## Version History

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<td>RTIP Appendix - eHHR Program 20120802.docx</td>
<td>08/02/2012</td>
<td>First draft for internal review</td>
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<tr>
<td>RTIP Appendix - eHHR Program 20120807.docx</td>
<td>08/07/2012</td>
<td>Draft with DSS comments included</td>
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1. Summary

The Patient Protection and Affordable Care Act of 2010 (PPACA) and the American Recovery and Reinvestment Act (ARRA) provide Federal funding for States to modernize Health Information Technology (HIT) systems. Medicaid Information Technology Architecture (MITA), a joint initiative between the Centers for Medicare and Medicaid Services (CMS) and the Center for Medicaid & State Operations (CMSO), is intended to foster integrated business and IT transformation across the national Medicaid enterprise that will enable successful administration of the expanded Medicaid program under PPACA. Using the MITA State Self Assessment (MITA SS-A), Virginia identified the future State agency HIT capabilities needed to meet the MITA objectives, and a series of enterprise-level IT projects that will support those capabilities. The Electronic Health and Human Resources (eHHR) Program Office was formed under Secretary of Health and Human Resources Dr. William A. Hazel, Jr. to promote and manage eHHR Enterprise IT projects in close coordination with our Federal and State government partners.

The ARRA and the PPACA present significant funding opportunities to improve the quality and value of Virginia healthcare. On June 28th, 2012 the Supreme Court of the United States (SCOTUS) made a decision regarding the constitutionality of the PPACA. The PPACA mandated Medicaid Expansion in 2014, but the SCOTUS decision allows the states the option as to whether or not they will participate in Medicaid Expansion as it is defined in the PPACA. Medicaid Expansion is predicted to increase Virginia’s Medicaid membership by 35-45%. Virginia has decided to postpone its decision on Medicaid Expansion until guidance from the Federal government is clearer and the true cost is better known.

Even without Medicaid Expansion Virginia’s application intake and enrollment in Medicaid, CHIP and other State assistance programs is growing quickly. Virginia has succeeded in obtaining Federal funding, independent of ARRA and PPACA, to support a Commonwealth of Virginia (COV) Eligibility Modernization initiative described in RFP No. DIS-12-055. Leveraging the Federal funding opportunities to offset the impact of expansion is an important investment in Virginia’s future, building on the investments already made for Health Reform and providing significant value for the investment by:

- Reducing opportunities for Fraud and abuse;
- Allowing better detection of fraud and abuse;
- Increasing operational efficiencies;
- Decreasing operational cost;
- Improving enrollment accuracy; and
- Improving government services to all Virginians.

Current Federal funding sources present significant opportunities to establish technical foundations for the future transformation of Virginia government services.
2. The eHHR Program

2.a. Description

The purpose of the eHHR Program (Program) is to align the Commonwealth with Federal direction relative to ARRA and the PPACA and Health Care reform in the Commonwealth. On June 28th, 2012 the Supreme Court of the United States (SCOTUS) made a decision regarding the constitutionality of the PPACA that affects what “alignment” means. Updates throughout this document reflect the impact of the SCOTUS decision.

The ARRA and the PPACA present significant funding opportunities to improve the quality and value of Virginia healthcare. The PPACA mandated Medicaid Expansion in 2014, but the SCOTUS decision allows the states the option as to whether or not they will participate in Medicaid Expansion as it is defined in the PPACA. Medicaid Expansion is predicted to increase Virginia’s Medicaid membership by 35-45%. Virginia has decided to postpone its decision on Medicaid Expansion until guidance from the Federal government is clearer and the true cost is better known.

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Leveraging the Federal funding opportunities to offset the impact of expansion is an important investment in Virginia’s future. The Federal funding available provides opportunities to achieve the following outcomes for Virginia:

- Build on current health reform efforts;
- Modernize information technology infrastructure as an enabler for future business transformation;
- Provide a technical environment where standards-based interoperability is possible between new and legacy systems;
- Provide web based, self-directed options for health services;
- Maximize the efficiency and effectiveness of administrative and operational staff;
- Manage overall long-term technology costs for Federal and State programs; and
- Provide an enterprise technology environment that is accessible on a pay-for-use basis by Federal, State, and local governments as well as non-government organizations, community based-services, and commercial interests as allowed by policy.

Current Federal funding sources present significant opportunities to establish technical foundations for the future transformation of Virginia government services.
2.b. **Background/Strategic Alignment**

If the COV decides to participate in Medicaid Expansion by 2014 as it is described in the PPACA mandates it is predicted to increase Virginia’s Medicaid membership by 35% to 45%. Virginia State government does not currently have the business process or technology capacity to manage the additional membership. The ARRA and the PPACA provide Federal funding assistance for States to modernize IT systems. MITA, an initiative of the Centers for Medicare and Medicaid Services (CMS) and the Center for Medicaid & State Operations (CMSO), is intended to foster integrated business and IT transformation across the national Medicaid enterprise that will enable successful administration of the expanded Medicaid program under the PPACA. Using the MITA State Self Assessment (MITA SS-A), Virginia identified the future State agency IT capabilities needed to meet the MITA objectives, and a series of enterprise-level IT projects that will support those capabilities. Virginia has succeeded in obtaining Federal funding for these projects under MITA initiatives, independent of the ARRA and the PPACA. The eHHR Program Office was formed under Secretary of Health and Human Resources Dr. William A. Hazel, Jr. to promote and manage eHHR enterprise IT projects in close coordination with our Federal and State government partners.

**Medicaid Information Technology Architecture (MITA)**

A joint program between Centers for Medicare and Medicaid Services (CMS) and Center for Medicaid & State Operations (CMSO), MITA is both an initiative and a framework. As an initiative, MITA is a plan to promote improvements in the national Medicaid enterprise and the systems that support it through collaboration between CMS and the States. As a framework, MITA is a blueprint consisting of models, guidelines and principles to be used by States as they implement enterprise solutions.

MITA is intended to foster integrated business and IT transformation across the national Medicaid enterprise to improve the administration of the Medicaid program. MITA’s common business and technology vision for State Medicaid organizations emphasizes a patient-centric view not constrained by organizational barriers. Using common standards, MITA promotes broad interoperability between Medicaid organizations within and across States, as well as with other agencies involved in healthcare. Other MITA hallmarks include web-based access and integration of public health data into central repositories.

MITA is aligned with the National Health Infrastructure Initiative (NHII), a voluntary network comprising clinical, public health, and personal health knowledge-based information systems that make health information available to improve decision-making.

**MITA State Self-Assessment (SS-A)**

Using a standard methodology and tools, the MITA State Self-Assessment provides a mechanism for State agencies to document the way the State conducts Medicaid business now, and plans to conduct business in the future. The purpose of a completed SS-A is threefold:
1) To identify where the State agency’s business processes are located along the continuum from the current As-Is state to the future To-Be (target) state of a State’s Medicaid services;

2) To provide a State baseline that will facilitate collaboration between the States and the Federal government, between the States and industry, and among the States themselves; and,

3) To provide input to help States develop a transition plan to guide their business and technical transformations.

Virginia completed its first SS-A in 2007 and more recently updated it in 2010/2011 to assess its alignment with ARRA and PPACA. A number of agencies participated in the 2010/2011 SS-A effort, including the Department of Social Services, Department of Medical Assistance Services, Department of Behavioral Health and Developmental Services, Virginia Department of Health, Department of General Services, Division of Consolidated Laboratory Services, Virginia Information Technology Agencies, Department of Motor Vehicles, Department of Corrections, Department of Rehabilitative Services, Virginia Department of Aging, and the HIT Advisory Committee (HITSAC). A Behavioral Health MITA SS-A (BH-SS-A) was also performed. The efforts resulted with an updated, HHR Secretariat-approved MITA Transition Plan. The materials are located at: [http://dmasva.dmas.virginia.gov/Content_pgs/mita.aspx](http://dmasva.dmas.virginia.gov/Content_pgs/mita.aspx)

**MITA Transition Plan**

HIT business process and technology transformation on the scale of MITA requires close cooperation between Federal, State and local governments, standards groups and private industry. It will also require a sustained effort by DMAS to facilitate alignment and coordination efforts between Virginia’s State and local governments. Accordingly, DMAS has designated a MITA program manager to coordinate the transition in Virginia. A great deal has been accomplished since the 2007 SS-A in this area, building State and local government awareness of, and participation in MITA and its processes. The national health care efforts and Federal initiatives have been a catalyst resulting in a formal alignment of vision, strategy, and coordination for MITA in the Commonwealth.

The transition strategy is to:

- Repeat the SS-A every two years to align Virginia’s effort with the national MITA direction and industry standards;
- Incorporate MITA business, information, and technical standards into Virginia’s existing enterprise architecture;
- Leverage Virginia’s existing working groups, steering committees, councils, industry and user groups to educate, convey information, collaborate, and coordinate efforts;
- Position enterprise technology platforms to support MITA compliant information systems; and
- As business needs dictate, replace or enhance non-MITA compliant HIT systems.
Federal Confirmation

In June 2010, Virginia met with CMS to discuss MITA, related Federal initiatives, and a proposed direction for Virginia. The meeting confirmed Virginia’s decision to leverage MITA as the central planning strategy and vision, and to address both ARRA and PPACA requirements from an enterprise perspective.

In June 2011, Virginia met with CMS and the Administration for Children and Families (ACF) to discuss how Virginia’s MITA efforts align with the National Human Services Interoperability Architecture (NHSIA). Similar to MITA, NHSIA is a framework that supports common eligibility and information sharing across programs and agencies, improves delivery of services, prevents fraud, and improves outcomes for children and families. While MITA and NHSIA are each tailored for a specific purpose, they have many key IT architecture features in common.

In the concluding remarks from both sessions, our Federal partners confirmed that Virginia’s MITA enterprise efforts are on track with the Federal direction. In addition, ACF and CMS both noted that due to the efforts of Secretary Hazel and the HIT/MITA Program Office, Virginia is one of the national leaders in MITA planning and adoption.

Whether or not the COV participates in Medicaid Expansion, replacement of eligibility systems is necessary to address the growing population of citizens needing services provided by HHR. The systems will build on the investments made for Health Reform and will still provide significant value for the additional investment:

- Reduced opportunities for fraud and abuse;
- Better detection of fraud and abuse;
- Increased operational efficiencies;
- Better management of operational cost;
- Improved enrollment accuracy; and
- Improved government services to all Virginians.

Virginia’s strategic direction is well aligned with Federal direction, MITA, National Information Exchange Model (NIEM), etc.

The Program will affect and require support primarily from the following agencies:

**Health and Human Resources**

1) Department of Social Services
2) Department of Behavioral Health and Developmental Services
3) Virginia Department of Health
4) Department of Medical Assistance Services
5) Department of Rehabilitative Services
6) Virginia Department for the Aging
Others
1) Department of General Services, Division of Consolidated Laboratory Services (DCLS)
2) Transportation, Department of Motor Vehicles
3) Technology, Virginia Information Technologies Agency

This document will include the following:
- The Scope section will include additional information regarding the business objectives and outcomes followed by Assumptions and Constraints;
- The Schedule section will include when the required components will be delivered.
- Financials will be presented in the form of cost and benefit;
- This program will deliver several components which will be described in detail in the Projects within the Program section; and
- Risks and issues management, organizational structure, communication management, program change management, organizations change management, quality management and success measurement, all separate planning documents, are also described briefly below.

2.c. Project List with Descriptions
The eHHR Program is comprised of projects that report directly to the Program and other programs that report to the Program. Those programs are comprised of projects. There are also agencies outside of HHR that are managing projects under the eHHR Program.

2.c.1. Projects within the eHHR Program

<table>
<thead>
<tr>
<th>Project</th>
<th>Description</th>
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<tbody>
<tr>
<td>Rhapsody Connectivity (RC)</td>
<td>This project will address the Rhapsody connectivity. The Orion Rhapsody data integration engine is used by the VDH to facilitate the accurate and secure exchange of electronic data using the Enterprise Service Bus. The VDH interfaces use Rhapsody for messaging. The Rhapsody Connectivity project is needed for the VDH to support VDH services needed by Eligibility Modernization.</td>
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<tr>
<td>Project</td>
<td>Description</td>
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<tr>
<td>Birth Registry Interface (BRI)</td>
<td>This project will establish a birth reporting service/interface between the birth registry and the ESB. The system of record for all birth records will be Virginia Vital Events and Screening Tracking System (VVESTS). The proposed functionality must support a HITSAC-approved data standard which should align with the Enterprise Data Management (EDM) standards. The project requires use of HITSAC endorsed messaging standards.</td>
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<tr>
<td>Death Registry Interface (DRI)</td>
<td>This project is designed to establish a death reporting service/interfaces between the death registry and the ESB. The service will be supported by an extract of the minimum required fields to identify a death record. Additional development may be required to add a match code (Yes/No) and a Master Patient Index (MPI) placeholder. In addition to supporting an inquiry death service on the ESB, a publish and subscribe model will be developed so the registry can actively publish new death notices as they occur. This will allow subscribers to trigger appropriate processing based on the notification.</td>
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<td>Project</td>
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<tr>
<td>Immunization Registry Interface (IRI)</td>
<td>This project will address the interface between the Immunization Registry and providers. Participating organizations such as hospital providers create a file to include new and updated immunization activity for import into the Virginia Immunization Information System (VIIS) and receive an acknowledgement of their transmission from the VIIS. All content processing and data de-duplication will be performed by the VIIS. Business partners may also create a query message to which the VIIS will generate a response message. There will be a component to the Immunization Registry Interface project in which the VDH is expected to participate in the HIE Pilot Phase. Current immunization service/interfaces include: Immunization DE, Immunization DE – Carilion Hospital, and Immunization DE – UVA. Current messaging partners: Sentara, Coventry, Air Force, CHKD, Fairfax County, Anthem, UVA, VA Premier, and Carilion Hospital.</td>
</tr>
<tr>
<td>DMAS Eligibility System Support (DESS)</td>
<td>This joint effort between the DSS and the DMAS supports development, approval and distribution of the RFP required to procure the IT systems and services to support the Eligibility System Replacement.</td>
</tr>
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</table>
### Health Benefits Exchange (HBE)

A set of state-regulated and standardized health care plans in the United States mandated by PPACA, from which individuals may be determined eligible for Medicaid or may purchase health insurance eligible for Federal subsidies will be available through the HBE. All exchanges must be fully certified and start accepting benefits applications to determine eligibility by October 01, 2013. They must be fully operational and providing coverage by January 1, 2014 under Federal law.

<table>
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<tr>
<th>Project</th>
<th>Description</th>
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<tbody>
<tr>
<td>Health Benefits Exchange (HBE) Optional</td>
<td>A set of state-regulated and standardized health care plans in the United States mandated by PPACA, from which individuals may be determined eligible for Medicaid or may purchase health insurance eligible for Federal subsidies will be available through the HBE. All exchanges must be fully certified and start accepting benefits applications to determine eligibility by October 01, 2013. They must be fully operational and providing coverage by January 1, 2014 under Federal law.</td>
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#### 2.c.2. VITA/MITA Program

The purpose of VITA/MITA program is to establish a framework of enabling technologies and processes that support improved program administration for the Medicaid enterprise. HHR has requested that VITA provide Enterprise-level services in support of the MITA Program. Standing up the Enterprise-level services will leverage Federal funding to provide services that can eventually be used by all State agencies.

The desired outcomes of the VITA/MITA Program are to:

1. Support the Governor’s Reform Commission Shared Services concept;
2. Leverage agency funds to provide shared services;
3. Achieve efficiencies through re-use;
4. Enable data sharing and interoperability across State agencies and with external partners, using established national standards wherever possible;
5. Provide agile, flexible infrastructure and tools;
6. Provide effective cross agency governance for shared infrastructure;
7. Provide tools that reduce redundancy, improve data quality and enhance customer service; and
8. Provide agencies with tools that can be further utilized to improve individual agency data quality and facilitate fraud prevention.
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<tr>
<th>Project</th>
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<tbody>
<tr>
<td>Service-Oriented Architecture Environment (SOAE)</td>
<td>A suite of several tools will expedite connecting legacy applications to new services, support sharing and reuse of Web services across agencies, facilitate the automation of business rules and much more.</td>
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<tr>
<td>Enterprise Data Management (EDM)</td>
<td>Is “John Smith” the same person as “Jonny Smyth?” EDM’s sophisticated logic can be used in bringing together data from multiple sources to provide a single, “trusted” view of data entities for any user or application.</td>
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2.c.3. **EDSP Program**

The Enterprise Delivery System Program (EDSP) represents the following major projects: the EDSP Customer Portal Enhancements, the EDSP Modernization of VaCMS, the EDSP Document Management and Imaging System, the EDSP External Rules Engine Development.

The major projects represent the continued efforts to implement the VDSS vision of a self-service benefits and services model that is efficient, effective and provides a customer friendly experience.

The EDSP is being managed as a program with multiple projects (as listed above) associated under its umbrella. This program is a high priority for DSS and has the full support of the Commissioner and the Secretary of Health and Human Resources. The guidance and decisions come from established leadership that governs across all projects. There are common goals, objectives, and shared resources.

Modernization opportunities exist that will improve and expand the investments made with the Customer Portal project and new case management system for the Child Care Subsidy Program. These opportunities will support information sharing, data gathering, efficiency and effectiveness and customer friendly self-service. The EDSP promotes such a business process model and information technology that is enterprise-wide, interoperable, and expandable across HHR departments in the Commonwealth. The EDSP projects directly support and are inclusive of Health Care Reform initiatives.

The Patient PPACA Section 1561 recommends States facilitate interoperability and secure electronic enrollment of individuals in Federal and State health and human services program. The recommendation references human services and interoperability between health and human
services programs, encourages linkages in eligibility systems, verification processes and information exchanges. DSS is a key business member for project planning in the larger eHHR project that will address PPACA requirements for expanded Medicaid as directed by the Virginia General Assembly. DSS will be a key lead agency to implement the eHHR Roadmap.

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<tr>
<td>Modernization of VaCMS</td>
<td>The Modernization of VaCMS is necessary to implement Virginia’s initiatives for Health Care Reform activities as part of the EDSP. DSS’ current eligibility case management system for Medicaid and other eligibility programs is built upon outdated technology that is “siloed,” vertically integrated to support delivery of a defined and narrow range of services and not interfaced or well integrated with other processes and systems that deliver related services to the same community. In addition, not all current categories of programs, specifically Medicaid, are automated. From the perspective of the whole environment, the current system for eligibility programs is characterized by redundant data entry, and limited automation for complex categories of programs, specifically Medicaid. The modernization of VaCMS project focuses on initially replacing the current ADAPT database application with modern technology and implementing automated case management for the Medicaid categories, including those not currently automated (Medicaid Aged, Blind, and Disabled / Long-Term Care (ABD/LT) and incorporating any changes required for health care reform. While Medicaid will be the first program to be implemented into the modernization of VaCMS, it is expected that DSS will leverage the technology to include common data elements, functions and complimentary rules across other programs to be phased in as part of this project. When the system is complete, local departments will have a modern web-based system to support eligibility determinations estimated to be in excess of one million per year.</td>
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<td>Project</td>
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<tr>
<td>External Rules Engine Development</td>
<td>This project focuses on the development of a configurable and flexible external rules engine that allows non-technical staff the ability to alter and maintain business rules and provides a validation mechanism to ensure the most accurate data is represented, allowing for a quick and accurate determination of eligibility. VDSS intends to leverage an existing External Rules Engine (IBM ILOG) as part of the enterprise infrastructure being implemented to support Health Care Reform in Virginia. This system will not only contain the rules for all Medicaid covered groups and FAMIS (CHIP) but it will also contain the rules associated with the Modified Adjusted Gross Income (MAGI) eligibility. The External Rules Engine will include functionality and processing logic to register, define, classify, manage the rules, and verify the consistency of rule definitions. It will also define the relationship between different rules, and relate some rules to IT applications that are affected or needed to enforce these rules. These processes are for the purpose of adjudicating eligibility based on MAGI, or supporting workflow for the resolution of discrepancies. Any new program workflow will be orchestrated using IBM Process Server. The second phase will incorporate the rules for SNAP/SNAPET, TANF/VIEW, and LIHEAP. The supplier is responsible for setting up program rules in the External Rules Engine.</td>
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| CommonHelp (CH)  | This project will enhance the existing customer portal to determine Medicaid/CHIP eligibility online by interfacing with the external rules engine, perform MMIS enrollment, perform MMIS disenrollment, access Federal and State verification systems, and leverage web services for Customer Authentication Service (CAS) and EDM. This initiative will implement a streamlined, secure, and interactive customer experience that will maximize automation, in addition to real-time eligibility determination while protecting privacy and personal identifiable information. This enhancement to CH will determine Medicaid/CHIP eligibility on-line by interfacing with the IBM ILOG external rules engine. The individual will be able to perform:  
• MMIS enrollment  
• MMIS disenrollment  
• Access the Federal and State verification systems  
• Leverage web services such as the CAS which is under development by the DMV and VITA. Applicants will answer a defined and limited set of questions to begin the application process. The process will be supported by navigation tools and windows that open to provide or seek additional information based on the applicant’s preferences or answers. The application will allow an individual to accept or decline screening for assistance and tailor the rest of the eligibility and enrollment process accordingly. The required verifications that will be necessary to validate the accuracy of information supplied by customers will be managed in a standardized fashion. This verification will be supported by a common federally managed data verification service that will supply information regarding citizenship, immigration status, and Federal tax information. The goal is to serve a high proportion of individuals seeking health coverage and financial support through this automated process. The desired outcome is to empower individuals with the ability to independently complete an online application and receive a Medicaid/CHIP eligibility determination in a desired timeframe of about twenty minutes. |
### Project

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<tr>
<td>Throughout the VDSS systems, vast amounts of information reside in a variety of paper-based files and disconnected information management systems. Although some VDSS entities (e.g. Fairfax County Department of Family Services) possess the ability to transform paper-based information into electronic data forms (images), they are still limited by their inability to share this information across all VDSS resources. The exchange of such information from localities using imaged documents to other Virginia localities involves printing case information and sending it to the receiving agency. Some of the issues specifically being addressed by implementing a DMIS are:</td>
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<td>- Inability to share case information across all VDSS resources efficiently</td>
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<td>- Redundant data entry of verification data and ongoing case maintenance</td>
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<td>- Paper dependency throughout VDSS</td>
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<td>- Lack of standards for VDSS implementation of imaging systems</td>
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<tr>
<td>- Consistent struggle to deliver timely and effective services and benefits to clients</td>
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In addition to these issues, current LDSS localities already leveraging an independent DMIS are experiencing data and document sharing inefficiencies since these localities are not able to share documents electronically with other localities that do not have a system in place. Inefficiencies revolve around printing the electronic case file in preparation for transfer to another locality. Case files received manually from localities must be converted electronically; making cross-locality collaboration less efficient by resulting in added time and expenses.

Implementation of a DMIS will improve information sharing, worker efficiency, and effectiveness. The system will implement electronic imaging and storage of all case related documentation, including client applications and all supporting documentation and narratives. The imaging system will enable user interface accessibility from the CH and VaCMS. We envision a client self-service model that is efficient, effective, and provides a client friendly experience. The system will allow an effective and accessible method of storing documents used to determine eligibility, as well as provide a variety of administrative functions. The electronic images will replace the paper documents. Once scanned, the electronic version shall populate data in the system of records and will be designated as the copy for the record. Any document used to establish eligibility as well as communications from a client or representative must be imaged and retained. DMIS yields the ability to convert paper-based documents using document capturing technology, records management, search, retrieval, storing, and printing, as well as the ability to share electronic records across VDSS programs and partners. By standardizing the approach, we will be able to consistently assign pre-defined units of data by indexing data elements to paper based or other media formats during their electronic conversion (imaging) or storage into VDSS imaging capable applications. The standard will apply to VDSS imaging-capable efforts to ensure forward consistency throughout the enterprise. The following additional objectives will also be met by the standard:

- Contribution towards strategic objective to share information at all levels of the enterprise
- Initial steps towards managing information as a VDSS strategic resource
- Implement standard indexing elements for VDSS
- Implement a document classification scheme

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<tr>
<td>Document Management and Imaging System (DMIS)</td>
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The eHHR Program
2.c.4. **DMV Project**

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<tr>
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<tbody>
<tr>
<td>Commonwealth Authentication Service (CAS)</td>
<td>Offered by the DMV in collaboration with VITA, CAS will provide improved verification of identity, expediting citizens’ access to services while protecting against identity theft and fraudulent activities.</td>
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2.c.5. **VDH Project**

<table>
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<th>Project</th>
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<tbody>
<tr>
<td>Health Information Exchange (HIE)</td>
<td>This is included for informational purposes only. The cost of building the HIE is not included in the eHHR Program. The interface/hook-up to the HIE is included in the individual projects.</td>
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2.c.6. **DGS Projects**

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<th>Project</th>
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<tbody>
<tr>
<td>Rhapsody Connectivity Lab (RCL)</td>
<td>This project will address the Rhapsody connectivity. The Orion Rhapsody data integration engine is used by the DGS and DCLS to facilitate the accurate and secure exchange of electronic data using with the ESB. The DCLS interfaces use Rhapsody for messaging. The Rhapsody Connectivity Lab project is needed for the DCLS to participate in the HIE Pilot Phase.</td>
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### Project Description

#### Electronic Lab Reporting Interface (ELRI)

This project interfaces Department of Consolidated Laboratory Services (DCLS) to the Commonwealth’s ESB for access by the Health Information Exchange. Clinical laboratories throughout Virginia, including the Department of General Services (DGS), the DCLS and national clinical reference laboratories, submit reportable disease findings to the Virginia Department of Health (VDH). Test orders are submitted to the DCLS and the DCLS returns test results. Current partners include the VDH and a growing number of Virginia hospitals. Additionally, legacy formatted data exchanges between the DCLS and the VDH will continue until they are converted to the Health Level Seven International (HL7) standards, but the legacy messages will not be managed through the interface.

#### Syndromic Surveillance Interface (SSI)

This project will address the Syndromic Surveillance Interface. Participating organizations create a file to include data transmitted to the VDH from facilities on a daily basis. The data is grouped into syndromes and statistical algorithms and are run to identify unusual temporal and geographic patterns that might indicate situations of concern.

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### 2.d. Financials

#### 2.d.1. Cost

Each project within the eHHR Program will closely manage cost at the project level. The Program will monitor cost monthly via reports submitted by the each project which will be a factor in the Earned Value analysis and management. The costs included in this document are considered baseline costs. Budget revision at the project level will follow the Commonwealth of Virginia Information Technology Resource Management Project Management Standard.

The figures are estimates based on all available sources at the time this document was updated on July 20th, 2012. The costs also include contingency and risk funds and are noted below:
Figure 1: Project Costs

<table>
<thead>
<tr>
<th>No.</th>
<th>HIT Projects</th>
<th>Phase</th>
<th>Funding Approved</th>
<th>Funding Conditionally Approved</th>
<th>Funding to be Approved</th>
<th>Funding to be Requested</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>eHHR Program Office</td>
<td>Execution</td>
<td>4,773,695.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Standards, Tools, and Professional Development</td>
<td>Execution</td>
<td>55,915.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Service-Oriented Architecture Environment (SOAE)</td>
<td>Execution</td>
<td>10,369,617.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Enterprise Data Management (EDM)</td>
<td>Execution</td>
<td>8,085,177.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Commonwealth Authentication Service (CAS)</td>
<td>Execution</td>
<td>4,408,782.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Electronic Lab Reporting Interface (ELRI)</td>
<td>Pre-select</td>
<td>2,074,248.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Syndromic Surveillance Interface (SSI)</td>
<td>Pre-select</td>
<td>2,638,912.00</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No.</th>
<th>E&amp;E Projects</th>
<th>Phase</th>
<th>Funding Approved</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>VCSS Eligibility Modernization Development</td>
<td>Pre-select</td>
<td>51,000,000.00</td>
</tr>
<tr>
<td>2</td>
<td>Birth Reporting Interface (BRI)</td>
<td>Pre-select</td>
<td>2,112,000.00</td>
</tr>
<tr>
<td>3</td>
<td>Death Reporting Interface (DRI)</td>
<td>Pre-select</td>
<td>2,112,000.00</td>
</tr>
<tr>
<td>4</td>
<td>Immunization Registry Interface (IRI)</td>
<td>Pre-select</td>
<td>1,809,000.00</td>
</tr>
<tr>
<td>5</td>
<td>Rhapsody Connectivity (RC)</td>
<td>Pre-select</td>
<td>1,050,000.00</td>
</tr>
<tr>
<td>6</td>
<td>DMAS Eligibility System Support (DESS)</td>
<td>Pre-select</td>
<td>3,904,000.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No.</th>
<th>Health Benefits Exchange (HBE)</th>
<th>Phase</th>
<th>Funding Approved</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Health Benefits Exchange (HBE)</td>
<td>Pre-select</td>
<td>10,027,400.00</td>
</tr>
</tbody>
</table>

**Total** | **$ 33,833,166.00** | **$ 51,000,000.00** | **$ 11,592,000.00** | **$ 20,741,460.00**
**Total Baseline Cost** | **$115,956,826.00**

2.d.2. Benefit

Goals of the eHHR Program are not only to avoid cost increases but also to increase the value of HHR services through increased quality and efficiency. A goal of the Program is to manage overall long-term technology costs for Federal and State programs and provide an enterprise technology environment that is accessible on a pay-for-use basis by Federal, State, and local governments as well as non-government organizations, community based-services, and commercial interests as allowed by policy.

Benefits will be calculated at the Program level. This is due to the notion that any single project within the Program may or may not have a significant positive Return on Investment (ROI) but the overall eHHR Program presents a strong business case; therefore, there will only be a Program-level Cost/Benefit Analysis (CBA) produced; each individual project will not have to produce a CBA, unless a CBA would be useful in creating distinctions between alternative component solutions.

The following figures present a high Program level CBA done in 2010 and updated on July 20th, 2012 as business case justification for the Program and its related projects.
Figure 2: Business Case CBA for the Program

<table>
<thead>
<tr>
<th>Current Members</th>
<th>Medicaid Expansion</th>
<th>Total Members</th>
<th>Using current processes (note 1)</th>
<th>To-be automation (notes 2 &amp; 3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>835,000</td>
<td>467,000</td>
<td>1,302,000</td>
<td>1,302,000</td>
<td>802,000 (note 4)</td>
</tr>
</tbody>
</table>

Notes

1. Enrollment level anticipated for handling under current systems and business processes (~36% increase). Will need additional operational staff with resulting increase in administrative and operational costs (ongoing basis).
2. Assumption 30% members apply and/or maintain their own information via citizen portal.
3. Assumes DSS/LDSS provides enrollment function for all HHS programs.
4. Reduction of members maintained by state staff 33,000 (~4% decrease). This does not take into account other positions for improved operational efficiencies. For example:
   - Technology is used to pull data necessary to support a determination automatically. Eligibility Workers (EW) can review results compiled by automation and stored in a document management solution (fileset). EWs participate in an automated workflow (increased efficiency, oversight, and management control).
   - EWs can use the automated determination for those citizens unable to help themselves thereby increasing efficiency.
   - More accurate contact information reducing returned mail and time spent on correcting and updating USPS addresses.
   - Increased service levels to citizens of Virginia.

5. All figures are rounded to nearest thousand.

Continued next page
**Table: Cost Avoidance**

<table>
<thead>
<tr>
<th>Current (note 1)</th>
<th>Medicaid Expansion (note 2)</th>
<th>Total current process (note 3)</th>
<th>Reduction due to to-be automation – paradigm change (note 4)</th>
<th>To-be automation – paradigm change (note 5)</th>
<th>Cost Avoidance year 1 (note 6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>~$110 Million</td>
<td>36%</td>
<td>~$150 Million</td>
<td>-4%</td>
<td>~$106 Million</td>
<td>~$44 Million</td>
</tr>
</tbody>
</table>

**Notes:**
1. Annual expenditure for Medicaid Administration and operations from DMAS SFY 2012. Assumes Medicaid Expansion impacts all COV Agencies involved in Medicaid in the same proportions (DS3 eligibility determination is one line item in this figure). Figures rounded to nearest million.
2. From member business case slide (467,000 additional members from Medicaid expansion).
3. Assumes direct relationship in overhead costs to the member growth percentage. Reflects expenses for 1,202,000 members.
4. Assumes automated rules-based processing that can determine preliminary eligibility approval, as well as a percentage of the Medicaid members maintaining their own demographics and case data online. The percentage indicates there would be a slight reduction in current levels for COV maintained member data and determinations.
5. Based on the projected reduction in COV maintained member data and determinations.
6. Federal share: ~$22.2 million; State general funds share: ~$22.2 million (first year of Medicaid expansion).
7. All cost estimates are Rough Order of Magnitude (ROM). Precision: -50% to +100%. Figures are rounded to nearest million.

**Figure 3: Cost Avoidance**

<table>
<thead>
<tr>
<th>Title</th>
<th>Implementation year 1 (notes 1 &amp; 2)</th>
<th>Implementation year 2 (notes 2 &amp; 3)</th>
<th>Implementation year 3 (notes 2 &amp; 3)</th>
<th>Implementation year 4 (notes 2 &amp; 3)</th>
<th>Implementation year 5 (notes 2 &amp; 3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual cost avoidance</td>
<td>− $44 Million</td>
<td>− $45 Million</td>
<td>− $46 Million</td>
<td>− $47 Million</td>
<td>− $48 Million</td>
</tr>
<tr>
<td>Cumulative cost avoidance</td>
<td>~ $44 Million</td>
<td>~ $89 Million</td>
<td>~ $135 Million</td>
<td>~ $182 Million</td>
<td>~ $230 Million</td>
</tr>
<tr>
<td>Annual cost avoidance for</td>
<td>− $22 Million</td>
<td>− $23 Million</td>
<td>− $23 Million</td>
<td>− $24 Million</td>
<td>− $24 Million</td>
</tr>
<tr>
<td>Federal and Share (50% FFP)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**
1. Assumes first year of implementation is the Medicaid expansion.
2. All cost estimates are Rough Order of Magnitude (ROM). Precision: -50% to +100%. Figures are rounded to the nearest million.
3. Reflects an annual increase in enrollment of 1.5%.
3. **eHHR Program Office**

3.a. **Purpose**

The Electronic Health and Human Resources (eHHR) Program Office was formed under Secretary of Health and Human Resources Dr. William A. Hazel, Jr. to promote and manage eHHR Enterprise IT projects in close coordination with our Federal and State government partners.

The purpose of the Program Office is to coordinate eHHR Program projects focusing on objectives and business value, prioritize projects and the use of project resources, and provide an environment where enterprise projects can be run successfully in a cost effective manner.

3.b. **Vision**

The vision behind this effort is to promote and manage eHHR Enterprise projects in close coordination with Federal and State direction in ways that collectively improve health care and human services to Virginians by providing access to the right services for the right people at the right time and for the right cost. The Commonwealth views the eHHR Program as a way to not only avoid cost increases but also to increase the value of our services through increased quality and efficiency.

3.c. **Focus Areas**

The program organization balances stakeholder expectations, requirements, resources, and timing conflicts across enterprise projects with respect to the following focus areas:

- **Benefits Management**: Includes the planning, modeling, and tracking of tangible and intangible benefits throughout the program lifecycle.

- **Program Stakeholder Management**: Identifies how the program will affect stakeholders (both internal and external) and then develops a communication strategy to engage the affected stakeholders, manage their expectations, and improve their acceptance of the objectives of the program.

- **Program Governance**: Concerns controlling the organization’s investment as well as monitoring the delivery of benefits as the program progresses. This control is achieved by monitoring progress reports and reviews on a routine basis and specifically at each phase of the program’s life cycle.

- **Leadership and Communication**: Establishing the clear leadership required to realize the vision, accompanied by effective communications to all potential audiences; giving direction and setting strategies for achieving organizational change; mobilizing and encouraging participation in the program at all stages.

- **Program Infrastructure**: The formal structures and processes that will ensure coordinated management across all projects, including risk and issue management, financial
management, change control, progress and status reporting, program dashboards, project administration support, quality assurance, project initiation and closure, stage gate reviews, and project delivery reviews.

- **Program Integration** – assuring integrity and consistency of project delivery, managing the interdependencies of tasks and deliverables among the projects within and external to the program across Solution Delivery disciplines; assuring that projects adhere to and integrate with the appropriate business and technical architectures; ensuring alignment and consistency with program level decisions/models/constraints across disciplines.

- **Resource Management** – managing the challenges of identifying, acquiring, retaining, training, motivating and allocating personnel across projects within the program, selecting and managing contractors and contractor relationships.

3.d. **Goals and Objectives**

**Goal 1:** Leverage MITA as the forward vision to align Virginia’s efforts to the Federal direction and thereby enable maximum Federal funding participation;

**Goal 2:** Fulfill Federal requirements for HIE and Meaningful Use under the ARRA;

**Goal 3:** Fulfill Federal requirements for Medicaid Expansion, if Virginia decides to participate, and the HBE under the PPACA to minimize long-term fixed cost increases;

**Goal 4:** Communicate progress, status, issues, and risks for a complex program to stakeholder groups in an understandable manner;

**Goal 5:** Provide a program management infrastructure that each chartered project can leverage to eliminate duplicative efforts and reduce project management overhead; and

**Goal 6:** Provide change management assistance, coordination, and support to impacted organizations as part of business process reengineering (BPR) efforts.

The two main business objectives are:

1. To increase the efficiency of HHR workers, allowing the Commonwealth of Virginia to address the growth in Medicaid and other State assistance programs without a significant increase in staff; and
2. To minimize the enrollment error rate and prevent fraud.

To accomplish the objectives listed above the Program will do the following.

- Utilize the MITA Transition Plan for program planning;
- Utilize the HHR IT Strategic Plan for program planning;
- Periodically conduct a MITA State Self-Assessment to ensure the Commonwealth stays in alignment with standards and guidelines for enhanced Federal funding;
- Verify the scope and execution of all Program projects align with standards and guidelines for enhanced Federal funding;
• Coordinate review and approval of all standards required for Federal approval with CMS;
• Verify the scope and execution of all Program projects align with MITA Transition Plan; and
• Coordinate across all projects within the Program to:
  o Eliminate duplicative and/or redundant work;
  o Align schedules and dependencies; and
  o Consider federally mandated dates across the Program schedule.
4. **Reference Material**

**Virginia MITA Transition Plan**


**Virginia eHHR Program Office**


**MITA Overview**


**Health Information Technology Spotlight**

http://www.hits.virginia.gov/

**Medicaid Information Technology Architecture (MITA)**


**Virginia Performs**

http://vaperforms.virginia.gov/