DevOps Mythbusting in the World of Intelligent Enterprises

Volker Kirchgeorg, SVP and Head of Integrated Quality and Services,
Thorsten Thee, SVP and Head of Global Post Sales Operations,
SAP SE
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About the Speakers

Volker Kirchgeorg
- SVP and Head of Integrated Quality and Services, SAP SE
- Responsible for the overall SAP Development Policy and Quality Management System
- Provide Services for SAP & Partners

Thorsten Thee
- SVP and Head of Global Post Sales Operations, SAP SE
- Ensures a seamless post sales experience for both customers and employees on a Franchise basis and acts as trusted advisor to the Digital Business Services Heads.
Key Outcomes/Objectives

1. Learn about Myths in the World of DevOps
2. How DevOps can help to improve software quality
3. Why in a cloud world Dev and Ops are inseparable
Myth: “With DevOps, you deliver either fast OR with higher quality.”
All people, regardless of title or background, with direct impact on product creation or operation should work jointly together in one DevOps team.
Micro-Deliveries are the new standard at SAP and SAP’s most agile way of releasing software & services.
The paradox of DevOps is to ensure higher quality through faster delivery.

Faster delivery ensures higher quality

- Deployed changes are smaller
- Automated testing and quality checks detect errors earlier (via continuous delivery pipeline)

Ultimate goal of DevOps

- Reduce unplanned changes through automated testing and quality checks
- Gain more time to deliver software development projects with excellent quality
Myth: “With DevOps, you deliver either fast OR with higher quality.”
Myth: “Manual testing is obsolete with DevOps.”
A continuous delivery pipeline enables development teams to deliver features quickly and with higher quality.

**my-project 1**

**Branch:** master  
**Commit:** ddd69b6

**Changes by Max Mustermann**

**Push event to branch master**

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**Pipeline:**

- **Start:** Declarative: Checkout SCM
- **Init:**
- **Build:**
  - Backend
  - Frontend
- **Local Tests:**
  - Backend Integration Tests
  - Backend Unit Tests
  - Frontend Unit Tests
  - Static Code Checks
- **Remote Tests:**
  - End to end Tests
  - Performance Tests
- **Quality Checks:**
  + Manual pre-release checks
- **Production Deployment:**
- **End:**
Manual testing is today still key in the refined Agile Testing Quadrants and used e.g. to continuously run comprehensive E2E scenario robustness tests.
Myth: “Manual testing is obsolete with DevOps.”

PARTLY CONFIRMED
Myth: “Regulatory and compliance requirements contradict DevOps.”
Software Engineering practices and traditional regulatory/compliance requirements

- Achieve the ultimate system by iterations
- Environment of continuous learning
- Building systems in frequent and small batches to confirm or reject the design hypothesis
- Strong focus on customer collaboration
- Strong ownership of product teams and decentralized decision making

change and variability = key success factors

- Rigorous, stage-gated activities that emphasize quality, security, compliance, etc.
- System needs to adhere to initial specification
- Strong focus on verification and validation
- Evidence to standards through reviews & audits
- Sign-offs by accountable (often centralized)

change and variability = risk and uncertainty

Based on: Achieving Regulatory and Industry Standards Compliance with the Scaled Agile Framework®, August 2017
Example:
With SAP Docker Open Source Governance, we fulfill legal obligations.

**Why Docker?**

<table>
<thead>
<tr>
<th>Build</th>
<th>Ship</th>
<th>Run Any App, Anywhere</th>
</tr>
</thead>
<tbody>
<tr>
<td>75%</td>
<td>30%</td>
<td>3.5M</td>
</tr>
<tr>
<td>Docker Growth in 1 Yr.</td>
<td>Companies Adopted Docker</td>
<td>Dockerized Apps</td>
</tr>
</tbody>
</table>

**Open Source**

High pace increase of Docker Images in Open Source domain

**Top Technologies Running on Docker**

NGINX, REDIS, POSTGRES

**Docker @SAP**

Strong growth, ship & use Docker Images

**Docker Open Source Risks**

- Difficult identification of licenses and components in Docker Image
- No install logs available to know what gets installed
- Complexity of dependencies
- Low availability of good tool for performing Docker IP Scans
- Lack of clarity in fulfilment of License Obligations
- Missing Source code and Copyright information for sub-components
- Lack of best practices across industries in handling Docker compliance

SAP Docker Open Source Governance uses automated Docker IP scans to **ensure** license, security and IP compliance.
Multi-dimensional Compliance Framework (MCF)

Audit Once – Use Many

Audits are extremely efficient: One result is used for many norms and many units.
Myth: “Regulatory and compliance requirements contradict DevOps.”
Myth: “Measurement in DevOps is only about technical metrics.”
SAP Quality KPIs will provide new levers to govern Product Quality to enhance customer perception of SAP’s solutions.
The **SAP Trust Center** is a public-facing website on sap.com, designed to provide unified and easy access to trust related content.

- **Delivers transparency**
- Users can **initiate requests and engage with SAP**
- Easy access to SAP trust-related **documents, certificates, and contracts**
Myth: “Measurement in DevOps is only about technical metrics.”
Myth: “With DevOps, you deliver either fast OR with higher quality.”

Myth: “Manual testing is obsolete with DevOps.”

Myth: “Regulatory and compliance requirements contradict DevOps.”

Myth: “Measurement in DevOps is only about technical metrics.”
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We make your solutions seamlessly integrated

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Presentation Materials

Access the slides from 2019 ASUG Annual Conference here:
http://info.asug.com/2019-ac-slides
Q&A

For questions after this session, contact us at Volker.Kirchgeorg@sap.com and Thorsten.Thee@sap.com.
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