Extending Essence for Business and Service Engineering - with Symphonical (someone.io) Tool Support

Arne J. Berre@sintef.no

"Essence in practice"

Berlin, June 18th, 2015
Abstract

• The Essence kernel is a suitable foundation not only for software engineering, but also for business and service engineering. This presentation shows how popular business engineering practices like business model canvasing and service engineering practices like service journey mapping can be supported by an extension to the Essence kernel. The presentation will also illustrate how the dynamic enactment of Essence practices can be supported by the "SomeOne" team collaboration tool provided by the Symphonical team collaboration platform.
Special thanks to my collaborators

Dr. Shihong Huang
Associate Professor
Florida Atlantic University (FAU)
Boca Raton, FL, USA

Brian Elvesæter
Research Scientist
SINTEF, Oslo Norway
Value Delivery Modeling Language (VDML OMG standard)

Version 1.0

OMG Document Number: dto/2015-03-10
Normative reference: http://www.omg.org/spec/VDML/1.0
Machine Consumable file:
Normative: http://www.omg.org/spec/VDML/20150201/vdml.xmi

VDMLbee Value Delivery Manager

www.vdmbee.com
BMI Cube (AAU)

Value propositions

Customers

Activities

Network partners

Value formulas

Capabilities

Similar to but simpler than Osterwalder (source: Peter Lindgren, NEFFICS)
OMG Business Architecture

Many different existing practices also for business engineering
OMG Business Architecture

- Customers, Partners & Competitors
- Policies, Rules, Regulations
- Value Streams
- Organization
- Information
- Products & Services
- Metrics & Measures
- Decisions & Events
- Initiatives & Projects
- Vision, Strategies & Tactics

Why?

What?

Who? & Where?

How?

How Well?
> 1 million copies sold
Business Model and Value Proposition Canvas

Value offer (Opportunity)

Value needs (Requirements)
Authors:
Marc Stickdorn, Jakob Schneider
Many different service design & engineering practices

<table>
<thead>
<tr>
<th>Stakeholder Maps</th>
<th>Personas</th>
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<td>What if...</td>
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<td>Desktop Walkthrough</td>
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<td>Cultural Probes</td>
<td>Service Prototypes</td>
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<td>Customer Lifecycle Maps</td>
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</tbody>
</table>
Three areas of concern for Business Engineering

Customer

Solution

Endeavor

No changes!
The Kernel Alphas for Software Engineering -> Business Engineering (key difference: NOT software system focus)
The Kernel Alphas - For Business Engineering

- pain reliever
- gain provider

Value offer
Opportunity

Value needs
Requirements

Stakeholders

Product/Service
Software System

Work

Team

Way of Working

<pain - gain>

Value offer - pain
Value needs - pain

Value offer - gain
Value needs - gain
The Kernel Alphas - For Business Engineering - related to the Business Model/Value proposition Canvas elements

Value proposition offer
- pain reliever
- gain provider

Value proposition needs
- pain
- gain

Key activities (Activity spaces)
Key resources (Resources)
The states of **Product/Service**

**approach**
An architecture has been selected that addresses the key technical risks and any applicable organizational constraints.

**product/service**
An executable version of the system is available that demonstrates the architecture is fit for purpose and supports testing.

**product/service**
The system is usable and demonstrates all of the quality characteristics required of an operational system.

**product/service**
The system (as a whole) has been accepted for deployment in a live environment.

**product/service**
The system is in use in a live environment.

**product/service**
The system is no longer supported.
The states of the **Value Need**

- **Conceived**
  - The need for a new system has been agreed.

- **Bounded**
  - The purpose and theme of the new system are clear.

- **Coherent**
  - The requirements provide a consistent description of the essential characteristics of the new system.

- **Acceptable**
  - The requirements describe a system that is acceptable to the stakeholders.

- **Addressed**
  - Enough of the requirements have been addressed to satisfy the need for a new system in a way that is acceptable to the stakeholders.

- **Fulfilled**
  - The requirements that have been addressed fully satisfy the need for a new system.
The states of the Value Offer

A commercial, social or business opportunity has been identified that could be addressed by a software-based solution.

The need for a software-based solution has been confirmed.

The value of a successful solution has been established.

It is agreed that a solution can be produced quickly and cheaply enough to successfully address the opportunity.

A solution has been produced that demonstrably addresses the opportunity.

The operational use or sale of the solution is creating tangible benefits.
The Kernel Activity Spaces for Business Engineering

<table>
<thead>
<tr>
<th>Customer</th>
<th>Solution</th>
<th>Endeavour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explore Possibilities</td>
<td>Understand Stakeholder Needs</td>
<td>Prepare to do the Work</td>
</tr>
<tr>
<td>Value Needs</td>
<td>Use the System</td>
<td>Coordinate Activity</td>
</tr>
<tr>
<td>Value Offers</td>
<td>Product/Service</td>
<td>Support the Team</td>
</tr>
<tr>
<td></td>
<td>Product/Service</td>
<td>Track Progress</td>
</tr>
<tr>
<td></td>
<td>Product/Service</td>
<td>Stop the Work</td>
</tr>
</tbody>
</table>
### Value Offer/Need – Alphas and Work products

#### Diagram:
- **Value Offer**
  - **Product/Service**
  - **Value Needs**
  - **Gain Creators**
  - **Pain Relievers**
  - **Gains**
  - **Pains**

#### Table:
<table>
<thead>
<tr>
<th>Thing to Work With</th>
<th>Alpha or Work Product?</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value Offer</td>
<td>Alpha</td>
<td>Value offer description</td>
</tr>
<tr>
<td>Gain providers</td>
<td>Work Product</td>
<td>Gains that the product/service will provide</td>
</tr>
<tr>
<td>Pain relievers</td>
<td>Work Product</td>
<td>Pains that the product/service will relieve</td>
</tr>
<tr>
<td>Value Need</td>
<td>Alpha</td>
<td>Value need description</td>
</tr>
<tr>
<td>Gains</td>
<td>Work Product</td>
<td>Gains that the customer would like to see</td>
</tr>
<tr>
<td>Pains</td>
<td>Work Product</td>
<td>Pains that the customer would like remove</td>
</tr>
</tbody>
</table>
Practice: a repeatable approach to doing something with a specific purpose in mind.
The Kernel Activity Spaces for Business Engineering

- **Customer**: 
  - Explore Possibilities
  - Understand Stakeholder Needs
  - Ensure Stakeholder Satisfaction
  - Use the System

- **Solution**: 
  - Understand the Requirements
  - Shape the System
  - Implement the System
  - Test the System
  - Deploy the System
  - Operate the System

- **Endeavour**: 
  - Prepare to do the Work
  - Coordinate Activity
  - Support the Team
  - Track Progress
  - Stop the Work

Examples of Value Needs:
- Product/Service
- Example 1
- Example 2

Value Offers:
- Explained in the context of the diagram.

Red arrows and labels point to specific areas for emphasis.
## Initial State to Activity Mapping for the **Value offer** practice

<table>
<thead>
<tr>
<th>State</th>
<th>Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identified</td>
<td>Define gain providers and pain relievers</td>
</tr>
<tr>
<td>Solution Needed</td>
<td>Must be performed</td>
</tr>
<tr>
<td>Value Established</td>
<td>Must be performed</td>
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<tr>
<td>Viable</td>
<td>Must be performed</td>
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<tr>
<td>Addressed</td>
<td>Must be performed</td>
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<tr>
<td>Benefit Accrued</td>
<td>Must be performed</td>
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<tr>
<td>Value offer</td>
<td>Activities</td>
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<td>------------------------------------------------</td>
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<tr>
<td></td>
<td>Identify Customer gains and pains</td>
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<td>Formulate Customer Value need</td>
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<td>Stakeholders agreement on Value need fit with</td>
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<td>value offer</td>
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<td>Value need conflict and prioritisation</td>
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<td>resolution</td>
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<td>Testable value need agreement</td>
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<td>Acceptance that value needs will be met by value</td>
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<td>offers</td>
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<td>Acceptance that value needs have been met by</td>
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<td></td>
<td>value offers</td>
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|         | Acceptance that value needs have been met by    |
|         | value offers                                    |

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<tr>
<th>State</th>
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- Conceived: Must be performed, Must be performed
- Bounded: Must be performed
- Coherent: Must be performed
- Described: Must be performed
- Addressed: Must be performed
- Fulfilled: Must be performed
Competencies define the skills needed to undertake an activity.
The Essence Language provides a simple way to capture competencies and the Essence Kernel provides a reference model of the core competencies involved in software product/service development:

- **Stakeholder Representation**: This competency encapsulates the ability to gather, communicate, and balance the needs of other stakeholders, and accurately represent their views.

- **Analysis**: This competency encapsulates the ability to understand opportunities and value offers and their related stakeholder needs, and transform them into an agreed and consistent set of requirements.

- **Development**: This competency encapsulates the ability to design and realise product/service—system requirements following the standards and norms agreed by the team.

- **Testing**: This competency encapsulates the ability to test a product/service—system, verifying that it is usable and that it meets the requirements.

- **Leadership**: This competency enables a person to inspire and motivate a group of people to achieve a successful conclusion to their work and to meet their objectives.

- **Management**: This competency encapsulates the ability to coordinate, plan and track the work done by a team.

Each competency has 5 levels: 1-Assists, 2-Applies, 3-Masters, 4-Adapts and 5—Innovates, where level 1 is the lowest level of competency and 5 the highest.
## Minimum Competency Needed to Perform the Value Need Practice

<table>
<thead>
<tr>
<th>Competency</th>
<th>Identify Customer gains and pains</th>
<th>Formulate Customer Value need</th>
<th>Stakeholders agreement on Value need fit with value offer</th>
<th>Value need conflict and prioritisation resolution</th>
<th>Testable value need agreement</th>
<th>Acceptance that value needs will be met by value offers</th>
<th>Acceptance that value needs have been met by value offers</th>
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<tr>
<td>Stakeholder</td>
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www.someone.io - a state-based team collaboration tool

“Wasn’t Someone supposed to take care of that?”

Someone is the simplest way to get stuff done and build happy teams, one task at a time.
Let's make a team T-Shirt!

**To do**
- How many T-Shirts do we need to order? And what colours?
  - in 2 days
- Make the order!
  - in 6 days

**In Progress**
- Find a printing place, get a good price!
  - in a day

**Completed**
- Finalize the design
  - Completed, 27 minutes ago
- Make a budget
  - Completed, 15 minutes ago

Add card
Tool support for Essence  -  www.someone.io
Conclusions

• The Essence approach can be extended and adapted to be applied also for work, practices and projects where the objective is NOT software engineering
• In particular for business engineering - where the objective is to specify and create a new product/service
• The Essence extension for Business Engineering is useful also for pure business model and service design projects – without any software engineering realisation – but this works also well together with software engineering realisation.
• A discussion has started to solicitate interest for establishing a business engineering kernel – based on a number of business architecture and engineering frameworks and practices (in OMG and in other business architecture communities)
• Flexible and adaptive tool support for Essence is in progress through an adaption and extension of www.someone.io
References

7) TOGAF 9, http://www.opengroup.org/togaf/
8) VDML - http://www.omg.org/spec/VDML/1.0/Beta2/PDF/
8) Symphonical Someone – www.someone.io