

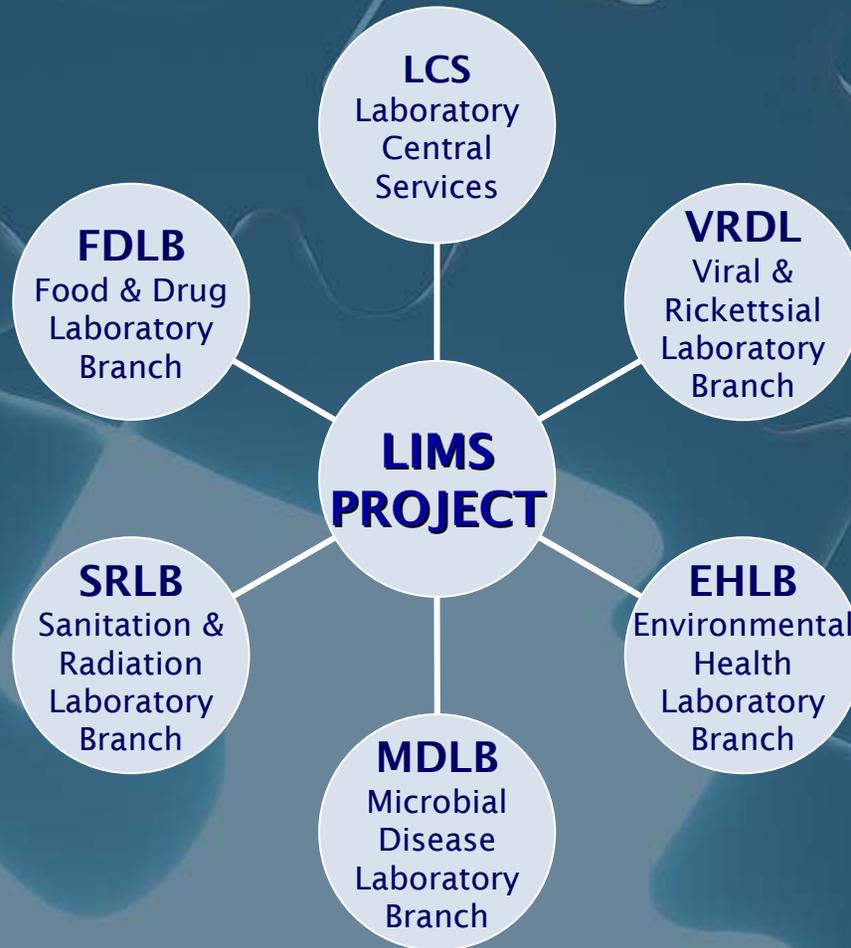
LIMS Project Overview

Andrew Sinyaver (iConnect Consulting)



Initiation & Scope

Intra-departmental Synergy





Business Objectives

- To Unify Information System Across CDPH Public Health Laboratories
- To Centralize Laboratory Testing Information (Hub)
- To establish Laboratory Programs & Services Interoperability
- To Integrate with the Lab Data Interchange (LDI) System
- To communicate lab results to Public Health Partners



Selection Process

APHL 16 Business Processes for PH LIMS



CA DHS Specific Requirements



RFI/RFP



Vendor Demo/Rating



Sunrise Product by STARLIMS Corp



Implementation Factors

- **Business Factors**
 - Central Gateway To The Campus – LCS
 - One Global System With 5 Unique Labs
 - Huge Assay Workload
- **DHS Factors**
 - Low Success Rate of IT Projects
 - Stringent Timelines
 - Close Supervision



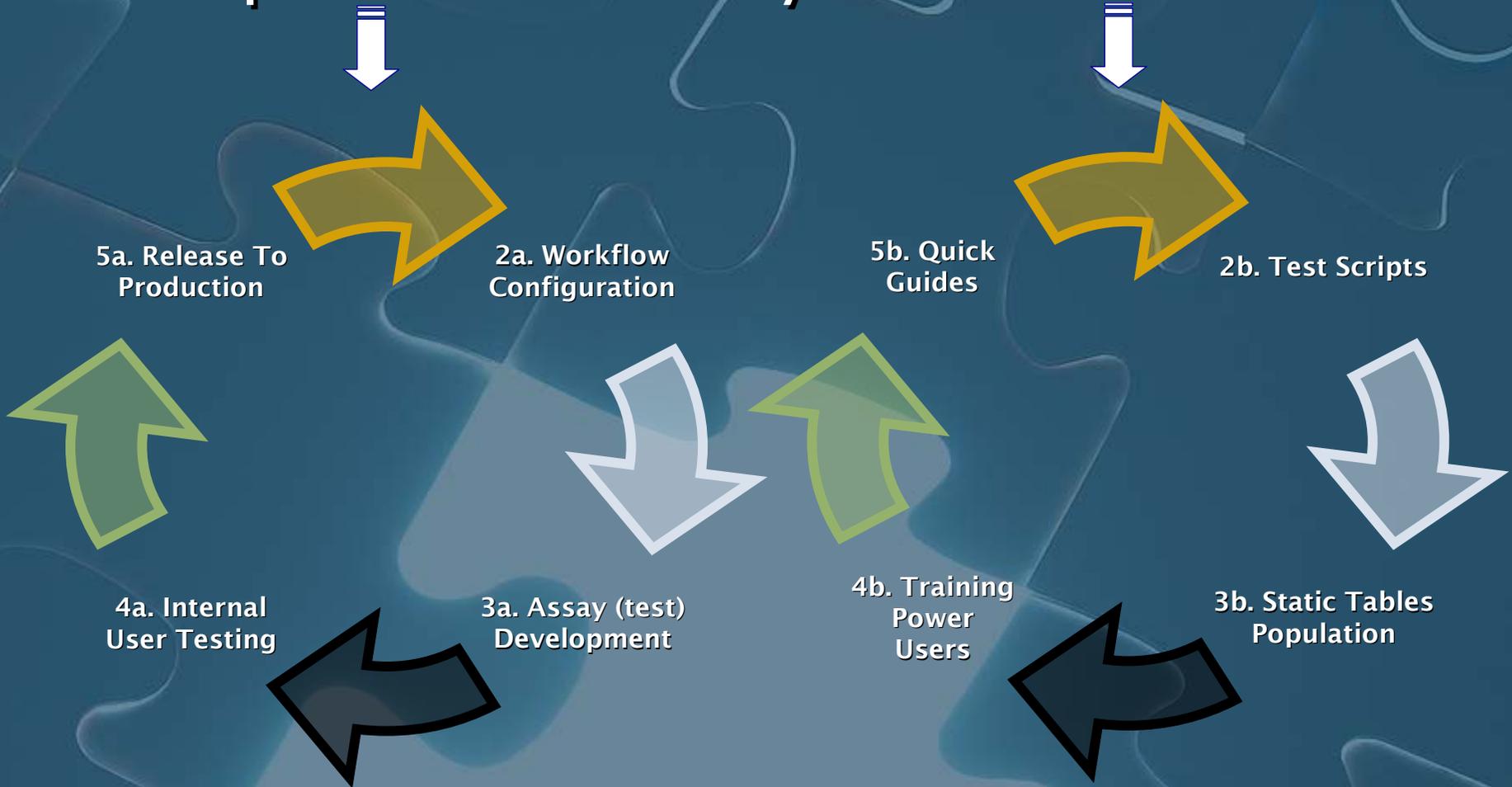
Implementation Strategy

- **Production Critical Approach**
 - **Global Focus – LCS**
 - **Lab Focus – VRDL, FDLB, SRLB, EHLB, MDLB**
 - **“Must Have” Requirements**
 - **High Volume Assays**
 - **Train The Trainer**
 - **Max Utilization Of The Product**



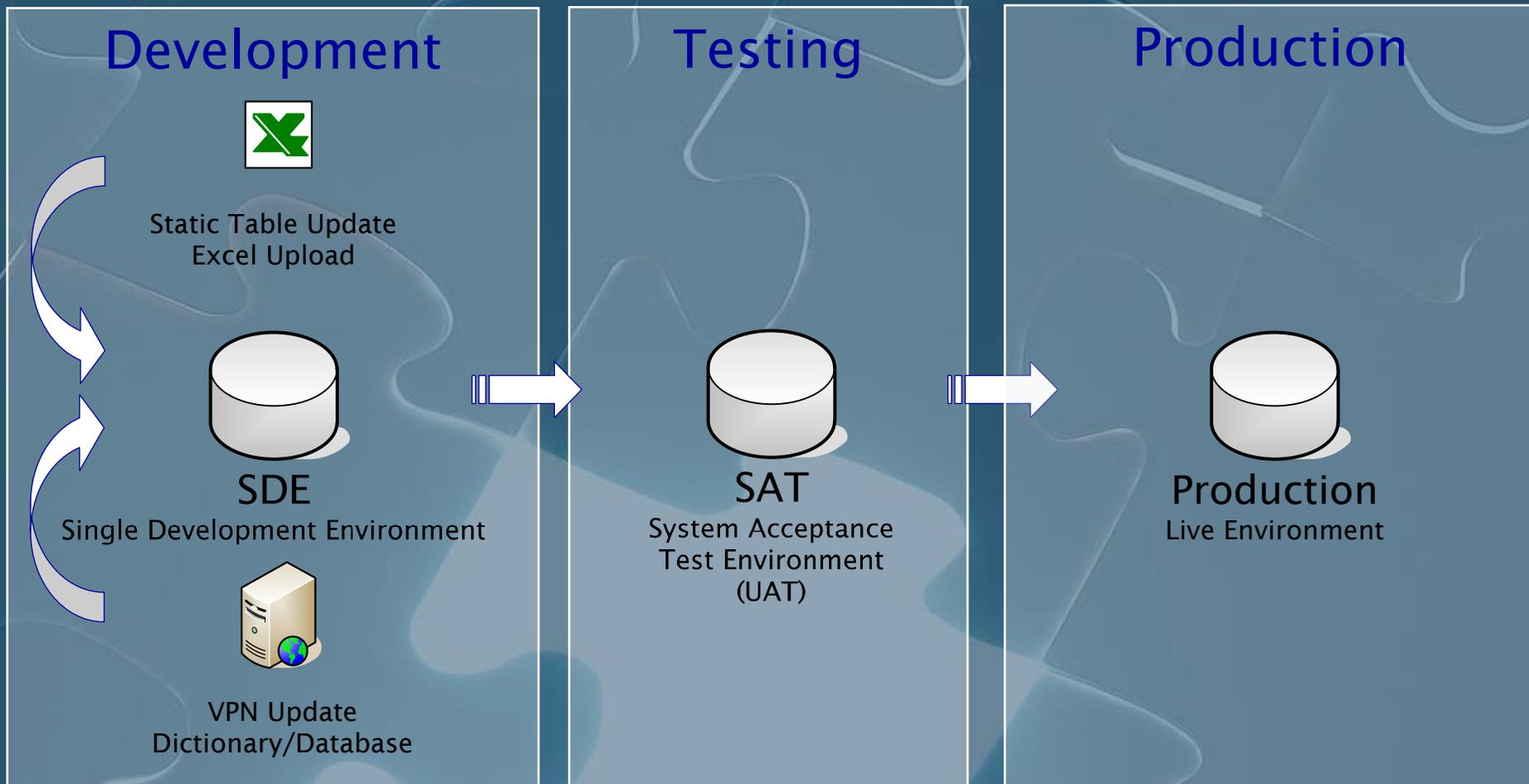
System Development Life Cycle

1. Requirements Analysis: As-Is and To-Be





STARLIMS Migration Path





Communication





Product Modifications

- **Core Functionality (preserved)**
 - **Core Modules**
 - **Core Tables Structure**
 - **Core System Workflow**
 - **Core Processes**



Product Modifications

- **Standard Configuration**
 - **Static Tables**
 - **Assays (Calculation, Validation, Workflow)**
 - **Instrument Interfaces**
 - **HL7 Messaging**



Product Modifications

- **Customization**
 - Global Accession & Global Receive
 - Patient-centric Workflow
 - New Module Development
 - Customer Concerns/Feedback
 - Lab Worksheets (MS Office Automation)
 - Equipment Monitoring
 - Case Management
 - Acute/Convalescent Pairing



Product Modification

- Customization (continued)
 - Lab Certification
 - Time Tracking
 - Blood Lead Reporting
 - Etc.



Product Overview

STARLIMS V10
(completely web-based)

MyLIMS
(Web-based Component)

STARLIMS V9
(Client Server)

MS SQL SERVER 2000



Next Version Upgrade

- STARLIMS V10 is a web-based enterprise level information system that brings together all PHL activities into a single platform, offering comprehensive public health reporting, surveillance and networking capabilities conforming to national standards.
- Web-based approach makes it possible to submit samples and request results online—dramatically reducing submission errors, reporting time and queries to lab personnel.
- Easy deployment (runs in IE browser)
- Full enterprise integration (SOA)



Summary & Statistics

- All labs & LCS deemed production-ready in 15 Months
- Received “Best of California Award for Demonstrated Excellence in Project Delivery” in 2006
- Lab Workflows Implemented
 - Clinical
 - Micro
 - Environmental
 - Food





Summary & Statistics

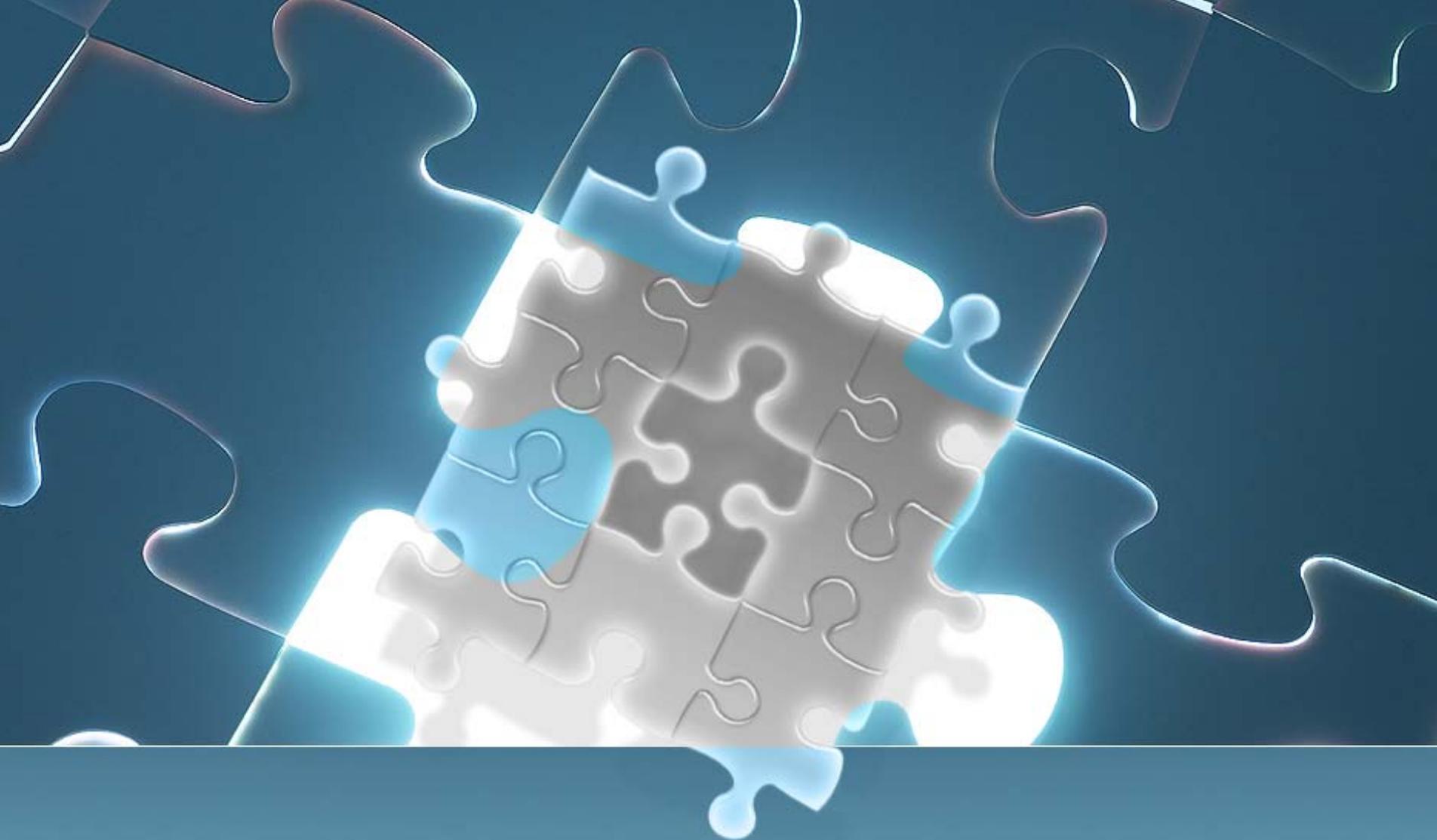
- Assays = 427
- Instrument interfaces = 58
- Reports = 73
- STARLIMS Users = 343
- MyLIMS Users = 100





LIMS Project Overview

- Questions?



LiMS Service and Support Team (LSS)



Who Are We?

- We are a team of state employees and consultants with necessary skills & experience to support mission critical applications for the state labs
- LSS Team reports to Paul Kimsey, California State Public Health Laboratory Director



LiMS Service and Support (LSS) Team Roster

Support Staff

LCS

Zia Siddiqui
**Change Control &
Release Manager**

STARLIMS

Chris Petty
**Database
Administrator**

Andrew Sinyaver
**STARLIMS
Specialist**



Riki Merrick
**Public Health
Information
Specialist**

LAN Support

Isaac Mall
EHLB

Scott Secord
FDLB

Domokuma Olali
SRLB

Walter Shinn
DCDC



A Team With Purpose

- Support the Customer (Labs)
- Support the Business
 - Specimen Receiving
 - Laboratory Testing
 - Laboratory Results
 - Laboratory Reporting
 - Sharing of Laboratory Data



A Team With Purpose

- Support the Initiatives
 - Laboratory Information Management System (LIMS)
 - Laboratory Data Interchange (LDI)
 - Biomonitoring
 - Public Health Laboratories Interoperability Project (PHLIP)



A Team With Purpose

• Support the Interfaces

Interface	Direction	From	To	Type	Description	Status
CLPPB Blood Lead Batch Report	Uni	EHLB	CLPPB	.csv	This is a batch process that generates a .csv file from data in STARLiMS to be uploaded to CLPPB's website.	Production
Biomonitoring Electronic Sample Accessioning	Uni	Field Analysts	EHLB	MyLIMS and other (HL7 or .csv upload)	Analysts in the field will pre-log samples via MyLIMS and print labels for samples to be sent to CDPH. Analysts will then upload a file with sample data, including the accession number obtained through MyLIMS, to STARLiMS via SFTP or other service.	Design
Biomonitoring Sample Outsourcing	Bi	EHLB	Outsource Labs	HL7 and MyLIMS	Outsource tests for Biomonitoring will be ordered via HL7 messages shipped to Outsource Labs via SFTP. Outsource Labs will use MyLIMS to track new orders and to check status of returned results.	Design
LAR Import	Uni	FDB	FDLB	.csv	The LAR import process reads accession data from a .csv that accompanies incoming samples from FDB.	Production
PHLIS	Uni	MDLB	CDC	ASCII	STARLiMS generates ASCII formatted output files to be shipped from the PHIN Messenger to CDC. PHLIS is a passive, laboratory-based surveillance system that collects data about many infections, including Salmonella.	Testing (Hold)
LDI	Bi	CDPH	CDC, County Public Health Labs and other Outsource Labs	HL7	In conjunction with LDI, this is an interface designed accept submissions from County Public Health labs as well as to report results directly to CDC (e.g. pan flu). In the future it will also be an interface to outsource labs used by CDPH allowing electronic sample submission to and electronic reporting from outside labs.	Pre-Production Testing
Web CMR/ELR	Uni	DCDC	State CMR ELR system	HL7	Once Web CMR ELR is operational, DCDC will ship reportable infectious disease results via HL7 to the CMR ELR system.	Design



LiMS Service and Support Team (LSS)

- Questions?