



PHDSC 2008 Annual Business  
Meeting

***Standards-based Health  
Information Exchange:  
The Vermont Experience***

**Noam H. Arzt, Ph.D.**

*Interim Vice President, HIE Services*

November 12, 2008

# What Is VITL?

- A non-profit public-private partnership located in Montpelier, VT
- Started by VAHHS (hospital association)
- Incorporated on July 22, 2005
- Declared only statewide RHIO
- It exists to serve multiple stakeholders, including patients, practitioners, hospitals and other health care facilities, payers, employers, and state agencies.



# Who Runs VITL?

- An 11-member board of directors that represents:
  - Physicians
  - State Government
  - Insurers
  - Hospitals
  - Patients/Consumers
  - Employers
- Board receives input from Practitioner Advisory Group and Consumer Advisory Group



# VITL's Projects

- Vermont Health Information Technology Plan
- Health Information Exchange Network
- Dept of Health's Blueprint for Health
- Electronic health record adoption and clinical transformation
- Medication history service
- E-prescribing study



# VITL's Services

- **Community Utility**
  - Neutral convener of health care organizations
  - Participant and data source agreements
- **Clinical and Administrative Data Services**
  - Build secure interfaces to data sources/sites
  - Provide data, storage and messaging
  - Data normalization and matching services
- **Practitioner EHR-S Adoption Assistance**



# Vermont's Health Information Technology Plan (July 2007)

- Outlines vision, identifies key stakeholders, strategies and objectives
- Puts forth standards for health information exchange in Vermont
- Provides technology architecture overview
- Privacy and security framework
- Public education plan
- Funding, governance, and next steps



# ***VHITP Standards***

- Within framework of HL7 EHR Working Group definition of interoperability
  - Technical
  - Semantic
  - Process
- Context of Other Initiatives
  - HITSP
  - CHI
  - MITA
  - PHIN



# ***VHITP Standards Areas***

- Core Technical Standards for HIE
  - Network connectivity
  - Web applications
  - Transport encryption
  - Authentication
- Messaging Standards for HIE
  - Format (messages and documents)
  - Transport

# ***VHITP Standards Areas***

- Semantic Standards
  - CPT-4, CDC Race and Ethnicity, SNOMED CT, ICD-9/10, LOINC, RxNORM, NDC
- HIT Infrastructure and Applications
  - Application Architecture, including Web
  - Clinical Context Management
  - Database Access
  - Directory and authentication

# ***VHITP Standards Areas***

- Process Interoperability
  - HL7 EHR-S Functional Model
  - UML 2.0
  - CCHIT-certified products
  - HL7 EHR Interoperability Model DSTU
- Annual review with help of an advisory group

# ***Update in 2008***

- HIE standards will be mandatory
- More explicit emphasis on HITSP
- CCHIT-certified products required for state-funded acquisitions
- State government “outward facing” systems to be included
- ICD-10 clarified based on CMS intent

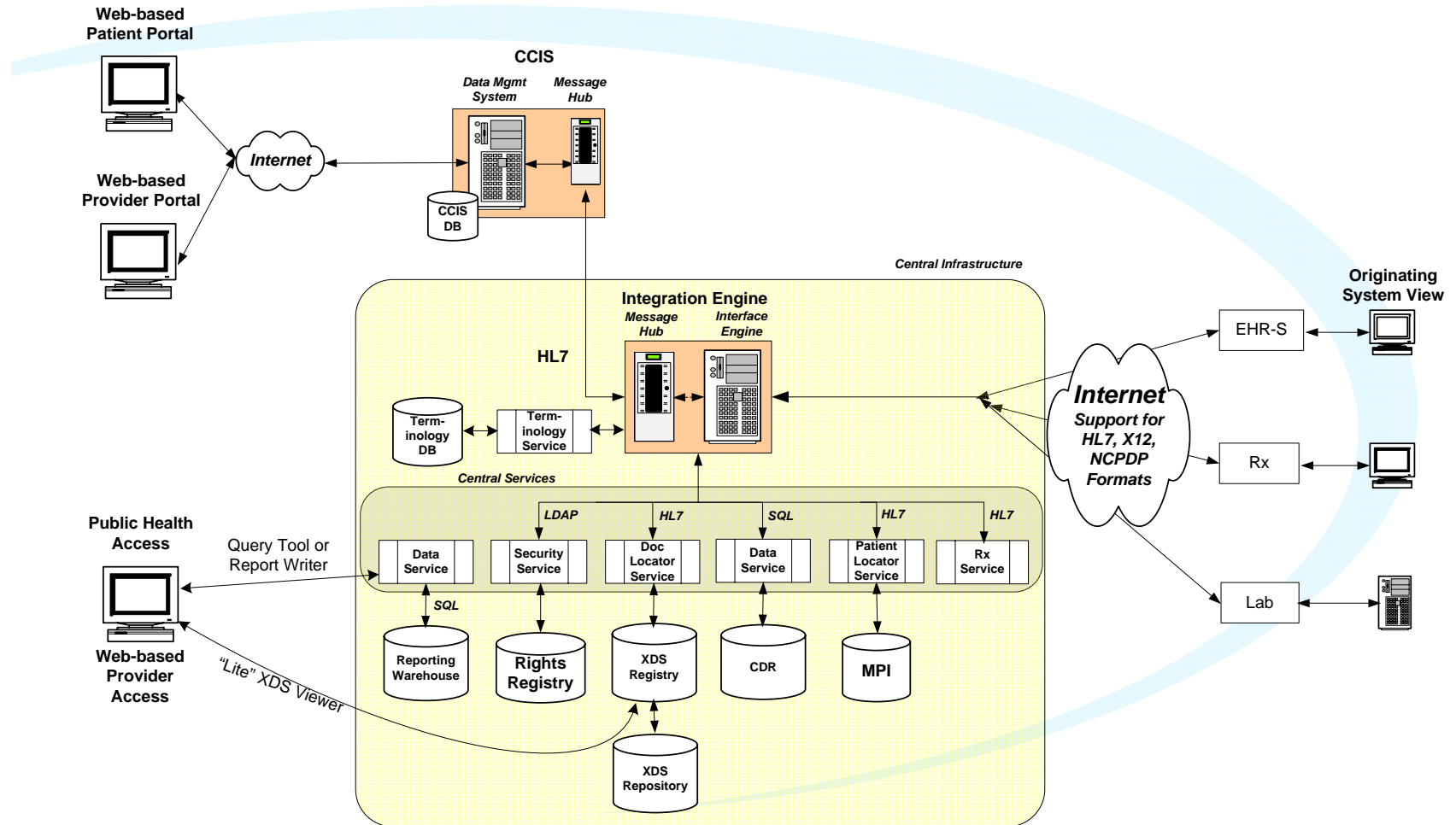
# ***CCHIT HIE Certification***

- One of three HIEs to pilot certification
- VITL applied in November 2008
- One of the first to apply (we think)
- Two phases:
  - 10/08: Security
  - 1/09: Lab results via messaging *or*
  - 4/09: Lab results via CCD

<http://www.cchit.org/certify/hie/index.asp>



# VITL HIE Technical Architecture



# *Key Standards Features*

- Strong reliance on IHE profiles and HITSP constructs, including
  - PIX, HITSP TP22
  - PDQ, HITSP T23
  - XDS, HITSP TP13
  - BPPC (consent), HITSP TP30 (planned)
  - ATNA (secure node), HITSP T17
  - ATNA (audit logging), HITSP T15
  - LAB Result, HITSP T14
  - XDS-MS, HITSP C32
  - XDS-LAB, HITSP C37