

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](mailto: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

CPE Upgrade - VESTA CTI Next Generation Migration

### GRANT APPLICANT PROFILE/PROJECT CONTACT

PSAP/HOST PSAP NAME: Orange County Emergency Communications Center

CONTACT TITLE: E-911 Center Director

CONTACT FIRST NAME: Nicola

CONTACT LAST NAME: Tidey

ADDRESS 1: 112 W Main St

ADDRESS 2: PO BOX 111

CITY: Orange

ZIP CODE: 22960

CONTACT EMAIL: ntidey@orangecountyva.gov

CONTACT PHONE NUMBER: 540-661-5433

CONTACT MOBILE NUMBER: 540-729-8189

CONTACT FAX NUMBER: 1T

REGIONAL COORDINATOR: Sam Keys

### HOST PSAP AND PARTICIPATING PSAPS/LOCALITIES

_____	_____
_____	_____
_____	_____
_____	_____

### GRANT TYPE

Individual PSAP

Consolidation

Regional Initiative

Secondary Consolidation



**GRANT PROGRAM TYPE**

- Continuity and Consolidation
- Enhancement

**TIER**

- Out of Service
- Technically Outdated\*
- Not Applicable
- Non-Vendor Supported\*
- Strengthen

**If technically outdated or non-vendor supported, application MUST include age and/or version of hardware/software.**

VERSION: Nortel / Avaya BCM 400 # YEARS of  
HARDWARE/SOFTWARE: 5

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**PROJECT FOCUS** NEXT GENERATION

If "Other" selected, please specify: 1T

**FINANCIAL DATA**

Amount Requested: \$ 150,000  
Total Project Cost: \$ 131,000

**STATEMENT OF NEED**



This statement should reference the relationship to the current funding priorities established by the Grant Committee and include evidence of any financial need, along with additional information on the impact on operational services; consequences of not receiving funding; inclusion of project in a long-term or a strategic plan; and local sustainability:

The Orange County Emergency Communications Center has a current investment in the VESTA CTI platform that has for many years utilized the Nortel / Avaya BCM successfully in mission critical applications. After the Nortel acquisition, Avaya started a series of End of Sale / End of Support releases that impacted the use of the BCM as the PALLAS portion of the VESTA Solution. Both BCM and Operating Systems on Workstations and Servers are Technically Outdated. End of Sale for BCM is effectively October 2012 with support and additional spares slowly phasing out. Existing Windows XP Operating system will no longer be supported by Microsoft after 2014.

Cassidian Communications has a VESTA product roadmap that allows Orange County Emergency Communications Center to continue to leverage existing software licensing and migrate to a non-proprietary IP Software switch design. This design utilizes Commercial Off The Shelf hardware that will no longer limit support and upgrade capabilities.

Additionally this design has an extensive roadmap that includes future releases (included with software support) with support for i3, ESInet, and other Next-Generation technologies. By migrating to the new platform Orange County ECC will be able to potentially deploy Network Geo-Diversity for additional system redundancy or regionalization with minor system changes.

Migrating to the new VESTA platform continues to allow Orange County Emergency Communications Center to leverage existing investment and knowledge of platform while fitting into the long term Next Generation strategic plan already in place.

The acquisition of this Grant Funding will allow the agency to move forward with the system upgrade and be positioned to provide the best service to the citizens we serve.



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

The new VESTA system would be implemented and supported by a Cassidian Communications provider. Additionally, Cassidian Communications can provide Monitoring and Response with optional Ant-Virus and OS Patch Management Services.

**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 goal of the project is to update the existing VESTA CTI platform currently utilizing the End of Life BCM to a non-proprietary IP Soft Switch environment. The BCM (Pallas), XP Workstations, and Servers would be replaced with the latest HP Servers/W7 Workstations available at time of project start.

The objective is move to a VESTA platform that allows for more frequent updates that will include functionality necessary for i3 or Next Generation technology. Additionally Orange County Emergency Communications Center is replacing the outdated MAGIC MIS application with a more robust browser based AURORA MIS. The updated MIS will allow for additional reporting capabilities and such features as Scheduled Reports which will reduce overall man hours.

Implementation will occur over a period of approximately 3-4 months and will include full Project management and Field Engineering services. The system will come pre-staged and already in racks (or cabinets) for ease of installation. System Training for VESTA will be specifically designed for refresher training as there will be slight changes to the VESTA GUI. New training will take place for the Aurora MIS as well as additional Web Based Training for new employees.

**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 type="checkbox"/> <b>INITIATION</b> (Project approved by appropriate stakeholders)	10 / 31 / 12
<input type="checkbox"/> <b>DESIGN/PLANNING</b> (Project, system, or solution requirements are developed)	07/01/2013



<input type="checkbox"/> <b>ACQUISITION</b> (Selected system or solution is procured)	<b>08/01/2013</b>
<input type="checkbox"/> <b>IMPLEMENTATION</b> (Selected system or solution is configured and installed)	<b>09/01/2013</b>
<input type="checkbox"/> <b>TESTING/COMPLETION</b> (Selected system or solution is tested and put in production)	<b>9 10/31/2013</b>

Identify the longevity or sustainability of the project.

The current project continues to leverage the existing investment in VESTA CTI which provides additional longevity to the VESTA system implemented in the past. This project would continue to extend the use of new PC equipment for an additional (5) Five years until such time a PC refresh would again need to occur. Additionally the inclusion of Next Generation feature functionality into the VESTA system will further strengthen the sustainability of the project moving forward.

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

The project follows guidelines for Next Generation i3 technologies and system designs that welcome the opportunity for regionalization. The use of Commercial Off The Shelf hardware allows for greater flexibility in comparison to restrictive requirements of proprietary equipment.

**REGIONAL INITIATIVE (if applicable)**



The relationship of the initiative to the participating PSAPs:  
The initiative is necessary as the VESTA CTI is the primary mission critical call handling system in place today at the PSAP. The new project will allow for possible regionalization at such a time in the future the opportunity would arise with interested PSAP's.

Intended collaborative efforts:

1T

Resource sharing:

1T



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

1T

**CONSOLIDATION (Primary or Secondary) - (if applicable)**

How would a consolidation take place and provide improved service:

1T

How should it be organized and staffed:

1T



What services should it perform:

1T

How should policies be made and changed:

1T

How should it be funded:

1T

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

1T



## 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:

Please see attached Vendor Prepared Quote for detailed parts list.

Items are necessary to replace aging Workstations and Servers and the End of Sale Avaya BCM.

## EVALUATION

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

1T



## FINANCIAL AND PROGRAMMATIC REPORT

### PROJECT PHASES

### SAMPLE ACTIVITIES

#### PHASE

#### SAMPLE ACTIVITIES

##### INITIATION

(Project approved by appropriate stakeholders)

- Project concept is documented
- Local Board or governing authority approval or endorsement is received
- PSAP grant application is filed
- Local budgets are obtained
- Appropriated grant funds are approved
- Budgetary estimates are obtained

##### 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"



**Proposal For:** Orange County, VA

**Solution Proposed:** VESTA 4.0 w/ Aurora

**Site Name:** Orange

**Date:** August 29, 2012

**Summary**

*Design Assumptions - provides VESTA/Cassidian 4.0 NG9-1-1 Migration in the following configuration:*  
*Redundant Communication & Telephony Servers (2 each) in Configured 19" Rack*  
*Migrates 3 Existing VESTA Positions to VESTA 4.0 with Credits, new HP, SAM, IRR*  
*Redundant HP 2620 LAN switches for system connectivity (dedicated LAN)*  
*4 AudioCodes Analog/IP gateways, 2 8-port FXS & 2 8-port FXO for trunking*  
*Includes Crash Kit/Spare Parts for Critical Solution Items*  
*Options- Aurora MIS reporting migration, Managed Services, New Netclock*

Qty	Product Code	Product Description	Ext. Price
1		Cassidian 4.X System	\$74,410.67
1		Extended Warranties	\$6,165.33
1		Cassidian Communications Services (Training)	\$8,730.67
1		Carousel Industries Installation	\$16,114.67
1		Carousel Industries - Project Management	\$3,222.93
1		1 year onsite support	\$17,439.65
1		Site Work	\$7,500.00

**Pricing is valid for 90 days**

**Total Equipment & Services Cost:** \$133,583.92

**Aurora Upgrade Incentive** (\$3,300.00)

**Total This Site:** \$130,283.92

**Options**

1		Aurora - MIS System, in separate Rack	\$26,968.00
1		Aurora - Advanced Reporting pkg	\$4,777.67
1		Managed Services	\$13,641.33
1		New Netclock & Assoc Hardware, if needed	\$7,269.34

## Executive Summary

Carousel Industries carefully chooses supplier/partners that are leaders in their respective fields. To provide a best of breed solution to Orange County, VA, Carousel Industries is proposing to provide customer premise equipment and services by Cassidian coupled with Carousel's award winning installation, service and support capabilities. The proposed suite of Cassidian products and Carousel services, delivers to Orange County features, functionality and capability that no other single vendor can provide. The proposed solution will deliver a fully integrated, state-of-the-art IP based 9-1-1 solution. To ensure system availability, Carousel has proposed a methodical and comprehensive implementation, service and support plan that includes proactive monitoring of the infrastructure to ensure performance.

Carousel Industries has a broad market focus centered around one mission: Transforming our clients businesses by delivering technology solutions that become a critical component of their organization's success. Our clients range in size from 500 to 50,000 employees and beyond. Today we are proud to say that 35 of the Fortune 100 turn to Carousel for their technology requirements—this is a small subset of our base of 5,000 customers. These customers come from all industries; finance, manufacturing, education, government including Federal DOD installations. The commonality among these customers is their desire to have one partner that can deliver on a complete solution, data infrastructure, network and application monitoring combined with comprehensive service and support.

Carousel is headquartered in Exeter, RI and has 23 offices across the US. With over 1,000 employees, Carousel has taken a “smart growth” approach to our expansion, which has led to several strategic acquisitions that have further expanded our ability to support our customers nationwide. Carousel has enjoyed tremendous growth and success in its 19-year history. Business has grown over 64% in the last four years. In 2011 our sales for product and services exceeded \$300M.

Carousel's strength lies in our ability to design, deliver and support enterprise-level technology solutions that become the foundation of our clients' business. We also supplement our client's teams as needed with onsite technical and engineering support. Our solutions integrate the best applications from the best technology providers and are implemented with agility and speed to create a competitive advantage for our clients.

Carousel Industries has made a significant commitment to grow its Public Safety Footprint in the State Of Virginia. Today, 9-1-1 applications and solutions are one of Carousel's fastest growing business initiatives. We have carefully chosen our partners and have focused on market leading companies with solid technologies and financial solvency. As an example, Cassidian Communications commands almost 66% of the installed PSAP sites in North America, and nearly 70% of all 9-1-1 are handled by one of Cassidian's solutions.

Carousel will be the primary provider of alarming and support for the end to end 9-1-1 solution. Our Network Operations Center has 65 plus seats and operates twenty four hours per day seven days a week. Carousel will utilize multiple methods of monitoring *both the applications and hardware* within Orange County's secure environment. Carousel's Public Safety 9-1-1 monitoring services (Smartpoint) will work in concert with the Cassidian's Managed Services to provide a comprehensive offer that will ensure maximum uptime. This method will allow Carousel to *provide a single point-of-contact* to Orange County's platform with the ability to leverage direct manufacturer support in the event of escalation.

In closing, we appreciate the opportunity to earn your business and feel confident that solution meets all requirements as discussed in recent planning meetings. At any time we would honor the opportunity to participate in additional discussion around the County's requirements or answer specific questions around our proposal content.

Sincerely,

Dan Grossman  
Director - Public Safety Solutions

Dan Heilman  
Account Executive – Strategic Accounts/SLE

**ORANGE COUNTY - VA**

**Carousel Industries**

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**VESTA 4.0**

***Solution Overview***

## **Background**

The Orange County agencies in Orange, VA maintain a Public Safety Answering Point (PSAP) solution consisting of three (3) console positions on an existing PlantCML VESTA platform, with a telephony configuration of eight (8) 9-1-1 CAMA trunks and four (4) Administrative lines. Older versions of VESTA systems have been manufacturer discontinued from Cassidian, so the proposed solution will include an updated User Interface and new backroom technology, along with redundant Analog/IP gateways to accommodate Analog 9-1-1 & Admins or other telephony circuits (Ring-downs, etc).

## **Solution – VESTA® 4.0**

Carousel Industries and Cassidian Communications will be proposing Cassidian Communication's soon-to-be-released VESTA® 4.0 Emergency Telecommunication System for the Orange County NG9-1-1 solution. (NOTE- since VESTA 4.0, also referred to pre-GA as "Cassidian 4.0", is not currently scheduled to be released until September 2012, technical details are not fully available/or subject to change but we have included benefits and basic architecture of the VESTA 4.0 configuration.)

Using the latest purpose-built IP switching technology, VESTA 4.0 will share the redundant server configuration for communication & telephony that Cassidian's Sentinel® Patriot call-taking solution currently utilizes. That way both current VESTA and Sentinel UI administrators can continue to use their chosen UI but benefit from a common backend that is flexible with basic & enhanced ACD functionality and highly redundant with duplication of all critical elements.

There will be significant improvements and enhancements to the VESTA UI in 4.0, and details can be provided in future documentation, including slides comparing features of the old & new User Interfaces.

## **VESTA Servers**

As of this date, the standard configuration of VESTA 4.0 will be based on **HP ML330/G6** tower servers for Core call processing with **HP Z210** for the Intelligent Workstations (IWS).

The HP ProLiant ML330/G6 server was designed with a unique system architecture using a new dual-processor tower platform and built on the latest Intel Xeon processors with Intel QuickPath Interconnect (QPI) technology. Besides delivering excellent performance with the latest technology, it also incorporates one of the most powerful embedded management technologies in the industry, HP Integrated Lights-Out 2 (iLO 2), which allows the ability to manage servers from any location at any time.

Either two 2.66 GHz Intel Xeon X5600 series processors with Turbo mode or only one 2.93 GHz Intel Xeon W3500 series processor, as well as 18 DIMM slots to support up to 192 GB of DDR3 memory and 12 DIMM slots support up to 72 GB of DDR3 unbuffered memory, depending on local configuration.

## **VESTA Workstations**

The HP Z210 workstation is engineered to optimize the way the processor, memory, graphics, operating system, and application software work together. It uses the next generation Intel Xeon E3-1200 Processors including the high performance 3.5 GHz E3-1280, or second generation Intel Core. The i5 processor features Intel vPro™ technology for the first time on workstations. Additionally, Cassidian installs a NVIDIA Quadro NVS Video Card for performance.

## **Genovation Keypad**

The Micropad 623 is the highest quality serial numeric keypad on the market. It enables PC users to speed through number crunching with ease. Built with high quality Cherry keyswitches (50 million life cycles), the keys are durable yet light and easy to press, a feature lacking on lesser quality keypads. Bonus features are two legacy applications included with the software driver diskette: Gencalc (tape calculator/adding machine software) and Macromaster (hot-keys software).

## **Solution – Aurora MIS**

Carousel Industries and Cassidian Communications are proposing a migration from MagiC (or earlier PlantCML reporting packages) to the next generation MIS solution called the Aurora® MIS Solution. The Aurora solution will collect call events from the call taking platform for reporting. The data will be stored on the Aurora server located at the Orange County agencies and may be accessed by any workstation attached to the VESTA PRIVATE network. Remote users may also access the Aurora data provided a firewall is installed and the site allows remote access.

The Aurora solution allows the call center management team to retrieve call information for incident analysis, identify trends to improve performance and improve crisis management capabilities through timely decision-making. The Aurora solution automatically associates related events, simplifying incident reconstruction, organization, searching and archiving.

## **Aurora Hardware**

The Aurora backend includes a very robust solution to insure that all call data is successfully transferred from the CTI platform into the database. The Aurora's Data Adapter oversees the communication and transfer of the CDR data from the CTI platform to the Aurora server. The data adapter leverages a very sophisticated communication protocol called MSMQ to insure successful transfer of calls. If for example, if the network or the Aurora server were to go down, the CDR records will be stored on the CTI server until service is restored. In the event the CDR records were to become corrupt, they will be sent to a suspect folder for later investigation. Appropriate failures are also logged to the Event log as well as displayed on the Aurora desktop. The Aurora Front End contains a web-based user interface that allows the ability to view data and run reports.

## **Solution - Managed Services**

Managed Services is an on-line system designed to deliver an array of 24-hour remote monitoring and maintenance services to the PSAP via a combination of Internet Protocol (IP) and industry standard messaging. MS are an important part of a holistic security program and help provide many necessary security countermeasures to increase overall PSAP availability. Carousel Industries proposes that Orange County consider this comprehensive suite of Managed Services to enhance the standard maintenance offer.

### **Carousel Industries Remote Monitoring & Response**

- Patch Management
- Anti-Virus SW updates
- Back up and Restore
- Proactive alarming
- Network performance monitoring

### **Site Assessment & Physical Infrastructure**

Carousel Industries will perform a detailed HVAC and Electrical Audit at the Orange County site. Carousel will provide a UPS for all servers & workstation hardware. Carousel will provide approved power strips, and all workstations will be installed using Orange's existing console furniture. Pricing for KVM switches as well as keyboard, video, and mouse extensions will be provided. See "Site Survey Doc".

### **Infrastructure and Cabling**

Carousel Industries will perform a full audit of existing workstation cabling during comprehensive site readiness survey. Carousel has visually inspected the current environment and cabling may or may not be necessary. If existing cables test satisfactorily then minimal desktop/backroom cabling and material will be required. This is covered under site costs.