Cloud Migration through Pattern Composition

- The migration patterns can be seen as a sequence of activities by which an application is gradually migrated to the cloud.
- The migration patterns can be composed (i.e., executed sequentially) to move an on-premise application to the cloud.
Migration Transition Graph
## Migration Pattern Selection

<table>
<thead>
<tr>
<th>Objective</th>
<th>Re-host</th>
<th>Cloudification</th>
<th>Relocation</th>
<th>Refactor</th>
<th>Rebinding</th>
<th>Replacement</th>
<th>Modernization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time to market</td>
<td>😏</td>
<td>--</td>
<td>✗</td>
<td>--</td>
<td>--</td>
<td>🧐</td>
<td>🧐</td>
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<tr>
<td>New capabilities</td>
<td>✗</td>
<td>😏</td>
<td>🧐</td>
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<td>🧐</td>
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<tr>
<td>Reduce operational cost</td>
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<td>🧐</td>
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</tr>
<tr>
<td>Leverage investments</td>
<td>😏</td>
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<td>--</td>
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<td>🧐</td>
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<tr>
<td>Free up on premise resources</td>
<td>😏</td>
<td>😏</td>
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<td>🧐</td>
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<tr>
<td>Scalability</td>
<td>✗</td>
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<tr>
<td>Operational efficiency</td>
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</tbody>
</table>

**Table:**
- **MP1**: Re-host
- **MP2**: Cloudification
- **MP3**: Relocation
- **MP4**: Refactor
- **MP5**: Rebinding
- **MP6**: Replacement
- **MP7**: Modernization

**Objective:**
- Time to market
- New capabilities
- Reduce operational cost
- Leverage investments
- Free up on premise resources
- Scalability
- Operational efficiency
Assembly-based Situational Migration

Migration pattern discovery

Migration Pattern Repository

Migration pattern selection and assembly guidelines

Migration pattern selection
Assembly-based Migration Plan Construction

New migration experience
New domain

-operational cost
Leverage investments
Free up on premise resources
Scalability
Operational efficiency

Migration pattern discovery

Migration Pattern Repository

Migration pattern selection and assembly guidelines

Migration pattern selection

Extract migration pattern

MP15: Multi-application Modernization

Store migration pattern into repository
Migration Patterns in the context of Cloud-RMM

Migration patterns primarily facilitate planning. Enable Auto-Deployment of Multi-Tier Systems in Hybrid Cloud Environment