

From Requirements Development to Go-Live:

The Epic Journey of Oregon's IIS Platform Transition



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CENTER FOR PUBLIC HEALTH PRACTICE
Oregon Immunization Program

Itinerary for One State's Epic Journey

- Phases of Transition
 - Evaluation, market scan
 - Requirements Development
 - Request for Information (RFI), Request for Proposal (RFP)
 - Proof of Concept
 - Development of a Contract
 - Hardware, software, hosting, support, maintenance
 - Release Cycles
 - Go-Live!
- Significant Lessons Learned
 - SWOT Analysis
- What's next on the horizon?

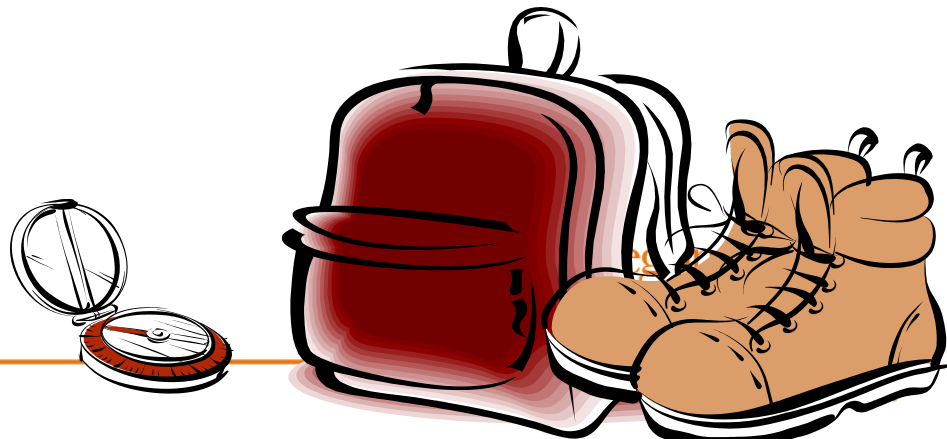
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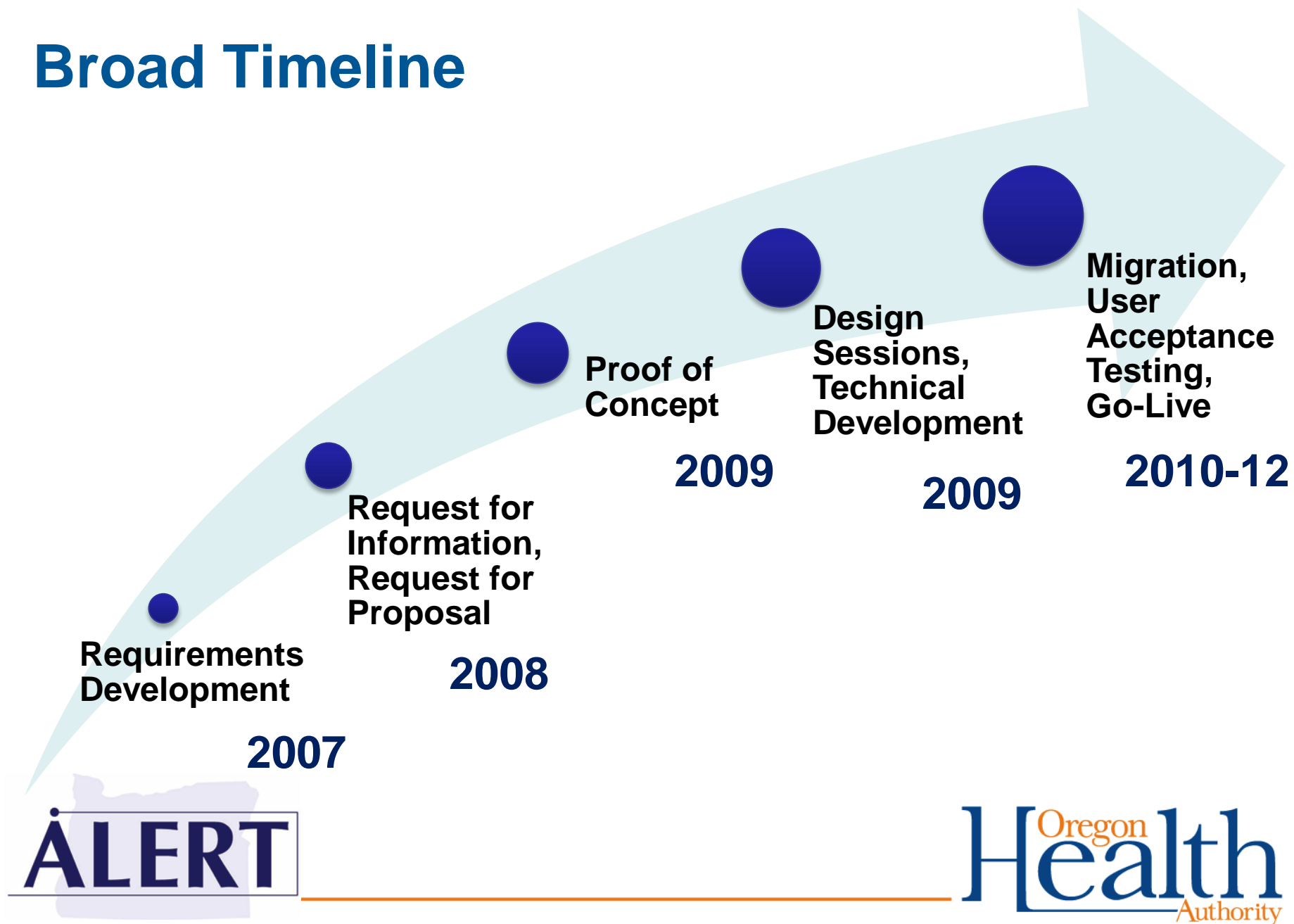
Preparation for the Trip

- In 2006, Oregon funded an external third party to conduct an environmental scan and strategic plan to blend Oregon's two immunization record systems
 - ALERT: Oregon's Statewide IIS
 - IRIS: Oregon's Local Health Dept. Medical Record System
- Key Recommendations:
 - Integrate ALERT and IRIS
 - Explore COTS or GOTS solution
 - Explore external hosting and support
- Potential barriers cited:
 - Sustainability/funding/staffing
 - System adoption barriers

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Broad Timeline



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Requirements Development

- Oregon shamelessly borrowed from other states in this process
 - Thanks to Hawaii and New York State for sharing their requirements documents
- Developed original list of 120 requirements
 - Eventually evolved into:
 - 228 Mandatory requirements
 - 75 Optional requirements
- This effort would have been made easier by national work on standard IIS requirements that is happening this year



Be thorough. Focus on the “what” (function) rather than the “how” (method). Phrase requirements in the form of “The IIS Shall...”

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Request for Information, Request for Proposal

- Oregon conducted an RFI to gather information on what IIS were available
 - Five vendors came to Oregon to present their products or plans
 - Oregon used these presentations to further fine-tune our requirements
- Oregon then posted an RFP for an IIS, along with hosting and support
 - Two vendors submitted bids, were scored by a team based on a pre-developed evaluation form and process
 - Winning bidder was selected, RFP developed into contract and scope of work
 - Requirements were refined, final list negotiated, additional customizations were added in, timelines set

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External Hosting Decision

- During RFI, requirements for hosting and performance were submitted to Oregon's State Data Center (SDC)
 - Determination was made that the SDC could not, at that time, provide the hosting configuration (e.g., tier 1 data center) and performance standards (e.g., back-up and disaster recovery) listed in Oregon's requirements
- IIS team filed for and received an exception that allowed ALERT IIS to be hosted outside the SDC
 - Hosting requirements were then written into the RFP



Carefully consider costs of internal vs. external hosting, along with operational challenges with data access (firewalls, VPN and connectivity considerations, etc.)

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Proof of Concept

- Prior to selected vendor beginning construction on Oregon's customizations, Oregon stood up New York State's version of the WIR system
 - IIS team knew from RFP response which requirements were:
 - Available out-of-the-box
 - Available with customization
 - Unavailable
- This phase allowed Oregon to test to ensure requirements were met
- Found some areas of misinterpretation



Avoid recreating legacy system functionality, or dictating a State-Specific solution that may not align to existing functionality or national standards

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Design Sessions, Technical Development

- Oregon negotiated the inclusion of 60 customizations, which extended the development timeline significantly
- The level of technical doc review was challenging (read: excruciating)
- Development was broken into two major releases
 - External functions rolled out in November 2010
 - Many internal functions (auditing, billables, CRA) rolled out in April 2012
- Additional Challenges:
 - Oregon lost our project's Technical Lead in the midst of development
 - 2009 also brought H1N1, an operational distraction
 - 2010 brought unexpected grant funds for a web service (w/short timeline)

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If at all possible, hire a Business Analyst with a wildly well-developed attention to detail



User Acceptance Testing, Migration, and Go-Live

- The IIS team developed Functional Test Plans to mirror and expand upon Detailed Test Plans created by our vendor
- Bug documentation, tracking and testing was a significant effort
 - Learning curve regarding existing functionality was significant
- Oregon did three complete cycles of data migration into three separate environments (development, UAT, production)
 - Testing occurred in two of the three environments; keeping clear on differing functionality in each environment was challenging.



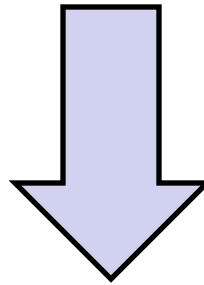
Developing a clean process for bug reporting, validation, and tracking will pay off in the long run.

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Summary Migration Results

Data System	# Dems	#Imms
EBRS	793,900	261,273
IRIS	1,322,828	8,205,134
ALERT	5,213,524	24,851,241
Total Records	7,330,252	33,317,648



New Alert IIS (Nov. 2010)

- 4.5 Million Client Records
- 31 Million Immunization Records

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User Acceptance Testing, Migration, and Go-Live (Cont.)

- Business transition planning was essential for massive statewide conversion
 - Project Manager required Impact Assessment, Communications and Training Plan
 - IIS Implementation Committee met monthly and provided guidance from internal and external stakeholders
 - Quality Assurance Contractor (QA) was required, but was heavily influenced by Project Manager/Project Team
 - Communication on all levels is critical



Business transition planning should focus on preparing staff for the transition as well as preparing end users; communication helps significantly with mitigating resistance to change.

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Strengths:

- Teamwork
- Flexibility
- Transition Planning
- Learned new skills

Weaknesses:

- Contracting Process
- Staff Transitions
- Timeline
- Learning curve

Threats:

- Sheer number of competing priorities
- Short-term staff
- Funding questions

Opportunities:

- Ownership of contracting process
- Share docs nationally - AIRA and WIR
- Additional funds

Most Significant Lessons Learned



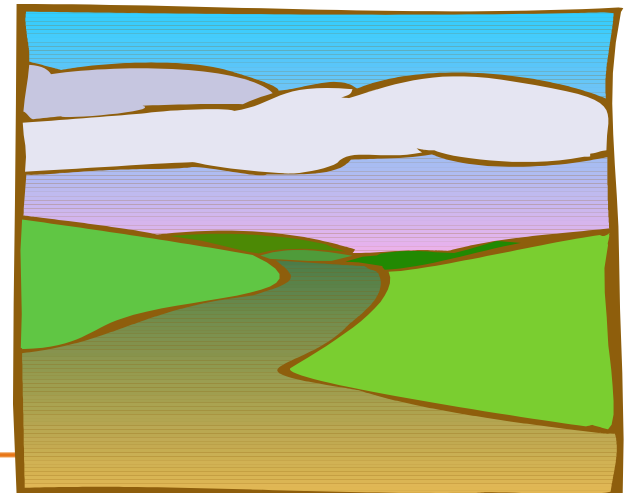
- Hire dedicated project staff
 - Including, at minimum, a Project Manager and Business Analyst
- Be transparent and over-communicate
 - But consider gatekeeper between IIS team and vendor
- Recognize that the IIS has evolved to be an immunization-wide system; engage teams early and broadly
 - Vaccine management, research and surveillance, school law
- Content expertise and/or thorough knowledge transfer is essential, particularly among technical developers
 - But passion regarding project success can muddy boundaries
- Leverage documentation on new system where it exists; create it where it doesn't

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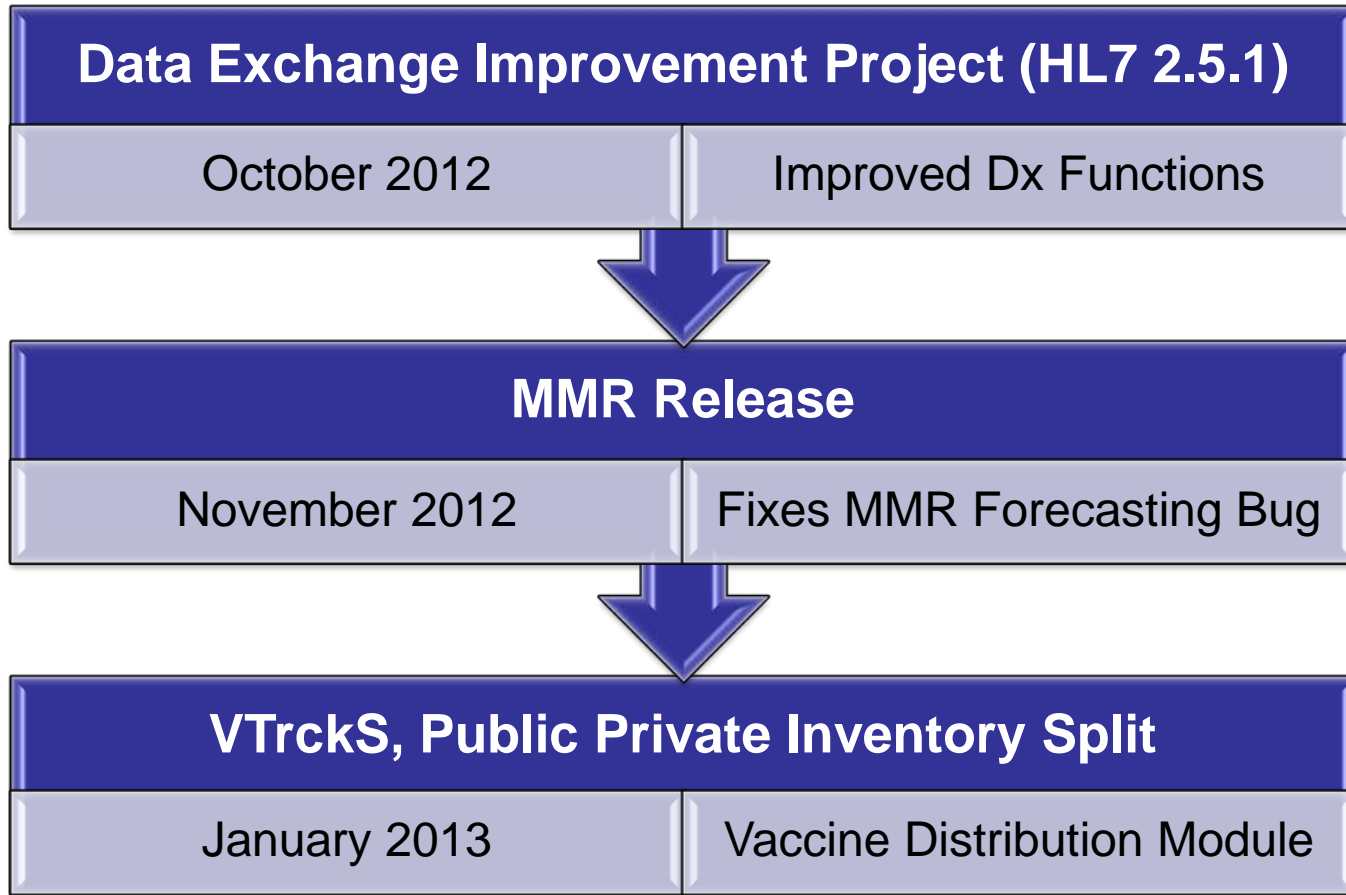
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Our Destination – For Now

- All functionality included in initial transition is live
- Close to end of 90-day acceptance period – remaining bug fixes are in progress
- Additional external functions have rolled out this summer
 - Improved Vaccine Ordering
 - Billable Reports
- Status, August 2012:
 - Demographics: 5,076,101
 - Immunizations: 38,978,995
- Average Data Submission Patterns:
 - Data exchange: 88.8%
 - User Interface: 10.7%
 - Vital Records: 0.5%



Upcoming Releases



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Documents to Share by Request

- Requirements Documents
- RFI and RFP Postings
- Hosting Exception Request
- Data Exchange Specifications
- User or Operations Manuals
- Contract Documents (Scope of Work, etc.)
- Specific Functional Design Documents
- Specific Functional Test Plans

If any of these would be helpful, leave me your card or send me an email: Mary.Beth.Kurilo@state.or.us



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Questions? Discussion? Follow Up?

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