
Ethernet Switches

- HP 2610 ProCurve
- Multiple models
 - 24 or 48 ports
 - With or without PoE
- CISCO Catalyst 2960
 - Required for VoIP recording



NetClock

- Product Features for Public Safety
- Meets NENA PSAP Master Clock Standard #04-002
- Synchronizes 9-1-1 systems, computer networks, CAD, etc.



Miscellaneous Hardware

Genovation Keypad

- USB External Keypad



Enterprise Firewall

- McAfee S1104
- Dual Use
 - Technical Support
 - CommandPOST



Alarm Panel (Optional)

- Audible Alerts
- Cut-Off Switch
- Alarm Relay Contact



CommandPost™ Mobile Call Processing Solution



Full-featured remote and backup operations extend public safety reach and provide disaster recovery options

Primary Uses

- Backup and overflow operations
- On-site emergencies
- Special event coverage
- Business continuity
- Disaster recovery

Primary Benefits

- Service at the point of need
- Full application functionality
- No user retraining required

- Dual firewall support for VPN access
- Requires 9-1-1 application seat license
- Rugged laptop and case included
- USB headset not included

Satellite-capable IP PSAP can be securely deployed to any location without advance notice (Details in IP Networking Guide)



CASSIDIAN

Activity View

Activity View

- Real time monitoring of PSAP activities
- Up to 7 activity views including
 - Active Calls (ANI, ALI, ...)
 - Call Taker
 - Group Status
 - Group ACD
 - Trunk View
 - Line View
 - Queue View
- Customizable colors and thresholds alert to conditions that require action
- Display up to 5 marquee messages to inform call-takers of events
- Status and alarming functions

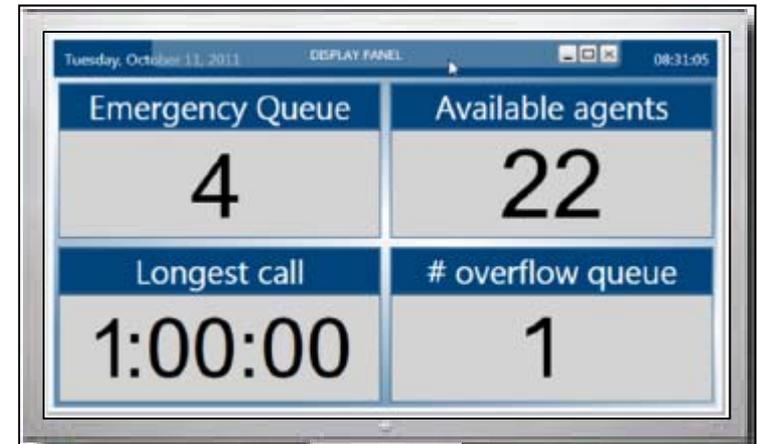
The screenshot displays the Cassidian Activity View software interface, which is used for real-time monitoring of PSAP activities. The interface is organized into several panels:

- Active Calls:** A table showing call details such as CPN, Call ID, Call Type, ANI / Dialed Number, ESN, Source, Src. Operator ID, and Status. Example data includes Call ID 564327 and 564392, both with Call Type 9-1-1 and Status Queued.
- Call-taker:** A table showing call-taker information including Answ Position, Ext., Operator ID, Group, Status, Party, ANI / Dialed Number, and Duration. Example data includes Operator 100 and voiceMail 101, both in an idle state within the PHONES group.
- Group Status:** A table showing the status of different groups, including Available, Group, Busy, Unavailable, and Logout counts. Example data shows 18 available operators in the PHONES group and 3 in the Test group.
- Group Information:** A table showing group information including Group, 9., 911LQ, 911H, 911LH, 911A, 911LA, ADMQ, ADMQ, ADMH, ADMLH, ADMA, and ADMLA. Example data shows 0 for all metrics for the Test and PHONES groups.
- Trunk:** A table showing trunk information including Trunk, Status, ANI, Call-taker, and Operator ID. Example data includes 911Queue (idle), Emerg1 (idle), and FromJaguarLine2 (idle).
- Line:** A table showing line information including Line, Status, Caller Id / Dialed Number, and Call-taker. Example data includes Admin1 (idle) and AyrlnChdrE... (idle).
- ACD Queue:** A table showing ACD queue information including Name, Number of Calls, and Longest Call Duration. Example data includes 911Queue (0 calls, 00:00:00 duration), 911Queue2 (0 calls, 00:00:00 duration), AdminQueue (0 calls, 00:00:00 duration), EmergencyQueue (0 calls, 00:00:00 duration), FromJaguarQ1 (0 calls, 00:00:00 duration), and Im Test PQ (0 calls, 00:00:00 duration).

A red banner at the bottom of the screenshot reads: "New Activity View image to be available shortly".

Activity View Display Panel Support

- High-visibility display panel lets supervisors quickly check key performance indicators
 - Formatting options allow color-coding of KPI value thresholds for at-a-glance status
- Customizable display of readily-available activity information from Sentinel Monitor
- Utilizes a simplified format suitable for large wall-mounted displays



The screenshot shows a window titled 'DISPLAY PANEL' with a date of 'Tuesday, October 11, 2011' and a time of '08:31:05'. The panel displays four key performance indicators in a 2x2 grid:

Emergency Queue	Available agents
4	22
Longest call	# overflow queue
1:00:00	1

Customizable display format enables PSAP managers to respond quickly to changing conditions in the call center



CASSIDIAN

System Compatibility

System Compatibility

Applications

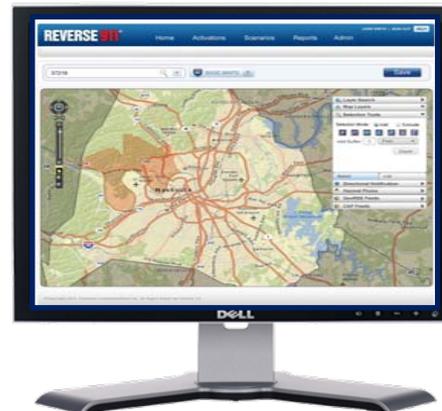
- Aurora 2.0 (MIS)
- ORION Vela 3.0 (Mapping)
- ORION MapStar 5.3 (Mapping)
- ORION ARIES 4.1 (CAD)
- ORION DataSync 4.1

Managed Services

- Monitoring and Response
- Anti-Virus Protection
- Patch Management
- Disaster Recovery

Miscellaneous

- PresenTense Time Server
- AudioCodes Mediant 1000 / 2000 Media Gateways
- AudioCodes MediaPack MP-11x Analog Gateways



Managed Services – Secure Facilities



Service Management Center (SMC)

- State of the art technical facility manned by live technicians at all times
- Staffed by specialists skilled in all product, network, and security aspects
- Mirrored sites in California and Tennessee for geo-diverse data redundancy
- Biometric access controls protect sensitive data from unauthorized access
- Secure high-speed connections to firewalled customer installations

Continuous monitored system protection delivers peace of mind and lets you focus on your primary public safety mission

Managed Services – Service Offerings

*Assess threats and detect potential problems before they impact service.
Recover quickly if service interruption becomes unavoidable.*

Monitoring & Response

- Proactive remote monitoring of key systems to help avert a failure combined with a comprehensive response plan should a failure become inevitable

Patch Management

- Automatic deployment of pre-tested and certified operating system critical security patch updates

24 x 7 x 365
MONITORING
& RESPONSE

Virus Protection

- Automatic distribution of anti-virus definition updates for detection and removal of viruses, Trojan horses, worms, and dangerous spyware

Disaster Recovery

- Automatic data backups and real-time snapshots of remotely monitored systems quickly restore workstations and servers in case of system failure

Maximize system uptime and speed recovery in the event of unavoidable service interruptions

Key Messages

The New Generation for Emergency Call Processing

- An all-new user experience and top-tier feature set leverages over 40 years of cumulative public safety success into the NENA i3 call processing era.

Common Upgrade Path for all VESTA and Sentinel Platforms

- Combines the best features of VESTA and Sentinel, grounded by Cassidian Communications advanced SIP call processing technology and advanced i3 network connectivity, eliminating platform tradeoffs and compromises.

Nothing Else Like it on the Market Today

- From scalability to deployment flexibility, from user interface customizability to call flow configurability, from robustness to virtualization ... nobody comes close!

VESTA 4.0 and Sentinel 4.0 set the new industry standard for full-featured Next Generation 9-1-1 SIP call processing

Tools and Resources

Technical Documentation

- Release Notes
- Product Guide
- Console User Guide
- Phone User Guide
- Upgrade Procedure
- Administration Guide
- Configuration Guide
- MDS Configurator Help
- DDS Configurator Help
- Voicemail Help
- Console Configurator Help
- Voicemail User Guide for IP Phone
- Supplement for VESTA CS and VESTA Pallas
- Activity View
- Installation Guide
- IRR Operator and Installation Guide
- SAM Installation Guide
- IP Networking Guide
- CommandPost Firewall and VPN Configuration
- CommandPost Quick Reference Card

Sales Tools

- PCN VESTA 4.0 and Sentinel 4.0
- Product Bulletin
- Product Overview Presentation
- Targeted Migration Presentations
- Sales Training Webinar
- Why VESTA 4.0 and Sentinel 4.0?
- Target Customer Profile
- 50 Word Tradeshow Description



CASSIDIAN

Backup

Follow up Releases in 4Q-2012 and 1Q-2013

Cassidian will be delivering smaller feature releases on a rapid schedule after the initial delivery of 4.0. The list and dates below are plan of intent and are subject to change in terms of content and release date.

R2 Beta – Mid October 2012

- Virtualized Servers – VESTA & Aurora
- Centralized Configuration Advanced
- Multi-PSAP support
- Multiple Roles per user
- Observe (Silent Monitor)
- Emergency Help Button
- Mute All / Selective Button

R3 – Beta Mid November 2012

- ACD Queue Display on Console
- Display Panel Audible alerts
- Display Panel additional data fields
- IP Phone SCA (Join / Unhold)
- IP Phone ESInet transfer / conference
- IP Phone – ACD Ready / Not Ready
- ACD routing using Agent Skill Priority
- IP I/O Relay Unit
- IRR Integrated UI

R4 – Beta December 2012

- Held Call Time out - Recall to Console
- Held Call Time out – Re-queue to ACD
- Drop Last ESInet conference party
- Call Notes / History
- Supplemental Call Information
- Satellite/Data Transfer
- Caller DTMF detect and display

Release 4.1 – Beta Q1 2013

- SIP Trunking
- Message Wizard
- Instant Messaging
- Held and Parked Call Window
- Advanced Abandoned Call Management
- Conference Participant Window
- Selective Answer from ACD Queue View
- Workstation and Phone Icons Display Panel Multi-monitor per PC
- Telephony Call Display UI
- SAM Aux Audio Port #2