Short introduction to basic “CAFCR” model

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Abstract

The basic “CAFCR” reference model is described, which is used to describe a system in relation to its context. The main stakeholder in the context is the customer. The question “Who is the customer?” is addressed.
The “CAFCR” model

What does Customer need in Product and Why?

Customer What

Customer How

Product What

Product How

Customer objectives

Application

Functional

Conceptual

Realization

drives, justifies, needs

enables, supports
Integrating CAFCR

What does Customer need in Product and Why?

Customer What Customer How Product What

Customer objectives Application Functional Conceptual Realization

context understanding intention objective driven

opportunities constraint awareness knowledge based

Product How

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MSintegratingCAFCR
CAFCR can be applied recursively

System (producer)
Customer
Business
Drives
Enables
Customer's
Customer
Business
Drives
Enables
Consumer
Drives
Enables
Value Chain
larger scope has smaller influence on architecture
## Market segmentation

<table>
<thead>
<tr>
<th>segmentation axis</th>
<th>examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>geographical</td>
<td>USA, UK, Germany, Japan, China</td>
</tr>
<tr>
<td>business model</td>
<td>profit, non profit</td>
</tr>
<tr>
<td>economics</td>
<td>high end versus cost constrained</td>
</tr>
<tr>
<td>consumers</td>
<td>youth, elderly</td>
</tr>
<tr>
<td>outlet</td>
<td>retailer, provider, OEM, consumer direct</td>
</tr>
</tbody>
</table>

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Example of a small buying organization

Who is the customer?

decision maker(s)
purchaser
operator
maintainer
user
department head

CEO: Chief Executive Officer
CFO: Chief Financial Officer
CIO: Chief Information Officer
CMO: Chief Marketing Officer
CTO: Chief Technology Officer
CAFCR+ model; Life Cycle View

**Customer objectives**

**Application**

**Functional**

**Conceptual**

**Realization**

**Life cycle**

operations, maintenance, upgrades

development, manufacturing, installation

sales, service, logistics, production, R&D

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