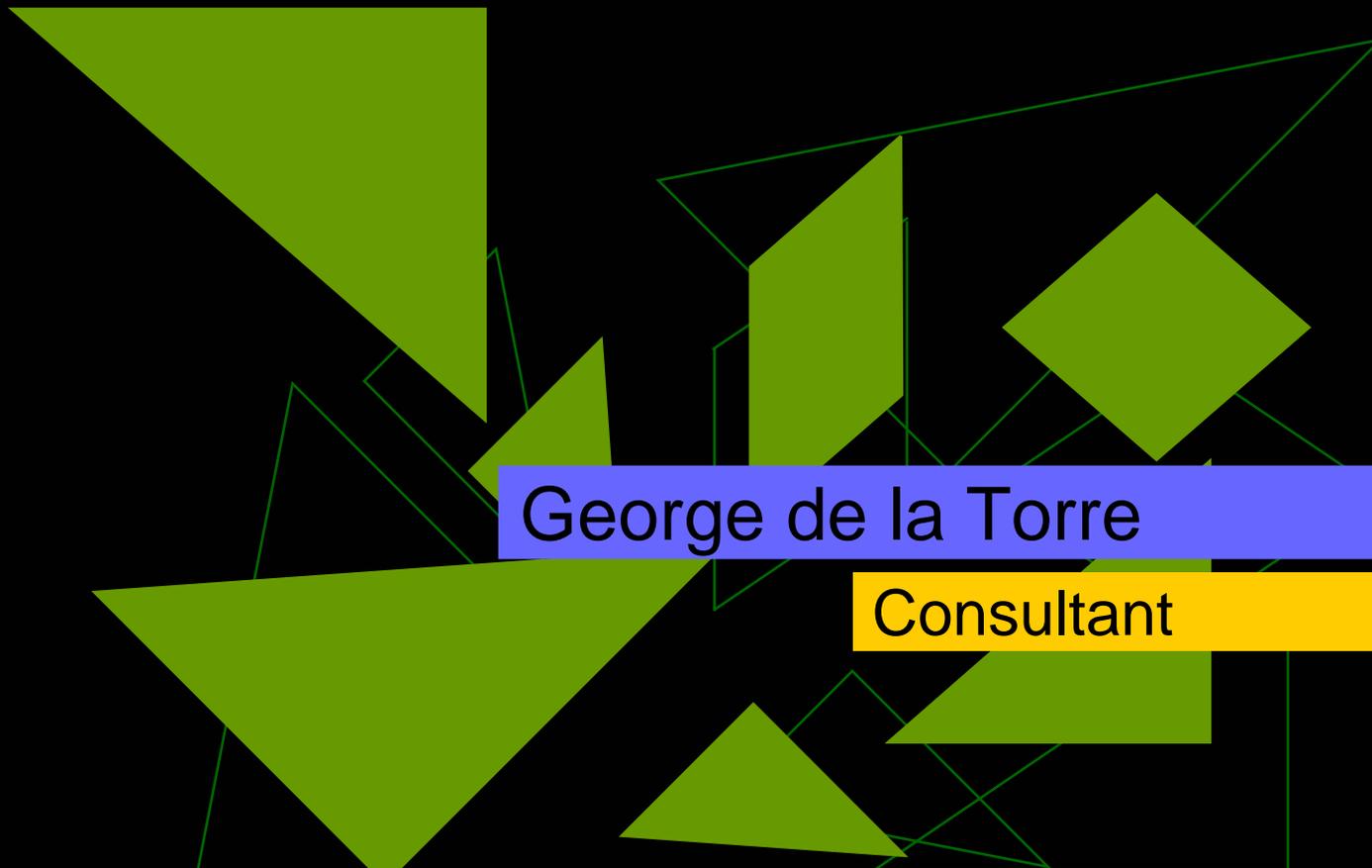


# Maximizing PHIN Flexibility and Productivity With a SOA Strategy



George de la Torre

Consultant

# My Background

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- ◆ Before Public Health
  - Enterprise LIMS
  - Proteomics research
  - Lab robotic interfaces
- ◆ Now with Public Health
  - Researched the past and future
  - Discovered the NEDSS model
  - Grabbed the NEDSS Rational Rose model and never looked back!

# The Purpose

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A successful software project is one whose deliverables satisfy and possibly exceed the end user's expectations, was developed in a timely and economical fashion, and is resilient to change and adaptation.

- Grady Booch [1996]

# The Purpose

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- ◆ **PublicHealthInformationNetwork**
  - Provides crisp abstraction for all public health use cases
  - Common vocabulary between end users and developers
  - Clear separation of concerns, creating firewalls that isolate the common model
  - “What is understood is reused”

# The Purpose

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- ◆ Service Oriented Architecture
  - Leverages existing assets
  - Supports all types of integration
  - Allows for incremental migration
  - Establishes standard framework
  - The business drives the service and the services drive the technology

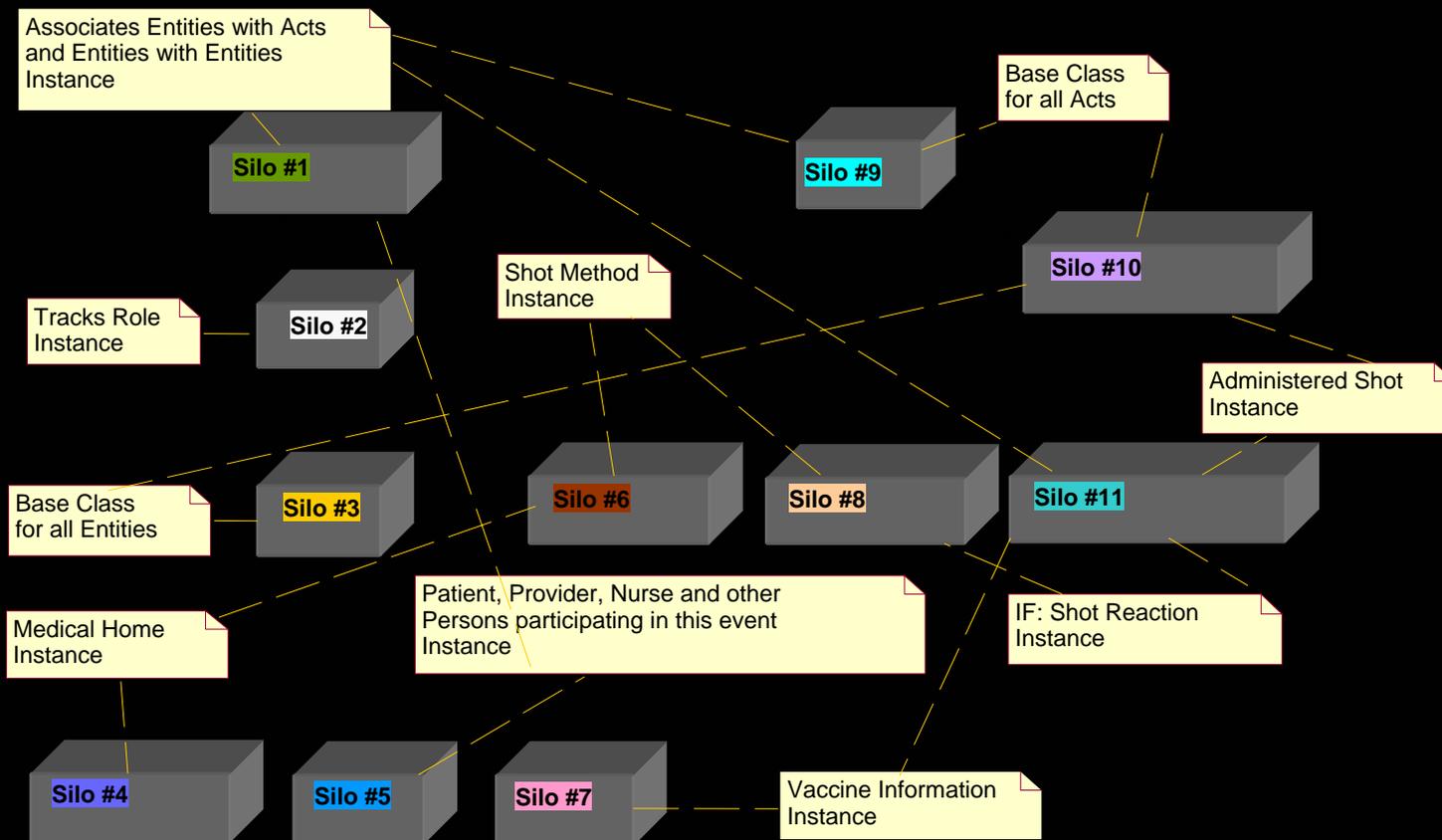
# Before PHIN

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- ◆ **PublicHealthInformationNightmare**
  - The silo prevalent standard
  - Duplicate now, de-duplicate later
  - Faxes are the information highway
  - The “integration” created an industry
  - State vehicle registration, a lot easier than obtaining a state vaccine record

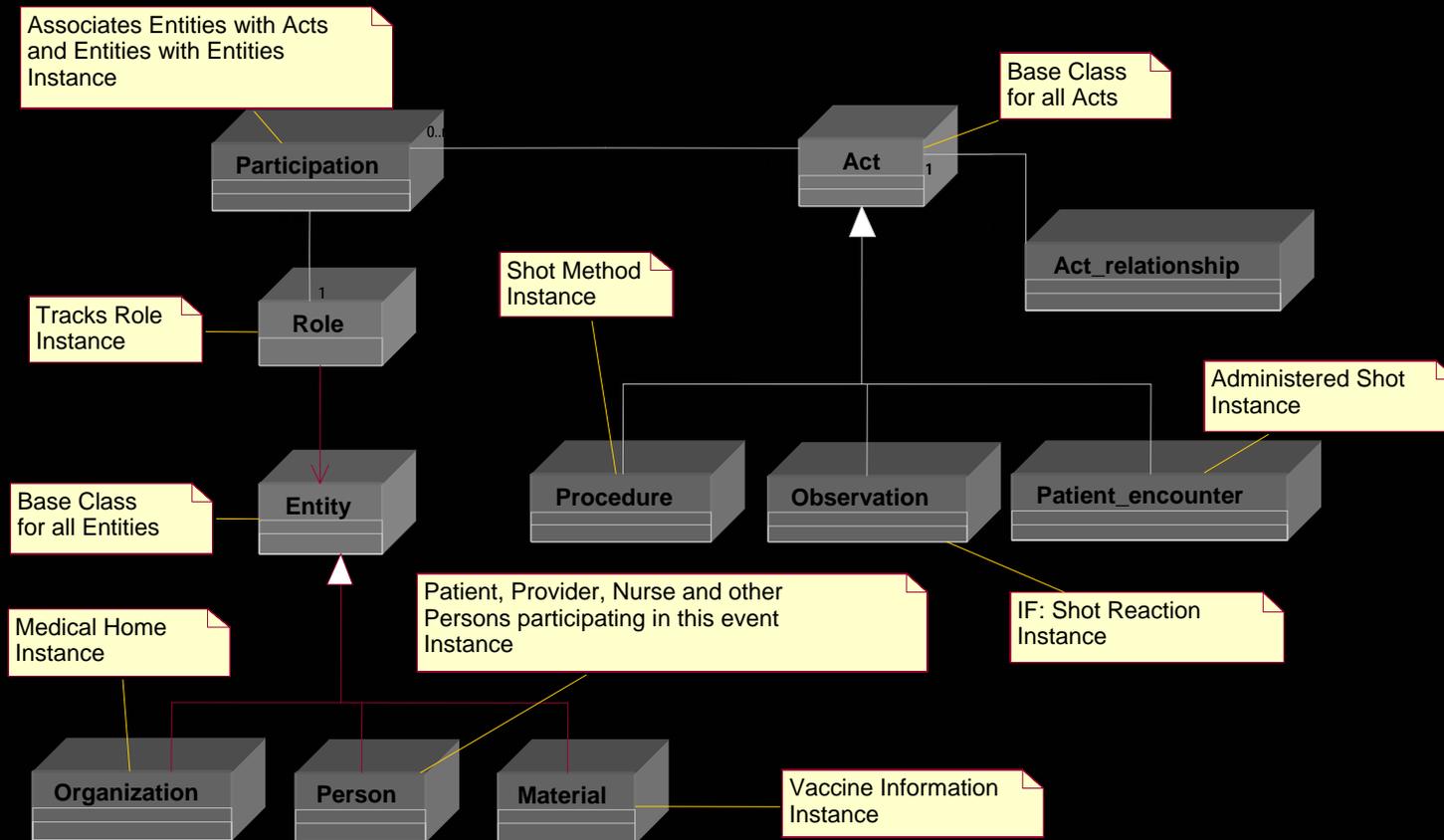
# Silos Everywhere

# Before PHIN



# Silos Consolidated

# After PHIN



Disease  
Surveillance

# After PHIN

Vaccine Mgmt.

## PHIN Model

All Public  
Health  
Concerns

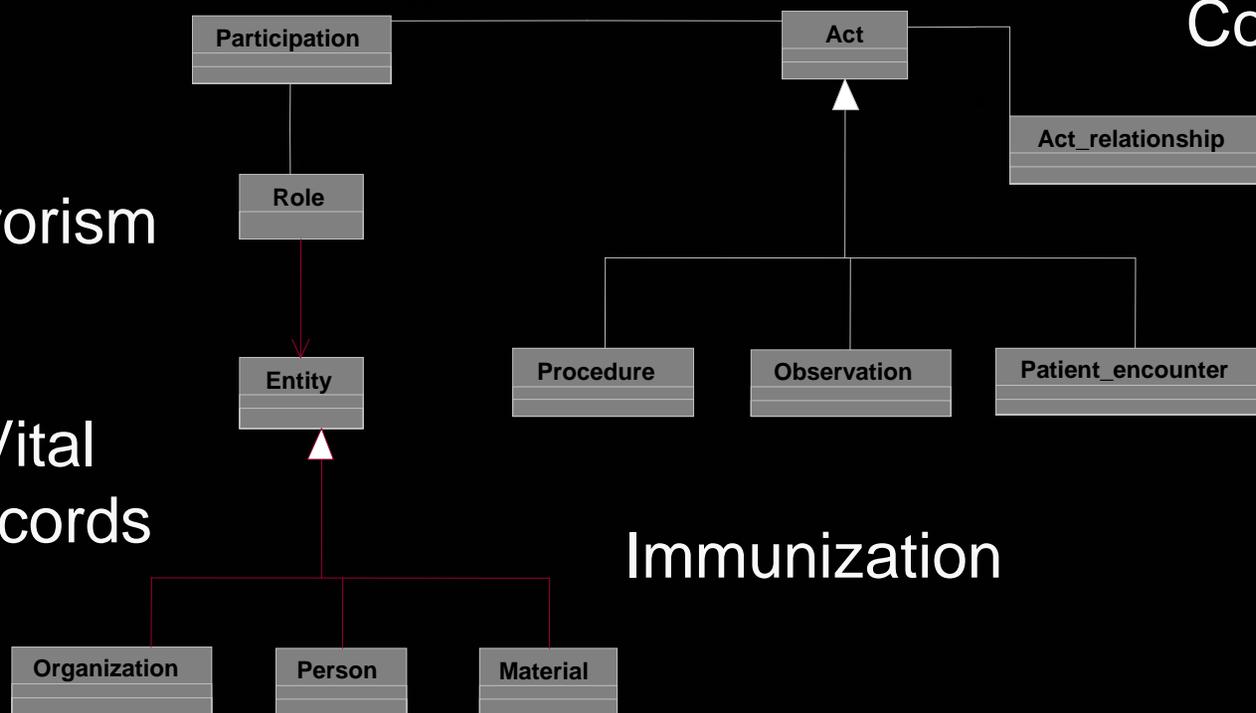
Bioterrorism

LIMS

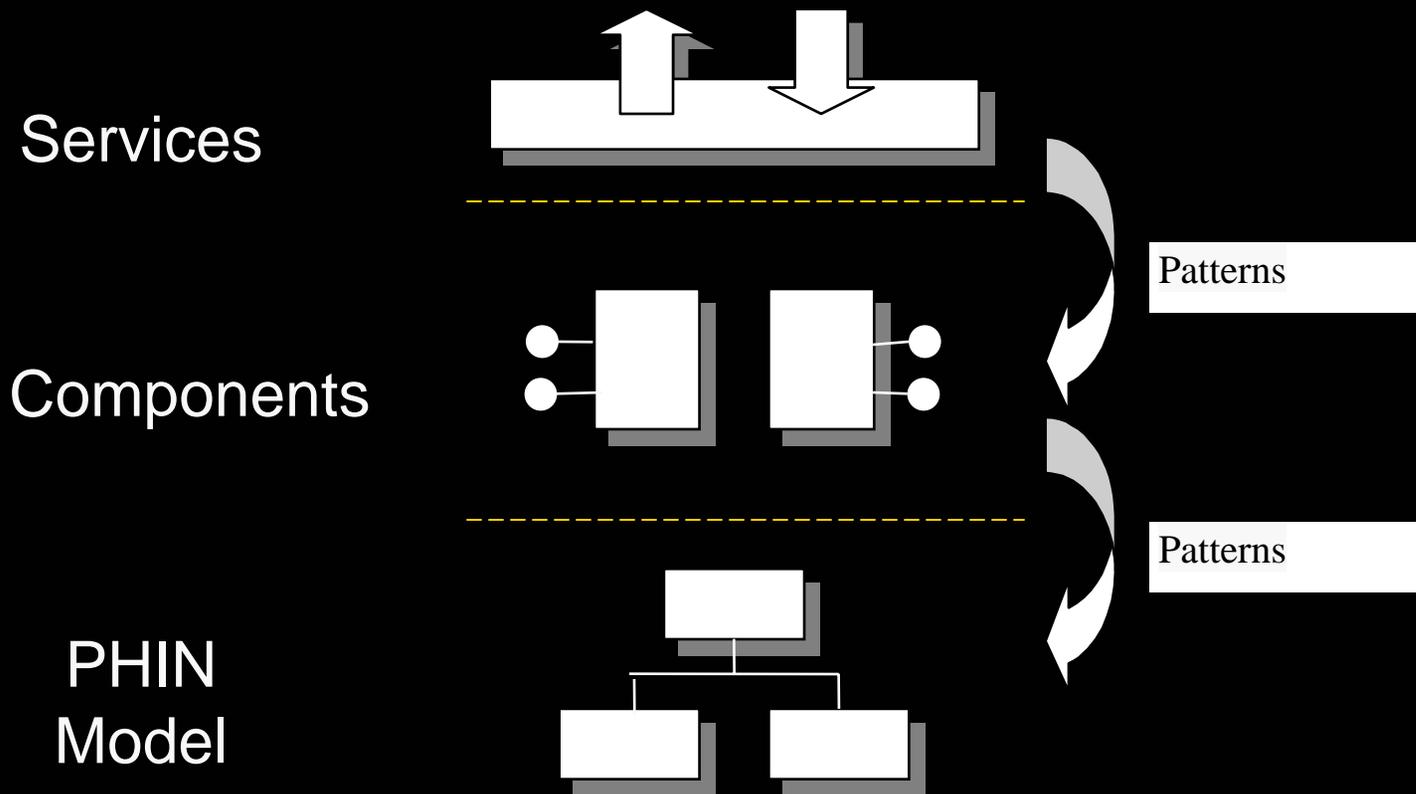
Vital  
Records

Immunization

HAN

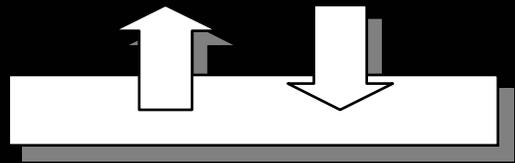


# PHIN and SOA

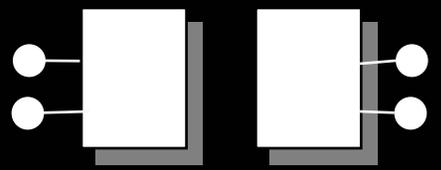


# PHIN and SOA

Services

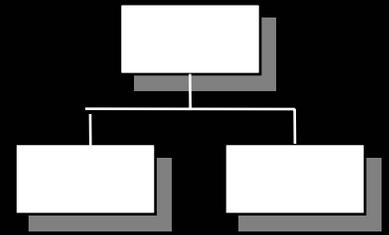


Components



J2EE 1.3

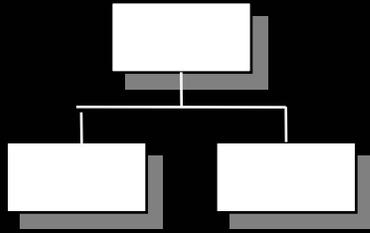
PHIN  
Model



# PHIN and SOA

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**A Role defines the  
competency of an Entity  
irrespective of any Act...**



# PHIN and SOA

## ◆ PHIN Model Roles

### ■ The Public Health world

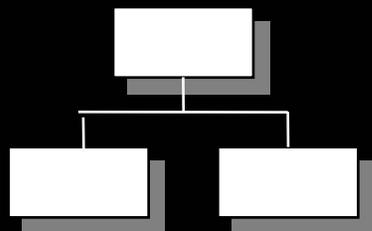
#### ◆ Pure abstraction model

### ■ Federated architectural framework

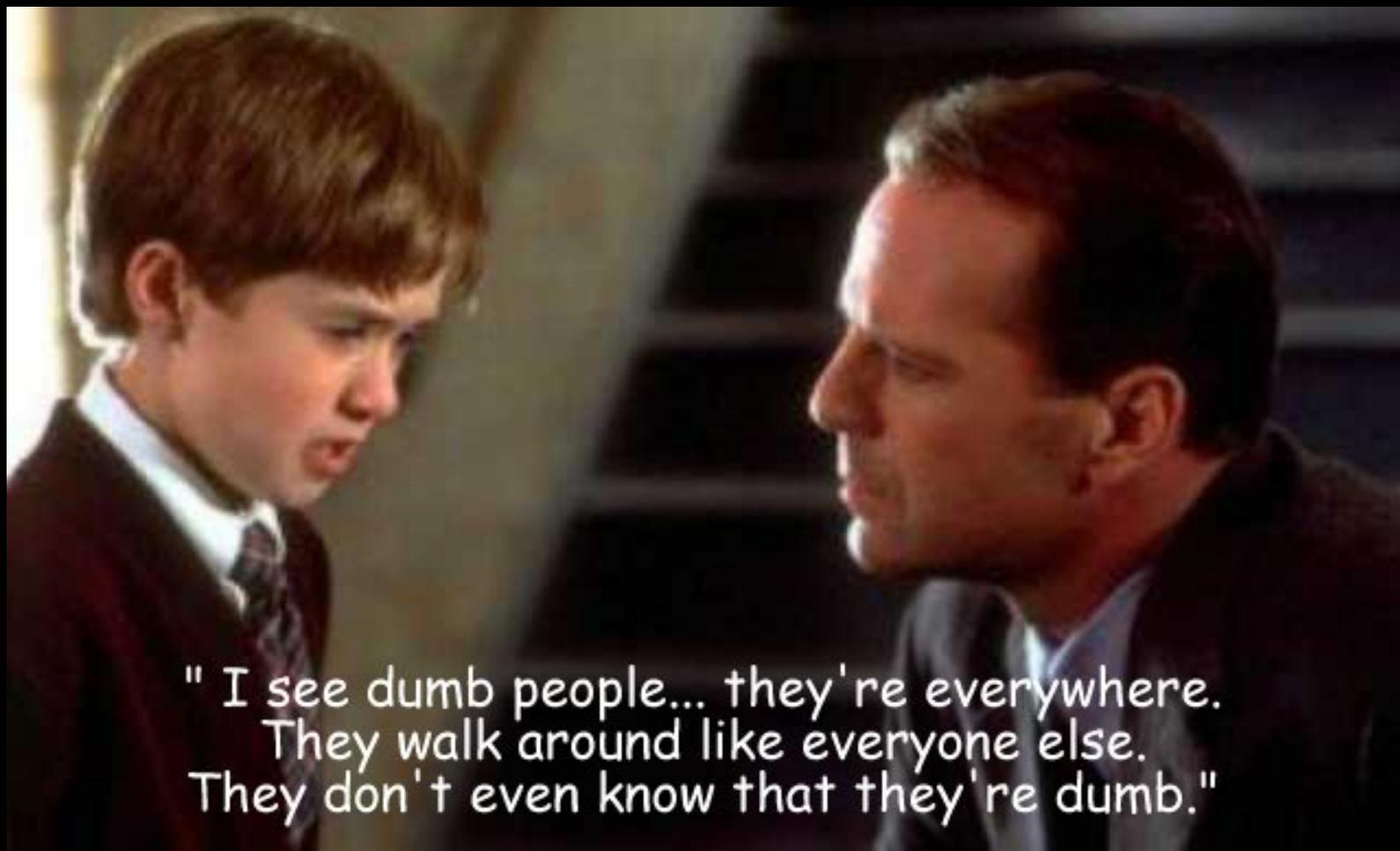
#### ◆ Explicit contract

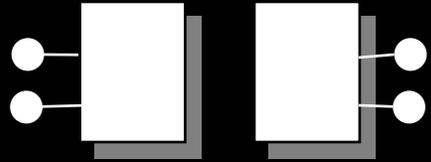
## ◆ Person Roles

### ■ Abstract thinkers only – extra sense



# PHIN and SOA





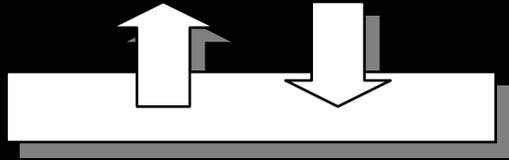
# PHIN and SOA

## ◆ Component Roles

- Realizes Public Health uses cases
- Explicit contract with PHIN model
- Provides integration adapters
- Firewall for PHIN Model

## ◆ Person

- Writer
- User



# PHIN and SOA

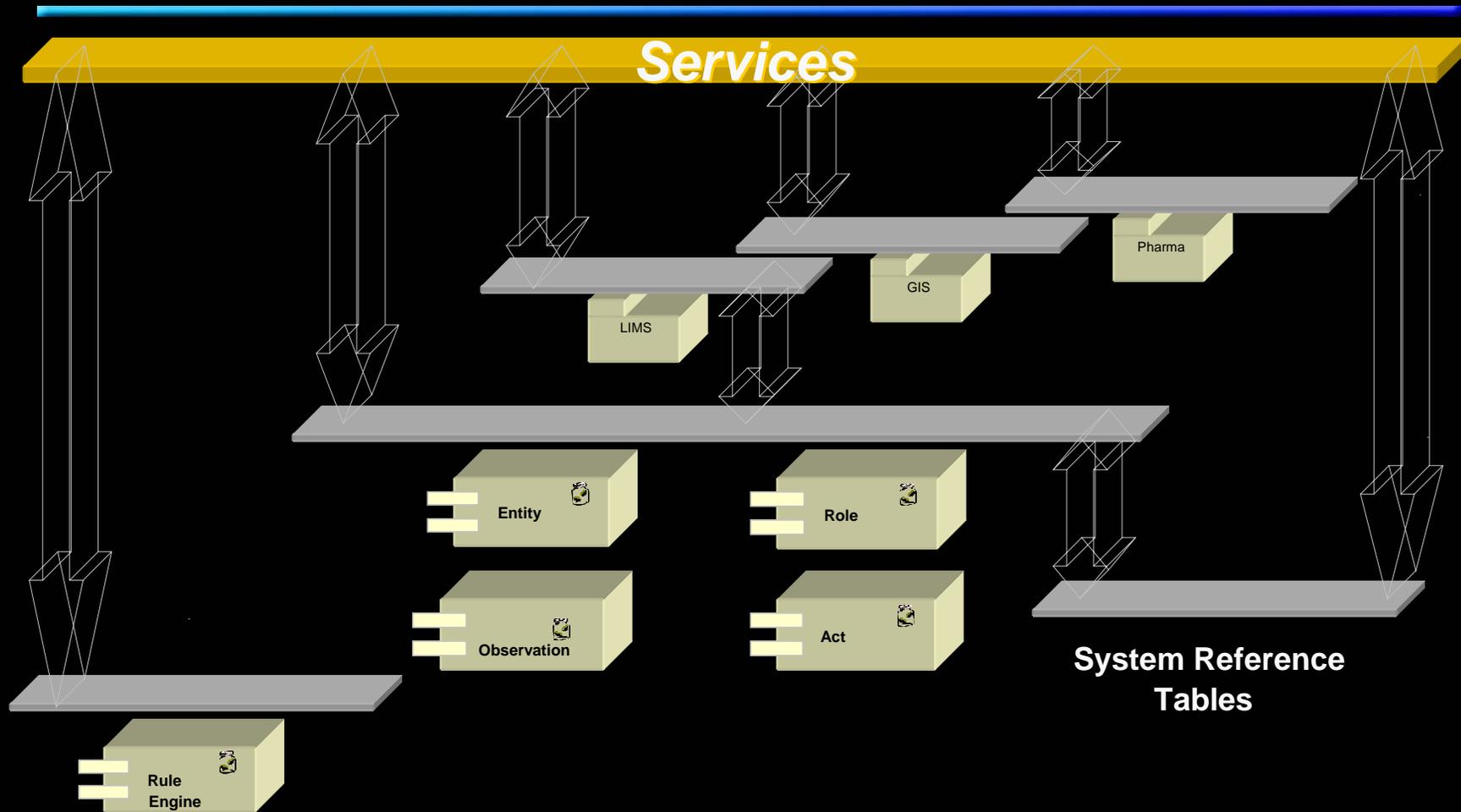
## ◆ Services Roles

- Interface to the world
- Provides integration adapters
- Assembly of services from other services and business logic

## ◆ Person Roles

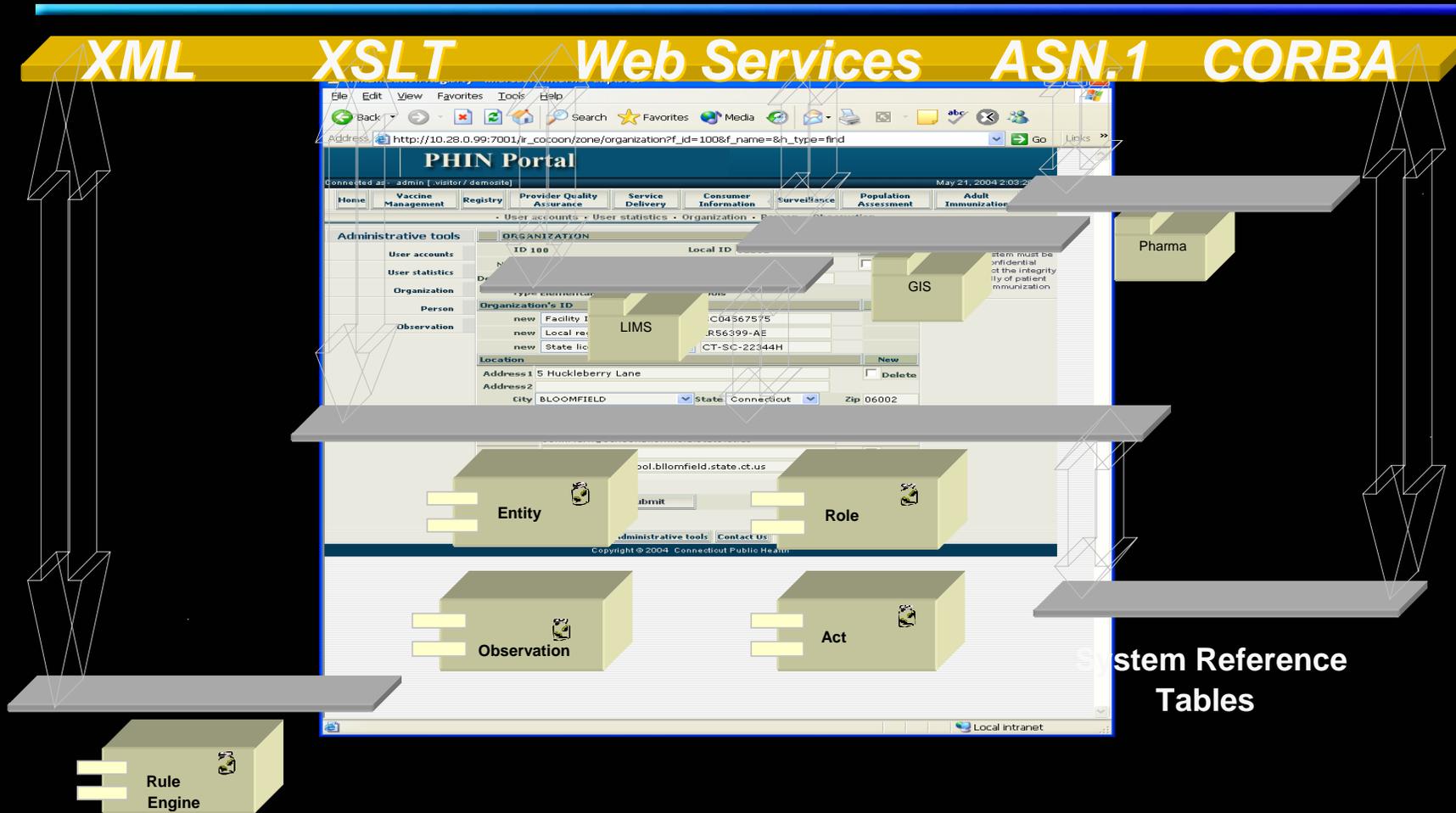
- Consumer
- Provider

# PHIN Portal



# PHIN Portal

**XML XSLT Web Services ASN.1 CORBA**



# PHIN Portal

## School and Daycare Surveillance Survey

Immunization Registry - Microsoft Internet Explorer

Address: http://10.28.0.99:7001/ir\_cocoon/zone/surveys/school?f\_twn=Hartford&f\_id=&h\_type=find

**Immunization program**

Connected as - admin [visitor / demosite] May 10, 2004 11:17:29 A.M.

Home Vaccine Management Registry Provider Quality Assurance Service Delivery Consumer Information Surveillance Population Assessment Adult Immunization Log out

Daycare Survey School Survey College Survey Survey reports

Population Assessment **SCHOOL IMMUNIZATION ENTRY SURVEY SUMMARY**

Daycare Survey

School Survey

College Survey

Survey reports

06490015	A. I. Prince	Edit [2976]	<a href="#">XML</a>	<a href="#">PDF</a>
06403	Barnard-Brown	Edit [2132]	<a href="#">XML</a>	<a href="#">PDF</a>
06404	Batchelder	Edit [2062]	<a href="#">XML</a>	<a href="#">PDF</a>
064	Board Of Education	Doesn't participate		
06427601	Breakthrough Charter School	Edit [2152]	<a href="#">XML</a>	<a href="#">PDF</a>
06461	Bulkeley High	Edit [2777]	<a href="#">XML</a>	<a href="#">PDF</a>
06406	Burns	[2110]	<a href="#">XML</a>	<a href="#">PDF</a>

Immunization Registry - Microsoft Internet Explorer

Address: http://10.28.0.99:7001/ir\_cocoon/zone/surveys/school

**Immunization program**

Connected as - admin [visitor / demosite] May 10, 2004 11:16:01 A.M.

Home Vaccine Management Registry Provider Quality Assurance Service Delivery Consumer Information Surveillance Population Assessment Adult Immunization Log out

Daycare Survey School Survey College Survey Survey reports

Population Assessment **SCHOOL IMMUNIZATION ENTRY SURVEY SUMMARY**

Daycare Survey

School Survey

College Survey

Survey reports

Administrative tools Contact Us

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Local intranet

**Participation**

**Act**

**Role**

**Entity**

**Procedure**

**Organization**

**Person**

**Material**

Immunization Registry - Microsoft Internet Explorer

Address: http://10.28.0.99:7001/ir\_cocoon/zone/surveys/school?f\_id=2976&f\_twn=&h\_type=find

**Immunization program**

Connected as - admin [visitor / demosite] May 10, 2004 11:24:23 A.M.

Home Vaccine Management Registry Provider Quality Assurance Surveillance Population Assessment Adult Immunization Log out

Daycare Survey School Survey College Survey Survey reports

Population Assessment **SCHOOL IMMUNIZATION ENTRY SURVEY SUMMARY**

Daycare Survey

School Survey

College Survey

Survey reports

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Local intranet

**Act relationship**

**Observation**

**Patient\_encounter**

Person completing survey

Date survey completed

	Pre K and K	Grades 1-6	Grades 7-12	Spec. Educ.	Grand Total	
Number of new entrants						<b>Adequately Immunized (A)</b> This category applies to those children who are attending school and have received minimum of the doses of each vaccine Vaccines: DTP/DTaP/DTP/Hib, DT, Td CR 4 or more doses with one dose on
No immunization record						
Exemption	Religious					
	Medical					
Subtotal of new entrants evaluated						
Vaccine series	A NC	A NC	A NC	A NC	A NC	

# PHIN Resistance

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- ◆ Fear **U**ncertainly **D**oubt Busters
  - YACA
  - Nothing New
  - Standards sets you free
  - What does Goggle have to say

# The Deal

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- ◆ PHIN is the deal because
  - It solves all public health concerns from the get go!
  - It's a blueprint for
    - ◆ Legacy integration
    - ◆ Consolidation
    - ◆ New development

# The Call

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◆ You Got PHIN?

# Contact

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