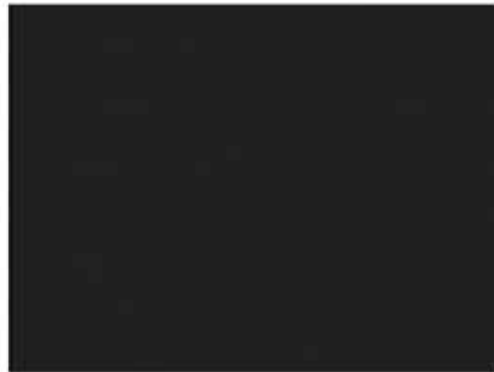


Introducing Orion Health Limited

HEALTH INNOVATORS



Capital Health EHR Video



Harish Panchal – Business Development Director
harish@orionhealth.com

HEALTH INNOVATORS



Electronic Health Record – EHR & Messaging Standards



27th May 2006

Introductions

- Mr. Harish Panchal
Business Development Director – Asia Pacific
- Dr. Sanji De Sylva – MD, DipBusAdmin
Clinical Director – Asia Pacific
- Ms. Mako Cho
Customer Relations – Japan

HEALTH INNOVATORS



Agenda

- Company Overview
- Case Study – Australia – NSW State – EHR Solution
- Case Study – Large Scale Rhapsody Solutions
- Proposed Solution for the Super Dolphin
- Conclusions

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About Orion Health

- New Zealand's largest health software company
- Customers in 20 countries
- Head office in Auckland, New Zealand
- Presence in Australia, USA, Canada, UK and Japan
- 100% New Zealand Owned Company

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Orion Solutions

- Healthcare Integration – Interface Engine
- Integrated Care & Chronic Care - Hospital, Medical Center, Doctor, Patient
- Facility Electronic Medical Records (EMR)
- Regional Electronic Health Records (EHR)

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Recent Large-scale Orion Projects

- Capital Health – EHR – Canada
- NSW Health e link – EHR – Australia
- CDC (Center of Disease Control) – Integration – USA
- HIMSS – HL7 Booth Interoperability – HL7 CDA Rel. 1/XML – USA
- MOH – National Immunisation Register – New Zealand

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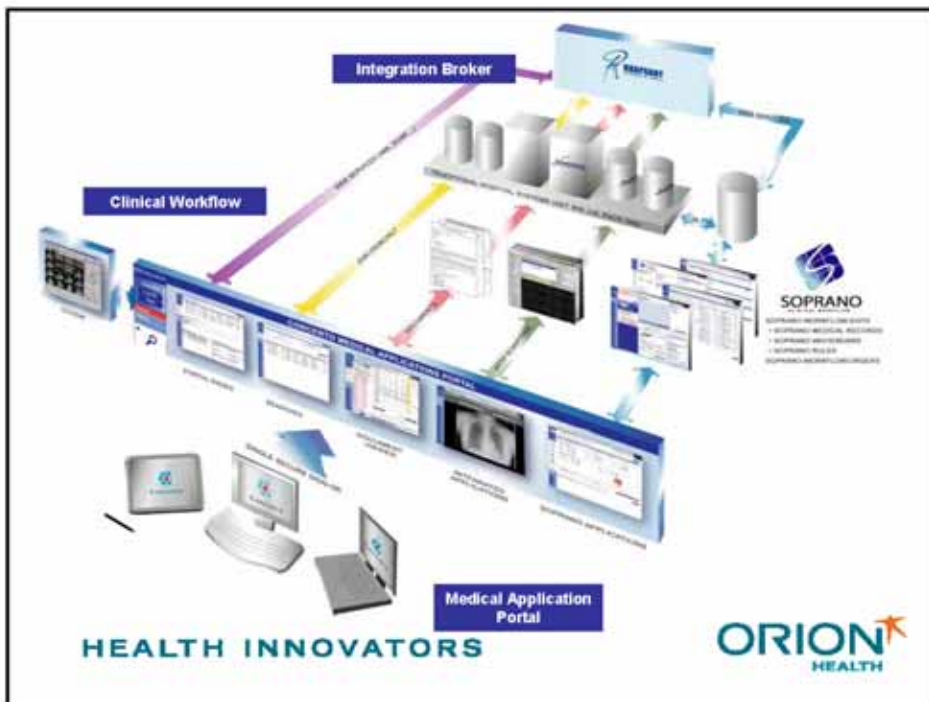
Three Key Products

- Integration Broker
 - Rhapsody™ Integration Engine
- Medical Applications Portal
 - Concerto™
- Clinical Workflow/Process Management
 - Soprano™ Clinical Workflow Suite



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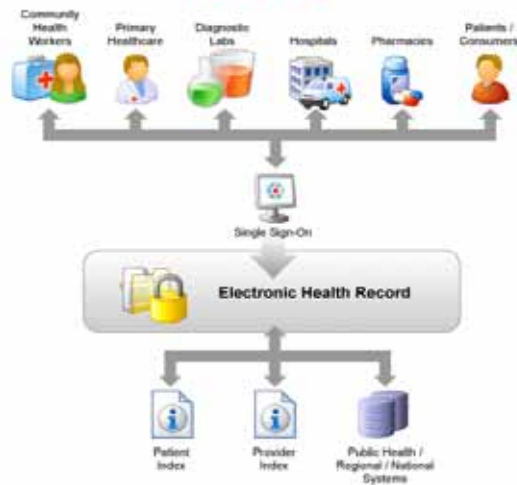
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Regional Electronic Health Records (EHR)



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Orion Industry Awards



2005 Rhapsody Interface Engine
Rated No#1 by KLAS in USA



2004 TUANZ – Innovation Award for Healthcare
For Soprano Workflow Engine



2003 TUANZ - Innovation Award for Healthcare
For the Rhapsody Integration Engine



2002 Technology NZ Commendation
For Innovative Technology



2001 Hi Tech Supreme Award
New Zealand IT Company Of The Year

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Orion Customer Awards



2005 Peninsular Health Victorian State
Innovation Award, Australia



2003 Harrogate Award - Wallsall Community
Trust, UK
Healthcare IT Effectiveness Awards " Most Innovative
Use of Information Technology"

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health *eLink*

NSW HEALTH

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New South Wales EHR – Australia



health e link

- Orion is implementing an Electronic Health Record (EHR) named "Health e-Link" for the state of New South Wales, Australia
- Goal: Longitudinal EHR combining information from hospital, community, and primary care systems, available statewide to authorized providers and patients
- Pilot involving 11 hospitals (3 tertiary) – Go live 2006
- Statewide rollout will encompass 6.5 million citizens and 20,000 providers

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Objectives of the NSW EHR

- Improve the quality and safety of care by providing secure access to information at the point of care. Achieved by implementing an EHR that summarizes the patient's longitudinal medical history.
- Improve service to patients and lower costs by reducing redundant administration, duplicate services and diagnostic tests.
- Encourage greater patient involvement in their own or their children's health care management – by having access to their own record.

Driving Factors

- In 2000, the Department of Health in NSW identified IT as a key to improving healthcare services
- Disparate "islands" of information and a lack of integration prevented them from improving the delivery of health care
- The Solution – Statewide Electronic Health Record (*Health e link*)

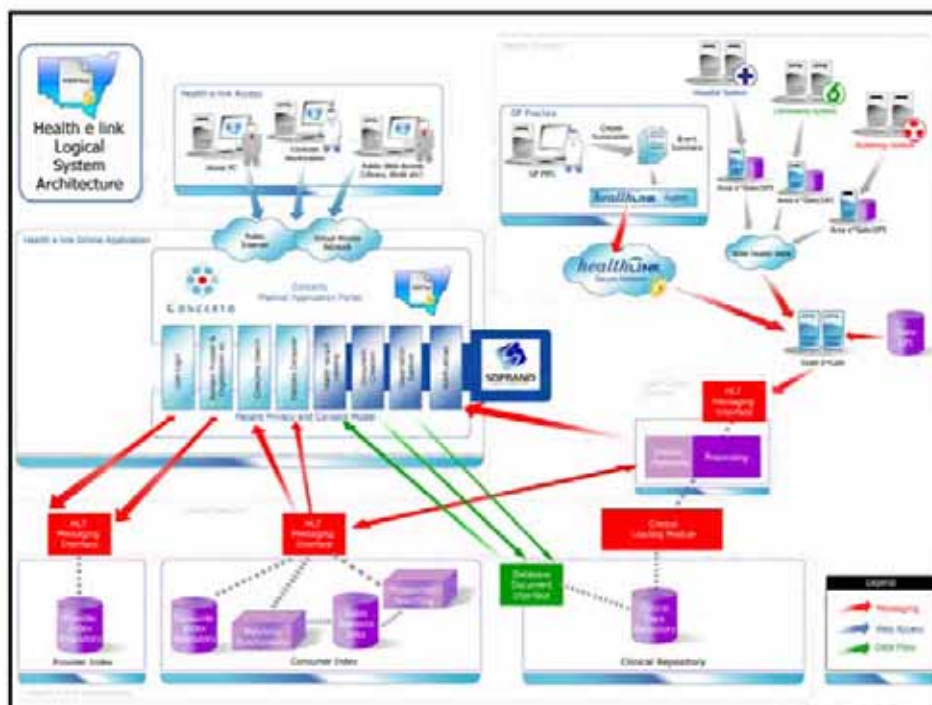
Solution

The Electronic Health Record will provide:

- A summary view of patient information at the point of care
- Information on each treatment provided for each patient
- Patient access to their own health record

Key functionality:

- Patient search
- Doctor's Patient lists
- Online data entry
- List of diagnoses
- Notifications based on abnormal test results
(e.g. blood test)

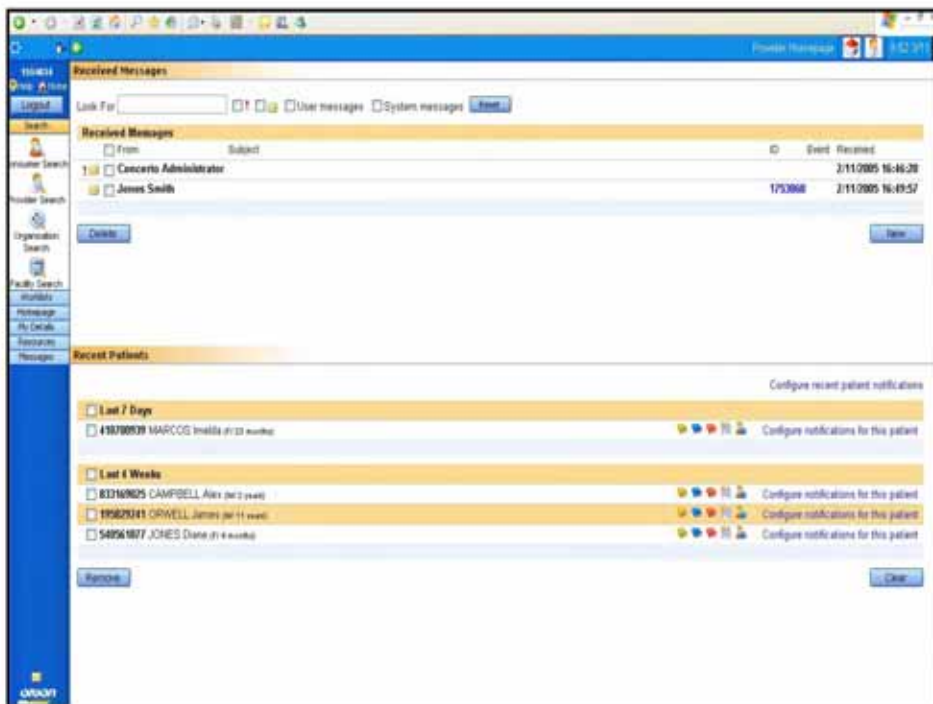


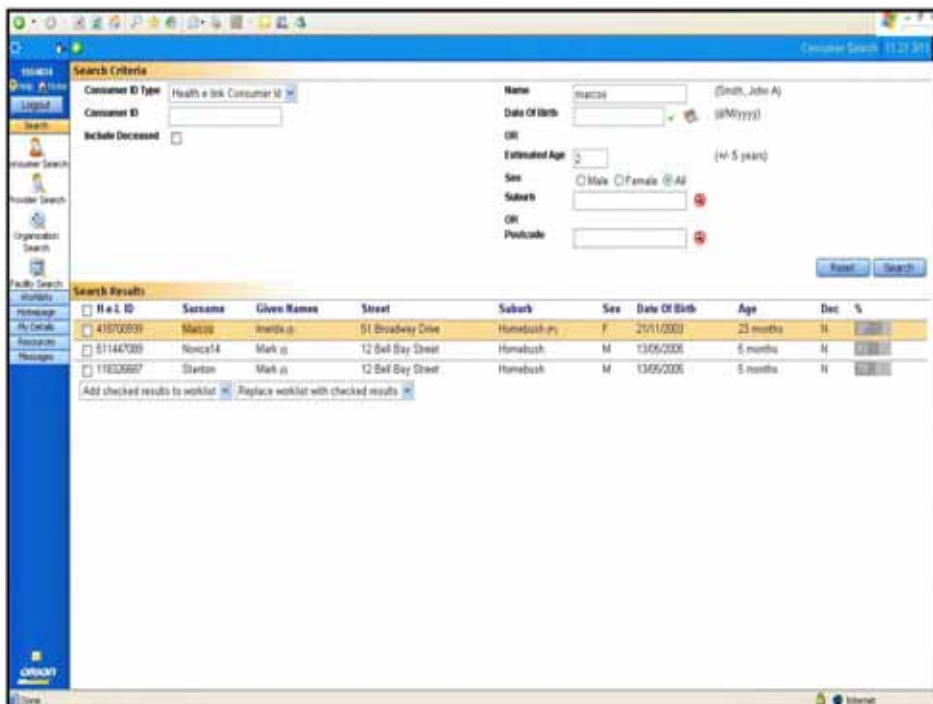
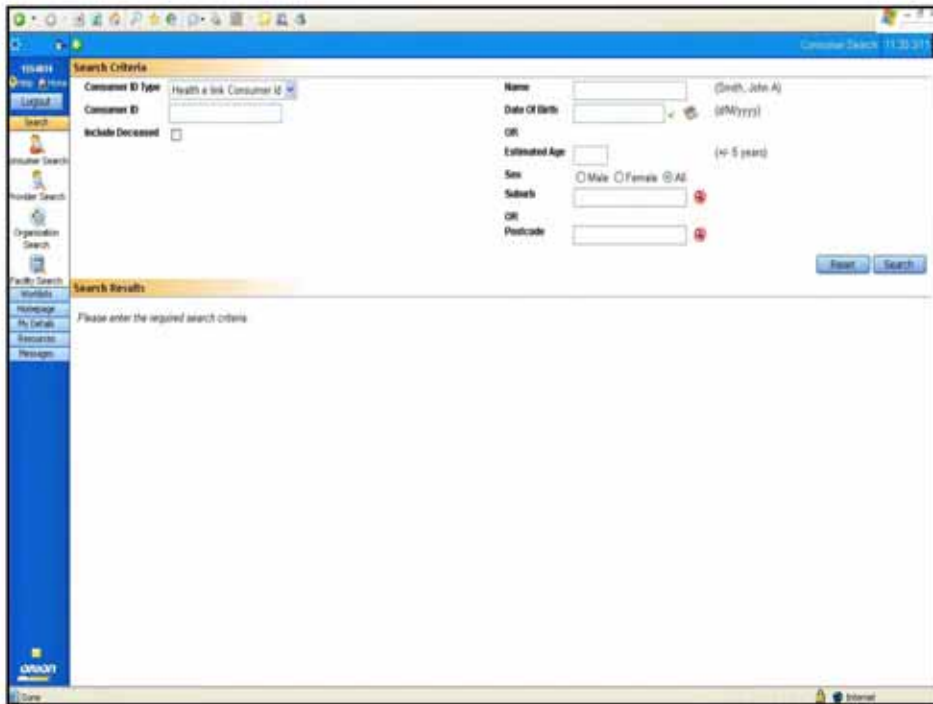
Solution Design

- Initial workshops to confirm understanding of requirements and business process
- Solution design workshops
 - Included key stakeholders (clinicians, system administrators, and NSW Health patient representatives)
 - Ensure solution contains functionality for the whole state
- Two pilot sites
 - Chronic disease population and paediatric population
 - 9000 clinical users
 - 160 000 patients registered

Screen Design

- The following screens are taken from the health e link pilot environment
- Used with permission of NSW Health
- Screenshots show customization of existing software and actual implementation
 - Doctor user scenario
 - Patient consent form
 - List of notifications set up for NSW
 - Patient Audit Report
 - Document tree customization





11:43 AM ESTERON MARCOS Health in 20 weeks

Showing all documents X View By: Category Look For: Read Unread Done

Mark selected document as unread
Check all documents as read

Search: Title Author

GP

1 Patient Summary
2 Views (24)
3 All Encounter List (20)
4 General Practitioner (4/4)
5 Hospital (2/3)
6 Community Health (2/3)
7 Immunisation (2)
8 Pathology (15/15)
9 Medical Imaging (2/2)
10 Child Health Checks (18/18)
11 Problem List (20)
12 Consumer Notes (20)
13 Medications (20)
14 Medication (2/3)

GP

Patient Demographics

MARCOS, MELDA
Health e link Identifier: 418700039
Sex: F
DOB: 21-11-2003
Address: 51 Broadway Drive, Homebush, 2057
Phone Number: 92913655

Allergies and Alerts

Description	Reaction	Recorded By	Date of Onset
198 - Penicillin			13/10/2005

Encounter History

Facility	Type	Admit Date	Clinician	Presenting Problem
Bays Hospital	Community Client	10/02/2005	Dr Daniel Ford	Early dementia (Alzheimer type)
Beggs Hospital	Inpatient	01/02/2005	Dr Frank Bellery	head injury
Beggs Hospital	Inpatient	01/02/2004	Dr Frank Bellery	Gastric Ulcer
Bays Hospital	Community Client	10/09/2004	Dr James Anders	Day Hospital Admission for management of incontinence
Beggs Hospital	Inpatient	01/06/2004	Dr Frank Bellery	ADMN only
Beggs Hospital	Outpatient	05/05/2004	Dr Robert Shale	ADMN only
Beggs Hospital	Outpatient	04/05/2004	Dr Robert Shale	ADMN only
Beggs Hospital	Same Day Patient	05/04/2004	Dr Stephen Jones	ADMN only
Beggs Hospital	Inpatient	04/04/2004	Dr Frank Dellar	ADMN only
Beggs Hospital	Outpatient	05/02/2004	Dr Frank Dellar	AW-LE SPRAIN

GP Medications

No Results Found

Hospital Medications

Date Prescribed	Drug Name	Prescribing Instructions	Prescriber
05/02/2005	ASPRIN (Tablet)	- As required	DR R DRAYER

11:43 AM ESTERON MARCOS Health in 20 weeks

Showing all documents X View By: Category Look For: Read Unread Done

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GP

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11 Problem List (20)
12 Consumer Notes (20)
13 Medications (20)
14 Medication (2/3)

GP

Hospital Discharge Summary

Health e link
Hospital Discharge Summary
(Message Document)

MELDA MARCOS
418700039 (Sub: 21/11/2003) Female
51 Broadway Bay Drive, Homebush

Organization Details

- DR USA SAMPSON, Pnd 286 Hercules Rd, Chateau...
- PA: 02 9932 7715
- Attending Clinician: DR FRANK BELLERY

Admission / Visit Date

- Start Date / Time: 01/02/2005 11:30
- End Date / Time: 08/02/2005 11:30

Alerts and Allergies

- Drug Alert: 198 - Penicillin, Unknown

Issue / Reason For Attendance

- Encounter Type: Overnight Patient
- Presenting Problem / Reason: head injury

Problems / Diagnosis

Primary Diagnosis:

- 1. Closed head injury, fracturing GCS 2 Anterior base of skull fracture, W

Procedures

Primary Procedure:

- Treatment Procedure - invasive operation for head injury, 08/02/2005 11:30

Pathology

- LIVER FUNCTION TEST 05/02/2005, 3 Gamma Globulin/Triphospha, 30, U/L, 5-45, N
- LIVER FUNCTION TEST 05/02/2005, 2 Bilirubin Total, 8, umol/L, 0-17, N
- LIVER FUNCTION TEST 05/02/2005, 3 Alanine Aminotransferase, 54, U/L, 30-45, N
- U-RATE (uric acid) TEST 04/02/2005, 3 Uric Acid, 344, umol/L, 203-438, N

Buttons: [Back] [Print]

ESTHER MARCO Health Documents

Showing all documents

View By: Categories | Look For: | Read | Unread | Close

Mark selected document as unread
Check all documents as read

Complete Blood Examination

Latest Version

Time Collected: 05/02/04 13:45 | Time Received: 05/02/04 15:02
 Time Reported: | Phlebot Order Number: MPO1206
 Status: Final
 Location: Depts Hospital
 Filter Order Number: MPO1898321

Complete Blood Examination

Test Name	Result	Units	Ref Range	Abnormal?	Status
Hemoglobin	123	g/L	115-155	Normal	Final
Red Blood Cell	4.18	ETC/L	4.2-5.4	Normal	Final
Platelets Clump Volume	36.4	%	37-47	Normal	Final
Platelets Mean Volume	87.2	f	80-96	Normal	Final
Platelets	400	ESL	100-400	Normal	Final
White cell count	8.8	ESL	4.0-11.0	Normal	Final
Neutrophils%	74	%		Normal	Final
Neutrophils	7100		2000-7000	Normal	Final
Lymphocytes%	13	%		Normal	Final
Lymphocytes	1300		1000-4000	Normal	Final
Monocytes%	9	%		Normal	Final
Monocytes	800		200-800	Normal	Final
Eosinophils%	4	%		Normal	Final
Eosinophils	400		40-440	Normal	Final

Cumulative

Report | Audit History

ESTHER MARCO Health Documents

Showing all documents

View By: Categories | Look For: | Read | Unread | Close

Mark selected document as unread
Check all documents as read

FBE

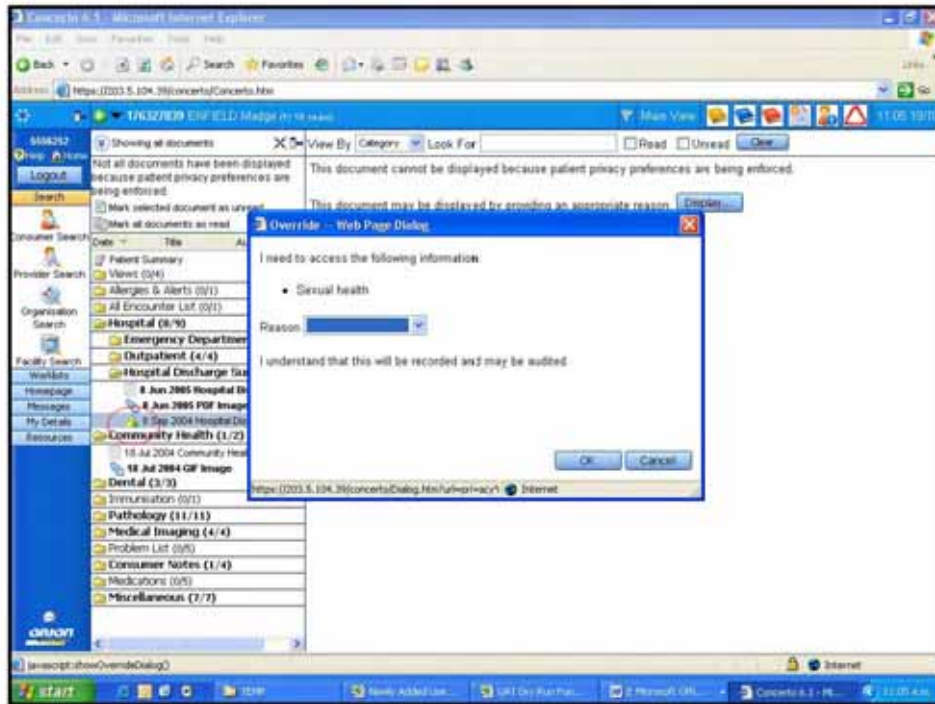
Reverse Order

FBE (Cumulative)

Test Description	1	2	3	Units	Ref Range
Phlebot Order Number	MPO150	MPO170	MPO210		
Date/Time Collected	04/02/04 11:30:00	04/02/04 14:30:00	04/02/04 11:30:00		
Date/Time Reported	04/02/04 11:30:00	04/02/04 14:30:00	04/02/04 11:30:00		
Source System	Manager	Manager	Manager		
Specimen Source					
<input checked="" type="checkbox"/> Hemoglobin	142	-	123	g/L	115-155
<input type="checkbox"/> Red Blood Cell	-	78	4.18	Diff	4.2-5.4
<input type="checkbox"/> Platelets Clump V.	-	-	36.4	%	37-47
<input type="checkbox"/> Platelets Mean V.	-	-	87.2	f	80-96
<input checked="" type="checkbox"/> Platelets	175	-	400	Diff	100-400
<input type="checkbox"/> White cell count	8.8	-	8.8	Diff	Diff
<input type="checkbox"/> Neutrophils%	-	-	74	%	
<input type="checkbox"/> Neutrophils	-	-	7100		2000-7000
<input type="checkbox"/> Lymphocytes%	-	-	13	%	
<input type="checkbox"/> Lymphocytes	-	-	1300		1000-4000
<input type="checkbox"/> Monocytes%	-	-	9	%	
<input type="checkbox"/> Monocytes	-	-	800		200-800
<input type="checkbox"/> Eosinophils%	-	-	4	%	
<input type="checkbox"/> Eosinophils	-	-	400		40-440
<input type="checkbox"/> Clinical	-	-	Major		

Select All | Unselect All

Report | Audit History



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Notifications

Showing Notifications

Name	Service Type	Event Type	Subscribe
Consumer Has Been Discharged Following An Hospital Visit	402	Discharge	<input type="checkbox"/>
Discharge Has Been Admitted As An Inpatient	402	Admission	<input type="checkbox"/>
Receipt of Any New Information Regarding a Consumer	Any	Any	<input type="checkbox"/>
Consumer is Deceased	Any	Death	<input type="checkbox"/>
Information Has Been Received Following a Community Visit	902	Community Visit	<input type="checkbox"/>
Allergy or Risk Information Has Been Received	902	Allergy	<input type="checkbox"/>
Medication Information Has Been Received	902	Medication	<input type="checkbox"/>
Information Has Been Received Following an GP Visit	902	GP Discharge	<input type="checkbox"/>
An Inpatient Discharge Summary Has Been Received	902	Hospital Discharge	<input type="checkbox"/>
Information Has Been Received Following an Outpatient Visit	902	Outpatient Visit	<input type="checkbox"/>
Information Has Been Received Following a GP Visit	902	GP Visit	<input type="checkbox"/>
A Pathology Report Has Been Received	902	Pathology	<input type="checkbox"/>
A Clinical Chemistry Report Has Been Received	902	Pathology	<input type="checkbox"/>
A Haematology Report Has Been Received	902	Pathology	<input type="checkbox"/>
A Microbiology Report Has Been Received	902	Pathology	<input type="checkbox"/>
A Virology Report Has Been Received	902	Pathology	<input type="checkbox"/>
A Histology, Cytology or Anatomical Report Has Been Received	902	Pathology	<input type="checkbox"/>
An Immunology Report Has Been Received	902	Pathology	<input type="checkbox"/>
A Human Genetics Report Has Been Received	902	Pathology	<input type="checkbox"/>
A Radiology Report Has Been Received	902	Radiology	<input type="checkbox"/>
An Other Pathology Report Has Been Received	902	Pathology	<input type="checkbox"/>
A Blood Group Serology Report Has Been Received	902	Pathology	<input type="checkbox"/>

From System Received 9/29/2005 11:20:39
Subject Pathology information received
Patient 41081071 PRETEXT, F 66
[View the attached document](#)

NEW PATHOLOGY INFORMATION HAS BEEN PROVIDED TO HEALTH e LINK FOR LIA ALICE (00000002).

CLICK on the picture or document icon to obtain the document icon control and view their record.

PATHOLOGY reports present in the new documents area:

- Haematology

Mark as Unread

Clinical Data Viewer

- Folders of historical patient information
- Color-coded for easy identification
 - Blue: Static read-only information
 - Green: Patient only may edit
 - Red: Patient and doctor may edit
 - Grey: Doctor only may edit
- Allows patients to create new documents online

Showing all documents

Date	Title	Author
	Child 0-5	
	Add New Document	
	Useful Information (3)	
	NSW Health Useful Information - Health e Link	
	Used 08:29 My emergency contacts and...	
	Used 08:34 Health service contacts and...	
	Allergies & Alerts (2)	
	Allergies & Alerts - Health e Link	
	Health History (5)	
	My Family Health History - Health e Link	
	My Health History and Risk Factors - Health e Link	
	Birth Details - Health e Link	
	Newborn Examination - Health e Link	
	Statewide Infant Screening - Hearing (5)	
	Health Diary (2)	
	Child Health Checks (3)	
	Growth Charts (0)	
	Observations (2)	
	Medications (1)	
	Immunisation (3)	

Access to Patient Data - Audit Report

Date/Time	User's Full Name	Description
1/1/2005 12:34	Dr. Mark Pense	Health e link, Encounter History
1/1/2005 12:34	Dr. Mark Pense	Health e link, GP Details
1/1/2005 12:34	Dr. Mark Pense	Health e link, Patient Summary
1/1/2005 12:34	Dr. Mark Pense	Health e link, Max View
1/1/2005 12:34	Dr. Mark Pense	Supplies Worksheet, Medical Templates, Order Document, Discharge Summary
1/1/2005 12:34	Dr. Mark Pense	Supplies Worksheet, Medical Templates, Order Document, Discharge Summary
1/1/2005 12:34	Dr. Mark Pense	Health e link, Patient Demographics
1/1/2005 12:34	Dr. Mark Pense	Health e link, Alerts
1/1/2005 12:34	Dr. Mark Pense	Health e link, GP Details
1/1/2005 12:34	Dr. Mark Pense	Health e link, Prescription Management
1/1/2005 12:34	Dr. Mark Pense	Health e link, Encounter History
1/1/2005 12:34	Dr. Mark Pense	Health e link, Order Documents
1/1/2005 12:34	Dr. Mark Pense	Health e link, Standard
1/1/2005 12:34	Dr. Mark Pense	Health e link, Immunizations
1/1/2005 12:34	Dr. Mark Pense	Health e link, GP Details
1/1/2005 12:34	Dr. Mark Pense	Health e link, Encounter History
1/1/2005 12:34	Dr. Mark Pense	Health e link, Prescription Management
1/1/2005 12:34	Dr. Mark Pense	Health e link, Patient Summary
1/1/2005 12:34	Dr. Mark Pense	Health e link, Alerts
1/1/2005 12:34	Dr. Mark Pense	Health e link, Patient Demographics

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health e link

Challenges Faced

- Patient registration model (opt-out vs opt-in)
- Consensus on designing the system and UI
 - System for doctors vs for patients
- Sharing Information between multiple hospitals
- Access to data
 - Should patients be able to view all their data
 - Should doctors be restricted from viewing data

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EHR Experience

- The process for patient registration, whilst conforming to privacy legislation (enrolled manually vs. enrolled via messaging)
- Obtaining and managing consent (e.g. opt-in vs. opt-out model, explicit vs. implicit consent)
- Using consent to restrict access to the EHR (e.g. full consent, partial consent or no consent, break-the-glass functionality).
- Managing patient access to their own record (read-only vs. updating personal and clinical information)

Solution Capabilities

- Orion's portal functionality, workflow and look and feel has been co-designed by clinicians, and optimized for an EHR solution
- We can use our experience to help you design your EHR solution
 - Dynamic Patient Summary is a snapshot view of the latest data about a patient
 - Clinical Data Viewer organizes historical information into clinically-relevant folders
 - Filtered by date, time, encounter, location, author, type and service
 - Abnormal, unread, and urgent flags reduce search time
 - Work lists for managing groups of patients of interest
 - Notifications "push" important information to clinicians
 - User messaging to improve collaboration among providers

Since Go-Live in March 2006...

- Of the patients registered in the system
 - 1% have asked for access to their own record
- Rollout to 2nd Pilot area to commence September 2006
 - Greater Western Sydney
 - Rollout is across 4 hospitals (based on hospital location- ED, Inpatient, Outpatients at each hospital)
 - Also, includes data from community clinics in the area (approx 15 clinics)
 - Much larger population so expect greater number of registrations and higher % of patients wanting access to their own record
- GP Conference

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Large Scale Messaging Projects



UCDAVIS
HEALTH SYSTEM

CDC, USDA, UC Davis Health...

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Large Scale Messaging Projects - USA

- CDC has standardised on Rhapsody as the core messaging facility to receive data from 50 states
 - All hospitals in USA will have runtime Rhapsody to send de-identified data
 - Geographical distribution of diseases
- USDA – United States Department of Agriculture has standardised on Rhapsody to monitor Animal Health diseases, Bird Flu, BSE, etc
- US Davis – Disease Surveillance – Tuberculosis, Cancer, Immunisation information is sent

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RHAPSODY

Rhapsody – Interface Engine

- Delivers Patient Demographics and Clinical Information from multiple Systems
- Performs Message Mapping Between Formats
- Wide range of connection capabilities
- Provides Interfaces to Existing Vendor Systems
- Provides Simple, Easy-to-Use Mapping and Routing Toolkit
- Participant at HL7 booth for Interoperability Solution
- Rated #1 Interface Engine in KLAS

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Rhapsody Advantages

- Build easier endpoint communications
- Build easier data mapping
- Many built-in filters, qualifiers, conversions, translation
- Easy deployment of interface projects
- Easy to use and robust monitoring tools
- Flexibility to meet complex business rules

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Different Messaging Standards

EDI

- HL7 2.1, 2.2, 2.3.1, 2.4, 2.5 & draft version 3
- DICOM support, image and data extraction
- X.12, ranging from 2001-4041
- HIPAA 837, 997, 277, 275, 835 V. 4020
- EDIFACT ranging from 901-103A
- HCFA X.12 837A
- UB92 V.4.1 and V.5.0
- ASTM
- NCPDP
- Custom fixed width formats, csv, etc...

XML

- W3C DTD compatible
- W3C schema compatible
- Microsoft schema compatible
- ebXML

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Different Connection Protocols

Comm. Points

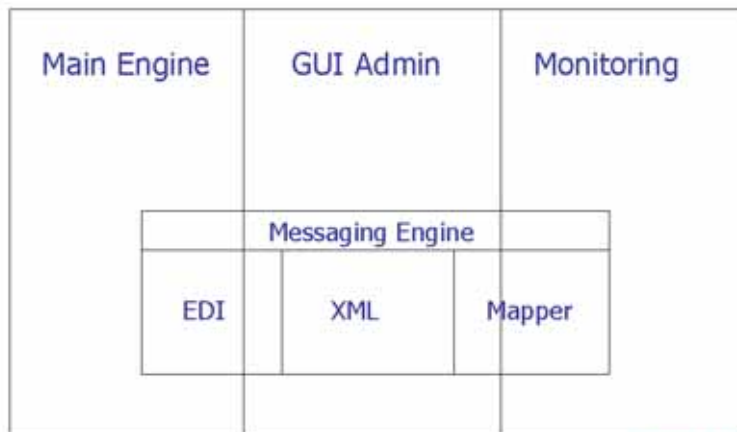
- TCP/IP
- HTTPS server and client
- Database (input and output)
- File read-from, write-to directory, batching and de-batching to disk, zip support
- E-mail (input and output)
- HylaFAX (output only)
- Printing
- Java RMI
- JMS (input and output)
- Serial (RS-232) with user defined header and/or trailers
- FTP client
- SFTP client
- COM
- MQ Series, MSMQ (native)
- IBM MQ Series
- Systems Network Architecture (SNA)
- Notifications

Filters

- Apply XSLT Stylesheet
- XML Signing / Verifying Filter
- XML Cryptography Filter
- XML to PDF
- XML to RTF
- XSD Validator
- Cryptography
- Batching/Debatching
- Character Encoding Translator
- Database Lookup
- ebXML Filters
- DICOM JPEG Extraction Filter
- DICOM to XML / XML to DICOM Filter
- EMPI Enterprise ID Query Filter
- EMPI Patient Details Query Filter
- EDI Message Validator
- Code Validation & Translation Filter
- Content Population
- Symphonia Mapper
- Provider Index Query Filter

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The Administration Application

- Build interfaces using drag-n-drop technology
- Wizards for new communication points and routes
- Check-in/check-out procedure
- Mapping and translation filters
 - Encryption (certificate authentication – CA), validation, content extraction, transformation e.g. XML->PDF, database lookup,
 - Library of HL7 mappings built-in
- All user activity tracked in an Audit Log

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The Administration Application

It is an easy to use Windows application...

The screenshot displays the ORION Administration application interface. The main workspace is titled "Route Workspace" and shows a flow diagram. On the left, under "Engine Components", there is a "VB EDI Server" icon. Arrows point from this server to "Synchro Mapper" and "Content Population" icons. From "Synchro Mapper", arrows point to "Email Staff", "XML Dv", and "EDI Dv" icons. From "Content Population", an arrow points to "EDI Dv". The interface includes a menu bar (File, View, Orapody, Window, Help), a toolbar, and a "Properties" window at the bottom. The "Properties" window is titled "VB EDI Server Properties / Output" and contains the following table:

Property	Value
Local Port	1001
Local Address	127.0.0.1
Maximum Conn.	10
Listen Backlog	10
Incremental Wait	Minimal



Monitoring Tools

- Web-based monitoring of engine performance
 - Determine status of each route and communication point
 - Start/stop communication points
 - Message tracking
 - View error, hold and delete queues
 - Edit and resend messages with errors
 - Retrieve messages from archives
 - Analyze performance with reports, statistics and graphs

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Web Monitoring Tools

Main Rhapsody Monitoring Page

Total Count - 15 (6)

Queues

Error Queue - 3

Delete Queue - 0

Hold Queue - 0

- [Freeze Window](#)
- [View Log](#)
- [Route Summary](#)
- [View Audit Events](#)
- [Tracking](#)
- [View Archives](#)
- [Configure Views](#)
- [View Statistics](#)

Routes

Name	State	Waiting	Current	Processed
EDT Validate				
Database Filter				
Code translate	■ ▶	0	0	3 (0)
cryptography	■ ▶	0	0	3 (3)

Communication Points

Name	State	Type	Received	Sent	Waiting
EDT Validate					
Database Filter					
email	■ ▶	E-mail	0 (0)	0 (0)	0
Input TCP	■ ▶	TCPServer	3 (3)	0 (0)	0
Output TCP	■ ▶	TCPClient	0 (0)	3 (3)	0
Dir In	■ ▶	Directory	0 (0)	0 (0)	0
Dir Out	■ ▶	Directory	0 (0)	0 (0)	0

Error Log

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Monitoring Statistics

Folder Info

Routes Database Filter

Path	State	Waiting	Current	Processed
Code translate		76	0	0 (0)

Chart Displaying time series chart showing today's hourly message throughput

Generate Statistics

Time Since: 4 Oct 2004 00:00:00 Before: Unit Time: Minute

Chart: Message count time series chart Message elapsed time chart Message counts per origin chart **Generate**

KLAS Report

PRIMARY INDICATORS

QUESTION	RHAPSODY	ODX INTEGRATOR (CLOVERLEAF)	DATAGATE	SIEMENS OPENLINK	EGATE	ALL PRODUCTS
Lived up to expectations	8.47	6.95	7.88	6.92	6.92	6.93
Vendor is improving	6.07	6.00	6.50	6.64	6.29	6.79
Proactive service	6.20	6.24	6.38	6.35	5.24	6.53
Money's worth	6.73	7.19	8.50	6.77	7.25	7.07
Enterprise commitment to technology	6.60	7.48	7.38	7.19	7.24	7.20
Vendor executives interested in you	6.57	6.05	4.75	6.38	5.24	6.93
Contracting experience	6.36	6.12	6.25	6.03	6.35	6.82
Product works as promised	6.67	7.38	8.00	7.66	7.14	7.10
Quality of training	6.43	6.25	7.25	6.68	6.70	6.83
Quality of implementation	6.31	7.25	7.14	6.46	6.35	6.95
Quality of telephone/web support	6.43	7.30	7.00	7.08	6.61	7.08
Quality of interface services	6.79	8.29	8.63	7.92	7.93	7.17
3rd party prod. works w/ vendor prod.	6.08	7.40	7.57	7.50	7.00	6.89
Helps Your Job Performance	6.73	7.37	7.75	7.38	7.34	7.07
COLUMN AVG.	6.46	6.93	7.21	6.95	6.68	6.96

HEALTH

DETAIL INDICATORS

QUESTION	RHAPSODY	GDx INTEGRATOR (CLOVERLEAF)	DATAGATE*	SIEMENS OPENLINK	EGATE	ALL PRODUCTS
Worth the effort	8.33	7.67	8.50	7.31	7.82	7.30
Real problem resolution	8.47	7.14	7.13	6.81	6.21	6.98
Good job selling	8.13	6.26	5.50	6.32	6.00	6.71
Product quality rating	8.67	7.30	8.13	7.38	7.14	7.23
Implementation on time	8.64	7.05	8.00	7.04	6.04	7.20
Implementation within Budget/Cost	8.57	7.17	7.71	7.20	6.52	7.52
Quality of implementation staff	8.71	7.22	7.14	6.64	6.83	7.26
Quality of documentation	8.07	6.22	6.88	6.00	6.64	6.70
Quality of releases & updates	8.20	6.60	7.30	6.92	6.74	6.87
Production errors addressed quickly	8.42	6.63	7.50	7.12	6.55	6.79
Interfaces met deadlines	8.50	7.75	7.75	7.75	6.72	7.08
Quality of custom work	8.71	7.33	7.00	7.12	6.16	6.97
System response times	8.40	7.47	7.86	7.86	7.54	7.24
Technology easy to implement & support	8.60	7.29	8.17	8.01	6.99	7.09
COLUMN AVG.	8.46	7.07	7.34	7.03	6.69	7.07

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Super Dolphin Project

HEALTH INNOVATORS





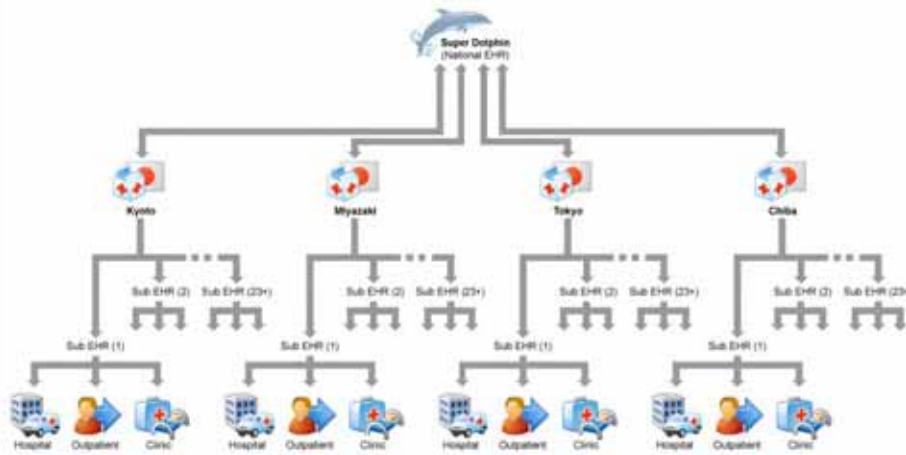
Japan Health IT objectives

- Manage Life cycle records – Health Record – Physical/Mental/etc...
- Electronic Medical Record – Government initiatives
 - 200+ beds must have EMR by 2010
 - 400+ beds must have EMR by 2008
- Track patient information between prefectures
- Effective communication using Industry Standards e.g. ebXML, HL7 CDA, MML, etc...

HEALTH INNOVATORS

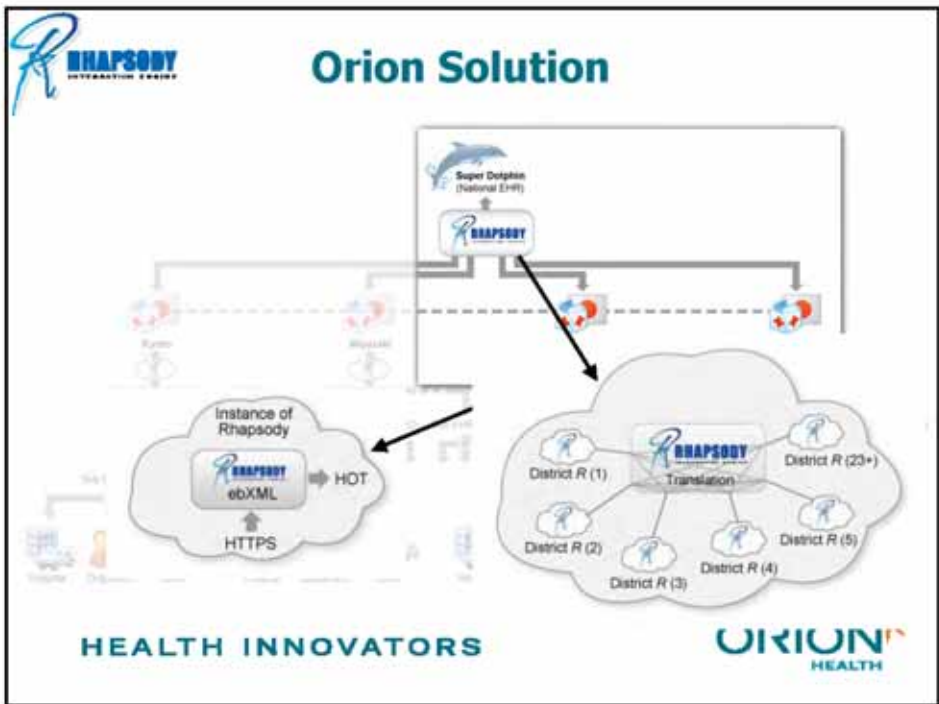
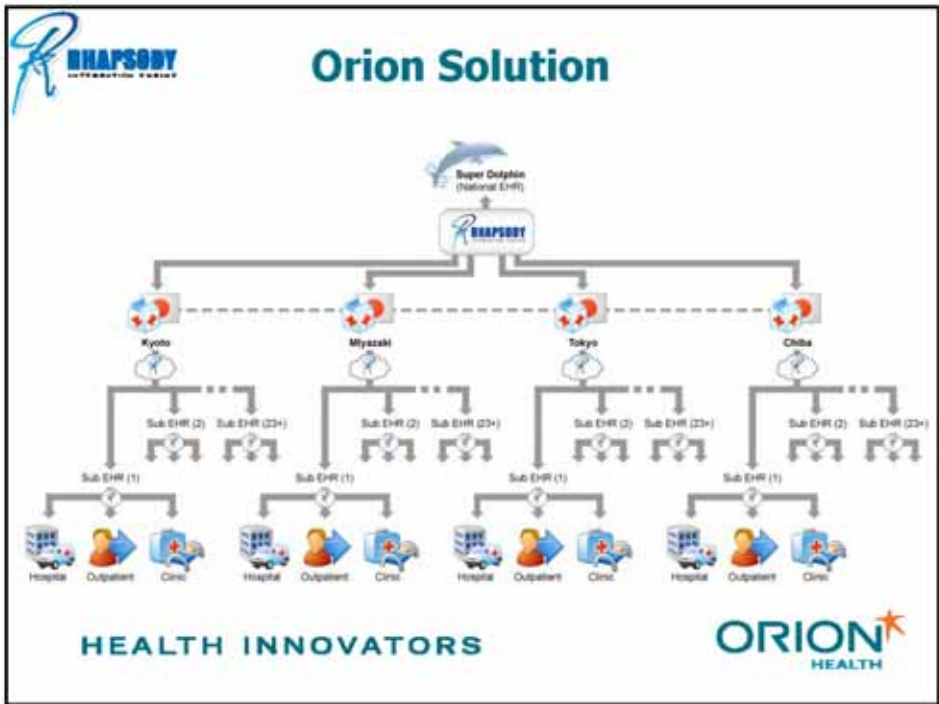


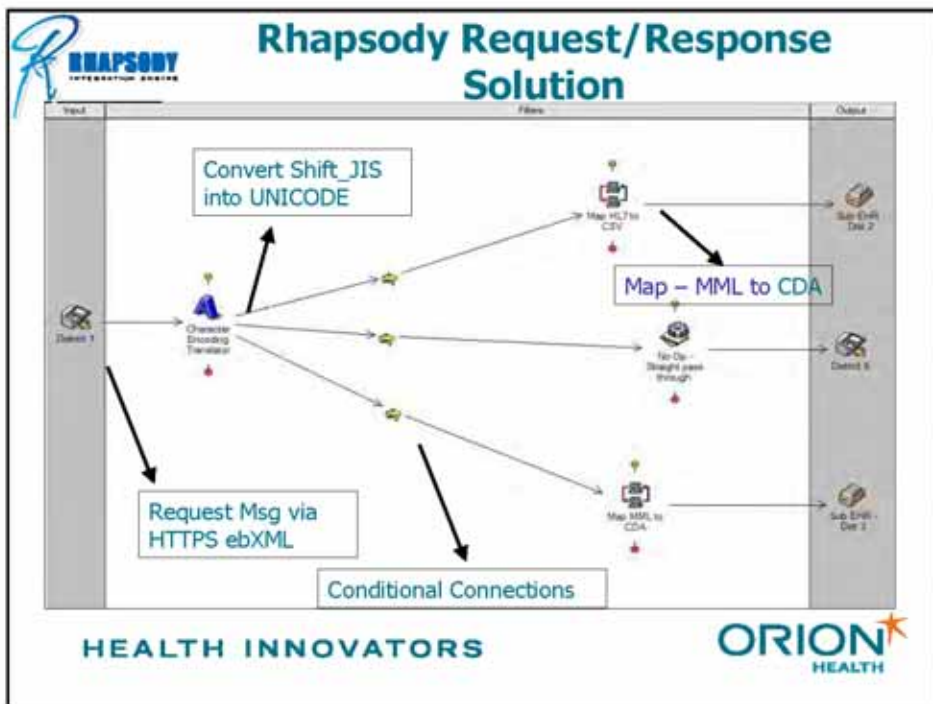
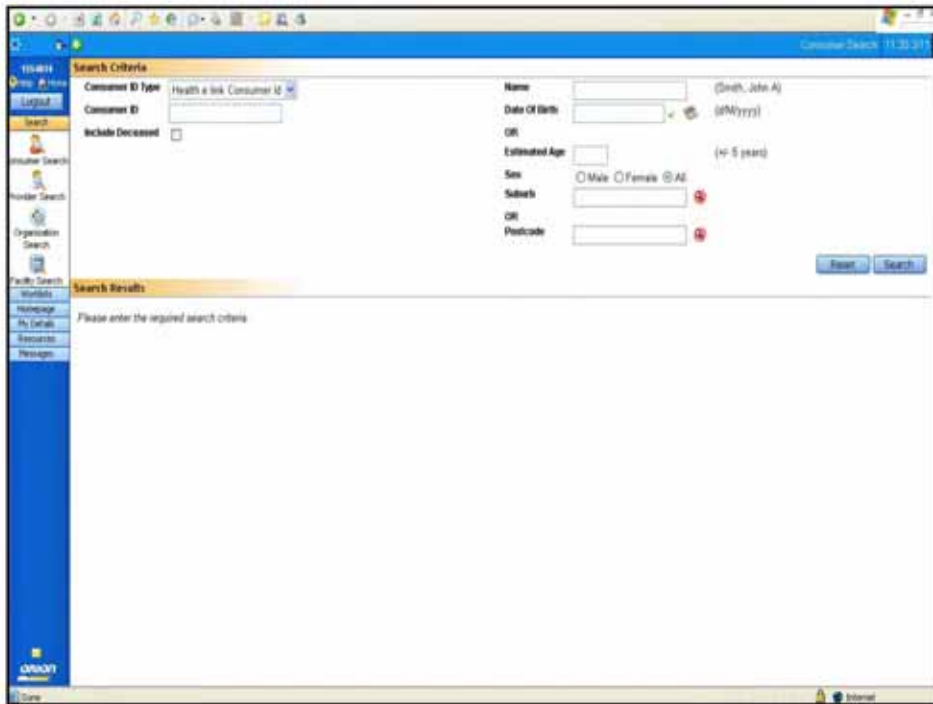
National EHR



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Rhapsody Mapping Solution

- Built incoming definition – use MML sample file provided by Nakashima-san
- Built outgoing definition – use HL7 CDA rel. 2 W3C download directly from website
- Apply mapping rules

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Import MML DTD using DTD importer

Import HL7 CDA W3C using Schema Importer

The image displays two screenshots of the Rhapsody software interface. The left screenshot shows a window titled 'Document | levelone' with a tree view of XML elements. A callout box points to the 'Import MML DTD using DTD importer' button. The right screenshot shows a window titled 'Document | ClinicalDocument' with a table of attributes and a tree view of children. A callout box points to the 'Import HL7 CDA W3C using Schema Importer' button.

RAPSONY Mapping Business Rules

Drag and Drop to create code automatically

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RAPSONY Mapping Solution

Incoming Msg - MML

Map to HL7 CDA rel.2

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Conclusions

- Company focus purely on Health
- Expertise and Experience in deploying EHR's around the world
- Understand challenges faced – opt-in/out, multiple ID, etc...
- Software – Rhapsody, Concerto, EMPI – can handle Japanese text
- Commitment to Standards
- Ability to grow and satisfy future requirements
- Happy to discuss in detail about specific requirements

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ORION^{*}
HEALTH

RHAPSODY
INTERFACE ENGINE



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Thank You