Value Models & Metrics

• Value Models – What’s important to the stakeholders
• Metrics - Value Measuring Methodologies
  – How are these Measurements Made?
  – What do these Measurements Mean?
• Models: Formal ROI & Beyond
  – Do our Quantitative Metrics Make the Tangible Clear?
  – How do we Model the Qualitative Intangibles?
• The Value Proposition: What’s the Benefit?
  – Do our Models Fit Stakeholders Wants/Needs?
  – Do our Metrics Focus on the Value Proposition?
• The Environment & Lifecycle: Obvious & Overlooked
  – What are the Scopes we need to Address?
  – How does Lifecycle Stage affect Models & Metrics?
Value Models

• Derived from Case Studies
  – Business Efficiency
    • Collaborative Operations
  – Business Agility
    • Interoperable Business Services allowing new products and services
    • Actionable Business Intelligence
  – Operational Efficiency
    • Improved search & discovery
    • Quicker, more precise responses
  – Customer Satisfaction (internal & external)
    • Reduce CRM costs
  – IT Efficiency
    • More agile and complex workflows
Value Metrics

Varied by case study

• Business Efficiency
  – What cross cutting or business wide operations were changed
  – What was changed that saves time or improves performance

• Business Agility
  – What changed to provide agility

• Operational Efficiency
  – What operations were changed
  – What was changed that saves time or improves products

• Customer Satisfaction
  – How was customer frustration reduced

• IT Efficiency
  – What services were made more effective (e.g., QoS improvements)
  – More operations were improved
Value Models/Metrics Paradigm

Step 1 – Characterize* business or operational problem to be solved

- IT efficiency
- Operational efficiency
- Business agility
- Business efficiency
- Customer satisfaction

Step 2 – Identify problem stakeholders

Step 3 - Categorize type of solution with OUF

Step 4 - Identify strategy to be used

Step 5 – Identify value model & metrics needed
Lifecycle Factors

- Initial focus of value models and metrics on the design-development and run-time operations phases
- Synthesis brought realizations
  - Needed a shift in focus: Acquisition phase
  - No few models or metrics – Needed Specialization
- Value models and metrics for different lifecycle phases are different (but related)
Environment Factors

• Proposed ontology uses (i.e., solutions) operate in an environment

• Scale/scope of operational environment not explicitly addressed during summit

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• Operational environment scope impacts
  • Value of possible solutions
  • Value models and their metrics for/of solutions
Environment - Interoperability

- Operational environment and solution needs usually referred to as interoperability
- Interoperability has
  - many aspects/dimensions
  - scope
- Interoperability needs increase non-linearly w.r.t. operational environment scope
- Interoperability for operations requires common terminology and semantics
- Scope of interoperability drives the scope of what needs to be common
Environment - Commonality

- Operational Environment or scale of problem drives what needs to be ‘common’
- ‘Commonality’ needs increase non-linearly w.r.t. operational environment scope
  - Developmental ontologies could be used to facilitate design for initial operational scope
  - Maintenance ontologies could be used to facilitate dynamic provisioning in larger networked operational scope
Summary

- Ontologies facilitate aspects of ‘commonality’ and interoperability.
- Value of solutions that facilitate interoperability dependent on scope/scale of operational environment.
- Value models and their metrics vary with operational scope and scale.
- The larger the scope of interoperability or scale, the larger the value of using ontologies.