VERMONT

Independent Review

**Independent Review of Proposed
Supplemental Nutrition Program for Women, Infants, and Children
(WIC) Program
"WIC MIS/EBT Implementation Projects" for
Department of Information and Innovation (DII), Agency of Human
Services (AHS), and the Vermont Department of Health (VDH)**

Submitted to the State of Vermont, Office of the CIO By:

Strategic Technology Services, Inc.
August 30, 2013

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State of Vermont
Office of the Chief Information Officer (CIO)
Department of Information and Innovation (DII)
Attn: Mr. Richard Boes, Commissioner and CIO
133 State Street, 5th Floor
Montpelier, VT 05633-6601

Email to:
Mr. Peter Kipp, DII Contracts and Procurement Specialist, peter.kipp@state.vt.us
Ms. Joanne Heath, Project Manager, DII EPMO, joanne.heath@state.vt.us

Dear Mr. Boes:

I am pleased to submit this analysis containing an Independent Review of the State of Vermont
WIC MIS/EBT Implementation Projects for Department of Information and Innovation (DII),
Agency of Human Services (AHS) and the Vermont Department of Health (VDH).

It is my hope that you find this analysis clear and succinct, and it provides State of Vermont the
information necessary to decide whether and how to proceed with the proposed project.

Should you have any questions or require clarification on any items in this report, please do not
hesitate to contact me directly.

Sincerely,

David Gadway, **MBA, PMP, MCSA**
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EXECUTIVE SUMMARY

The purpose of this Independent Review is to provide an assessment of the proposed State of Vermont (SOV) <u>Agency of Human Services (AHS), Vermont Department of Health (VDH)</u> and <u>Department of Information and Innovation (DII)</u> **WIC MIS/EBT** project, relative to costs, benefits, funding source, project team, risks and risk mitigation, adherence to technical standards of State of Vermont, soundness of project plan, and proposed implementation partners.

Between **January and February, 2013**, SOV Office of Purchasing and Contracting issued 3 RFPs seeking to procure:

1. Transfer, Modification and Implementation Services of a WIC System (**MIS** system);

2. WIC Electronic Benefit Transfer (**EBT**) System, Implementation & Processor Services;

3. Quality Assurance (**QA**) Services for the combined WIC MIS/EBT Implementation Project referenced in #1 and #2 above.

In **April, 2013**, Dynamics Research Corp. (DRC) of Andover, MA was selected to perform **QA** Services.

In **June, 2013**, CIBER of Greenwood Village, CO was selected to perform Transfer and Implementation (T&I) Services relative to the Mountain Plains States Consortium (MPSC) **MIS** system.

In **June, 2013**, JPMorgan Chase of Boston, MA was selected to perform WIC Electronic Benefit Transfer System (**EBT**), Implementation & Processor Services.

At the time of the writing of this report, there are multiple contracts expected to be executed which are at various stages review with AG and AHS in-house counsel. These contracts include:

1. Contract with DRC for 8/1/2013-7/31/2015 for $390K; (Contract is executed)

2. Contract with CIBER for 9/30/2013-9/30/2015 for $1.7M; (Contract is being negotiated)

3. Contract with JPMorgan Chase for 2013-2017 (actual dates to be determined) for $400K for implementation services and a per transaction fee for EBT Services (Contract is being negotiated).

All items related to this project, excluding items related to the contracts, have been assessed and are considered in this report.

RECOMMENDATIONS

Based on the analysis conducted for this Independent Review, State of Vermont should proceed with the proposed project if SOV feels that the risks identified in the **SUMMARY OF KEY ISSUES** section below have been adequately mitigated and the final contract terms are favorable.

The WIC project team assembled for this project has spent the past 2+ years with planning-related activities for this project, and has developed several PMI-focused project planning documents and managed the project through a SharePoint portal.

Of the several Independent Reviews I have personally conducted over the past 10+ years, this particular project demonstrates the highest level of project planning preparation as well as senior leadership, commitment, combination of responsibility and authority, and subject-matter expertise.

These combined project attributes bode well for the likelihood of success of this project.

PROJECT PROFILE: SOLUTION, SCHEDULE, COST, FUNDING, and SCOPE SUMMARY

SOLUTION SUMMARY
1. **MIS**:
    a. Implementation of Mountain Plains States Consortium Software (**MIS**) written by CIBER onto State of Vermont servers located in DII Data Center running under VMWare. (**$1.7M**)

2. **EBT:**
    a. Integration of JPMorgan Chase on-line EBT solution (on-line: real-time transactions using a magnetic swipe card) into the MPSC MIS system (**$400K** plus service fees (services fees contemplated in monthly operational budget)).
    b. Subcontractors to JPMorgan Chase include:
        1. CTS Holdings, a subsidiary of First Data Corporation, will provide stand-beside EBT-only terminal driving and first-level EBT-only vendor help desk services.
        2. Fiserv Solutions, Inc (Fiserv), an independent, full-service provider of integrated data processing and information management systems to the financial industry, will provide proven EBT transaction switching and routing services as well as card design, security, card personalization and distribution in their Visa/MasterCard certified facility.

3. **QA** (Quality Assurance Services):
    a. Quality Control and Quality Assurance of CIBER and JMorgan Chase deliverables. (**$390K**)

SCHEDULE
It is <u>anticipated</u> that this project implementation will be 36 months in total duration, with the bulk of the vendor activity occurring in months 1-24 through the PILOT phase.

Please see **Appendix 5** which describes the Project Phases and associated Deliverables.

COSTS

Total project costs over the 2 year implementation period are **$4.22M, $189K** annually thereafter, for a **total 5 year cost of $4.79M.** The **net operational savings** post go-live are **$2,718 monthly ($32.6K annually)**.

FUNDING SOURCES

The Project is expected to be funded through a grant(s) from the US Department of Agriculture (USDA) Food and Nutrition Services (FNS).

Please see **Appendix 1** which describes the Project Costs and Funding Sources.

The project implementation costs are expected to be <u>fixed</u>, and ongoing operational costs are <u>variable</u> based on transaction volume, yet that variation is reimbursed by USDA FNS.

SCOPE

Every project operates under a triple constraint, also known as an "Iron Triangle". That is, for a given Project Schedule, Project Cost, and Project Scope, if any one of those 3 items changes, the other 2 must change. For example, if the Scope expanded, the Cost and Timeline will also typically change.
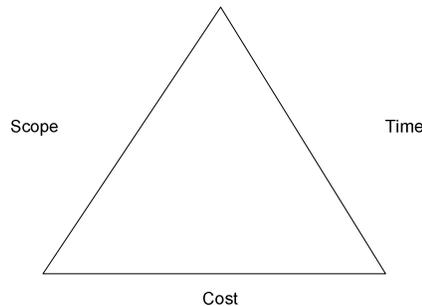
While the project scope is *largely* but not *completely* defined, the requirements defined through the **very detailed planning phase** leaves little concern for scope creep. The SUMMARY OF KEY ISSUES section provides the RISK MITIGATION on this point.

SUMMARY OF KEY ISSUES

The following summarizes the key risks and risk mitigation strategy.

RISKS and STATE OF VT RESPONSE

1. FUNDING
   Medium Risk
   a) The USDA FNS has approved funding for this project, however, they only actually fund such projects as money becomes available:
      > **RISK STRATEGY: Accept Risk**
      > *It is expected that the contracts will have language providing an exit strategy should funding not be available.*

   b) There is the chance that funding is at 75% vs. 100% reimbursement from USDA FNS should VDH elect to not join MPSC user group.
      > **RISK STRATEGY: Accept Risk**
      > *It is expected that other funding sources would fill the 25% gap.*

2. PROPOSED SOLUTION
   Medium Risk
   a) VDH would be first entity to implement on-line EBT within the MPSC software.
      > **RISK STRATEGY: Accept Risk**
      > *CIBER (MIS Vendor) and JPMorgan Chase (EBT Vendor) have each implemented the proposed integrated solution, just not with this combination of products.*

3. SCOPE OF CHANGE TO BUSINESS
   Medium Risk
   a) This project will yield significant change technically and operationally to VDH and WIC program participants.
      > **RISK STRATEGY: Mitigate Risk**
      > *Focused Change Management planning will reduce this risk.*

4. CLEARLY DEFINED DELIVERABLES
   Low Risk
   a) In large part, the deliverables have been clearly defined and follow standard USDA MIS and EBT outcomes. Again, as this is the first MPSC On-Line EBT, the mechanics of integrating these two solutions has only been defined at a gross level, the details of which need to be completed through the project activities.
      > **RISK STRATEGY: Accept Risk**
      > *There are standard MIS/EBT interface specifications already defined, and considering both vendors have experience, there is low risk of failure.*

5. <u>ROLES AND RESPONSIBILITIES</u>
   Low Risk
   a) All teams (VDH, CIBER, JPMorgan Chase, DRC) have specifically identified and allocated adequately the people assigned to this project. Both the time allocation and skill allocation bode well for this project. The State of Vermont Health Care project has "stolen" staff from other projects, and this project may be no exception.

   > **RISK STRATEGY: Accept Risk**
   > *VDH Leadership should facilitate keeping this project team together.*

6. <u>VENDOR CAPACITY TO TAKE ON PROJECT</u>
   Low Risk
   a) All vendors have committed their Project Manager to this project during the entire project duration, and have committed other staff assigned to this project at the % level indicated in the proposal.

   > **RISK STRATEGY: Transfer & Monitor Risk**
   > - *Transfer Risk: Vendors will have a contractual obligation. The contract content should include Vendor resource commitments.*
   > - *Monitor Risk: In addition, VDH team will closely monitor vendor teams and individual performance in meeting planned deliverables and completing activities.*

7. <u>LACK OF CLEARLY DEFINED PROJECT ORGANIZATION CHART</u>
   Low Risk
   a) See **Appendix 6** which includes the proposed Project Organization chart.

   > **RISK STRATEGY: Avoid Risk**
   > *VDH Project Manager will ensure that Roles & Responsibilities and the Project Organization Chart are clear prior to the project kick-off with vendors.*

*The section below highlights the risks and risk mitigation strategy identified by the project team **before** the Independent Review.*

8. <u>SIMULTANEOUS SYSTEM AND BUSINESS REENGINEERING</u>
   Medium Risk
   a) The complete replacement of the current WIC systems will require WIC business process reengineering to occur simultaneously with Systems Planning. Staff job specification changes will need to occur to support the new system and business process.

   > **RISK STRATEGY: Accept Risk**
   > - *Due to the extensive nature of Business Reengineering additional structure was added to the tasks. The work is organized into subprojects, each with a work plan. A program project manager has been assigned to oversee and track the work. A subproject status report will be issued bi-weekly to*

track coordination of Subproject tasks and Main project tasks. Lag times are being used to accomplish work in preparation for busier time periods.

9. THE "CHALLENGE FOR CHANGE" STATEWIDE INITIATIVE AND OTHER AHS INITIATIVES COULD ALTER FUTURE BUSINESS PROCESSES. THIS ACT BECAME LAW ON 2/25/2010
   Low Risk

   RISK STRATEGY: Monitor Risk
   - *This is a minor risk as the chosen WIC system is not dependent upon the AHS core components, but will interact with them after the close of the project.*

10. AS YET UNKNOWN CONFLICTS THAT MAY EXIST BETWEEN USDA/FNS MIS REQUIREMENTS AND STATE IT PRIORITIES AND REQUIREMENTS
    Low Risk

    RISK STRATEGY: Monitor Risk
    - *Monitor and negotiate.*

11. SCHEDULE SLIPPAGE
    Low Risk

    RISK STRATEGY: Monitor Risk
    - *Slippage is a risk due to the number of workers on the project. In response monitoring and tracking work is being tracked to more detailed level than normal in a project of this type, within Vermont IT.*

12. COST OVERRUNS
    Low Risk

    RISK STRATEGY: Monitor and Control Risk
    - *Due to DII changing, cost models, DII hosting preferences and due to unknown contract costs. Early conversations and negotiations will occur to identify and fix costs before Kickoff Change in Human Resources.*
    - *Due to the planning team's change in roles and part-time nature of some positions, DII sees the current staffing of the project a risk. The WIC program is making use of student staff and assigning admin staff to accomplish project tasks.*

13. DII WORKING ON MULTIPLE LARGE HEALTH CARE PROJECTS WITH LIMITED STAFF IS A RISK
    Low Risk

    RISK STRATEGY: Monitor and Control Risk
    - *Monitor and promote the project as much as possible and schedule work as far in advance as possible to allow resource scheduling. Make use of contractor staff as much as possible to lessen reliance on state staff.*

14. PROJECT DELAY DUE TO MPSC USER GROUP DECISIONS
    a) Work with FNS & MPSC to determine process that works with Vermont's schedule.
    Low Risk

    RISK STRATEGY: Accept Risk

- *Work with FNS & MPSC to determine process that works with Vermont's Budget.*

15. PROJECT SCOPE ALTERED DUE TO MPSC USER GROUP DECISIONS
    Low Risk

    RISK STRATEGY: Accept Risk
    - *Work with FNS & MPSC to determine process that works with Vermont's scope.*

16. PROJECT DELAY DUE TO FNS
    Low Risk

    RISK STRATEGY: Accept Risk
    - *Escalate conflicts higher in WIC and/or involve Vermont's Congressional delegation.*

17. SOV LACK OF KNOWLEDGE MANAGEMENT PROCESSES (ALL UNITS)
    Low Risk

    RISK STRATEGY: Accept Risk
    - *Work to gather requirements for state units' processes, identify points of conflict between units, work to resolve conflicts and document the resolved processes.*

*The section below highlights the risks and risk mitigation strategy identified by the project team **during** the Independent Review.*

18. TOTAL FUNDING NOT YET RECEIVED.
    a) The USDA FNS annually sets aside a certain amount for these types of projects nationally.   The allocation of funds is made by project cost flow needs and status.
    Low Risk

    RISK STRATEGY: Accept Risk
    - *Prevention includes, Timely submittal of Quarterly reports, Close monitoring of project tasks, Push monthly Communications to FNS.*
    - *Response includes identification of other WIC funds to cover project expenses.*
    - *NOTE: As of 8/30, VDH was notified of funding approval in the amount of $3.658 million, which represents 100% of the project budget ($4.2M less $565K already approved/expended).*

19. ABILITY TO INTEGRATE MIS AND EBT SYSTEMS.
    a) VT's implementation would be the first MPSC Implementation with on-line EBT, and as such, has Scheduling and Budget risk. While CIBER has migrated IA and ND to what has become the MPSC system for CO, UT, and WY, that system has off-line EBT built-in. On line EBT has not been integrated with MPSC system; JPM has

implemented on-line EBT with current State of Nevada, Inter-Tribal Council of Nevada, and Chickasaw Nation systems.

Medium Risk

  RISK STRATEGY: Accept Risk

- *Plan for system enhancement through requirements elicitation and verification of Ciber's planned enhancements.*
- *Choose experienced Contractors.*
- *Plan for only basic EBT functionality to be coded.*
- *DII staff availability to CIBER.*

20. <u>DII STAFF AVAILABILITY TO CIBER.</u>
    a) Need to ensure proper Coordination and Communication between CIBER and team responsible for Infrastructure for Servers (this is DII) to ensure bandwidth is adequate to support app --> db server performance

Low Risk

  RISK STRATEGY: Accept Risk

- *Communication Plan.*
- *Human Resource Plan.*
- *Status Meetings.*
- *Early identification of DII Technical Lead (EA Group) .*
- *Early Identification of State Implementation Teams.*
- *Involvement of SOV PM in all communications.*

21. <u>MAGNITUDE OF OPERATIONAL, TECHNICAL, AND SERVICE DELIVERY CHANGES.</u>
    a) Going from green screen to smart client and going from many manual to automated processes (these people may not have computer skills); Participants going from home delivery to EBT; Training: Consider having CIBER trainer in room with VT Trainer as this is a complex system.

Low Risk

  RISK STRATEGY: Accept Risk

- *Human Resource Plan.*
- *Subproject Plans.*
- *Change Control Plan.*
- *Communication Plan.*
- *Early start of Change Management Subproject.*

22. <u>QUESTION ON VT WIC ROLE WITHIN THE MPSC USER GROUP: MPSC USER GROUP JUST FORMING AND CREATING GOVERNANCE.</u>
    a) A current UG rule is no changes by new members for one year: VT WIC wishes to add functionality for on-line EBT. If VT WIC cannot add on-line EBT and elects to not join, benefit of SAM and User Group is diminished and it will compromise anticipated funding source. Issue is expected to be resolved in September, because FNS needs it to be solved or no states will join the UG.

Low Risk

  RISK STRATEGY: Accept Risk

- *Work with the 10 other states who also want the MPSC with online EBT to promote the UG's immediate acceptance of the enhancement.*
- *Contract for VT to do the Enhancement.*
- *Identify funding source for the Enhancement.*

23. <u>HOW WILL OFF-LINE CLINICS OR OTHER POINTS OF SERVICE PROVIDE ON-LINE EBT BENEFITS?</u>
    Medium Risk
    ### RISK STRATEGY: Accept Risk
    - *Move the Clinics.*
    - *Provide remote connectivity via phone modems.*
    - *Obtain a Federal Waiver.*

24. <u>KEY LEADERSHIP STAYING ON THROUGH PROJECT COMPLETION.</u>
    a) Key leadership view this project as their "swan song" before retiring, specifically Ms. Bister and Ms. Keller. Ms. Rowell is also eligible to take advantage of SOV retirement benefits. They are committed to completing the project, given the timeline, but should the timeline extend beyond 2-3 years, or some other event occur, there is nothing preventing those people from retiring sooner than the actual project completion date.
    Medium Risk
    ### RISK STRATEGY: Accept Risk
    - *Detailed Documentation.*
    - *Human Resources Plan.*
    - *Succession Plan.*
    - *Strong Communications.*
    - *Choice of Contractors with Redundant Resources.*

25. <u>WHAT ARE THE OPTIONS TO CONTINUE TO DELIVER SERVICES SHOULD THE NEW SYSTEM IMPLEMENTATION FAIL OR BE SIGNIFICANTLY DELAYED? THE MPSC IS RUNNING CHECKS IN TWO STATES. MPSC FAILURE IS A REMOTE POSSIBILITY.</u>
    Low Risk
    ### RISK STRATEGY: Accept Risk
    - *Use the MPSC check functionality.*

Summary of Findings-Positives:

As stated above, of the several Independent Reviews I have personally conducted over the past 10+ years, this particular project demonstrates the highest level of project planning preparation as well as senior leadership, commitment, combination of responsibility and authority, and subject-matter expertise.

OVERVIEW OF THIS DOCUMENT AND BACKGROUND

SCOPE OF THIS REVIEW

This overview describes what is included in the scope of this project review. It is also important to state explicitly those areas that are outside the scope of this project and this review:

Included in this Independent Review:

1. Acquisition cost assessment.
2. Technology architecture review.
3. Implementation plan assessment.
4. Cost/Benefit analysis.
5. Project Risk assessment.

Excluded from this Independent Review:
1. Procurement Advisory services.
2. Review of vendors who comprised the pre-qualified vendor list.
3. Review of how vendor was selected for this project.
4. Anticipated Post Implementation Activities.

The following actions were taken to gather the data used to analyze the proposed project and provide this Independent Review report:

1. Interviews with:
    a. Key State of Vermont staff:
        i. Donna Bister
        ii. Nancy Rowell
        iii. Jeanne Keller
        iv. Eileen Underwood
        v. Patrick Henry
        vi. Tom Mulhall
        vii. Dan Smith
    b. CIBER:
        i. Hugh Browder
    c. JPMorgan Chase:
        i. Louise Meyer
        ii. Liz French
    d. DRC:
        i. Kathy Baird
        ii. Dawn Scanlon

2. <u>Analysis of</u>:
   a. 3 State of Vermont RFPs (MIS, EBT, QA)
   b. CIBER Technical Proposal
   c. JPMorgan Chase Technical Proposal
   d. DRC Technical Proposal
   e. MIS/EBT Functional Requirements Document (FReD)
   f. MIS/EBT Implementation Advanced Planning Document (IAPD)
   g. MIS/EBT Implementation Budget
   h. State of Vermont Project Planning Documents on the SharePoint site, including:
      i. Implementation_SubProjects.docx
      ii. ActivityList.pdf
      iii. ChangeManagementPlan.pdf
      iv. Charter - Final.pdf
      v. ClosurePlan.pdf
      vi. CommunicationPlan.pdf
      vii. ConfigurationManagementPlan.pdf
      viii. CostPlan.pdf
      ix. DataConversionPlanDraft.pdf
      x. HumanResourcesPlan.pdf
      xi. ImplementationTaskMatrix_ver2.0.doc
      xii. IssueLog.pdf
      xiii. MeetingLog.pdf
      xiv. MeetingResultLog.pdf
      xv. MSProjectFile_ver1.25.mpp
      xvi. PhaseSignOffProcess.pdf
      xvii. PMDeliverables.doc
      xviii. ProcurementPlan.pdf
      xix. RequirementsPlan.pdf
      xx. RetailEnablementPlan.pdf
      xxi. RFPTrackingSheet.pdf
      xxii. RiskManagementPlan.pdf
      xxiii. RiskRegister.pdf
      xxiv. Schedule.pdf
      xxv. ScheduleChecklist.pdf
      xxvi. ScheduleManagementPlan.pdf
      xxvii. ScopePlan.pdf
      xxviii. SecurityPlan.pdf
      xxix. StakeholderRegister.pdf
      xxx. StatusReport.pdf
      xxxi. SubprojectsStatusReport.pdf
      xxxii. SubprojectsSummary.pdf

xxxiii. WBS.pdf

xxxiv. WICEBTVision.pdf

xxxv. WICMISEBTStakeholderRegisterv1.10.doc

3. Development of:
    a. Summary of Findings and Recommendations– Presented to team on 8/1/13
    b. This Independent Review document and associated Findings and Recommendations

STATUTE DEFINES AN INDEPENDENT REVIEW

It is important to establish the scope of this review. The scope of this document is fulfilling the requirements of Vermont Statute, Title 3, Chapter 45, §2222(g):

> The secretary of administration shall obtain independent expert review of any recommendation for any information technology activity initiated after July 1, 1996, as information technology activity is defined by subdivision (a)(10) of this section, when its total cost is $1,000,000 or greater over the life of the project. Documentation of such independent review shall be included when plans are submitted for review pursuant to subdivisions (a)(9) and (10) of this section. The independent review shall include:
>
> (1) An acquisition cost assessment;
> (2) A technology architecture review;
> (3) An implementation plan assessment;
> (4) A cost analysis and model for benefit analysis; and
> (5) A procurement negotiation advisory services contract.

HISTORICAL BACKGROUND

The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) provides specific nutritious foods, nutrition and breastfeeding education, and referrals to pregnant, breastfeeding and postpartum women, infants and children up to five years of age who are determined to be at nutritional risk and meet income guidelines. Vermont serves approximately 16,000 participants monthly. The annual unduplicated participation totals approximately 24,000.
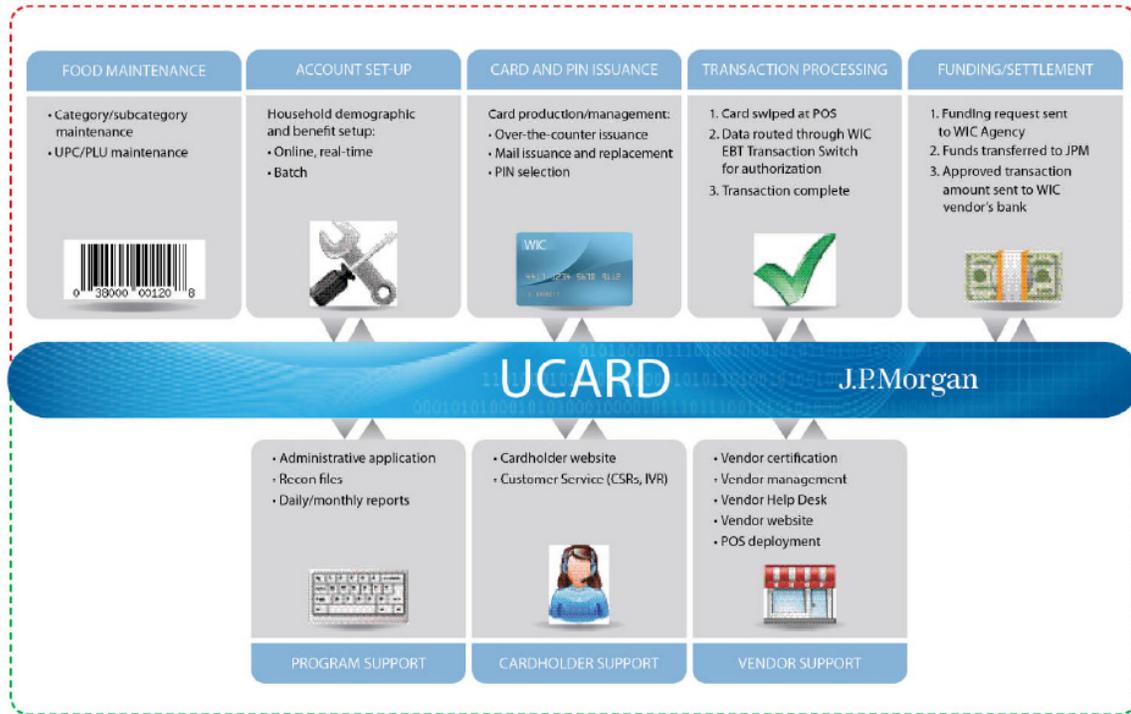
The Vermont WIC program provides direct services to participants using Vermont Department of Health (VDH) WIC program management staff at the central office and a variety of staff disciplines at the local agency level within VDH District Offices. Currently, participant certification occurs at 50 clinic sites operated by Vermont's 12 Health Department District Offices. In addition to the 12 District Office sites, clinics include temporary satellite sites such as churches and other community locations, which may be held one or more days per month, but with no permanent WIC-related infrastructure.

Most of the prescribed foods are home delivered to WIC participants by one of 15 certified home delivery vendors under contract to Vermont WIC. Approximately $9 million worth of WIC foods are delivered annually. WIC food benefits are delivered on a schedule set by the home delivery vendor to ensure redemption of the full nutrition benefit within each calendar month.

The current Vermont WIC management information system was developed in 1977. It operates on a current model IBM mainframe and utilizes CICS for transaction processing, VSAM for database management, and COBOL and Gener/OL as the programming languages. The mainframe has the ability to host SQL and Web servers and a portion of the CICS interface is web-enabled. Although the WIC system has been successfully modified to meet federally mandated requirements, only 11 of the 24 current core WIC functions are automated.

Vermont needs to phase out the current home delivery system for food distribution and move to an EBT model as soon as practically possible, because Vermont's home delivery vendors are aging, refrigerated vehicles suitable for home delivery are expensive and difficult to obtain, and the food package constraints for home delivery limit participant choice of foods, making it difficult to meet cultural and personal food preferences.

It is not possible to move from home delivery to full EBT using Vermont's current MIS, as the necessary processes for food instrument (paper or card) issuance and monitoring and for settlement and reconciliation with retail vendors are not automated. Vermont believes it would be costly and cause unnecessary delay to implement a paper voucher/check system as an interim delivery model prior to EBT. Vermont's successful implementation of EBT for the cash value fruit and vegetable benefit laid the foundation for comprehensive EBT planning. Thus, Vermont WIC finds that it must work simultaneously on implementation of the MSPC MIS transfer and implementation, and the implementation of online, outsourced WIC EBT.

WIC EBT will transform the current WIC paper benefit and home delivery system to an online EBT system allowing participants to obtain eligible foods at authorized retail grocers. The new WIC EBT system will benefit both the retailer and the participant by delivering a seamless WIC transaction at the cash register, making the transaction appear no different from any other card transaction by any other shopper.

WIC Purchase Receipt

Cardholders receive a final receipt detailing all items redeemed, with their associated quantity and remaining balance.

```
                    XYZ Vendor
                  123 Morgan Lane
              Any Town, Any State  33559
                   123-555-1212
                   800-555-1212

  Date: 04/08/2009              Time: 12:36 PM

                  WIC Purchase

  Terminal ID:          C123443001
  Card Number:          xxxxxxxxxxxx8586
  Sequence Number:      027
  Cashier ID:           222
  Auth Number:          009075


       1.00  GAL   KRO WHOLE MILK
                 1 @ $3.58              3.58


  WIC SubTotal                         3.58
  Coupon Tend                          0.00-

  WIC Total                            3.58


  Remaining Balance (exp date 05-01-09):
      4.00   GALLON FLUID MILK
      1.00   LB CHEESE
      1.00   DOZEN FRESH EGGS
     36.00   OZ CEREAL


             ***Cardholder Copy***


             PLEASE KEEP THIS FOR
                 YOUR RECORDS
         THANK YOU FOR YOUR PATRONAGE
```

WIC Transaction from a Participant's viewpoint

Features of the UCard

PROJECT COST SUMMARY

The 5 year cost of this project is anticipated to be **$4.792M.**

The implementation costs are expected to be fixed, and the operational costs are estimated and will be variable, based on EBT transaction volume.

LIMITATIONS OF THIS REVIEW

The contracts are still yet in various stages, so comments related to those are not part of this review at present.

PROJECT OBJECTIVES

The WIC MIS that is implemented must be WIC EBT ready per USDA MIS Functional Requirements specifications. The following is a listing of those functions that are considered functional requirements to support EBT-readiness in a WIC MIS and which Vermont expects to be present in the MPSC MIS:

- Maintain Food Category/ Subcategory Table
- Maintain UPC Database for WIC Authorized Foods
- Establish Food Item Maximum Allowed Amounts
- Establish EBT Account
- Add Participant(s) to an Account
- Issue Electronic Benefits
- Issue EBT Card
- Obtain Account Balance
- Update EBT Account Information
- Remove Participant(s) from an Account
- Process Changes to Electronic Benefits
- Process Changes to Electronic Benefits (Benefit Adjustments, Voids and Reissuance)
- Process Changes to EBT Card (Status Changes/Card Replacements)
- Process Vendor Payment
- Retrieve Benefit Issuance File
- Retrieve Transaction History Data and Reconcile
- Redeemed Benefits with Issuance File
- Determine High Risk Vendors (EBT Environment)

For the Vermont WIC Program, WIC EBT:
- Ensures that participant receives prescribed foods
- Provides data on type and amount of foods purchased
- Allows for accurate rebate billing on infant formula purchased
- Ensures that retailer claims are no more than Not-to-Exceed price
- Enables a secure transaction
- Enables timely and accurate claims
- Reduces the amount of time and effort spent on retailer compliance activities
- Reduces the amount of time and effort in monitoring and reconciling retailer overcharges
- Reduces forgery and fraud opportunities
- Increases accountability
- Reduces paperwork
- Enables numerous reports on EBT activity to improve administrative efficiencies
- Streamlines clinic operations; increases time for nutrition education

PROJECT SCOPE

The following summarizes the project scope per the 3 RFPs.

MIS
The project's scope includes the transfer of a selected Mountain Plains State Consortium (MPSC) Management Information System (MIS) code and configuration to meet Vermont's installation requirements for the IT and WIC environment, testing of the installation, training of Vermont staff, oversight of user acceptance testing and collaboration with Vermont's QA and EBT contractors to concurrently implement the Vermont WIC MIS Transfer Implementation and online EBT in the Vermont Environment in compliance with industry standards.

WIC EBT
WIC EBT (Electronic Benefits Transfer) is an electronic system that allows WIC programs to issue food prescriptions via a magnetically encoded card, which contains the WIC Participant's ID Number to interface a grocer's Point of sale system with an EBT system that contains the Participant's food based prescription. This primary component is focused on delivery of food benefits. The WIC EBT project's scope has two components.

The first includes the Implementation of an online WIC EBT system interface with Vermont's WIC MIS System's interface. This includes training of Vermont staff, and user acceptance testing. The interface will be used to transmit and validate account set-up and benefit authorization records between the State and the EBT contractor. This component requires extensive collaboration with Vermont's Quality Assurance (QA) and MIS Transfer and Implementation (T&I) contractors as it will occur simultaneously with transfer and implementation of the MPSC MIS system in Vermont.

The second component is delivery of on-line WIC EBT services for the period of the agreement. Vermont will be contracting with JPMorgan Chase, a single online WIC EBT Service Provider, for both components.

QA
The objective of procurement of QA services is to promote the success of the Vermont WIC MIS Transfer Implementation and online EBT implementation and rollout by building quality assurance functions into the development, implementation and testing processes, by providing quality monitoring of activities and evaluation of each deliverable and implementation process to ensure they meet industry best practices.

The selected Contractor will provide specialized knowledge and expertise in Quality Management and Monitoring processes, including Quality Planning, Quality Assurance and Management, Compliance, and Quality Control, as applicable to information systems project management and systems development in a government environment. Contractor will provide a QA Project Management Plan, which includes a QA detailed Project Work Plan. QA contractor will fulfill both USDA FNS and State of Vermont defined activities and responsibilities.

MAJOR TASKS AND DELIVERABLES

Appendix 5 highlights the timeline of the major tasks and deliverables for this project.

SUMMARY

The project, as described and defined, addresses all of the Project Objectives.

ACQUISITION COST ASSESSMENT

This section provides both a summary and detailed view of the hardware, software, staffing, services, and other costs associated with the project.

PROJECT COST SUMMARY

Project costs related to the entire project can be found in **Appendix 1**, and are **$4.792** over a 5 year period.

COST OF HARDWARE

See **Appendix 1**.

COST OF SOFTWARE

See **Appendix 1**.

COST OF SERVICE

See **Appendix 1**.

SYSTEM INTEGRATION COSTS

All System Integration costs are included in the project costs.

ADDITIONAL COSTS

There are no additional project costs anticipated.

SUMMARY

The 5 year Project Costs are **$4.792M**.

There are only provisions for change of scope or additional costs in the project budget pending approval from the funding source, in this case USDA FNS.

TECHNOLOGY ARCHITECTURE REVIEW

SUPPORT FOR THE STATE'S STRATEGIC ENTERPRISE SYSTEMS DIRECTION

The primary hardware and software components of this initiative are closely aligned with the State's supported technology at this time which is Windows Server 2008, Microsoft .NET, and SQL Server 2005 or above.

Security Analysis

The proposed solution meets the security standards contemplated in the RFPs.

Data encryption at the proposed AES 128-bit is achieved through the web browser.

Disaster Recovery Plan

The proposed solution is expected to utilize DII's Data Center BC/DR plan available for the MIS system, and JPMorgan Chase 99.999% operational uptime guarantee for the EBT solution.

State-wide WAN/LAN Impact

Neither CIBER nor JPMorgan Chase has provided data to facilitate determination of required bandwidth.

SYSTEM INTEGRATION REQUIREMENTS

The integration requirements per the RFP are contemplated in the RFP and subsequent proposals. For this project, the key integration point is the messaging between the MIS and EBT systems.

Agency of Administration Information Technology Server Optimization Plan
In reviewing how this project fits with the memorandum from DII CIO Tom Murray dated Sept. 5, 2007 and titled "*Agency of Administration Information Technology Optimization*", the MIS application meets this standard, in that, it is expected to run under VMWare in the DII Data Center.

ABILITY OF THE TECHNOLOGY TO SUPPORT BUSINESS NEEDS

Based on the requirements identified by Vermont in the RFPs and the vendors' RFP responses, both vendors have demonstrated that they will be able to configure the software to meet Vermont's needs and the QA vendor has demonstrated experience bringing similar projects to a successful completion within the schedule and budget.

ABILITY OF THE USER AND OPERATIONAL STAFF TO INTEGRATE SOLUTION INTO THEIR WORK

This is expected to be a fairly significant change in how VDH perform their WIC-related daily operations, but the stakeholders appear committed to making this happen and have allocated a .5 FTE to perform Operational Project Management to focus on change related to processes, procedures, and service delivery relative to all stakeholders.

SUMMARY

The technology proposed is consistent with the Enterprise systems strategic options supported by the State of Vermont.

Finally, SOV is staffed adequately for this project.

ASSESSMENT OF IMPLEMENTATION PLAN/IMPLEMENTATION RISK ANALYSIS

THE REALITY OF THE TIMETABLE

The **36 month** schedule is feasible, based on the scope and breadth of operational changes expected.

A significant downside to extending the timeline is the *potential* for additional costs associated with associated labor.

TRAINING OF USERS IN PREPARATION FOR IMPLEMENTATION

It is expected that SOV will embrace a Train the Trainer approach.

READINESS TO PARTICIPATE

The Vermont project team's time allocation to this project is NOT impacted by competing projects and/or priorities.

ADEQUACY OF DESIGN, CONVERSION, AND IMPLEMENTATION PLANS

Adequacy of Design, Conversion, and Implementation Plans appear very strong.

ADEQUACY OF SUPPORT FOR CONVERSION AND IMPLEMENTATION ACTIVITIES

See section above.

ADEQUACY OF PLANNED TESTING PROCEDURES

See section above.

ADEQUACY OF DEPARTMENT AND PARTNER STAFF TO PROVIDE PROJECT MANAGEMENT

The teams assembled by VDH, CIBER, JPMorgan Chase, and DRC all appear well qualified and experienced to undertake this initiative.

See **Appendix 6** which details the key project participants.

IMPLEMENTATION RISK ANALYSIS

See **Appendix 4** which details the Risk Analysis.

SUMMARY

Regarding the feasibility of the Implementation Plan and Project Timeline, both appear to be feasible, based on the experience with projects of similar scope.

Regarding an overall Risk Assessment score, per **Appendix 4**, this project receives a risk position of **MEDIUM LOW RISK**.

COST BENEFIT ANALYSIS

COSTS

The 5 year costs of this project are **$4.792M** as detailed in **Appendix 1**.

BENEFITS

There was a business case made prior to project initiation, highlighting expected efficiency gains and reducing monthly operational costs by $2,718 monthly, totaling **$32,617** annually.

SUMMARY

The WIC project team *did not* conduct a cost-benefit analysis for undertaking this project that demonstrates VDH should pursue this project based on benefits exceeding costs.

The team DID perform a cost-benefit analysis of *alternative solutions* to meet the project objectives, summarized below:

MIS:
1. Current In house solution – Not considered, given the availability of other systems for transfer to Vermont.
2. Non State Agency Model – Ability to make system modifications without user group constraint, but limited funding.
3. State Agency Model (SAM) – Limited ability to make system modifications without user group agreement, more funding options.

Given the analysis of cost, functionality and SAM vs. non-SAM, VDH elected to pursue MPSC MIS system.

EBT:

VDH considered in-house off-line and out-sourced on-line options as the basis to compare to the cost of the current food delivery system. The total design, development and implementation cost for the off-line, in-house solution is approximately $700,000 more than the on-line out-sourced solution, primarily due to the higher cost of cards and additional administrative terminals at the local level to handle card replacements, food package changes and other actions that must be loaded on the card in an off-line environment.

The majority of the estimated costs for operating the online, outsourced solution are derived from the ongoing Cost Per Case Month (CPCM) pricing, a fee assessed each month for each active case.

Summary of EBT costs through 2019:
1. Current: $2.4M
2. Outsourced, On Line EBT: $4M
3. In-house, Off Line EBT: $8.1M

While the data do not show a dollar benefit when compared to costs when undertaking this project, given the fact that all WIC providers must provide EBT by 2020, and the fact that VDH has been approved by USDA FNS for funding this project, and the fact that VDH has received approval for their IAPD (Planning Document), this project may be viewed favorably regarding cost/benefit, when considering cost to Vermont taxpayers, which should be $0.

APPENDIX 1 – PROJECT COST DETAILS

The 5 year cost of this project is **$4.792M, detailed as** follows**:**

	Year 1 and 2	**Year 3**	**Year 4**	**Year 5**	**TOTAL**
IMPLEMENTATION	$4,223,894				**$4,223,894**
PILOT and STATE WIDE ROLL OUT (Annual Operational Costs)		$189,456	$189,456	$189,456	**$568,368**
TOTAL					**$4,792,262**

Projected MIS/EBT Costs:

Startup Costs	Quarterly Operational Costs	
		State Costs
$1,010,092	$10,807	Staff
$23,400	$300	Travel
$21,000	$200	Miscellaneous
	$6,484	Overhead
$1,054,492	$17,791	*Subtotal*
		Infrastructure
$110,000	$973	Processors
$0		Telecommunications
$192,100		Clinic
$302,100	$973	*Subtotal*
		Contracted
$400,000		Quality Assurance
$1,761,000		T&I Software Transfer & Implementation
$400,000		EBT implementation
$45,800		Training
$117,000		Rollout support
$45,000		Pilot Evaluation
	$5,200	Software Maintenance
	$23,400	EBT Cost per Case Month
$2,768,800	$28,600	*Subtotal*
$98,502		DII PM Assessment
	$47,364	**Total Projected Quarterly Costs**
$4,223,894 **TOTAL START UP COSTS (Years 1-2)**	**$15,788** **PROJECTED MONTHLY OPERATIONAL COSTS**	

APPENDIX 2 – PROJECT PLAN MILESTONES

The following high level project summary outlines the key Milestones of this project.

PROJECT PHASE	START	END
MIS/EBT Project Summary	**Fri 3/30/12**	**Mon 4/3/17**
Preplanning Phase	Fri 3/30/12	Mon 9/23/13
Planning	Mon 5/14/12	Fri 1/31/14
Design Phase	Fri 1/31/14	Fri 5/30/14
Development	Thu 5/29/14	Fri 5/29/15
Pilot	Fri 5/29/15	Fri 10/2/15
State Wide Rollout	Wed 9/30/15	Fri 4/1/16
Closing	Thu 3/31/16	Mon 4/18/16
Warranty	Wed 3/30/16	Fri 3/31/17
QA Contract Closure	Mon 4/3/17	Mon 4/3/17
T&I Contract Closure	Mon 4/3/17	Mon 4/3/17
Post Closing	Thu 9/1/16	Thu 10/20/16

APPENDIX 3 – PROCUREMENT ADVISORY SERVICES

There are 3 primary contracts to consider, one per vendor. For this IR, the Procurement Advisory Services scope of work was stated to be an optional item State of Vermont may ask for assistance on after this report is delivered. As such, no opinion is rendered on the contracts, and the summary below provides a status of the contract negotiation at the time of this writing.

1. Contract with DRC for 8/1/2013 – 7/31/2015 for **$390K**; (Contract is executed).

2. Contract with CIBER for 9/30/2013 – 9/30/2015 for **$1.7M**; (Contract is being negotiated).

3. Contract with JPMorgan Chase for 2013 – 2017 (actual dates to be determined) for **$400K** for implementation services and a per transaction fee for EBT Services (Contract is being negotiated).

APPENDIX 4 – RISK ANALYSIS SCORE

The worksheet on the following pages provides a "RISK SCORE" to Business and Project-related aspects of this project.

Interpret the results using the guide below, with the understanding that the higher the score, the more risky the project.

An answer of "YES" means (Low risk); Score:	1
An answer of "LARGELY" means (Medium Low Risk); Score:	2
An answer of "TO SOME EXTENT" means (Medium Risk); Score:	3
An answer of "PARTIALLY" means (Medium High Risk); Score:	4
An answer of "NO" means (High risk); Score:	5

The risks are divided into:

Inherent risks: Those risks that relate to the organization itself.

Acquired risks: Those risks that arise as a consequence of doing the project.

Inherent risks are further divided into:
1. Business vision
2. Business process
3. Business environment and constraints

Acquired risks are divided into:
1. Scope of project or procurement
2. Project organization and control
3. Team capability, experience and support

Risk Summary Graph:

The higher the score, the higher the risk

Risk Profile
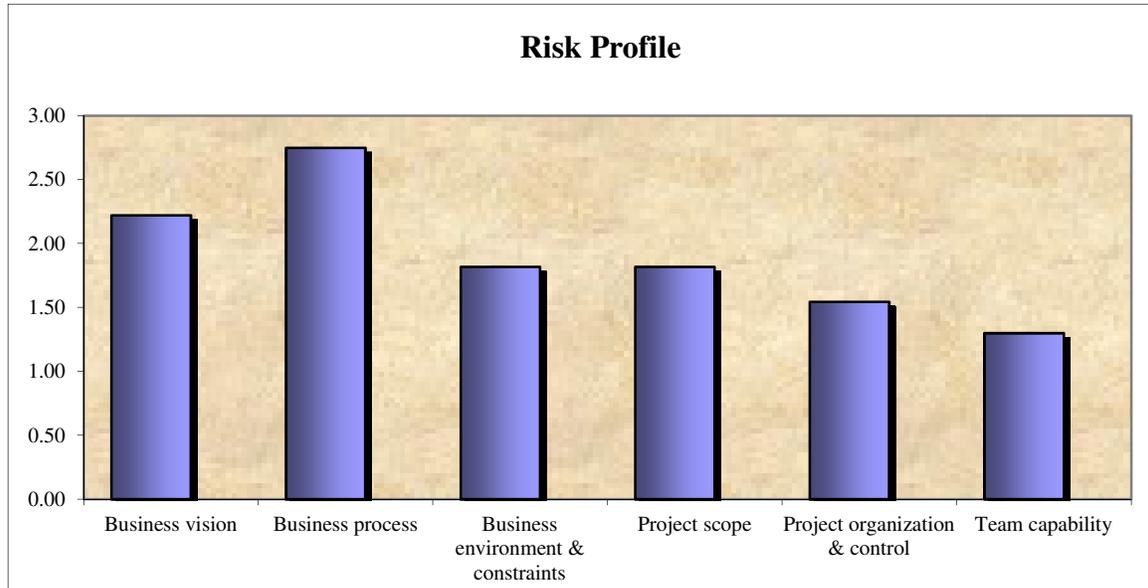
As detailed in the chart on the following pages:

The **Inherent Risk** is: **2.26**, which is considered to be MEDIUM LOW RISK.

The **Acquired Risk** is: **1.55**, which is considered to be MEDIUM LOW RISK.

The **Overall Project Risk** is: **1.91**, which is considered to be MEDIUM LOW RISK.

Risk Analysis Score Worksheet:

Key to scoring system

An answer of "YES" means (Low risk); Score: **1**

An answer of "LARGELY" means (Medium Low Risk); Score: **2**

An answer of "TO SOME EXTENT" means (Medium Risk); Score: **3**

An answer of "PARTIALLY" means (Medium High Risk); Score: **4**

An answer of "NO" means (High risk); Score: **5**

Inherent Risk: Corporate risks (external to the project)	Risk
A **Business vision**	assessment
A.1 Are the business needs, assumptions and outcomes clearly understood?	2
A.2 Is the impact of business change small?	4
A.3 Has the organization delivered comparable change before?	3
A.4 Is it clearly stated how the changes will affect the business?	2
A.5 Is the requirement clearly defined and related to business objectives?	2
A.6 Do those affected by the change know how they will be affected and why?	2
A.7 Is the delivery team able to translate the business requirement into a detailed specification?	2
A.8 Is it clear how the new program or project fits with existing business and any conflicting priorities resolved?	2
A.9 Is it clear why the change needs to be made?	1
	2.22 Medium Low Risk
B **Business process**	
B.1 Is it clear how existing business processes will be affected by the change?	2
B.2 Will critical business processes be unaffected?	5
B.3 Will existing ways of working remain unchanged?	5
B.4 Is the likely impact of other change on this minimal?	2
B.5 Are the people who will work in new ways all in one place?	2
B.6 Is the business process that underpins the change already in place?	4
B.7 Are existing communication lines between programs/projects and stakeholders adequate?	1

B.8	Does the organization learn from relevant experience?	1

2.75 Medium Risk

C   **Business environment & constraints**

C.1	Does the organization understand the current state of its infrastructure?	1
C.2	Are the proposed changes to the technical environment straightforward?	3
C.3	Is the impact on the existing technical environment (including facilities and services) well understood?	2
C.4	Is the business familiar with any proposed technology and does it have available the core skills and competencies to exploit it?	2
C.5	Are the technical components of the change basic 'off-the-shelf' items and / or compliant with relevant industry standards?	2
C.6	Has the entire life-cycle of the project been adequately considered in terms of cost/budget and flexibility?	1
C.7	Has the need for modular/incremental delivery been addressed, where appropriate?	2
C.8	Are customers likely to be confident about the reliability of the existing technical infrastructure and quality of existing services?	2
C.9	Will the implementation of the change be straightforward?	3
C.10	Does the organization have (or can readily obtain) the necessary capability and capacity to own and manage the business change?	1
C.11	Do the senior managers responsible for delivery of this program acknowledge and accept their responsibilities?	1

Risk assessment answer: 1.82 Medium Low Risk

An answer of **"YES"** means (Low risk); Score: **1**
An answer of **"LARGELY"** means (Medium Low Risk); Score: **2**
An answer of **"TO SOME EXTENT"** means (Medium Risk); Score: **3**
An answer of **"PARTIALLY"** means (Medium High Risk); Score: **4**
An answer of **"NO"** means (High risk); Score: **5**

TOTAL Inherent Risk: Corporate risks (external to the project)   *2.26* Medium Low Risk

Key to scoring system

An answer of **"YES"** means (Low risk); Score: **1**
An answer of **"LARGELY"** means (Medium Low Risk); Score: **2**
An answer of **"TO SOME EXTENT"** means (Medium Risk); Score: **3**
An answer of **"PARTIALLY"** means (Medium High Risk); Score: **4**
An answer of **"NO"** means (High risk); Score: **5**

Acquired Risk: Project-specific risks	Risk assessment
D **Scope of project or procurement**	
D.1 Is the 'project' scope well defined and agreed in terms of what the project should deliver?	1
D.2 Is the 'project' well defined and understood by the project team and all stakeholders?	1
D.3 Does the scope of the 'project' include all of the business areas affected?	1
D.4 Does the scope of the 'project' address modular and/or incremental delivery, each with clear business scope and business case, where appropriate?	2
D.5 If the project fails to deliver the expected outcome, will the business be able to continue?	2
D.6 Does the 'project' have some flexibility on delivery dates?	2
D.7 Are the business processes being supported or enabled by the technical infrastructure (solution) well understood, well defined and formally documented by the project team?	2
D.8 Do all the people who have a stake in the project agree on what the project should deliver and how it will benefit the business?	2
D.9 Is there a business case that clearly states why the changes are needed, what the changes are, how the business will benefit and how benefits will be measured?	1
D.10 Has the necessary funding been approved and allocated, with budget holders identified?	3
D.11 Have you considered how changes will be dealt with in the future?	3
	1.82 Medium Low Risk
E **'Project' organization and control**	
E.1 Are the stakeholders committed in their support of the 'project' and its objectives?	1
E.2 Are customers and/or users able to commit sufficient time to the 'project'?	2
E.3 Is the 'project' plan complete and considered to be achievable?	1
E.4 Are good relationships established between the project team, customers and suppliers?	1
E.5 Are the project management approach and milestones approach understood by all parties?	1
E.6 Is there adequate budget provision (risk allowance) for contingency actions?	3

E.7	Are the project interfaces defined and being managed effectively?	3
E.8	Is the project fully under control, in terms of progress against milestones, budget and deliverables?	2
E.9	Are there appropriate processes for managing change to requirements?	1
E.10	Are there established and effective communications between the project and all stakeholders?	1
E.11	Are the project dependencies clearly identified and being managed effectively?	1
		1.55 Medium Low Risk

F	**Team capability, experience and support**	
F.1	Are the necessary project skills available within the project team?	1
F.2	Are team members able to commit sufficient time to the project?	1
F.3	Is there sufficient fall back for critical resources?	4
F.4	Has the team access to the specialist expertise needed, when required?	1
F.5	Is the team adequately supported in terms of accommodation, administrative support and tools?	1
F.6	Is there enough time and resource within the schedule for necessary information gathering?	1
F.7	Has the team access to people who understand the business domain and the business needs?	1
F.8	Is there a good mix of leadership and other key attributes within the project team?	1
F.9	Are roles and responsibilities clearly defined both within the team and third party interfaces?	1
F.10	Are the customer and/or user roles clearly defined and understood?	1

Risk assessment answer:	1.30 Low Risk
An answer of "YES" means (Low risk); Score: **1**	
An answer of "LARGELY" means (Medium Low Risk); Score: **2**	
An answer of "TO SOME EXTENT" means (Medium Risk); Score: **3**	
An answer of "PARTIALLY" means (Medium High Risk); Score: **4**	
An answer of "NO" means (High risk); Score: **5**	

TOTAL Acquired Risk: Project-specific risks	**1.55** Medium Low Risk
OVERALL RISK	**1.91** Medium Low Risk

APPENDIX 5 – PROJECT PHASES AND DELIVERABLES

The following high level project summary outlines the key Deliverables of this project.

VT Timeline	MIS T&I Tasks	MIS Deliverable	EBT Tasks	EBT Deliverable	QA tasks	QA Deliverable	VT State tasks	VT State Deliverables
Phase: Planning **Start before 9/30/2013**	*Pre-initiation*		*Pre-initiation*		*Pre-initiation*		*Pre-initiation*	
					Pre-initiation task Draft a Quality Management and Monitoring Plan	**Deliverable** 1 Comments on the EBT RPF project management plan. **Deliverable** 2 Comments on the MIS RFP project management plan **Deliverable** 3 Quality Assurance Checklist	**Pre-initiation -task** APL/UPC Data collection **Pre-initiation -task** EBT Retail Vendor Integration grants **Pre-initiation -task** Independent Review **Pre-initiation -task** Create Project Logs **Pre-initiation -task** Draft Project Plans **Pre-initiation -task** Draft 5 yr cost model **Pre-initiation -task** Develop Communication Matrix **Pre-initiation -task** Detailed Effort and Cost Estimating of <u>DII</u> Costs **Pre-initiation -task** Cost Estimate Summary of <u>DII</u> Costs	**Deliverable** 1 APL List including UPC data **Deliverable** 2 EBT Integration Grant documentation **Deliverable** 3 Independent Review Summary **Deliverable** 4 Decision Log **Deliverable** 5 Project Log **Deliverable** 6 Project Plan-Technical **Deliverable** 7 MIS & EBT Project Plan **Deliverable** 8 5 yr cost model **Deliverable** 9 Communication Matrix **Deliverable** 10

VT Timeline	MIS T&I Tasks	MIS Deliverable	EBT Tasks	EBT Deliverable	QA tasks	QA Deliverable	VT State tasks	VT State Deliverables
							Pre-initiation -task Draft Schedule Checklist *Pre-initiation -task* Draft Resource Requirements Responsibility Matrix	*Detailed Effort and Cost Estimating of DII Costs* *Deliverable 11* Cost Estimate Summary of DII Costs *Deliverable 12* Schedule Checklist *Deliverable 13* Resource Requirements Responsibility Matrix
Phase: Planning **Start 9/30/2013** **4 months**	**Task 1** **Project Initiation and Management**		**Task 1** **Project Initiation and Management**		**Task 1** **Project Initiation and Management**		**Task 1** **Project Initiation and Management**	
1 day	*Subtask 1.1* Project Initiation	*Deliverable 1* Provide Comments on Project Initiation Meeting	*Subtask 1.1* Project Initiation	*Deliverable 1* Provide Comments on Project Initiation Meeting	*Subtask 1.1* Project Initiation *Subtask 1.2* Present Quality Management and Monitoring Plan	*Deliverable 4* Comments on Project Initiation Meeting *Deliverable 5* Quality Management and Monitoring Plan	*Subtask 1.1* Project Initiation Log *Subtask 1.2* Present Project Plan *Subtask 1.3* Gain Project Plan Acceptance *Subtask 1.4* Approve QA monitoring Plan	*Reoccurring Deliverable 14* Issue Log *Reoccurring Deliverable 15* Change Control Log *Reoccurring Deliverable 16* Meeting Agenda and Discussion Log
4 months	*Subtask 1.2* System Transfer and Modification and Testing Plan	*Deliverable 2* System Transfer, Modification and Testing Plan	*Subtask 1.2* System Modification installation and Testing Plan	*Deliverable 2* System Modification installation and Testing Plan	*Subtask 1.3* Review MIS & EBT Contactor plans	*Deliverable 6* Provide Comments on T&I Contractor's System Transfer, Modification and Testing Plan and the EBT Contractor's Modification, Implementation, and Testing Plan	*Subtask 1.5* Review & Approve MIS & EBT Contactor plans	
2 months	*Subtask 1.3* Draft Project Work	*Deliverable 3* Project Work Plan	*Subtask 1.3* Draft Project Work	*Deliverable 3* Project Work Plan	*Subtask 1.4* Review MIS & EBT	*Deliverable 7* Draft Master Work Plan	*Subtask 1.6* Review & Approve Final Work plans	*Deliverable 17* Final Master Work Plan and Schedule

VT Timeline	MIS T&I Tasks	MIS Deliverable	EBT Tasks	EBT Deliverable	QA tasks	QA Deliverable	VT State tasks	VT State Deliverables
	Plan		*Plan*		*Work plans*	*and Schedule document*		*document*
	Subtask *1.4* *Attend Bi-weekly Status Calls*	**Deliverable** *4* *Create MIS Status Reports*	**Subtask** *1.4* *Attend Bi-weekly Status Calls*	**Deliverable** *4* *EBT Status Reports*	**Subtask** *1.5* *Attend Bi-weekly Status Calls*		**Subtask** *1.7* *Attend Bi-weekly Status Calls* **Subtask** *1.8* *Create Fit-Gap Analysis*	**Deliverable** *18* *Fit-Gap Analysis* **Deliverable** *19* *Master Bi-weekly Master Status Report*
Phase: Design **Start 1/30/2014 4 months**	**TASK 2** **System Design Confirmation and Change Requirements**		**Task 2** **System Design Confirmation and Change Requirements**		**TASK 2** **System Design Confirmation and Change Requirements**		**TASK 2** **System Design Confirmation and Change Requirements**	
4 months	**Subtask** *2.1* *Review of System Design Confirmation and Change Requirements Sessions & Meeting Agenda*	**Deliverable** *5* *System Design Confirmation Sessions' documentation*	**Subtask** *2.1* *Requirements Validation and Change Requirements Sessions & Meeting Agenda*	**Deliverable** *5* *Requirements Validation documentation*	**Subtask** *2.1* *Review of System Design Confirmation and Change Requirements Sessions*	**Deliverable** *8* *Review and Provide Comments on System Design Confirmation and Change Requirements Sessions*	**Subtask** *2.1* *Business Process Review/ Policy Adjustment* **Subtask** *2.2* *Attend MIS & EBT JAD Sessions* **Subtask** *2.3* *Identify and Define Enhancement Requests* **Subtask** *2.4* *Confirm Change orders*	**Deliverable** *20* *Updated Policy Manual* **Deliverable** *21* *Enhancement Request specifications*
4 months	**Subtask** *2.2* *Update Detailed Functional Design Document (DFDD)*	**Deliverable** *6* *Updated Detailed Functional Design Document(DFDD)*	**Subtask** *2.2* *Create Detailed Functional Design Document (DFDD)*	**Deliverable** *6* *Detailed Functional Design Document (DFDD)*	**Subtask** *2.2* *Review Updated Detailed Functional Design Documents (DFDD)*	**Deliverable** *9* *Provide Comments on Updated Detailed Functional Design Documents*	**Subtask** *2.5* *Review and Approve Updated Detailed Functional Design Documents*	
4 months	**Subtask** *2.3* *Update Detailed Technical Specifications Document (DTSD)*	**Deliverable** *7* *Updated Detailed Technical Specifications Document (DTSD)*	**Subtask** *2.3* *Create Interface Specification Document*	**Deliverable** *7* *EBT-MIS Interface Specification Document*	**Subtask** *2.3* *Review Updated Detailed Technical Specifications Document (DTSD) and Interface Specifications*	**Deliverable** *10* *Review and Provide Comments on Updated Detailed Technical Specifications Document and Interface Specifications*	**Subtask** *2.6* *Review and Approve Updated Detailed Functional Design Documents & Updated Detailed Technical Specifications Document and Interface Specifications*	
4 months	**Subtask** *2.4*	**Deliverable** *8*	**Subtask** *2.4*	**Deliverable** *8*	**Subtask** *2.4*	**Deliverable** *11*	**Subtask** *2.7*	**Deliverable** *22*

VT Timeline	MIS T&I Tasks	MIS Deliverable	EBT Tasks	EBT Deliverable	QA tasks	QA Deliverable	VT State tasks	VT State Deliverables
	Create Hardware, Data Conversion, Training, Security, Help Desk Support, Telecommunications, and Disaster Recovery Plans	Hardware Plan **Deliverable** 9 Data Conversion Plan **Deliverable** 10 Training Plan **Deliverable** 11 Updated Security Plan **Deliverable** 12 Help Desk Plan **Deliverable** 13 Telecommunications Plan **Deliverable** 14 Disaster Recovery Plan **Deliverable** 15 System Transfer Initiation Memorandum	Create Hardware, Training, Security, Help Desk Support, Telecommunications, and Disaster Recovery Plans Review MIS Data Conversion plan	Hardware Plan **Deliverable** 9 Review of Data Conversion Plan **Deliverable** 10 Training Plan **Deliverable** 11 Updated Security Plan **Deliverable** 12 Help Desk Plan **Deliverable** 13 Telecommunications Plan **Deliverable** 14 Disaster Recovery Plan **Deliverable** 15 System installation Initiation Memorandum	Review Data Conversion, Training, Security, Telecommunications, and Disaster Recovery Plans	Provide Comments on Data Conversion, Training, Security, Telecommunications, and Disaster Recovery Plans **Deliverable** 12 Provide Comments on T&I Contractor's System Transfer Initiation Memorandum & EBT Installation Memorandum	Equipment Procurement **Subtask** 2.8 (Pilot)Site Readiness Checklists Site Analysis **Subtask** 2.9 Update Security Plan **Subtask** 2.10 Approve Hardware, Data Conversion, Training, Security, Help Desk Support, Telecommunications, and Disaster Recovery Plans **Subtask** 2.11 Conduct a Security Assessment	State Security Plan **Deliverable** 23 Security Assessment
Phase: Development **Start 5/30/2014** **9 months**	**TASK 3** **System Modification and Testing**		**TASK 3** **System Modification and Testing**		**TASK 3** **System Modification and Testing**		**TASK 3** **System Modification and Testing**	
6 months	**Subtask** 3.1. System Transfer Initiation		**Subtask** 3.1 Retailer and Clinic Enablement **Subtask** 3.2 Retailer / TPP Certification testing **Subtask** 3.3 Card Design	**Deliverable** 16 Integrated Retailer Interface Specification Document **Deliverable** 17 Retailer Enablement and Certification Plan **Deliverable** 18 Clinic Enablement Plan	**Subtask** 3.1 Monitor MIS System Transfer Initiation **Subtask** 3.2 Review Interface Specification Document **Subtask** 3.3 Review Retailer Test	**Deliverable** 13 Comments on Retailer enablement Plan **Deliverable** 14 Comments on Clinic Enablement Plan	**Subtask** 3.1 Assemble Training Materials **Subtask** 3.2 Monitor Retailer Certifications **Subtask** 3.4 Card Design Approval **Subtask** 3.5	

VT Timeline	MIS T&I Tasks	MIS Deliverable	EBT Tasks	EBT Deliverable	QA tasks	QA Deliverable	VT State tasks	VT State Deliverables
				Deliverable 19 *Clinic Enablement Acceptance Report* *Deliverable* 20 *Integrated Retailer Certification Test Scripts* *Deliverable* 21 *Retailer Acceptance Report* *Deliverable* 22 *Card Design*	*scripts* **Subtask** *3.4* *Monitor Retail Certification* **Subtask** *3.5* *Monitor Clinic Enablement Plan*		*Oversee System Transfer* **Subtask** *3.6* *Equipment Procurement* **Subtask** *3.7* *Test Equipment*	
	Subtask *3.2* *Monitor System Modification, Technical Testing, and Revision*		**Subtask** *3.4* *Monitor System Modification, Technical Testing, and Revision*		**Subtask** *3.6* *Monitor System Modification, Technical Testing, and Revision*		**Subtask** *3.8* *Central Operations Preparation*	
1 month	**Subtask** *3.3* *Unit/Module Test*	**Deliverable** *16* *Certification of readiness for UAT*	**Subtask** *3.5* *System Implementation/ Testing* **Subtask** *3.6* *Unit and Interface Testing* **Subtask** *3.7* *Performance and Network Capacity/Scalability Testing* **Subtask** *3.8* *Automated Response Unit (ARU) Testing* **Subtask** *3.9* *Retailer / TPP Certification testing*	**Deliverable** *23* *Implementation Plan* **Deliverable** *24* *Certification of readiness for UAT*	**Subtask** *3.7* *Review Site Analysis by Vermont Department of Health (VDH)* <u>*WIC*</u> *Program Staff to Assure Readiness for Implementation*	**Deliverable** *15* *Review and Provide Confirmation on the T&I & EBT Contractor's Certifications of Systems Readiness for UAT* **Deliverable** *16* *Review and Provide Comments on State Site Analysis Reports and T&I Contractor's Review and Assessment*		

VT Timeline	MIS T&I Tasks	MIS Deliverable	EBT Tasks	EBT Deliverable	QA tasks	QA Deliverable	VT State tasks	VT State Deliverables
2 months	**Subtask** *3.4* *Operational Planning, Documentation, and Training and Clinic Enablement*	**Deliverable** *17* *User Training Materials* **Deliverable** *18 User and Operations Manuals*	**Subtask** *3.10* *Operational Planning, Documentation, Training and Retailer and Clinic Enablement*	**Deliverable** *25* *User Training Materials* **Deliverable** *26* *User and Operations Manuals*	**Subtask** *3.8* *Review of Operational Planning and Documentation*	**Deliverable** *17* *Provide Comments on User and Operations Manuals*	**Subtask** *3.9* *Train Central staff* **Subtask** *3.10* *Train DO staff*	**Deliverable** *24* *Certify staff as trained*
Phase: Development **Start 1/30/2015** **3 months**	**TASK 4** **User Acceptance Test (UAT)**		**TASK 4** **User Acceptance Test (UAT)**		**TASK 4** **User Acceptance Test (UAT)**		**TASK 4** **User Acceptance Test (UAT)** **FNS - Go/No Go point**	
140 screens **1st - 8 wks** **2nd - 1 wk** **+regression**	**Subtask** *4.1* *Central Operation and Test Bed Site Preparation*	**Deliverable** *19* *Readiness Certification for System Software*	**Subtask** *4.1* *Monitor Central Operation and Test Bed Site Preparation*	**Deliverable** *27* *Readiness Certification for System Software*	**Subtask** *4.1* *Conduct UAT Planning Meeting and Develop Test Plan* **Subtask** *4.2* *Central Operation and Test Bed Site Preparation*	**Deliverable** *18* *Master Test Plan* **Deliverable** *19* *User Acceptance Test Scripts*	**Subtask** *4.1* *Train UA staff*	**Deliverable** *25* *Certify UA staff as trained*
3 months	**Subtask** *4.2.* *Support UAT and System Revision*	**Deliverable** *20* *UAT Testing Report* **Deliverable** *21* *Assessment and Certification of System Readiness for Pilot Implementation*	**Subtask** *4.2* *Support UAT and System Revision*	**Deliverable** *28 UAT Testing Report* **Deliverable** *29* *Assessment and Certification of System Readiness for Pilot Implementation*	**Subtask** *4.3* *Support UAT and System Revision*	**Deliverable** *20* *Review and Provide Confirmation on the T&I Contractor's Certification of System Readiness for Pilot Implementation* **Deliverable** *21* *Master UAT Testing Report*	**Subtask** *4.2* *User Acceptance Testing*	**Deliverable** *26* *Defect submission* **Deliverable** *27* *Enhancement Requests log*
Phase: Pilot Operations **Start 5/30/15** **3 Month**	**TASK 5** **Pilot**		**Task 5** **Pilot**		**TASK 5** **Pilot**		**TASK 5** **Pilot** **FNS - Go/No Go point**	
	Subtask *5.1* *Help Desk Services*	**Deliverable** *22* *Updated Help Desk Services Plan*	**Subtask** *5.1* *Help Desk Services*	**Deliverable** *30* *Updated Help Desk Services Plan*	**Subtask** *5.1* *Help Desk Services*	**Deliverable** *22* *Updated Master Help Desk Services Plan*	**Subtask** *5.1* *Approve Updated Helpdesk Services*	

VT Timeline	MIS T&I Tasks	MIS Deliverable	EBT Tasks	EBT Deliverable	QA tasks	QA Deliverable	VT State tasks	VT State Deliverables
1 day	*Subtask 5.2* System Pilot Initiation Meeting	*Deliverable 23* System Pilot Initiation Memorandum	*Subtask 5.2* System Pilot Initiation Meeting	*Deliverable 31* System Pilot Initiation Memorandum	*Subtask 5.2* Participate in System Pilot Initiation Meeting	*Deliverable 23* Review and Provide Comments on System Pilot Initiation Memorandums	*Subtask 5.2* Approve Memorandums	
2 weeks	*Subtask 5.3* Pilot Agency (State Office and Clinic) Training and Preparation		*Subtask 5.3* Pilot Agency (State Office and Clinic) Training and Preparation	*Deliverable 32* Trained Pilot Agency certification	*Subtask 5.3* Monitor Pilot Agency (State Office and Clinic) Training and Preparation	*Deliverable 24* Provide Assessment of Pilot Site Readiness	*Subtask 5.3* Training (Central Office) *Subtask 5.4* Training (Pilot Clinics and State)	*Deliverable 28* Certify staff as trained
1 week	*Subtask 5.4* Data Conversion				*Subtask 5.4* Monitor Data Conversion		*Subtask 5.5* Data Conversion	*Deliverable 29* Data Conversion Report
3 months	*Subtask 5.5* Monitor System Pilot	*Deliverable 24* On-Going Pilot Issue Log	*Subtask 5.4* Monitor System Pilot	*Deliverable 33* On-Going Pilot Issue Log	*Subtask 5.5* Monitor System Pilot	*Deliverable 25* Master On-Going Pilot Issue Log	*Subtask 5.6* Monitor pilot operations	
1 month	*Subtask 5.6* Modify, Retest System and Evaluate Pilot	*Deliverable 25* Regression Acceptance Test *Deliverable:26* System Pilot Technical Memorandum of Certification for Rollout *Deliverable 27* Source Code	*Subtask 5.5* Modify, Retest System and Evaluate Pilot	*Deliverable 34* Regression Acceptance Test *Deliverable 35* System Pilot Technical Memorandum of Certification for Rollout *Deliverable 36* Source Code	*Subtask 5.6* Modify, Retest System and Evaluate Pilot	*Deliverable 26* Review and Provide Comments on T&I & EBT Contractors' Regression Acceptance Test Design *Deliverable 27* Review and Provide Confirmation on the T&I & EBT Contractors' Certification of System Readiness for Rollout *Deliverable 28* Ensure Delivery of Source Code	*Subtask 5.7* Review Pilot Evaluation and System Modification/ Retesting	
Phase: Rollout **Start 9/30/2015 6 months**	**TASK 6** **Rollout**		**TASK 6** **Rollout**		**TASK 6** **Rollout**		**TASK 6** **Rollout** **FNS - Go/No Go point**	

VT Timeline	MIS T&I Tasks	MIS Deliverable	EBT Tasks	EBT Deliverable	QA tasks	QA Deliverable	VT State tasks	VT State Deliverables
1 day	**Subtask** 6.1 *System Rollout Initiation Meeting*	**Deliverable** 28 *System Rollout Initiation Memorandum*	**Subtask** 6.1 *System Rollout Initiation Meeting*	**Deliverable** 37 *System Rollout Initiation Memorandum*	**Subtask** 6.1 *System Rollout Initiation Meeting*	**Deliverable** 29 *Review and Provide Comments on System Rollout Initiation Memorandums*	**Subtask** 6.1 *System Rollout Initiation Meeting*	
3 months	**Subtask** 6.2 *Monitor System Operations, Help Desk and Hardware Support and Data Conversion*		**Subtask** 6.2 *Monitor System Operations, Help Desk and Hardware Support and Retailer training*		**Subtask** 6.2 *Monitor System Operations, Help Desk and Hardware Support and Retailer Training*			
	Subtask 6.3 *Post Implementation Problem Resolution and Checkpoints*	**Deliverable** 29 *Post-Implementation Assessment and Problem Resolution Memorandum*	**Subtask** 6.3 *Post Implementation Problem Resolution and Checkpoints*	**Deliverable** 38 *Post-Implementation Assessment and Problem Resolution Memorandum*	**Subtask** 6.3 *Post Implementation Problem Resolution and Checkpoints*	**Deliverable** 30 *Review and Provide Comments on the T&I & EBT Contractor's Post-Implementation Assessment and Problem Resolution Memorandum*		
6 months	**Subtask** 6.4 *System Documentation Update*	**Deliverable** 30 *Updated System Documentation*	**Subtask** 6.4 *System Documentation Update*	**Deliverable** 39 *Updated System Documentation* **Deliverable** 40 *Settlement and Reconciliation Manual*	**Subtask** 6.4. *System Documentation Update and Project Closure*	**Deliverable** 31 *Ensure Delivery of Updated System Documentation and Source Code*	**Subtask** 6.2 *Confirm delivery of Source Code*	
Phase: Maintenance **Start 3/30/2016 one year**	**TASK 7** **Operation and Maintenance**		**TASK 7** **Operation and Maintenance**		**TASK 7** **Operation and Maintenance**		**TASK 7** **Operation and Maintenance**	
	Subtask 7.1 *System Operation and Maintenance*	**Deliverable** 31 *Monthly Status Reports* **Deliverable** 32 *Continuation of Business Plan*	**Subtask** 7.1 *System Operation and Maintenance*	**Deliverable** 41 *Monthly Status Reports* **Deliverable** 42 *Continuation of Business Plan*	**Subtask** 7.1 *Monitor System Operation and Maintenance*		**Subtask** 7.1 *Review Status Reports* **Subtask** 7.2 *Approve Continuation of Business Plans*	
	Subtask 7.2 *System Defects, Errors and Bug*	**Deliverable** 33 *Documentation of Reported System Issues*	**Subtask** 7.2 *System Defects, Errors and Bug*	**Deliverable** 43 *Documentation of Reported System Issues*	**Subtask** 7.2 *Monitor System Defects reporting,*	**Deliverable** 32 *Review and comment on Documentation of*		

VT Timeline	MIS T&I Tasks	MIS Deliverable	EBT Tasks	EBT Deliverable	QA tasks	QA Deliverable	VT State tasks	VT State Deliverables
	Fixes	*and Resolutions*	*Fixes*	*and Resolutions*	*Errors and Bug Fixes*	*Reported System Issues and Resolutions*		
	Subtask *7.3* *System Modification and Repairs*	**Deliverable** *34* *Updated Operations Manual*	**Subtask** *7.3* *System Modification and Repairs*	**Deliverable** *44* *Updated Operations Manual* **Deliverable** *45* *Settlement and Reconciliation Manual*	**Subtask** *7.3* *Monitor System Modification and Repairs* **Subtask** *7.3* *Review updated manuals*	**Deliverable** *33* *Review and comment on Monitor System Modification and Repairs* **Deliverable** *34* *Comments on updated manuals*	**Subtask** *7.3* *Test and Approve System Modifications and Repairs* **Subtask** *7.4* *Accept updated manuals*	
Phase: Maintenance	**TASK 8** **Project Closure**		**TASK 8** **Project Closure**		**TASK 8** **Project Closure**		**TASK 8** **Project Closure**	
	Subtask *8.1.* *Final System Documentation, Forms, Source Code, Data, and Other Materials*	**Deliverable** *35* *Software/Hardware Image Plan* **Deliverable** *36* *Complete System Program Documentation Recurring Deliverables*	**Subtask** *8.1* *Contract Closure*	**Deliverable** *46* *Contract Transition to services Plan*	**Subtask** *8.1* *Contract Closure*		**Subtask** *8.1* *Acceptance Criteria* **Subtask** *8.2* *Formal Acceptance of MIS & EBT* **Subtask** *8.3* *Peer Review* **Subtask** *8.4* *Support Transition Plan*	**Deliverable** *30* *Documentation Summary* **Deliverable** *31* *Closeout Report* **Deliverable** *32* *Completion Checklist* **Deliverable** *32* *Lessons Learned* **Deliverable** *33* *Post Implementation Review*
Initial 1 Year Warranty Start 11/30/2016	**Subtask** *8.2.* *Contract Closure*							

APPENDIX 6 – PROJECT ORGANIZATION CHART

The following highlights the roles of the people assigned to the project:

State of VT Team:
1. Project Executive Sponsor: Harry Chen MD
2. Project Sponsor: Donna Bister
3. State IT Project Manager: Nancy Rowell
4. WIC Program Project Manager: Jeanne Keller
5. DII Enterprise Architect Technical Lead: Tom Mulhall
6. AHS/DII Networking Project Technical Lead: Steve Bentley
7. Subject Matter Experts:
   a. WIC Central Office:
      i. Karen Flynn, WIC Program Administrator and Assistant Director
      ii. Nutritionists: Carol Frary, Jackie Charnley, Lynne Bortree
      iii. Breastfeeding Coordinator: Tricia Cassi
      iv. Retail Grocers, Program Integrity, Data/Reporting: Patrick Henry
   b. District Offices:
      i. Nutritionists: WIC Clinic staff
      ii. Health Outreach Specialists: WIC Clinic staff
      iii. Administrative Staff: Scheduling, customer service (addresses, applications)

DRC Team:
1. Project Manager: Robby Dallamora
2. QA Process Expert: Don McCollough
3. WIC and EBT experts – Donna Seward (and have access to other people who run State of CO data center for all Dept. of Human Services so have that infrastructure background as well)

CIBER Team:
1. Project Director: John Booth
2. Project Manager: Phil Progar
3. Lead Analyst: Mike Wilson
4. Analyst: Emily Ropsch
5. Data Conversion: Sherry Spencer

JPMorgan Chase Team:

1. Primary point of contact, Contract, initial JAD sessions: <u>Louise Meyer</u>
2. Project Oversight, Proposal and Contract, Monitor/control: <u>Liz French</u>
3. Product Management Group: Translate requirements into product; Look/feel of WIC solution in the market, Project Governance Oversight (timelines): <u>Paul Donlon</u>
4. Project Manager: <u>Donna Hatch</u>
5. Technology Infrastructure: <u>Derek Spain</u>
6. Training Manager: <u>Misi Higgins</u>
7. Retail Manager - <u>TBD</u>
8. Testing Manager: <u>Sean Justice</u>

Proposed Project Organization Chart
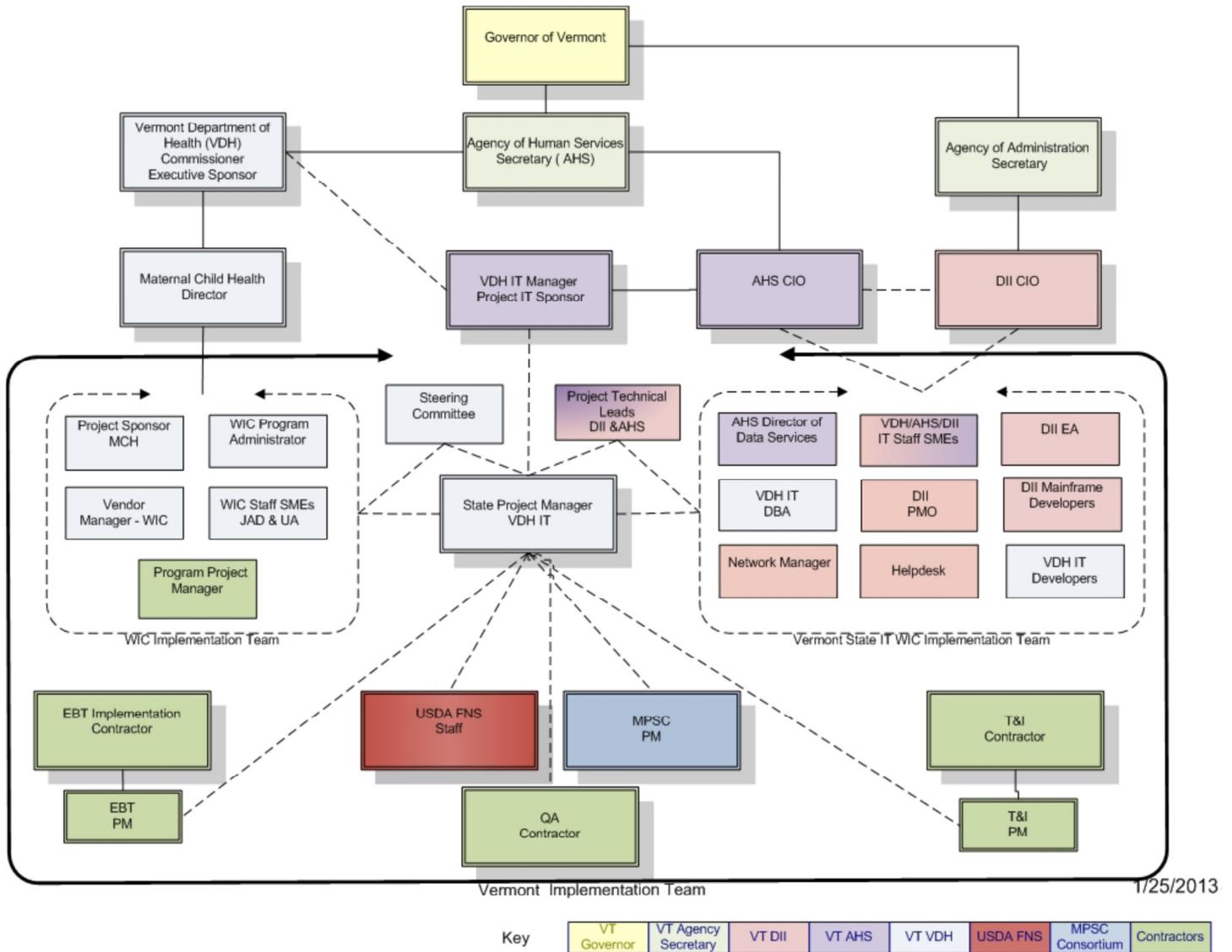
APPENDIX 7 – SYSTEM INFRASTRUCTURE

This appendix describes the Application and Database Architecture.

The **MIS** system is comprised of an n-tier architecture using the framework provided by the "Smart Client Architecture". This is based on the premise of handling all major processing and business steps on or as close to the client as possible. The diagram below illustrates the logical architecture of a distributed Smart Client system.

1. Client: Windows PC running Microsoft SmartClient; Client is initially pushed via going to specific URL or through other push methods; Also has a disconnected mode if you're off line; SmartClient updates are automatic. Pentium 4 3ghz or greater, 2gb RAM, Windows XP Pro or above

2. Database Server: SQL 2005 or above, Intel Dual Core Xeon 2.33 GHz or greater, 16gb RAM, .NET Framework 3.0 or above, Windows 2003 Datacenter R2 or above

3. Application Server: IIS 6.0 or above, Intel Dual Core Xeon 2.33 GHz or greater, 4gb RAM, .NET Framework 3.0 or above, Windows 2003 Enterprise R2 or above

4. Application Technology: Microsoft .NET using Visual Basic

5. Tablet: Not applicable
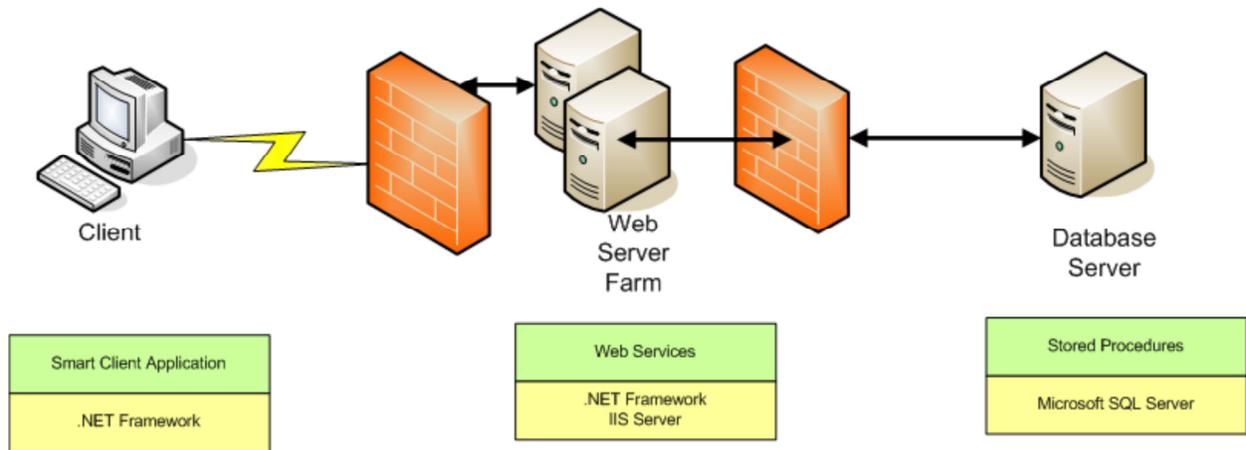

Smart Client Architecture
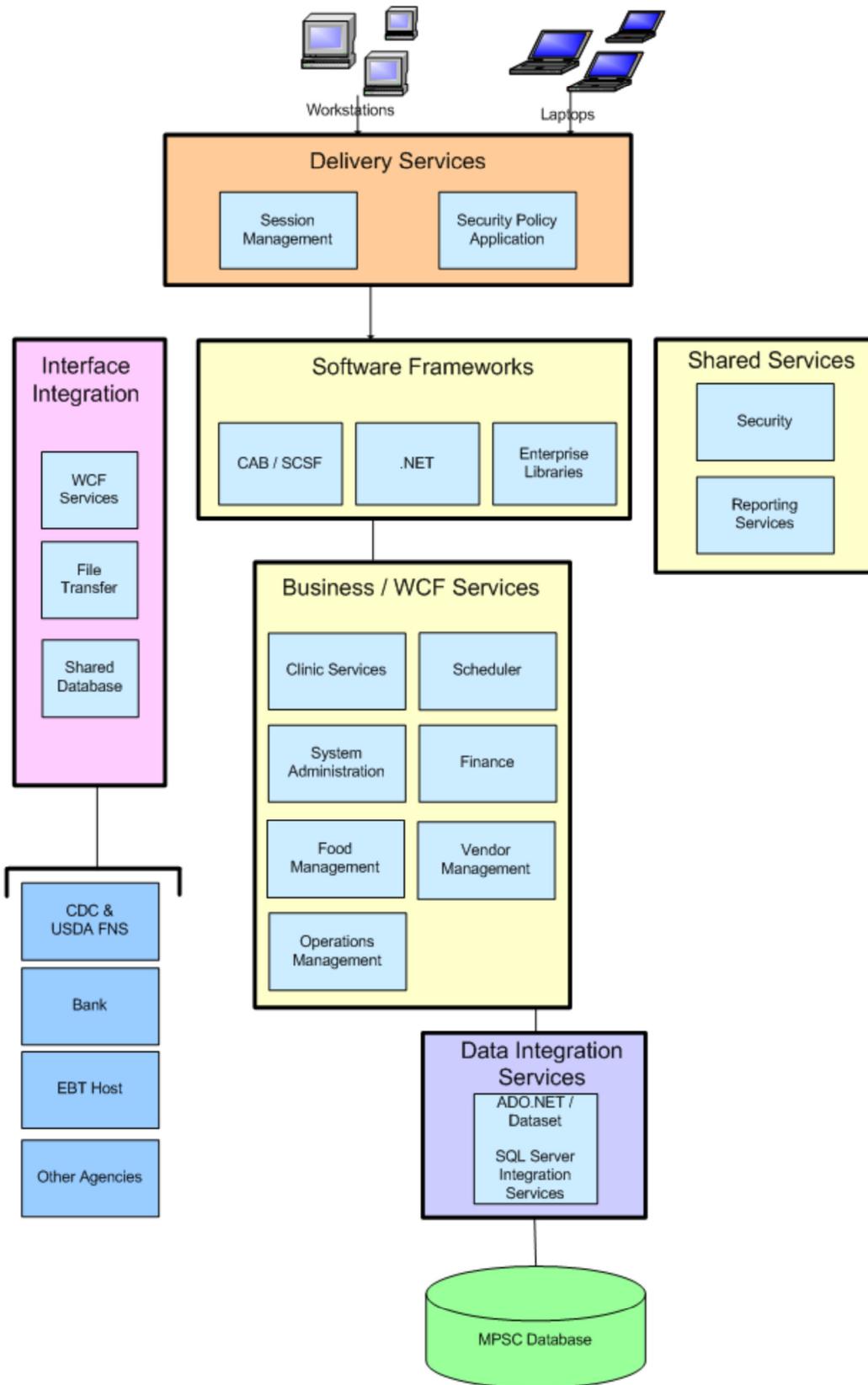
System Architecture summary

The **EBT** system is comprised of a hosted solution which the following underlying technology attributes:

1. Client: Web browser

2. Database Server: Sun M5000 UNIX Solaris10

3. Database Software: Oracle Database 11g

4. Application Server: Sun T5240 UNIX Solaris 10

5. Application Software: Business Objects XI 3.1 Enterprise, Crystal Reports 2008, Java 1.6

6. Hardware Infrastructure: Based on JPMorgan's Unified Payment Card (UCard) solution: NonStop Blade System with 9.999% scheduled up-time, 24 hours/day, 7 days/week
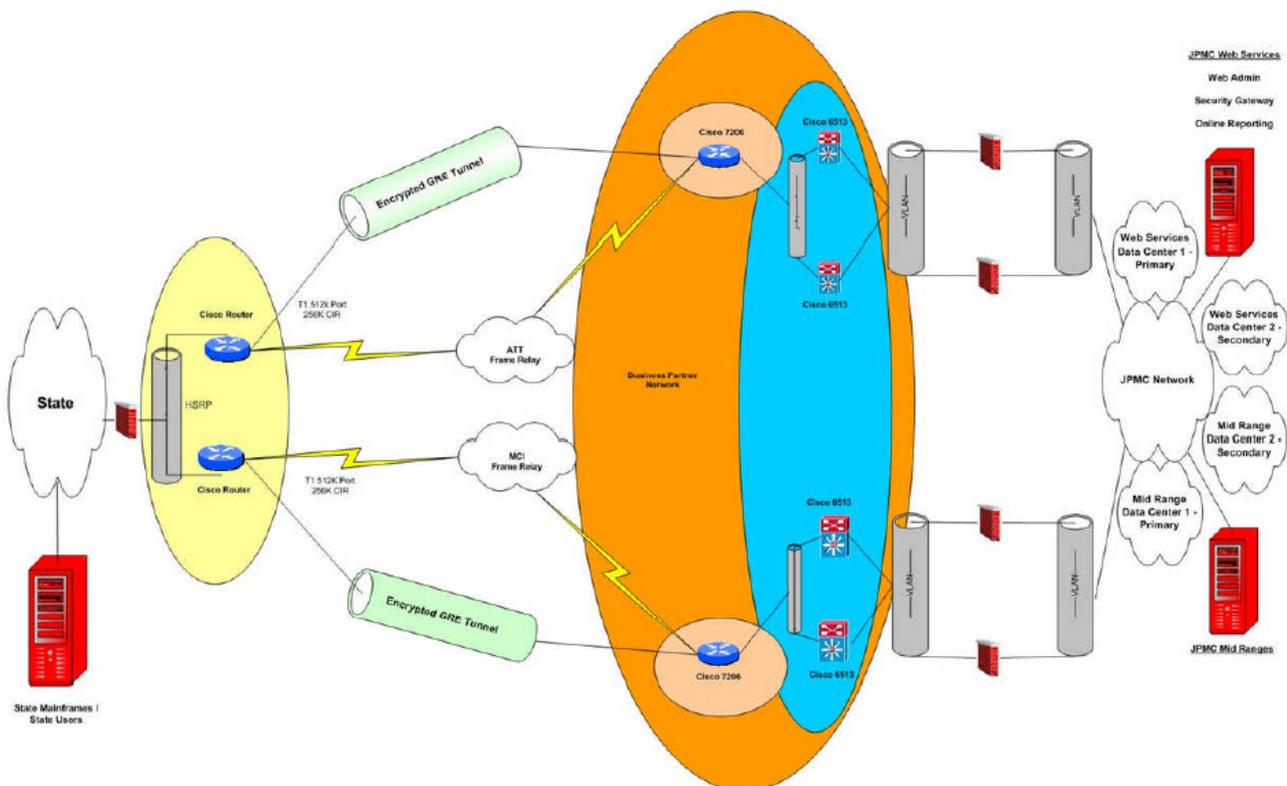
Sample network diagram
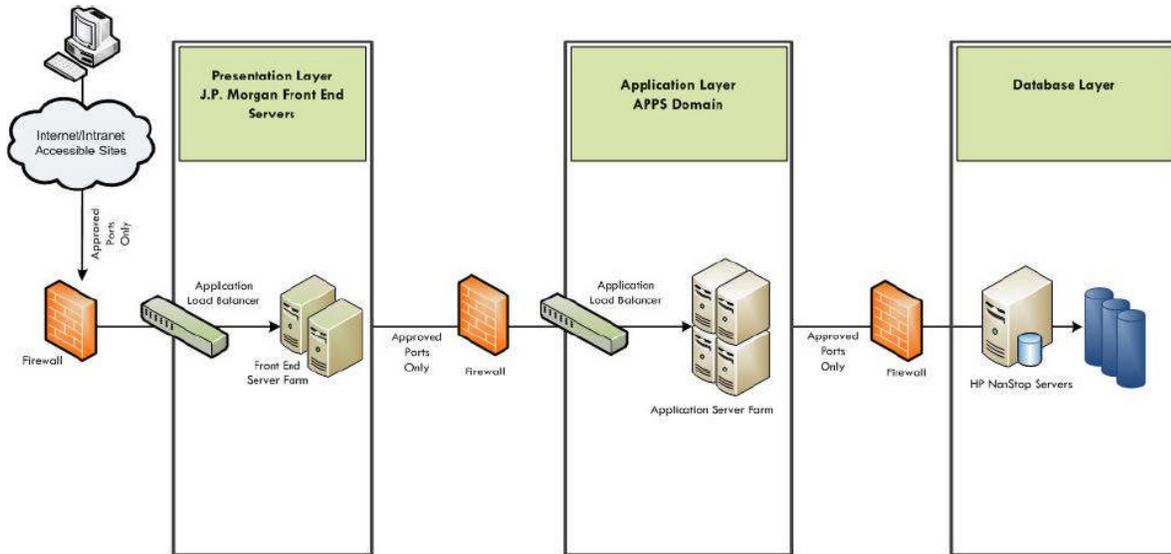
Three-tier Network architecture