

**North Carolina Department of Health and Human Services
Case Management Consolidation
Legislative Report**

Pursuant to Session Law 2011-145, Section 6A.7. (b)

Report to the
Joint Legislative Oversight Committee on Information Technology
and the
Fiscal Research Division

April 11, 2012

Prepared by the
Department of Health and Human Services
Division of Information Resource Management
and the
Office of the State Chief Information Officer

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1. Executive Summary

This is a joint report from the Department of Health and Human Services (DHHS) and the Office of the State CIO in response to the requirement of Session Law 2011-145, Section 6A.7.(b) to develop a plan to implement a single case management system throughout DHHS.

To address the legislative requirement, DHHS and the Office of the State CIO met to discuss case management automation efforts already underway in DHHS, with particular focus on use of the Cúram Business Application Suite. The Cúram Business Application Suite is a commercial off-the-shelf (COTS) solution that is composed of both business specific application modules and an Enterprise Framework that is easily configured and extended. The department's plan to consolidate case management is evidenced by the broad use of the Cúram Business Application Suite for several program services. In addition, DHHS has also collaborated with the Department of Insurance in evaluation of expanded use of the Cúram Business Application Suite to assist the state with meeting key federal health care reform requirements mandated by the federal Patient Protection and Affordable Care Act (PPACA). DHHS will also continue to execute its plan to consolidate case management through the leveraging of the Cúram Enterprise Framework to meet, as appropriate, future DHHS IT automation requirements.

In addition to the Cúram Enterprise Framework, DHHS has deployed other enterprise IT solutions that allow for more transparency and collaboration across the department, which is enabling the department to become more customer-focused, results-based and anticipatory as the department works to meet the growing needs of North Carolina residents. As a result, the department is able to look across program services and share standardized data where appropriate and permitted by federal regulations and state statutes and laws to better serve North Carolina residents. These IT solutions also promote standardization and enable information exchange sharing at an enterprise level regardless of the specific IT architecture.

2. Purpose of the Report

Section 6A.7.(b) in Session Law 2011-145 contains the following requirement for the Department of Health and Human Services (DHHS) and the State Chief Information Officer (CIO):

In coordination with the State CIO, the Department of Health and Human Services shall develop a plan to implement a single case management system throughout that Department, beginning in the 2012-2013 fiscal year, and shall report to the Joint Legislative Oversight Committee on Information Technology by February 1, 2012, on its initiatives to implement the system. The report shall include a detailed time line for completion and an explanation of the costs associated with case management consolidation.

3. DHHS Case Management Consolidation Effort

DHHS is a diverse and complex organization that delivers health and human program services that touch the lives of virtually all North Carolinians from birth to death. Integral to the delivery of these program services is the ability to collaborate and share information across the department's divisions, offices and facilities and with external partners. DHHS is well on its way to transform service "silos" into an integrated system of program services with a focus on achieving improved outcomes and independence for the North Carolinians that DHHS serves.

As part of the transformation to an integrated system of program services, DHHS has developed new business models to re-engineer the access and service delivery process for those program services administered by the county departments of social services. The new integrated business model will provide a system that puts North Carolina families first. DHHS consistently evaluates all of its program services to minimize redundant business and information technology efforts. Part of the department's efforts to implement a new business model led to the current North Carolina Families Accessing Services through Technology (NC FAST) program to consolidate case management efforts for linked program and service delivery processes. The business divisions addressed by NC FAST are the Division of Medical Assistance (DMA), the Division of Child Development and Early Education (DCDEE), the Division of Social Services (DSS), and the Division Aging and Adult Services (DAAS). The business program services within the current NC FAST scope are: Medicaid, NC Health Choice for Children (NCHC), Work First, Food and Nutrition Services (formerly Food Stamps), Child Care, Child Welfare, Adult and Family Services, Energy Assistance, Special Assistance for Adults, and Refugee Assistance.

Staff from DHHS and the Office of the State CIO collaboratively reviewed the current case management consolidation efforts in DHHS. This review effort analyzed current DHHS IT solutions and the automation planned and underway that could be further leveraged to meet the legislative requirements for a consolidated case management solution. The consensus was to focus primarily on the software solution purchased as part of the NC FAST program.

3.1 DHHS Approach to Case Management Consolidation

3.1.1 NC FAST and the Cúram Solution

NC FAST includes a comprehensive automation initiative that will result in greater access to services for NC families through the state's 100 county departments of social services. This effort is intended to relieve county and state staff from repetitive tasks so they can spend more time working directly with recipients of services, improving the efficiency and effectiveness of benefit and service delivery to North Carolina families in need. NC FAST will provide a revolutionary system that will automate and streamline manual, paper-based processes, eliminate the need for staff to log into multiple systems, and enable the sharing of case data across all 100 counties and the state. Automating paper-based processes will also lead to better fiscal and policy control for the counties as well as state and federal government oversight agencies.

The vision of an improved service delivery method for NC FAST includes the following elements:

- **Efficient, effective assessment** – Automated tools that caseworkers will use to assess client needs and determine program eligibility. The NC FAST system will have a number of automatic checks that will assist in identifying potential fraud through the detection of duplicate applicant data such as names and Social Security Numbers at the point of entry. Potential fraud and abuse detection will also be facilitated by the numerous interfaces the solution will have to external data sources to be used to verify data relating to the applicant.
- **Comprehensive case management** – The NC FAST Case Management system will provide tools to help caseworkers track cases, share information and coordinate services across programs.
- **Comprehensive eligibility rules and workflow engine** – The system will determine eligibility based on a defined set of rules, which will also facilitate fraud and abuse detection. NC FAST will provide an automated integrated eligibility system to share data across program service specific components, which may trigger a redetermination due to the rules.
- **Better information for evaluating outcomes** – Comprehensive data will be available for evaluating outcomes and ensuring accountability across program services.

The Cúram Business Application Suite is the solution DHHS chose through a competitive bid process for NC FAST automation. The first NC FAST Case Management project (Project 1: Global Case Management and Food and Nutrition Services (formerly Food Stamps)) that will be implemented using the Cúram solution is nearing completion; pilot production is scheduled for May 2012, and complete statewide rollout is scheduled to occur by October 2012.

Historically, DHHS has purchased commercial off-the-shelf (COTS) packages to meet automation requirements, and these solutions were typically geared towards specific business and/or functional areas and were not able to be easily reused to meet the requirements of other areas. The Cúram Business Application Suite is an example of how some COTS solutions have evolved over the years to address multiple business areas that minimizes cost and time associated with customization. The Cúram Business Application Suite contains a comprehensive, program-independent and flexible Enterprise Framework in addition to the solution's core service modules that are focused on delivering large-scale social and human services automation solutions. The solution incorporates best practice business processes and rules that can be tailored to meet business-specific functionality and workflow. The solution also provides functionality designed to be used and reused across programs to enable family-centric and outcome-focused approaches to meeting the social and human services needs of North Carolina residents.

The Cúram Business Application Suite is built on a single data model using a Service-Oriented Architecture (SOA) design that is composed of composite business applications constructed with model-driven, platform-independent, configurable and reusable building blocks. Systems that have been built based on an SOA design promote interoperability and reuse. In addition to being aligned with the state's and DHHS' long-term strategic approach for application/system design,

SOA solutions can provide significant benefits to DHHS business programs by lowering the cost of integration and deploying more flexible software applications/systems that are secure, scalable, high performance and easier to maintain. The Office of the State CIO has been and continues to be supportive of DHHS' use of the Cúram Business Application Suite. The Office of the State CIO has been considering the use of the Cúram software solution where appropriate to meet business requirements for other state agencies, and has engaged DHHS, in partnership, in those discussions.

DHHS began the first NC FAST Case Management Integration Project (Global Case Management and Food and Nutrition Services (FNS)) on August 30, 2010. Through this effort DHHS has had the opportunity to advance knowledge and understanding of what the Cúram Enterprise Framework can provide to the department. This has lead to DHHS' ability to extend the product to meet the requirements of additional business areas. For example, in response to the revised and streamlined eligibility determination and related business processes that came out of various business process evaluation workgroups conducted by the department, DHHS expanded its use of the Cúram Business Application Suite by leveraging the Enterprise Framework and utilizing the Citizen Self Service module for phased implementation of the Electronic Pre-Assessment Screening Service (ePASS).

Implementation of ePASS is planned for four phases, two of which have already been completed. These phases are as follows:

- **Phase 1** – Implemented on July 1, 2010, this phase of ePASS implementation provides NC residents with a web-based tool through which they can review a range of program services (e.g. Food and Nutrition Services, Crisis Intervention, and Work First Cash Assistance) for which they may be eligible; provides them with information needed to make an informed decision about pursuing program assistance; and simplifies the process.
- **Phase 2a for FNS** – Implemented in November 2010, this phase of ePASS enables individuals to answer detailed questions for their FNS application, and then print the application so it can be mailed, faxed or brought to an appointment at a county department of social services. This phase was the beginning of ePASS integration into the NC FAST program.
- **Phase 2b for Medicaid** – A Medicaid application process is planned for June 2012 implementation. An applicant will be able to complete and print the Medicaid application, so he may mail, fax or bring it to an appointment at the county department of social services.
- **Phase 3** – This phase will integrate ePASS with the NC FAST system so that individuals can submit their applications electronically (no printout needed), check application status, and schedule appointments with caseworkers. Phase 3 is estimated for completion in early 2013.

3.1.2 *Appropriateness of Fit with Cúram Solution*

DHHS, in collaboration with the Office of State CIO, has further refined our approach for case management consolidation. The department's refined approach includes the evaluation of expanding and changing business needs for "appropriateness of fit" with the Cúram Enterprise Framework and other DHHS enterprise IT services prior to taking any future or further procurement actions. As a result of the integration efforts for NC FAST Case Management Project 1, DHHS has more knowledge and understanding of the framework and therefore can better evaluate the framework's use in meeting future case management business and automation requirements.

Supporting the Cúram Enterprise Framework requires industry standard software development skills. To implement the scope of the NC FAST Case Management Integration Projects, a highly skilled and trained Cúram resource base with prior work experience in the social enterprise area is required. DHHS is currently supporting this need with short-term contractors. Pursuant to Session Law 2011-145, DHHS, the Office of the State CIO, the Office of State Budget and Management, and the Office of State Personnel are collaboratively developing a plan to convert key contractor personnel to state employees. NC FAST has provided in-house Cúram training sessions for current state employees, allowing DHHS to building a workforce that is versed in the Cúram Enterprise Framework. This investment will provide long-term support and sustainability for the Cúram Enterprise Framework.

3.1.3 *DHHS Enterprise IT Services*

In addition to the Cúram Enterprise Framework, DHHS utilizes other existing and enterprise IT services such as the DHHS Enterprise Service Bus, the DHHS Client Services Data Warehouse and the Common Name Data Service that promote transparency and collaboration across many of the department's business areas and supporting software applications/systems. These enterprise IT services are also being leveraged in all of DHHS' automation efforts planned to date or that are underway for implementation of the Cúram Business Application Suite.

The **DHHS Enterprise Service Bus (ESB)** is a flexible connectivity infrastructure that provides interaction and communication between IT services as necessary to support the enterprise integration of software applications/systems in a Service-Oriented Architecture environment. NC FAST, the Common Name Data Service (CNDS) and DHHS legacy applications/systems will leverage the DHHS ESB for enterprise messaging with software applications and systems both internal and external to the department.

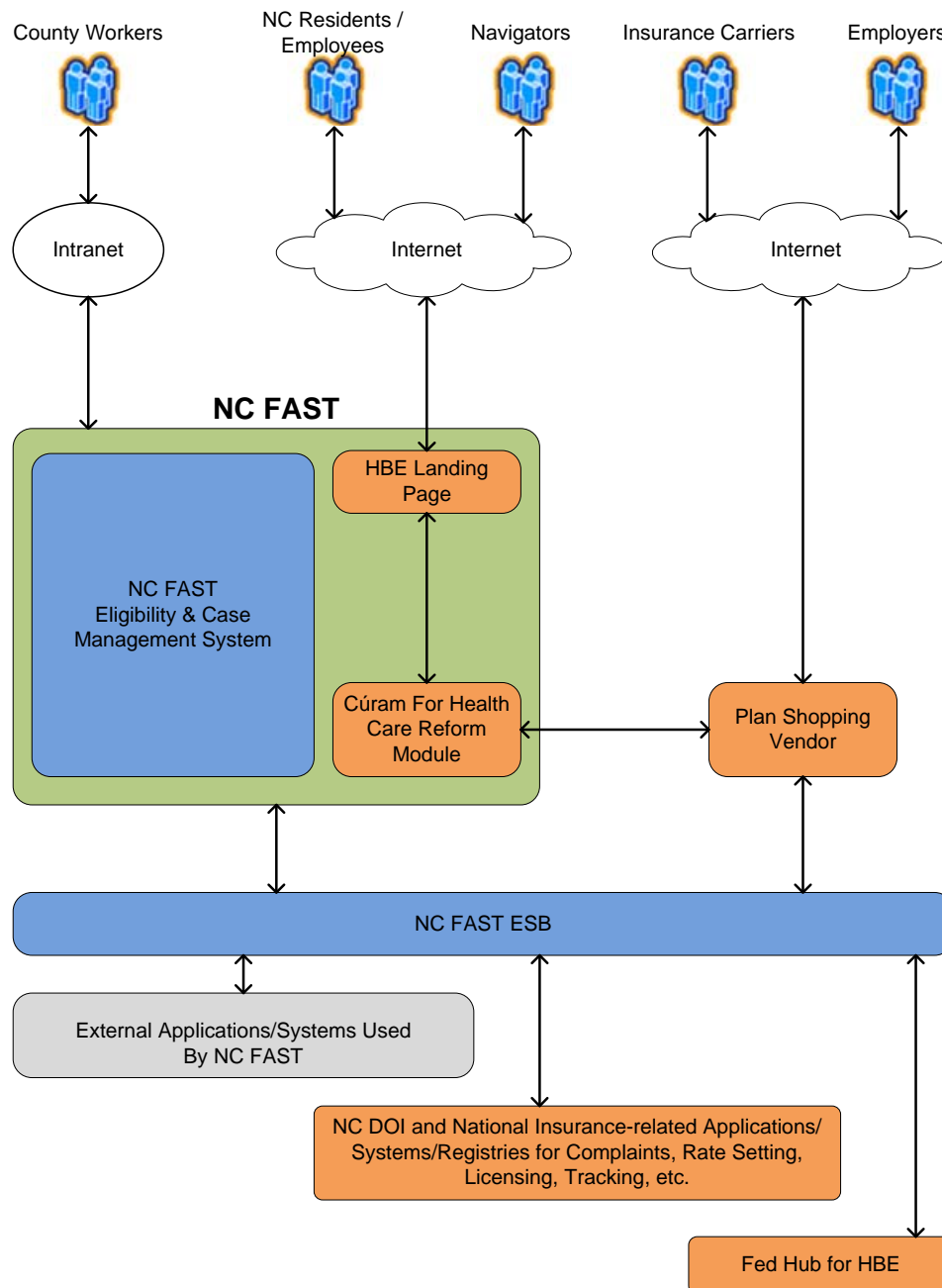
The primary functions of the DHHS ESB are to:

- Exchange information between applications/systems.
- Monitor and control information exchange activities.
- Eliminate the redundancy and the need for extensive development of interfaces to share data across various systems.
- Provide an easy method for creating and using dynamic workflows.

Use of the DHHS ESB will prevent DHHS from having to spend time and money on development of individual system-to-system interfaces for data sharing. DHHS in collaboration with Office of the State CIO developed a long-term vision for an ESB. DHHS' ESB was incubated and established to meet the needs of NC FAST. DHHS plans to implement the ESB across the department. The long range vision is to mature the ESB technology into a statewide initiative to deliver a flexible infrastructure that connects heterogeneous systems across state agencies.

An example of how an ESB can be leveraged to meet requirements for sharing data across applications/systems is demonstrated in Figure 1. The particular example presented relates to the connectivity to be addressed for NC FAST and other systems to support the federal healthcare benefit exchange requirements stated in the Patient Protection and Affordable Care Act (PPACA).

Figure 1 – ESB Support for NC FAST and the NC Healthcare Benefit Exchange (HBE)



The **DHHS Client Services Data Warehouse (CSDW)** is an enterprise data warehouse that provides historical data for use by county and state staff as well as federal government and third-party users. The DHHS CSDW currently compiles data from business applications and systems for a variety of divisions within DHHS, including, but not limited to, the Divisions of Social Services; Medical Assistance; Public Health; Mental Health, Developmental Disabilities and Substance Abuse Services; Child Development and Early Education; and Aging and Adult Services. The DHHS CSDW supports various enterprise reporting and program administration

functions. The data warehouse will be utilized for the creation of specific county, state and federal reports that are not available “out of the box” in the Cúram solution. It will also provide a means for meeting end-user ad hoc reporting requirements through the use of tools available as part of the DHHS CSDW. The DHHS CSDW will also house data for statistical analysis for consumption by both the department and external entities such as the University of North Carolina, the NC Department of Public Instruction, state and federal quality control monitoring entities, advocates, and other state and federal oversight agencies.

The **Common Name Data Service (CNDS)** is another enterprise service that allows DHHS applications and systems to store and retrieve unique identification information for clients that are participating in programs and/or receiving services and benefits from DHHS. Use of the CNDS is an integral part of the case management consolidation.

In addition to utilizing enterprise IT services to support case management initiatives, DHHS is looking for opportunities to leverage case management solutions from other state agencies for unique business needs.

4. DHHS Case Management Consolidation Cost and Timeline

NC FAST will implement the Cúram modules and Enterprise Framework via six Case Management Integration projects that will ultimately result in the retirement of the 19 legacy systems associated with the in-scope program services.

The six NC FAST Case Management Integration projects are as follows:

1. Global Case Management and Food and Nutrition Services
2. Eligibility Information System (EIS) Part 1
3. Low Income Energy Assistance Program, Child Care and Crisis Intervention Program (CIP)
4. Child Services
5. Aging and Adult Services
6. EIS Part 2 (includes TANF, Medicaid, Special Assistance for Adults, and Refugee Assistance)

On August 30, 2010, DHHS executed a contract for NC FAST Case Management Software Integration with Accenture for the award of Project 1 and progressive award of Project 2. Additionally, Amendment 1 to the NC FAST Case Management Software Integration contract was executed to address federal health care reform requirements that were signed into law during the summer of 2010. To comply with these requirements, NC FAST must implement changes to the eligibility rules for Medicaid before January 2014.

County departments of social services are increasingly concerned about their ability to effectively serve clients, with the increase in persons eligible for Medicaid. To provide relief to

county departments of social services and better enable them to address business impacts, NC FAST will replace the legacy Eligibility Information System (EIS) that currently provides Medicaid reception, intake, assessment and eligibility functionality. To accomplish this objective, NC FAST is scheduled to complete both Integration Project 2 and Integration Project 6 for total EIS functionality prior to the end of 2013.

4.1.1 DHHS Case Management Consolidation Costs, Funding and Cost Allocation

DHHS submitted its original Advance Planning Document (APD) for NC FAST to the federal government and received approval in April 2000. DHHS is required to provide an annual APD Update (APDu) that reports program status and requests continued phased program funding. DHHS has successfully complied with these requirements to maintain the funding provided by the federal partners for NC FAST: the United States Department of Agriculture, the Department of Health and Human Services Administration for Children and Families, and the Centers for Medicare and Medicaid Services.

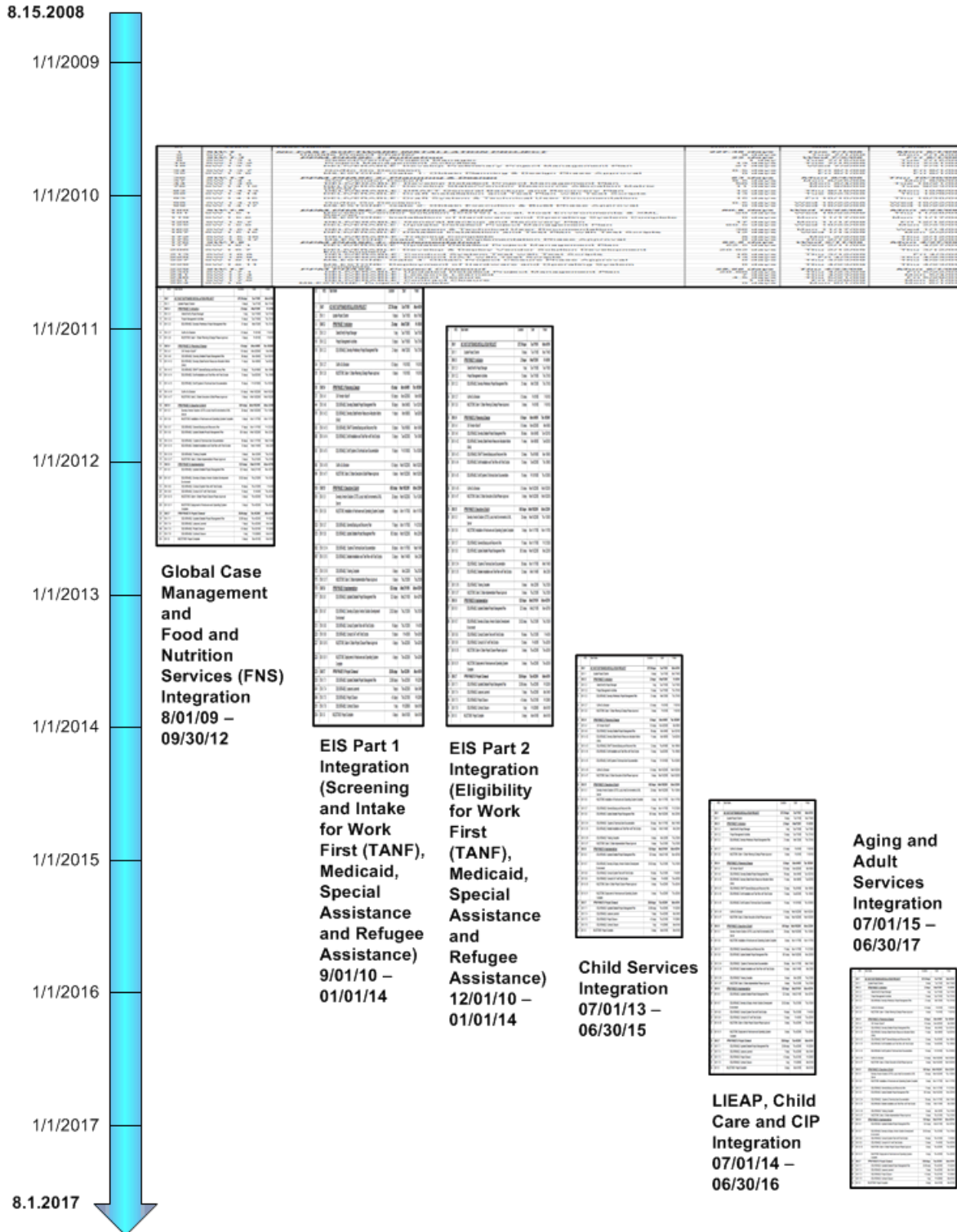
DHHS has established a cost allocation team that is composed of staff from NC FAST, DHHS Office of the Controller Cost Allocation Branch, and DIRM Financial Management Section. This team is responsible for evaluating and resolving budget and cost allocation (i.e. federal and state participation) issues that impact NC FAST.

The funding needs for NC FAST implementation presented in Appendix A of this report reflect the estimates approved in the most recent As Needed APDu that was submitted to federal partners in November 2011. Appendix A also summarizes the federal funding approved for 2012-13 through August 2017 as provided by NC FAST's federal partners. The major costs are for contracted services, personnel and charges for services provided by the Office of Information Technology Services such as hosting. From September 1, 2011 through December 31, 2015, DHHS is eligible for enhanced federal funding at 90% with a 10% state match.

4.1.2 DHHS Case Management Consolidation Timeline for 2012–2013

Figure 2 summarizes the NC FAST project schedules for Case Management Integration Projects 1-6. As stated above, NC FAST is currently in the process of implementing Global Case Management and Food and Nutrition Services (Project 1) and the Eligibility Information System Parts 1 and 2 (Projects 2 and 6). NC FAST will also submit a request for federal partner approval to expedite Project 4 and initiate these work efforts in 2012.

Figure 2 – NC FAST Timeline for Case Management Integration Projects 1-6



5. Conclusion

DHHS will continue its current case management consolidation efforts via the Cúram solution, while continuing to explore other business and automation opportunities for further case management consolidation. Knowledge and understanding of the capabilities and flexibility of the Cúram Enterprise Framework has grown through the recent implementation efforts for NC FAST. The department is committed to exploring opportunities to support an even broader case management integrated service delivery model.

Appendix A. NC FAST Projected Expenditures, Appropriations and Receipts for SFY 12-13 through SFY 16-17

Table 1 – NC FAST Costs for Case Management Integration Projects 1-6 (SFY 12-13 through SFY 16-17)

Cost Category	SFY 2013	SFY 2014	SFY 2015*	SFY 2016*	SFY 2017*	Total Cost*
Salaries and Fringes for State Employees	\$7,784,282.16	\$7,673,147.09	\$5,308,457.00	\$3,945,017.00	\$2,467,925.00	\$27,178,828.25
Purchased Services	\$38,435,826.99	\$38,742,855.00	\$46,007,676.00	\$76,203,014.00	\$35,656,774.00	\$235,046,145.99
Supplemental IT Contractors	\$5,733,149.00	\$3,009,276.00	\$2,855,210.00	\$3,077,114.00	\$2,009,989.00	\$16,684,738.00
Vendor Contract – Cúram Technical Services	\$4,385,000.00	\$3,125,000.00	\$1,110,938.00	\$1,291,936.00	\$1,085,751.00	\$10,998,625.00
Vendor Contract – Integration Assistance and End User Training	\$22,694,513.00	\$26,958,265.00	\$39,780,781.00	\$69,468,375.00	\$30,178,814.00	\$189,080,748.00
Vendor Contract – Client Services Data Warehouse/Reports Assistance	\$1,575,552.00	\$1,575,552.00				\$3,151,104.00
Vendor Contract for Independent Verification and Validation	\$392,565.00	\$392,565.00	\$212,565.00	\$302,400.00	\$305,580.00	\$1,605,675.00
Administrative Services	\$102,000.00	\$102,000.00	\$102,000.00	\$102,000.00	\$102,000.00	\$510,000.00
Maintenance Agreement-Server Software and Other Data Processing Equipment	\$580,005.00	\$670,005.00	\$260,000.00	\$260,000.00	\$260,000.00	\$2,030,010.00
Rent/Lease for Building	\$471,576.00	\$485,672.00	\$500,242.00	\$515,249.00	\$530,705.00	\$2,503,444.00
Travel for State Staff for County Readiness and Training	\$317,000.00	\$319,000.00	\$8,000.00	\$8,000.00	\$6,000.00	\$658,000.00
Telephone Service	\$60,000.00	\$60,000.00	\$60,000.00	\$60,000.00	\$60,000.00	\$300,000.00
ITS Charges for Local Area Network Support Services	\$113,520.00	\$113,520.00	\$113,520.00	\$113,520.00	\$113,520.00	\$567,600.00
ITS Charges for Telecommunication Data Charges	\$20,000.00	\$20,000.00	\$20,000.00	\$20,000.00	\$20,000.00	\$100,000.00
ITS Charges for Computer Data Processing Services	\$1,000,000.00	\$1,000,000.00	\$732,420.00	\$732,420.00	\$732,415.00	\$4,197,255.00
ITS Charges for Managed Local Area Network Services	\$988,946.99	\$1,000,000.00	\$250,000.00	\$250,000.00	\$250,000.00	\$2,738,946.99
Equipment, Software, Furniture, etc.	\$104,840.00	\$97,029.00	\$80,500.00	\$80,500.00	\$80,500.00	\$443,369.00
Supplies and Other Expenses	\$37,600.00	\$54,000.00	\$54,000.00	\$54,000.00	\$58,000.00	\$257,600.00
DIRM Administrative/Overhead Expenses***	\$1,565,041.73	\$1,586,869.00	\$996,681.00	\$789,005.00	\$493,585.00	\$5,431,181.73
Total Cost (See next table for federal receipts and state appropriations)	\$47,925,590.88	\$48,151,900.09	\$52,445,314.00	\$81,069,536.00	\$38,754,784.00	\$268,347,124.97

* Budgeted amounts for SFY 15-17 include not-to-exceed amounts proposed by the Integration Vendor that have not been negotiated as the contracts for these projects have not yet been awarded.

** Allocated costs for management and support staff.

Table 2 – State Appropriations Needed and Federal Receipts for NC FAST Projects 1-6 (SFY 12-13 through SFY 16-17)

State Appropriations Needed and Federal Receipts	SFY 2013	SFY 2014	SFY 2015	SFY 2016	SFY 2017	Total
Total State Appropriations Needed	\$4,792,550.88	\$4,815,196.09	\$5,244,538.00	\$15,834,496.00	\$10,312,796.82	\$40,999,577.79
Total Federal Receipts	\$43,133,040.00	\$43,336,704.00	\$47,200,776.00	\$65,235,040.00	\$28,441,987.18	\$227,347,547.18
Medicaid Administration	\$39,128,566.00	\$39,313,330.00	\$42,818,657.00	\$48,664,441.00	\$16,912,279.45	\$186,837,273.45
Health Choice	\$4,004,474.00	\$4,023,374.00	\$4,382,119.00	\$5,021,346.00	\$1,822,746.44	\$19,254,059.44
Foster Care Administrative – IV-E				\$8,532.00	\$7,186.11	\$15,718.11
Adoption Assistance – IV-E				\$480.00	\$419.18	\$899.18
Low Income Energy Assistance				\$3,383,112.00	\$2,843,437.37	\$6,226,549.37
Food and Nutrition Services (Food Stamps)				\$6,913,077.00	\$5,810,311.76	\$12,723,388.76
Temporary Assistance for Needy Families				\$1,244,052.00	\$1,045,606.87	\$2,289,658.87

End of Report