

Appendix A **System Cost**

Eight Northwest Central Pennsylvania & North West Pennsylvania counties' current legacy era 9-1-1 telephone systems need to be replaced due to "end of life" notifications from the manufacturer:

- Clarion/Forest – RescueStar
- Clearfield – ECS 1000
- Crawford – ECS 1000
- Elk/Cameron – ECS 1000
- Jefferson – ECS 1000
- Warren – ESC1000

One county needs to "refresh" their current 9-1-1 system hardware:

- McKean – Vesta Pallas

In addition to the end of life notification, a number of issues are affecting the counties telephony equipment and systems in North West and Northwest Central Pennsylvania including:

- The current county 9-1-1 systems are not redundant.
- The current county 9-1-1 telephony systems are not interconnected.
- Currently 9-1-1 calls cannot be transferred between 9-1-1 centers with ALI/ANI.
- Currently 9-1-1 calls cannot automatically route to other 9-1-1 centers in the event of call overflow or system failure.
- The current systems and networks are not Next Generation 9-1-1 (NG9-1-1) capable.
- The average cost for replacement of a single county 9-1-1 telephony system was \$394,875.00 (\$3,159,000.00 total combined cost to the counties).
- The average yearly maintenance cost would be \$45,242.69 for a new system.

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The counties, working with MCM Consulting Group, Inc., Cassidian Communications and Zito Media have developed a cost effective solution for these issues. Highlights of a regional NG911 capable telephony system(s) and network include:

- 39 position Cassidian Sentinel Patriot Geo-Diverse NG 9-1-1 (IP) telephony system.
- 14 Mobile Command Post positions.
- One system (geo-diverse) shared between 9 counties.
- The NG911 telephony system(s) will be interconnected via a redundant IP fiber network (Layer II and Layer III)
- The NG911 system(s) will be redundant.
- 9-1-1 calls will be transferred between PSAP's with ALI/ANI.
- Calls can automatically route to other 9-1-1 centers with ALI/ANI in the event of call overflow or system failure.
- Each county will have the capability of logging on as a call taker position at any of the other counties in an emergency condition and answer 9-1-1 calls.
- The system(s) will be Next Generation 9-1-1 (NG911) capable.
- The average county shared cost for replacement of their current 9-1-1 telephony system with a regional 9-1-1 telephony system is \$162,513.09 (\$1,300,104.72 total cost for the region).
- The average yearly maintenance for a regional 9-1-1 telephony system is \$21,730.12 per county.

Tremendous regional savings will be achieved for the counties including:

- Initial Capital Cost- \$1,858,895.28
- Annual Maintenance Cost- \$188,100.53
- Annual Network Cost – New 911, IP, Geo-diverse Network \$10,610.88

The counties discussed numerous methods to pay for the capital and ongoing cost and received permission from the Pennsylvania Emergency Management Agency to use the various types of funding as listed below:

- Wireless Funding – Use current funds at 100% until spent down.
- Wireline Funding – Used after wireless exhausted.
- VoIP Funding – Used after wireless exhausted.

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The counties are moving forward with this project and have a completion date of March 31, 2012. Key milestones are:

- Approval from individual counties to proceed - Completed
- Finalize 9-1-1 network design – Completed.
- Finalize 9-1-1 telephony system cost – Completed.
- Finalize 9-1-1 telephony system funding – Completed
- Invitation for Bid – Completed.
- Sign contract with vendor – Completed.
- Order 9-1-1 telephony equipment – Completed.
- Order 9-1-1 network facilities – Completed.
- Equipment installation at Elk/Clearfield sites – In Progress.
- Equipment testing at Elk/Clearfield sites.
- Acceptance testing at Elk/Clearfield sites.
- Go live at Elk/Clearfield sites.
- Equipment installation at Cameron, Clarion, Crawford, Jefferson, McKean and Warren sites.
- Equipment testing at Cameron, Clarion, Crawford, Jefferson, McKean and Warren sites.
- Acceptance testing at Cameron, Clarion, Crawford, Jefferson, McKean and Warren sites.
- Go live at Cameron, Clarion, Crawford, Jefferson, McKean and Warren sites.

The timeline for the project is listed below:

- January/June 2011 – Assessment.
- June/December 2011 – System Design.
- January 2012 – Pricing & Funding Options.
- January 2012 – PEMA Presentation.
- February 2012 – March 2013 Implementation.

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Capital Cost Savings per County

<u>County</u>	<u>Stand Alone Cost</u>	<u>Regional Cost</u>	<u>Savings</u>
Cameron	\$309,000.00	\$ 33,549.02	\$275,450.98
Clarion/Forest	\$374,000.00	\$131,919.67	\$242,080.33
Clearfield	\$490,000.00	\$232,914.25	\$257,085.75
Elk	\$402,000.00	\$194,598.87	\$207,401.13
Jefferson	\$490,000.00	\$263,923.72	\$226,076.28
McKean	\$374,000.00	\$166,270.46	\$207,729.54
Crawford	\$374,000.00	\$177,240.04	\$196,759.96
Warren	\$346,000.00	\$ 99,688.69	\$246,311.31
Totals	\$3,159,000.00	\$1,300,104.72	\$1,858,895.28

Maintenance Cost Savings per County

<u>County</u>	<u>Stand Alone Cost</u>	<u>Regional Cost</u>	<u>Savings</u>
Cameron	\$35,403.58	\$ 4,467.71	\$30,935.87
Clarion/Forest	\$42,850.94	\$17,836.08	\$25,014.86
Clearfield	\$56,141.60	\$31,204.45	\$24,937.15
Elk	\$46,059.03	\$26,736.74	\$19,322.29
Jefferson	\$56,141.60	\$35,654.78	\$20,486.82
McKean	\$42,850.94	\$22,286.41	\$20,564.53
Crawford	\$42,850.94	\$22,286.41	\$20,564.53
Warren	\$39,642.85	\$13,368.37	\$26,274.48
Totals	\$361,941.48	\$173,840.95	\$188,100.53

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