From Capex to Opex? Everything as a Service?

Markus Pfyffer, Business Development Executive, IBM Switzerland
CxOs have identified reduced costs and reduced time to market as the top two drivers

<table>
<thead>
<tr>
<th>Business Drivers</th>
<th>IT Today</th>
<th>IT Future</th>
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<tbody>
<tr>
<td>1 Cost Flexibility</td>
<td>Budget driven – fixed costs</td>
<td>No pre-investment - pay on demand</td>
</tr>
<tr>
<td>2 Market Adaptability</td>
<td>Evaluate, buy, design, build, deploy – slow</td>
<td>Self-provisioning - fast time to market</td>
</tr>
<tr>
<td></td>
<td>time to market</td>
<td></td>
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<tr>
<td>3 Scalability</td>
<td>Limited elasticity of resources</td>
<td>Elastic provisioning of resources</td>
</tr>
<tr>
<td>4 Masked Complexity</td>
<td>Requires in depth understanding of IT stack</td>
<td>Convenience through managed service orientation</td>
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<tr>
<td>5 Context-driven</td>
<td>Effort based tailored solution</td>
<td>User preferences based standard services</td>
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<tr>
<td>Variability</td>
<td></td>
<td></td>
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<tr>
<td>6 Eco-system Connectivity</td>
<td>Limited scalability to connect to partners</td>
<td>Allows easy partnering across value chain</td>
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Objectives

You should have answers to the following questions:

• What are drivers to move from an asset based to a service based strategy?

• What are appropriate sourcing elements?

• Does it impact your sourcing strategy? Which sourcing or cloud model fit best to your workload?

• What does it mean for your IT Organization and Processes?
Service Layers – Service Type

- **Business Application Services**
  - Business Process as a Service
  - Software as a Service
  - Platform as a Service
  - Infrastructure as a Service

- **Management**
- **Operations Support System**
- **Optimization**
- **Industry Solutions**
  - Application Lifecycle
  - Application Services (Exchange, SAP, Notes)
  - Workload Services (Citrix, DB2, Oracle, ..)
  - Integration

- **SLA’s**: Availability, D/R, Backup, Archiving, Security, Confidentiality, Regulatory Compliance etc.
Overview on Cloud Sourcing Models

**Private Cloud**
Enterprise Data Center

**Managed Private Cloud**
Enterprise Data Center
Third-party operated

**Hosted Private Cloud**
Enterprise
Third-party hosted and operated

**Shared Cloud Services**
Enterprises

**Public Cloud Services**
Users
- Free
- Register
- Credit Card
- Click to contract

**Private**
IT capabilities are provided “as a service,” over an intranet, within the enterprise and behind the firewall

**Public**
IT activities / functions are provided “as a service,” over the Internet

**Hybrid**
Internal and external service delivery methods are integrated
### Cloud Sourcing models and their characteristics

<table>
<thead>
<tr>
<th></th>
<th>Private Cloud</th>
<th>Managed Private Cloud</th>
<th>Hosted Private Cloud</th>
<th>Shared Cloud Services</th>
<th>Public Cloud Services</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PROS</strong></td>
<td>High flexibility (almost anything can be done)</td>
<td>High flexibility (almost anything can be done)</td>
<td>Very flexible - but needs some lead time</td>
<td>Often reduced investment at a price</td>
<td>Almost no investment (except for resources)</td>
</tr>
<tr>
<td></td>
<td>Data on own premises: flexible backup &amp; archiving solutions possible</td>
<td>Data on own premises: flexible backup &amp; archiving solutions possible</td>
<td>Data on known external premises: flexible backup &amp; archiving solutions possible. On premises also possible.</td>
<td>Full financial transparency (pay per use or other billing terms and conditions)</td>
<td>Full financial transparency for the contracted services</td>
</tr>
<tr>
<td></td>
<td>The most demanding SLAs can be supported (at a price)</td>
<td>The most demanding SLAs can be supported (at a price)</td>
<td>Very dynamic &amp; agile</td>
<td>Highly dynamic &amp; agile</td>
<td>Highly dynamic &amp; agile</td>
</tr>
<tr>
<td></td>
<td>Reduced operations costs (less in people)</td>
<td>Reduced to no investment (in a pure OPEX model)</td>
<td>SLA’s are provided that fulfill enterprise needs (but only standard SLA’s)</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Full financial transparency for the contracted services</td>
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</tr>
<tr>
<td><strong>CONS</strong></td>
<td>High investment and operations costs (HW, SW, people)</td>
<td>High investment and operations costs (HW, SW, less in people)</td>
<td>Maybe split responsibility, depending on the service access point / &quot;line of visibility&quot;.</td>
<td>Flexibility only within provided standard Services</td>
<td>Flexibility only within provided standard Services</td>
</tr>
<tr>
<td></td>
<td>Often limited transparency</td>
<td>Reduced dynamics &amp; agility</td>
<td>Only standard backup architectures, no compliance archives (yet)</td>
<td>Data in cloud, standard backup policies, no compliance archives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reduced data protection (all is possible - not in time)</td>
<td></td>
<td>Rarely SLA’s are provided that meet enterprise needs</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>It’s all your responsibility</td>
<td></td>
<td></td>
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</tbody>
</table>

- **Highly flexible (almost everything can be done)**
- **Highly dynamic & agile**
- **Reduced to no investment (in a pure OPEX model)**
- **High investment and operations costs (HW, SW, people)**
- **Rarely SLA’s are provided that meet enterprise needs**
Business requirements determine the best Service element

Business requirements used as filter

Accountability  Agility  Assurance
Financial      Performance    Security & Privacy

Example result for a given workload / service element
The requirement categories contain the following pre-defined criteria. These criteria’s and their weight can (and have to be) be adjusted with the client.
The decision model should outline to which extent each candidate fulfills the requirement of a given workload / service element

<table>
<thead>
<tr>
<th>Categories</th>
<th>Workload / Service Element Requirements/ Importance</th>
<th>Service 1 Characteristic (H,M,L)</th>
<th>Service 2 Characteristic (H,M,L)</th>
<th>Service 3 Characteristic (H,M,L)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accountability</td>
<td>High</td>
<td>High</td>
<td>High</td>
<td>Medium</td>
</tr>
<tr>
<td>Agility</td>
<td>High</td>
<td>Med</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>Assurance</td>
<td>Med</td>
<td>High</td>
<td>Med</td>
<td>Med</td>
</tr>
<tr>
<td>Performance</td>
<td>High</td>
<td>High</td>
<td>Med</td>
<td>Med</td>
</tr>
<tr>
<td>Security and Privacy</td>
<td>High</td>
<td>High</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>Usability</td>
<td>Low</td>
<td>Low</td>
<td>Med</td>
<td>Low</td>
</tr>
<tr>
<td>Financing (example)</td>
<td>700 kCHF</td>
<td>1200 kCHF</td>
<td>600 kCHF</td>
<td>750 kCHF</td>
</tr>
</tbody>
</table>

Blue
- exceeds requirements

Green
- fully fulfills requirements

Yellow
- partly fulfills requirement

Red
- does not fulfill requirements
Develop Roadmap – «Your» Journey

Roadmap to select appropriate service elements to fit the needs: e.g. hybrid cloud for „easy, scalable on-boarding“
Client Example applying a new sourcing approach

An example of a potential future landscape

Shared or Public Cloud (e.g. SoftLayer)
- Mail Services
- File Services for distributed data
- Citrix Services
- Web Services
- ........

GDC – Hosted Private Cloud
- Dual DC
- ERP II
- Navision
- POS Master
- Collaboration File Services

Workload criteria for Shared or Public Cloud selection (Step 1) and placement (Step 2):
- Mostly static data (low change rate)
- Users and their data can easily be split into regions, data consistency not a big issue (low level of global interaction and collaboration)
- Network latency (interactive or non-interactive use?)
- Network costs
- Service levels
But Capex/Opex shift means also Reinvention of your IT Org

Leverage
(From CapEx to OpEx)

Focus on cloud models and workloads to reduce CapEx and optimize OpEx

Reinvent IT Org
(Make IT ready)

Focus on IT operating model to be ready for adopting cloud from a technology and/or business perspective

CeBMi
(Cloud-enabled Business Model Innovation)

Focus on business issues, priorities and what the business needs
Define Future Operating Model based on Cloud respective sourcing roadmap

<table>
<thead>
<tr>
<th>IT Operating Model Dimensions</th>
<th>Current State</th>
<th>Future State (example)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competency &amp; Capability Model</td>
<td>Solutioning  &lt;br&gt; Capacity and operations  &lt;br&gt; Infrastructure life-cycle management</td>
<td>Supplier management  &lt;br&gt; Integration  &lt;br&gt; Security</td>
</tr>
<tr>
<td>People, Organization &amp; Governance Model</td>
<td>Skills: Operate &amp; execute  &lt;br&gt; Governance: Technology and Architecture</td>
<td>Skills: Control and manage  &lt;br&gt; Governance: Partner and sourcing</td>
</tr>
<tr>
<td>IT Process Model &amp; Performance Mgmt</td>
<td>End to end responsibility  &lt;br&gt; Fixed and variable costs</td>
<td>Managed service  &lt;br&gt; Pay as you go</td>
</tr>
<tr>
<td>Business Application Model (for SaaS)</td>
<td>Tendency to customize solution instead of process</td>
<td>Solution out of the box, i.e., tendency to change the business process</td>
</tr>
<tr>
<td>Assets, Location &amp; Sourcing Model</td>
<td>Assets owned or leased  &lt;br&gt; Internal or mixed sourcing</td>
<td>Managed and owned by supplier</td>
</tr>
<tr>
<td>Infrastructure &amp; Base Services Model</td>
<td>Partially In-house  &lt;br&gt; Locally organized</td>
<td>Private Cloud, Public Cloud e.g. US, EMEA, Pacific or Global</td>
</tr>
</tbody>
</table>
Many elements are available “as a Service” but please remind the following steps/activities

- **Spend some time on Workload analysis:** which “new” sourcing elements fit best to your workloads based on business requirements (flexibility, time to market, agility) as well as functional and non functional requirements.

- **Formally select** the ideal sourcing elements **based on the workload requirements**

- **Prepare the business case and your roadmap**

- **Adapt your IT organization accordingly**
Thank you for your attention

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