Project:
Providing Best Practice Public Safety Response:
Commonwealth of Virginia Statewide Common Language Protocol

Executive Summary

From the original "10-code" public safety radio systems of the 1920's and 30's, highly disparate codes have evolved in localities. One agency's "10-20" could mean a rest break while another's might mean "officer down." Recent major emergencies demonstrated the need for all responders to speak the same language. The National Incident Management System (NIMS) issued requirements for agencies to use plain English when administering mutual aid, but did not address how states would make the transition.

Virginia's State Interoperability Executive Committee (SIEC) and the Commonwealth Interoperability Coordinator's Office (CICO) established a cross-disciplinary and multi-jurisdiction initiative action team (IAT) to analyze current usage of codes and determine a path to common language for the Commonwealth. The IAT represented a true state and local partnership working towards a common goal. The group conducted surveys to collect existing coded language information and worked collaboratively to determine the common language protocol.

The result of the IAT's work is a statewide common language protocol with the needed buy-in to be successful. Thanks to the strong partnership between localities and state agencies, the common language protocol has been adopted by major state agencies including the Virginia State Police and many localities and regions within its first year in existence.

The Virginia common language protocol has been highly touted by the Department of Homeland Security's SAFECOM Program, NIMS Integration Center, and other states for its innovative development process and successful results and has had national and international attention in the media. Working together across the various levels of government, regions, and first responder disciplines Virginia has created a common language protocol that will allow our first responders to better communicate with each other in day to day or large disaster situations.

Description of the problem and solution

Coded language systems have existed for decades, incorporating a degree of brevity and security to radio communications for public safety agencies. In a time where coded language is freely available on the internet, individuals own scanners, and the United States is facing an increasing number of terrorist and other threats, coded language is no longer providing the security it once did or allowing first responders to communicate effectively when administering mutual aid.

Recent major emergencies demonstrate that these disparate codes cause confusion and serve as a barrier to interoperable communications. When public safety response draws from multiple localities and levels of government, such as during Hurricane Katrina, it becomes abundantly clear that all responders need to speak the same language.

In response to known difficulties and to better prepare in advance of any further such incident, the National Incident Management System (NIMS) released guidance stating "codes should not be used for radio communications; a clear spoken message….reduces the chances of error." NIMS later released requirements for all agencies to use plain English when administering mutual aid. However, NIMS did not address how states would make the transition from codes to plain English.

Many emergency and fire personnel already use plain English to communicate during emergency response, but most law enforcement agencies still use coded language, usually in the form of 10-codes. Since the system has been a standard for 30 years or more, a comprehensive switch could easily be perceived as prohibitive. However, use of a 'new' system such as plain English only in emergency situations poses serious drawbacks to success; the Commonwealth of Virginia discovered that first responders "play as they practice" which means only using plain English in mutual aid scenarios was not likely to solve the problem. In addition, there were several scenarios where coded language may still be necessary to protect responder safety.

Transformation is further complicated by law enforcement's use of electronic technology as complimentary communication with radio broadcast. Dispatchers typically input coded language into the type of computer assisted dispatch (CAD) systems used widely by police, sheriffs and other law enforcement personnel. Plain English equivalents for this purpose pose challenges in both translation and finance.

Finally, Virginia hosts a wide variety of geography, population density and economic conditions across the state. Public safety and law enforcement practices first adapt to local circumstances. An arbitrarily mandated system would have serious limits to adoption if not responsive to local input.

To comply with NIMS guidance and provide the best protection to the citizens of the Commonwealth of Virginia, in 2004, Virginia's State Interoperability Executive Committee (SIEC) recommended the establishment of a statewide common language protocol as a major initiative for the Commonwealth of Virginia Strategic Plan for Statewide Interoperable Communications. In response to direction from the SIEC, the Commonwealth Interoperability Coordinators Office (CICO) established a cross-disciplinary and multi-jurisdiction initiative action team (IAT) to analyze current usage of codes and determine a path forward for the Commonwealth.

The IAT consisted of members of major public safety associations including the Virginia Sheriff's Association, the Virginia Fire Chief's Association, the Virginia Association of Chiefs of Police, the Virginia State Firefighters Association, Virginia Association of Public-Safety Communications Officials, and Virginia Association of Governmental EMS Administrators; local communities including Fairfax, Chesterfield, Virginia Beach, Henrico and Powhatan; and state agencies including Virginia State Police, Department of Corrections, Department of Transportation, Virginia Department of Fire Programs, and Virginia Department of Forestry. The IAT represented a true state and local partnership working towards a common goal.

The IAT began the process with the creation and distribution of two statewide questionnaires to collect input from the public safety community. Surveys were sent to police chiefs, fire chiefs, sheriff's offices, EMS supervisors, 911 center supervisors, agencies participating in the Statewide Agencies Radio System (STARS), and university police departments across the state. The first survey queried current use of plain English and coded language. The second survey addressed specific questions, such as reprogramming computer assisted dispatch (CAD) systems. The IAT used these surveys to identify which implementation strategies could be reasonably applied on a statewide level and worked collaboratively to determine the common language protocol.

Through the collaborative development process, the principal objection to the use of plain English was the possibility that sensitive information could be revealed to a suspect within hearing range of the responder, possibly endangering the safety of the responder. To ease these fears, the IAT set to determine a short list of scenarios that may require coded language. From the lists of hundreds of 10-codes the IAT chose four scenarios to remain in coded language to protect responder safety:

- Immediate danger
- Backup/assistance
- Take subject into custody
- Hold for sensitive information

Because the protocol was developed by the public safety community that would now adopt it, Governor Timothy M. Kaine approved the protocol for usage throughout the Commonwealth and released a press release on October 2, 2006 formally announcing its implementation. (http://www.governor.virginia.gov/MediaRelations/NewsReleases/viewRelease.cfm?id=255)

The CICO promoted the common language protocol through speaking events, handouts, pocket cards and the Interoperability in Virginia Web site (www.interoperability.virginia.gov). Because of the collaborative approach that was used to develop the protocol which involved public safety responders, the first adopter of the protocol was the Virginia State Police (VSP). VSP was once the Commonwealth's biggest hold out for common language, but through the collaborative process they were the first to show their support – rolling out the protocol the day of the Governor's press release. Since then, the Commonwealth has seen great success in its acceptance and roll out.

Since the protocol was deliberately kept simple, many implementation decisions were left to the discretion of individual departments and agencies. As a result, VSP made three significant additions to the general statewide guidance. VSP reprogrammed its CAD system to change the coded language call types to abbreviations derived from plain English. The CAD system will continue to accept coded language call types for 6 months after the reprogramming to allow dispatchers to gradually adjust to the change. VSP also had to inform the Virginia Department of Transportation and naval intelligence personnel of their CAD reprogramming, since those agencies also used CAD information. VSP had to identify and modify all internal system processes that were triggered by the original coded language call type.

The CICO and the SIEC contacted Virginia's principal public safety professional associations to obtain endorsements for the Common Language Protocol; to date it has been endorsed by Virginia Association of Chiefs of Police; Virginia Association of Public-Safety Communications Officials; Virginia Fire Chiefs Association; Virginia Sheriff's Association; Virginia Port Authority; and Virginia State Police.

Thanks to the strong partnership between localities and state agencies, the common language protocol has been adopted by all state agencies and over 62 localities within its first year in existence.

Significance to the Improvement of the Operation of Government

The common language protocol has made a large impact on day-to-day operations of public safety agencies on the state and local level. The adopting organizations go well beyond traditional first responder agencies to incorporate hospitals, transportation, rail & transit, city officials and park rangers into the collaboration. By incorporating emergency support functions into the process, the Commonwealth has established "one voice" for Virginia's public safety efforts unlike any effort that has been done before. As governmental organizations that are charged with the well-being of Virginia's citizens, the public safety community is stepping up to better protect themselves and the public they serve.

The protocol enables public safety agencies to respond more effectively to emergencies and continue to protect responder safety by avoiding the chaos that can result from disparate coded language systems. The protocol is still being rolled out across the responder communities but is already making a marked difference in the way the law enforcement community collaborates with other agencies within their districts and across district borders. By incorporating the public safety community and encouraging them to talk clearly with one another, the Commonwealth of Virginia is not only solving the problem of disparate coded language but also opening doors between responder agencies to encourage them to work together to more effectively respond to emergencies.

The CICO continues to provide assistance to any agency that requests help by sending pocket cards for the four coded scenarios, supplying an agency with the common language protocol one-pager, sharing lessons learned from other localities that transitioned, providing presentation examples for training as well as answering any questions or concerns a locality may have while making the transition.

Benefits Realized by Service Recipients, Taxpayers, Agency or State

By operating more effectively during day-to-day operations and major emergency situations, the common language protocol has greatly affected the way public safety responds to incidents. By equipping the public safety community with the tools necessary to be effective as they work together, the Commonwealth of Virginia is also greatly enhancing the ability of that community to protect the lives of Virginia's citizens.

In addition to supporting Virginia's citizens, Virginia's CICO has been asked to share the protocol with numerous other states, including the neighboring states of Maryland, North Carolina, West Virginia and the District of Columbia, and states across the nation including Louisiana, California, Pennsylvania, New Jersey and Delaware. This demonstrates the nation's need for guidance towards low cost solutions for improving interoperable communications and the leadership role that Virginia plays in this discussion.

Since the roll-out of the protocol, the Commonwealth has received major national and international attention. NBC Nightly News did a feature on the Virginia State Police implementation, the Washington Post provided a front page article, the Department of Homeland Security has recognized the Commonwealth's work, and states across the nation continue to contact the Commonwealth to find out how they did it.

Materials:
- Common Language Web Page for Case Studies and News
  www.interoperability.virginia.gov/commonlanguage.html
- NBC Nightly News Clip featuring Virginia State Police
  www.interoperability.virginia.gov/media/CommonLanguage_NBC.wav
- Common Language Protocol Overview One-Pager
  www.interoperability.virginia.gov/pdfs/CommonLanguage_OnePager.pdf
- DHS Best Practices/Lessons Learned
  www.interoperability.virginia.gov/pdfs/LLIS_CommonLanguageProtocol.pdf

Realized Return on Investment, Short-Term/Long-Term Payback

The common language protocol was developed and implemented at little cost and provides vast improvement for interoperable communications. While most "solutions" for interoperable communications involve large technology purchases in the hundreds of millions, the common language protocol was developed using practitioner volunteer time, a skeleton contractor crew, and the time and dedication of the CICO staff.

The roll-out of the protocol also cost very little. The CICO printed over 13,000 pocket cards with the coded language scenarios for usage by public safety agencies at the small cost of approximately $6,000. These types of operational solutions must be combined with the technological solutions available today to address interoperability.

In the short-term, payback for the effort has been in the form of encouraging numbers of endorsements for the protocol. In the long-term the protocol will result in lives saved and the protection of our essential public safety responders. The collaborative environment established through this effort will also result in significant cost savings for responder agencies. As responders continue to share more assistive information across the airwaves and begin to work together more effectively and with less secrecy, they may share resources across disciplines to streamline response and decrease the costs associated with establishing and maintaining independent systems for redundancy and back-up communications.

The common language protocol was an essential win for the Commonwealth and will prove to be an essential component of any state's efforts to improve interoperable communications. Virginia is truly a nationally-recognized leader and will continue to innovate around the issue of interoperability.