

The ‘Big SHIN-NY Bus’

An SOA Infrastructure for New York Healthcare

SOA in Healthcare
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Delivering on the Promise of Healthcare Information Technology

Agenda

- Overview
- Primary Healthcare Functionality (current)
- Architectural Overview
- Common Health Information Exchange Protocol (CHIxP)
- Details on Public Health Functionality
- Details on Medication Management Functionality
- Security Aspects
- Wrap up, Q&A

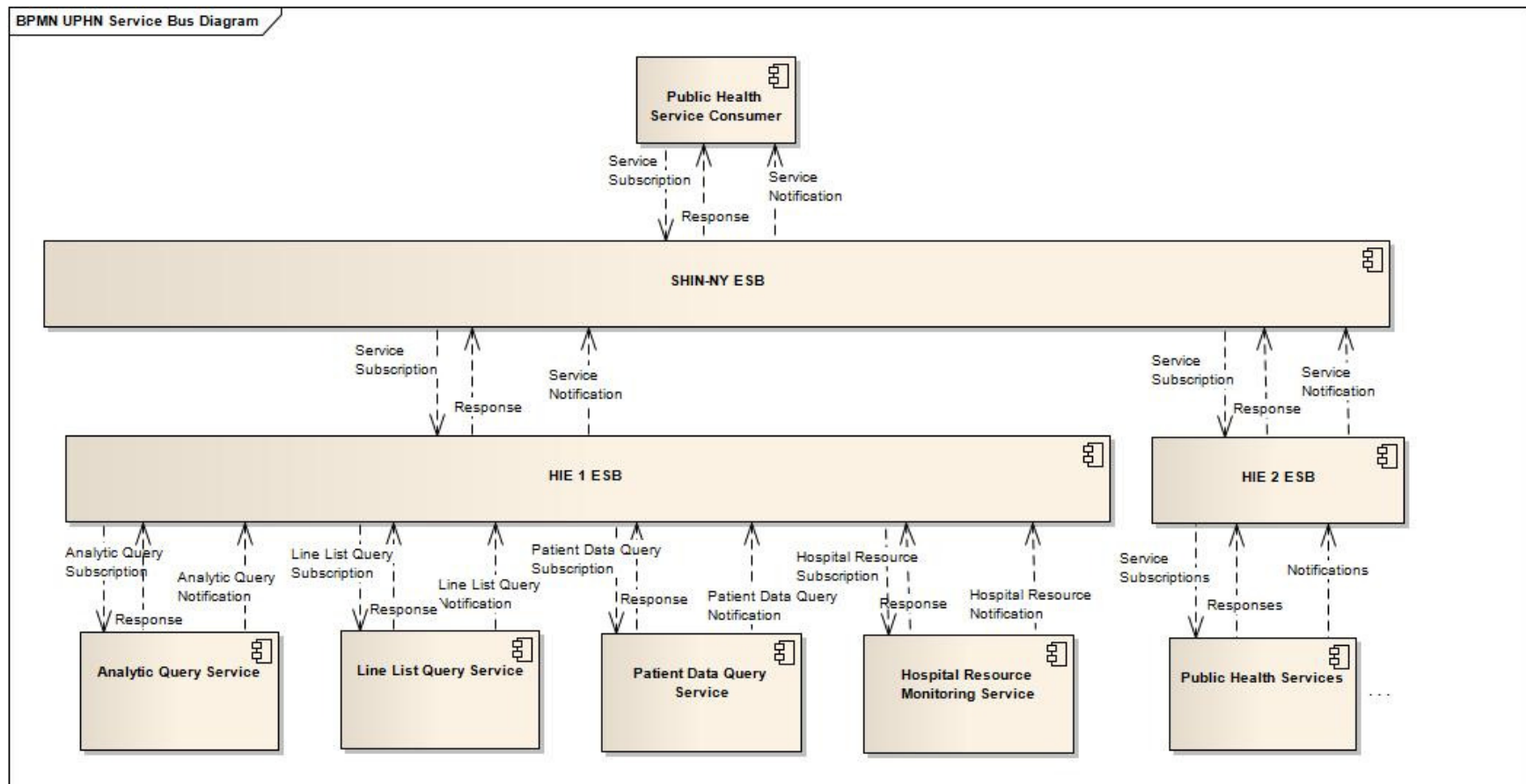


Primary Healthcare Functionality (current)

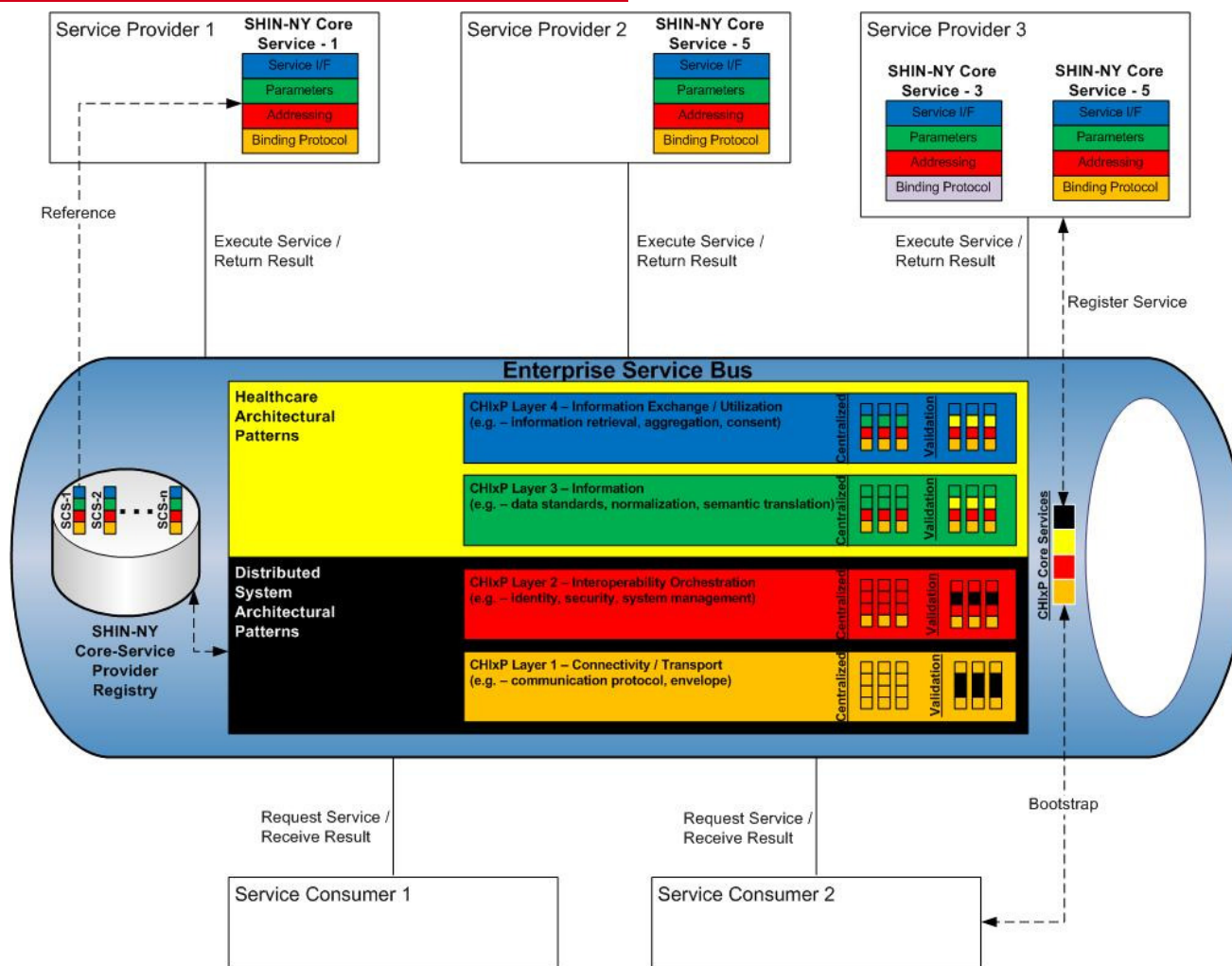
- Two primary areas currently under development
 - Public Health
 - Includes subscribed Biosurveillance and a dynamic Investigative query mechanism
 - Medication Management
 - Medicaid and Commercial data providers
 - Eligibility
 - E-Prescribe
 - Medication History



Architectural Overview



Common Health Information Exchange Protocol (CHIxP)



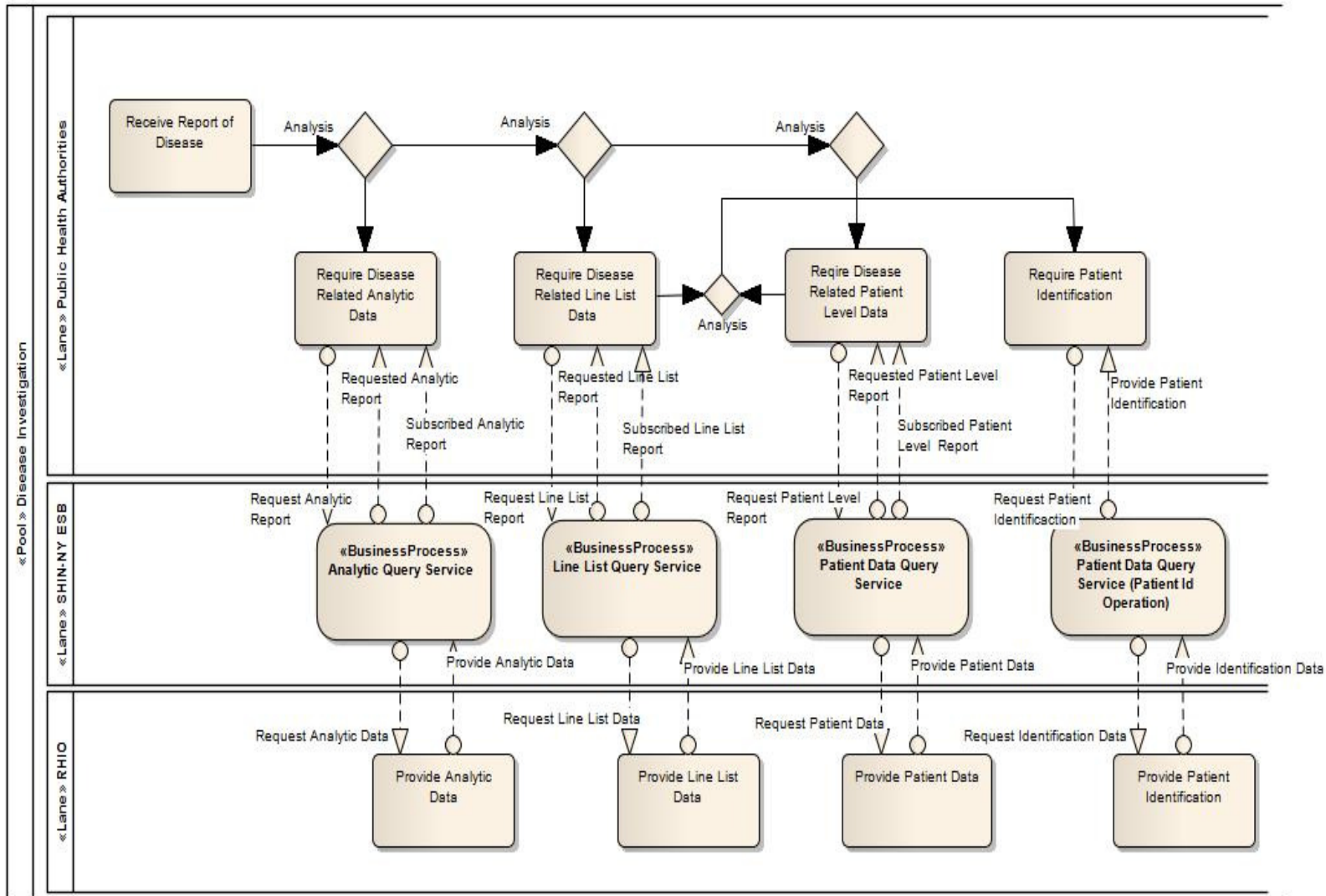
Details on Public Health Functionality

- ESB and Business Processes
 - Business Processes leverage multiple services
- Service Layer Components
 - Describes Service Ports and Messages
- Subscribe Message Schema Specifics
 - Example of Subscription Customization

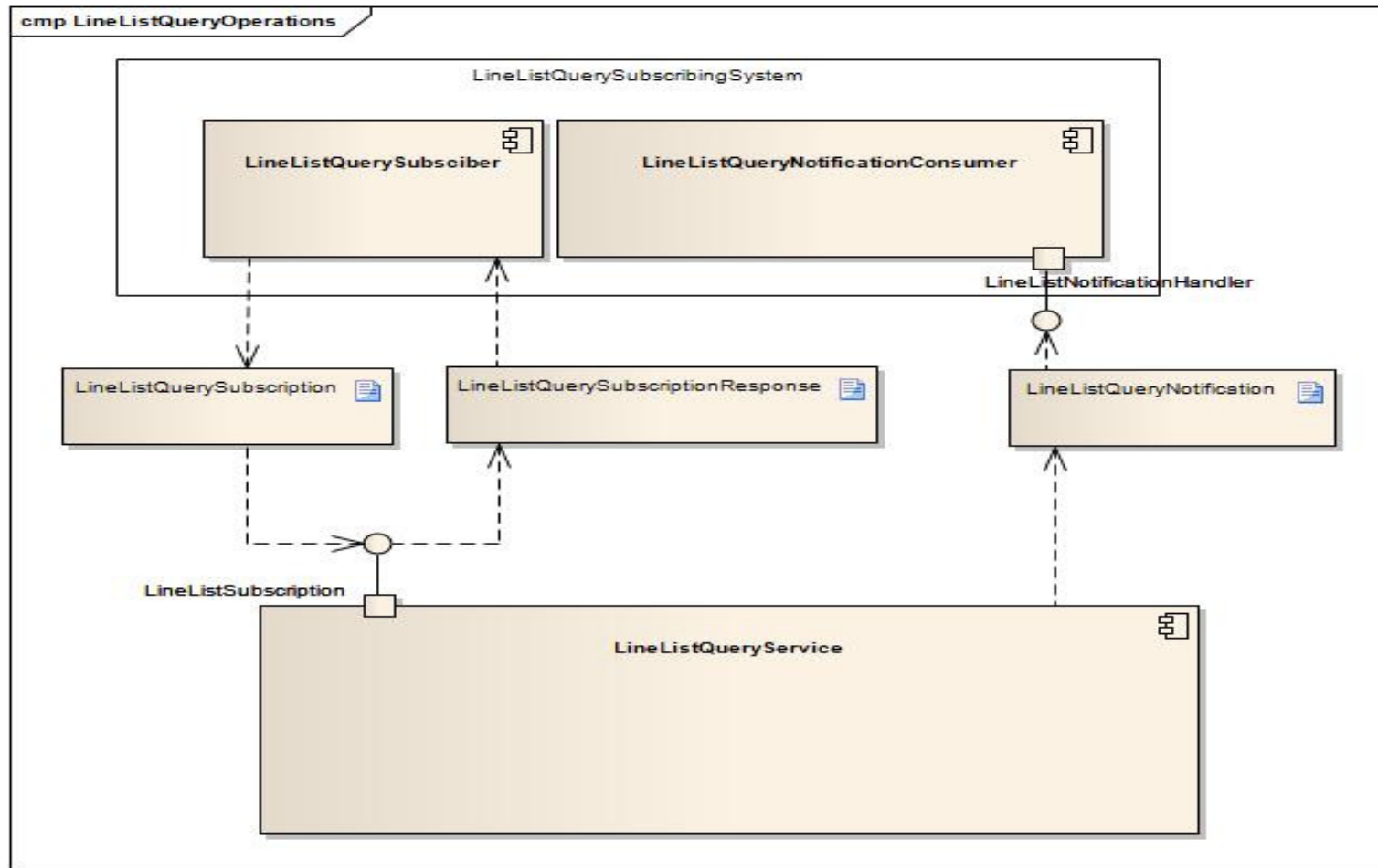


PH Business Process Example

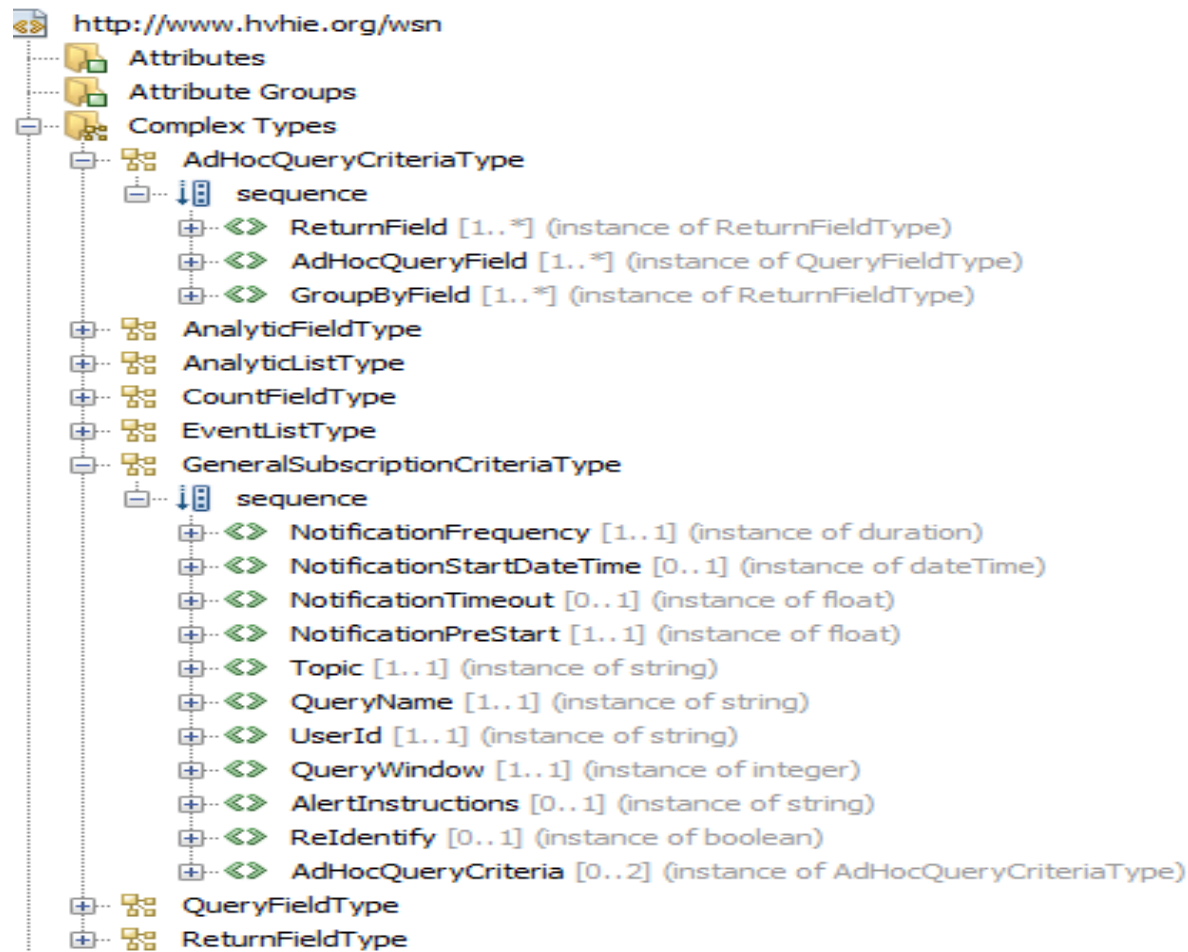
class Disease Investigation BPMN



Service Layer Components Example



Subscribe Message Schema Specifics



Notification Message Schema Specifics

- Analytic Notification Payload
 - Numeric numerator and denominator data
- Line List Notification Payload
 - HL7 2.5
- Patient Notification Payload
 - HL7 CDA CCD
- Hospital Resource Notification Payload
 - OASIS HAVE standard.

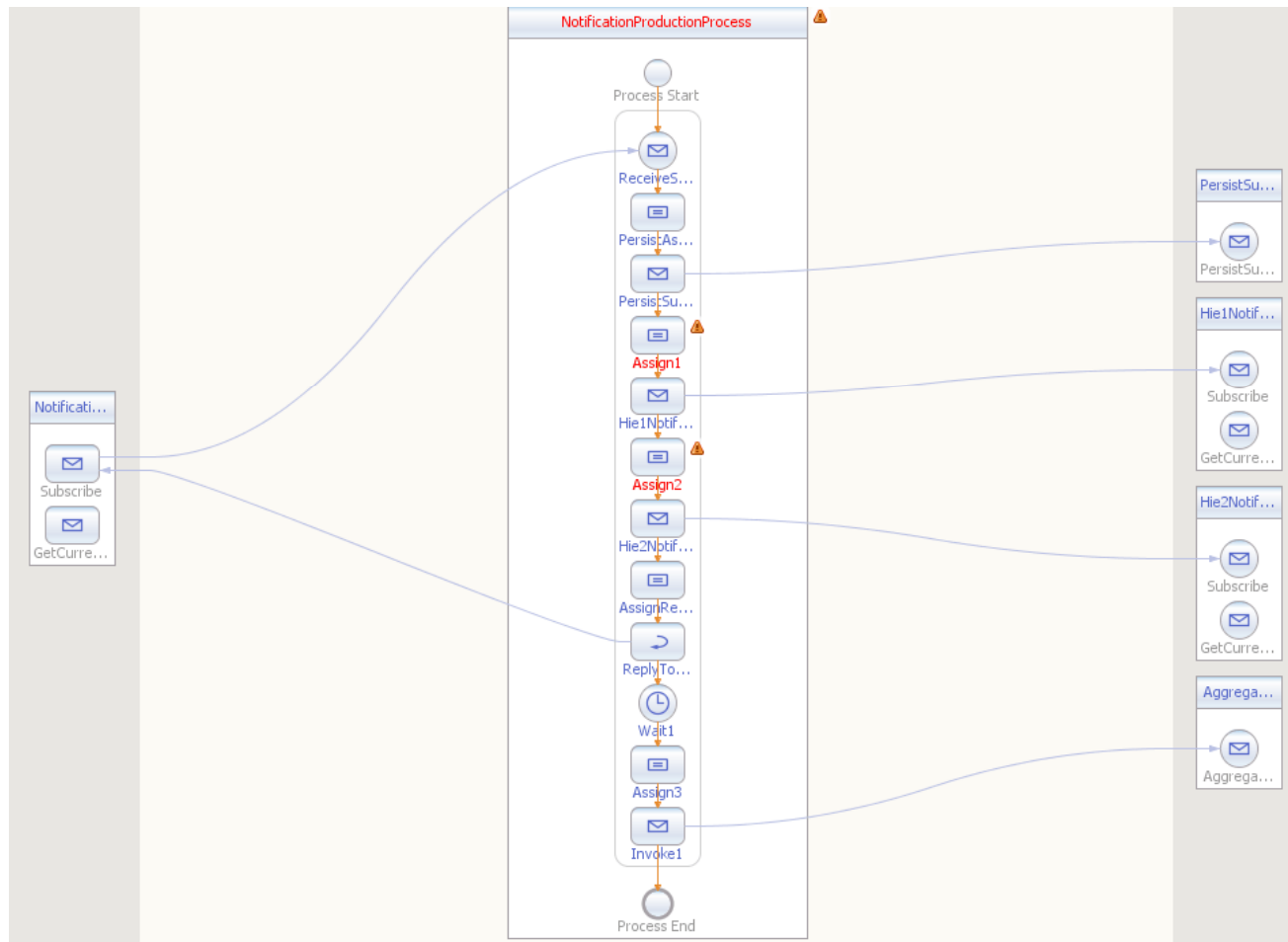


Details on Medication Management Functionality

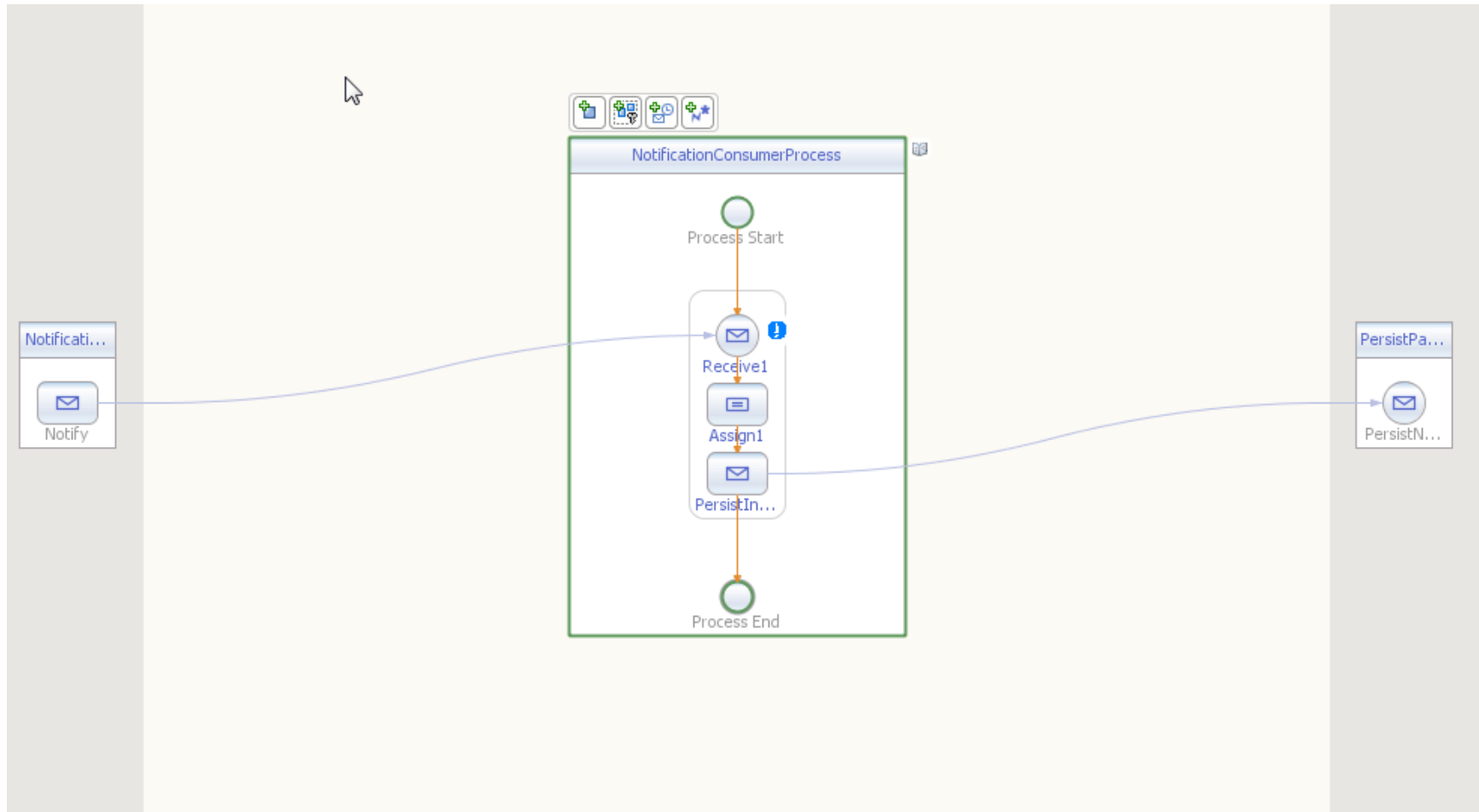
- ESB and Business Processes
 - Orchestration is an Automated Business Process
 - Scatter-Gather Pattern is a classic example of an orchestrated process
 - SHIN-NY Medication History Leverages the Scatter Gather Pattern



Scatter-Gather Orchestration, BPEL Example Subscription (Notification Producer)



Scatter-Gather Orchestration, BPEL Example Notification Consumer



Security Aspects

- Security makes up a large part of the Requirements Effort
- Aspect is a Key Word
- Architecture treats Security as a Service
- Start Early on a Proof of Concept
 - Message Level Security
 - SAML2 and Federated Authentication



- Wrap-Up

Q&A

