Enterprise IT Use Case
SLA Enabling the Internal Cloud

Michael Nolan,
Intel Labs Europe
GOAL:
Enable the Organisation through on-Demand Provisioning of Business-aware, SLA guaranteed PaaS services

1. Business aware PaaS provisioning & run time adjustment of standard IT offerings

2. Service QoS terms are applied to the physical and OS layers

3. Measurable improvements on energy efficiency, dependability, efficiency, transparency
The Enterprise IT Vision

3 Principles:
- IT Enabling the Enterprise
- IT Efficiency
- IT Investment & Technology Adoption

The Vehicle

SLA@SOI Framework

3 Scenarios:
- Provisioning
- Run time
- Investment governance
How?

Manage IT like a Business

- Analyse today’s business model & processes; then refine
- Design your cloud to meet these business needs
- Automate, Reduce, Optimise, Utilise, implement; it’s a continual improvement process

Scalability.
Capacity planning, Rapid & economic adoption of new technology

Efficiency, higher utilisation

Business Processes & Models; what & how we achieve

Security, Dependability

Agility, TCO
How?

Analyse your business model;
Focus investment where it is needed most
How?

Move From Today’s Processes

To Tomorrow’s

The BIC levels drive cost savings by matching the projected risk to the cost of risk mitigation.

BIC Level driven by ECF Priorities

Drive low impact applications dynamically to lowest cost infrastructure

Projected business impact from outages

BIC Criteria

Engineer Solution

Land solution in cost appropriate environment

Service Level 1

Service Level 2

Service Level 3

SLA@SOI

BLOs & Org Health into ECF

Business Health Analysis

ECF Policies DB

SLA@SOI Framework

Land Solution in Shared Cloud Environment

Service Level 1

Service Level 2

Service Level 3
Adopting the SLA Framework

Enterprise IT Use Case Architecture

“The Brains”
Capabilities

Key Capabilities fully implemented

- PaaS *Service* Provisioning via UI
- Basic *Service* and *Resource* level monitoring
- SLA Violation and Warning detection

In progress

- Advanced Monitoring Integration – Adoption of B4 SLAT developed with A5
Enterprise IT Scenario Progress

Demo #1

- Overview of Administrator UI

  - Consolidated view of all services and metrics
  - Infrastructure overview of Compute, Storage and Network resources
  - Policy Configuration
  - Template management
  - User account management
Demo #2; Provisioning Scenario

- Service Provisioning
  - VM’s spun up on best possible hardware

- Monitoring
  - Service level warnings & violations
  - Resource level warnings & violations
## Evaluation: Some of our Key Improvements overBaseline

<table>
<thead>
<tr>
<th>Objective</th>
<th>Indicator</th>
<th>Baseline</th>
<th>Projected</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Agility</strong></td>
<td>Time to Provision</td>
<td>Hours to weeks</td>
<td>Hours</td>
</tr>
<tr>
<td></td>
<td>Dynamic Scalability</td>
<td>Difficult</td>
<td>Possible</td>
</tr>
<tr>
<td></td>
<td>Scale up/Scale Out</td>
<td>14 days to 3 months</td>
<td>Hours, assuming available capacity</td>
</tr>
<tr>
<td><strong>Dependability</strong></td>
<td>Number of SLA Terms</td>
<td>4</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>Number of Automatically Monitored SLA terms</td>
<td>0</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>Reporting</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>- Service Availability</td>
<td>Monthly, manual</td>
<td>On demand, automated</td>
</tr>
<tr>
<td></td>
<td>- Period</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Energy Efficiency</strong></td>
<td>Energy Savings</td>
<td>Difficult to achieve</td>
<td>10%-30% (based on simulation)</td>
</tr>
<tr>
<td><strong>Cost Effectiveness</strong></td>
<td>Vendor Support Contract Costs</td>
<td>Unaffected</td>
<td>Reduced</td>
</tr>
</tbody>
</table>
Enterprise IT: Capabilities

Planned Capabilities

• More Advanced Monitoring (Up to 27 SLA agreement terms)

• Run-time adjustment of workloads (automated live migration), based on BLO policies

• Dynamic energy efficient hardware power on/off to meet predicted loads; selected via hardware efficiency ratings

Conclusions

• Growing Interest

• Strong relevance in this use case to IT internal cloud management

• Tangible, and measurable, business value is present
Thank you!

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Please see or ask us about our Enterprise IT Demo!