Business Architecture

Business Capability Modelling
Formalization using Eclipse EMF

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IT’S HARD TO STEP BACK
Business Architecture Current State
Why does this usually happen?

People get used to the way they do things. People get a tunnel view – it becomes hard to step back.

Its human nature that existing processes, technologies and structures strongly influence the target picture.
Conclusion

• Apply a modeling approach which abstracts from
  – existing processes
  – existing technologies
  – existing structures (organizations, roles, ..)
BUSINESS CAPABILITIES
Modeling Approach

• Model Business Capabilities which
  – encapsulate and abstract from roles, process/procedures and technology
  – focus on the “what”
  – represent the capabilities the business needs
• Avoid any discussion about the “how”
• Use the business capabilities as a cornerstone for the business architecture

For more details: MSBA / Motion resources from Microsoft
UBS Global Wealth Management
Foundation Business Capabilities

Based on Microsoft MSBA/Motion
Value Chains

- “Securities Brokerage” value chain as an example
Containment View of the Value Chain in the Business Capability Tree

Deliver Products and Services

Process Transactions

Securities Transaction Processing

- Securities Order Management
- Securities Settlement Clearing

Operations

Securities Operations

- Asset Servicing Custody
- Reporting and Control

Process Trades

Process Securities Trades

- Securities Order Execution
- Securities Trade Processing

Plan and Manage the Enterprise

Financial Instruments Management

Resource & Control connectors

Foundation Capability

Securities Brokerage Value chain

Customer Protection (MiFID)
A Business Capability

- is a particular ability or capacity that a business may possess or exchange to achieve a specific purpose or outcome
- describes what the business does (outcomes and service levels)
- abstracts and encapsulates the people, process/procedures, technology, and information into the essential building blocks needed to facilitate performance improvement and redesign analysis

Model Structure

- Business capabilities are organized in a hierarchy
- Capabilities can be assembled
  - Into Value Chains
  - As resource provider and consumer
  - As controlling and controlled capability
- The top level business capabilities are the called foundation capabilities.
FORMALIZATION BASED ON ECLIPSE
Formalization

• The Meta Model is quite simple
  – Tree with Business Capabilities as nodes
  – Directed Connections between the nodes
    • Building value chains
    • Representing resource or control relationships
  – Natural constraints

• UBS has teamed up with Montages to formalize the model using EMF leading to
  – Detailed and solid understanding of the model
Approach

- Montages proposed to use Eclipse Modelling directly rather than vendor tooling
- Process to evolved and validate models as important as final model
Meta Models

Capability Modeling

Editor Config

Domain Visualization
Process

• Capability Modeling

• Visualization: EditorConfig

• Capability Visualization

• Capability Instance

Models: RED, Instances: BLUE
Models

Domain Visualization
Demo

- Constraint (demo OCL editor, error generation)
- Derived attribute (show OCL, show result)
- Choices for references (show OCL, show pulldown)
- Table Editor
Lessons learned

• Generated Tree editor good for validation of meta model.
• Table editor much more useful for data entry.
• Graph-Layouting more important than GMF style visual editor.
• Setup for EMF/OCL based meta-model exploration provided to community as Eclipse member distro: [http://eclipse.montages.com](http://eclipse.montages.com)
• Business Capability meta model as well as the UNIFI meta model will be included in the distro!