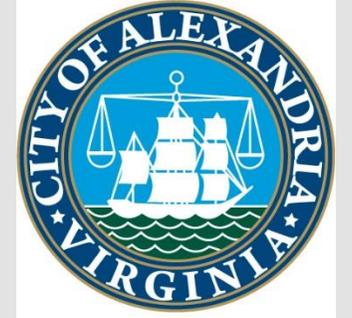# Alexandria/Arlington/Falls Church

SHARED REGIONAL PROJECTS

E 9-1-1 System

Back Up/Alternate Site

Background

- The evolution of emergency calling beyond the traditional voice 9-1-1 call has caused the recognition that our current E9-1-1 system is no longer able to support the needs of the future.

- Currently, both City of Alexandria and Arlington County maintain costly E9-1-1 systems. We believe we could benefit from a shared system. The benefits of sharing are not only financial.

- Verizon is no longer providing maintenance on customer equipment. They are still providing 911 services to the center.

9-1-1 Telephony

- Currently, Arlington County's 9-1-1 Telephony System has reached end of life. Verizon is no longer providing maintenance on Customer Premise Equipment (CPE).

- City of Alexandria's 9-1-1 Telephony System is reaching end of life. Alexandria has made the switch to a new maintenance provider.

- This timeline provides an opportunity for a shared E-9-1-1 Telephony System.

9-1-1 Telephony

- This is the system that sends the 911 Call from a telephone to the Emergency Communications Center

- Every telephone is routed to the closest 911 Center. This means cellular, VOIP, and hardwire telephone.

- Once at a 911 Center the 911 Telephony routes the telephone call to the call taker who then process the call.

- This system also allows the call to be routed to another center if this is not the correct jurisdiction. An example would be a secondary Pubic Safety Answering Point (PSAP).
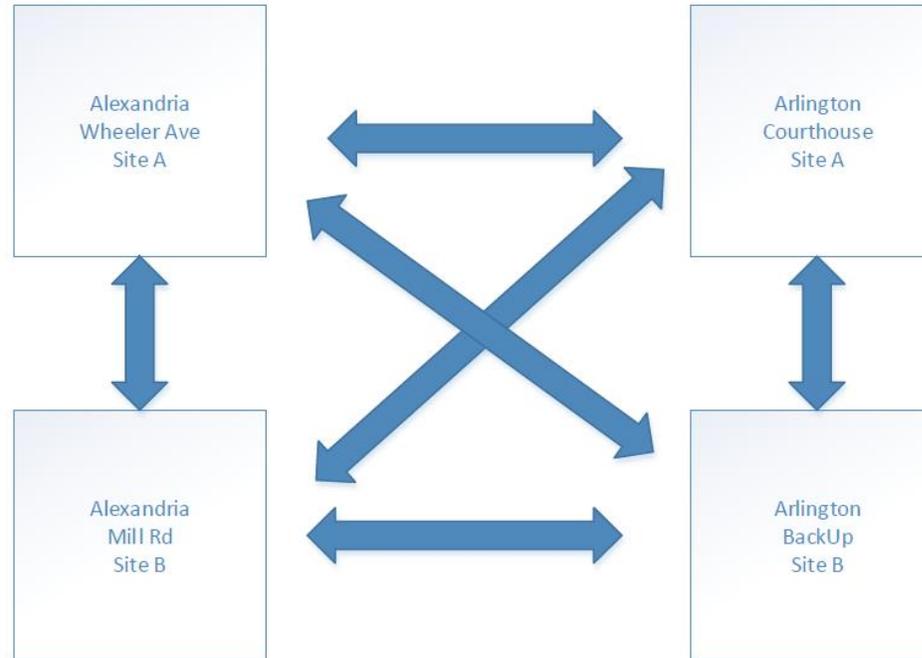
Next Generation 911:

- **NG9-1-1**

- NG 911 - networks will replace the existing "copper wire system" which carries only voice and very limited data.

- Currently there are difficulties in supporting such things as text messages for emergencies, images and video (including support for American Sign Language users), and easy access to additional building plans and medical information that would assist responders

- In addition, the need for inter-communications across states, and across international boundaries requires that we create a more flexible 9-1-1 system design with much greater data handling capabilities.

Next Generation 911:

- **Emergency Service Internet Protocol Network (ESInet)-** An ESInet is a managed Internet Protocol (IP) network that will replace the current Verizon system.

- New CPE will be compatible

- Regional (MWCOG) RFP currently out

SHARED E9-1-1 PICTURE OF THE FUTURE

Proposed Shared System Configuration from City of Alexandria and Arlington County

- In this scenario, if the primary Site A goes down, operators can move to Alexandria Site B or Arlington Site A or B. Note that Arlington site A and B have different power sources than Alexandria and are geographically far enough away that what may be affecting Alexandria, may not be affecting Arlington.

BENEFITS

- Reduced cost of maintenance
- Improve competitiveness for VITA Grant
- Capacity to expand
  - Can accommodate Falls Church, MWAA and Ft. Myer in future
- Ability to receive each others calls
  - When a jurisdiction is overloaded
  - Until partner jurisdiction gets back-up center staffed in the event of system failure
- First step towards additional shared systems

Next Steps?

- Further exploration of joint procurement
- Governance - Memorandums of Understanding (MOU)
- Grants from The Virginia Information Technology Agency (VITA)
- Sharing the cost of maintenance
- Expansion capabilities for other jurisdictions
- Explore future opportunities for joint efforts such as Computer Aided Dispatch (CAD) and public safety radio