Smart Cloud Application Services
The IBM Platform as a Services (PaaS)
IBM Cloud Managed Services Scenario

- Smart Cloud Enterprise +
  - Smart Cloud 4 SAP
  - Smart Cloud 4 ...

- Smart Cloud Application Services
  - Smart Cloud Object Storage

- Client Workloads
- Client Workloads
- Client Workloads
- Client Workloads

- Applications
- Data
- Runtime
- Middleware
- O/S
- Virtualization
- Servers
- Storage
- Networking
IBM SmartCloud Application Services initially includes two primary services.

**Workload Service**
- Invoke shared application resources and then deploy custom application environments to run and manage your application
- Proven application patterns including database, Java and Web application patterns
- Integrated middleware services
- Elastic resources

**Value**
- More quickly design, deploy and manage consistent and repeatable middleware patterns with your application
- Policy-based elastic scaling

**Collaborative Lifecycle Management Service**
- Manage requirements and quality
- Centralize team controls and collaboration

**Value**
- Quick-adoption service for new projects, teams and clients
- No up-front investment to get started
- Self-service and online provisioning through your SmartCloud™ Enterprise account
IBM SmartCloud Application Services initially includes two primary services.

<table>
<thead>
<tr>
<th>Develop</th>
<th>Deploy</th>
<th>Deliver</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Workload Service</strong></td>
<td><strong>Collaborative Lifecycle Management Service</strong></td>
<td></td>
</tr>
</tbody>
</table>
| - Invoke shared application resources and then deploy custom application environments to run and manage your application  
  - Proven application patterns including database, Java and Web application patterns  
  - Integrated middleware services  
  - Elastic resources | - Manage requirements and quality  
  - Centralize team controls and collaboration |  
| **Value** | **Value** | 
| - More quickly design, deploy and manage consistent and repeatable middleware patterns with your application  
  - Policy-based elastic scaling | - Quick-adoption service for new projects, teams and clients  
  - No up-front investment to get started  
  - Self-service and online provisioning through your SmartCloud™ Enterprise account |
Workload Service
Workload Service - Extend the value of SCE

Flexibility

Virtual Image

Images

- Basic execution services for standalone VM images
- Complete control over image contents
- Basic image management/library functions
- IBM provided product images
- Ability to create custom images
- Leverages IBM image management tools

Included in

Image management
Single IMAGE centric

Virtual System Pattern

Topologies

- IBM defined product images and patterns for common topologies
- Ability to create custom patterns
- Traditional configuration and administration model
- Aligned around existing products
- Automated provisioning of images into patterns

Included in
Automated provisioning of middleware
Middleware TOPOLOGY centric

Virtual Application Pattern

Workloads

- Application awareness
- Fully integrated software stacks
- IBM defined topologies
- Simplified interaction model
- Highly standardized and automated
- Integrated middleware with cloud capabilities
- Integrated lifecycle management

Included in
Integrated middleware with cloud capabilities
APPLICATION centric

© 2013 IBM Corporation
IBM has been innovating to enable customers to more effectively move to PaaS and reap the 3 Orders of Magnitude potential benefits

- Write-Once-Deploy-Anywhere
- Remove Walls Between Dev & Ops
- Say Goodbye to Installing Products
- Elastic Application Services
- Ecosystem of Applications
- Cloud Integration
- Mobile, Social, Analytical Apps

First Order of Magnitude

Second Order of Magnitude

Third Order of Magnitude
Application Patterns - PaaS

- **Team development services**
- **Developer workstation (image)**
- **Quality management**
- **High productivity development**
- **Multi-tenant application enablement**

- **Datamart database (pattern)**
- **Transactional database (pattern)**
- **Proxy service (pattern)**
- **Caching service (pattern)**
- **Billing as a Service**
- **DBaaS**¹ (add automated service)
- **Catalog as a Service**
- **NoSQL as a Service**
- **Data Streams as a Service**
- **Messaging as a Service**
- **Enterprise service bus (ESB) as a Service**

- **Java**
- **Virtual system pattern**
- **Web application**
- **PHP environment**
- **Mobile**
- **Ruby environment**
- **BPM services**
- **Batch services**
- **Transactional database services**
- **Analytics services**
- **Portal services**

- **Oracle ERP²**
- **PeopleSoft**

- **Integration as a Service**
- **Application Integration**
- **User management integration**

¹Database as a service (DBaaS); ²Enterprise resource planning (ERP)

© 2013 IBM Corporation
SCAWS - Reduce risk with Elastic Scaling

The scaling policy can be applied to these component types:

– Enterprise Application
– Web Application
– OSGi Application

- Application Scenarios:
  – Static
  – CPU based
  – Response Time based
  – Web to DB
SCAWS - DBaaS with default monitoring & backup services
SCAWS - Public to Private portability

Application pattern

Development and test

HTTP server
- WAR File
- Application server
- Caching server
- Caching server
- LDAP
- Database

Monitoring lifecycle management

Production

IBM PureApplication™ System
- IBM Workload Deployer

Private clouds

Deploy

Public Cloud

IBM SmartCloud™ Application Services
- SmartCloud Enterprise
Provisioning a SCAS Service from SCE portal
Collaborative Lifecycle Management Service
IBM SmartCloud Application Services initially includes two primary services

**Workload Service**
- Invoke shared application resources and then deploy custom application environments to run and manage your application
- Proven application patterns including database, Java and Web application patterns
- Integrated middleware services
- Elastic resources

**Collaborative Lifecycle Management Service**
- Manage requirements and quality
- Centralize team controls and collaboration

**Value**
- More quickly design, deploy and manage consistent and repeatable middleware patterns with your application
- Policy-based elastic scaling

**Value**
- Quick-adoption service for new projects, teams and clients
- No up-front investment to get started
- Self-service and online provisioning through your SmartCloud™ Enterprise account
DevOps with IBM SmartCloud Application Services

1. Set up CLM environment
2. Commit code
3. Set up Workload Service and design pattern
4. Deploy App
5. Test
6. Report defect
7. Manage Defect

Collaborative Lifecycle Management Services

Workload Services

IBM SmartCloud Enterprise

Must see demo: http://www.youtube.com/watch?v=eUAHzY3MgRI&feature=plcp
How much does it cost?

Estimated total monthly charge (United States / USD): $0

Web Application Pattern instance with automatic scaling
1. Select the WebSphere Application Server size:
   - Small

2. Estimate the number of application servers required for different load conditions:

3. Estimate how big a part of a month you have minimal, average and peak load conditions:

4. Select the caching server size:
   - Small
Cloud computing and application development, SCAS can bring you a truly differentiated PaaS offering.

Why SCAS?

- Pattern-based technology/middleware technology leadership
- Available services to help the customer every step of the way from requirement to operation thorough test and dev
- Support true end-to-end application lifecycle management
- Shared IBM technology to support workload pattern portability and hybrid computing
- Support for both cloud-enabled and cloud-native applications
- 1.3 million users of enterprise applications under IBM management

Thanks Grazie

- Paolo Gerosa
- Augusto Silvani