STATEWIDE AGENCIES RADIO SYSTEM (STARS)

PROGRAM

A Report to the Governor, House Appropriations Committee, And Senate Finance Committee

October 2010

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COMMONWEALTH OF VIRGINIA

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TO: The Honorable Robert F. McDonnell, Governor of Virginia

The Honorable Charles J. Colgan
Chairman of the Senate Finance Committee

The Honorable Lacey E. Putney
Chairman of the House Appropriations Committee

Pursuant to Item 407, D.2., of the 2010 Appropriation Act, I am respectfully submitting herewith a *Report on the Statewide Agencies Radio System (STARS) Program.*

Respectfully,

W. S. Flaherty

Superintendent

Scope of the Statewide Agencies Radio System (STARS) Contract

Colonel W. Steven Flaherty, State Police Superintendent, and Mr. Mark Moon, Vice President and General Manager of Motorola, signed a $329 million contract between Motorola and the Commonwealth of Virginia for the design, construction, and implementation of the Statewide Agencies Radio System (STARS) on July 13, 2004. A ceremonial contract signing was held on July 16, 2004, in conjunction with a press conference.

In summary, the major implementation milestones completed are:

- Division I Infrastructure System Acceptance completed on December 21, 2006, with Final System Acceptance on December 2008.
- Division V completed Infrastructure System Acceptance on June 12, 2007, with Final System Acceptance on December 18, 2009.
- The Zone 2 Master Site in Salem was completed September 15, 2008.
- Division II received Final System Acceptance on June 14, 2010.
- Division VII received Final System Acceptance on June 28, 2010.

STARS provides multi-channel, trunked, digital voice and data wireless communications that are specifically designed for public safety requirements, based on APCO Project 25 technology. The existing State Police microwave radio network's technology and capacity are being upgraded and disaster recovery alternate paths are being added. The STARS contract provides for essential public safety grade communications that can operate seamlessly throughout the Commonwealth for the 21 state agencies and facilitate interoperability with local governments and federal agencies.

The STARS design is a culmination of partnering with the Commonwealth, the project's engineering consultant, AECOM Design, (formerly Hayes, Seay, Mattern & Mattern, Inc. (HSMM) / CTA Communications) and Motorola. Meeting needs, utilizing existing resources, and minimizing risk were heavily weighted design parameters in developing the STARS contract. Capitalizing on existing infrastructure and resources, whenever possible, benefited the Commonwealth in the ability to implement STARS in a cost effective manner. Finally, design risk is minimized through the use of Motorola, a proven system integrator and communications manufacturer, along with the use of a redundant, fault-tolerant, hierarchal design that allows for re-routing in case of a single point of failure. The wireless communications system for the Commonwealth of Virginia contains today's latest technology and will continue to provide updated technology at no additional cost throughout the STARS implementation. STARS allows the

Commonwealth to retain a high level of service and security, plus flexibility to add more users when additional radio frequencies are available. In all applicable design components, STARS has addressed safeguards to system security, including controlled system access, and Advanced Encryption Standard (AES) encryption for law enforcement users. The system infrastructure will serve the Commonwealth for many years to come.

Projected Total Cost of System

Special Funds

Pursuant to the Code of Virginia, §2.2-2264, the General Assembly authorized the Virginia Public Building Authority to issue revenue bonds not to exceed $159,300,000 for constructing, improving, furnishing, maintaining, acquiring and renovating buildings, facilities, and land for the STARS project. Chapter 245 approved by the General Assembly session March 30, 2006, authorized additional funding via bonds issued by the Virginia Public Building Authority in the amount not to exceed $201,900,000 to complete STARS.

The breakdown of projected total costs for the system is as follows:

Contract Cost for Core System, Paid by Bond Fund

Land mobile radio equipment and upgrades	$ 148,977,412
Microwave network equipment and upgrades	$ 33,082,094
Mobile data (in car computers)	$ 33,908,049
Transmitter sites & towers	$ 83,163,356
Network Operations Center Zone 2 Control Center equipment	$ 16,056,940
Communications Centers renovation and equipment	$ 10,440,190
Test equipment and spare parts	$ 3,823,658
Performance bond	$ 222,000
Total Original Motorola Contract Cost	**$ 329,673,699**
Revised Motorola Contract Cost to include 40 Contract Modifications as of August 28, 2010	**$325,511,336.83**

Tasks Removed from the Contract that the Commonwealth will Complete at a Reduction in Costs, to be Paid by Bond Funds

Procurement and installation of control station poles	$ 240,000
Computer-aided dispatch Interface software changes	$ 300,000
Procurement of software for mobile data, asset management and help desk	$ 4,310,000
Tower site acquisitions, grounding, environmental & emissions compliance and removal of unused towers	$ 3,383,000
Renovations to warehouse to house the Network Operations Center and construction of the Zone 2 Control	$ 2,700,000
Renovation of the STARS office as a Training Center, travel and equipment for training	$ 2,650,000
Independent verification and validation testing	$ 300,000
Legal and licensing fees	$ 450,000
Payment to Motorola for guaranteed clear and usable frequencies	$ 5,250,000
Total Commonwealth Tasks Cost	$ 19,583,000

Revised Total STARS Construction Cost To Date **$345,094,336.83**

The STARS Program contract was signed on July 13, 2004. At that time, the cost to complete the project was $349,256,699. The original STARS Program had $159,300,000 from bond funds allocated. The amount authorized during the 2006 legislative session for the final funding of the STARS Program was $201,900,000.

The revised contract appropriation cost for STARS is $361,200,000.

General Funds – Operational Expenses

The general fund appropriation for FY2010 is $2,510,000, to be used for implementing STARS. The projected annual operating expenditures during the implementation phase consist, in part, of the following:

Category	**Amount**
Personnel - STARS staff	$ 800,000
Contractual services (includes AECOM design and attorneys)	$ 1,185,000
Supplies & materials	$ 5,000
Insurances	$ 20,000
Equipment	$ 500,000
	$ 2,510,000

Approved STARS Positions

Six Network Console Operators were hired and are maintaining 24/7 coverage in the Network Operations Center. The Network Operators monitor performance diagnostics and network alarms. They also operate a systems repair help desk and are capable of dispatching, if required, for unusual events.

Additional STARS Reoccurring Operating Costs in Future Fiscal Years

A decision package for the maintenance of the STARS network has been approved by the 2010 General Assembly providing general funds for FY2011. The funding for FY2012 is pending with the Department of Planning and Budget.

The STARS network is a public safety grade wireless communications system that must be maintained in an operational status 24 hours a day, seven days a week. To accomplish this, a well-trained staff of engineers and technicians must be available and have access to parts, tower sites, and vehicles on the network on a 24/7 basis. Commercial service is cost prohibitive, will not maintain the required level of knowledge of this network, and is not available on a 24/7 basis. The Department has always maintained its communications network with Department employed engineers and technicians. There is no other practical way to maintain the STARS network and the vehicles on the network.

The Department will assume the responsibility for equipping new vehicles and boats that belong to the 21 STARS agencies. In addition to new vehicles, retired or crashed vehicles would be brought to the Department garage for removal of the STARS radio equipment, which would then be re-installed into another vehicle. When the Department assumes equipment and radio installations for the other STARS agencies, additional positions and equipment will be needed.

Summary of Costs and Positions

	GF Dollars	Personal Services Costs	Nonpersonal Services Costs	GF Positions
FY2011	$ 3,902,168	$2,348,871	$1,553,297	22.00
FY2012	$9,832,255	$3,407,896	$6,424,359	49.00
FY2013	$13,169,822	$3,369,800	$9,800,022	49.00
FY2014	$ 8,518,531	$3,369,800	$5,148,731	49.00
FY2015	$13,016,935	$3,369,800	$9,647,135	49.00
FY2016	$8,518,531	$3,369,800	$5,148,731	49.00

Completed Network and Equipment Maintenance

When completed and no longer under warranty, STARS network infrastructure maintenance will be handled by current State Police Communications Division personnel. The warranty period is one year for equipment and the infrastructure and three years for the mobile radios, portable radios, and mobile data in-car computers. The State Police Communications Division will provide equipment maintenance for agencies they presently serve. A decision package for the

maintenance of the STARS network was approved by the 2010 General Assembly providing general funds for FY2011. The funding for FY2012 is pending with the Department of Planning and Budget. In addition, a new garage has been funded through the Purdue Pharma Fund (Oxycontin Settlement). The garage is under construction with completion anticipated by November 30, 2010. This garage will support all User Agencies Requirements Committee (UARC) vehicular subscriber installs and decommissioning.

Communications Technologies and System Capabilities

Systems Integration

The Motorola STARS project team implementation is based on a designed and detailed integration plan. The Motorola Program Director has brought together the people and resources for the STARS project, and manages them toward meeting every project milestone. This intensive planning, based on dozens of successful large-scale integrations, reduces risk to the Commonwealth. Important details, such as the execution of the Customer Design Review, the development of the talk group plan, the development of a migration plan for each agency and end user, including the appropriate timing of end user training, are all crucial in the implementation of a successful integration strategy for STARS. A thorough project schedule is critical for planning, resources, costing, and risk mitigation. During the implementation phase of each Division, detailed plans and pre-builds of the system are completed at the Motorola staging facility and/or the Customer Center for System Integration. This staging includes all third-party equipment also. The system is then tested, measured, and optimized to ensure it meets the design considerations. Commonwealth employees are an essential part of the testing and implementation processes.

Much of the work entails coordinating local vendors to secure antenna sites, and erect towers and buildings. Site development continues for Divisions III and IV. Divisions I, II, V and VII are installed and live on STARS. Division III is anticipated to be live on STARS by September 30, 2010, Division VI on November 4, 2010, and Division IV on November 18, 2010. The implementation process is broken down into individual tasks in a full project plan, which covers:

- Engineering and design
- Procurement
- Facility construction and upgrades
- Systems installation
- Optimization and testing by system and subsystem
- Agency migration and cutover
- Closeout and acceptance
- Frequency planning
- Talk group (fleet map) development

Once the system is working as designed in each Division, the Department of State Police (VSP) will provide the expertise to manage, monitor, and service the system.

Motorola is performing the work and tasks required to design, manufacture, install, optimize, test, and integrate STARS; in addition to providing the documentation and training to support the operation of STARS. Motorola and the Commonwealth have provided a dedicated project leader to act as the single point of contact for all administrative, technical, and scheduling issues related to the project. Mr. Wes Jones is the Motorola Program Manager. The Motorola Program Manager has the overall responsibility for providing the Motorola deliverables required for the implementation of STARS and management of the STARS project schedule. The Commonwealth's Program Director, Captain Michael E. Bolton, has the overall responsibility for ensuring that all Commonwealth responsibilities and tasks are completed per the contract schedule.

Communications within the Tunnels

Motorola will install VHF and 800 MHz wireless communication coverage in six tunnels in the Commonwealth of Virginia (Big Walker Mountain, Hampton Roads, Elizabeth River Downtown, Elizabeth River Midtown, Monitor/Merrimac, and East River Mountain). Installation has been completed in three tunnels (Elizabeth River Midtown, Monitor/Merrimac, and Hampton Roads). The design allows for effective mobile radio, portable radio, and computer data communications within the tunnels. In addition to being designed for STARS, the tunnel design accommodates the existing VSP communication channels that increase the effectiveness of the overall Commonwealth migration plan to STARS.

The Chesapeake Bay Bridge Tunnel (CBBT) was added to STARS by the Management Group with expenditures approved by the 2006 General Assembly. Installation began May 31, 2007. It is scheduled to go live on STARS on September 16, 2010.

Transportable Communication Site

The transportable site is contained within a trailer that is easily moved to provide additional radio capacity, interoperability, and support for disaster recovery operations for STARS. This site is designed to be moved and placed into service where needed by the Commonwealth during events such as floods, hurricanes, or during a major event like what occurred at the Pentagon on September 11, 2001, where additional radio system capacity and interoperability are required. This transportable site provides on-site ASTRO 25 digital trunked communication in the 800 MHz frequency band, as well as interconnection with other agencies, regardless of the frequencies they operate on, via an ACU-1000 network interface. The entire site can typically be deployed within one hour of the arrival of the trailer at the site. The transportable site was utilized this year during the Governor's Inauguration, the Virginia State Fair, and the Urbanna Oyster Festival.

Voice and Data Coverage

STARS integrates voice and data over the same frequencies. As STARS is a public safety grade system designed to support life and death situations, the system is configured such that voice traffic is given the priority over data messages. The performance guarantees and test procedures will ensure the Commonwealth will experience clear communications as defined by the vigorous testing standards established in the contract.

Microwave Network

The microwave network provides the Commonwealth with the digital transport required for interconnecting land mobile radio, mobile data, telephone, and alarm and control networks. In addition, it will be used to replace leased data lines currently connecting State Police sites. It will also be highly reliable and capable of supporting government relocation, if required.

The network consists of digital microwave equipment of various frequencies and capacities. This microwave network, consisting of synchronous optical network loops, allows rerouting of microwave traffic if required during a failure or emergency. The microwave spurs are protected by hot standby equipment.

Each State Police Division Headquarters and most Area Offices will be equipped with a microwave phone network that will allow on-site personnel to place and receive telephone calls over the microwave network. This circuit is connected to the Commonwealth's private phone system and the public service phone system.

Mobile Data Applications

The Premier Mobile Data Computer software installed in patrol cars will provide the following to the Commonwealth:

- Law enforcement mobile data, such as wanted checks and DMV records checks
- Intra-agency and inter-agency text messaging
- Interface with the VSP computer-aided dispatch
- Global Positioning System support for Automated Vehicle Location

STARS is including an Automated Vehicle Location subsystem to identify the location of law enforcement patrol cars that are equipped with computers. Location data will be sent to a display at the closest State Police Division Headquarters during vehicle stops or from a dispatcher initiated request. This feature is directly intended to support the commitment to maximizing a STARS subscriber user's safety.

Since signing the contract, the mobile data requirements for the Department of State Police and the STARS law enforcement agencies have changed. The Integrated Voice and Data (IV&D) network provides a limited data capability that

will not support sending DMV photographs, Amber Alert photographs, nor will it support an over-the-air Records Management System (RMS). STARS mobile data users will now have the option to use a Verizon air card to provide the required capacity to support sending photographs and RMS files over the air. The Verizon cards will provide the primary mobile data transport with the IV&D mobile data as secondary where Verizon coverage is unavailable, as may be the case during a significant disastrous event.

Alarm and Control

The STARS Network Fault Management subsystem manages transmitter site/equipment alarms and controls various site functions. The Network Fault Management subsystem collects data automatically, processes that data, and then displays it at the Network Operations Center. This management tool provides a single interface for monitoring equipment and systems alarms over Internet protocol. The data is used to operate the network, analyze the flow of site alarm and system control data, offer system solutions and handle pre-defined alarm situations automatically. The system provides reports to the engineers and the operators that will help in administering the network. The Network Operations Center at State Police Headquarters houses personnel on a 24/7 basis to identify problems, remotely correct alarm conditions or dispatch technicians.

Transmitter Sites

The original 121 transmitter sites in STARS consisted of 45 land mobile radio (LMR) tower sites and 76 microwave tower sites. These sites support the land mobile radio voice, microwave radio, and the mobile data subsystems. Each site's communications equipment is housed in a protective building, monitored for technical functions and protected with emergency power systems and sophisticated grounding systems to protect from lightning damage. Our current system consists of 49 LMR tower sites and 24 microwave tower sites.

Each site will be implemented using the most efficient and cost-effective process. A methodical approach will be followed which takes into consideration many facets, such as microwave radio path surveys, necessary FAA submittals and approvals, architectural and engineering work, and site specific improvements. The major components necessary for the completion of a communication site include site preparation, radio towers, radio buildings, climate control, backup power systems, as well as fencing.

Master Sites and Dispatch Center Renovations

Motorola has provided the Commonwealth with design-build construction services to upgrade three of the seven State Police Communications Centers. They were constructed as additions to existing State Police Division Headquarters buildings. All construction and renovations are complete with new dispatcher consoles as follows:

- Divisions I, V, VI, and VII have eight positions.
- Divisions II and III have seven positions.
- Division IV has five positions.

During contract negotiations, it was determined the Commonwealth will be able to manage and procure construction services for the STARS Network Operations Center and the Zone 2 Master Site facilities resulting in considerable cost savings. Motorola has installed the equipment in both facilities. To meet the aggressive schedule, an existing State Police warehouse was refurbished for the Network Operations Center. The Network Operations Center became operational on February 13, 2006. A new building at Division VI (Salem) has been completed and is supporting State Police dispatching and the Zone 2 Master Site equipment.

Voice and Data Subscribers

Motorola is providing the Commonwealth with vehicular radios, portable radios, mobile digital vehicular repeaters, and mobile computer terminals for users to operate on STARS. Different models are being supplied that will enable the Commonwealth agencies to employ the radio types appropriate for their particular operational needs.

Status of Site Acquisitions

All sites have been acquired and locked down. Construction is pending on eight sites. All site construction and coverage testing is scheduled to be completed by October 2010.

Project Management Plan

Executive Order 28 (2002)

On June 26, 2002, Executive Order 28 (2002) was signed officially continuing the Statewide Agencies Radio System (STARS) Project. It also provided direction as to how the project would proceed, including participating agencies, and formulated the basis of the Project Management Plan.

Executive Order 101 (2005)

On November 1, 2005, Executive Order 101 (2005) was signed and continued the STARS Project through October 31, 2008.

Executive Order 79 (2008)

On October 24, 2008, Executive Order 101 (2005) was signed and continues the STARS Project through October 25, 2011.

The STARS membership is composed of the following 21 state agencies:

Alcoholic Beverage Control
Capitol Police
Charitable Gaming
Chesapeake Bay Bridge & Tunnel Police
Conservation and Recreation
Corrections
Emergency Management
Environmental Quality
Fire Programs
Forestry
Game and Inland Fisheries
Health
Juvenile Justice
Military Affairs
Mines, Minerals, and Energy
Motor Vehicles
State Police
Transportation
Virginia Information Technologies Agency
Virginia Marine Resources Commission
Virginia Port Authority

Representatives from each agency make up the User Agencies Requirements Committee (UARC).

STARS Program Oversight and Workgroups

The STARS Management Group is a board established by Executive Order 28 (2002) and composed of the Secretaries of Agriculture and Forestry, Commerce and Trade, Finance, Health and Human Resources, Natural Resources, Public Safety, Technology, and Transportation. The Secretary of Public Safety serves as the Chairman. The STARS Management Group provides direction and overall governance for the development, implementation, and ongoing operation of STARS. In addition, the board reviews all procurements and contracts, coordinates radio frequency licenses granted by the federal government to agencies of the Commonwealth, and promotes interagency cooperation and coordination in the use of communications resources.

The User Agencies Requirements Committee (UARC) consists of two representatives (primary and alternate) from each member agency and institution. The Chairman of the UARC is selected by the STARS Management Group. The current Chairman is Mr. Warren Wahl with the Virginia Department of Conservation and Recreation. The UARC meets as necessary, but at least quarterly. The specific duties of the UARC are:

- to advise on the needs of member agencies for the planning, design, establishment, and operation of STARS;

- to provide advice on proposals for other federal, state, or local agencies to join STARS and on any proposals for third party use of any STARS infrastructure or component; and
- to assist the STARS Management Team with the development of a comprehensive management plan and procedures for the operation of STARS.

The UARC will form various interoperability working groups to advise the STARS Program Management Team how to configure/program the networks. They will plan talk groups to communicate during various intra-agency events and potential emergency situations. Interagency planning is part of the Systems Integrator contract.

The Virginia Information Technologies Agency (VITA) will be consulted by the Secretary of Public Safety, or his/her designee, prior to implementing any significant data transport related network upgrade or modification. STARS continues to provide monthly updates on the VITA ProSight IT Investment Portfolio Tool.

The Intra/Inter-Agency Workgroup meets every other Monday and is chaired by the STARS Program Director. The group is comprised of State Police Administrative and Support Divisions, the STARS Program Management Team, and representatives as needed from other agencies based upon their involvement as forecasted by the project schedule. Accomplishments and tasks that need to be started and completed are discussed.

The STARS/Motorola/AECOM Project Workgroup is comprised of the STARS Program Management Team, the Systems Integrator, and the engineering consultant. The managers meet on a monthly basis in accordance with the contract and topic-oriented work groups as needed (typically multiple groups weekly). The meetings have an agenda and minutes are recorded. The purpose of the meetings is to review the schedule, identify problems, provide solutions to problems, establish action items, and schedule any needed teleconferences. Advisors from the various agencies will be included when their input is required.

STARS Program Management Team Responsibilities

The Program Director (Captain Michael E. Bolton) is also the Communications Officer for the Communications Division and is responsible for the overall direction of the STARS Program and management of Communications Division daily operations. The STARS Program Director holds meetings with representatives from the Intra/Inter-Agency Work Group. Monthly meetings are held with the STARS/Motorola/AECOM Project Group to outline progress and tasks. The Program Director will ensure the Integrator provides proper documentation and that all work is inspected and approved within the terms of the contract.

The Program Director maintains liaison with the Secretary of Public Safety, the User Agencies Requirements Committee (UARC) and the STARS Management

Group to ensure they are kept abreast of progress and developments. Monthly status reports required by policy and law are being provided. The Program Director will provide reports and testimony to the General Assembly as required.

The Program Director is responsible for ensuring the Virginia Information Technologies Agency (VITA) is consulted and the Secretary of Public Safety is informed prior to implementing any significant data transport related network upgrade or modification.

The Program Manager (Ms. Angela Edwards) is the STARS Program Manager. She will maintain a close working relationship with the Motorola STARS Program Director and Resource Manager, consultants, and Commonwealth staff to ensure the project progress is monitored and issues are resolved in a timely manner as they arise.

The Technical Lead Engineer (Mr. John G. Agee) is the technical lead and supervises the Communications engineering staff. He works closely with the Systems Integrator, and consultants through the STARS Program Manager to provide solutions to technical problems. He evaluates any new or improved technology that may be recommended by the Systems Integrator, consultants, and advisors.

The Procurement and Contract Officer (Ms. Patricia T. Trent) develops and issues solicitations, negotiates and administers the contract. She prepares sole source justifications, monitors contractor performance, initiates contract resolutions and issues change orders. In addition, she maintains the overall Bond Program Budget. She is also the mediator between the agencies and contractors to resolve any contract issues, responses needed, or scheduling delays.

The Telecommunications Engineers (Mr. Michael D. Deane and Mr. Noel Armstrong) assist with the engineering, design, installation and documentation for upgrade of the existing land mobile radio system, the microwave system, radio towers, subscriber equipment, fleet mapping, and talk group development to meet the requirements of the STARS system. They work closely with the Systems Integrator, consultants and member agencies to ensure all upgrades are made in a timely manner and meet the requirements of STARS.

The Program Administrator (Ms. Teresa M. Hudgins) is responsible for maintaining the master program schedule, individual project schedules, work breakdown structures, and performing monthly project status updates via ProSight to VITA. Additionally, the Program Administrator is responsible for maintaining the General Fund Program budget and managing expenditure accounts during the implementation period.

The Property and Finance Program Support Technician Senior (Ms. Anna Poole) is the liaison for STARS with all the member agencies.

Project Timelines for Implementation

Pending Category	Projected Completion	Actual Completion
IV&D Frequency Plan Development	01-29-04	Ongoing
Division I – System Operational	08-01-06	12-2008
Division V - System Acceptance	01-04-08	12-18-09
Division II – System Acceptance	07-06-10	06-14-10
Division VII – System Acceptance	07-06-10	06-28-10
Division III – System Acceptance	09-30-10	
Division VI – System Acceptance	11-04-10	
Division IV – System Acceptance	11-18-10	

Motorola submitted their August 2010 STARS Master Schedule 082010 V22 on August 24, 2010. This master schedule delineates conditional acceptance with full beneficial use (including training and cutover) on November 19, 2010. Final and close out documentation is projected to be completed by April 7, 2011 (final project acceptance).

Vehicular equipment installations were completed in May 2010.

Integrated Voice and Data Frequency Plan Development

All frequencies for the STARS Network have been licensed except for the following:

- Division III Leigh Mountain - one frequency
- Division IV Dismal Mountain - one frequency
- Division IV Buck Mountain - one frequency

Other Information

COMLINC

Commonwealth Link to Interoperable Communications (COMLINC) allows dispatchers at the counties and cities to establish up to eight patches. One of the eight paths will come back to the STARS network. The dispatcher may use the other seven patches to connect agencies within their jurisdiction or to other localities. For example, a sheriff's office can patch to the fire department regardless of the frequencies used by each agency. Patches can also be made to phone networks and used to establish dispatcher conferences. By using COMLINC, the need to call by phone to establish a patch no longer exists; each dispatcher initiates the patch themselves at their console. COMLINC also provides instant recall of recorded audio. It enables the use of advanced calling features such as Emergency ID, and allows monitoring of the interoperability network activity and associated operations. For agencies requiring end-to-end encryption, COMLINC provides AES encryption over the network.

COMLINC was initially implemented in 16 localities in Division I, and at VSP Division I and V Headquarters, along with the STARS Network Operations Center (NOC). The current COMLINC participants include the counties of Caroline, Charles City, Chesterfield, Essex, Goochland, Hanover, Henrico, King George, Lancaster, New Kent, Northumberland, Powhatan, Richmond and Westmoreland, as well as the Virginia Department of Transportation (VDOT).

The COMLINC Project implemented by the cities of Lynchburg and Roanoke provides interoperability for 34 localities in Divisions III and VI and at VSP Division III and VI Headquarters. The COMLINC participants include the counties of Albemarle, Amherst, Appomattox, Augusta, Bedford, Botetourt, Buckingham, Campbell, Charlotte, Craig, Cumberland, Fluvanna, Franklin, Greene, Halifax, Henry, Mecklenburg, Montgomery, Nelson, Patrick, Prince Edward and Roanoke, as well as the cities of Bedford, Charlottesville, Lynchburg, Roanoke, Salem, Staunton and Waynesboro. Also included are the towns of Farmville, South Boston, Staunton and Vinton, along with Liberty University.

VSP completed the Interstate 95 corridor implementation of COMLINC with a grant in the amount of $1,628,850 from the Public Safety Interoperable Communications (PSIC) in May 2010. The current participants include the counties of Dinwiddie, Greensville, King and Queen, King William, Louisa, Prince George, Prince William, Spotsylvania, Stafford, Sussex, and Chesterfield, as well as the cities of Colonial Heights, Fredericksburg and Petersburg. In addition, the following VSP locations were provided interoperability: VSP Divisions I, II, V and VII, and the Transportable Site.

Stafford County has received a grant and will implement COMLINC within VSP Division II. This project is expected to include the counties of Clarke, Culpeper, Fauquier, Frederick, Madison, Orange, Page, Rappahannock, Rockingham, Shenandoah, Spotsylvania, Stafford, and Warren, as well as the cities of Fredericksburg, Harrisonburg and Winchester.

COMLINC will be expanded statewide if additional funding can be obtained.