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HL7 standards in the E-MPI and LIMS implementation

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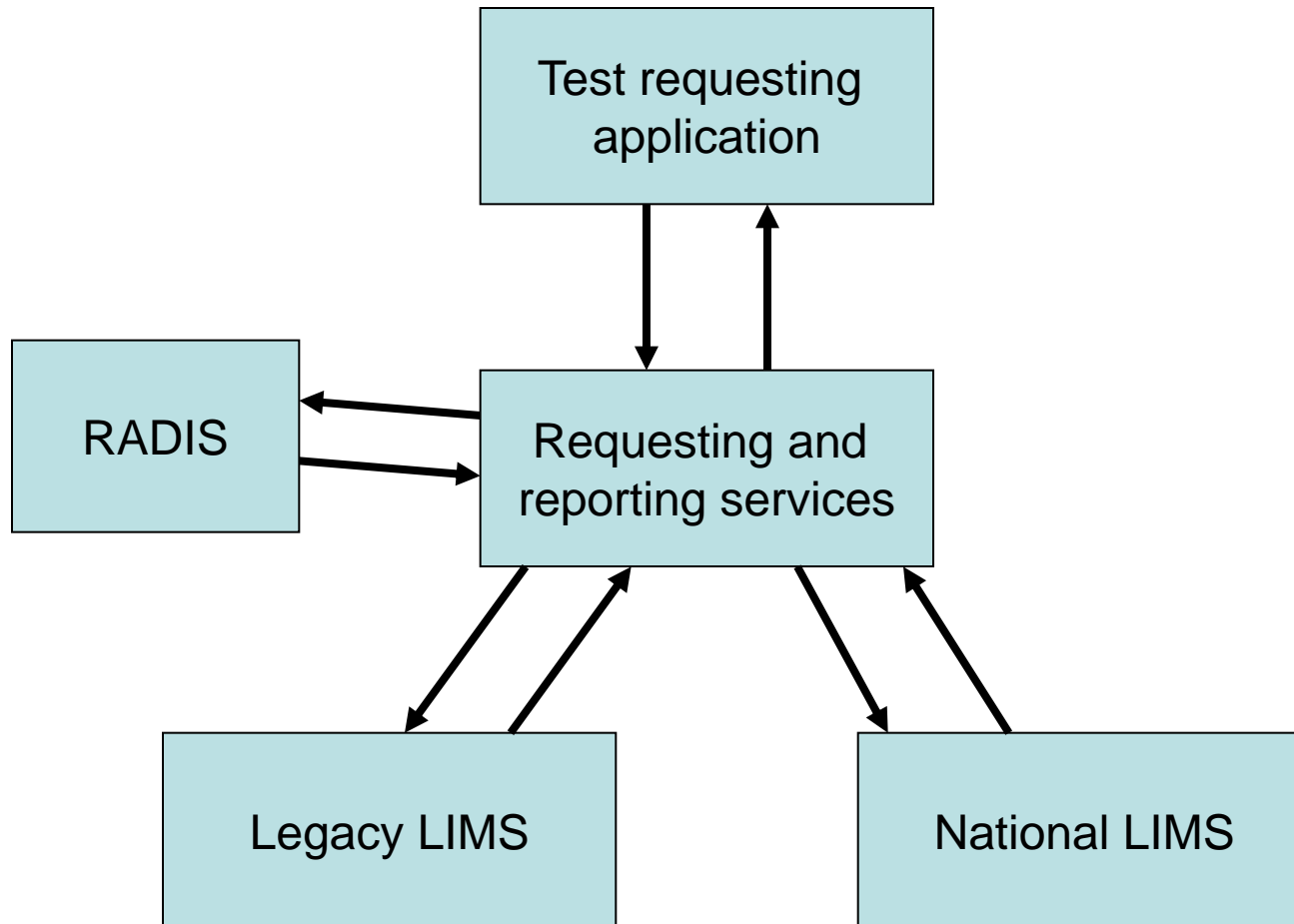
- Welsh national LIMS and E-MPI are in early stages of implementation
 - LIMS replaces a number of lab systems
 - Standards based integration enables Welsh Clinical Portal requesting and reporting to move to the new LIMS with minimal change
- This presentation is an overview of how HL7 standards are used in this context
 - Not a complete account of the LIMS or E-MPI
 - See NWIS website for further information on both these programmes

Business architecture



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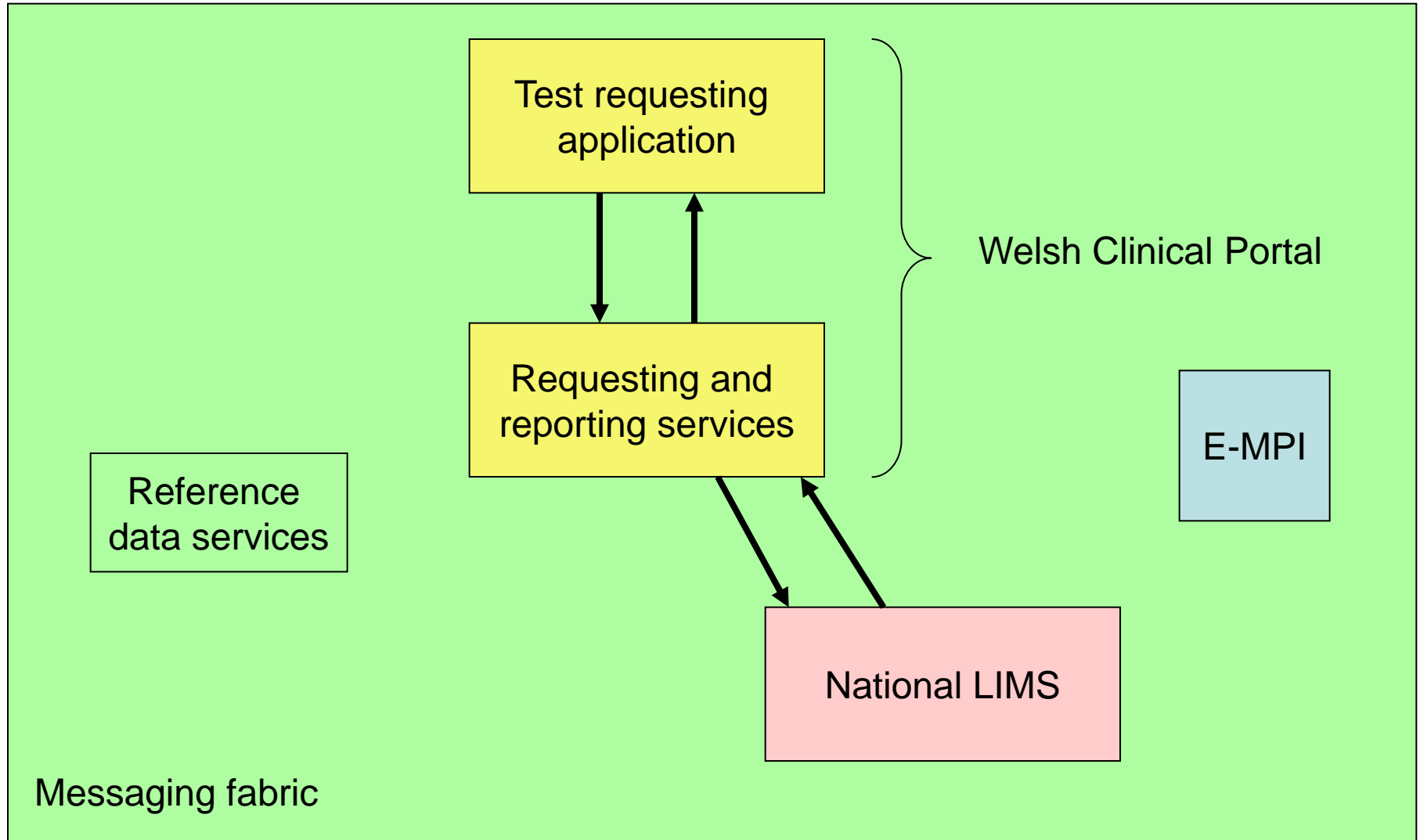


Business architecture



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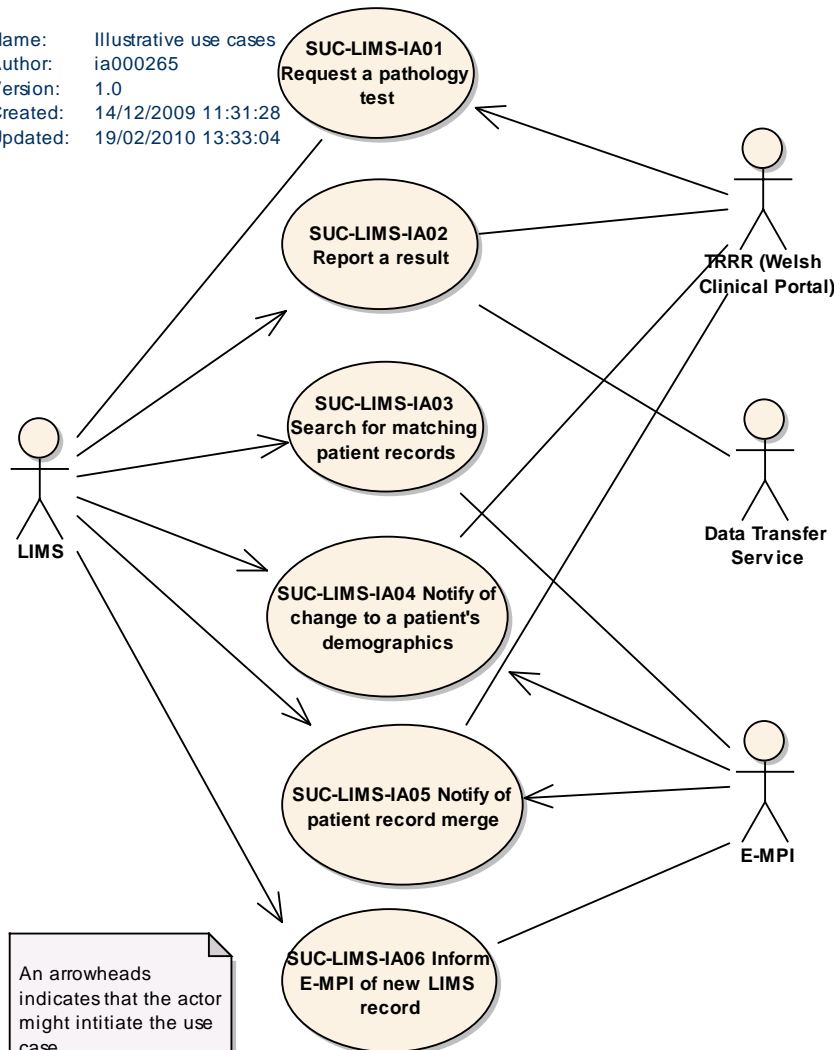




Functional Scope

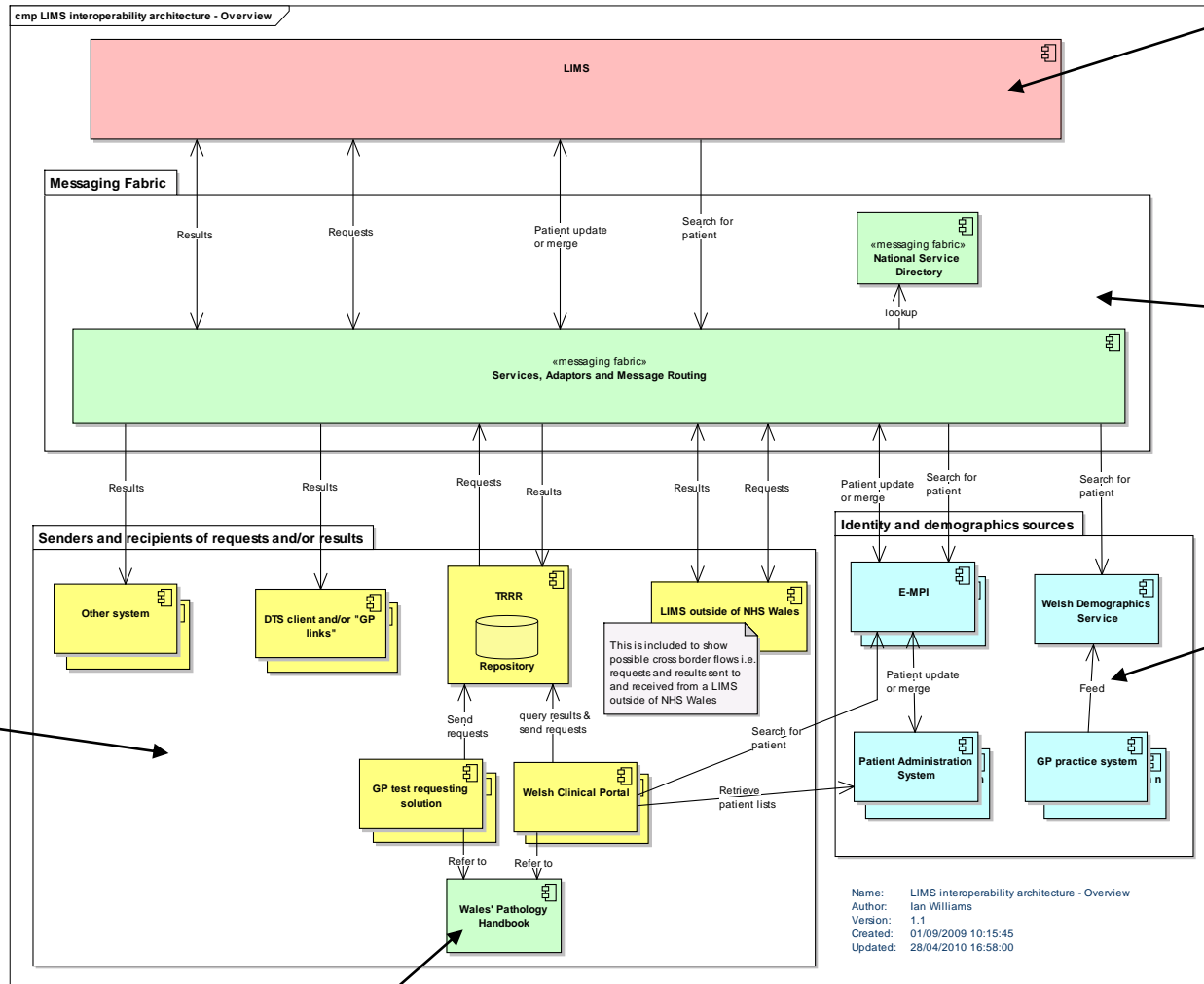
uc Illustrative use cases

Name: Illustrative use cases
Author: ia000265
Version: 1.0
Created: 14/12/2009 11:31:28
Updated: 19/02/2010 13:33:04



- Request test
- Report result
- Search for matching patient record
- Notify change in demographics
- Notify patient record merge
- LIMS informs E-MPI of new LIMS record

Technical Architecture



LIMS

Messaging Fabric and reference data service

Identity services including E-MPI

Applications sending requests & receiving results

Wales Pathology Handbook

- Welsh National Architecture
 - SOA architectural style
 - Messaging Fabric provides connectivity
 - Standards adopted for payloads
 - Adapters for applications
- IHE Lab and Identity Management profiles
 - Use what we need, ignore what we don't
 - NOT a full implementation of the IHE profiles

Interactions



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SUC-LIMS-IA01 Request a pathology test	LAB-1 Placer Order Management	Request: HL7v2.5 OML^O33
		Acknowledgement: HL7v2.5 ORL^O34
SUC-LIMS-IA02 Report a result	LAB-3 Order Results Management	Result: HL7v2.5 OUL^R22
		Acknowledgement: HL7v2.5 ACK

Interactions



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<p>SUC-LIMS-IA03 Search for matching patient records</p>	<p>ITI-21 Patient Demographics Query</p>	<p>Patient Demographics Query: HL7v2.5 QBP^Q22</p>
		<p>Patient Demographics Response: HL7v2.5 RSP^K22</p>

Interactions



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<p>SUC-LIMS-IA04 Notify of change to a patient's demographics</p>	<p>ITI-030 Patient Identity Management</p>	<p>Update Patient Information HL7v2.5 ADT^A31^ADT_A05</p>
		<p>Acknowledgement: HL7v2.5 ACK</p>
<p>SUC-LIMS-IA05 Notify of patient record merge</p>	<p>ITI-030 Patient Identity Management</p>	<p>Merge two patients HL7v2.5 ADT^A40^ADT_A39 And/or: Link patient information: HL7v2.5 ADT^A24^ADT_A24 Unlink patient information: HL7v2.5 ADT^A37^ADT_A37</p>

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<p>SUC-LIMS-IA06 Inform E-MPI of new LIMS record</p>	<p>ITI-030 Patient Identity Management</p>	<p>Create new patient HL7v2.5 ADT^A28^ADT_A05</p>
		<p>Acknowledgement: HL7v2.5 ACK</p>



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