

FY13

# PSAP GRANT PROGRAM APPLICATION



VIRGINIA INFORMATION  
TECHNOLOGIES AGENCY  
Integrated Services Division  
FY13



## FY13 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 FY13 PSAP Grant Application Cycle starts July 1, 2011 and concludes on October 31, 2011 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.**



## FY13 PSAP GRANT APPLICATION

**PROJECT TITLE**

Regional Continuity NG 9-1-1 CPE

**GRANT APPLICANT PROFILE/PROJECT CONTACT**

PSAP/HOST PSAP NAME: Twin County E-911  
 CONTACT TITLE: Regional E-911 Coordinator  
 CONTACT FIRST NAME: Jolena  
 CONTACT LAST NAME: Young  
 ADDRESS 1: 353 N Main St  
 ADDRESS 2: PO Box 510  
 CITY: Galax  
 ZIP CODE: 24333  
 CONTACT EMAIL: jyoung@galaxva.com  
 CONTACT PHONE NUMBER: 276-236-5122  
 CONTACT MOBILE NUMBER: 276-233-3231  
 CONTACT FAX NUMBER: 276-236-2965  
 REGIONAL COORDINATOR: Tim Addington

**HOST PSAP AND PARTICIPATING PSAPS/LOCALITIES**

<b>Twin County E-911</b>	<b>County of Bland</b>
<b>County of Carroll</b>	<b>(Non-applicant Wythe County)</b>
<b>County of Grayson</b>	<b>(Non-applicant Wytheville)</b>
<b>City of Galax</b>	

**GRANT TYPE**

- |  |  |
|--|--|
| <input type="checkbox"/> Individual PSAP | <input checked="" type="checkbox"/> <b>Regional Initiative</b> |
| <input type="checkbox"/> Consolidation   | <input type="checkbox"/> Secondary Consolidation               |



### GRANT PROGRAM TYPE

- Wireless E-911 PSAP Education Program
- 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: Hardware is Zetron model 3200. Software is 5.10.7.81 Interact version.  
# YEARS of HARDWARE/SOFTWARE: 6

### PROJECT FOCUS CPE

If "Other" selected, please specify: N/A

### FINANCIAL DATA

Amount Requested: \$ 325,000  
Total Project Cost: \$ 601,630

### STATEMENT OF NEED

This is a regional Continuity and Consolidation Program application for funding to primary PSAPs serving the financially handicapped populations of Bland, Carroll and Grayson Counties and the City of Galax. Wythe County and Wytheville are integral partners, but are not direct beneficiaries of these grants funds as they are completing a prior award.

This project will replace or upgrade wireless E-911 equipment and services that are without vendor support and technically outdated in Bland County.



The project creates a new regional cooperation, redundancy and IP enabled network for the PSAPs to perform at established minimum functional standards to sustain an acceptable level of service to the public. The purchase of equipment and services for this project directly supports the continuity and enhancement of wireless E-911, including voluntary PSAP consolidation projects. This regional NG 9-1-1 enabled CPE project is the number one funding priority for the Continuity and Consolidation Program in the 2013 grant cycle.

The project is perfectly aligned with long-term strategies for regional improvements and the impact on operational services is significant. According to the Virginia Statewide Comprehensive Plan and the perspective of all citizens, “the establishment and adoption of 9-1-1 service ensured that in an emergency any caller throughout the country could dial three easily memorized digits and quickly have local first responders come to his or her aid.” However, that does not always happen in our region of Southwest Virginia. This project would restore predictability and brings us reliable, next generation enabled call processing equipment that citizens expect when they dial 9-1-1.

While the project cost is nearly twice the amount of grant funding available, the process of the region working together on the planning for this grant application reflects a new regional cooperation and collaboration in a long-term plan for sustainment. The percentage of grant funding requested is only 54% of the total project costs, yet it is the most critical funding piece for project initiation and implementation. The new project in this proposal is not currently being supported by a local, state or federal grant and applicants can demonstrate dire financial need.

The host applicant is Twin County E-911, a primary PSAP serving all the City of Galax and the Counties of Carroll and Grayson. Twin County E-911 serves nearly 1,000 square miles of rugged mountainous terrain along the Blue Ridge in the Southwest corner of the Commonwealth. Our citizens are financially handicapped and under-employed. It may be hard to imagine a place where 31% of the individuals live below poverty level (triple the state average); where unemployment doubles the state rate; and where the median household income is \$22,105 which is nearly two-thirds less than the average Virginia household income of \$61,126. But these hard facts do



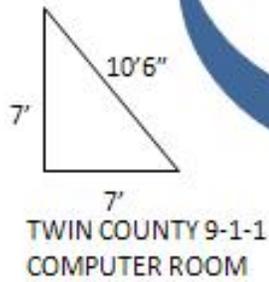
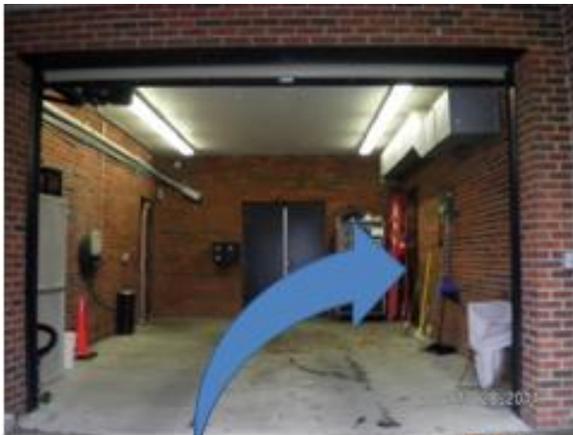
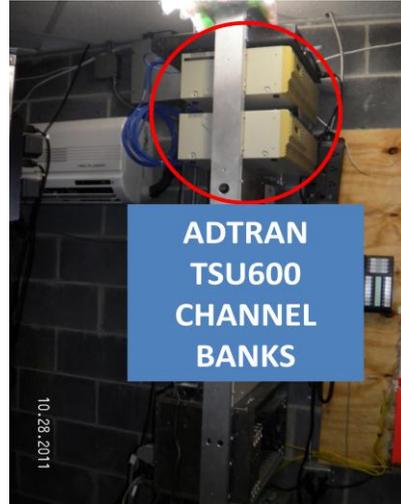
define us.

By comparison to Twin Counties and Galax, the economic statistics in Bland County are vastly improved, but they still fall far short of state and national figures and clearly express financial need. In Bland County, the median household income is \$42,231, nearly one-third less than the average Virginia household income. Non-applicants Wythe County and Wytheville, who are presently completing a consolidation award, are similarly situated with a median household income of \$38,490, which is one-third less than the average Virginia household income.

Likewise, our local governments have not been immune to the financial constraints of their taxpayers and tax base. The applicant localities have suffered by making budget cuts in many areas where it can, including personnel and not filling vacancies. Despite the urgent and compelling need for 911 services, the reality is simply that we cannot afford to do this without grant assistance.

In Bland County, the PSAP is utilizing Interact software and Zetron hardware, running on the phone side a Zetron model 3200. Software is 5.10.7.81 Interact version. The equipment is approximately 6 years old. Neither the hardware nor the software is eligible for vendor support without costly upgrades. Please also see the attachments for documentation. Additionally, Interact is not NG 9-1-1 enabled. In order to maintain continuous, uninterrupted service, the County of Bland must upgrade to NG 9-1-1 enabled CPE.

There are different problems in Galax City and Carroll and Grayson Counties. Twin County PSAP is utilizing Cassidian Patriot Sentinel which is NG 9-1-1 capable. However, the primary software and server and the redundant software and server are located in the same rack and closet (please see photos on the following page). A short or fire would likely impact both servers, resulting in the inability to receive 9-1-1 calls for City of Galax, County of Carroll, and County of Grayson. Imagine all of our chances to respond for 942 square miles in a space smaller than a prison cell.





Twin County PSAP has no other back-up. While Wythe County could receive Twin County's 9-1-1 calls from Galax City and Carroll and Grayson Counties, it cannot dispatch those calls to Carroll County, Grayson County and the City of Galax. The Twin County PSAP needs to move the redundant software and server to an off-site location to enable the geo-diverse capability and to have back-up.

In addition to the lack of back-up for Carroll and Grayson Counties and Galax City, there is a problem with the communication loops between Twin County PSAP in Galax and two counties it serves. The Twin County PSAP in site in Galax uses outdated Adtran Channel Banks to service Carroll County Sheriff's secondary PSAP and Grayson County Sheriff's Office secondary PSAP. These outdated Channel Banks are used to segment Data, Voice and Radio to send on T-1 lines so that police calls can be dispatched. The Carroll County Sheriff's Office secondary PSAP dispatches law enforcement for the Sheriff's Office of Carroll County as well as for Hillsville police. The Grayson County Sheriff's Office secondary PSAP dispatches law enforcement for the Sheriff's Office of Grayson County as well as for Independence and Fries police.

This year, the outdated Channel Banks have led to the suspension of 911 service for the two counties. In April 2011, one of the Channel Banks was damaged by a lightning storm interrupting the ability to transfer 9-1-1 calls to Carroll County Sheriff's Office secondary PSAP and primary radio communication between Twin County PSAP and Carroll EMS and Fire. It took CenturyLink 24 hours to find a replacement and have it shipped to site due to obsolescence issues. The vendor has notified Twin County PSAP that they will be unable to provide maintenance support unless the equipment is updated.

Carroll and Grayson Counties and Galax City must update the Twin County PSAP equipment and its connections to first responders via the Carroll County Sheriff's PSAP and the Grayson County Sheriff's Office secondary PSAP. This project will replace outdated Channel Banks and T1 lines with an Ethernet ring to enable continued 24/7 support from vendor.

Without grant funding, the PSAPs in this regional project will not be able to



address their needs. There is no other source of funding for this project. The applicants, their localities and the citizens they serve are at a crippling financial disadvantage. The PSAPs covering Bland, Carroll and Grayson Counties and the City of Galax will continue to be at risk to provide continuous uninterrupted 9-1-1 service to their communities.

By creating a regional network and leveraging Twin County's Patriot Sentinel, this project provides County of Bland with access to NG 9-1-1 call processing equipment with 24/7 support. The regional Ethernet network will provide off-site redundancy for County of Bland and Twin County as well as for Wythe-Wytheville if they desire to connect to the network increasing the region's ability to provide uninterrupted service.

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

This regional project will be maintained and supported in the future from the regional long-term plan for sustainment. Dealing with current equipment obsolescence issues constantly and sometimes daily, the PSAPs are acutely and painfully aware of the need for maintenance and support. They have the experience and frustration of what happens when you have equipment that is technically outdated and no longer has vendor support.

This regional approach introduces new connectivity costs. The participants recognize and acknowledge those costs. This increase in cost is a necessity as PSAPs move toward NG IP enabled processing. The localities believe the benefit of having geo-diversity and back-up justify the increase in cost. The localities and their PSAPs are factoring the cost into their future budget plans.

As well, the project has the benefit of allowing the participating localities to spread maintenance service costs reducing individual locality costs.

Finally, the County of Bland and Twin County as well as Wythe-Wytheville if desired are developing a Memorandum of Understanding to include development of a regional equipment refresh schedule and capital improvement plan to ensure future planning and expenditures are built into jurisdictional budgeting and grant processes.



## COMPREHENSIVE PROJECT DESCRIPTION

### **WIRELESS E-911 PSAP EDUCATION PROGRAM GRANT REQUESTS ONLY:**

Describe how the education/training is 9-1-1/public safety communications specific and how this will benefit E-911 and the employee(s) and/or PSAP.

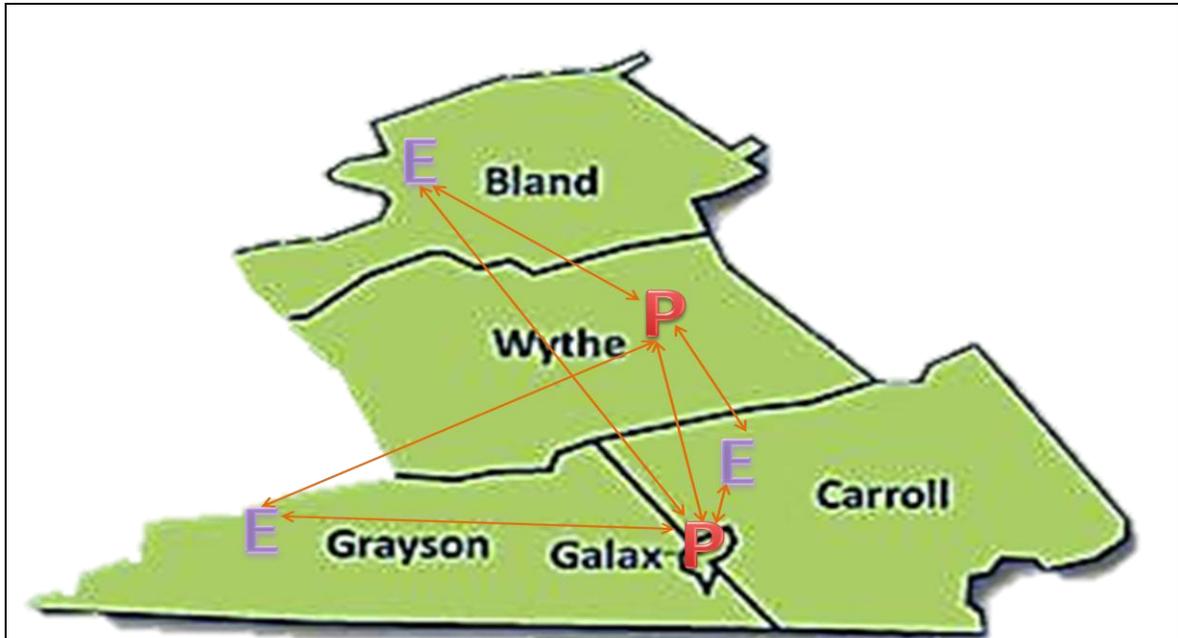
[Click here to enter text](#)

### **FOR CONTINUITY AND CONSOLIDATION OR ENHANCEMENT PROJECTS:**

For the PSAPs serving the citizens of Bland, Carroll and Grayson Counties and the City of Galax, this project will replace or upgrade wireless E-911 equipment and services that are without vendor support and technically outdated as well as create a new regional cooperation, redundancy and IP enabled network for the PSAPs to perform at established minimum functional standards to sustain an acceptable level of service to the public.

Bland County has 911 hardware and software that are without vendor support and technically outdated. Moreover, Bland County's software is not NG 9-1-1 enabled. By creating a regional network and leveraging Twin County's Patriot Sentinel, the County of Bland is provided with access to NG 9-1-1 call processing equipment with 24/7 support.

Throughout the region, this project replaces outdated Channel Banks and T1 lines with an Ethernet ring to enable continued 24/7 support from vendor. The regional Ethernet network will provide back-up and off-site redundancy for the applicants, the County of Bland and Twin County, as well as for non-applicants, Wythe County and Wytheville, if they desire to connect to the network and it will enhance the region's ability to provide uninterrupted service. Please see the regional Ethernet map on the following page.



The equipment and software purchased in this project will interface and is compatible with existing equipment throughout the region. Non-applicants, the County of Wythe and Wytheville, are currently working on a consolidation award and believe their new consolidated 911 will employ the same NG 9-1-1 capable Cassidian Patriot Sentinel that Twin County E-911 uses. On the question of whether Bland County's Interact CAD and mapping will interface with Twin County Patriot Sentinel, we are assured that most CAD vendors accept a NENA standard RS-232 spill for the ANI/ALI requirements. Cassidian supports this type of CAD connectivity and reassures us that they have worked with Interact CAD in other sites and envision no problems here.

The project aligns with long-term strategies for regional improvements. While no one can know for certain long-range future technologies, we do our utmost to make the very wisest investment of money for equipment that will serve us in these ever-changing technological times. This means not only finding the most cost-effective equipment, but determining equipment that will not be outdated soon after it is deployed. For guidance, we rely on professional assessments, VITA and the Virginia Statewide Comprehensive 9-1-1 Plan. This project is aligned to these



established long-range future technologies plans.

The equipment purchased will support future technologies for PSAP readiness in our region with reliable, next generation enabled call processing equipment as well as Internet Protocol technologies.

**Goals and Objectives:**

1. Replace outdated CPE with NG 9-1-1 enabled CPE.
2. Create regional collaboration throughout 1,764 square miles encompassing the five localities of Bland, Carroll, Grayson and Wythe Counties and the City of Galax and their PSAPs.
3. Interoperable and regionally compatible NG 9-1-1 enabled CPE for these localities and their PSAPs.
4. Create a regional Ethernet ring with Internet Protocol technologies for these PSAPs.

**Implementation Strategy and Timeline:**

1. Move Twin County PSAP's Patriot Sentinel redundant "Side B" from the same rack/room/site as Patriot Sentinel primary "Side A" in Galax to another PSAP to enable geo-diversity and back-up. The lead on this task is Twin County 911. The task will be completed by within six months.  
(Wythe County and Wytheville is the most desirable location. Wythe County and Wytheville will have space to accommodate the server without remodeling. There is enough distance between Wythe County/Wytheville site and the Galax Twin County PSAP to reduce the risk of major impact by a single severe weather event. If not Wythe, Carroll County has agreed to house "Side B".)
2. Install workstations in County of Bland PSAP and connect to Patriot Sentinel Ethernet network providing access to NG 9-1-1 CPE. The lead on this task is County of Bland PSAP. The task will be completed by within nine months.
3. Update Twin County PSAP's Patriot Sentinel server "Side A", move one-half of Galax PSAP site trunks to Carroll County Sheriff's PSAP;



and connect to each of three Twin County PSAP sites to Ethernet to enable geo-diversity and back-up for Twin Counties and Galax. The lead on this task is Twin County 911 and it will be completed by within nine months.

4. Replace outdated Channel Banks and T1 lines with an Ethernet ring to enable continued 24/7 support from vendor. The lead on this task is Twin County 911 and it will be completed by within nine months.
5. Implement technology to convert radio to Ethernet to maintain Galax PSAP site to Carroll PSAP site radio loop. The lead on this task is Twin County 911 and it will be completed by within nine months.
6. Connect Wythe County/Wytheville to the Patriot Sentinel Ethernet to enable geo-diversity for Wythe County if desired. The lead on this task is Twin County 911 and Wythe County PSAP. The task will be completed by within nine months.

#### **Activities, Work Plan and Timeline:**

<b>Phase/Task:</b>	<b>Assigned:</b>	<b>Completion:</b>
<b><u>Initiation</u></b>		
Document Project Concept	Twin County	10/2011
Meet with Vendor to Review Project Concept	All	10/2011
Obtain Budgetary Estimates	Twin County	10/2011
Identify Physical Space for Secondary Site	Twin County	10/2011
Present to Commission for approval	Twin County	10/2011
Obtain budget and space commitment from jurisdictions	Twin County	10/2011
File PSAP grant application	Twin County	10/2011
Receive grant funding decisions	Twin County	3/2012
<b><u>Design and Planning</u></b>		
Document detail requirements	Twin County	10/2011
Define Critical Success Factors	Twin County	10/2011
Develop detail design	All	3/2012
Review design with stakeholders	All	3/2012
ID components to be purchased based on final design	All	4/2012
Develop test and training plans	All	4/2012



<b><u>Acquisition</u></b>		
Draft RFP	Twin County	4/2012
Obtain Quotes from vendors	All	4/2012
Approval of budget by all parties	All	5/2012
Finalize MOUs between jurisdictions	All	5/2012
Sign Contract(s)	Twin County	5/2012
Issue Purchase Orders	Twin County	5/2012
Request Grant Fund Draw Down	Twin County	7/2012
<b><u>Implementation</u></b>		
Determine delivery and installation dates	All	5/2012
Develop implementation plan	All	5/2012
Review implementation plan with stakeholders	All	5/2012
Implement plan*	All	12/2012
Train users*	All	12/2012
<b><u>Testing/Completion</u></b>		
Execute the test plan *	All	1/2013
Validate system performance*	All	1/2013
Develop a fall-back strategy*	All	2/2013
Go Live*	All	2/2013
Measure and report on critical success factors	All	3/2013
Final Report	Twin County	5/2013

\* Staggered or done in phases.

The above Work Plan and Timeline will be further detailed and refined during detail design.

#### **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.

<b>PROJECT PHASE</b>	<b>ESTIMATED COMPLETION DATE</b>
<b>X INITIATION</b> (Project approved by appropriate stakeholders)	<b>03 / 31 / 12</b>



<b>X DESIGN/PLANNING</b> (Project, system, or solution requirements are developed)	<b>04 / 30 / 12</b>
<b>X ACQUISITION</b> (Selected system or solution is procured)	<b>07 / 30 / 12</b>
<b>X IMPLEMENTATION</b> (Selected system or solution is configured and installed)	<b>12 / 31 / 12</b>
<b>X TESTING/COMPLETION</b> (Selected system or solution is tested and put in production)	<b>02 / 28 / 13</b>

Identify the longevity or sustainability of the project.

This project creates a new regional cooperation and collaboration that will sustain continuity for the project and its partners. The project also creates a physical and real Ethernet connection among the regional partners.

This regional approach does introduce new connectivity costs. The participants recognize and acknowledge those costs. This increase in cost is a necessity as PSAPs move toward NG IP enabled processing. The localities believe the benefit of having geo-diversity and back-up justify the increase in cost. The localities and their PSAPs are factoring the cost into their future budget plans.

As well, the regional project has the benefit of allowing the participating localities to spread maintenance service costs reducing individual locality costs. The project is sustained by the regional network it has created and will be supported by new regional MOUs.



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

This project supports both goals of the Virginia Statewide Comprehensive 9-1-1 Plan and seeks to fulfill an important initiative. There are only two goals in the Virginia Statewide Comprehensive 9-1-1 Plan. The first goal is provide a standard level of 9-1-1 emergency dispatch services to the public. *When achieved, this goal will provide consistent 9-1-1 emergency dispatch services to anyone residing in or passing through the Commonwealth, at any time of day, and during any event. Consistent service means that all 9-1-1 centers can receive, process, and dispatch "calls" in a dependable and repeatable manner.* However, as reflected in the statement of our need for this project, that does not always happen in our region of Southwest Virginia. This project would restore that predictability and bring reliability to our 9-1-1 emergency dispatch services.

The second goal of the Virginia Statewide Comprehensive 9-1-1 Plan is to position 9-1-1 centers to continuously meet the public's expectations. *When achieved, this goal will allow Virginia to keep up with the rapid pace of technology innovation and therefore the constant changes in customers' expectations.* However, again as reflected in the statement of our need for this project, public expectations are clearly not met with our outdated and obsolete equipment. Equipment failures caused suspensions of our 9-1-1 emergency dispatch services to Carroll and Grayson secondary PSAPs and the obsolete equipment aggravated and prolonged the suspension of these services. With elapsed vendor support, County of Bland faces this real and costly risk day-to-day.

Our regional project approach supports this second goal expressed in the Plan as follows:

*9-1-1 centers realize that the general public expects seamless, reliable, "just in time" service that keeps up with emerging technology innovations. To achieve this expectation, the 9-1-1 community needs to proactively monitor and communicate about the trends and best practices in the field and cooperatively adopt a preparedness mentality to anticipate changes in the public's perception and expectations. This will be predicated upon having*



*scalable standards based on public perception by region for 9-1-1 emergency dispatch services to minimize occurrence of wasted funds on technology that is not expected by the public.*

The 2011 Virginia Statewide Comprehensive 9-1-1 Plan envisions that 911 Centers will maintain certain Service and Capabilities per the excerpt below:

*9-1-1 centers throughout the Commonwealth must provide a consistent, seamless, and comprehensive level of 9-1-1 dispatch services statewide using an IP-enabled system that is dependable and reliable. 9-1-1 centers accept “calls” from all devices and in all forms, in any language, and from special needs populations, such as the hearing impaired, to ensure that no request for assistance goes unanswered.*

This project will allow County of Bland and Twin County to bolster their ability to provide consistent and seamless service by enabling the geodiverse and back-up capabilities of Patriot Sentinel. The regional Patriot Sentinel Ethernet will provide centers with redundancy in the event of a failure at one site. If Galax primary Twin County site had a fire, calls could continue to be routed through the Patriot Side B located at another regional primary PSAP to the Counties of Bland and Carroll. The County of Carroll would have the ability to transfer 9-1-1 calls for police to Grayson Sheriff’s Office. If the Wythe County PSAP site had a power outage, calls could continue to be routed through the Patriot Side A to Counties of Bland and Twin County. Thus the project improves County of Bland, Twin County and if desired Wythe-Wytheville’s service continuity.

Finally, the project also positions the region to support Initiative 4 of the Virginia Statewide Comprehensive 9-1-1 Plan. Initiative 4 enables Next Generation services by connecting 9-1-1 centers to the statewide IP backbone. Having Ethernet technology, it will be easier to connect to a larger IP network as the statewide initiative evolves.



## REGIONAL INITIATIVE (if applicable)

The relationship of the initiative to the participating PSAPs:

The host applicant is Twin County E-911, a primary PSAP serving all the City of Galax and the Counties of Carroll and Grayson. Twin County E-911 covers 942 square miles along the Blue Ridge Mountains bordering North Carolina. Twin County E-911 is the fiscal agent responsible for fulfilling all grant requirements including reports, control of and accounting for funds, and distribution and control of equipment purchased with this grant award. Twin County E-911 has been instrumental in the formation of this regional project and has facilitated the development and concurrence of the project and partners. Twin County E-911 will continue to take the lead role on this regional project through its completion.

The City of Galax is a jurisdiction served by Twin County 9-1-1 for Fire and EMS 9-1-1 calls.

The County of Carroll is a jurisdiction served by Twin County 9-1-1 for Fire and EMS 9-1-1 calls.

The County of Grayson is a jurisdiction served by Twin County 9-1-1 for Fire and EMS 9-1-1 calls.

Carroll County Sheriff's Office is a secondary PSAP in that Twin County transfers 9-1-1 calls to the Sheriff's Office for dispatch.

Grayson County Sheriff's Office is a secondary PSAP in that Twin County transfers 9-1-1 calls to the Sheriff's Office for dispatch.

The applicant, the County of Bland PSAP, covers 359 squares miles bordering West Virginia has outdated and unsupported CPE. The County of Bland has a vested interest in the improvement of its CPE and this regional endeavor. A signed joint MOU by the participating localities to this regional grant application is attached.



Non-applicant, the County of Wythe and its new consolidated PSAP, will serve 463 square miles contiguous and adjacent to the other four localities and their applicant PSAPs. This regional project favors the inclusion of non-applicant Wythe County through its geographic location.

Intended collaborative efforts:

The region will share in the development and maintenance of a new regional Patriot Sentinel Ethernet network.

Resource sharing:

The Patriot Sentinel Server and Software will be shared and utilized by all the jurisdictions.

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

This project will enable County of Bland to satisfy a Strategic Goal to become NG 9-1-1 capable.

This project will enable Twin County to satisfy a Strategic Goal to enable off-site redundancy.



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

How would a consolidation take place and provide improved service:

This is not a consolidation project.

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:

The overall project budget is \$601,630. Budget cost components are:

Ethernet/Networking Equipment, Warranty and Labor - \$233,698

County of Bland 9-1-1 workstation, warr, labor - \$ 59,979

Aurora Reporting software, equipment, warr, train - \$ 45,953

5 – Year 24/7 Maintenance Support \$115,000

5 – Year Ethernet Costs (Bland, Twin County) \$147,000

The Network, workstation and Aurora will be funded by the grant. If the RFP costs are greater than the budgetary quote, the new MOU will reflect the final approved detail design and budget. The jurisdictions will include warranty and Ethernet costs in their annual budget plan as agreed via an MOU.

This grant will pay for the following costs:

Ethernet/Networking Equipment, Warranty and Labor - \$233,698

County of Bland 9-1-1 workstation, warr, labor - \$ 59,979

Aurora Reporting software, equipment, warr, train - \$ 45,953

The above totals \$339,630.

Host applicant, Twin County E-911, has agreed to assume responsibility for the sum of up to \$14,630 should the final price exceed the grant amount.

Detailed vendor quotes from CenturyLink and Ra-Tech are attached.



## EVALUATION

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

Our performance measures will begin with proper purchases of equipment and services to achieve a new regional network. Procurement will be in accordance with all federal, state and local procurement standards. After installation of the equipment and implementation of the services, each PSAP will be able to process 9-1-1 calls as determined by a detailed evaluation plan. Additionally, each PSAP will be able to process 9-1-1 calls with parts of the network disabled to simulate equipment failures. Each PSAP will record these performance measures and report them to the host applicant for inclusion on the final report.



**From:** Pat Vaughn [pat.vaughn@interact911.com]  
**Sent:** Thursday, May 14, 2009 4:15 PM  
**To:** 'Willie Howlett'  
**Cc:** 'Ed Mcfarland'; 'M C Warters'; 'Aneesa Griggs'  
**Subject:** FW: Bland Co, VA Maintenance Breakdown

**Attachments:** Bland, VA Maintenance Schedule 2011.pdf; Bland, VA Maintenance Schedule 2010.pdf  
Willie,

I also wanted to bring you up to speed on the changes to your maintenance. The attached summaries show the expected invoice to be issued at the end of this year for 2010 and also for 2011. The original equipment warranty from Zetron, which covers defective parts and labor, will expire at the end of 2010. Therefore, your 2011 maintenance invoice will not include maintenance for your Zetron telephony and radio consoles. (\$15,967.37 reduction.) In addition, your maintenance for the Options will also expire. That includes your Spectracom Netclock and Mercom Recorder. (\$2,574.50 reduction.) Your CAD maintenance will change next year as well. Since you recently purchased all new hardware and prepaid the first year maintenance, we will prorate our maintenance and reduce it by 4 months. Then, in 2011, the CAD maintenance will include the full year for hardware and the expected rate increase.

Please call me with questions.

P-



Pat Vaughn,  
Sr. RVP, Northeast Sales  
InterAct Public Safety Systems  
540-789-3911 office  
540-230-3679 cell  
540-301-0831 efax

*"The Heroes We All Rely Upon Rely On InterAct"*



04000-01921	ROUTER 1921/K9	1	1,044.73	1,044.73
04000-01900	ROUTER 1921 & RACKMNT KIT	1	1,140.93	1,140.93
04000-01920	ROUTER 1900 DATA LIC	1	530.89	530.89
04000-01925	WARR 1921 ROUTER 24X7 5YR	1	921.87	921.87
809800-00200	CONFIGURE NETWORK DEVICE	1	158.00	158.00
-	Note: Network Config fee for dual active firewall installation.	-	-	-
809800-00199	ROUTER CFG FEE	1	632.00	632.00
-	-	-	-	-
-	-	-	-	-
-	Cisco Switch Equipment	-	-	-
04000-01041	SWITCH 24-PORT 2960 4T	2	3,014.86	6,029.72
04000-02967	SPT 2960 24-PORT 4T 5YR	2	2,498.32	4,996.64
-	-	-	-	-
-	-	-	-	-
-	Sentinel Patriot CommandPOST	-	-	-
873099-00303.0	PAT 3.X PER SEAT LIC	1	6,696.99	6,696.99
809800-35005	PAT 3.X SW SPT 5YR	1	3,920.33	3,920.33
61050-J204801X	SENT CPOST 8540P	1	2,069.98	2,069.98
04401-00093	BATT EXT LIFE 8540P	1	265.44	265.44
64021-10025	KYBD/MOUSE BUNDLE	1	53.58	53.58
04000-00488	ADVANCED 8540P STATION	1	265.44	265.44
63002-192808	MNTR 19IN W/SPKRS BLK NEC	1	353.11	353.11
853004-00201	SENT PAT CPOST HW KIT	1	768.33	768.33
809800-35058	SENT IWS CFG	1	237.60	237.60
809800-35060	SENT STAGING FEE PP	1	356.39	356.39
-	-	-	-	-
-	-	-	-	-
-	Aurora - MIS System Licensing & Support	-	-	-
873399-00101.3	AURORA 1.3 L/D/M	1	2,435.27	2,435.27
873391-00201	AURORA COLLECTION LIC	4	974.11	3,896.44
809800-03305	AURORA SPT 5 YR	4	570.23	2,280.92
873391-00301	AURORA USER LICENSE	1	913.23	913.23
04000-00328	SQL 2008 CAL RUNTIME STD	1	91.33	91.33
-	-	-	-	-
-	-	-	-	-
-	Aurora Server Equipment	-	-	-
-	ML350 Server Equipment	-	-	-
62030-J614401	SVR TOWER ML350 G6	1	3,490.96	3,490.96
64000-20057	HARD DRIVE 300GB SAS 10K	4	622.22	2,488.88
64000-30022	DVD-RW ML310G5/ML350/70G6	1	141.25	141.25
64000-40085	2GB RAM SVR 370/380/350-6	3	141.25	423.75
04000-00085	KIT BACKUP 1TB SATA	1	389.64	389.64
63002-172805	MNTR 17IN W/SPKRS NEC	1	266.67	266.67
04000-00392	SVR WIN2008 R2 DGRD +5CAL	1	985.07	985.07
04000-00329	SQL 2008 SVR RUNTIME STD	1	75.49	75.49
04000-00426	PRESENT TENSE CLIENT	1	66.98	66.98
809800-01416	MIS SVR CFG	1	593.99	593.99
-	-	-	-	-
-	-	-	-	-
-	Peripherals & Equipment Racks	-	-	-
06500-55053-S	RACK, EQUIP SERVER 19INCH	1	1,109.27	1,109.27
65000-00124	CBL PATCH 15FT	1	17.05	17.05
-	-	-	-	-
-	-	-	-	-
-	Aurora Printers	-	-	-
64040-60020	PRINTER USB B/W LASERJET	1	454.18	454.18
65000-03133	CBL USB PRINTER 10FT	1	12.18	12.18
-	-	-	-	-
-	For CommandPOST	-	-	-
-	Aurora - MIS System Licensing & Support	-	-	-
873391-00201	AURORA COLLECTION LIC	1	974.11	974.11
809800-03301	AURORA SPT 1 YR	1	171.07	171.07
-	-	-	-	-
-	-	-	-	-
-	Server Extended Warranty - Patriot	-	-	-
04000-01499	WARR 5YR 24x7 ML310/G5	2	1,531.30	3,062.60
-	-	-	-	-
-	Server Extended Warranty - Aurora	-	-	-
04000-01530	WARR 24X7 5YR ML350/5-/6	1	1,594.27	1,594.27

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-	-	-	-	-
-	Workstation Extended Warranty	-	-	-
04000-01501	WARR 5YR Z200 XW43/44/46	4	592.80	2,371.20
-	-	-	-	-
-	Field Engineering Services	-	-	-
809800-17101	FIELD ENG-PRIMARY	176	118.80	20,908.80
809800-00124	SOLUTIONS ENG DESIGN SVC	120	118.80	14,256.00
-	-	-	-	-
-	Training	-	-	-
000000-24404	AURORA ADMIN TRAINING	12	296.99	3,563.88
809800-00114	TRAVEL EXPENSE	1	633.19	633.19
809800-00115	DAILY TRAINER EXPENSE	5	359.96	1,799.80
-	-	-	-	-
-	-	-	-	-
-	Carroll - Side "B"	-	-	-
-	Sentinel Patriot	-	-	-
873099-00103.1U	PAT 3.1 SYS SW DC L M UPG	1	-	-
873099-03001U	PAT/CM CAD INTFC LIC UPGD	1	-	-
04000-05533	BLKBX TL553A-R3 DATASHARE	1	740.32	740.32
04000-01751	TS-4 PORT TERMINAL SVR	1	789.03	789.03
65000-00182	CBL 4FT RJ45-10P TO DB25M	1	25.58	25.58
-	-	-	-	-
-	-	-	-	-
-	Server Equipment	-	-	-
62000-F204803	SVR HP MINI 2G 160HD	2	2,133.29	4,266.58
04000-30182	USB TO SERIAL HUB KIT	1	396.95	396.95
63002-172805	MNTR 17IN W/SPKRS NEC	1	266.67	266.67
04000-00392	SVR WIN2008 R2 DGRD +5CAL	1	985.07	985.07
04000-00101	PAT PTS CENT OS	1	-	-
809800-35056	PAT SVR CFG	2	593.99	1,187.98
-	-	-	-	-
-	-	-	-	-
-	Workstation Equipment	-	-	-
873099-00303.0U	PAT 3.X PER SEAT LIC UPGD	1	-	-
809800-35005	PAT 3.X SW SPT 5YR	1	3,920.33	3,920.33
61000-F204807X	WKST HP Z200	1	1,979.87	1,979.87
64000-20054	HD 250GB SATA NCQ	1	155.86	155.86
-	Note: For RAID 1 configuration	-	-	-
65000-00255	GRAPHICS PCI-EX16 QUAD	1	786.59	786.59
63002-192808	MNTR 19IN W/SPKRS BLK NEC	1	353.11	353.11
04000-0LX44	4-CHANNEL, PCI SOUND CARD	1	667.26	667.26
660001-00032	EXTERNAL SPEAKERS	1	37.75	37.75
64007-50017	KEYPAD 24KEY W/25FT CBL	1	141.25	141.25
04000-01005	KVM DVI 4-PORT SWITCH	1	293.46	293.46
04000-01018	CBL DVI KVM EXT KIT	4	40.19	160.76
853004-00101	PAT 3.X SENT HARDWARE	1	1,948.21	1,948.21
809800-35058	SENT IWS CFG	1	237.60	237.60
809800-35060	SENT STAGING FEE PP	1	356.39	356.39
870890-07501	CPR/SYSPREP IMAGING	1	-	-
-	-	-	-	-
-	-	-	-	-
-	Sentinel Patriot Dual IRR Module	-	-	-
3210772-8-SR1	SENTINEL IRR KIT	1	596.64	596.64
809800-35020	PAT/CM IRR SW SPT 5YR	1	709.22	709.22
-	-	-	-	-
-	-	-	-	-
-	Cisco Switch/Router Equipment	-	-	-
04000-01921	ROUTER 1921/K9	1	1,044.73	1,044.73
04000-01900	ROUTER 1921 & RACKMNT KIT	1	1,140.93	1,140.93
04000-01920	ROUTER 1900 DATA LIC	1	530.89	530.89
04000-01925	WARR 1921 ROUTER 24X7 5YR	1	921.87	921.87
809800-00200	CONFIGURE NETWORK DEVICE	1	158.00	158.00
809800-00199	ROUTER CFG FEE	1	632.00	632.00
-	-	-	-	-
-	-	-	-	-
-	Cisco Switch Equipment	-	-	-
04000-01041	SWITCH 24-PORT 2960 4T	2	3,014.86	6,029.72
04000-02967	SPT 2960 24-PORT 4T 5YR	2	2,498.32	4,996.64
-	-	-	-	-

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-	-	-	-	-
-	Peripherals & Gateways	-	-	-
04000-31500	PAT/CM ALARM PANEL	1	1,826.45	1,826.45
863014-00102	PAT PERIPHERALS	1	4,651.36	4,651.36
850830-03011	MODEM PKG 56K EXT	1	764.67	764.67
-	Note : No admin lines will be at Side B	-	-	-
2213938-1-SR1	FXS GATEWAY 4-PORT	2	877.92	1,755.84
04000-11040	FIREWALL S1104 APPL	1	2,465.71	2,465.71
04000-11045	WARR FIREWALL S1104 5YR	1	2,880.85	2,880.85
809800-00201	VPN CONFIG SERVICE	1	237.60	237.60
809800-00200	CONFIGURE NETWORK DEVICE	1	158.00	158.00
-	-	-	-	-
-	-	-	-	-
-	Peripherals & Equipment Racks	-	-	-
06500-55053	EQPMT RACK 19 INCH	1	334.86	334.86
04000-004B4	KVM 4-PORT SWITCH	1	538.20	538.20
04000-00612	CBL KVM PS/2 CONSOLE	1	34.09	34.09
04000-60614	CBL KVM PS/2 PC	4	68.19	272.76
04000-RMM19	BRKT 19IN RACK MTG/ARBTR	1	38.96	38.96
-	-	-	-	-
-	-	-	-	-
-	Aurora - MIS System Licensing & Support	-	-	-
873391-00201	AURORA COLLECTION LIC	1	974.11	974.11
809800-03305	AURORA SPT 5 YR	1	570.23	570.23
-	-	-	-	-
-	-	-	-	-
-	Server Extended Warranty - Patriot	-	-	-
04000-01499	WARR 5YR 24x7 ML310/G5	2	1,531.30	3,062.60
-	-	-	-	-
-	Workstation Extended Warranty	-	-	-
04000-01501	WARR 5YR Z200 XW43/44/46	1	592.80	592.80
-	-	-	-	-
-	Field Engineering Services	-	-	-
809800-17101	FIELD ENG-PRIMARY	112	118.80	13,305.60
-	-	-	-	-
-	-	-	-	-
-	Netclock - Side "B"	-	-	-
9383	NetClock/GPS Time Server-master clock	1	4,445.59	4,445.59
8225	GPS Antenna Outdoor	1	253.27	253.27
8226	GPS Antenna Surge Protector	1	238.66	238.66
CAL7050	GPS 50 ft. Coax Antenna Cable	1	186.30	186.30
CAL7200	GPS 200 ft. Coax Antenna Cable	1	496.79	496.79
-	-	-	-	-
-	-	-	-	-
-	Grayson County - Remote position	-	-	-
-	Workstation Equipment	-	-	-
873099-00303.0U	PAT 3.X PER SEAT LIC UPGD	1	-	-
809800-35005	PAT 3.X SW SPT 5YR	1	3,920.33	3,920.33
61000-F204807X	WKST HP Z200	1	1,979.87	1,979.87
64000-20054	HD 250GB SATA NCQ	1	155.86	155.86
-	Note: For RAID 1 configuration	-	-	-
65000-00255	GRAPHICS PCI-EX16 QUAD	1	786.59	786.59
63002-192808	MNTR 19IN W/SPKRS BLK NEC	1	353.11	353.11
04000-0LX44	4-CHANNEL, PCI SOUND CARD	1	667.26	667.26
660001-00032	EXTERNAL SPEAKERS	1	37.75	37.75
64007-50017	KEYPAD 24KEY W/25FT CBL	1	141.25	141.25
04000-01005	KVM DVI 4-PORT SWITCH	1	293.46	293.46
04000-01018	CBL DVI KVM EXT KIT	4	40.19	160.76
853004-00101	PAT 3.X SENT HARDWARE	1	1,948.21	1,948.21
809800-35058	SENT IWS CFG	1	237.60	237.60
809800-35060	SENT STAGING FEE PP	1	356.39	356.39
870890-07501	CPR/SYSPREP IMAGING	1	-	-
-	-	-	-	-
-	-	-	-	-
-	Sentinel Patriot Dual IRR Module	-	-	-
3210772-8-SR1	SENTINEL IRR KIT	1	596.64	596.64
809800-35020	PAT/CM IRR SW SPT 5YR	1	709.22	709.22
-	-	-	-	-
-	-	-	-	-

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-	Patriot Admin Printers	-	-	-
64040-60020	PRINTER USB B/W LASERJET	1	452.96	452.96
65000-03133	CBL USB PRINTER 10FT	1	12.18	12.18
-	-	-	-	-
-	-	-	-	-
-	Cisco Switch Equipment	-	-	-
04000-01047	SWITCH 24-PORT PRCRV 2610	1	640.48	640.48
-	-	-	-	-
-	Peripherals & Gateways	-	-	-
-	Note: Existing peripheral will be used.	-	-	-
660001-00040	BLKBX TL160A-R2 DATA BUFF	1	913.23	913.23
-	-	-	-	-
-	Aurora - MIS System Licensing & Support	-	-	-
873391-00201	AURORA COLLECTION LIC	1	974.11	974.11
809800-03305	AURORA SPT 5 YR	1	570.23	570.23
-	-	-	-	-
-	Workstation Extended Warranty	-	-	-
04000-01501	WARR 5YR Z200 XW43/44/46	1	592.80	592.80
-	-	-	-	-
-	Field Engineering Services	-	-	-
809800-17101	FIELD ENG-PRIMARY	64	118.80	7,603.20
-	-	-	-	-
-	-	-	-	-
TBA	misc. materials; wire, blocks, equipment	1	3,044.08	3,044.08
-	-	-	-	-
-	<b>Bland County</b>	-	-	-
-	Workstation Equipment	-	-	-
873099-01201	SENT PAT 3.X MIG UPGD LIC	3	4,261.72	12,785.16
809800-35005	PAT 3.X SW SPT 5YR	3	3,920.33	11,760.99
61000-F204807X	WKST HP Z200	3	1,979.87	5,939.61
64000-20054	HD 250GB SATA NCQ	3	155.86	467.58
-	Note: For RAID 1 configuration	-	-	-
65000-00255	GRAPHICS PCI-EX16 QUAD	3	786.59	2,359.77
63002-192808	MNTR 19IN W/SPKRS BLK NEC	3	353.11	1,059.33
04000-0LX44	4-CHANNEL, PCI SOUND CARD	3	667.26	2,001.78
660001-00032	EXTERNAL SPEAKERS	3	37.75	113.25
64007-50017	KEYPAD 24KEY W/25FT CBL	3	141.25	423.75
04000-01005	KVM DVI 4-PORT SWITCH	3	293.46	880.38
04000-01018	CBL DVI KVM EXT KIT	12	40.19	482.28
853004-00101	PAT 3.X SENT HARDWARE	3	1,948.21	5,844.63
809800-35058	SENT IWS CFG	3	237.60	712.80
809800-35060	SENT STAGING FEE PP	3	356.39	1,069.17
870890-07501	CPR/SYSPREP IMAGING	3	-	-
-	-	-	-	-
-	Sentinel Patriot Dual IRR Module	-	-	-
3210772-8-SR1	SENTINEL IRR KIT	3	596.64	1,789.92
809800-35020	PAT/CM IRR SW SPT 5YR	3	709.22	2,127.66
-	-	-	-	-
-	-	-	-	-
-	Patriot Admin Printers	-	-	-
64040-60020	PRINTER USB B/W LASERJET	1	452.96	452.96
65000-03133	CBL USB PRINTER 10FT	1	12.18	12.18
-	-	-	-	-
-	-	-	-	-
-	Cisco Switch Equipment	-	-	-
04000-01047	SWITCH 24-PORT PRCRV 2610	2	640.48	1,280.96
-	-	-	-	-
-	Peripherals & Gateways	-	-	-
-	Note: Existing peripheral will be used.	-	-	-
660001-00040	BLKBX TL160A-R2 DATA BUFF	1	913.23	913.23
-	-	-	-	-
-	Aurora - MIS System Licensing & Support	-	-	-
873391-00201	AURORA COLLECTION LIC	3	974.11	2,922.33
809800-03305	AURORA SPT 5 YR	3	570.23	1,710.69
-	-	-	-	-
-	Workstation Extended Warranty	-	-	-
04000-01501	WARR 5YR Z200 XW43/44/46	4	607.61	2,430.44
-	-	-	-	-
-	Field Engineering Services	-	-	-

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809800-17101	FIELD ENG-PRIMARY	100	118.80	11,880.00
-	-	-	-	-
-	-	-	-	-
TBA	misc. materials; wire, blocks, equipment	1	3,044.08	3,044.08
-	-	-	-	-
-	Routers for Remote Position	-	-	-
CISCO2911/K9	2911 W/3 GE 4 EHWIC 2DSP1SM 256MB CF 512MB DRAM	2	1,805.60	3,611.20
VVIC2-1MFT-T1/E1=	CISCO 1PT MULTIFLEX TRUNK2ND GEN VOICE/WAN T1/E1	2	918.20	1,836.40
-	-	-	-	-
-	-	-	-	-
-	Gateways for 911 Trunks & Admin lines	-	-	-
2213936-1-SR1	FXO GATEWAY 4-PORT	2	971.67	1,943.34
2213938-1-SR1	FXS GATEWAY 4-PORT	2	877.92	1,755.84
-	-	-	-	-
-	-	-	-	-
-	Wytheville	-	-	-
-	Workstation Equipment	-	-	-
873099-01201	SENT PAT 3.X MIG UPGD LIC	4	4,261.72	17,046.88
809800-35005	PAT 3.X SW SPT 5YR	4	3,920.33	15,681.32
61000-F204807X	WKST HP Z200	4	1,979.87	7,919.48
64000-20054	HD 250GB SATA NCQ	4	155.86	623.44
-	Note: For RAID 1 configuration	-	-	-
65000-00255	GRAPHICS PCI-EX16 QUAD	4	786.59	3,146.36
63002-192808	MNTR 19IN W/SPKRS BLK NEC	4	353.11	1,412.44
04000-0LX44	4-CHANNEL, PCI SOUND CARD	4	667.26	2,669.04
660001-00032	EXTERNAL SPEAKERS	4	37.75	151.00
64007-50017	KEYPAD 24KEY W/25FT CBL	4	141.25	565.00
04000-01005	KVM DVI 4-PORT SWITCH	4	293.46	1,173.84
04000-01018	CBL DVI KVM EXT KIT	16	40.19	643.04
853004-00101	PAT 3.X SENT HARDWARE	4	1,948.21	7,792.84
809800-35058	SENT IWS CFG	4	237.60	950.40
809800-35060	SENT STAGING FEE PP	4	356.39	1,425.56
870890-07501	CPR/SYSPREP IMAGING	4	-	-
-	-	-	-	-
-	Sentinel Patriot Dual IRR Module	-	-	-
3210772-8-SR1	SENTINEL IRR KIT	4	596.64	2,386.56
809800-35020	PAT/CM IRR SW SPT 5YR	4	709.22	2,836.88
-	-	-	-	-
-	-	-	-	-
-	Patriot Admin Printers	-	-	-
64040-60020	PRINTER USB B/W LASERJET	1	452.96	452.96
65000-03133	CBL USB PRINTER 10FT	1	12.18	12.18
-	-	-	-	-
-	-	-	-	-
-	Cisco Switch Equipment	-	-	-
04000-01047	SWITCH 24-PORT PRCRV 2610	2	640.48	1,280.96
-	-	-	-	-
-	Peripherals & Gateways	-	-	-
-	Note: Existing peripheral will be used.	-	-	-
660001-00040	BLKBX TL160A-R2 DATA BUFF	1	913.23	913.23
-	-	-	-	-
-	Aurora - MIS System Licensing & Support	-	-	-
873391-00201	AURORA COLLECTION LIC	4	974.11	3,896.44
809800-03305	AURORA SPT 5 YR	4	570.23	2,280.92
-	-	-	-	-
-	Workstation Extended Warranty	-	-	-
04000-01501	WARR 5YR Z200 XW43/44/46	5	592.80	2,964.00
-	-	-	-	-
-	Field Engineering Services	-	-	-
809800-17101	FIELD ENG-PRIMARY	120	118.80	14,256.00
-	-	-	-	-
-	-	-	-	-
TBA	misc. materials; wire, blocks, equipment	1	3,044.08	3,044.08
-	-	-	-	-
-	Routers for Remote Position	-	-	-
CISCO2911/K9	2911 W/3 GE 4 EHWIC 2DSP1SM 256MB CF 512MB DRAM	2	1,805.60	3,611.20
VVIC2-1MFT-T1/E1=	CISCO 1PT MULTIFLEX TRUNK2ND GEN VOICE/WAN T1/E1	2	918.20	1,836.40
-	-	-	-	-
-	-	-	-	-

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-	Gateways for 911 Trunks & Admin lines	-	-	-
2213936-1-SR1	FXO GATEWAY 4-PORT	2	971.67	1,943.34
2213938-1-SR1	FXS GATEWAY 4-PORT	2	877.92	1,755.84
-	-	-	-	-
<p>SUBTOTAL: Gross Material Price ..... \$ 451,572.63</p> <p>SUBTOTAL: Gross Discount ..... \$ -</p> <p>Net Material Price ..... \$ 451,572.63</p> <p>Labor (Includes Project Management if not shown separately below) ..... \$ 54,929.20</p> <p>Project Management ..... \$ 8,756.40</p> <p>Shipping ..... \$ 3,500.01</p> <p><b>TOTAL PRICE ..... \$ 518,758.24</b></p>				
<small>All Products listed on this Quote are governed by the Standard Terms and Conditions for Communications Services and the Equipment Sales Product Annex, both posted to <a href="http://about.centurylink.com/legal/rates_conditions.html">http://about.centurylink.com/legal/rates_conditions.html</a></small>				

Notes to aid in reconciling Quote to Project Budget:

- 1) Excluded Wytheville costs from project budget.
- 2) Added the following to project budget in the event Server Side B is placed at Wytheville versus Carroll:
 

<p>Routers for Remote Position</p> <p>2911 W/3 GE 4 EHWIC 2DSP1SM 256MB CF 512MB DRAM</p> <p>CISCO 1PT MULTIFLEX TRUNK2ND GEN VOICE/WAN T1/E1</p>	<p>2 @ 1,805.60 = 3,611.20</p> <p>2 @ 918.20 = 1,836.40</p>
<p>Gateways for 911 Trunks &amp; Admin lines</p> <p>FXO GATEWAY 4-PORT</p> <p>FXS GATEWAY 4-PORT</p>	<p>2 @ 971.67 = 1,943.34</p> <p>2 @ 877.92 = 1,755.84</p>
- 3) Excluded printer costs from the project budget
- 4) Excluded Command Post costs from the project budget
- 5) Deleted duplicate routers for Server A and Server B



**CENTURYLINK**  
CenturyLink Centurion Maintenance

Customer Legal Name: Twin County E911 Regional Commission

Customer Billing Name: Twin County E911 Regional Commission  
 REGIONAL COMMISSION PO BOX 510

GALAX, VA 24333-0510

Valid Until December 24, 2011

Contract Term: 60 Months

Quote Number: 11-047941

All Services listed on this Quote are governed by the Standard Terms and Conditions for Communications Services and the EMBARQ® Centurion Maintenance Service Annex, both posted to [http://about.centurylink.com/legal/rates\\_conditions.html](http://about.centurylink.com/legal/rates_conditions.html).

Part Number	Description	Quantity	Annual Extended Rate			
			Unit	Total		
04000-05533	BLKBX TL553A-R3 DATASHARE	1	-	-	22,490.52	22,490.52
04000-01751	TS-4 PORT TERMINAL SVR	1	-	-	-	-
62000-F204803	SVR HP MINI 2G 160HD	2	-	-	-	-
04000-30182	USB TO SERIAL HUB KIT	1	-	-	-	-
63002-172805	MNTR 17IN W/SPKRS NEC	1	-	-	-	-
61000-F204807X	WKST HP Z200	4	-	-	-	-
64000-20054	HD 250GB SATA NCQ	4	-	-	-	-
65000-00255	GRAPHICS PCI-EX16 QUAD	4	-	-	-	-
63002-192808	MNTR 19IN W/SPKRS BLK NEC	4	-	-	-	-
04000-0LX44	4-CHANNEL, PCI SOUND CARD	4	-	-	-	-
660001-00032	EXTERNAL SPEAKERS	4	-	-	-	-
64007-50017	KEYPAD 24KEY W/25FT CBL	4	-	-	-	-
04000-01005	KVM DVI 4-PORT SWITCH	4	-	-	-	-
04000-01018	CBL DVI KVM EXT KIT	16	-	-	-	-
853004-00101	PAT 3.X SENT HARDWARE	4	-	-	-	-
3210772-8-SR1	SENTINEL IRR KIT	4	-	-	-	-
64040-60020	PRINTER USB B/W LASERJET	1	-	-	-	-
04000-01921	ROUTER 1921/K9	1	-	-	-	-
04000-01041	SWITCH 24-PORT 2960 4T	2	-	-	-	-
61050-J204801X	SENT CPOST 8540P	1	-	-	-	-
04000-00488	ADVANCED 8540P STATION	1	-	-	-	-
63002-192808	MNTR 19IN W/SPKRS BLK NEC	1	-	-	-	-
853004-00201	SENT PAT CPOST HW KIT	1	-	-	-	-
62030-J614401	SVR TOWER ML350 G6	1	-	-	-	-
64000-20057	HARD DRIVE 300GB SAS 10K	4	-	-	-	-
64000-30022	DVD-RW ML310G5/ML350/70G6	1	-	-	-	-

64000-40085	2GB RAM SVR 370/380/350-6	3	-	-	-	-
04000-00085	KIT BACKUP 1TB SATA	1	-	-	-	-
63002-172805	MNTR 17IN W/SPKRS NEC	1	-	-	-	-
64040-60020	PRINTER USB B/W LASERJET	1	-	-	-	-
04000-05533	BLKBX TL553A-R3 DATASHARE	1	-	-	-	-
04000-01751	TS-4 PORT TERMINAL SVR	1	-	-	-	-
62000-F204803	SVR HP MINI 2G 160HD	2	-	-	-	-
04000-30182	USB TO SERIAL HUB KIT	1	-	-	-	-
63002-172805	MNTR 17IN W/SPKRS NEC	1	-	-	-	-
61000-F204807X	WKST HP Z200	1	-	-	-	-
64000-20054	HD 250GB SATA NCQ	1	-	-	-	-
65000-00255	GRAPHICS PCI-EX16 QUAD	1	-	-	-	-
63002-192808	MNTR 19IN W/SPKRS BLK NEC	1	-	-	-	-
04000-0LX44	4-CHANNEL, PCI SOUND CARD	1	-	-	-	-
660001-00032	EXTERNAL SPEAKERS	1	-	-	-	-
64007-50017	KEYPAD 24KEY W/25FT CBL	1	-	-	-	-
04000-01005	KVM DVI 4-PORT SWITCH	1	-	-	-	-
853004-00101	PAT 3.X SENT HARDWARE	1	-	-	-	-
3210772-8-SR1	SENTINEL IRR KIT	1	-	-	-	-
04000-01921	ROUTER 1921/K9	1	-	-	-	-
04000-01041	SWITCH 24-PORT 2960 4T	2	-	-	-	-
04000-31500	PAT/CM ALARM PANEL	1	-	-	-	-
863014-00102	PAT PERIPHERALS	1	-	-	-	-
850830-03011	MODEM PKG 56K EXT	1	-	-	-	-
2213938-1-SR1	FXS GATEWAY 4-PORT	2	-	-	-	-
04000-11040	FIREWALL S1104 APPL	1	-	-	-	-
04000-004B4	KVM 4-PORT SWITCH	1	-	-	-	-
9383	NetClock/GPS Time Server-master clock	1	-	-	663.60	663.60
8225	GPS Antenna Outdoor	1	-	-	-	-
8226	GPS Antenna Surge Protector	1	-	-	-	-
61000-F204807X	WKST HP Z200	1	-	-	-	-
64000-20054	HD 250GB SATA NCQ	1	-	-	-	-
65000-00255	GRAPHICS PCI-EX16 QUAD	1	-	-	-	-
63002-192808	MNTR 19IN W/SPKRS BLK NEC	1	-	-	-	-
04000-0LX44	4-CHANNEL, PCI SOUND CARD	1	-	-	-	-
660001-00032	EXTERNAL SPEAKERS	1	-	-	-	-
64007-50017	KEYPAD 24KEY W/25FT CBL	1	-	-	-	-
04000-01005	KVM DVI 4-PORT SWITCH	1	-	-	-	-
853004-00101	PAT 3.X SENT HARDWARE	1	-	-	-	-

3210772-8-SR1	SENTINEL IRR KIT	1	-	-	-	-
64040-60020	PRINTER USB B/W LASERJET	1	-	-	-	-
04000-01047	SWITCH 24-PORT PRCRV 2610	1	-	-	-	-
660001-00040	BLKBX TL160A-R2 DATA BUFF	1	-	-	-	-
61000-F204807X	WKST HP Z200	3	-	-	-	-
64000-20054	HD 250GB SATA NCQ	3	-	-	-	-
65000-00255	GRAPHICS PCI-EX16 QUAD	3	-	-	-	-
63002-192808	MNTR 19IN W/SPKRS BLK NEC	3	-	-	-	-
04000-0LX44	4-CHANNEL, PCI SOUND CARD	3	-	-	-	-
660001-00032	EXTERNAL SPEAKERS	3	-	-	-	-
64007-50017	KEYPAD 24KEY W/25FT CBL	3	-	-	-	-
04000-01005	KVM DVI 4-PORT SWITCH	3	-	-	-	-
853004-00101	PAT 3.X SENT HARDWARE	3	-	-	-	-
3210772-8-SR1	SENTINEL IRR KIT	3	-	-	-	-
64040-60020	PRINTER USB B/W LASERJET	1	-	-	-	-
04000-01047	SWITCH 24-PORT PRCRV 2610	2	-	-	-	-
660001-00040	BLKBX TL160A-R2 DATA BUFF	1	-	-	-	-
CISCO2911/K9	2911 W/3 GE 4 EHWIC 2DSP15M 256MB CF 512MB DRAM	2	-	-	-	-
VWIC2-1MFT-T1/E1=	CISCO 1PT MULTIFLEX TRUNK2ND GEN VOICE/WAN T1/E1	2	-	-	-	-
2213936-1-SR1	FXO GATEWAY 4-PORT	2	-	-	-	-
2213938-1-SR1	FXS GATEWAY 4-PORT	2	-	-	-	-
61000-F204807X	WKST HP Z200	4	-	-	-	-
64000-20054	HD 250GB SATA NCQ	4	-	-	-	-
65000-00255	GRAPHICS PCI-EX16 QUAD	4	-	-	-	-
63002-192808	MNTR 19IN W/SPKRS BLK NEC	4	-	-	-	-
04000-0LX44	4-CHANNEL, PCI SOUND CARD	4	-	-	-	-
660001-00032	EXTERNAL SPEAKERS	4	-	-	-	-
64007-50017	KEYPAD 24KEY W/25FT CBL	4	-	-	-	-
04000-01005	KVM DVI 4-PORT SWITCH	4	-	-	-	-
853004-00101	PAT 3.X SENT HARDWARE	4	-	-	-	-
3210772-8-SR1	SENTINEL IRR KIT	4	-	-	-	-
64040-60020	PRINTER USB B/W LASERJET	1	-	-	-	-
04000-01047	SWITCH 24-PORT PRCRV 2610	2	-	-	-	-
660001-00040	BLKBX TL160A-R2 DATA BUFF	1	-	-	-	-
CISCO2911/K9	2911 W/3 GE 4 EHWIC 2DSP15M 256MB CF 512MB DRAM	2	-	-	-	-
VWIC2-1MFT-T1/E1=	CISCO 1PT MULTIFLEX TRUNK2ND GEN VOICE/WAN T1/E1	2	-	-	-	-
2213936-1-SR1	FXO GATEWAY 4-PORT	2	-	-	-	-
2213938-1-SR1	FXS GATEWAY 4-PORT	2	-	-	-	-

<b>Options Included:</b>			
-	SUBTOTAL: ANNUAL RECURRING EQUIPMENT COVERAGE.....	\$ -	\$ 23,154.12
-			
-			
-			
-	TOTAL ANNUAL RECURRING COVERAGE CHARGES .....	\$ -	\$ 23,154.12
-	TOTAL MONTHLY RECURRING COVERAGE CHARGES .....	\$ -	\$ 1,929.51
	TOTAL <u>CONTRACT TERM</u> RECURRING COVERAGE CHARGES .....	\$ -	\$ 115,770.60
<b><u>CONTRACT TERM: 60 Months</u></b>			

Twin County E911 Regional Commission  
Proposal For Metro Ethernet - Classic Enhanced Services  
Proposal Date: 10/4/2011  
Expire Quote Date: 12/5/2011  
Customer Copy - Quote #: 11-055057



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**Customer Contact Information:**

**Company Name:** TWIN COUNTY E911  
**Billing Address:** REGIONAL COMMISSION PO BOX 510  
**Billing City, State, Zip:** GALAX VA 24333-0510  
**CRB Account Number:** 2762365122013  
**BAN ID:** 309934469  
**Customer Contact Name:** Jolena Young  
**Customer Contact Phone:** 276-236-5122  
**Customer Contact E-mail:**

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**CenturyLink Contact Information:**

**Sales Person:** Nathan Cole [1072810]  
**Email:** Nathan.W.Cole@centurylink.com  
**Sales Contact Number:** 423-989-2845  
**Dealer Code:** 1072810

**Engineer:** Mark Gosma  
**Email:** mark.gosma@centurylink.com  
**Engineer Contact Number:** 423-989-2904

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**Service Description:** The following Term options reflect the total budgetary Monthly Recurring Revenue (MRR) and Non-Recurring Revenue (NRR) for all sites included in the quote. See subsequent pages for individual budgetary charges per site.

**Type of Service:** Metro Ethernet - Classic Enhanced Services

**Total # of Sites included in this quote:** 5

**Term Options:**

Term (in months)	Monthly Recurring Revenue	Non-Recurring Revenue
36 Month	\$3,055.00	\$131.25

**Twin County E911 Regional Commission**  
**Proposal For Metro Ethernet - Classic Enhanced Services**  
Proposal Date: 10/4/2011  
Expire Quote Date: 12/5/2011  
Customer Copy - Quote #: 11-055057



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**Customer Service Location:**

**PON #:** 11055057A  
**Primary Location Name:** Twin County E911 Regional Commission  
**Address:** 353 N Main St.  
**City, State, Zip:** Galax, VA, 24333  
**NPA-NXX:** 276-236  
**On Site Contact Name:** Jolena Young  
**Work TN:** 276-236-5122

**Telco Central Office Information:**

**Telco A:** United Telephone Southeast LLC  
**Serving Central Office CLLI:** GALXVAXA02W  
**Serving Central Office Address:** 107 E CENTER ST  
**Serving Central Office City, State, Zip:** GALAX, VA 24333

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**Service Description:**

**Type of Service:** Metro Ethernet - Classic Enhanced Services,

<b>Term (in months)</b>	<b>Monthly Recurring Revenue</b>	<b>Non-Recurring Revenue</b>
36 Month	\$605.00	\$26.25

**Twin County E911 Regional Commission**  
**Proposal For Metro Ethernet - Classic Enhanced Services**  
Proposal Date: 10/4/2011  
Expire Quote Date: 12/5/2011  
Customer Copy - Quote #: 11-055057



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**Customer Service Location:**

**PON #:** 11055057B  
**Primary Location Name:** Twin County - Independence  
**Address:** 129 Davis St  
**City, State, Zip:** Independence, VA, 24348  
**NPA-NXX:** 276-773  
**On Site Contact Name:** Jolena Young  
**Work TN:** 276-236-5122

**Telco Central Office Information:**

**Telco B:** United Telephone Southeast LLC  
**Serving Central Office CLLI:** INDPVAXA01W  
**Serving Central Office Address:** 133 W MAIN ST  
**Serving Central Office City, State, Zip:** INDEPENDENCE, VA 24348

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**Service Description:**

**Type of Service:** Metro Ethernet - Classic Enhanced Services,

<b>Term (in months)</b>	<b>Monthly Recurring Revenue</b>	<b>Non-Recurring Revenue</b>
36 Month	\$605.00	\$26.25

Twin County E911 Regional Commission  
Proposal For Metro Ethernet - Classic Enhanced Services  
Proposal Date: 10/4/2011  
Expire Quote Date: 12/5/2011  
Customer Copy - Quote #: 11-055057



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**Customer Service Location:**

PON #: 11055057C  
Primary Location Name: 605 PINE ST  
Address: 605 PINE ST  
City, State, Zip: HILLSVILLE, VA, 24343-1463  
NPA-NXX: 276-728  
On Site Contact Name: Jolena Young  
Work TN: 276-236-5122

**Telco Central Office Information:**

Telco C: United Telephone Southeast LLC  
Serving Central Office CLLI: HVLVAXA01W  
Serving Central Office Address: 406 E GRAYSON ST  
Serving Central Office City, State, Zip: HILLSVILLE, VA 24343

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**Service Description:**

Type of Service: Metro Ethernet - Classic Enhanced Services,

Term (in months)	Monthly Recurring Revenue	Non-Recurring Revenue
36 Month	\$605.00	\$26.25

**Customer Service Location:**

PON #: 11055057D  
Primary Location Name: Wythe County - Main  
Address: 340 S 6th St  
City, State, Zip: Wytheville, VA, 24382  
NPA-NXX: 276-223  
On Site Contact Name: Ikey Davidson  
Work TN: 276-223-6020

**Telco Central Office Information:**

Telco D: United Telephone Southeast LLC  
Serving Central Office CLLI: WYVLVAXA06W  
Serving Central Office Address: 175 S FIRST ST  
Serving Central Office City, State, Zip: WYTHEVILLE, VA 24382

**Service Description:**

Type of Service: Metro Ethernet - Classic Enhanced Services,

Term (in months)	Monthly Recurring Revenue	Non-Recurring Revenue
36 Month	\$605.00	\$26.25

This site was not included in the project budget for the 5-year Ethernet calculation.

**Twin County E911 Regional Commission**  
**Proposal For Metro Ethernet - Classic Enhanced Services**  
Proposal Date: 10/4/2011  
Expire Quote Date: 12/5/2011  
Customer Copy - Quote #: 11-055057



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**Customer Service Location:**

**PON #:** 11055057E  
**Primary Location Name:** Bland County - Main  
**Address:** 612 Main St  
**City, State, Zip:** Bland, VA, 24315  
**NPA-NXX:** 276-688  
**On Site Contact Name:** Tim Addington  
**Work TN:** 276-451-8103

**Telco Central Office Information:**

**Telco E:** United Telephone Southeast LLC  
**Serving Central Office CLLI:** BLNDVAXA00W  
**Serving Central Office Address:** 150 MAIN ST  
**Serving Central Office City, State, Zip:** BLAND, VA 24315

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**Service Description:**

**Type of Service:** Metro Ethernet - Classic Enhanced Services,

<b>Term (in months)</b>	<b>Monthly Recurring Revenue</b>	<b>Non-Recurring Revenue</b>
36 Month	\$635.00	\$26.25



**RA-TECH SERVICES**  
WIRELESS COMMUNICATIONS

2396 US 52 North, Mount Airy, North Carolina 27030

(336) 789-8080 FAX (336) 789-4405

August 8, 2011

Jolena Young, Coordinator  
Twin County E911  
P.O. Box 510  
Galax, VA 24333

Jolena,

In reference our discussion concerning the conversion of the current T-1 radio interface to Ethernet technology, I offer the following budgetary pricing.

6	Telex IP223 TCP/IP radio interface panel	\$2,200.00	\$13,200.00
2	Managed router/switch	\$475.00	\$950.00
	Labor, set-up configuration, installation, console programming, IP mapping, interconnection with Carroll County equipment, etc.	\$2,880.00	\$2,880.00
	*****Project Estimate Total*****		\$17,030.00

Prices are good for 60 days, if you have any questions, please give us a call.

Thanks,

Dale Sutphin  
Partner

**MEMORANDUM OF UNDERSTANDING**  
**Between**  
**Twin County E-911 Commission and County of Bland**

THIS MEMORANDUM OF UNDERSTANDING entered into this 31<sup>st</sup> day of October 2011, by and between THE TWIN COUNTY E-911 COMMISSION and THE COUNTY OF BLAND, VIRIGINA.

WHEREAS, the Twin County E-911 Commission and the County of Bland have joined together for the purpose of requesting a FY13 PSAP (Public Safety Answering Point) Grant Program Application from the Virginia E-911 Services Board; and

WHEREAS, the purpose of the Grant is to develop a regional Patriot Sentinel Call Processing Ethernet to provide consistent, seamless 9-1-1 service to Counties of Bland, Carroll and Grayson and the City of Galax, Virginia; and

NOW, THEREFORE, it is hereby agreed by and between the entities as follows;

**A. Purpose**

The purpose of this MOU is to adhere to the PSAP Grant Program guidelines and acknowledge each entities support for a regional Patriot Sentinel Call Processing Ethernet for the benefit of each entity.

**B. Responsibilities**

In accordance with the PSAP Grant Program guidelines, the entities agree that the Twin County E-911 Commission, Virginia will act as the "host applicant" in the funding request. The "host applicant" agrees to be the fiscal agent and responsible for fulfilling all grant requirements.

The entities also agree to provide a detailed scope of work for the entire project if an award is made along with a supporting budget for grant funding.

The entities agree to follow all guidelines for the PSAP Grant Program and understand that a grant request does not obligate the entities to participate in the project.

The parties acknowledge that a FY13 PSAP Grant Program award requires no local match of funds.

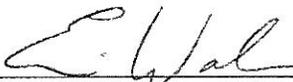
**C. Effective Date and Termination**

The agreement and responsibilities described above are contingent upon receiving funds requested through the PSAP Grant Program. Responsibilities under this MOU would coincide with the grant period and terminate when the grant funding has been fully executed and closed out.

TWIN COUNTY E-911 COMMISSION, VIRGINIA

By:   
F. R. YOUNG, JR, COMMISSION CHAIRMAN

COUNTY OF BLAND, VIRGINIA

By:   
ERIC WORKMAN, COUNTY ADMINISTRATOR