

# Health Insurance Exchange Massachusetts led New England Collaborative

On February 16, 2011 CMS's Center for Consumer Information and Insurance Oversight (CCIIO) awarded a Massachusetts led New England collaborative an **“Early Innovator” grant of \$35.5 million over 2 years** to create **Health Insurance Exchange (HIX)** IT components in **Massachusetts** that are consumer-focused, cost-effective, reusable, and sustainable and that **can be leveraged by New England and other states** to operate Health Insurance Exchanges in advance of the **2014 health reforms**.



# Health Insurance Exchange (HIX) Project Structure

The project is led by a combination of resources from the Massachusetts Executive Office of Health and Human Services, the Massachusetts Health Connector Authority, and the University of Massachusetts Medical School. Specifically,

- **Manu Tandon**, the Secretariat Chief Information Officer for the Executive Office of Health and Human Services (EOHHS), serves as Principal Technology Lead;
- **Robert Nevins**, the Chief Operating Officer of the Massachusetts Connector Authority, serves as Principal Functional Lead;
- **Jay Himmelstein** and **Michael Tutty** from the University of Massachusetts Medical School (UMMS), serve as Principal Investigator and Project Director respectively.
- **UMMS** serves as the grant recipient and manager for the lead state of Massachusetts.
- **NESCSO** serves as the collaborative enabler for the New England States.

For more information see the project's web site [www.nescies.org](http://www.nescies.org)

# PROPOSED SYSTEM SCOPE



**1** Consumers (individuals and businesses) use the Exchange to search for health insurance options available in their geographic area



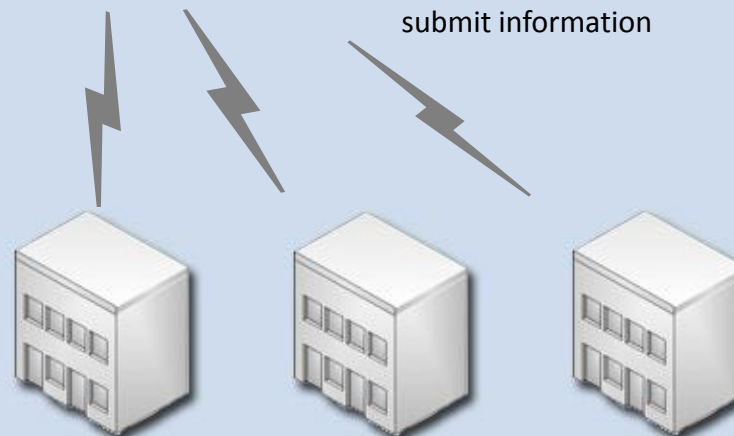
**2** Using an interactive rules engine based model the Exchange server collects basic information from the consumer



**5** State-of-the-art Call center on standby to support consumer through the transaction

**3** In real time Exchange use standards based web services to interact with state, federal and commercial systems to collect, verify and submit information

**4** Consumer mediated workflow supported by ability to handle electronic document submissions results in enrollment and subscription to appropriate insurance which may include ability to print temporary insurance card for the consumer. All in real time.



State Systems (Eligibility, Enrollment)    Federal Systems (Tax, Vitals, Hires)    Commercial Insurance (Rates, Subscription)

**One Stop Portal - 2012**

# PROJECT INFORMATION

## Business Need

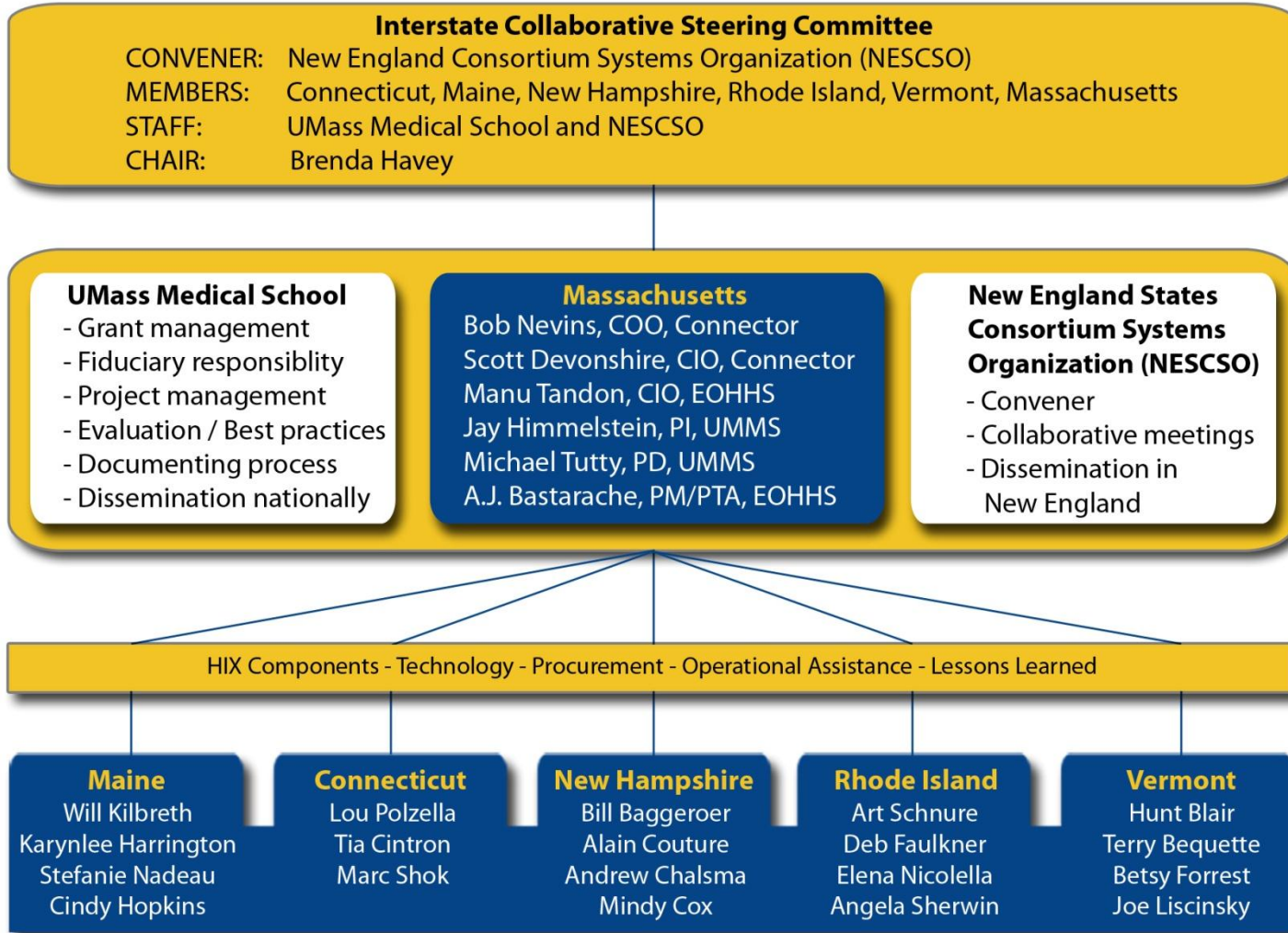
Increase the number of insured by reducing barriers to affordable health insurance

- Help individuals and small businesses identify and purchase affordable coverage
- Insure individuals with means based needs by providing Medicaid coverage or tax credits to support the purchase of private insurance through Insurance Exchanges
- Allow individuals and small businesses comparison shop, thus facilitating competition among plans on price and quality
- Integrate enrollment with other state health subsidy programs

## NESCIES Collaboration Goals

1. Coordinate efforts and learn from the Massachusetts HIX implementation, gaining efficiencies, and accelerating HIX development for each of the states.
2. Create standards-based HIX technology components that can be leveraged by New England and other states.
3. Leverage Massachusetts Exchange (Health Connector) experiences to deliver a scalable, flexible and robust exchange components.

# PROJECT INFORMATION - Stakeholders



# PROJECT INFORMATION – Reusability Approach

Collaboration	Reusability	Self-assessment
<p><b>Interstate Collaborative Steering Committee/Technical Workgroups</b></p>	<p><b>NESCIES Reusability approach is categorized into 3 tiers</b></p>	<p><b>Self-assessment performed by the New England states with likeliness for sharing</b></p>
<ol style="list-style-type: none"> <li>1. The NESCIES Interstate Collaborative Steering Committee will provide guidance and feedback to the Massachusetts team to assure that HIX components developed for Massachusetts will be consumer-friendly, cost-effective IT systems that can be used and adopted by other New England states (and nationally).</li> <li>2. Made up of an Exchange Tech Lead, Exchange Planning Policy Lead, and Medicaid Health Reform Technical Lead from each New England state.</li> <li>3. The committee, with the input from technical work groups, will be responsible for informing and assessing the MA development team on the ability for HIX components to be adaptable and reusable.</li> </ol>	<p><b><u>Tier 1: Share artifacts with other states</u></b></p> <ul style="list-style-type: none"> <li>•Business Rules</li> <li>•Business Processes</li> <li>•Common Information Models</li> <li>•Service Interface Models</li> <li>•Reference Architecture</li> <li>•Project Management Methodology</li> <li>•Risk Management Methodology</li> <li>•Procurement Processes and Documentation</li> </ul> <p><b><u>Tier 2: Jointly procure hardware and software and manage deployments</u></b></p> <ul style="list-style-type: none"> <li>•Hardware and Software Licensing</li> <li>•Cloud based Data Centers</li> </ul> <p><b><u>Tier 3: Share the component or host them for use by other states (SaaS)</u></b></p> <ul style="list-style-type: none"> <li>•Ref. Architecture Implementation</li> <li>•HIPAA Translator, HL7 Translator</li> <li>•Portal, Rules Engine, Mobile Engine</li> </ul>	<p><b><u>Extremely likely (All states agree)</u></b></p> <ul style="list-style-type: none"> <li>•HIPAA Gateway and Translation Service</li> <li>•Federal Systems/Interfaces</li> </ul> <p><b><u>Highly likely (Five out of six states agree)</u></b></p> <ul style="list-style-type: none"> <li>•Consumer Mediated Workflow Support Services</li> <li>•Development Methodology Standardization and Web Services Architecture</li> <li>•Loosely Coupled Interface Architecture Service</li> <li>•Directory and Routing Services</li> <li>•Data Repository and Dictionary Services</li> </ul> <p><b><u>Likely (Four out of six states agree)</u></b></p> <ul style="list-style-type: none"> <li>•Oversight Function</li> <li>•Premium Billing System</li> <li>•Reporting and Analytics Services</li> <li>•HL7 Gateway and Translation Service</li> <li>•Record Locator Service</li> </ul> <p>** The BPR will reevaluate with scorecards</p>

*Based on input from the Business Process Redesign vendor and recommendations from the Interstate Steering Committee, will identify and prioritize an initial set of HIX components to share*

# PROJECT INFORMATION – Design Considerations

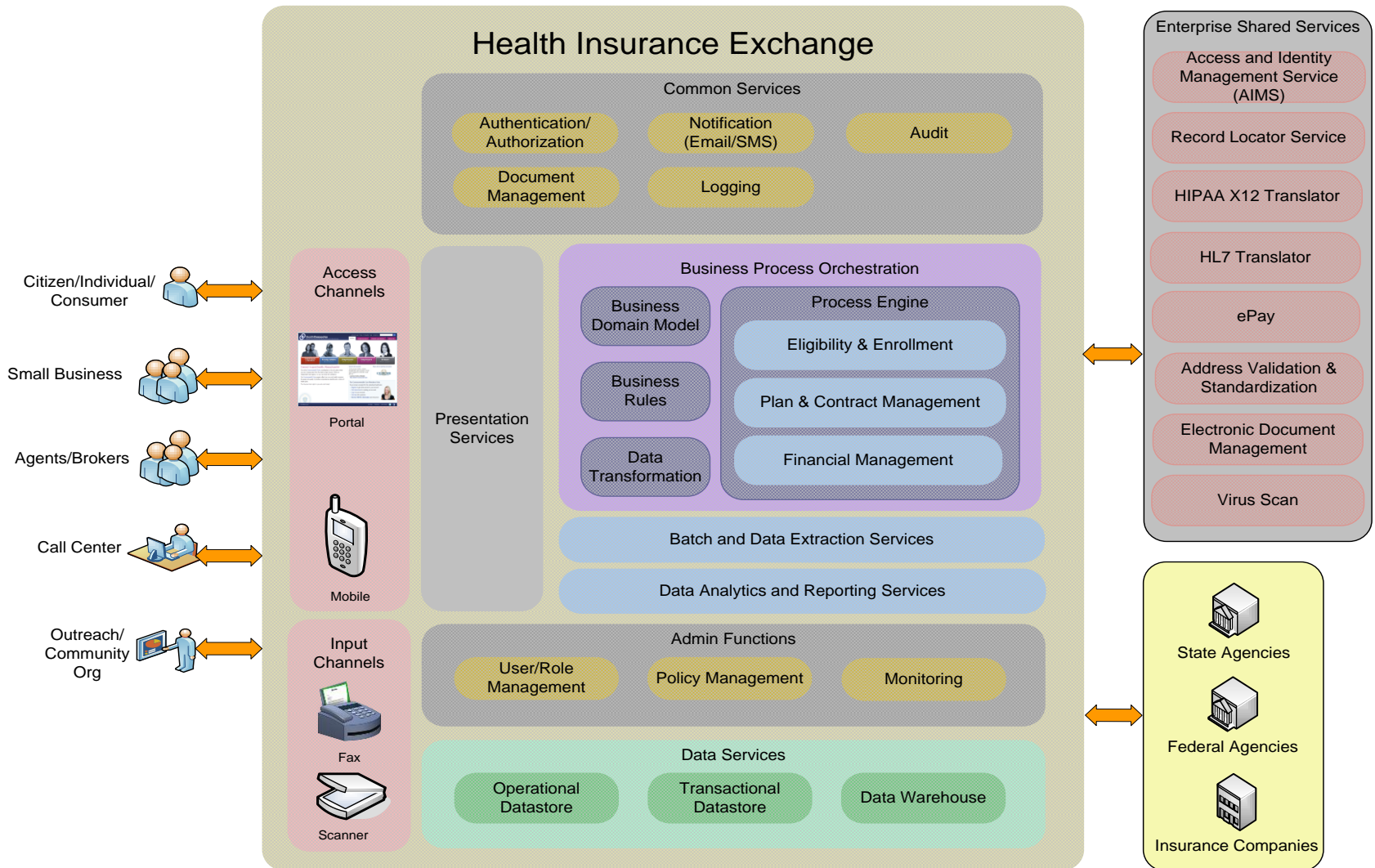
## Design Goals

1. Consumer-Friendly user interface with consumer-mediated workflow and authorization
2. Based on Exchange Reference Architecture
3. Reusable and Interoperable components based on Service Oriented Architecture (SOA)
4. Follows Federal and Industry standards for Accessibility, Business Rules, Messaging and Security
5. Reuse of existing MA EOHHS Virtual Gateway Enterprise Shared Services
6. Open Architecture – based on Open Source Frameworks
7. Scalable Infrastructure based on Cloud computing
8. Accountable and robust systems
9. State-of-the-art portal solution

## Design Considerations

1. Heavily driven by usability and customer centric considerations
2. How far in the workflow can we take the users? (temporary card, etc.)
3. How can it ease operations? (reduce calls, change management, self-service, etc.)
4. Support for PHR
5. Authentication to follow industry best practices

# PROPOSED SYSTEM – Scope



# PROPOSED SYSTEM— Functional Requirements

<b>1. <u>Eligibility and Enrollment</u></b>	<ul style="list-style-type: none"> <li>• Employer enrollment in an Insurance SHOP Exchange</li> <li>• Individual enrollment in a qualified health plan offered through the Insurance Exchange</li> <li>• Integration with Medicaid and CHIP</li> </ul>
<b>2. <u>Plan Management</u></b>	<ul style="list-style-type: none"> <li>• Plan certification, recertification and decertification</li> <li>• Issuer contracting</li> <li>• Plan rating</li> </ul>
<b>3. <u>Financial Management</u></b>	<ul style="list-style-type: none"> <li>• Premium determination including premium tax credits, vouchers, and cost sharing</li> <li>• Plan assessment, reinsurance, risk adjustment, and risk corridors functions</li> <li>• Individual and issuer reconciliation</li> </ul>
<b>4. <u>Customer Service</u></b>	<ul style="list-style-type: none"> <li>• Manage responses to information requests and requests for service</li> <li>• Efficient distribution/management of requests across phone, web, paper and face-to-face</li> </ul>
<b>5. <u>Communications</u></b>	<ul style="list-style-type: none"> <li>• Communications and outreach strategies; content and messaging</li> <li>• Measurement/reporting of communication effectiveness</li> </ul>
<b>6. <u>Oversight</u></b>	<ul style="list-style-type: none"> <li>• Federal oversight of Exchange operations</li> <li>• Insurance Exchange management and operations</li> </ul>

# PROJECT MANAGEMENT - ALM

## Application Life Cycle Management (ALM) - Tools

Areas	Tools
Project Management Tool	Microsoft Project
Collaboration Tool	MassForge – Implemented using CollabNet
Software Configuration Management/Version Control	SubVersion (OpenSource)
Defect Tracking	IBM Rational Clearquest
Continuous Integration	Hudson (Open Source)
Regression Testing	Open Source Tools – Selenium, JUnit, DbUnit, SOAPUI
Functional Testing	IBM Rational TestManager
ADA Compliance	IBM Policy Tester
Application Vulnerability	IBM Rational AppScan
Performance Testing	HP Load Runner
Application Performance Management	CA WILY
Coding Standards / QA	Findbugs & Checkstyle

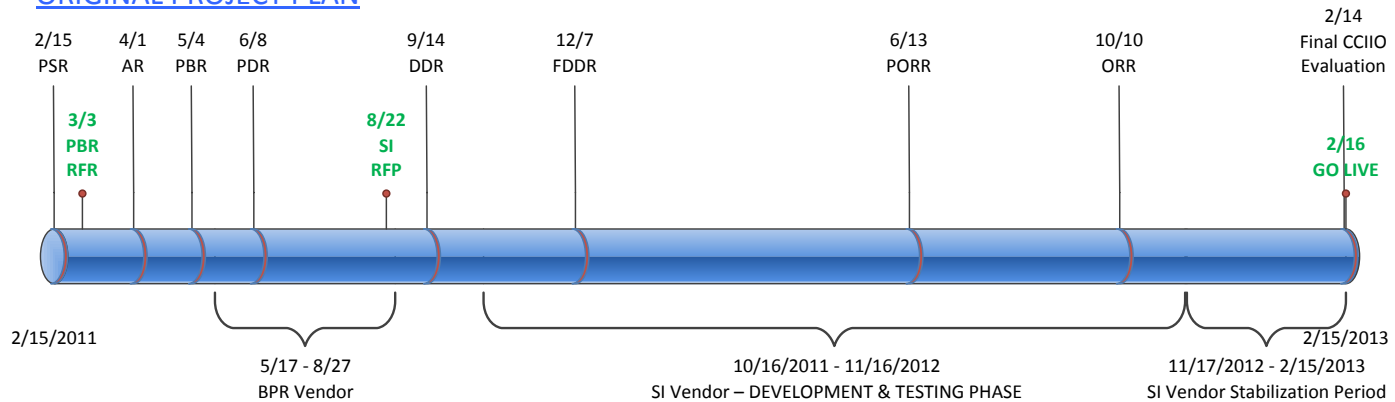
# PROJECT PERFORMANCE – Measures

Measurement Area	Measurement Category	Measurement Indicator
Exchange Technical Development	SLDC Gate Reviews	All SLDC Gate Review timelines met and passed
	Vendor and Staff Procurement	Appropriate vendors and staff augmentation procured according to timeline
	System Development	Development of Exchange meets timelines and deliverables
	IT Infrastructure	All hardware and software is procured to meet deadlines and system specifications
	Information Security	Agreed upon security protocols are met
Reusability	Information shared with other states	Number of states participating in NESCIES and breadth of information shared more broadly
	Joint procurement	Number of joint procurements
	Sharing of Components	Number of components and number of states sharing in Massachusetts developed components.
Exchange Implementation	System Functionality	Updated Exchange has better and faster functionality than current Massachusetts Exchange
	System Usage	The number of individual and small business users increases upon completion of updated Exchange
	Operational Cost Sustainability	Post development Exchange system annual operating costs can be supported by annual revenues

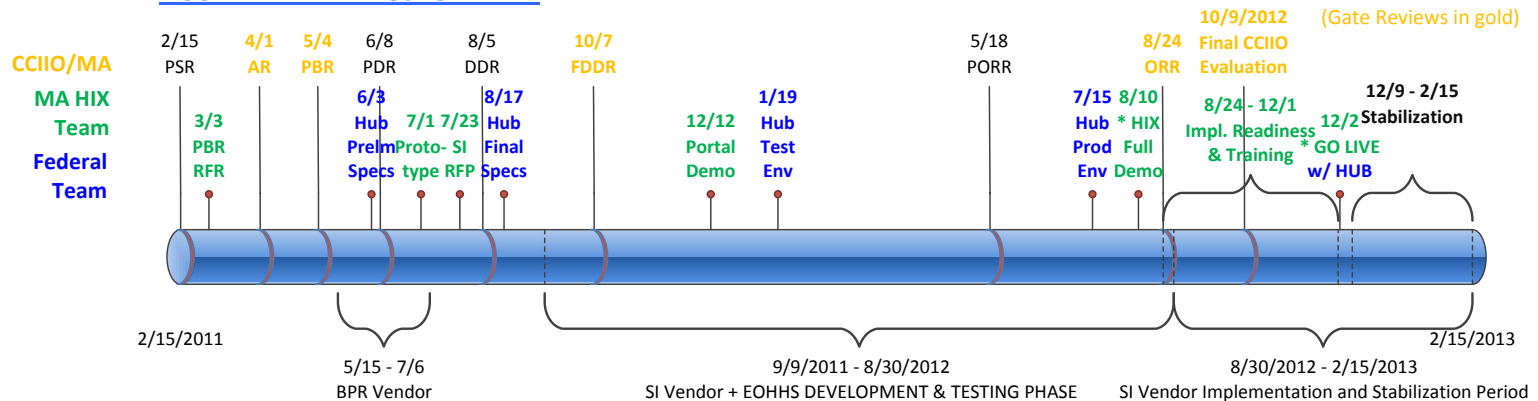
# PROJECT SCHEDULE – Accelerated Schedule

## HIX PROJECT PLANS – STD vs. ACCELERATED

### ORIGINAL PROJECT PLAN



### ACCELERATED PROJECT PLAN



\* May utilize few mock web services  
 \*\* Dependent on Fed Hub and MA-21 web services

# PROJECT MANAGEMENT - Approach

The Massachusetts Development Lifecycle is consistent with proposed Exchange Lifecycle (ELC).

The Massachusetts plan is to have a coordinated development team made up of state's in-house resources (for shared service architecture and interfaces) and a contracted vendor (for exchange specific functions like user portal, plan management and financial management) with the state providing oversight to the overall project development.

We understand that the project needs to support the following CCIIO deliverables:

Deliverables	Status
Project Startup Review (PSR)	<i>February 15, 2011 - Complete</i>
Architecture Review (AR)	<i>April 1, 2011 - Complete</i>
Project Baseline Review (PBR)	May 4, 2011
Preliminary Design Review (PDR)	June 8, 2011
Detailed Design Review (DDR)	August 5, 2011
Final Detailed Design Review (FDDR)	October 7, 2011
Pre-Operational Readiness Review (PORR)	May 18, 2012
Operational Readiness Review (ORR)	August 24, 2012
<b>GO-LIVE</b>	<b>December 2, 2012 (proposed)</b>

**Thank You**

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**Manu Tandon, [manu.tandon@state.ma.us](mailto:manu.tandon@state.ma.us)**

**For more information visit the Project Web Site at**

**[www.nescies.org](http://www.nescies.org)**

**Impact scale:** (1-5) 1-minor delay, 2-moderate delay, 3-major delay impacting plan/budget, 4-major delay impacting feasibility, 5-major delay could stop project

**Probability scale:** (1-3) 1-low chance, 2-medium chance, 3-high chance

**Risk Factor** = Potential Impact X Probability