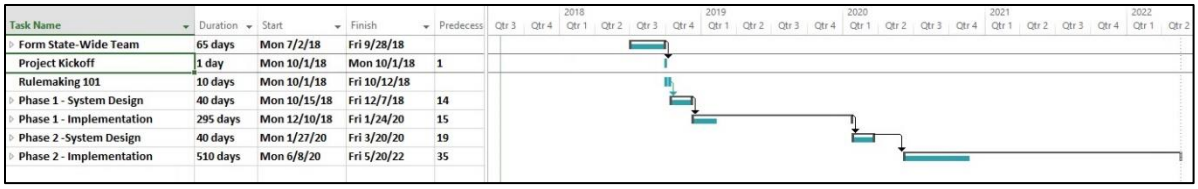
MARSS Project Plan – In-House Build

The costs and schedules provided with this in-house plan are strictly preliminary. The pilot's primary emphasis was on evaluating solution options for purchase against the pilot's requirements. An in-house build option was intentionally explored to a level that would produce a rough estimate and a basic understanding for future consideration of this option. An additional effort will be necessary to determine a complete and accurate schedule, cost estimate, and refined set of requirements if it is determined that an in-house build is the chosen approach or a candidate approach requiring a more complete and detailed estimate and plan.

Schedule

The following is a high-level time line for building and deploying the MARSS system in house:

TASK NAME	DURATION (working days)
Form State-Wide Team	65 days
MARSS Project Kickoff	1 day
Rulemaking 101	10 days
Phase 1 – System Design	40 days
Phase 1 – Implementation	295 days
Phase 2 – System Design	60 days
Phase 2 – Implementation	510 days



Implementation Phases

Building the MARSS system in-house using the Revisor IS unit's current technology stack allows for flexibility in supported features. Each component, such as workflow or notifications, can be purchased and developed separately yet still integrated as an entire system. Overall funding costs and implementation timelines will depend on the components of the requirements selected and the development phase they are assigned to. Details on Phase 1 and 2 project schedules and cost will need to be continuously evaluated if requirements are removed or if the priority of a requirement changes such that it is moved to a new development phase.

People

Recommend hiring four contractors.

1. Project Manager. Manages the implementation and coordinates the work of Revisor IS staff and contractors. Leads the development team using agile software development techniques. Uses agile techniques to engage users and stakeholders throughout the project.
2. Business Process Analyst. Documents rulemaking processes and aids in requirements finalization and vendor selection.
3. Senior Web Developer. Has existing skills and experience to be quickly productive. Will develop custom search screens used by the public. Can develop in the current web technologies used by the Revisor IS unit.
4. Senior Java Developer. Legislative experience is preferable. The developer will backfill for the Revisor IS staff person reassigned as the MARSS Software Architect. The Java Developer works on existing Revisor applications, not MARSS.

Recommend limited use of existing Revisor IS-staff. The expertise of the Revisor's IS staff will be necessary during the MARSS project. Correctly integrating new technologies into the existing IT architecture will result in reliable operation of MARSS and lower, long-term maintenance costs. At the same time, existing IS staff will have limited time to work on MARSS because they are fully utilized maintaining existing essential applications. Recommendations for existing IS-staff are:

1. Software Architect. Re-assign one person to the MARSS project for its duration. The person will ensure that the project adheres to IT best practices, Revisor conventions and standards, and will work towards seamless integration of MARSS with the Revisor's existing architecture.
2. Database Administrator (DBA). The staff DBA will consult on MARSS database and data structure issues. He will also train the new DBA (see below) on Revisor conventions and standards.
3. Web programmer. A staff web programmer will consult on MARSS web site and web page issues. He will also train the Senior Web Developer contractor on Revisor conventions and standards.

Recommend adding three FTE positions.

1. Senior database administrator (DBA). This person will install, configure, and maintain the commercial database holding rulemaking records and associated metadata. This person will design the database tables for storing data, assist in data loading into the MARSS system and develop database queries for use in the custom written software.
2. Senior Software Developer. Has existing skills and experience to be quickly productive in the current Revisor technology stack. Will work on a team of developers to program the custom features of MARSS. This position will also be responsible for future maintenance of the MARSS custom software once the system is complete. Current Revisor IS staff is already fully utilized maintaining current legislative systems.

3. MARSS Administrator. This person will monitor rulemaking records for completeness, serve as a resource to authorized users (e.g., agency users) on system usage, and facilitate communication between authorized users and IS staff.

IT purchases

The following expenses will be incurred to build and maintain the MARSS system.

Hardware

Desktop hardware for contractors and new FTEs, virtual servers and storage for MARSS data and preservation of the data.

Software

These are software products needed for system features, software development, project management, and communication with project participants.

Local Contractors

Four, contractors working on-site in Revisor office space. The project manager, web developer, and java developer are needed for the duration of the development efforts. The business process analyst is required at the start of the project to guide development and system configuration as they relate to the requirements.

New FTEs

Three, new, permanent, Revisor FTEs.

Estimated Implementation Costs

The following page contains estimated implementation costs. An average increase of 3% is expected per year for the ongoing annual maintenance.

Item	Phase 1 1.5 Years	Phase 2 2 Years	Ongoing Annual Maintenance (Phase 1 features)	Ongoing Annual Maintenance (Phase 1 + 2 features)	Note
Hardware					
Laptops (7)	$10,500	-	-	-	[1]
Phone (7)	$1,750	-	-	-	[1]
Virtual servers			$9,500	$9,500	
Storage			$2,151	$2,151	
Software					
Oracle DB Enterprise ed.	$67,500		$14,850	$14,850	[2]
Oracle Security Module	$27,500		$6,050	$6,050	[3]
Oracle Database Vault Module	$20,700		$4,554	$4,554	[4]
Oracle Tuning and Diagnostics Module	$22,500		$4,950	$4,950	[5]
Oracle Label Security	$20,700		$4,554	$4,554	[6]
eSignLive	-	$16,000	-	$16,000	
Workflow Software	-	$32,000	-	$10,000	
WebEx teleconference	$4,000	$4,000	-	-	
MS Office ($200 per user/year)	$800	$600	$600	$600	[7]
MS Project (2)	$792	-	-	-	[8]
MS Visio (2)	$676	-	-	-	[8]
Tivoli Service Manager	$2,700		$350	$350	
Data Backup			$1,109	$1,109	
Application Server			$9,200	$9,200	
Local Contractors					
Project Manager	$402,000	$684,000	-	-	[9]
Business Process Analyst	$60,000	-	-	-	[10]
Senior Web Developer	$402,000	$684,000	-	-	[9]
Senior Java Developer	$402,000	$684,000	-	-	[9]
New FTEs (with benefits)					
Senior DBA			$125,000	$125,000	
Senior Developer			$125,000	$125,000	
Senior Legal Editor			$96,046	$96,046	
TOTAL One Time	$1,446,118	$2,104,600	$403,914	$429,914	[11]
TOTAL with maintence	$2,051,989.0	$2,964,428			[12]

Notes:

[1] Cost for 4 contractors and 3 FTEs.

[2] Oracle Enterprise Edition is needed if ANY of the Oracle modules listed below are required.
Otherwise standard edition ($23,485 initial cost and $2,117 maintenance) is possible provided an independent Oracle database is used for the MARSS project.

[3] Module for user authentication and authorization.
Depending on actual requirements of the system we might be able to use a non-Oracle security module.

[4] Database vault required by certain requirements relating to records retention.

[5] Needed for general debugging and supporting of the system.

[6] Needed depending on the requirements surrounding redacted content.

[7] Cost during implementation for 4 contractors and 3 FTEs. Cost for maintenance for 3 FTEs.

[8] One time license purchase for use by the Project Manager + Software Architect.

[9] Calculations based on $150 per hour and 8 hour work days.
Estimating 335 work days for phase 1 and 550 work days for phase 2.

[10] Calculations based on $150 per hour and 8 hour work days for the initial system design.
Estimating 50 working days for this effort (Phase 1 system design)

[11] Totals include software purchases and contractors only. Yearly maintenance costs apply as well.

[12] Totals with maintence include the yearly maintainence costs for 1.5 years in phase 1 and 2 years in phase 2.