Cloud Innovation for Application Lifecycle Management

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SAP SE
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PUBLIC
Cloud Benefits for Customers

- Always available
- Always up to date
- Unlimited scalability
- Access from anywhere
- Maximum efficiency
- No app. maintenance costs

Cloud Benefits
SAP Cloud Platform - Access from Anywhere and for Anybody, Always

17,000 developers use SAP API Business Hub every day

- 10,000+ customers
- 19 data centers
- 1,500+ apps on SAP App Center
- 5,000 SAP CP customers use integration
- 1,500+ apps on SAP App Center
- 150+ third party connectors
- Zero downtime maintenance releases
- 750+ pre-packed integration content packages
- 10,000+ customers
- 1000+ partners
- 59,000 running virtual machines
- 10,000+ customers
- 1000+ partners
- 59,000 running virtual machines

Connect
People and Data

Extend
Cloud and On-Premise Apps

Integrate
Apps, Data, and Processes

Build
Differentiating Digital Apps

BUSINESS AGILITY
### Continuous Integration / Continuous Deployment - Benchmark by DORA

<table>
<thead>
<tr>
<th>Aspect of Software Delivery Performance</th>
<th>Elite</th>
<th>High</th>
<th>Medium</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Deployment frequency</strong>&lt;br&gt;For the primary application or service you work on, how often does your organization deploy code?</td>
<td>On-demand (multiple deploys per day)</td>
<td>Between once per hour and once per day</td>
<td>Between once per week and once per month</td>
<td>Between once per week and once per month</td>
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<tr>
<td><strong>Lead time for changes</strong>&lt;br&gt;For the primary application or service you work on, what is your lead time for changes (i.e., how long does it take to go from code commit to code successfully running in production)?</td>
<td>Less than one hour</td>
<td>Between one day and one week</td>
<td>Between one week and one month&lt;br&gt;&lt;sup&gt;6&lt;/sup&gt;</td>
<td>Between one month and six months&lt;br&gt;&lt;sup&gt;6&lt;/sup&gt;</td>
</tr>
<tr>
<td><strong>Time to restore service</strong>&lt;br&gt;For the primary application or service you work on, how long does it generally take to restore service when a service incident occurs (e.g., unplanned outage, service impairment)?</td>
<td>Less than one hour</td>
<td>Less than one day</td>
<td>Less than one day</td>
<td>Between one week and one month</td>
</tr>
<tr>
<td><strong>Change failure rate</strong>&lt;br&gt;For the primary application or service you work on, what percentage of changes results either in degraded service or subsequently requires remediation (e.g., leads to service impairment, service outage, requires a hotfix, rollback, fix forward, patch)?</td>
<td>0-15%</td>
<td>0-15%</td>
<td>0-15%</td>
<td>46-60%</td>
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</table>
Continuous Integration / Continuous Deployment for SAP Cloud ALM

**Tools**
- Dynamic Routing, Feature Toggles, Audit-compliant Integration with GitHub, Test-Automation, Pipeline, Secure

**Process**
- Based on E2E Feature and Feature lifecycle Toggled, Canary Launch, Micro deliveries

**Community and Content**
- Epics, User stories, Microservices

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“There are no tricks for writing tests, there are only tricks for writing testable code.”

- Miško Hevery – Agile Coach at Google
The SAP Cloud Application Programming Model is an integrated framework of tools, languages, and libraries to efficiently and rapidly build enterprise services and applications in a full-stack development approach.

It guides developers along a golden path of best practices, allowing them to focus on their domain while relieving them from tedious technical tasks.

Programming model chosen for SAP Cloud ALM
Extensibility - Standardised, Simplified, Scalable - Efficient

ONBOARDING

CONCEPTION / DESIGN

DEVELOPMENT

TESTING & RELEASE

DEPLOYMENT & AVAILABILITY

- Build up knowledge
  - Tutorials, deep dives
  - Book
  - openSAP

- Benefit out-of-the-box
  - Project templates
  - Continuous Delivery toolkit

- Benefit as you develop
  - Java libraries
  - JavaScript modules (beta)

- Testing made easy
  - Continuous Delivery pipeline
  - Quality checks

- Keep updating
  - Continuous Delivery pipeline

Powered by SAP Cloud SDK

https://jam4.sapjam.com/groups/epqUq5S182gY77Fjdklwcis/content?folder_id=RDyB3s3pDjvBeIwV6csNY
Extensibility by SAP Standard CAP with SAP Cloud SDK

1. SAP Standard DevKit
   - SAP Standard Application
   - Standard SAP Development Environment powered by the SAP Cloud Application Programming Model SAP CAP
   - Based on SAP Application Development know-how to develop enterprise ready applications in all lines of businesses, industries and regions

2. Extensibility on Application Level
   - Tutorials, Project Templates, Designs, Pipelines ready to use recommended from SAP
   - Continuous Delivery Tollkit
   - Standard Quality & Compliance checks fully automated
   - Enable CI/CD for your own extensions

3. Extensibility on Application Life Cycle Management
   - SAP Cloud ALM built on SAP SCP and Cloud SDK
   - SAP Cloud ALM will be extendable via the SAP Cloud SDK on SAP SCP
   - Partner will be enabled for extensions
**SAP Cloud ALM Architecture Overview**

**SAP Cloud ALM Applications**

Provider account users (SAP) don’t have access to consumer account configurations and data.

**SAP Cloud ALM for Implementation**

- Requirements to Deploy
  - Process | Test | Deploy | Task

**SAP Cloud ALM for Operation**

- Predict to Avoid
  - End-User | Application | Integration | Business Proc. | Alert Procedures

Deliver the best customer support experience in the industry
Minimize customer effort to adopt and operate the Intelligent Enterprise Suite

Built-on SAP Cloud Platform - CLOUD FOUNDRY with Java and JavaScript, CAP, SAP Cloud SDK

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Consumer’s subaccount (customer) subscribes to provider’s application (SAP Cloud ALM), supported by automated onboarding

SAP Cloud ALM is deployed in provider’s subaccount (resources) …uses consumer’s configurations

Why MicroServices?

- Better exchangeable, reuse
- Update independently
- Scale independently

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SAP Cloud ALM – A brand-new, cloud-based application lifecycle management offering

For the intelligent enterprise
• for cloud-centric customers
• manages cloud and hybrid solutions
• supports all components of the Intelligent Enterprise

In the public cloud
• Rethought, newly designed, and built on modern cloud technology
• Starts with trial and is for life
• Ready for immediate consumption
• Cost-efficient for customers
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Presenter</th>
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</thead>
<tbody>
<tr>
<td>09:00 – 10:00</td>
<td>Status and Outlook: SAP Solution Manager, Focused Build for SAP Solution Manager, and SAP Cloud ALM from an Implementation Perspective</td>
<td>Michael Klöffer</td>
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<tr>
<td>10:05 – 11:05</td>
<td>Status and Outlook: SAP Solution Manager, Focused Run for SAP Solution Manager, and SAP Cloud ALM from an Operations Perspective</td>
<td>Janko Budzisch</td>
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<td>11:05 – 11:30</td>
<td>Coffee Break and Networking</td>
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<tr>
<td>11:30 – 12:15</td>
<td>Manage Requirements-to-Deploy with SAP Solution Manager and Focused Build: Overview and Best Practices</td>
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<tr>
<td>12:20 – 13:05</td>
<td>Retrofit Support for Migration to SAP S/4HANA</td>
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<tr>
<td>13:05 – 14:30</td>
<td>Lunch and Networking</td>
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<tr>
<td>14:30 – 15:15</td>
<td>Customer and Partner References for Focused Build for SAP Solution Manager</td>
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<tr>
<td>15:20 – 16:05</td>
<td>Advanced Configuration Monitoring with Focused Run for SAP Solution Manager</td>
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<td>16:05 – 16:30</td>
<td>Coffee Break</td>
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<td>16:30 – 17:30</td>
<td>Our Digital Future – We can optimize for People, Planet, AND Profit</td>
<td>Tom Raftery Global VP, Futurist &amp; Innovation Evangelist, SAP SE</td>
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<tr>
<td>17:30 – 00:00</td>
<td>Evening Event</td>
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