# Public Health Systems Interoperability

Noam H. Arzt, PhD

HLN Consulting, LLC®

arzt@hln.com

May 29, 2008

1

**HLN**
**Consulting,** LLC

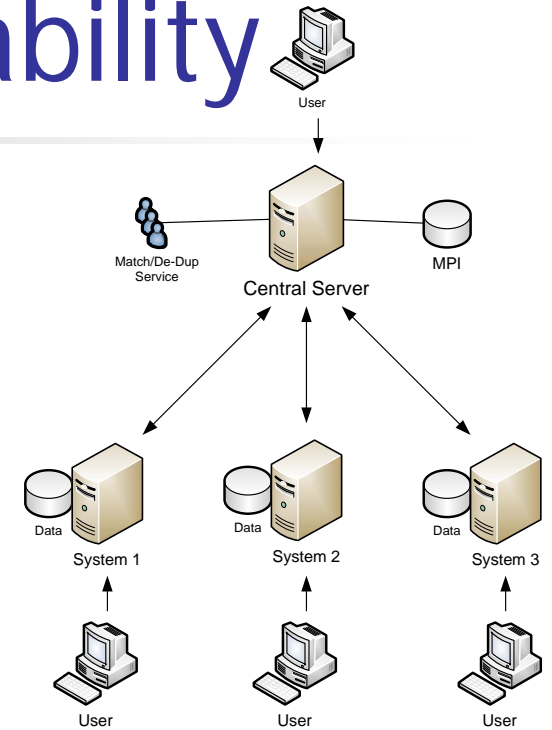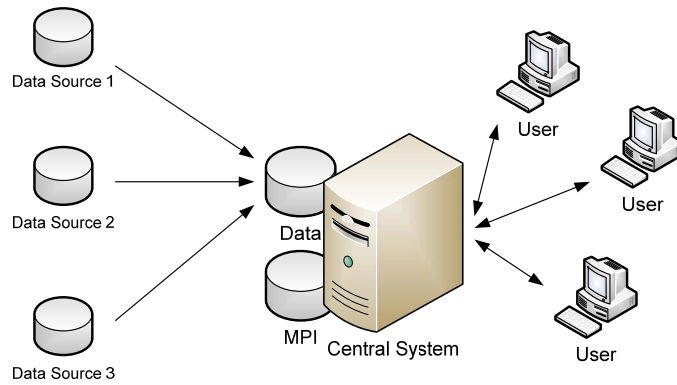# Why Become Interoperable?

- **On-demand Information Availability**
  - Infrastructure to enable access to client data from anywhere in the jurisdiction

- **Decision Support**
  - Unlock value of information by making better use of data to support executive decision-making through business intelligence (BI)

- **Opportunities to Improve Process of Delivering Services**
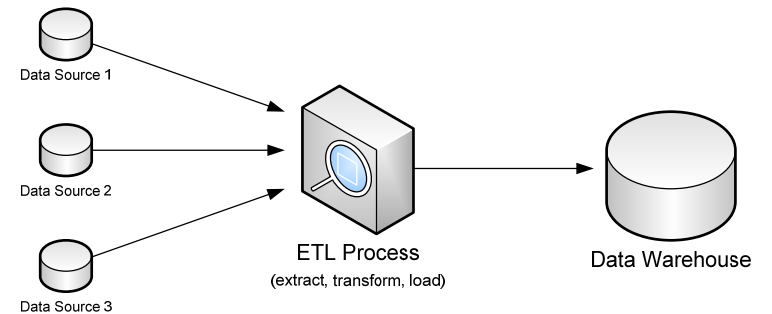  - Through access to client services data
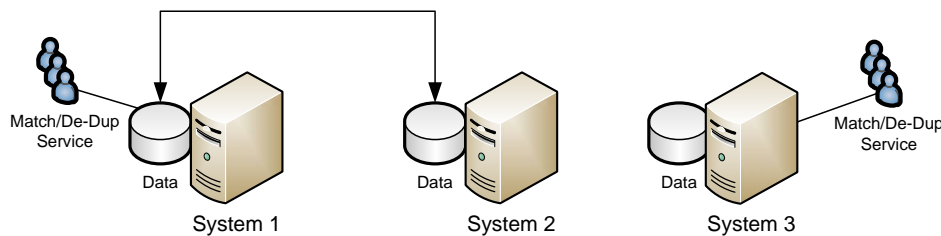
2

**HLN**
**Consulting** LLC

# Three Key Aspects

- **Technical Interoperability**
  - Structure, syntax, reliable communication
- **Semantic Interoperability**
  - Full meaning preserved
- **Process Interoperability**
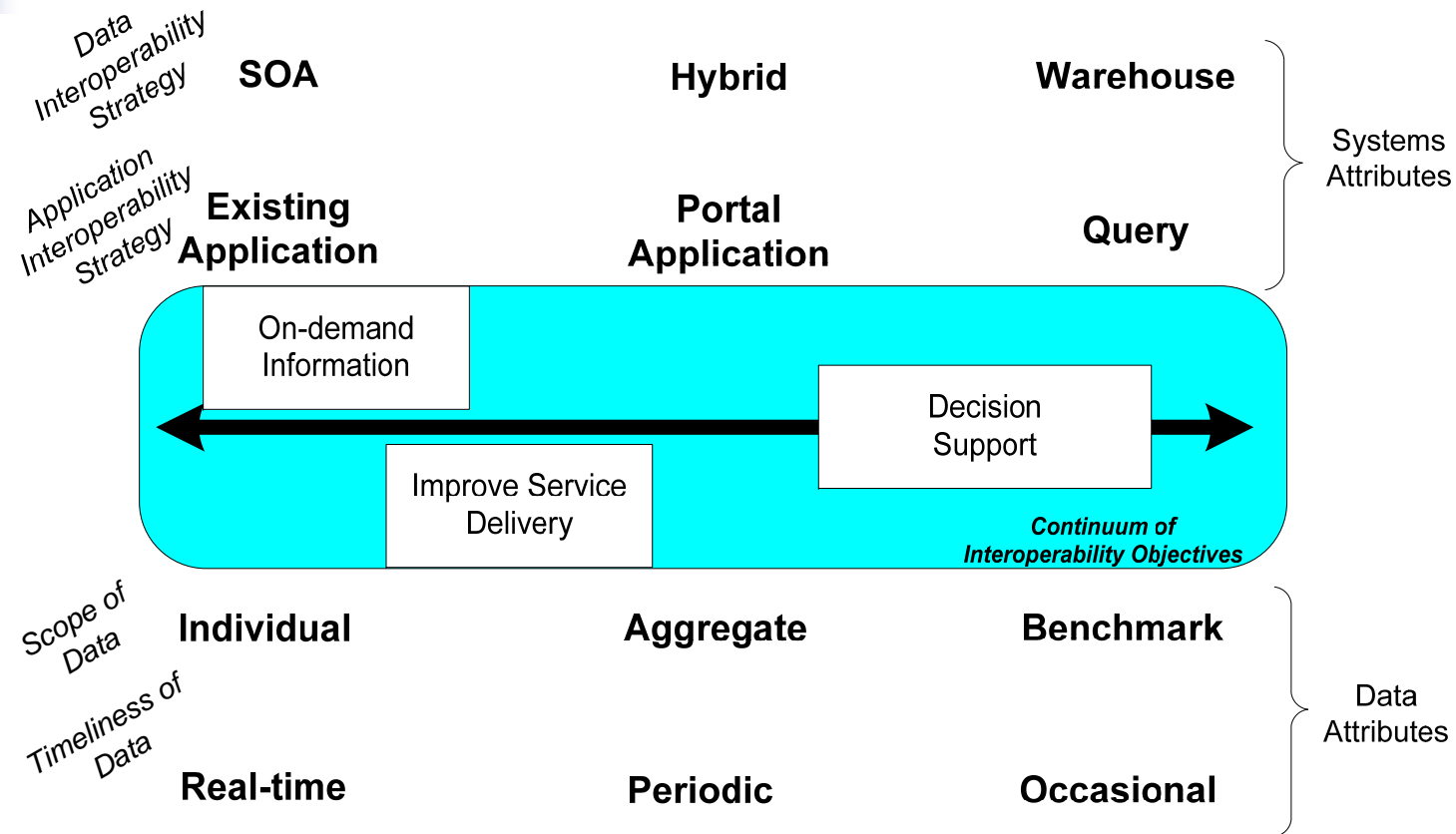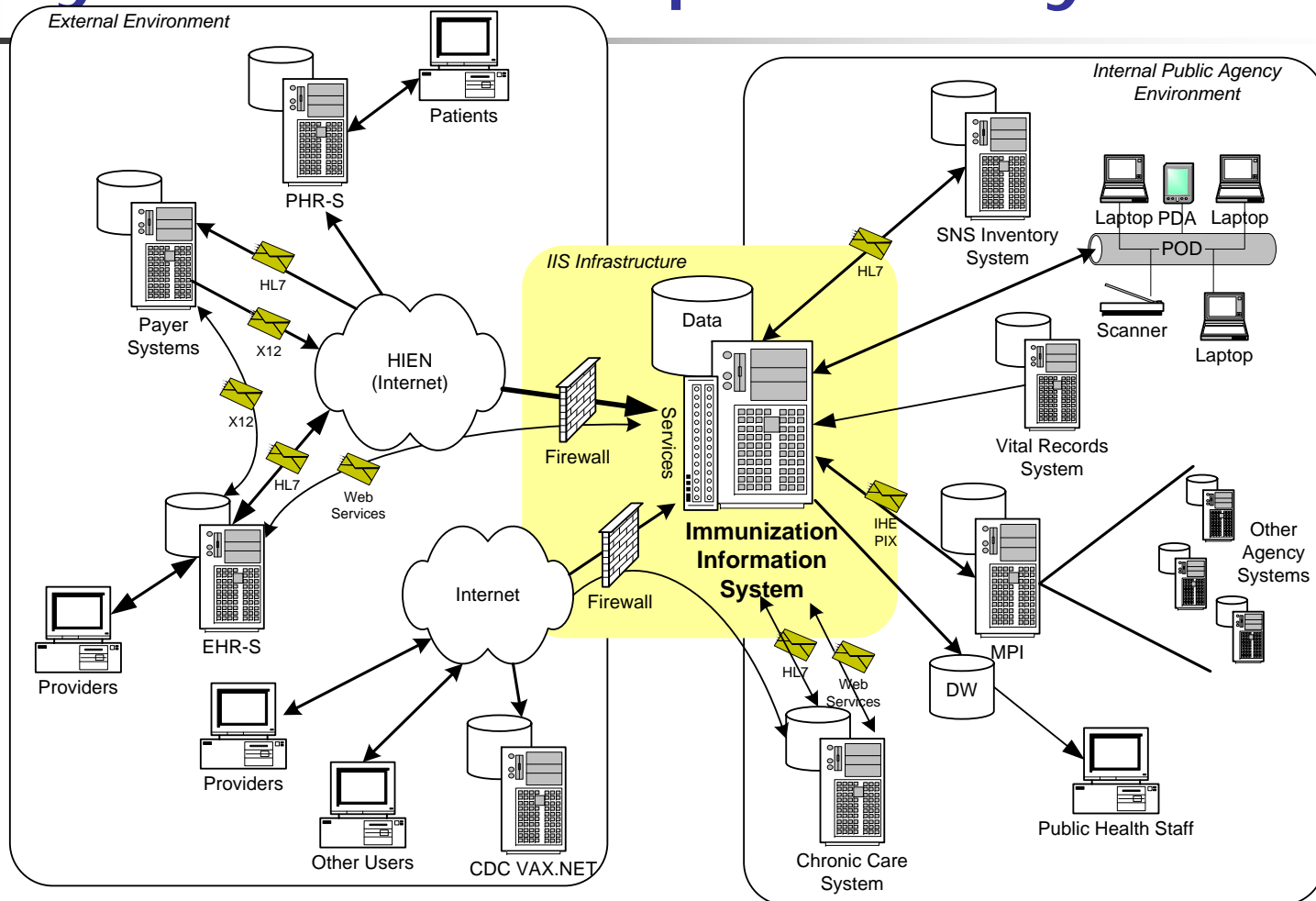  - Integration of systems into work flow

3

**HLN**
**Consulting** LLC

# Models of Interoperability



**Many variations in between!**

5/30/2008

# Model Comparison: Bringing Concepts Together



| | SOA | Hybrid | Warehouse |
|---|---|---|---|
| *Data Interoperability Strategy* | SOA | Hybrid | Warehouse |
| *Application Interoperability Strategy* | Existing Application | Portal Application | Query |

Systems Attributes

On-demand Information

Decision Support

Improve Service Delivery

**Continuum of Interoperability Objectives**

| | Individual | Aggregate | Benchmark |
|---|---|---|---|
| *Scope of Data* | Individual | Aggregate | Benchmark |
| *Timeliness of Data* | Real-time | Periodic | Occasional |

Data Attributes

HLN Consulting LLC

# Immunization Information System Interoperability

# Additional Information

- Coming to Terms: Scoping Interoperability for Health Care [HL7] (http://www.hln.com/assets/pdf/Coming-to-Terms-February-2007.pdf)

- Unique Records Portfolio [PHII] (http://www.phii.org/resources/UniqueRecordsPortfolio.asp)

- Evolution of Public Health Information Systems: Enterprise-wide Approaches [HLN] (http://www.hln.com/assets/pdf/UT-White-Paper-Final.pdf)

**HLN**
*Consulting LLC*