DevOps in Action with OpenShift at Airbus, Swiss Railways & Produban / Santander

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DevOps in Action with OpenShift - Airbus

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Airbus is a global aircraft manufacturer

Passion

Our global workforce is united by a passion for aviation and restless desire to create better ways to fly

- 55,000 Employees
- €40 billion Annual revenue*
- 9 yrs Backlog
- 400 Operators

*Annual Revenue 2013

Data to end 2014
1300 Information System professionals located around the world wherever Airbus operates.
### Airbus IT Infrastructure

#### FRONT OFFICE
- **130,000 users**
- **70,000 PCs**
- **160,000 mailboxes**
- **6,500 printers**
- **90,000 fixed phones**
- **40,000 mobile phones**

#### CONNECTIVITY SERVICES
- **400,000 network ports**
- **99,999.6% reliability**

#### BACK OFFICE
- **12,500 servers**
- **15 petabytes on Storage**
- **15,000 millions transactions per year on SAP**
- **3,800 MIPS on Mainframe**
- **1.2 petaFLOPS on High performance computing**
Our expectations from the open (source) approach

**EMBRACES THE OPEN WAY OF WORKING**
- Improve the motivation and efficiency of our people and make IT more attractive through:
  - Transparency
  - Collaboration
  - Sharing
  - Empowerment
- Further increase our speed of change
- Align with the digitalization initiatives

**BOOSTS THE USE OF OPEN SOURCE SOFTWARE**
- Get classical Open Source advantages (lower TCO, quicker implementations, better quality & security etc..)
- Reduce our dependency from classical software suppliers
- Increase innovation, as in several areas Open Source Software solutions are more advanced (Cloud, Big Data…)

**A PROJECT**
- Solves the IT Service Management (ITSM) „dilemma“ and reduces the number of tools

Use the opportunity to:
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  - Collaboration
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Open Source Projects
**ITOp, an ERP for Infrastructure**

**EXPECTATIONS**
- **Support** the Infrastructure Asset Management
- Retire tools by consolidating them in a **single** one
- Enforce usage of **new innovative technologies**

**SOLUTION**
- Based on the ITSM Open Source Software iTop, it is composed by **multiple plugins** based on the **out of the box** API
- **Fully Open Source** from the IDE (Eclipse), application (iTop), application Server (HTTP) and finally the OS Linux (RHEL)

**Key Figures**
- 2000 users
- 800 000 assets
- Every week delivery

**Timeline**
- 09/2015 Kick Off
- 12/2015 CMDB
- 02/2016 Applications & Interfaces Referential
- 04/2016 Stock Mgt
- 05/2016 Leasing Mgt
- 06/2016 Project Referential

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**Continuous tuning & weekly release**
IT Services, a user centric solution

EXPECTATIONS
- Provide a user centric & user experience based portal
- Increase user autonomy & enable process follow-up
- Federate the different services in one single place

SOLUTION
- Composed by a Front-end and a Back End considered as a broker to standardize the interfaces of multiple non interoperable system
- Fully Open Source from the IDE (Eclipse), application (LifeRay), application Server (Tomcat) and finally the OS Linux (RHEL)

Key Figures
- 100 000 users
- 1 single place
- Every 2 weeks delivery

Continuous tuning & fortnightly release
DevOps
Why DevOps?

EXPECTATIONS

• Move to Continuous delivery to answer faster to business needs

• Reduce issues and time to fix them means more time for new features

• Enforce the “Open Way of Working” by increasing the communication, collaboration & integration between the Dev & Ops

SOLUTION

• Based only on Open Source Software used to mainly support PHP & Java...

Key Figures

>12 Integrated Applications
PaaS, the solution?

EXPECTATIONS
• Rapid applications development & deployment in the Cloud
• Optimized resources usage with better application scaling
• Simplify the retirement of non Cloud based solution

SOLUTION
• Based on the container technology to fully support multiple languages, databases...
• Setup on OpenShift 3 from RedHat composed by Docker containers & Kubernetes as container cluster manager

Key Figures
>150 PHP Applications
>40 Ready to use containers
Finally, with DevOps & Open Source

- We deliver **quicker** with a **high users satisfactions**
- **Reduce** recurring and none recurring **costs**
- Find the **rights solution** and **suppliers** is critical for the success of the projects
- Open Source & DevOps are **accelerators** to increase **collaboration**
- Finance aspect can’t be the only criteria to select **Open Source**
- Solution selection assessment must take in account **Open Source vs Proprietary**

Adopt DevOps & PaaS, the only way to match the constraints of companies

#redhat #rhsummit
- Future of **PaaS** is Open Source with the **container**
LEARN. NETWORK. EXPERIENCE OPEN SOURCE.
DevOps @ Swiss Railways
SBB

Baltisar Oswald
Project Manager Cloud, SBB
Who is Swiss Railways (SBB)?
DevOps & Provider Management
dev opsopsops ........... damn ooooops!
Use cases

Next steps
DevOps in Action with OpenShift – Produban / Santander

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Date
PRODUBAN

A Global Company in 9 countries giving services to 120 Santander Group affiliates
How is the relationship between Dev and Ops in a traditional IT?

- Dev and Ops could be different companies.
- Dev and Ops working in silos.
- “Dev is the culprit” or “Ops is the culprit”.
- Dev some times doesn't know Ops environment.
- Ops some times doesn't know Dev complexity, runtimes, configuration.
- A lacks of communication between Dev and Ops.
- Dev and Ops have different objectives.
What were the reason to adopt DevOps?

• Share the same tools for Dev and Ops.
• Increase collaboration between dev and ops.
• Reduce deployment time.
• Minimize environment differences.
• Improve Time to market.
• Platform tools.
• Automate deployment tasks, reduce fails during deployments.
• Provide a global service.
• Reduce infrastructure and operation costs.
• Continuous software delivery
• Improve resolution time of problems.
• More time available to add value, continuous improvement.
Produban's Global PaaS Service for DevOps teams
Multi-region OpenShift Enterprise on OpenStack

- Currently Spain, Mexico and Brazil region are ready.
- At the end of September we should have deployed.
  - Brazil
Produban's Global PaaS tools for DevOps teams
• This is a public service (Only for Produban’s customers).

• If there is a problem with an application and the Status Page is in GREEN, the problem is not in the PaaS.

• Key tool for DevOps.

• Before opening a ticket check the Status Page.
Global PaaS Issues and Changes

- This is a public service (Only for Produban's customers).
- We publish all the issues and changes.
- If the issue or change is critical we send an e-mail to all the customer.
Global PaaS Uptime (monthly)

- This is a public service (Only for Produban's customers).
- For every month Uptime and Issues/Changes are shown.
- Measure and monitoring are key services for Global PaaS team
Global PaaS Uptime (daily)

- Measure/Monitoring that's the Global PaaS Spirit
- For continuous improvements, monitoring and measure are key services.
- Uptime is used to calculate SLA for customers.
Communication is key in a DevOps environment.

- This is a public service *(Only for Produban's customers)*.
- The customer subscribes to different channels.
- Public REST API is available for gathering of metrics and uptime data.
Customers opinion about
OpenShift Global PaaS Service
DevOps Global PaaS Dream Team

Cristian Rodrián
Product Owner
Systems Engineer. Lover of tennis, tennis, tourism and leisure in general.

Daniel Cortés
IT Architect
Ing. Computer and Telecommunications. I'm a fan of the world of engineering and, in particular, engineering applied to ICT.

Roberto Gómez
Engineer
Computer Engineer. Technology enthusiast, the Xbox and mountain bike.

Silvia Nierras
Producer
Electronic Engineer. He likes Granada and horseback riding.

Cristabel Talavera
IT Architect
Computer Eng. and Industrial Eng. I like to learn new technologies and keep balance with the Aereopage which is another of my passions!

Claudio Barzu
DevOps
The team junior computer engineer. I like to learn new things and formula 1.

Fabio Alorso
DevOps
Ing. Telecommunication. I love computer science, telecommunications, science...and always learning something new.

David Pascual
Red Hat Consultant
Red Hat People. Red Hat lover.

Julian Fernandez
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Computer engineer. Passionate about new technologies, sport and dogs.

Javier Ortiz
DevOps
Degree in computer science. Moving from Production Engineering.

Serhiy M"ak
Sales Manager
Computer Engineer. Technology videogames and boardgames lover. Fit pain or hurt? review and change!

Akhmatton Ibarray Rezende
Consultor
IT consultor expert in application development and administration of application servers. Always seeking for new technologies and concepts.

Fabio Machado
Senior Consultant, Adapt the Open Source

Reinaldo Silva
DevOps
Informatics Engineer and just enjoying the work at the rhythm of Marillion (well or the beat of Marillion).
LEARN. NETWORK.
EXPERIENCE OPEN SOURCE.