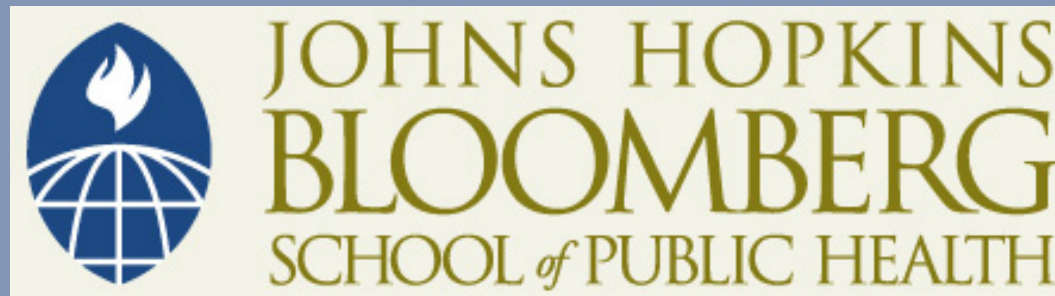


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JOHNS HOPKINS
UNIVERSITY

Section B

Lifecycle of a Profile

Profile Lifecycle

- Initially labeled as “Published for Trial Implementation”
- Leads to:
 - Implementation by interested parties
 - Testing ... testing ... testing
 - Updating to fix flaws
 - Testing, updating, ... as needed until
- Republished as part of Technical Framework

Testing

- Conformance
 - Pre-Connectathon
- Interoperability
 - Connectathon

Conformance Testing

- Test against a reference
 - Published set of static tests and test data
 - Validation tools (software)
- Tests designed to:
 - Show conformance
 - Allow debugging
- Not full coverage
- Test results indicate basic competence

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Source of Test Material for Test Writer

- Normative “shall” language
- Standard(s)
- Profile
- Use cases
- “Shall” language forms a “contract” between developers

Test Material Published As

- Example data
- Example messages
- Example responses
- Message validation tools

Test Verification

- Get system to produce a verifiable result
- Examination of logs

Interoperability Testing

- A scheduled event (IHE Connectathon)
- Testing partners in the same room
- Each test has:
 - A goal
 - Collection of testing partners
 - Functionality of a conformance test
- Each test is:
 - Repeated with different partners
- Test monitor observes interaction
- Interoperability is a web of connectedness

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- Get system to produce a verifiable result
- Examination of logs
- Monitors
- Validation tools

2011 North American IHE Connectathon: Statistics

- 98 organizations
- 154 systems
- 400 vendor staff
- 4101 tests verified
- 53 monitors
- 42 tests/vendor (average)

XDS Statistics

- Servers
 - Document registry: 26
 - Document Repository: 31
- Clients
 - Document source: 55
 - Document consumer: 71

Why Invest this Effort?

- System integration at a medical center is very expensive
- Multiple vendors
- Integration engineers and developers present
- How good was integration specification?
- How is this integration different than the last one?
- Post-Connectathon, vendors are encouraged to publish an Integration Statement documenting their success/progress