Abstract

The lifecycle of a product category in the market determines many aspects of the architecting approach. The lifecycle consists typical of 4 phases: infancy, adolescence, mature and aging.

A discontinuity in market success is seen in the transition from one phase to the next phase. The explanation given is that the phases differ in characteristics and require different approaches. The right approach for one phase is sub optimal for the next phase. A set of characteristics per phase is given and the consequences for architecting are discussed.
Ideal Bathtub Curve

- Infancy
- Adolescence
- Maturity
- Aging

- Taking shape
- Growth
- Stable
- Decline

- Sales volume
- Time
Market Product Life Cycle Phases in Practice

- Infancy
- Adolescence
- Maturity
- Aging

Sales volume vs. time graph showing an ideal "bathtub" curve and an observed curve. A product is unable to make the transition from Maturity to Aging.

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MPLifecycleGraphPractical
Examples of Product Classes on the Curve

![Diagram showing different stages of product life cycle with examples]

- **Infancy**: MRI scanner, functional MRI
- **Adolescence**: DVD+RW, digital TV, flat TV
- **Maturity**: MRI scanner, DVD
- **Aging**: X-ray systems, VCR, TV

**Market Product Life Cycle Consequences for Architecting**

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MPLifecycleGraphExamples
### Attributes per Phase

<table>
<thead>
<tr>
<th></th>
<th>Infancy</th>
<th>Adolescence</th>
<th>Mature</th>
<th>Ageing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Driving factor</strong></td>
<td>Business vision</td>
<td></td>
<td>Stable business model</td>
<td>Harvesting of assets</td>
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<tr>
<td><strong>Value from</strong></td>
<td>Responsiveness</td>
<td>Features</td>
<td>Refinements / service</td>
<td>Refining existing assets</td>
</tr>
<tr>
<td><strong>Requirements</strong></td>
<td>Discovery</td>
<td>Select strategic</td>
<td>Prioritize</td>
<td>Low effort high value only</td>
</tr>
<tr>
<td><strong>Dominant technical concerns</strong></td>
<td>Feasibility</td>
<td>Scaling</td>
<td>Legacy</td>
<td>Lack of product knowledge</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Obsolescence</td>
<td>Low effort for obsolete technologies</td>
</tr>
<tr>
<td><strong>Type of people</strong></td>
<td>Inventors &amp; pioneers</td>
<td>Few inventors &amp; pioneers &quot;designers&quot;</td>
<td>&quot;Engineers&quot;</td>
<td>&quot;Maintainers&quot;</td>
</tr>
<tr>
<td></td>
<td>Chaotic</td>
<td></td>
<td>Bureaucratic</td>
<td>Budget driven</td>
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<tr>
<td><strong>Process</strong></td>
<td>Overdimensioning</td>
<td>Conservative expansion</td>
<td>Midlife refactoring</td>
<td>UI gadgets</td>
</tr>
<tr>
<td><strong>Dominant pattern</strong></td>
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MPLattributes