



Impact of Broadband on First Responders

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**RAY SIMPSON, PARAMEDIC, RN
EMERGENCY MEDICAL SERVICE**





Typical Rural Oklahoma Call

- ▶ You respond to an emergency in an area underserved by 911 and the caller indicates that a person is unconscious and gives you a Rural Route Number and Post Office Box and hangs up on dispatch! Call ID Blocked!
- ▶ The area is very Rural
- ▶ No or poor Cell Phone access
- ▶ No or poor Radio Access
- ▶ You need information but if you go on location you loose contact





We have all been there





Using Commercial Broadband as a First Responder

Pros

- ▶ Reliable connection day to day
- ▶ Moving the office to the field for small rural services
- ▶ Ability to transfer media rich messaging

Cons

- ▶ Unreliable connection when needed most
- ▶ Capacity Constraints
- ▶ No Priority





Applications

- ▶ Emergency Medical Service uses Data Every Day and becomes more dependant on a Reliable Network
- ▶ Current Data Uses
 - OKEMSYS
 - EM Resource
 - WEB EOC
 - 12 Lead EKG Transmission for STEMI Alerts





OKEMSIS

▶ Oklahoma EMS Information System





EM Resource

emresource.emsystem.com

EMResource Statewide Oklahoma TQI OCM\$ Solutions | Contact Us | Help Center | Search | Log Out intermedix Systems

View Other Regions Event Preferences Form Report Regional Info IM User Links

Region Default print excel refresh help

27 ST FRANCIS-P I & II / OSUMC-SF SOUTH-P II 27 ST ANTHONY (OUMC-NEURO SURG)

Region 8 (OKC)	Trauma Level	ED Status	Hosp Status	CT Scan	Srg	Ortho	NeuSrg	Neuro	OMF	Hand	Card	NeoNat	OB/GYN
AllianceHealth Deaconess	III	Open	Open	Yes	Yes	Yes	No	Yes	No	No	Yes	Yes	Yes
AllianceHealth Midwest	III	Open	Open	Yes	No	Yes	N/A	No	N/A	N/A	Yes	N/A	No
Community Hospital	IV	Open	Open	Yes	Yes	Yes	Yes	N/A	N/A	No	N/A	N/A	N/A
INTEGRIS Baptist Medical Center	III	Open	CAUTION	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
INTEGRIS Health Edmond	III	Open	CAUTION	Yes	Yes	Yes	No	Yes	N/A	No	Yes	Yes	Yes
INTEGRIS Southwest Medical Center	III	Open	CAUTION	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	N/A	Yes
McBride Clinic Orthopedic Hospital	IV	Open	Open	Yes	Yes	Yes	N/A	No	N/A	No	N/A	N/A	N/A
Mercy Hospital Oklahoma City	III	Open	Open	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
OU MEDICAL CNTR - Children's Tower	I	Open	CAUTION	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A
OU MEDICAL CNTR - Edmond	I	Open	Open	Yes	Yes	Yes	N/A	Yes	N/A	N/A	Yes	N/A	Yes
OU MEDICAL CNTR - Presby Tower	I	Open	CAUTION	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
St. Anthony Hospital	III	Open	Open	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes
Your Hospital OKC Area (Test Facility)	IV	CLOSED	Open	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Region 7 (Tulsa)	Trauma Level	ED Status	Hosp Status	CT Scan	Srg	Ortho	NeuSrg	Neuro	OMF	Hand	Card	NeoNat	OB/GYN
Bailey Medical Center	IV	Open	Open	Yes	Yes	Yes	N/A	N/A	N/A	N/A	No	N/A	Yes
Hillcrest Hospital South	III	Open	Open	Yes	Yes	Yes	N/A	N/A	Yes	N/A	Yes	N/A	Yes
Hillcrest Medical Center	III	Open	Open	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes
Oklahoma State University Medical Center	III	Open	Open	Yes	Yes	Yes	No	Yes	No	No	Yes	Yes	Yes
Saint Francis Hospital	II	Open	CAUTION	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Saint Francis Hospital South	III	Open	Open	Yes	Yes	Yes	N/A	N/A	N/A	Yes	Yes	Yes	Yes
St. John Broken Arrow	IV	Open	Open	Yes	No	No	N/A	N/A	N/A	N/A	No	N/A	N/A





Oklahoma Web EOC

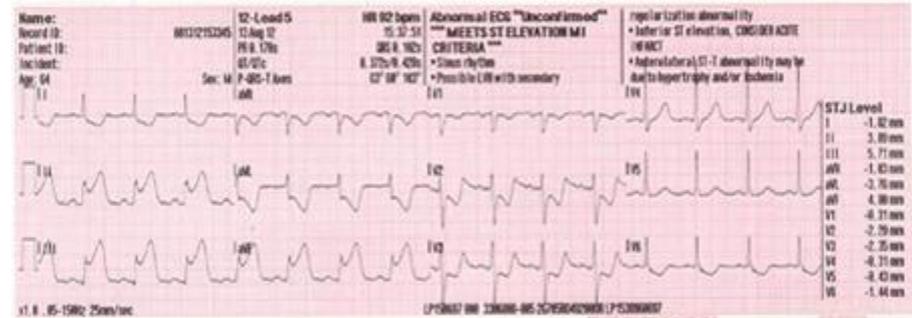
A screenshot of a web browser window showing the "WebEOC 7.7 Login" page. The browser's address bar displays "Oklahoma, Office of Management and Enterprise Services". The page has a blue header with "WebEOC 7.7 Login" and the "intermedix" logo. In the center is the Great Seal of the State of Oklahoma, featuring a five-pointed star with a figure holding a scale and a sword, surrounded by the text "GREAT SEAL OF THE STATE OF OKLAHOMA" and "1907". Below the seal are two input fields labeled "User:" and "Password:", followed by an "OK" button. At the bottom of the login area are two links: "New User? Click here to create an account." and "Forgot Username/Password?". A small footer note at the bottom of the page reads "WebEOC® is a registered trademark of ESI Acquisition, Inc."





12 Lead EKG for STEMI

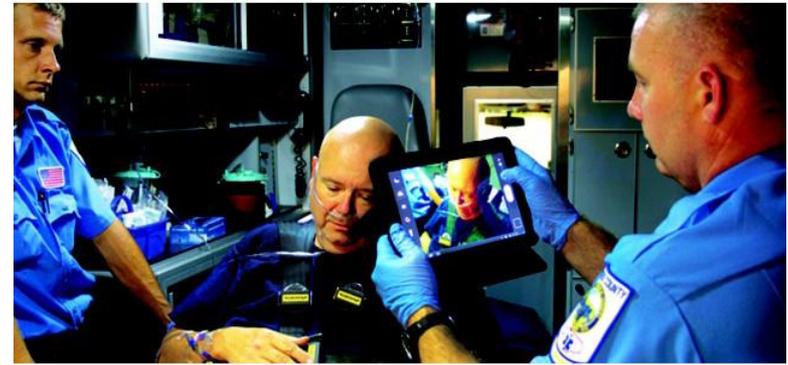
- ▶ Many EMS units have cardiac monitors capable of transmitting a 12 Lead EKG to a hospital
- ▶ Some 1st Responders now have the same capability
- ▶ Result is early detection of a heart attack and the patient being transported to the right hospital for treatment





Future Use of Network

- ▶ Telemedicine in the EMS Unit for Special Situations
 - Might help in Early Stroke Team Notifications
 - Could reduce unnecessary transports with consultation with Dr. online





Future New Use

10

- ▶ Ultrasound could give Medics a look inside a sick or injured patient
- ▶ Bleeding into abdomen could be detected
- ▶ Pneumothorax could be identified
- ▶ Abdominal Aortic Dissection Discovered
- ▶ Difficult IV's inserted
- ▶ Picture Transmitted to the Trauma Center





Future Use of Network

- ▶ Examples of how a robust network enhances capabilities
 - Updated dispatch with GPS Location and data sent directly to Medics Computers
 - Stroke Recognition through telemedicine
 - New technology of sending ultrasound information to the Trauma Center
 - Telemedicine to reduce transports to the ER
 - Better communication with other first responders





Example of Congestion





Conclusion

- ▶ Impact of Broadband on day to day ops
 - Will Give More Tools to the Medics in the Field
 - More Resources To Make Better Decisions
- ▶ Impact during an Incident or event
 - Lives could be impacted by resources given to Medics
 - Response to specific events can place more information in Medics hand
 - Could help with response to disasters with better info, location, hazardous materials identification
 - Safer Medics and Patients





Thanks!

