Budget

The State of Connecticut Department of Public Health (DPH) is requesting funds to support the Epidemiology and Laboratory Capacity for Infectious Diseases (ELC) Infrastructure and Interoperability support for Public Health Laboratories cooperative agreement. The DPH is requesting $582,985 for the budget period June 1, 2010 to May 31, 2012.

DPH applies existing fiscal management to all ARRA funded activities. All ARRA applications, approvals, contracts, and financial activity are recorded with ARRA-specific codes into a statewide fiscal management system. The unique codes allow for tracking expenditures and other budget management specific to ARRA projects. In addition, DPH has established a reporting mechanism to ensure thoroughness and accuracy for all ARRA programming and fiscal management. A Chief Accountability Officer (CAO) has been assigned to each state agency to report monthly and quarterly ARRA-related activities in compliance with Federal and State requirements.

Contractual Total $582,985

1. Vendor to be determined $292,600

IT Consultant – Project Manager

Name of Contractor: To be selected from one of the following three IT Professional Services (ITPS) preferred vendors approved by State of CT.
Online Systems Inc
TriCom Consulting Services LLC
Superior Design International Inc
Organizational Affiliation: N/A
Nature of Services:

- Planning, initiating, developing, and maintaining a secured, reliable, and scalable Electronic Laboratory Reporting (ELR) system that complies with PHIN standards and meets CT Public Health Laboratory and Epi program needs;
- Leading, collaborating, coordinating and executing the ELR implementation using Connecticut's formal System Development Methodology (SDM);
- Assisting with installation, configuration, testing and deployment of the CDC provided PHIN-MS application & tools for secure transformation of information in Health level 7 (HL7) format;
- Assisting with installation and integration of the Orion Rhapsody Integration Engine and CDC's Messaging Subscription Service (MSS) with PHIN MS for transform and translation of non-HL7 messages to PHIN standards, such as, the Logical Observation Identifiers Names and Codes (LOINC) and the Systematized Nomenclature of Medicine (SNOMED);
- Developing the functional, technical and non-technical requirements/specifications; project charters, project management plan, requirements traceability matrix, system design, test & deployment strategy and plan;

- Assisting in the software configuration, use case development, testing, implementation and production roll-out;
- Coordinating the effort with DPH LIMS and CTEDSS/MAVEN Project Managers for electronic exchange of laboratory data using appropriate vocabulary and secured messaging standards;
- Aligning technical activities with harmonized standards, processes, and requirements already established and advanced for electronic laboratory data exchange, i.e., NHIN, PHIN, ELR, HITSP and PHLIP;
- Working with external partners for other CT DPH messaging needs, such as receipt of data from Electronic Medical Records (EMR), Health Information Exchange integration, etc;
- Providing the Systems Administrator support for the PHIN MS and Rhapsody/MSS systems;
- Conducting project assessments; developing cost, process, time and resource (technical/staff) estimates;
- Conducting periodic project briefings to CDC, DPH Project Steering Committee and DoIT PMO groups; Conducting periodic status meetings and submitting the status reports;
- Proactively identifying the project risks/issues, performing the impact analysis and coming up with alternate mitigation plans/measures to complete the projects on time and within the budget;
- Training, mentoring and assisting the DPH IT & Program staff in development of HL7 messages and conducting PHIN certification;
- Serving as the liaison between the Public Health Laboratory, Epi programs, DPH IT, DoIT , CDC, State & National Work Groups, and contracted product vendors on all activities related to PHIN MS and ELR;
- Participating on the Laboratory Messaging Community of Practice, and attending the monthly ELR, PHIN MS & NMUG calls;

Relevance of Service to the Project:
The work to be done by the Project Manager is necessary for the successful completion of the project. The Project Manager will be accountable for project initiation, planning, execution and closeout.

Number of Contractor Days: Project oversight will be required every workday for the period June 1, 2010 to May 31, 2012. Based on 250 workdays per 12-month period, DPH is projecting 500 workdays for the project.

Tasks/Time Estimates: The DPH estimates that 250 days per year for a period of 2 years will be required for the Project Manager to manage the work being done by the two contracted software vendors to initiate, plan and execute the activities as outlined in the funding proposal.

Expected Rate of Compensation: Proposed Daily Cost per Day: $585.20 (Based on $73.15/hr, 8hr/day)(estimate $146,300 per year x 2 years = $292,600)

Basis for Selection: CT DPH will use a staff augmentation model to hire a fulltime Consultant for the duration of the grant to execute stated ELR objectives. The consultant resource will be obtained from one (1) of the three (3) IT Professional Services vendors currently contracted with State of CT through Dept of Information Technology's (DoIT) Master Agreement # 09ITZ0047.

TimeLine: The project is expected to run from September 1, 2010 to August 31, 2012.

2. Maven and PHIN MS Configurations $268,800

Name of Contractor: Consilience Software
Organizational Affiliation: N/A
Nature of Services: Consilience Software will be working with the CT DPH to enhance existing systems developed in for reportable disease surveillance. Enhancements include HL7 message parsing, PHIN MS configurations and setup, LOINC/SNOMED mapping, and configuring reporting and monitoring tools within Maven. Additional work will be completed on the configuration of workflows for notification of ELR imported cases.

Relevance of Service to the Project: This work is necessary for the successful completion of the project. While the reportable disease surveillance system is in place and in production for several disease groups (including for some not reportable diseases), the connection to PHIN MS and the work necessary to ensure the Maven system can consume and parse the HL7 messages still needs to be competed.

Number of Contractor Days: Consilience Software estimates the time for the project in number of hours versus days. The following is a breakdown of costs and major tasks. The estimated number of days is 290 (8 hour days).
Task/Time Estimates

- Configuration of PHIN MS (installation will already be complete) 320 hrs
  - Set up end points with LIMS and Maven
  - Set up confirmation of receipt with PHIN MS
- HL7 parsing 280 hrs
  - Set up parsing differences (as compared to MA)
- Testing 200 hrs
  - Testing endpoints
  - Testing import
- Set-up reporting and monitoring tools within Maven 80 hrs
  - Modify/Update existing ELR reports (2 reports)
- Code Mapping and Workflows 1200 hrs
  - Configure LOINC/SNOMED event map
  - Configure workflows for notification of ELR imported events
- UAT 160 hrs

Expected Rate of Compensation:
Consilience Developer. 2,240 hours @ $120 per hour = $268,800
There are no additional expenses (travel, per diem, or other expenses) expected.
Basis for Selection: The Connecticut Department of Public Health, through other federal funding, selected Consilience Software off an existing Federal Contract (General Services Administration: GSA) in accordance with State of Connecticut procurements regulations and laws. The CT EPHT Program is partnering with other program areas and other funding streams. This includes using Consilience Software and the software/licensing (Maven) that was procured for other projects using other federal funding.
TimeLine: The project is expected to run from September 1, 2010 to August 31, 2012.

3. Chemware $21,585

Support Cost for LIMS HL7 Data Extracts
Name of Contractor: Chemware
Organizational Affilitation: N/A

Nature of Services: The Chemware, DPH LIMS product vendor, will be working with the CT DPH Laboratory to develop the test result extracts/reports/messages in the XML and HL7 formats and related summery reports that are acceptable to DPH reportable disease surveillance system and implement the interfaces using secure PHIN MS configurations and setup.

Relevance of Service to the Project: This work is necessary for the development of LIMS data files or messages and implementation of electronic data interchange of test results in the XML and HL7 format between LIMS and DPH reportable disease surveillance systems via secure PHIN MS.

Number of Contractor Days: 15 working days for Chemware to complete the project.

Tasks/Time Estimates:

- Create standard XML and HL7 messages or data files, test report files for submitters to capture the results data from practically any instrument attached to the network that has Win2000 or higher OS, 56 hrs

- Develop out-of-the-box standard summary test report files by date range, test IDs, results, result status, and other selected parameters of importance to authorized users; 32 hrs

- Electronically transmit secure message or file to submitter or Epi user; Control and present the needed reports to the appropriate Web Portal inbox; 32 hrs

Expected Rate of Compensation: Projected cost based on Chemware developer at $1,439 per day.

Basis for Selection: The Connecticut Department of Public Health, through competative procurement (RFP # 05ITZ0081) process contracted with Chemware (vendor) using Satate and other Federal funds for implementation and support of a Commercial-Off-The-Shelf Laboratory Information Management System (LIMS).

TimeLine: The project is expected to run from September 1, 2010 to August 31, 2012.

American Recovery and Reinvestment Act
Connecticut Department of Public Health (DPH)

Epidemiology and Laboratory Capacity for Infectious Diseases (ELC) FOA# CDC-RFA-CI10-1007ARRA10: Epidemiology and Laboratory Capacity (ELC): Infrastructure and Interoperability Support for Public Health Laboratories

Background, Need and Understanding

At the Connecticut Department of Public Health (DPH), a modern laboratory information system (LIMS) and a modern electronic disease surveillance system (MAVEN) are nearing completion. The American Recovery and Reinvestment Act (ARRA) funding will accelerate the development of both the LIMS and MAVEN, so that laboratory data can be shared electronically between the State Public Health Laboratory and DPH disease prevention programs.

According to the Trust for America's Health, Connecticut is one of six states that cannot track diseases through an Internet system used by the Centers for Disease Control and Prevention (CDC) (http://healthyamericans.org/states/states.php?measure=bt5). This ARRA funding will accelerate our departure from this list and move the DPH to the national goal.

In 1999, the DPH initially received ELC funding to establish electronic laboratory reporting (ELR) to replace the primarily paper-based system of reporting. Data from nearly 70 reportable conditions were entered into separate databases based on disease. Information was provided to CDC in various ways, including duplicate data entry into the CDC NETSS database. In 2000, NEDSS supplemental grant funding was received under the NEDSS Assessment and Planning portion to hire a System Developer 3 to assess IT capacities of the DPH Infectious Disease Division programs and the State Public Health Laboratory. Concurrently in 1999, PHEP funding was initially received to establish the Health Alert Network (HAN) and to enhance State Public Health Laboratory capacity to handle biologic agents. In 2000, a portion of the HAN was developed to support web-based entry by local health departments to report tracking of dead birds for West Nile Virus surveillance. In 2003, PHEP supplemental funding allowed the DPH to contract with an outside vendor, Scientific Technologies Corporation (STC), to design, develop, and implement the Connecticut Electronic Disease Surveillance System (CEDSS). Vendor development of CEDSS was considered imperative due to the occurrence of a case of inhalational anthrax as part of the anthrax attacks in 2001, Connecticut's close proximity to Boston and New York City, and location of high security military and civilian facilities in the state, and delays in receiving the NEDSS Base System. STC began work on the CEDSS project in October 2003. In 2004, the initial CEDSS application was developed, and work toward establishing the hardware architecture for CEDSS was done.

Starting in mid-2006, DPH, along with the U.S. General Services Administration (GSA), began documenting systematic failure of STC to deliver the required components for the CEDSS system. In August 2007, STC asked to deliver a new version of their application at their own risk. This version failed to operate. By September 30, 2007 the CEDSS project was put on hold pending further assessment by GSA. In November 2007, GSA started the process of requesting from the CDC that the remaining funds be de-obligated and recertified for another equivalent system. The DPH PHIN and EPHT Coordinators re-wrote the requirements for CEDSS and did extensive research on other systems, including the CDC NEDSS Base System and a system

called Maven that was in production at the MA Department of Public Health. In February 2008, the re-certified direct assistance funding was used to purchase a license for a new COTS, the Maven product built by Consilience Software, Inc. Maven was installed in March 2008 on the State of Connecticut Department of Information Technology (DoIT) platform. The CEDSS project was re-branded "CT EDSS".

Current Activities/Capacities/Previous Experience

Maven is a hyper-configurable application that allows DPH the flexibility to build the type of modular system proposed in the original 2002 RFP. The Maven "program" has three major projects: CT EDSS (notifiable condition surveillance and local health department management), CT EPHT (Environmental Public Health Tracking indicator tracking and Hospital Emergency Department Syndromic Surveillance), and CT SITE (environmental health reporting, including adult and childhood lead surveillance, and an updated newborn screening system).

The Maven application is being hosted on a state central IT platform at the DoIT Funding for Maven project implementation has primarily come from the PHEP cooperative agreement, but additional funding has been leveraged from other CDC cooperative agreements, such as the Environmental Public Health Tracking Network (EPHT). The Public Health Information Network (PHIN), EPHT, CT EDSS, and Health Alert Network (HAN) Coordinators all work together on this implementation and ensuring that the Maven-based systems meet PHIN and NEDSS health information system standards.

The DPH has worked with DoIT to establish a platform to support the integrated PHIN MS/Rhapsody/MSS components in a secure environment. A separate project is being completed for the upgrade of these applications and to finalize integration activities. The Rhapsody/MSS application will be used as the integration and message subscription engine for public health reporting. The PHIN MS/Rhapsody/MSS components are also installed on servers housed at DPH and PHIN MS has been tested and used in production to transmit FoodNet data to the CDC.

The PHIN MS/Rhapsody/MSS applications will be used to poll a secure FTP (sFTP) site, also hosted at DoIT, which will be used to receive messages from the State Public Health Laboratory, acute care hospitals and private reference laboratory partners. Optionally, a hospital or private reference laboratory that can use PHIN MS may do so (not all hospitals have the technical capacity to support use of PHIN MS).

The use of the sFTP site to receive H1N1 novel influenza vaccination records from public clinics has already been demonstrated during the 2009-2010 H1N1 novel influenza pandemic. Local health departments were successfully able to securely post files containing the individual immunization records from public clinics on scannable forms. The images were processed using the Cardiff Teleform application and xml data generated for use in the DPH surveillance system, Maven. Maven was able to poll the sFTP for automatic uptake of these xml files. This grant will be used to further enhance and finalize implementation of these activities.

The State Public Health laboratory is in the process of implementing a COTS LIMS solution. Application Architecture of the HORIZON DPH LIMS (LIMS) Application – Consists of the core LIMS application and an Oracle 10g Database which serves as the central repository for:

- Text based information relating to patient/specimen demographics
- Client relationship management information
- Test results
- Handling and scheduling of analytical and administrative units of work throughout the State Public Health Laboratory
- Tracking of work progress
- Quality control measures and data review processes
- Capturing of test result data through manual data entry or instrument interface
- Identification of exceptions that occur during any point in the workflow or other conditions
- Automated data reduction for presentation to the reporting engine or other data mining operations

HORIZON Data Management utilizes NuGenesis SDMS and the underlying Oracle 10g Database which acts as the secure central repository for image-based (and, optionally file-based) information captured throughout the State Public Health Laboratory.

HORIZON Report Manager/Web Portal utilizes the Actuate reporting Engine which is a secure and central portal for presentation and management of the State Public Health Laboratory operations reports as well as final test results reports or other critical surveillance information the State Public Health Laboratory wished to make available to external, authorized recipients.

The internal DPH LIMS Users are authenticated through encrypted credentials stored in the HORIZON Central (Oracle) database. Internal authentication requests are submitted through an encrypted request to the CWAdmin Web Service that would be running on either the Actuate Web/App Server or the Oracle Forms/App Server. These requests are managed through the Oracle Forms/App Server, validating credentials stored in the HORIZON Central (Oracle) Database.

The LIMS will provide the State Public Health Laboratory with an information system that complies with and meets standards established by regulatory and grantor agencies and institutions such as CDC, the Association of Public Health Laboratories (APHL), College of American Pathologists, Clinical Laboratory Improvement Amendments, Environmental Protection Agency and the Clinical and Laboratory Institute. The LIMS will facilitate compliance with the laws, regulations and requirements of Connecticut and the federal government. The LIMS will also meet standards published by ISO and the National Environmental Laboratory Accreditation Conference (NELAC and meets the business processes described in the “Requirements for Public Health Laboratory Information Management Systems” published in 2003 by APHL. The LIMS supports electronic receipt of test request data directly from a submitter’s data system and is dependent on that system’s ability to create and send an HL7 format XML message file containing standard test submittal terminology.

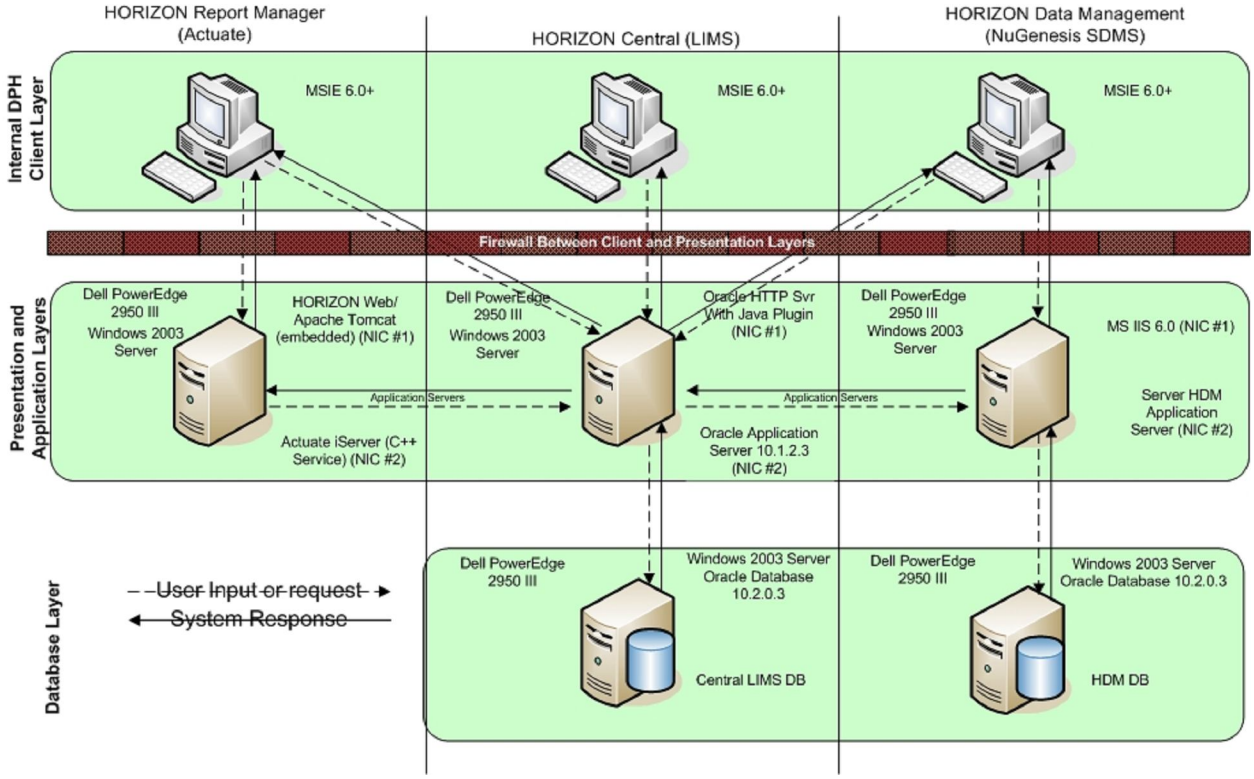
The State Public Health Laboratory will enlist the services of APHL’s Public Health Laboratory Interoperability Project (PHLIP) assessment team to support interoperability between LIMS and MAVEN. An October site visit has been scheduled during which the assessment team will provide technical assistance to map vocabulary for Influenza test results between LIMS and MAVEN through PHIN/MS. The cross-agency oversight team will ensure that the appropriate staff is available during the PHLIP Technical Assessment team visit. These include an influenza

subject matter expert, LIMS administrator, MAVEN administrator, CT EDSS coordinator, IT expert/administrator and project manager.

The LIMS will interact with other public health computer systems electronically employing PHIN-compliant methods and technologies, where possible and appropriate, providing public health workers with data needed to help protect the public from illness, outbreaks and biologic and/or chemical agents. The LIMS will be modifiable allowing future additional functionality.

The LIMS logical design is presented below:

General Design



As described above, the public health messaging architecture for DPH is hosted at DoIT. Both staging and production platforms are supported.

Vocabulary management process – vocabulary in the Maven and LIMS systems are based on current CDC standards, e.g., LOINC and SNOMED for laboratory ordering and results. The DPH uses the PHIN VADS application and participates in the PHIN Vocabulary and Messaging Community of Practice.

Connecticut's government is aggressively managing ARRA funds. The Governor has established cabinet-level task forces that meet biweekly to ensure that funds are rapidly allocated and disbursed, and that all federal requirements and guidelines are met. DPH attends these meetings with the Governor's staff and holds a separate weekly internal coordination meeting to review current activities and develop strategies to comply with the Governor's directives, which includes expedited hiring and recruitment. Through ARRA, the DPH will be able to avoid the state hiring freeze and flag specific ARRA-related personnel, contracts and purchase orders to be processed expeditiously.

DPH applies existing fiscal management to all ARRA funded activities. All ARRA applications, approvals, contracts, and financial activity are recorded with ARRA-specific codes into our statewide fiscal management systems. The unique codes allow for tracking expenditures and other budget management specific to ARRA projects. In addition, DPH has established a reporting mechanism to ensure thoroughness and accuracy for all ARRA programming and fiscal management. A Chief Accountability Officer (CAO) has been assigned to each state agency to report monthly and quarterly ARRA-related activities in compliance with Federal and State requirements.

Operational Plan

The detailed operational plan is found in Table 1.

Table 1: Connecticut Department of Public Health Project Operational Plan

Activity	**Outcome**	**Measure**	**Start Date**	**End Date**
Build upon an implemented laboratory information management system (LIMS) to meet Stage 1 Meaningful Use criteria for reporting to public health agencies by applying the hospital (laboratories) care goal to public health laboratories	Capability to provide electronic submission of reportable lab results from LIMS to MAVEN.	Perform at least one test of certified EHR technology capacity to provide electronic submission of reportable lab results to MAVEN.	September 2010	June 2012
Collaborate with hospital laboratories and/or inpatient EHR in their efforts to satisfy the hospital care goal for public health reporting.	Develop a report that contains details on existing hospital resources (type of LIMS and/or EHR) and the capability of exchange that data.	A plan and timeline for hospital based laboratory reporting with DPH.	September 2010	June 2012
Actively participate with other award recipients and CDC to develop a business case and/or use case for public health laboratories to exchange data with EHRs and public health agencies.	Develop experience and capacity with data exchanges between the DPH LIMS and EHRs.	Participation on conference calls, community of practices, and the development of a business use case for data exchange.	September 2010	June 2012
Establish a plan for how these data will flow within your jurisdiction, including, but not limited to, the management of records de-duplication and the unique identification of clinical partners.	Updated documentation on the integration of electronically exchanged LIMS data into MAVEN.	Successful implementation of electronically submitted LIMS data from one or more laboratory into MAVEN.	September 2010	December 2010
Implement the Public Health Laboratory Interoperability Project (PHLIP) influenza messaging guide	1. Influenza data can be transmitted from LIMS to	Message meets the messaging guide standards and is accepted by Maven	March 2011	September 2011

and implementation guide.	Maven. 2. Influenza data can be transmitted from Maven to the CDC.	and the CDC without errors.		
Request and utilize the guidance and subject matter expertise provided by recipients of the Laboratory Technical Implementation Assistance for Public Health cooperative agreement program (LTIAPH) for configuration and enhancement of a LIMS and/or other critical IT infrastructure for implementation of messaging and data standards within the public health laboratory.	Utilization of the LTIAPH for guidance and subject matter expertise.	Successful implementation of LIMS and IT infrastructure for implementation of messaging and data standards within LIMS and MAVEN.	October 2010	October 2011
Align technical activities with harmonized standards, processes, and requirements already established and advanced for electronic laboratory data exchange by ongoing efforts such as Nationwide Health Information Network (NHIN), the Public Health Information Network (PHIN), Electronic Laboratory Reporting (ELR), Healthcare Information Technology Standards Panel (HITSP) and PHLIP.	Technical activities will meet known national standards for electronic laboratory data exchanges.	Compare the existing architecture and proposed solutions with NHIN, PHIN, ELR, HITSP, and PHLIP standards with the results in a documented gap analysis.	October 2010	June 2012
Leverage technical solutions and architecture delivered through the Public Health Laboratory Interoperability Solutions and Solution Architecture contract, including proposed architecture components, such as public health laboratory interoperability hubs, services of a national electronic test order and laboratory result reporting system, and a national-level public health metadata repository.	Technical solutions and architecture are leveraged and utilized by DPH to the extent necessary and appropriate.	Successful implementation of LIMS and IT infrastructure for implementation of messaging and data standards within LIMS and MAVEN.	October 2010	December 2011
Participate actively in regular calls with CDC project staff to discuss project implementation and progress.	DPH and CDC staff regularly communicates on project status.	Call notes and minutes are published and shared with DPH and CDC project staff.	September 2010	June 2012
Participate actively in user groups to share successes and lessons learned with other awardees specific to the advancement of capability towards the exchange of public health laboratory	DPH staff will regularly participate in user groups and share successes and	User group call notes and wiki based web sites are published and shared with other	September 2010	June 2012

data with EHRs.	lessons learned.	awardees.		
Develop a sustainability plan to ensure activities funded through this program are sustained after the award period has ended.	Sustainability Plan is written.	Sustainability Plan is developed and made available to the CDC.	January 2011	December 2011
Develop and maintain detailed reporting and tracking processes to support this project as determined by established project management methodology (e.g., Project Charter, Project Kick-Off Meeting, Project Management Plan, and Project Schedule).	Successful implementation of DOIT's System Development Methodology (project management).	Completed SDM documentation and successful completion of project.	September 2010	June 2012
In collaboration with other awardees, assist in the development of a system of metrics to successfully measure project performance. Metrics will reflect task goals and objectives, set milestones commensurate with the project management activities and indicate favorable/unfavorable progress.	Project performance metrics are developed as part of a cooperative process between DPH, other awardees, and the CDC.	Project performance metrics are compiled for DPH and shared with the CDC and other awardees.	September 2010	June 2012
Track, measure, and report programmatic and fiscal activity and economic impact, including job creation, retention and sustainability, as required by this Announcement, ARRA, and the U.S. Office of Management and Budget (OMB).	Programmatic, fiscal activity and economic impact are reported using already developed reporting tools established by CDC, ARRA, and OMB.	Programmatic, fiscal activity and economic impact reports are completed and shared with appropriate agencies including the CDC, ARRA, and OMB.	September 2010	June 2012

Project Management Experience

In June 2008, Governor M. Jodi Rell issued Executive Order 19 requiring the use of DoIT System Development Methodology (SDM) for all IT projects for executive branch agencies (such as DPH). The DPH has conformed to this requirement, following SDM procedures for the Maven surveillance system project and the LIMS projects, among others. The description of DoIT SDM is attached in Appendix A**.** The DPH will use SDM as its guide for this project.

Under DoIT SDM protocols, projects must follow a prescribe methodology for project management that includes a DoIT Project Management Office quarterly review. This review is in the form of a formal presentation that includes the project team as well as DoIT managers and the Chief Information Officer for the State of Connecticut. An example of a presentation for the Maven surveillance project is presented in Appendix B**.** All project deliverables and phases are approved by a Project Steering Committee consisting of management stakeholders at DPH. A project timeline is created based on the project work breakdown structure with tasks and assignments. Budgets are monitored and reported on. The DPH has 3 years of experience using this methodology. The Maven Project review document only represents only one of the documents required by SDM. More detailed information can be found in Appendix C: DoIT SDM Training Document.

CT DPH Information Technology Governance and Portfolio Management

Over the past several years, the DPH has embarked on a process that more formally manages information technology (IT) projects. Using the above mentioned SDM process and procedures; DPH senior management has a better picture of on-going projects. In the past, once a project was approved, DPH senior management would not often be kept in the loop until a project was in trouble. This did not allow for timely intervention or the ability to keep a risk from becoming an issue. In addition, the lack of project communication between the business/users, IT, and management often hindered project progress.

Over the past several years the DPH IT Section has worked with the DPH leadership on IT project governance. Currently the DPH leadership conducts an annual review on IT projects and sets the project priorities, approving new projects, and canceling projects that for a variety of reasons are not appropriate to implement at that time. This approach provides agency IT managers and program staff the ability to plan and execute their project plans, knowing they have DPH leadership support.

The Maven Program has many projects. The management of the Maven Program has recently changed. With the loss of key staff running the project, the agency embarked on a detailed assessment of the Maven Program and all its releases. The assessment included information on funding, deadlines, dependencies, state or federal requirements, progress to date, and the project progress to date. This information was used as a decision support tool for the DPH leadership team. To date, four Maven projects have been canceled. One has since been restarted with the identification of a funding stream.

Staff and Responsibilities

Oversight for this cross-agency project will be provided by the following team:

- Dr. Matthew Cartter is the State Epidemiologist for the State of Connecticut Department of Public Health. Dr. Cartter is the Primary Investigator (PI) for both the Epidemiology and Laboratory Cooperative Agreement and the Emerging Infections Program Cooperative Agreement. Dr. Cartter, as the ELC PI, will have lead responsibility for this project and will coordinate the involvement of key "surveillance users: in the Infectious Diseases Section.

- Gary Archambault, the DPH Environmental Public Health Tracking Network Coordinator (EPHT), is also supported by state funds. EPHT metadata was implemented into Maven. Mr. Archambault works closely with DPH leadership and information technology management on the integration of project activities. He is a senior staff epidemiologist in the Environmental and Occupational Health Assessment program, and his primary responsibilities are programmatic duties and the EPHT Network.

- Dr. John Fontana is the Laboratory Director of the State Public Health Laboratory. Dr. Fontana is the Executive Sponsor for the LIMS Implementation and is on the LIMS Project Steering Committee. Dr. Fontana is responsible for committing laboratory resources required to fully implement the Horizon LIMS, including successfully transmitting laboratory data to the appropriate DPH programs and other clients.

- Harinath (Hari) Chanda is the DPH IT Supervisor & Technology Manager. He is accountable for planning, coordinating, directing and leading the implementation of new in-house development and 3rd party vendor solutions, reengineering and timely supporting of over 3000 production requests related to 100 existing applications residing at DPH, State Public Health Laboratory and DoIT. Supervises team of 24 in-house project managers, developers, business analysts, database and Solaris administrators. Mr. Chanda is the LIMS Technology Manager responsible for managing the technology platform and IT resources including the LIMS Project Manager for successful coordination, installation and implementation of Horizon LIMS system on DPH & DoIT network. He is also responsible for LIMS post-implementation and production support for the State Public Health Laboratory operations.

M. Zack Fraser is the DPH ELC-funded CT EDSS Coordinator. Mr. Fraser will assist the oversight team. Mr. Fraser has previously worked in the CT Emerging Infections Program gaining extensive infectious disease surveillance experience. His programmatic background has been critical for his successful ability to learn the MAVEN application.

IT Consultant – Project Manager

The work to be done by the Project Manager funded through this proposal is necessary for the successful completion of the project. The Project Manager will be directly supervised by Mr. Chanda and be accountable for project planning, execution and closeout.

- Planning, initiating, developing, and maintaining a secured, reliable, and scalable Electronic Laboratory Reporting (ELR) system that complies with PHIN standards and meets the State Public Health Laboratory and DPH program needs;
- Leading, collaborating, coordinating and executing the ELR implementation using Connecticut's formal System Development Methodology (SDM);
- Assisting with installation, configuration, testing and deployment of the CDC provided PHIN-MS application & tools for secure transformation of information in Health level 7 (HL7) format;
- Assisting with installation and integration of the Orion Rhapsody Integration Engine and CDC's Messaging Subscription Service (MSS) with PHIN MS for transform and translation of non-HL7 messages to PHIN standards, such as, the Logical Observation Identifiers Names and Codes (LOINC) and the Systematized Nomenclature of Medicine (SNOMED);
- Developing the functional, technical and non-technical requirements/specifications; project charters, project management plan, requirements traceability matrix, system design, test & deployment strategy and plan;
- Assisting in the software configuration, use case development, testing, implementation and production roll-out;
- Coordinating the effort with DPH LIMS and MAVEN Project Managers for electronic exchange of laboratory data using appropriate vocabulary and secured messaging standards;
- Aligning technical activities with harmonized standards, processes, and requirements already established and advanced for electronic laboratory data exchange, i.e., NHIN, PHIN, ELR, HITSP and PHLIP;
- Working with external partners for other DPH messaging needs, such as receipt of data from Electronic Medical Records (EMR), Health Information Exchange integration, etc;
- Providing the Systems Administrator support for the PHIN MS and Rhapsody/MSS systems;
- Conducting project assessments; developing cost, process, time and resource (technical/staff) estimates;
- Conducting periodic project briefings to CDC, DPH Project Steering Committee and DoIT PMO groups; Conducting periodic status meetings and submitting the status reports;
- Proactively identifying the project risks/issues, performing the impact analysis and coming up with alternate mitigation plans/measures to complete the projects on time and within the budget;
- Training, mentoring and assisting the DPH IT & Program staff in development of HL7 messages and conducting PHIN certification;
- Serving as the liaison between the State Public Health Laboratory, DPH programs, DPH IT, DoIT , CDC, State & National Work Groups, and contracted product vendors on all activities related to PHIN MS and ELR;
- Participating on the Laboratory Messaging Community of Practice, and attending the monthly ELR, PHIN MS & NMUG calls;

Performance Measures and Evaluation Plan

The Performance Measures and Evaluation Plan can be found in Table 2.

Table 2: Performance Measures and Evaluation Plan

Measure	Evaluation Criteria
DPH Laboratory electronically sends influenza reports to MAVEN.	Messages received by MAVEN.
Number of staff (Epidemiology Program) hours utilized for data entry of influenza laboratory reports reduced by 20%.	Compare staff time allocated for data entry before and after electronic submission of influenza laboratory reports (generate measure – percent of time allocated for data entry).
Number of staff (Epidemiology Program) hours utilized for data entry of all laboratory reports reduced by 20% by year two.	Compare staff time allocated for data entry before and after electronic submission of all laboratory reports (generate measure – percent of time allocated for data entry).
State Public Health Laboratory electronically sends other reportable disease laboratory reports to the DPH reportable disease surveillance. Increase the number of diseases sent electronically a minimum of 25% each year.	Calculate the number of reportable diseases sent electronically versus the total number of reportable diseases. This is done for until 100% are sent electronically.
Increase the number of hospital based laboratories submitting results electronically to two during the first year of the project.	Successful receipt of reportable disease laboratory results from two hospital based laboratories during year one.
Increase the number of hospital based laboratories submitting results electronically to six (total) during the second year of the project.	Successful receipt of reportable disease laboratory results from four additional hospital based laboratories during year two (for a total of six)
Transmit NETSS data to the CDC via PHIN MS during year one of the project for all reportable diseases managed by the Epidemiology Program within MAVEN	100% of reportable diseases managed by the Epidemiology Program within Maven are transmitted to the CDC via PHIN MS in year one.
Transmit the Environmental Public Health Tracking (EPHT) Nationally Consistent Data and Measures (NCDM) data to the CDC via PHIN MS during year one.	100% of EPHT NCDMs are transmitted to the CDC via PHIN MS in year one.

Department of Public Health Maven Project

Presenter: Vanessa Kapral

Project Description

General Project Description/Objective

Maven is a hyper-configurable, vendor-supported COTS application being used by DPH to meet Centers for Disease Control and Prevention (CDC) requirements to modernize reportable disease surveillance and tracking, local health department reporting, hospital syndromic surveillance, and environmental public health tracking (among others). The Maven Project consists of a series of releases as modifications are made to the Maven application. DPH has licensed three "instances" of Maven – each is supporting a separate group of releases. All 3 instances are in production and hosted at DOIT.

Project Sponsor: Meg Hooper, DPH Planning Branch Chief (PHEP grant PI)

Project Budget: Estimated to be nearly $5,000,000 over the three to four years of implementation (including hosting fees, developer fees, vendor maintenance, and project management fees). Maven Project started in February 2008.

Funding Sources:

Year 1 (2008 BY): Three CDC cooperative agreements: Public Health Emergency Preparedness, Environmental Public Health Tracking, and Epidemiology and Laboratory Capacity. State funds are used to support 2 DPH staff and have been used for hosting fees in FY 2009.

Year 2 (2009 BY): Four CDC cooperative agreements: PH Preparedness, Environmental PH Tracking, Early Hearing Detection Intervention, and Epidemiology and Laboratory Capacity. State funds are used to support 2 DPH staff.

Additional years of funding will be requested in the appropriate federal cooperative agreements in BY 2010.

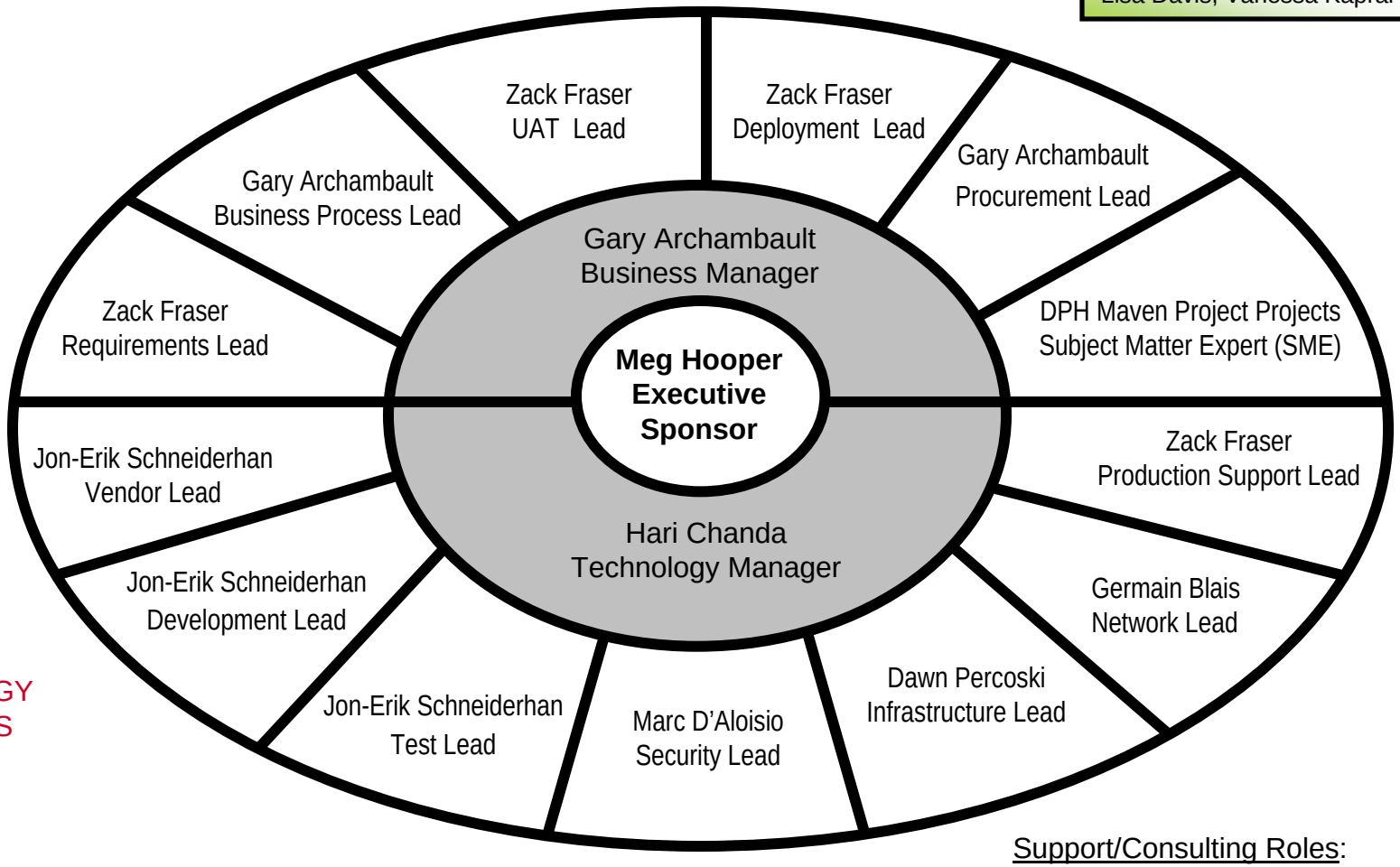
Department of Public Health – Maven Project

PSC – Project Steering Committee
Meg Hooper, Ellen Blaschinski, Lisa Davis, Vanessa Kapral

Project Wheel

BUSINESS PARTNERS

TECHNOLOGY PARTNERS



Support/Consulting Roles:
Enterprise Architect: John Vittner
Financial Advisor: Mary Fuller
BDD: Steve Casey

Department of Public Health – Maven Project

Completed Releases (in production use)

Release Name	Release Start Date	Release Finish Date	Approved Budget	Actual Spent	Cost Variance
Occupational Health Surveillance	01/01/07	7/1/09	$60,000	$48,454	+$11,546
Vaccine Preventable Disease Surveillance	04/11/08	11/14/08	$80,000	$84,585	-$ 4,585
Hospital Emergency Department Syndromic Surveillance	08/20/08	12/31/08	$60,000	$43,000	+$17,000
Environmental Public Health Tracking Metadata Reporting	5/22/08	12/22/08	$60,000	$52,641	+$ 7,359
Local Health Management System (formerly Health Alert Network)	01/01/07	08/27/09	$120,000	$119,231	+$ 739
H1N1 Flu	07/02/09	10/02/09	$78,500	$101,000	+ $22,500
Vulnerable Populations	10/31/07	02/02/10	$96,000	$79,000	-$17,000
Lyme Disease Surveillance	08/24/08	03/16/10	$100,000	$ 88,500	-$11,500
Vulnerable Populations	10/31/07	02/02/10	$96,000	$79,000	-$17,000

Department of Public Health – Maven Project

Active Release Breakdown

Release Name	Release Status	Release Start Date	Release Finish Date	Approved Budget	Actual Spent To Date	Current SDM Phase
Newborn Screening	Yellow	10/20/08	2/14/11	$215,000	$ 140,000	Construction
Adult and Childhood Lead Surveillance	RED	07/09/08	07/16/10	$150,000	$140,000	Construction
Tuberculosis Control	Green	01/21/09	12/08/10	$160,000	$33,499	Design
Foodborne Illness Active Surveillance Network	Cancelled	02/02/09	03/09/10	$120,000	$ 8,828	CANCELLED
Private Well Tracking	Cancelled	03/01/09	02/25/10	$60,000	$ 1,854	CANCELLED
Radon Surveillance	Cancelled	06/01/08	12/10/09	$40,000	$ 1,000	CANCELLED

Department of Public Health – Maven Project

Risks/Issues Resolved

Risk/Issue	Date	Owner	Status
Delays in scheduling DOIT resources Schedule: Miss deadlines Cost: Increase costs Quality: Cannot meet grant (federal) requirements	8/2009	Vanessa Kapral (DPH IT Manager)	•Obtain set SOP procedures from DOIT – DPH sent description of releases -Share project plan timelines regularly – IT Manager has regular meetings with DOIT each Monday @ 1:00 pm. Set up regular project team meetings – as needed for release review
Loss of funding and resources to support Maven system Schedule/Quality: Delay development/miss requirement deadlines Quality: Business staff will not have a usable system after migration Cost: increased costs with delay	5/2009	Meg Hooper (Executive Sponsor)	•Meet grant objectives with project development to increase chance of continuing funding from cooperative agreements -- identified additional funding resources
Limited Maven development resources at DPH Schedule: extend project duration Cost: increase costs	5/2009	Ellen Blaschinski (Executive Sponsor)	•Recommend identification of at least one additional DPH in-house staff to learn Maven support and request funding in next year's grants – trained several additional in-house staff – benefit in post-implementation change requests

Department of Public Health

Newborn Screening System Release

Presenter: Vanessa Kapral

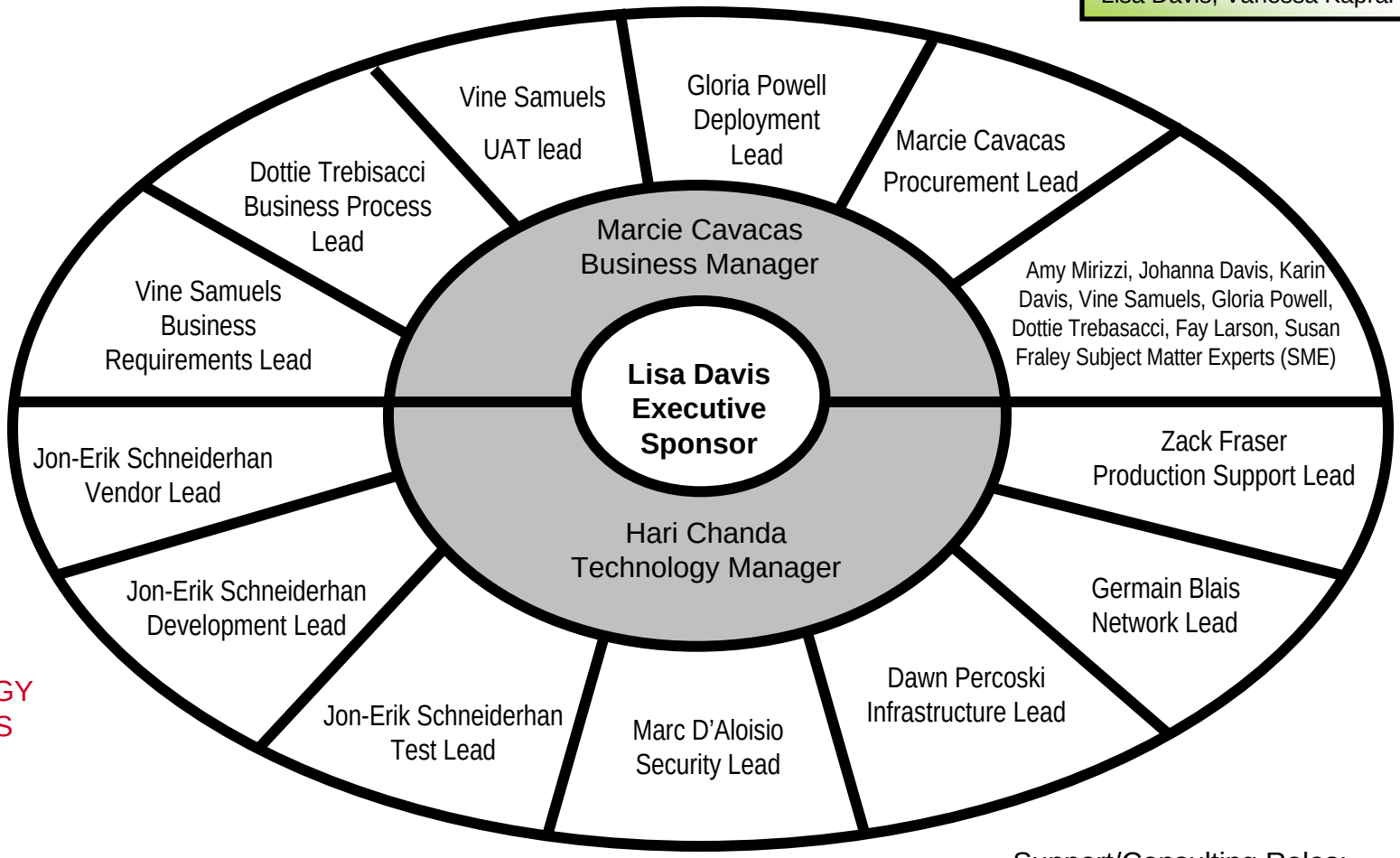
Department of Public Health – Newborn Screening Release

PSC – Project Steering Committee
Meg Hooper, Ellen Blaschinski, Lisa Davis, Vanessa Kapral

Current Phase: Construction

BUSINESS PARTNERS

TECHNOLOGY PARTNERS

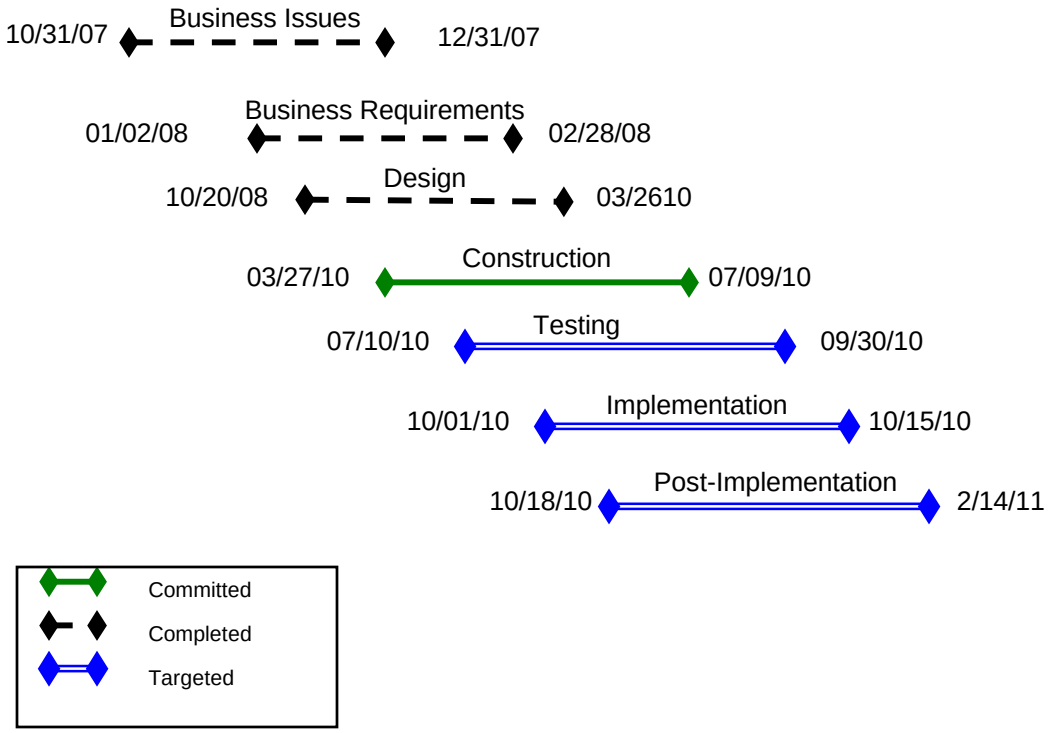


Support/Consulting Roles:
Enterprise Architect: John Vittner
Financial Advisor: Mary Fuller
DPH IT consultant: Prasanna Adapa
BDD: Steve Casey

Department of Public Health – Newborn Screening System Release

Phase: Construction

Overall Status: Yellow



Schedule: Y | **Budget: Y** | **Quality: G**

Phase Milestones

- ✓ 03/27/10: Phase Kickoff Meeting Conducted
- 07/05/10: Code & Unit Testing Completed
- ✓ 03/27/10: System Bill of Materials Document Completed
- 06/05/10: Test Cases Completed
- 06/28/10: User Documentation & Training Materials
- 06/28/10: Implementation Back-out/Recovery Plan Completed
- 06/30/10: Prod. Support & Administration Doc. Completed
- 06/30/10: Detailed Testing Phase Schedule
- 06/30/10: Project Management Plan Updated
- 06/05/10: Cost/Benefit Analysis Updated
- 07/09/10: Phase-End Decision Point Meeting Presentation Signoff Achieved

Legend: ✓ = Completed

Budget Summary

Construction Phase

Total Phase Budget	Planned Cost to Date	Actual Cost to Date	Variance to Date
$100,000	$20,000	$50,000	+$30,000

Total Project (Cumulative)

Total Project Budget	Planned Cost to Date	Actual Cost to Date	Variance To Date
$215,000	$170,000	$190,000	+$20,000

Release Risks

	Risk Description	Impact (Schedule, Cost, Quality)	Owner	Date of Impact if not Mitigated	Mitigation Strategy
1	Lack of budget to complete current tasks	Quality	Marcie Cavacas (Business Manager)	June 1, 2010	▪Additional funds from another grant – to be approved by PSC – funds identified and approved ▪Keep introduction of new items to a minimum for initial release – balance with federal requirements
2	Delayed integration with new (LIMS) project	Schedule – increases Cost – consultant time	Hari Chanda (Technology Manager)	12/2009	▪Work with LIMS project manager to exchange needed data and coordinate project tasks
3	Change in Federal requirements	Increase in scope leads to increase in schedule and cost	Vine Samuels (Business Lead Requirements)	Before release in production	▪Monitor external requirements for system ▪Work to obtain implementation of current release before adding changes

Department of Public Health

(Adult and Childhood) Lead Case and Environmental Management Release (Lead Surveillance)

Presenter: Vanessa Kapral

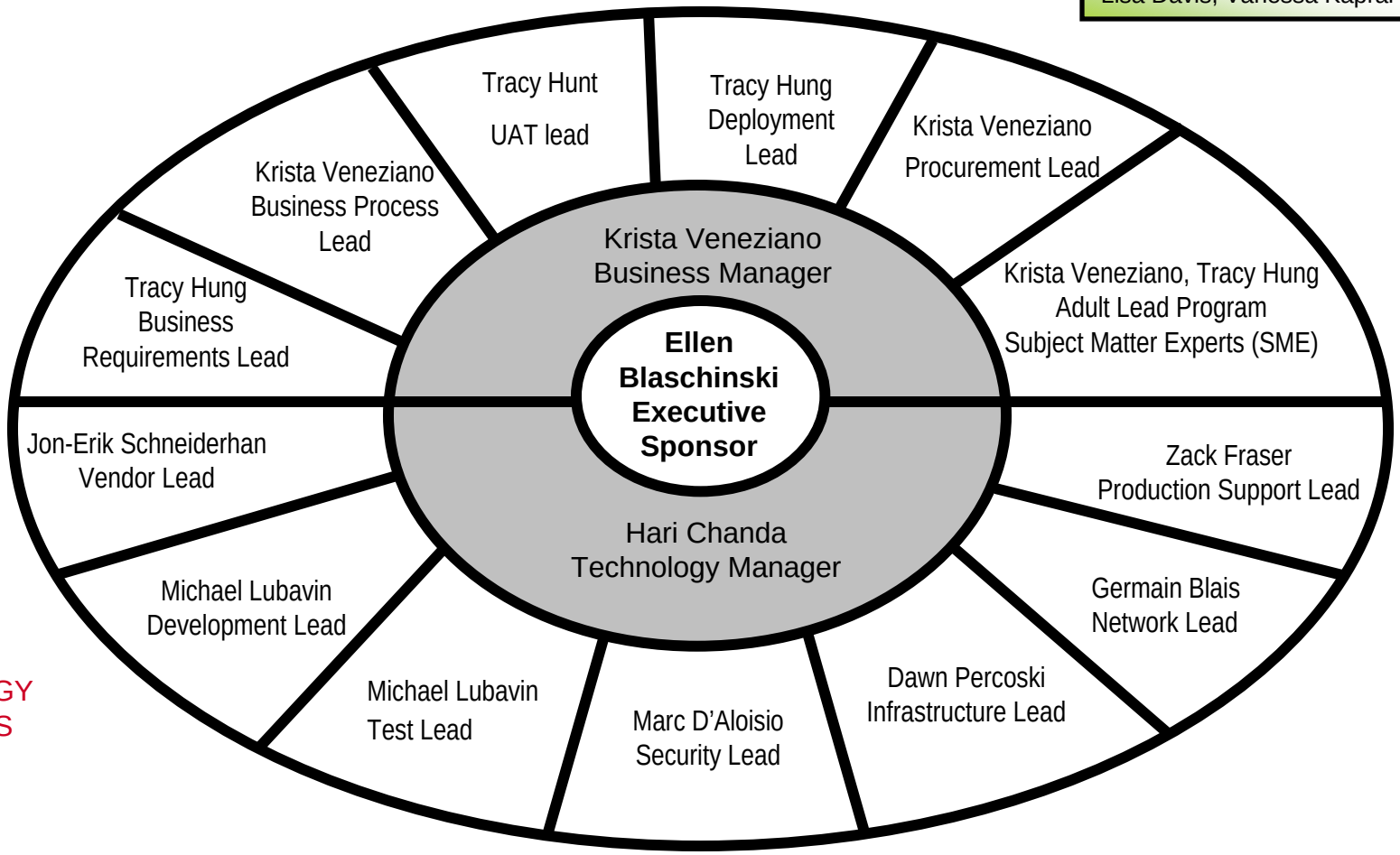
Department of Public Health – Lead Surveillance Release

PSC – Project Steering Committee
Meg Hooper, Ellen Blaschinski, Lisa Davis, Vanessa Kapral

Current Phase: Construction

BUSINESS PARTNERS

TECHNOLOGY PARTNERS

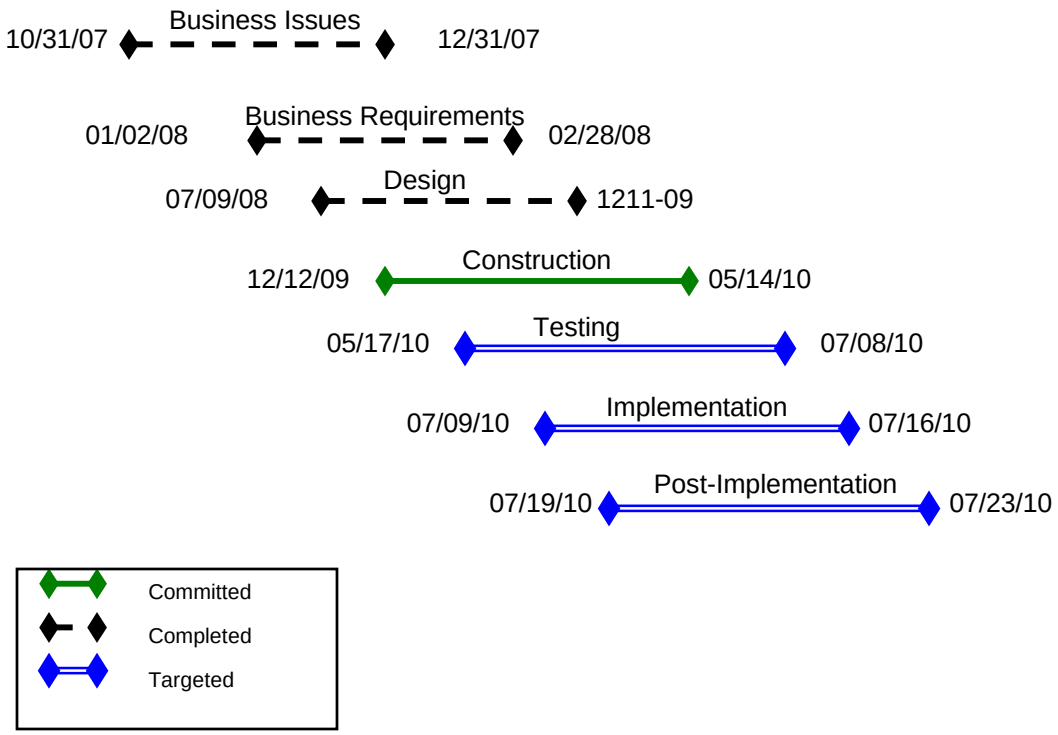


Support/Consulting Roles:
Enterprise Architect: John Vittner
Financial Advisor: Mary Fuller
BDD: Steve Casey

Department of Public Health – Lead Surveillance Release

Phase: Construction

Overall Status: RED



Schedule: R	Budget: G	Quality: G

Phase Milestones

- ✓ 01/16/10: Phase Kickoff Meeting Conducted
- ✓ 01/18/10: Test Cases Completed
- ✓12/20/09 Implementation Backout/Recovery Plan Completed
- ✓ 01/03/10 Prod. Support & Administration doc.Completed
- ✓ 02/01/10 Detailed Testing Phase Schedule Completed
- ✓ 05/10/10 Project Management Plan Updated
- 05/14/10 Phase-End Decision Point Meeting Presentation Signoff Achieved

NOTE: several PSC meetings were held to re-prioritize the Maven inventory of projects.

Legend: ✓ = Completed

Budget Summary

Construction Phase

Total Phase Budget	Planned Cost to Date	Actual Cost to Date	Variance to Date
$10,000	$9,000	$12,000	+$3,000

Total Project (Cumulative)

Total Project Budget	Planned Cost to Date	Actual Cost to Date	Variance To Date
$150,000	$140,000	$152,000	-$2,000

Release Risks

	Risk Description	Impact (Schedule, Cost, Quality)	Owner	Date of Impact if not Mitigated	Mitigation Strategy
1	Old system fails before migration into Maven	Quality	Krista Veneziano (Business Manager)	Before release in production	▪Business needs to work with legacy IT support to ensure old data is backed up ▪Keep new release on track for completion

Release Issues

	Issues Description	**Impact (Schedule, Cost, Quality)**	**Owner**	**Actions Being Taken**
1	Lack of budget to complete tasks due to increase in requirements to meet state and federal mandates	Schedule – delay release completion Cost -- increased Quality – will not be able to meet new state and federal mandates for system functionality	Krista Veneziano (Business Manager)	▪Work with Executive Sponsor and funding source to identify more funding to complete project ▪Reduce scope for this release, i.e., delay migration of legacy data until additional funds identified and migrate as a next phase

Department of Public Health
Tuberculosis Control Release

Presenter: Vanessa Kapral

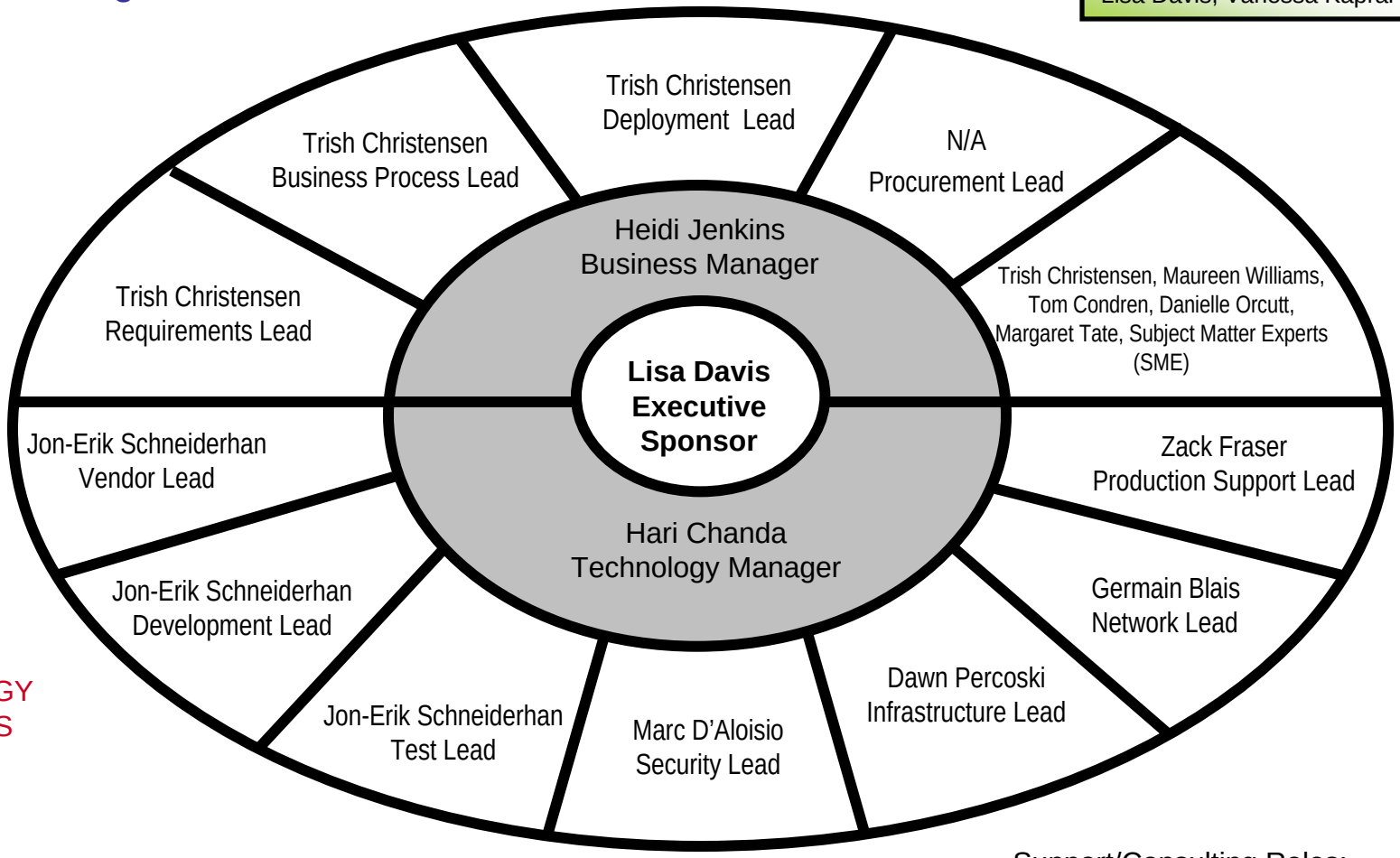
Department of Public Health – Tuberculosis Control Release

PSC – Project Steering Committee
Meg Hooper, Ellen Blaschinski, Lisa Davis, Vanessa Kapral

Current Phase: Design

BUSINESS PARTNERS

TECHNOLOGY PARTNERS

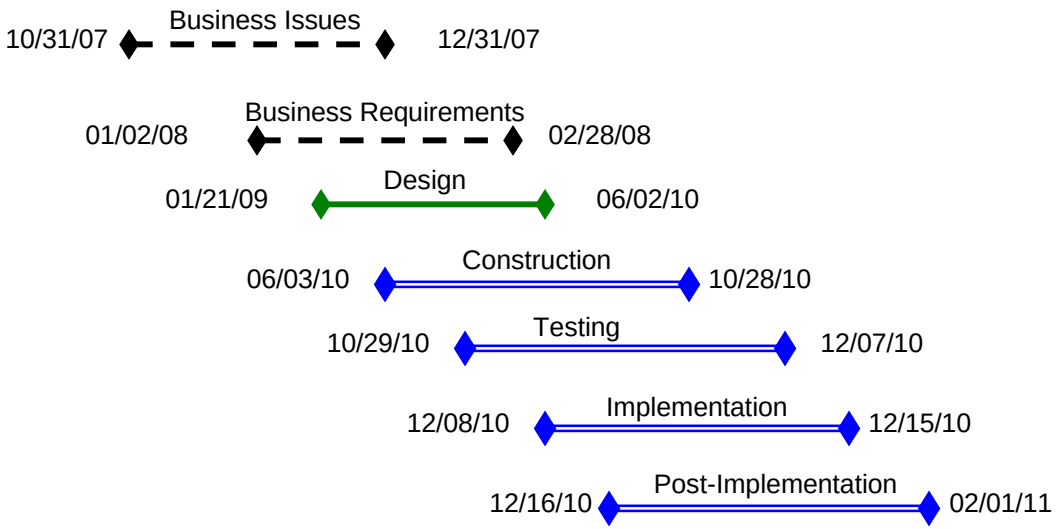


Support/Consulting Roles:
Enterprise Architect: John Vittner
Financial Advisor: Mary Fuller
DPH IT Section: Audrey Peacock
BDD: Steve Casey

Department of Public Health – Tuberculosis Control Release

Phase: Design

Overall Status: Green



Schedule: G	Budget: G	Quality: G

Phase Milestones

✓	01/21/09	Phase Kickoff Meeting Conducted
	N/A	General Design – TRB Signoff Achieved
	NA	General Design - Decision Point Meeting Presentation Signoff Achieved
	N/A	Detail Design – TRB Signoff Achieved
✓	04/16/10	Test Strategy & Plan Document Created
✓	05/03/10	Requirements Traceability Matrix Created
✓	05/10/10	Detailed Construction Phase Schedule Completed
✓	05/10/10	Project Management Plan Updated
	N/A	Cost/Benefit Analysis Updated
	06/01/10	Phase-End Decision Point Meeting Presentation Signoff Achieved

Legend: ✓ = Completed

Budget Summary

Design Phase

Total Phase Budget	Planned Cost to Date	Actual Cost to Date	Variance to Date
$50,000	$50,000	$47,000	-$3,000

Total Project (Cumulative)

Total Project Budget	Planned Cost to Date	Actual Cost to Date	Variance To Date
$176,000	$176,000	$60,000	-$116,000

Department of Public Health – Maven – TB

Resolved since last presentation

Risk/Issue	Date	Owner	Status
Lack of budget to complete current tasks	4/1/10	Lisa Davis, Exec Sponsor	▪The CDC preparedness grant has funding available to accomplish what is documented in the SOW. The funding stream issue was resolved by Meg Hooper, Lisa Davis, and Vanessa Kapral.

State of Connecticut
Department of Information Technology (DOIT)

prehensive Delivery
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SDM EDUCATIONAL CAMPAIGN

SDM 2.03 MANAGER TRAINING

Presenter Name: Larry Williford
Date: February 25, 2009

AGENDA

- Overview of the SDM Framework Variations
- Overview of SDM-Standard
- Overview of SDM-COTS
- Key Points of Emphasis:

1. *Use of Standard SDM Milestones*
2. *Use of Standard SDM Roles*
3. *Technology Manager Role vs. Business Manager Role*
4. *What's the role of the Executive Sponsor?*
5. Role of a Lead on the Wheel vs. a Functional Manager
6. *Stakeholdering*
7. *What's the difference between a the Solution Approach and Solution Alternatives?*
8. *When is RFP/ITB Triggered within SDM?*
9. *Proof of Concept…When and Why…*
10. *TRB Design Reviews*
11. *Project Inventory Maintenance*
12. *Program vs. Project vs. Release*
13. *Project Profile Creation & Approval*
14. *Budget Management*

METHODOLOGY FRAMEWORK VARIATIONS

Project Characteristics			Target: March 2009	Target: June 2009	Target: TBD by Eric L.
	SDM Standard	SDM COTS	SDM LITE	SDM RAD	Service Mgmt /ITIL
Large/Complex Custom Application Development Projects	X				
Large/Complex Infrastructure Projects	X				
Large/Complex COTS Business Application Projects		X			
Small/Medium Application Development Projects			X	X	
Small/Medium Infrastructure Projects			X		X
Large/Complex DOIT Process Improvement Projects	X		X		

- Not Yet Available

SDM STANDARD (OVERVIEW)

- SDM v2.03 Activities
  - Business Issue
    - Kick-off the Business Issue Phase
    - Confirm the Solution Approach
    - Create the Project Management Plan
    - Conduct Phase-End Decision Point Meeting
  - Business Requirements
    - Procure 3rd-Party Resources
    - Kick-off the Business Requirements Phase
    - Document the Business Process Model
    - Document the Business Requirements
    - Document the Technical Requirements
    - Document Solution Alternatives
    - Conduct Proof of Concept
    - Select Recommended Solution
    - Plan Remaining Phases
    - Conduct Phase-End Decision Point Meeting
  - Design
    - Kick Off the Design Phase
    - Create General Design
    - Conduct General Design Review
    - Conduct Gen Design Decision Point Meeting
    - Create Detail Design
    - Conduct Detail Design Review
    - Create Test Strategy & Plan
    - Plan Remaining Phases
    - Conduct Phase-End Decision Point Meeting
  - Construction
    - Kick Off the Construction Phase
    - Establish Infrastructure
    - Perform Code and Unit Testing
    - Create Test Cases
    - Create User Doc & Training Materials
    - Create Recovery Plans
    - Plan Production Support
    - Plan Remaining Phases
    - Conduct Phase-End Decision Point Meeting
  - Testing
    - Kick Off the Testing Phase
    - Perform Integration Testing
    - Perform System Testing
    - Perform User Acceptance Testing
    - Perform Recovery Testing
    - Perform Performance Testing
    - Conduct Test Phase Review Meeting
    - Conduct Production Support Process Review
    - Plan Remaining Phases
    - Conduct Phase-End Decision Point Meeting
  - Implementation
    - Kick Off the Implementation Phase
    - Establish the Production Environment
    - Perform Production Parallel Testing
    - Execute Pilot Deployment
    - Execute General Deployment
    - Execute Backout & Recovery Plan
    - Conduct Phase-End Decision Point Meeting Meeting
  - Post-Implementation
    - Transition Solution To Production Support
    - Shutdown Project

SDM COTS (OVERVIEW)

- SDM v2.03 Activities
  - Business Issue
    - Kick-off the Business Issue Phase
    - Confirm the Solution Approach
    - Create the Project Management Plan
    - Conduct Phase Decision Point Meeting
  - Business Requirements
    - Kick-off the Business Reqmts Phase
    - Document the Business Requirements
    - Document the "As-Is" Business Process Model
    - Document the Technical Requirements
    - Document COTS Solution Alternatives
    - Conduct Proof of Concept
    - Select Recommended Solution
    - Plan Remaining Phases
    - Conduct Phase-End Decision Point Meeting
  - Design
    - Contract Administration
    - Kick Off the Design Phase
    - Perform COTS Product Setup & Configuration
    - Vendor Discovery
    - Document the "To-Be" Business Process Model
    - Create General Design
    - Conduct General Design Review
    - Conduct Gen Design Decision Point Meeting
    - Create Detail Design
    - Conduct Detail Design Review
    - Create Test Strategy & Plan
    - Plan Remaining Phases
    - Conduct Phase-End Decision Point Meeting
  - Construction
    - Kick Off the Construction Phase
    - Establish Infrastructure
    - Perform Code and Unit Testing
    - Create Test Cases
    - Create User Doc & Training Materials
    - Create Recovery Plans
    - Plan Production Support
    - Plan Remaining Phases
    - Conduct Phase-End Decision Point Meeting
  - Testing
    - Kick Off the Testing Phase
    - Perform Integration Testing
    - Perform System Testing
    - Perform User Acceptance Testing
    - Perform Recovery Testing
    - Perform Performance Testing
    - Conduct Test Phase Review Meeting
    - Conduct Production Support Process Review
    - Plan Remaining Phases
    - Conduct Phase-End Decision Point Meeting
  - Implementation
    - Kick Off the Implementation Phase
    - Establish the Production Environment
    - Perform Production Parallel Testing
    - Execute Pilot Deployment
    - Execute General Deployment
    - Execute Backout & Recovery Plan
    - Conduct Phase-End Decision Point Meeting Meeting
  - Post-Implementation
    - Transition Solution To Production Support
    - Shutdown Project

KEY POINTS OF EMPHASIS: Use of Standard SDM Phase Milestones

Standard SDM Milestones must be used so that there is a consistent understanding across the organization with regard to the major deliverables/events that must be achieved within each project phase.

Standard phase milestones are maintained by the PMO.

Project teams are expected to work toward the standard milestones of each phase, and standard deliverables are subject to audit.

Project teams can remove standard milestones from their project status/review presentations that do not apply to their project. (must justify if challenged).

Phase 1: Business Issue Phase Milestones:

- RFI Completed (Optional)
- Solution Approach Document Completed
- Project Management Plan Completed
- Detailed Business Requirements Phase Schedule Completed
- Cost Benefit Analysis Document Completed
- Phase-End Decision Point Meeting Signoff
- Project Profile Document Signoff Achieved

Phase 2: Business Requirements Phase Milestones:

- Project/Phase Kick off Meeting Completed
- Business Process Model Signoff (Optional)
- Business Requirements Signoff
- Technical Requirements Signoff
- RFP/ITB Issued (Optional)
- Solution Alternatives Document Completed
- RFP/ITB Evaluation Completed (Optional)
- POC Evaluation Form Completed (Optional)
- Solution Recommendation Confirmed
- Deployment Strategy & Plan Completed
- Detailed Design Phase Schedule Completed
- Phase-End Decision Point Meeting Signoff

Phase 3: Design Phase Milestones:

- Phase Kickoff Meeting Conducted
- Contract Award Completed (Optional)
- COTS Product Installed (Optional)
- COTS Product Integration Plan Completed (Optional)
- "To-Be" Business Process Completed (Optional)
- General Design – TRB Signoff Achieved
- General Design - Decision Point Meeting Presentation Signoff
- Detail Design – TRB Signoff Achieved
- Test Strategy & Plan Document Created
- Requirements Traceability Matrix Created
- Detailed Construction Phase Schedule iCompleted
- Project Management Plan Updated
- Cost/Benefit Analysis Updated
- Phase-End Decision Point Meeting Signoff

KEY POINTS OF EMPHASIS: Use of Standard SDM Phase Milestones

Standard SDM Milestones must be used so that there is a consistent understanding across the organization with regard to the major deliverables/events that must be achieved within each project phase.

Standard phase milestones are maintained by the PMO.

Project teams are expected to work toward the standard milestones of each phase, and standard deliverables are subject to audit.

Project teams can remove standard milestones from their project status/review presentations that do not apply to their project. (must justify if challenged).

Phase 4: Construction Phase Milestones:

- Phase Kickoff Meeting Conducted
- Code & Unit Testing Completed
- System Bill of Materials Document Completed
- Test Cases Completed
- User Documentation & Training Completed
- Requirements Traceability Document Updated
- Implementation Backout/Recovery Plan Completed
- Production Support & Administration Doc. Completed
- Detailed Testing Phase Schedule Completed
- Project Management Plan Updated
- Cost/Benefit Analysis Updated
- Phase-End Decision Point Meeting Signoff

Phase 5: Testing Phase Milestones:

- Phase Kickoff Meeting Conducted
- Integration Testing Signoff
- System Testing Signoff
- User Acceptance Testing Signoff
- Performance Testing Signoff
- Recovery Testing Signoff
- Production Support & Admin Document Signoff
- Detailed Schedule for Remaining Phases Completed
- Project Management Plan Updated
- Cost/Benefit Analysis Updated
- Phase-End Decision Point Meeting Signoff

KEY POINTS OF EMPHASIS: Use of Standard SDM Phase Milestones

Standard SDM Milestones must be used so that there is a consistent understanding across the organization with regard to the major deliverables/events that must be achieved within each project phase.

Standard phase milestones are maintained by the PMO.

Project teams are expected to work toward the standard milestones of each phase, and standard deliverables are subject to audit.

Project teams can remove standard milestones from their project status/review presentations that do not apply to their project. (must justify if challenged).

Phase 6: Implementation Phase Milestones:

- Phase Kickoff Meeting Conducted
- Go/No-Go – After Solution Deployment
- Parallel Test Results Signoff (Optional)
- Legacy Systems Deactivated (Optional)
- Go/No-Go – Pilot Deployment Results (Optional)
- Go/No-Go – General Deployment Results
- Project Management Plan Updated
- Cost/Benefit Analysis Updated
- Production Support Turnover Completed
- Phase-End Decision Point Meeting Signed Off

Phase 7: Post-Implementation Phase Milestones:

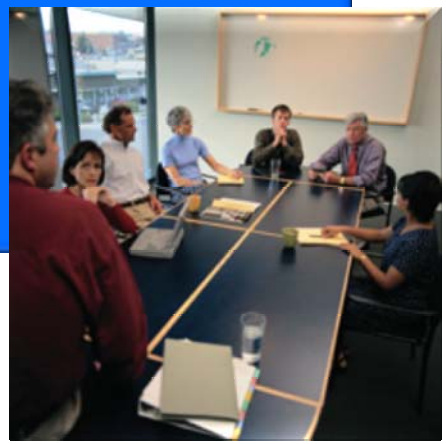
- Post-Implementation Reviews Conducted
- Project Lessons Learned Completed
- Project Management Completed
- Cost/Benefit Analysis Completed
- Project Summary Documented & Published
- Project Team Resources Released

KEY POINTS OF EMPHASIS: Use of Standard SDM Roles

Standard SDM Roles are defined and maintained by the PMO.

Project teams may NOT create or customize any of the standard SDM role names which appear on the Project Wheels.

A detailed description of role responsibilities can be found on the SDM website under "Reference Materials". A detailed description has also been included within the appendix of this presentation.



Standard SDM Role Names:

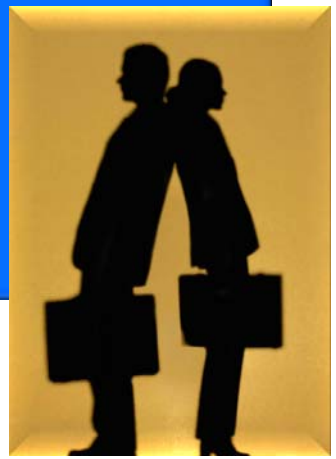
- Business Division Director (Technology Role)
- Business Manager (Business Role)
- Business Process Lead (Business Role)
- Business Requirements Lead (Business Role)
- Business Subject Matter Experts (Business Role)
- Deployment Lead (Business Role)
- Development Lead (Technology Role)
- Enterprise Architect (Technology Role)
- Executive Sponsor (Business Role)
- Financial Advisor (Finance Role)
- Infrastructure Lead (Technology Role)
- Network Lead (Technology Role)
- Procurement Lead (Procurement Role)
- Production Support Lead (Technology Role)
- Project Steering Committee (Business & Technology Leadership Roles)
- Security Lead (Technology Role)
- Technology Manager (Technology Role)
- Test Lead (Technology Role)
- UAT Lead (Business Role)
- Vendor Lead (Technology Role)

KEY POINTS OF EMPHASIS: Technology Manager vs. Business Manager Roles

SDM has no formal role called "Project Manager".

The core project management responsibilities on a project are owned by the role of the Technology Manager.

For the course of an SDM project, resources assume the standard role names and responsibilities to establish clear accountability and expectations of the team members.



The Technology Manager :

- Owns overall project plan creation, *which includes all Business and Vendor project activities*; The Business and Vendor provides the planning inputs, and the Technology Manager owns incorporating them into the overall project plan; The overall plan addresses the project schedule, budget, risks, issues, scope, and communication.
- Must possess project management skills (e.g. organizational, communications, planning & estimating);
- Is accountable for the on-going management the *overall* plan (e.g. plan updates, status reporting), although not accountable for delivering the Business deliverables.
- *Is* accountable for the delivery of *all technology* team deliverables.

The Business Manager:

- Is accountable for providing the Technology Manager with the project plan inputs that are owned by the Business (e.g. Business Requirements definition, Business Process Model creation, User Acceptance Test Case creation & execution, User Documentation & Training).
- Is accountable for the delivery of *all Business* Team deliverables.
- Provides the Technology Manager plan updates for the Business activities so that such updates can be rolled into the overall project plan.

KEY POINTS OF EMPHASIS: What's the role of the Executive Sponsor?

All IT projects are, in fact, business projects, and ought to have business rationale from the outset. Project success or failure should be charted either in financial terms or as a contribution to the strategic business plan.

There is a high correlation between lack of clear project sponsorship and failure.

There is also a high correlation between public project sponsorship from senior leaders and project success.

The Executive Sponsor keeps the focus on "why are we doing this?" and helps overcome any resistance to change.

The Executive Sponsor :

- Responsible for providing the project funding source;
- Approves the Business Manager and Technology Manager for the project;
- Attends/Participates in Phase-End Decision Point Meetings;
- Primary leadership escalation point for significant project risks and issues;
- The executive "champion" and "cheer-leader" for the project;

KEY POINTS OF EMPHASIS: Role of a Lead on the Wheel vs. a Functional Manager

Names that often appear on Project Wheels are the directors or managers responsible for a functional area (e.g. Application Hosting, Network, Security). These are the Functional Managers.

The proper practice expects the Technology or Business Manager to make a formal resource request to the Functional Managers, and the Functional Managers will assign resources to assume the Lead roles on the project team.

The name of the Lead should appear on the Wheel…Not the name of the Functional Manager…

Lead Role on Wheel:

- Assigned by the Functional Manager;
- Accountable for the coordination and delivery of all work within their functional area (e.g. their "spoke" on the Wheel);
- Is a decision-maker to the project team for their functional area;
- Is the single-point-of-contact to project team members for their functional area;
- May have other resources executing work in their area who are not on the Project Wheel;

Functional Manager:

- Is not on the Project Wheel;
- Allocates resources to project teams;
- Is a point of escalation and coaching for the Lead, if assistance is needed in that functional area.

KEY POINTS OF EMPHASIS: Stakeholdering

A classic sign of a dysfunctional project team is lack of communication or common understanding amongst project team members and other "periphery" resources who are involved with the project.

The process of *stakeholdering* involves having "pre-discussion" with project team or periphery resources whenever there are controversial or substantial topics need to be vetted before being finalized.

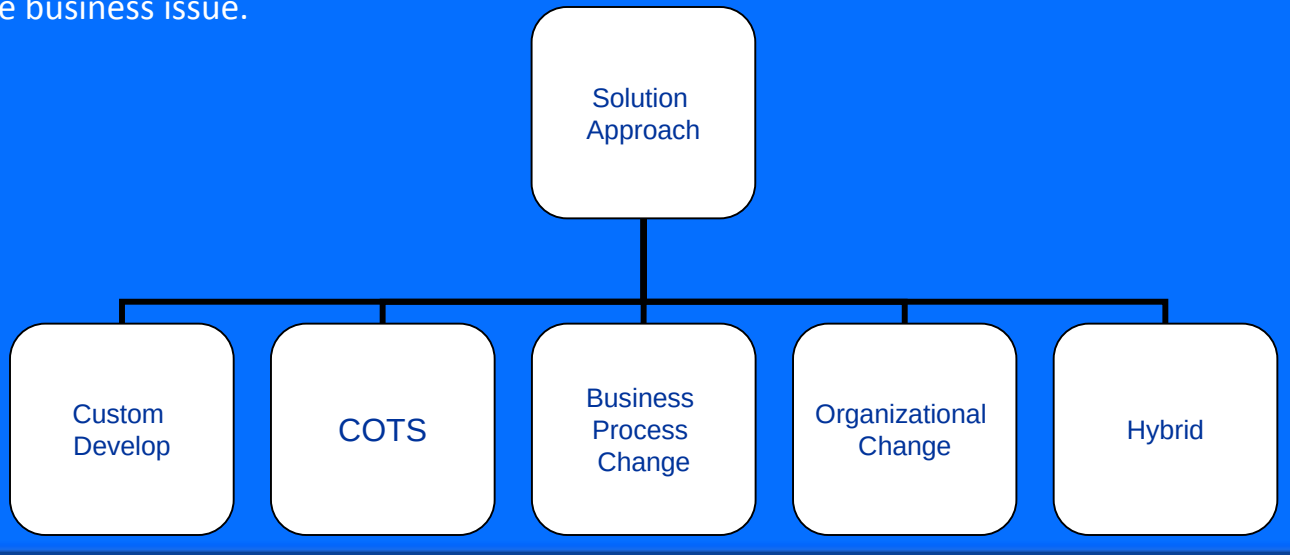
The purpose of the "pre-discussion" is to ensure that all parties involved have a common understanding of the message, and that no involved parties are "blind-sided" when communications involving their names or areas are made public.

Effective stakeholdering with project team or periphery resources should occur in the following common project situations:

- Before individuals are formally assigned to project risks and/or issues; Individuals should not discover assignment at public forums (e.g. at Project Reviews, Decision Point meetings);
- Before any names are listed on a Project Wheel; Approval must first come from the resource's Functional Manager, and then a stakeholdering discussion with the assigned resource to clarify the role expectations before confirming and communicating the assignment;
- Before significant change in an established direction occurs;
- Before any "sensitive" or "controversial" messages are broadly communicated across the organization.

KEY POINTS OF EMPHASIS: Solution Approach vs. Solution Alternatives

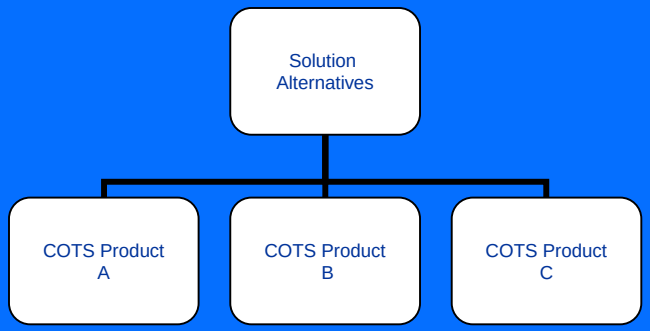
The Solution Approach Document is created during the BUSINESS ISSUES phase. It describes the general *approach* that the project team will take in search of solutions to the business issue.



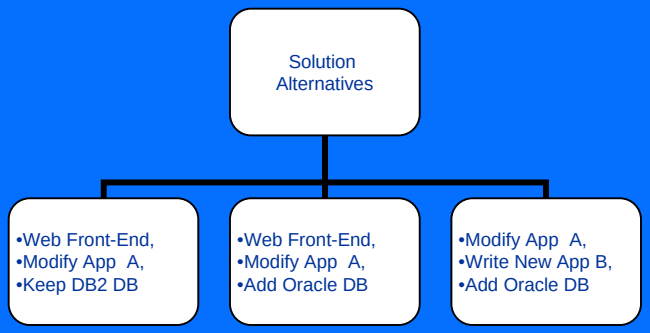
KEY POINTS OF EMPHASIS: Solution Approach vs. Solution Alternatives

The Solution Alternatives Document is created during the BUSINESS REQUIREMENTS phase. It describes the various solution alternatives being evaluated based on the chosen solution approach.

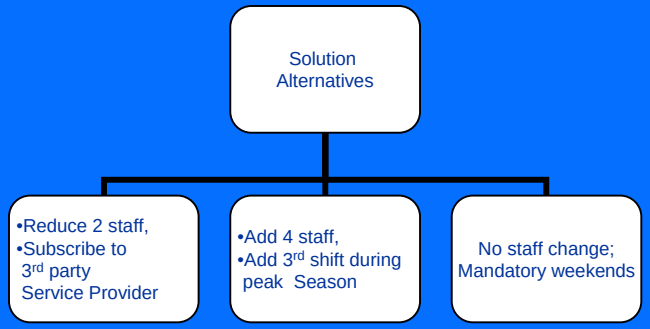
COTS APPROACH



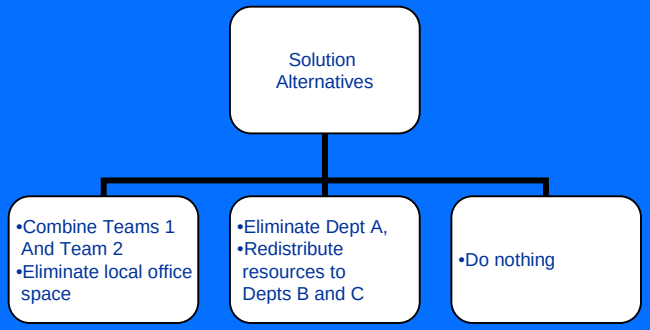
CUSTOM DEVELOPMENT APPROACH



BUSINESS PROCESS CHANGE APPROACH



ORGANIZATIONAL CHANGE APPROACH



KEY POINTS OF EMPHASIS: When is RFP/ITB triggered in SDM?

Request for Proposals (RFP) or Invitations to Bid (ITB) may be required during the course of a project to meet various procurement needs.

For technology projects, the procurement needs generally fall into one of the following categories:

COTS Product procurement – Commercial-off-the-shelf BUSINESS APPLICATIONS to be implemented within the organization.

Infrastructure procurement – Hardware (e.g. PCs, servers, storage, cabling, etc.) or software (e.g. operating systems, database systems, system management tools, desktop applications, etc.) upon which business applications are built.

3rd Party Services procurement – External labor services to own or assist with the development of the new system.

RFP/ITB in SDM

Category 1: When is RFP/ITB Issued when a COTS PRODUCT is required?

The RFP/ITB is triggered during the **Business Requirements Phase,** Activity 2.05, Task 4: "Execute the RFP Procurement Process", after the following deliverables have been produced: Business Requirements Workbook, Technical Requirements Workbook, Technical Requirements Document, and the "As-Is" Business Process Model. Infrastructure procurement to support/enable the COTS product would fall into Category 2, below. The CPD Procurement Manual provides instructions on this process..

Category 2: When is RFP/ITB Issued when INFRASTRUCTURE is required?

The RFP/ITB is triggered at the on-set of the **Construction Phase**, after the project team has received a Design Phase "GO" decision from their Project Steering Committee. The infrastructure is procured within the Construction Phase, Activity 4.02 Establish Infrastructure. The CPD Procurement Manual provides instructions on this process.

Category 3: When is RFP/ITB Issued when 3rd-Party Services are required to own the entire project delivery?

The RFP/ITB is triggered at the beginning of the **Business Requirements Phase**, Activity 2.01 Procure 3rd-Party Services. The CPD Procurement Manual provides instructions on this process.. When 3rd party services are required to provide limited staff augmentation (e.g. a couple of developers or infrastructure technicians) the same CPD Procurement process would be used to invoke these services would occur “on demand”, at any point within the project life-cycle..

KEY POINTS OF EMPHASIS: Proof of Concept…When and Why?

A Proof of Concept (POC) creates a small-scale, but "live" application of the solution, to verify that the most critical requirements can in fact be addressed by the potential solution.

A POC is not a "full blown" system or user acceptance test cycle. It is typically a targeted (usually small) set of transactions and test cases which are sufficient for the project team to confirm that the solution can in fact satisfy the requirements deemed critical and/or high risk before significant investment is made in the solution.

The POC should be executed as part of the COTS solution evaluation, before a contract is awarded to a vendor (during the Business Requirements Phase).

Why is a POC needed?

- The purpose of running a Proof of Concept (POC) is to verify whether or not a solution alternative can, in fact, satisfy the most critical solution requirements (can be either critical business or technical requirements).

When is a POC needed?

- When the project team has significant uncertainty around a solutions ability to address the most critical solution requirements;
- During the Business Requirements Phase;
- AFTER requirements definition has been completed;
- BEFORE a solution is selected and recommended by the project team at the conclusion of the Business Requirements phase.

KEY POINTS OF EMPHASIS: TRB Design Reviews

2 *mandatory* Design Reviews are hosted by the Technology Review Board (TRB) during the Design Phase.

The Technology Manager must schedule the Design Reviews with the TRB and submit all required documentation prior to the Design Review meetings 2 weeks in advance.

The TRB must provide a written disposition to the project team which documents the outcome of each Design Review meeting.

Projects can NOT exit the Design Phase without receiving an approval or an exception from the TRB.

TRB Design Reviews

- TRB Design Reviews are required, whether the solution is being hosted at DOIT or not;
- Project teams should NOT assume that no TRB Design Review is needed; The TRB Design Review Coordinator must render a written (email) waiver to the project team if no TRB review is needed;
- Required documentation: The Technical Requirements Workbook/Document and System Design Document are required inputs into each Design Review and must be submitted 2 weeks in advance;
- If Vendors have their own version of standard design documentation, it can be submitted as long as it covers the design components contained within the SDM System Design Document template;

KEY POINTS OF EMPHASIS: Project Inventory

The PMO Project Inventory is the official repository for all technology projects within the State.

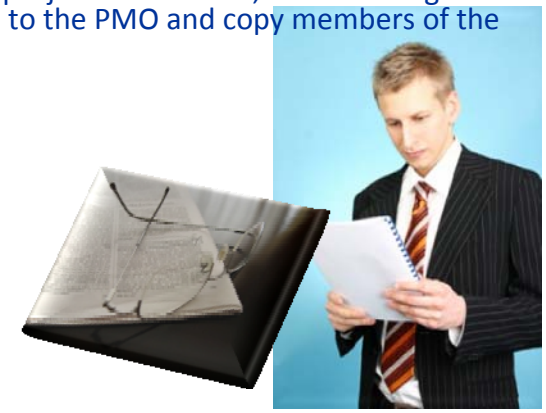
Status reporting at the Governor and Commissioner levels are solely based on the data contained within the PMO Project Inventory.

The PMO Project Inventory is updated monthly; IT Managers are accountable for the accuracy of the data being captured and reported for projects within their auspices.

Once baselined phase start/end dates are captured within the Project Inventory they can only be changed with email from the Technology Manager, with Project Steering Committee (PSC) copied, indicating that the PSC has authorized the change in dates.

Project Inventory

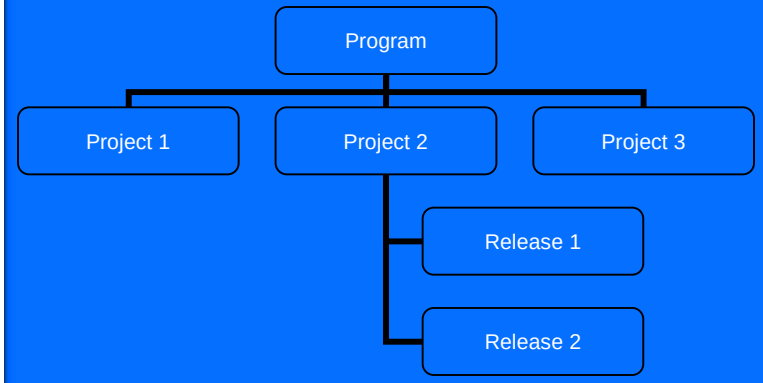
- Is the official repository for State of Connecticut Technology projects ;
- Updated monthly;
- Data source for Governor and Commissioner project reporting;
- IT Manager is accountable for timeliness and accuracy of data updates.
- Data submitted conforms to SDM naming conventions for status, phases, etc.
- Projects are added to the inventory when approved by the DOIT Project Review Committee.
- Completed projects are deleted from the project inventory when the IT Manager indicates, through the monthly update process, that the project is complete.
- Incomplete projects may be deleted from the project inventory if there is a "no go" decision from the Project Steering Committee. When a project is cancelled, the IT Manager should send an email to the PMO and copy members of the PSC.



KEY POINTS OF EMPHASIS: Program vs. Project vs. Release

When initiatives are launched, there are many ways to organize the work that needs to be addressed. Work should be organized to maximize synergies and efficiencies.

To achieve this, technology initiatives should be organized using the following work categories: *Programs, Projects, and Releases*.



Program

- A collection of related projects (i.e. related business goals);
- Each project with the program inherits the project characteristics defined below;
- Each project within a program produces a unique product.

Project

- Must have a start and end date;
- Must execute all 7 SDM phases;
- Has it's own established constraints (e.g. scope, budget, timeline, resources);
- May have external dependencies on other projects;
- Produces a unique product.

Release

- A subset of a project;
- Delivers a smaller "chunk" of functionality (usually sooner);
- Must have a start and end date;
- Spins off after General Design is completed within the SDM Design phase
- Has it's own established constraints (e.g. scope, budget, timeline, resources) from the Construction Phase through Post-Implementation;
- Each release within a project delivers a unique product.

KEY POINTS OF EMPHASIS: Project Profile Creation & Approval

The Project Profile document is created at the END of the BUSINESS ISSUE phase.

If, at the conclusion of the Business Issue Phase, the project team determines that there will be a technology component required to deliver the solution, the Project Profile document is created.

The completed and signed Project Profile formally charters the project and triggers assignment of a project ID number by the DOIT Project Management Office (PMO).

Once the Project Profile has been properly signed and approved, and the project ID number has been assigned, the project is formally added to the technology project inventory for the State.

Project Profiles

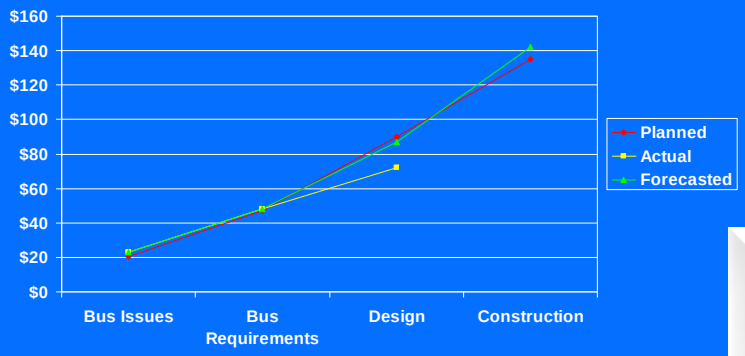
- Project Profiles are NOT required in order to BEGIN the Business Issue Phase;
- Project Profiles are created at the END of the BUSINESS ISSUE Phase;
- Project Profiles are signed by the Executive Sponsor if a "GO" decision is achieved at the Business Issue Phase-End Decision Point Meeting;
- The Signed/Approved Project Profile is presented to the *DOIT Project Profile Review* team at the BEGINNING of the BUSINESS REQUIREMENTS Phase as part of the DOIT Work Intake process;
- The DOIT Project Profile Review team should review the Project Profile to forecast resource demand for their respective areas, and to identify any opportunities to leverage existing solutions to solve the stated business issue.

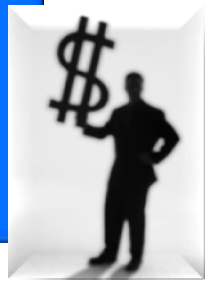
KEY POINTS OF EMPHASIS: Budget Management

The budget summary should include planned costs for each of the 7 SDM phases.

Good budget management practice analyzes originally planned cost, actual cost to date, and forecasted costs to complete the current phase as well as to complete the project at large.

Proactive budget management positions project teams to identify potential cost overruns early and make course corrections before it's too late.





Budget Management

- On-going budget management is the responsibility of the Technology Manager;
- The initial budget summary is established at the end of the Business Issue phase and is included in the Project Management Plan;
- The project budget summary should be updated AT LEAST monthly;
- Project budget line-items should include the following cost areas for each SDM phase:
  - Internal IT Labor Costs
  - External Labor Costs
  - Hardware Costs
  - Software Licensing Cost
  - Training Costs
  - Other (e.g. travel, miscellaneous)
- Internal Business (Agency) labor costs is NOT required in labor cost estimates at this time;
- Actual external labor, hardware, software, and other miscellaneous vendor costs should be updated as invoices are paid.

ON-GOING SDM SUPPORT

SDM Resources:

- Newly designed SDM website: www.ct.gov/doit/sdm
- SDM Overview & Training
- SDM Sample Deliverables

SDM Email Box:

- DOIT.SDMFeedback@ct.gov
- Inbox is reviewed on a scheduled basis (e.g., weekly, bi-weekly, etc.)
- PMO Team will respond to feedback

SDM Continuing Education:

- SDM open communication forums
- SDM Brown Bags
- Specific discussion on 'hot' SDM topics
- Scheduled assistance as requested

PMO TEAM MEMBERS

Please contact the PMO Team with any questions that you have. The PMO Team will be reviewing the SDM Feedback Mailbox on a regular basis.

PMO Team Members:

- Lois Bryant
- Tricia Johnson
- Dawn Keiper
- Jim Rutushni
- Crissy Vieira
- Lori Violette
- Larry Williford

PMO General Phone: 860-622-8500

PMO Web site: www.ct.gov/doit/pmo

Thank you for attending!

Any questions, comments or suggestions??

APPENDIX

SDM Standard v2.03 Deliverables/Events by Phase

Business Issue

- Phase Kickoff Meeting
- Solution Approach Document
- Cost/Benefit Analysis
- Project Management Plan
- Project Team Wheel
- Project Profile
- Request for Information (RFI) (O)
- Detailed Schedule for Next-Phase
- Phase-End Decision-Point Meeting

Business Requirements

- Procurement – 3rd Party Services (O)
- Phase Kickoff Meeting
- Business Process Model (O)
- Functional Requirements Workbook
- Non-Functional Requirements Workbook
- Technical Requirements Workbook
- Proof of Concept Evaluation Form (O)
- Solution Alternatives Document
- Deployment Strategy & Plan
- Detailed Schedule for Next-Phase
- Phase-End Decision Point Meeting

Design

- Vendor Contract/Master Agreement (O)
- Phase Kickoff Meeting
- System Design Document
- Conversion Design Document (O)
- System Security Profile
- General Design Signoff - TRB
- General Design Signoff - PSC
- Detailed Design Signoff - TRB
- Configuration Management Plan
- Release Strategy & Plan (O)
- Requirements Traceability Matrix
- Test Strategy & Plan
- Detailed Schedule for Next-Phase
- Phase-End Decision-Point Meeting

Construction

- Phase Kickoff Meeting
- Backout/Recovery Plan
- Code & Unit Testing
- Code Review
- Disaster Recovery Plan (O)
- Development/Test Environments
- Environment Migration Checklist
- Requirements Traceability Matrix
- Software "Golden Build"
- System Bill of Materials
- Test Scenarios/Cases
- Test Data
- Training Plan
- User Doc & Training Materials
- Detailed Schedule for Next-Phase
- Phase-End Decision-Point Meeting

Testing

- Phase Kickoff Meeting
- Environment Migration Checklist
- Integration Testing
- System Testing
- User Acceptance Testing
- Performance Testing (O)
- Recovery Testing (O)
- Software "Golden Build"
- System Bill of Materials
- Test Summary Report
- Production Support & Admin Document
- Detailed Schedule for Next-Phase
- Phase-End Decision Point Meeting

Implementation

- Phase Kickoff Meeting
- Business Process Change Deployment (O)
- Technology Solution Deployment
- End-User Training
- Parallel Test Summary (O)
- Approved Production Turnover
- Phase-End Decision Point Meeting

Post-Implementation

- Project Summary
- Project Shutdown

Legend: (O) - Optional

Deliverables Updated in Multiple Phases:

Project Management Plan | Project Team Wheel | Cost/Benefit Analysis | Deployment Strategy & Plan

SDM-COTS v2.03 Deliverables/Events by Phase

Business Issue

- Phase Kickoff Meeting
- Solution Approach Document
- Cost/Benefit Analysis
- Project Management Plan
- Project Team Wheel
- Project Profile
- Request for Information (RFI) (O)
- Detailed Schedule for Next-Phase
- Phase-End Decision-Point Meeting

Business Requirements

- Phase Kickoff Meeting
- Business Process Model – "As Is"
- Functional Requirements Workbook
- Non-Functional Requirements Workbook
- Technical Requirements Workbook
- COTS Product Evaluation Criteria
- Procurement – COTS Product.
- Proof of Concept Evaluation Form (O)
- Solution Alternatives Document
- Deployment Strategy & Plan
- Detailed Schedule for Next-Phase
- Phase-End Decision Point Meeting

Design

- Vendor Contract/Master Agreement
- Phase Kickoff Meeting
- Vendor Discovery
- COTS Product Installation & Training
- Business Process Model – "To Be" (O)
- System Design Document
- Conversion Design Document (O)
- System Security Profile
- General Design Signoff - TRB
- General Design Signoff - PSC
- Detailed Design Signoff - TRB
- Configuration Management Plan
- Release Strategy & Plan (O)
- Requirements Traceability Matrix
- Test Strategy & Plan
- Detailed Schedule for Next-Phase
- Phase-End Decision-Point Meeting

Construction

- Phase Kickoff Meeting
- Backout/Recovery Plan
- Code & Unit Testing
- Code Review
- Disaster Recovery Plan (O)
- Development/Test Environments
- Environment Migration Checklist
- Requirements Traceability Matrix
- Software "Golden Build"
- System Bill of Materials
- Test Scenarios/Cases
- Test Data
- Training Plan
- User Doc & Training Materials
- Detailed Schedule for Next-Phase
- Phase-End Decision-Point Meeting

Testing

- Phase Kickoff Meeting
- Environment Migration Checklist
- Integration Testing
- System Testing
- User Acceptance Testing
- Performance Testing (O)
- Recovery Testing (O)
- Software "Golden Build"
- System Bill of Materials
- Test Summary Report
- Production Support & Admin Document
- Detailed Schedule for Next-Phase
- Phase-End Decision Point Meeting

Implementation

- Phase Kickoff Meeting
- Business Process Change Deployment (O)
- Technology Solution Deployment
- End-User Training
- Parallel Test Summary (O)
- Approved Production Turnover
- Phase-End Decision Point Meeting

Post-Implementation

- Project Summary
- Project Shutdown

Legend: (O) - Optional

Deliverables Updated in Multiple Phases:

Project Management Plan | Project Team Wheel | Cost/Benefit Analysis | Deployment Strategy & Plan

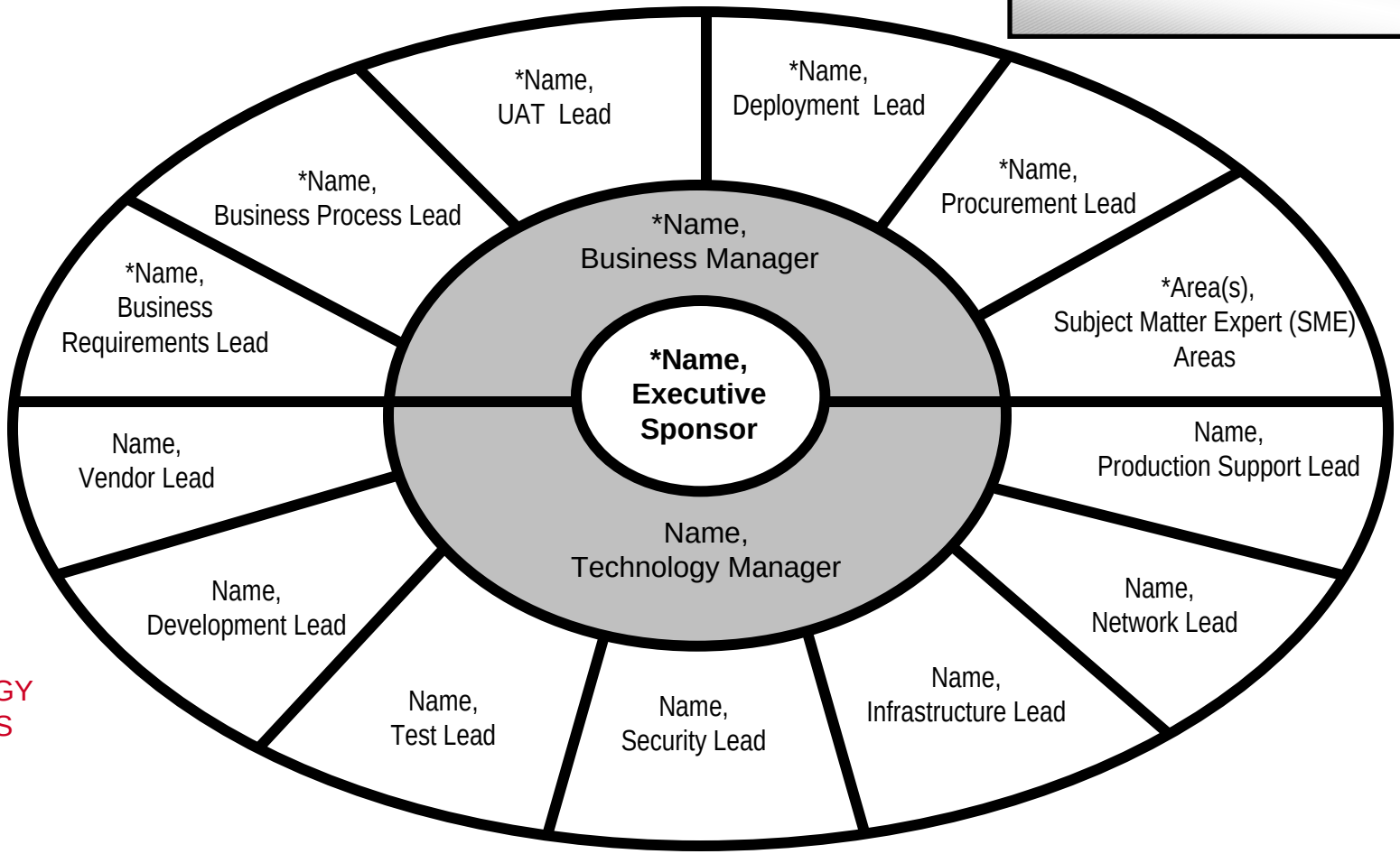
Agency Name – Project Name

Current Phase: <Phase Name>

PSC – Project Steering Committee

BUSINESS PARTNERS

TECHNOLOGY PARTNERS



* Staffed from the Business

Support/Consulting Roles:
Business Division Director (BDD):
Enterprise Architect:
Financial Advisor :

SDM STANDARD ROLE AND RESPONSIBILITY DESCRIPTIONS

Business Division Director - (Technology Role)

- Point of leadership escalation for technology risks and issue for the Project Team.
- Ensures that all technology projects being run within their assigned Agencies are aligned with SDM.
- Monitors the execution of all technology projects within their assigned Agencies.

Business Manager - (Business Role)

- Responsible for coordination and delivery of all Business activities and deliverables;
- Provides business consultation to the technology team;
- Responsible for the completed Project Profile;
- Responsible for the completed Solution Approach Document;
- Responsible for the creation and maintenance of the Cost/Benefit Analysis;
- Responsible for the completed Vendor RFIs (if required);
- Responsible for the completed Vendor RFPs (if required);
- Responsible for the completed Vendor ITB (if required);
- Responsible for the completed Solution Alternatives Document;
- Contributes to Disaster Recover planning;
- Provides project plan updates for all Business activities and deliverables;
- Attends/Participates in all Phase-End Decision Point Meetings

SDM STANDARD ROLE AND RESPONSIBILITY DESCRIPTIONS

Business Process Lead - (Business Role)

- Responsible for creating the Business Process Model (if required);
- Ensures that User Documentation and Training Materials adequately address all planned business process change;
- Provides general business process consultation to the project team;

Business Requirements Lead - (Business Role)

- Creates and maintains the Functional Requirements Workbook;
- Creates and maintains the Non-Functional Requirements Workbook;
- Responsible for Business Requirements validation in POC (if required);
- Provides general business requirements consultation to the project team;
- Provides input and revision to the Deployment Strategy & Plan;
- Provides input on the Quality Strategy & Plan

Business Subject Matter Experts (SMEs) - (Business Role)

- Provides business area consultation to the business team as needed to assist with business deliverable review and creation;

Deployment Lead - (Business Role)

- Creates and owns the Deployment Strategy & Plan document;
- Responsible for coordinating all implementation activities at the deployment site(s);
- Responsible for creating the Training Plan;
- Responsible for creating all User Documentation and Training Materials;
- Responsible for end-user training delivery;
- Responsible for capturing end-user feedback during the Implementation Phase

SDM STANDARD ROLE AND RESPONSIBILITY DESCRIPTIONS

Development Lead - (Technology Role)

- Creates and maintains the System Design Document;
- Responsible for mapping design components to the Requirements Traceability Matrix;
- Creates and maintains the Release Strategy & Plan (if required);
- Creates and maintains the Backout/Recovery Plan;
- Responsible for executing Backout/Recovery Testing;
- Responsible for coordination of all software code & unit testing;
- Responsible for loading the migrating new software builds across environments;
- Responsible for coordination of all software defect remediation;
- Creates and maintains all Performance test cases and scenarios;
- Responsible for identifying defects, and entering them into the defect management tool;
- Contributes Performance test metrics to the Test Summary Report;
- Responsible for conducting code reviews;
- Responsible for creation of test data;

Enterprise Architect - (Technology Role)

- Responsible for ensuring that EWTA requirements are addressed with the solution;
- Contributes architecture requirements to the Technical Requirements Workbook;
- Reviews RFPs for EWTA requirements content before RFPs are distributed to vendors;
- Review RFP responses to evaluate vendor product alignment with EWTA standards;
- Helps project team prepare for TRB design reviews;
- Provides on-going architecture consultation to the project team;

SDM STANDARD ROLE AND RESPONSIBILITY DESCRIPTIONS

Executive Sponsor - (Business Role)

- Responsible for providing the project funding source;
- Names the IT Project Manager, Business Manager and Technical Manager for the project;
- Attends/Participates in Phase-End Decision Point Meeting;
- Primary leadership escalation point for significant project risks and issues;

Financial Advisor - (Finance Role)

- Provides budget consultation to the project team as needed;

Infrastructure Lead - (Technology Role)

- Single point of contact for the project team for all infrastructure needs (e.g., hardware, software, database, network)
- Responsible for the planning and coordination of all infrastructure activities; Relies on resources from the various infrastructure areas to deliver the actual infrastructure work;
- Creates and maintains the Environment Migration Checklist;
- Responsible for contributing infrastructure requirements to the Technical Requirements Workbook;
- Responsible for establishing the development, testing, and production environments;
- Assists the Development lead in loading test data across into the various environments;
- Assists the Development lead in loading software builds into the various environments;

SDM STANDARD ROLE AND RESPONSIBILITY DESCRIPTIONS

Network Lead – (Technology Role)

- Evaluate proposed solution and technical designs for compliance with the State EWTA Architectural Standards. Review designs and propose modifications to meet State Standards. Review network routing and switching.
- Evaluate local and wide-area network bandwidth requirements to support solution. Recommend appropriate signaling technologies and mediums to meet current and future needs of proposed solutions.
- Evaluate and review security components of proposed solution to insure State network security standards and best practices are inherent in solution. Assist Security Department with firewall and network ACL configurations to secure proposed solution.
- Review implementation of additional network services including, encryption, load balancing, Single Sign On capabilities, Disaster Recovery and Business Continuity.
- Assist in the review of technical specifications and modification of Visio documents describing solutions, recommendations and associated DOIT infrastructure.
- Insure design is cost effective and scaled appropriately.
- Participate in the design of redundant configurations and hardware for High Availability as well as assist with the implementation of data warehousing and data backup services.

Procurement Lead - (Procurement Role)

- Responsible for determining the appropriate procurement path for the project (if required);
- Responsible for vendor contract negotiation and contract award (if required);
- Responsible for managing the procurement process on behalf of the project team (if required);
- Provides procurement consultation to the project team as needed;

SDM STANDARD ROLE AND RESPONSIBILITY DESCRIPTIONS

Production Support Lead - (Technology Role)

- Creates and maintains the Production Support & Administration Document;
- Responsible for stakeholdering the new solution with Production Support;
- Manages and executes the Production Turnover Checklist;
- Coordinates production turnover signoff with the Production Support team;

Project Steering Committee - (Business & Technology Leadership Roles)

- Provides governance and decision making to the project team;
- Removes barriers for the project team;
- Reviews the Phase-End Decision Point presentation material prior to the Phase-End Decision Point Meeting;
- Renders a Phase-End decision of “Go”, “No-Go” or “Redirect” as it relates to the project team proceeding to the next phase.

Security Lead - (Technology Role)

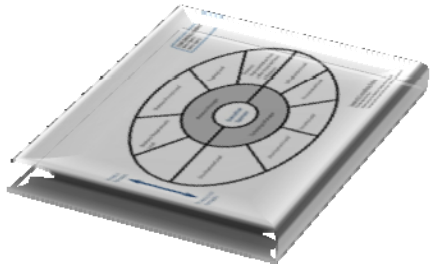
- Creates and maintains the System Security Profile Document;
- Contributes security requirements to the Technical Requirements Workbook;
- Participates in design and code reviews;
- Provides security consultation to the project team as needed;

SDM STANDARD ROLE AND RESPONSIBILITY DESCRIPTIONS

Technology Manager - (Technology Role)

- Responsible for creation and maintenance of the overall project plan (including Business and Technology activities);
- Responsible for the overall coordination and delivery of all Technology deliverables;
- Responsible for the technology solution deployment;
- Responsible for creating the Disaster Recovery Plan;
- Creates all Phase-Kickoff Meeting presentations; Facilitates all Phase Kickoff Meetings;
- Creates and maintains the Configuration Management Plan;
- Creates and maintains the Project Team Wheel;
- Responsible for achieving TRB signoff on General and Detail Designs;
- Responsible for managing project risks, issues, and key assumptions;
- Responsible for updating the Project Management Plan and Quality Strategy & Plan;
- Responsible for creating the PSC Phase-End Decision Point Meeting Presentations;
- Hosts and facilitates the PSC Phase-End Decision Point Meetings;
- Responsible for providing project status reporting at monthly project reviews;
- Responsible for creating the final Project Summary and formal shutdown of the project.

Test Lead - (Technology Role)



- Creates and maintains the overall Test Strategy & Plan for the project;
- Responsible for providing specific test data requirements to the Development Lead;
- Responsible for the planning and execution of Integration and System testing;
- Creates and maintains all Integration and System test cases and scenarios;
- Responsible for identifying defects, and entering them into the defect management tool;
- Responsible for mapping Integration & System test cases to business requirements in the Requirements Traceability Matrix;
- Responsible for creating and presenting the Test Summary report and the conclusion of the Testing phase;

SDM STANDARD ROLE AND RESPONSIBILITY DESCRIPTIONS

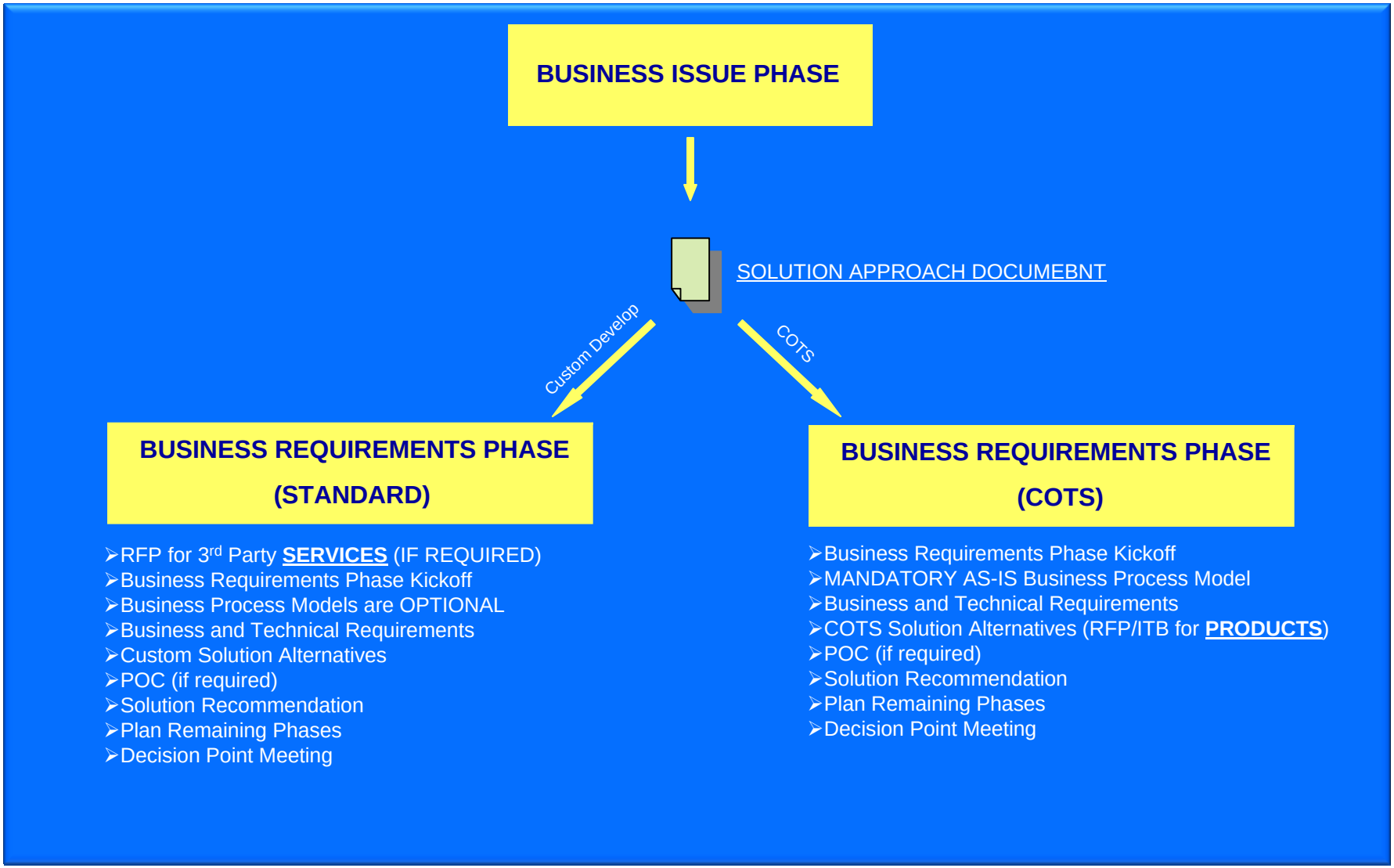
UAT Lead - (Business Role)

- Responsible for the planning and execution of User Acceptance testing;
- Creates and maintains all User Acceptance test cases and scenarios;
- Responsible for identifying defects, and entering them into the defect management tool;
- Responsible for mapping UAT test cases to business requirements in the Requirements Traceability Matrix;
- Contributes UAT test metrics to the Test Summary Report;

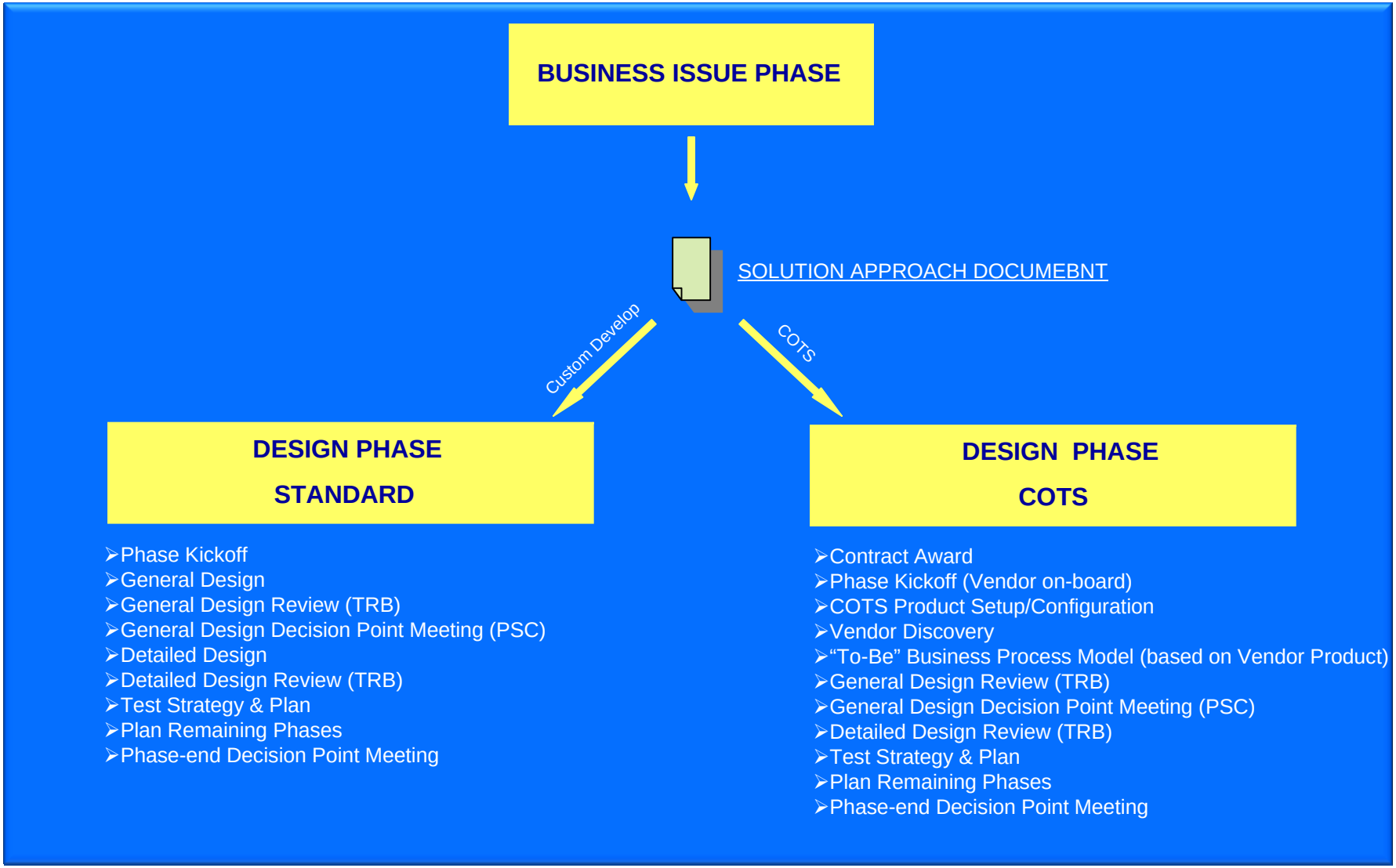
Vendor Lead - (Technology Role)

- The single point of contact for the Vendor;
- Responsible for the management and coordination of all Vendor deliverables to the project team;

Business Requirements Phase – *SDM Standard vs. SDM COTS*



Design Phase – *SDM Standard vs. SDM COTS*



Budget

The State of Connecticut Department of Public Health (DPH) is requesting funds to support the Epidemiology and Laboratory Capacity for Infectious Diseases (ELC) Infrastructure and Interoperability support for Public Health Laboratories cooperative agreement. The DPH is requesting $582,985 for the budget period June 1, 2010 to May 31, 2012.

DPH applies existing fiscal management to all ARRA funded activities. All ARRA applications, approvals, contracts, and financial activity are recorded with ARRA-specific codes into a statewide fiscal management system. The unique codes allow for tracking expenditures and other budget management specific to ARRA projects. In addition, DPH has established a reporting mechanism to ensure thoroughness and accuracy for all ARRA programming and fiscal management. A Chief Accountability Officer (CAO) has been assigned to each state agency to report monthly and quarterly ARRA-related activities in compliance with Federal and State requirements.

Contractual Total $582,985

1. Vendor to be determined $292,600

IT Consultant – Project Manager

Name of Contractor: To be selected from one of the following three IT Professional Services (ITPS) preferred vendors approved by State of CT.
Online Systems Inc
TriCom Consulting Services LLC
Superior Design International Inc
Organizational Affiliation: N/A
Nature of Services:

- Planning, initiating, developing, and maintaining a secured, reliable, and scalable Electronic Laboratory Reporting (ELR) system that complies with PHIN standards and meets CT Public Health Laboratory and Epi program needs;
- Leading, collaborating, coordinating and executing the ELR implementation using Connecticut's formal System Development Methodology (SDM);
- Assisting with installation, configuration, testing and deployment of the CDC provided PHIN-MS application & tools for secure transformation of information in Health level 7 (HL7) format;
- Assisting with installation and integration of the Orion Rhapsody Integration Engine and CDC's Messaging Subscription Service (MSS) with PHIN MS for transform and translation of non-HL7 messages to PHIN standards, such as, the Logical Observation Identifiers Names and Codes (LOINC) and the Systematized Nomenclature of Medicine (SNOMED);
- Developing the functional, technical and non-technical requirements/specifications; project charters, project management plan, requirements traceability matrix, system design, test & deployment strategy and plan;

- Assisting in the software configuration, use case development, testing, implementation and production roll-out;
- Coordinating the effort with DPH LIMS and CTEDSS/MAVEN Project Managers for electronic exchange of laboratory data using appropriate vocabulary and secured messaging standards;
- Aligning technical activities with harmonized standards, processes, and requirements already established and advanced for electronic laboratory data exchange, i.e., NHIN, PHIN, ELR, HITSP and PHLIP;
- Working with external partners for other CT DPH messaging needs, such as receipt of data from Electronic Medical Records (EMR), Health Information Exchange integration, etc;
- Providing the Systems Administrator support for the PHIN MS and Rhapsody/MSS systems;
- Conducting project assessments; developing cost, process, time and resource (technical/staff) estimates;
- Conducting periodic project briefings to CDC, DPH Project Steering Committee and DoIT PMO groups; Conducting periodic status meetings and submitting the status reports;
- Proactively identifying the project risks/issues, performing the impact analysis and coming up with alternate mitigation plans/measures to complete the projects on time and within the budget;
- Training, mentoring and assisting the DPH IT & Program staff in development of HL7 messages and conducting PHIN certification;
- Serving as the liaison between the Public Health Laboratory, Epi programs, DPH IT, DoIT , CDC, State & National Work Groups, and contracted product vendors on all activities related to PHIN MS and ELR;
- Participating on the Laboratory Messaging Community of Practice, and attending the monthly ELR, PHIN MS & NMUG calls;

Relevance of Service to the Project:
The work to be done by the Project Manager is necessary for the successful completion of the project. The Project Manager will be accountable for project initiation, planning, execution and closeout.

Number of Contractor Days: Project oversight will be required every workday for the period June 1, 2010 to May 31, 2012. Based on 250 workdays per 12-month period, DPH is projecting 500 workdays for the project.

Tasks/Time Estimates: The DPH estimates that 250 days per year for a period of 2 years will be required for the Project Manager to manage the work being done by the two contracted software vendors to initiate, plan and execute the activities as outlined in the funding proposal.

Expected Rate of Compensation: Proposed Daily Cost per Day: $585.20 (Based on $73.15/hr, 8hr/day)(estimate $146,300 per year x 2 years = $292,600)

Basis for Selection: CT DPH will use a staff augmentation model to hire a fulltime Consultant for the duration of the grant to execute stated ELR objectives. The consultant resource will be obtained from one (1) of the three (3) IT Professional Services vendors currently contracted with State of CT through Dept of Information Technology's (DoIT) Master Agreement # 09ITZ0047.

TimeLine: The project is expected to run from September 1, 2010 to August 31, 2012.

2. Maven and PHIN MS Configurations $268,800

Name of Contractor: Consilience Software
Organizational Affiliation: N/A
Nature of Services: Consilience Software will be working with the CT DPH to enhance existing systems developed in for reportable disease surveillance. Enhancements include HL7 message parsing, PHIN MS configurations and setup, LOINC/SNOMED mapping, and configuring reporting and monitoring tools within Maven. Additional work will be completed on the configuration of workflows for notification of ELR imported cases.

Relevance of Service to the Project: This work is necessary for the successful completion of the project. While the reportable disease surveillance system is in place and in production for several disease groups (including for some not reportable diseases), the connection to PHIN MS and the work necessary to ensure the Maven system can consume and parse the HL7 messages still needs to be competed.

Number of Contractor Days: Consilience Software estimates the time for the project in number of hours versus days. The following is a breakdown of costs and major tasks. The estimated number of days is 290 (8 hour days).
Task/Time Estimates

- Configuration of PHIN MS (installation will already be complete) 320 hrs
  - Set up end points with LIMS and Maven
  - Set up confirmation of receipt with PHIN MS
- HL7 parsing 280 hrs
  - Set up parsing differences (as compared to MA)
- Testing 200 hrs
  - Testing endpoints
  - Testing import
- Set-up reporting and monitoring tools within Maven 80 hrs
  - Modify/Update existing ELR reports (2 reports)
- Code Mapping and Workflows 1200 hrs
  - Configure LOINC/SNOMED event map
  - Configure workflows for notification of ELR imported events
- UAT 160 hrs

Expected Rate of Compensation:
Consilience Developer. 2,240 hours @ $120 per hour = $268,800
There are no additional expenses (travel, per diem, or other expenses) expected.
Basis for Selection: The Connecticut Department of Public Health, through other federal funding, selected Consilience Software off an existing Federal Contract (General Services Administration: GSA) in accordance with State of Connecticut procurements regulations and laws. The CT EPHT Program is partnering with other program areas and other funding streams. This includes using Consilience Software and the software/licensing (Maven) that was procured for other projects using other federal funding.
TimeLine: The project is expected to run from September 1, 2010 to August 31, 2012.

3. Chemware $21,585

Support Cost for LIMS HL7 Data Extracts
Name of Contractor: Chemware
Organizational Affilitation: N/A

Nature of Services: The Chemware, DPH LIMS product vendor, will be working with the CT DPH Laboratory to develop the test result extracts/reports/messages in the XML and HL7 formats and related summery reports that are acceptable to DPH reportable disease surveillance system and implement the interfaces using secure PHIN MS configurations and setup.

Relevance of Service to the Project: This work is necessary for the development of LIMS data files or messages and implementation of electronic data interchange of test results in the XML and HL7 format between LIMS and DPH reportable disease surveillance systems via secure PHIN MS.

Number of Contractor Days: 15 working days for Chemware to complete the project.

Tasks/Time Estimates:

- Create standard XML and HL7 messages or data files, test report files for submitters to capture the results data from practically any instrument attached to the network that has Win2000 or higher OS, 56 hrs

- Develop out-of-the-box standard summary test report files by date range, test IDs, results, result status, and other selected parameters of importance to authorized users; 32 hrs

- Electronically transmit secure message or file to submitter or Epi user; Control and present the needed reports to the appropriate Web Portal inbox; 32 hrs

Expected Rate of Compensation: Projected cost based on Chemware developer at $1,439 per day.

Basis for Selection: The Connecticut Department of Public Health, through competative procurement (RFP # 05ITZ0081) process contracted with Chemware (vendor) using Satate and other Federal funds for implementation and support of a Commercial-Off-The-Shelf Laboratory Information Management System (LIMS).

TimeLine: The project is expected to run from September 1, 2010 to August 31, 2012.