



Health Information Technology Ontology Program (HITOP)

Semantic Interoperability Leads Transition from NHIN-AHIC Pioneering to Next Steps

Review & Recommendations for ONC-FHA

HITOP Goals Align with NHIN Use Cases.

- Accelerate Adoption of Electronic Health Records.
- Ensure Security & Privacy in Biosurveillance.
- Provide for Consumer-Driven Healthcare.

HITOP Goals Drive Pragmatic Solutions through Semantic Interoperability that

- Improves Efficiency Throughout Healthcare System.
- Improves Accuracy of Diagnoses.
- Improves Timeliness of Treatment.
- Increases Prompt Payment by Reducing Billing Questions.

HITOP Suggests Next Steps

- **Semantic Interoperability (SI) Working Group.**
 - ◆ Tasked with Reporting on State of HIT Improvement.
 - ◆ Tasked with Overseeing Pilot Projects Aimed at Specific Measurable Objectives.
- **Two Semantic Interoperability Pilot Projects.**
 - ◆ Extend Existing Northrop Grumman NHIN SI Terminology Services Bureau.
 - ◆ Extend Existing SI Service-Oriented Architecture Collaboratory.

HITOP Suggests Next Steps

- Extend Northrop Grumman NHIN SI Component: Terminology Services Bureau (SI TSB)

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Problem List Data

- Real time semantic interoperability mediation between EPIC sites and DoD sites

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graph LR; EPIC[EPIC  
EPIC ID] <--> TSB[TSB  
SNOMED CT  
Concept ID]; TSB <--> DoD[DoD  
MEDCIN ID]
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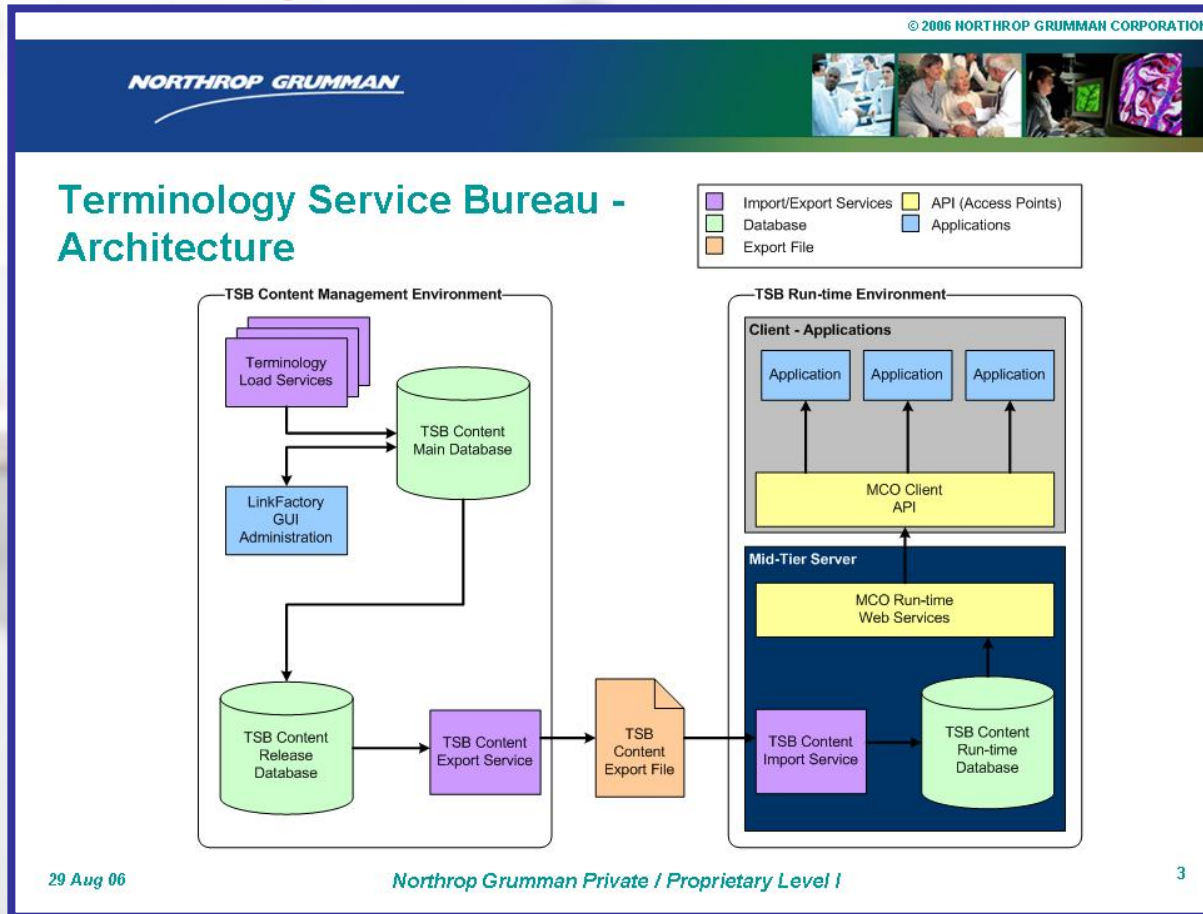
29 Aug 06

Northrop Grumman Private / Proprietary Level I

8

HITOP Suggests Next Steps

■ Extend Northrop Grumman NHIN SI TSB




HITOP Suggests Next Steps

■ Extend Northrop Grumman NHIN SI TSB

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What is the TSB?

- The people, processes, tools and content needed by the DoD to achieve semantic interoperability within the enterprise
- Semantic Interoperability
 - Appropriate, accurate, automated use of information generated by diverse systems
 - Information is acted on exactly as if it had been generated internally in each application's native format
- Accomplished using a content development component and a runtime component

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Northrop Grumman Private / Proprietary Level I

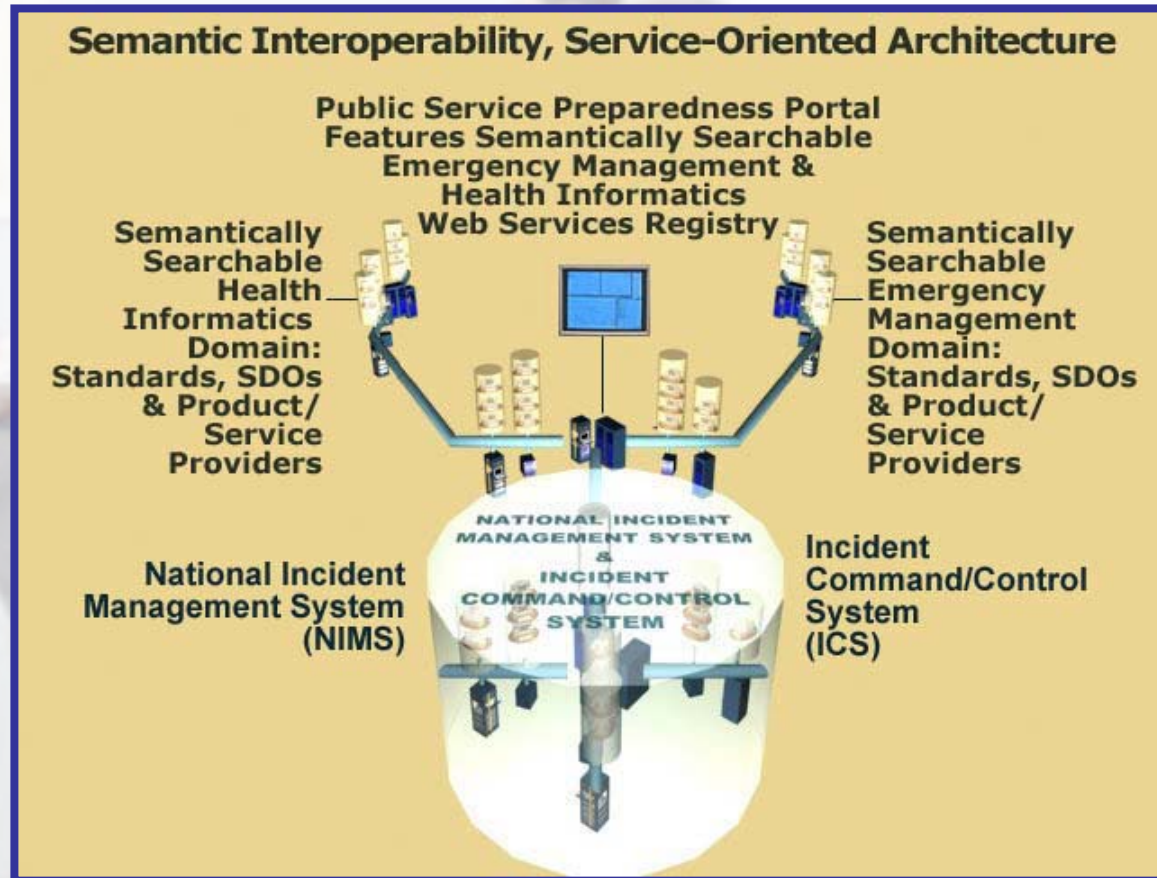
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HITOP Suggests Next Steps

- **Extend SI Service-Oriented Architecture Collaboratory: Web Services Registry (SI-SOA Registry)**
 - ◆ Emergency Management & Health Informatics Domains
 - ◆ Registry of Existing & Emerging Standards
 - ◆ Registry of Standards Development Organizations (SDOs)
 - ◆ Registry of Product/Service Providers whose Products/Services Implement Standards
 - ◆ Semantic Services Interface for:
 - Advanced Search;
 - Data Model Comparison;
 - Authoritative Guidance for Implementation;
 - Pre-Implementation Terminology Remediation; and,
 - Paid Services such as Object Libraries for Standards

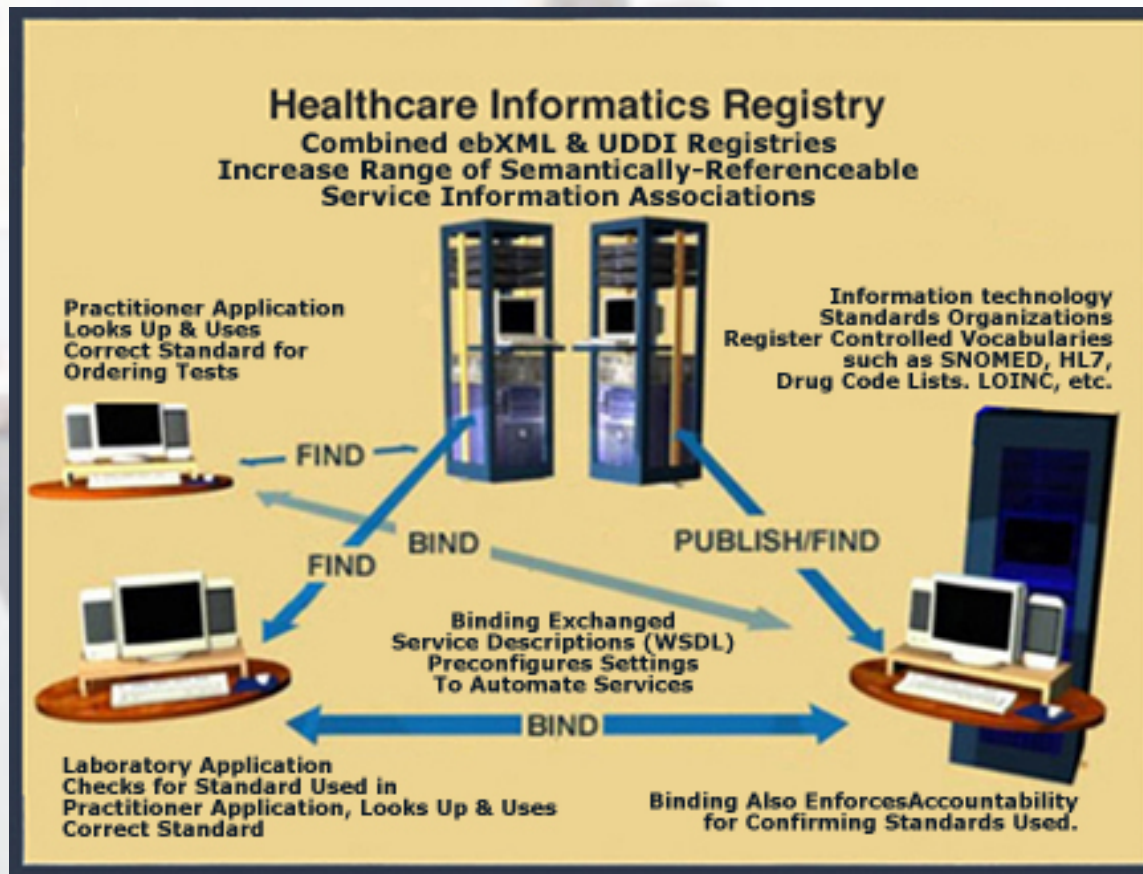
HITOP Suggests Next Steps

■ Extend SI Service-Oriented SI-SOA Registry



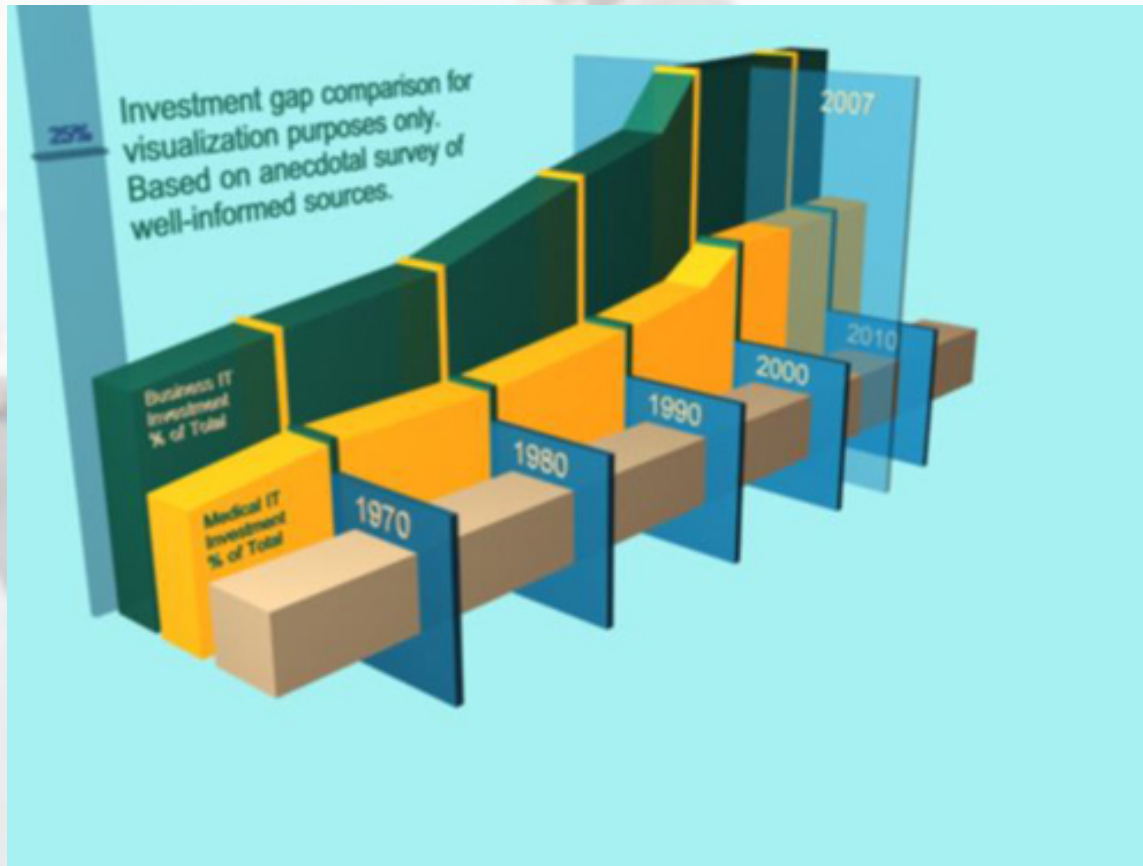
HITOP Suggests Next Steps

■ Extend SI Service-Oriented SI-SOA Registry



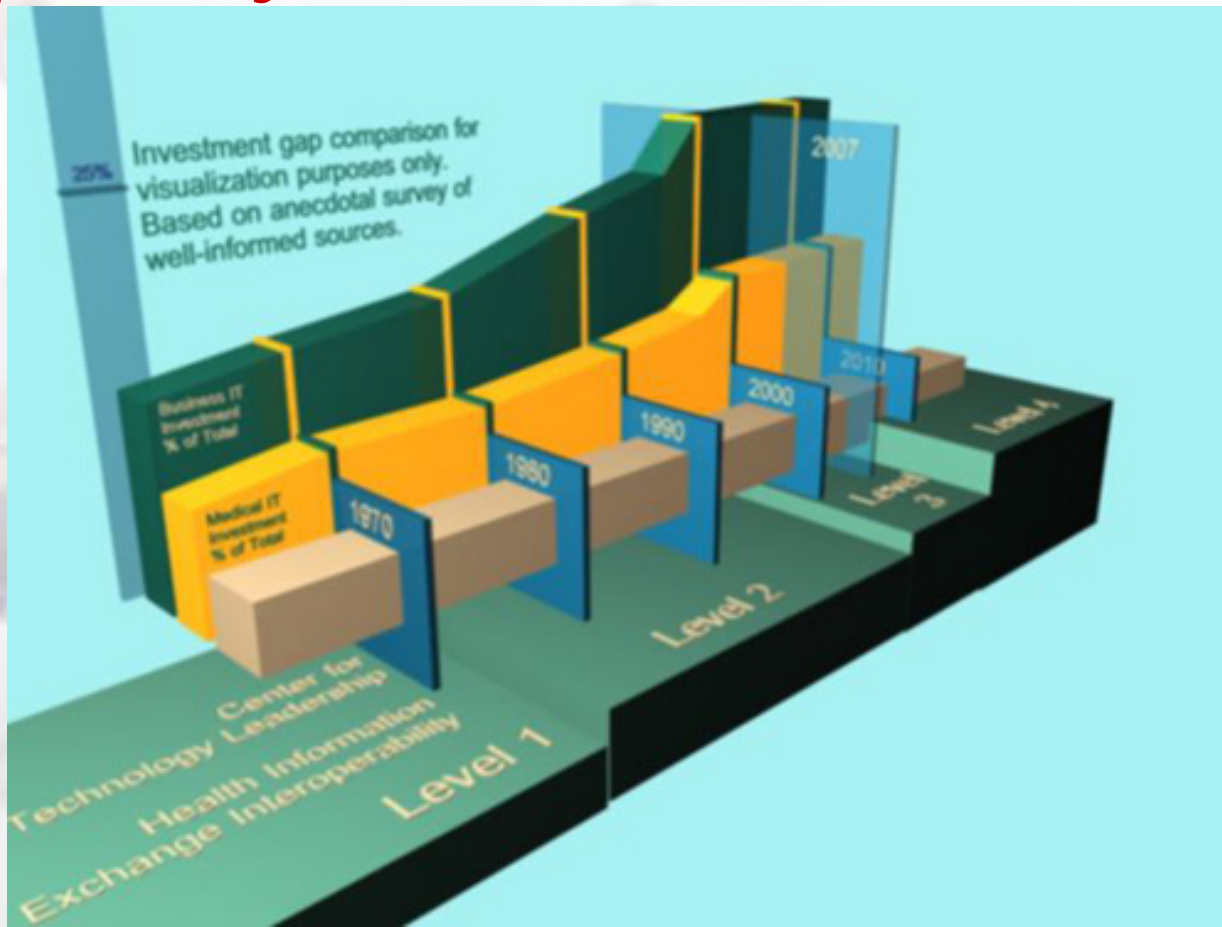
HITOP Suggests Next Steps

- HIT Investment as % of Total Shows Gap.



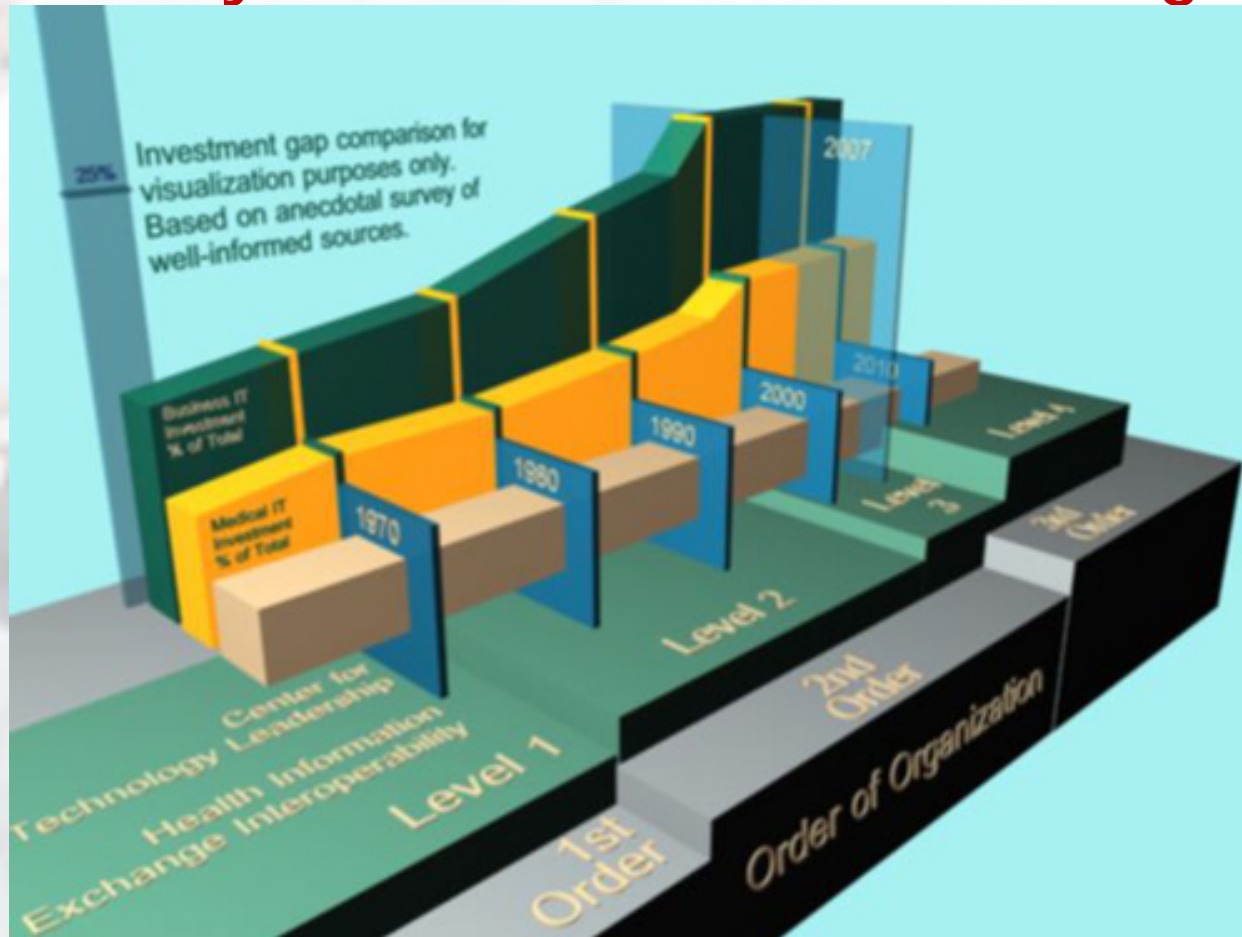
HITOP Suggests Next Steps

- Opportunity to Advance to Level 4 Quickly.



HITOP Suggests Next Steps

- Opportunity to Advance to 3rd Order Organization.



HITOP Suggests Next Steps

- Opportunity to Do Both AND Save on Future Costs!



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Extra Slides

