DevOps for
SAP CPI with Figaf

September 2020
Russian user group
PIMON-2020

Agenda

Figaf

- Why Integration and DevOps
- Development
- Operations
- Monitoring

Who we are?

Daniel Graversen

- SAP Mentor
- Worked with SAP Integration for 15 years
- Always tried to improve integration
- Founder of Figaf

Ilya Nesterov

- Lead developer in Figaf Team
- On the project since its startup

SAP CPI

- SAP CPI is a great platform to create integration.
- Lots of pre delivered content.
- Enables developers to create the cloud integration needed.
- Has an integrated development and runtime environment.
- Uses a flexible BPMN model for iflow definition and EAI framework at background (Apache Camel) which allows to use a wide list of different architectures and design complex but transparent scenarios.

Is it enough to handle integration on CPI efficiently?

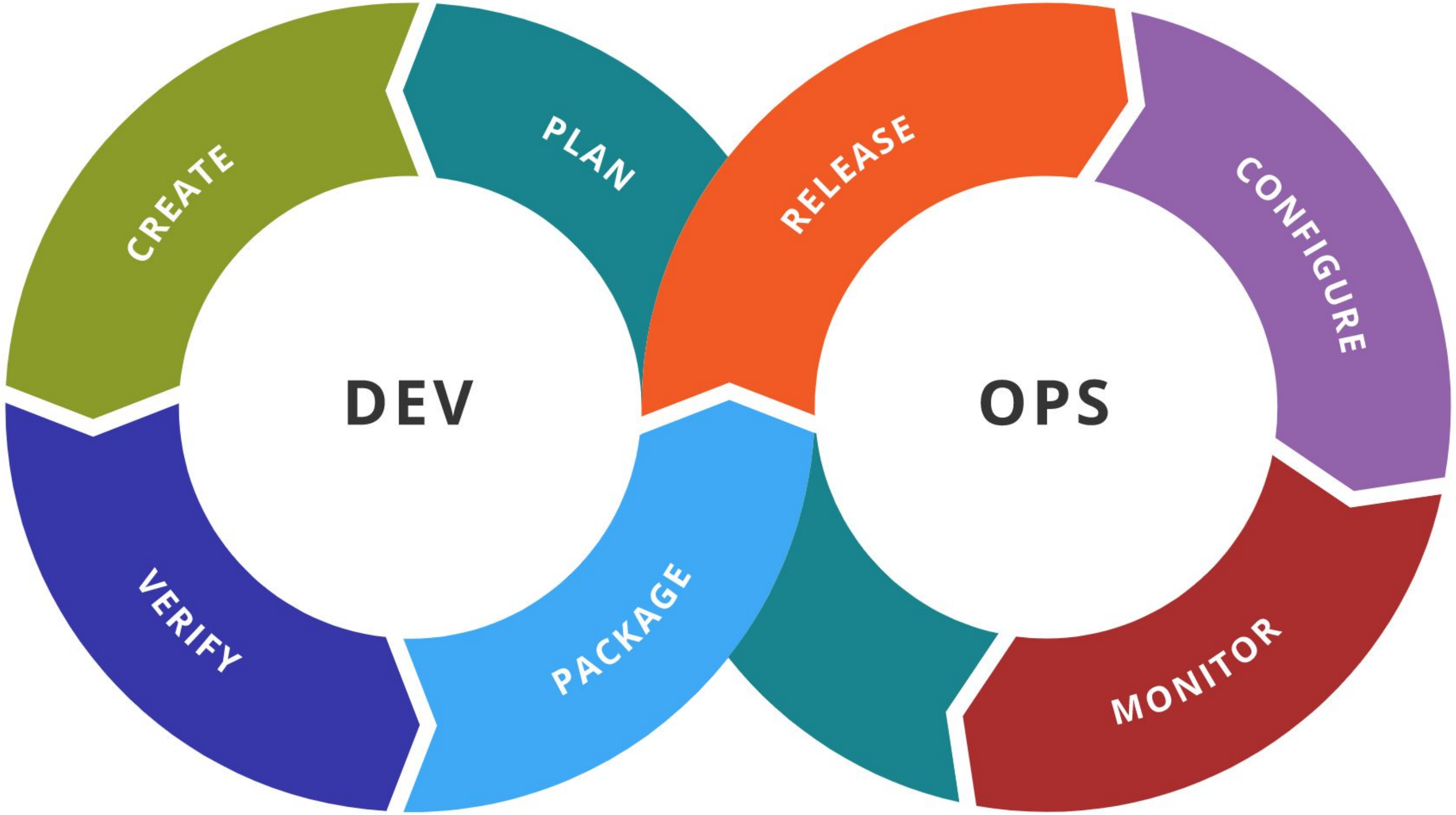
- Development requires a change management to make updates transparent.
- Development of custom code (e.g. groovy scripts for iflows) requires unit testing to provide a quick and isolated way to check that code works as expected, also it allows to do refactoring safely.
- Integration requires coverage by e2e functional tests to check regression, automation significantly reduces the cost of manual testing at some point of the Iflow lifecycle.
- Delivery/release process requires a transparent transport of chosen updates across the landscape.
- Operations require a flexible monitoring solution to automate and simplify error analysis on QA/Prod.

What do we want?

Figaf

Operations
Software development
Infrastructure
Testing
Microservices
DevOps
What the hell is this?

What is DevOps



https://commons.wikimedia.org/wiki/File:Devops-toolchain.svg Kharnagy / CC BY-SA (https://creativecommons.org/licenses/by-sa/4.0)

Why DevOps process must be healthy

Figaf

- Look at your backlog of interfaces, you can see why you must deliver more integrations
- Changes in team with reduction/increase of employee and consultants
  - New people many not be able to support the process in the same way

Why Figaf makes sense

Figaf

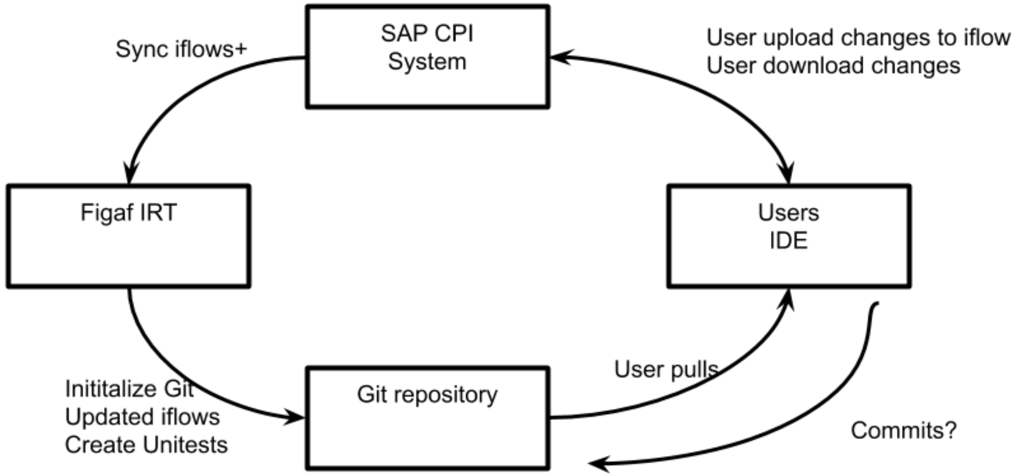
- Simplify your SAP Integration development
- Automate the delivery process
- Optimise the use of your resources
    - It can be can be difficult to find good developers/qa/architects, so use them wisely
- Protect your integration

Figaf Tool: Development perspective

- Change management functionality registers updates of CPI objects in the tool.
- Integration with Git repository to store these updates as commits. Also provides a great basis for scripts development from IDE.
- Open-source Gradle plugins to provide simple but widely used integration (download/upload/deploy) with CPI from IDE or CI tool.
- Unit tests generation for groovy scripts based on messages in a test case.

Git process

- Git object is created by Figaf IRT
  - Provides templates
  - Test cases
  - Possible all iflows
- User can stay in IRT branch or move to a different branch



Figaf Tool: Testing perspective

- Basic testing tool functionality will record messages from one system, create test case, run it on the same or another system, fetch results, compare, build report. All steps which have logged payload will be captured and compared by default but it’s possible to ignore them.
- Powerful advanced features like scheduled execution, testing with mock data, shared comparison configuration, testing of sensitive data.
- Gradle plugin to run the full e2e test for Iflow from IDE or CI tool.

Figaf Tool: Operations perspective

Figaf

- Integrated transport management solution, based on change management functionality.
- Transparent versioned configuration of externalized properties across the landscape. You can see desired differences
- Support of “virtual” landscape items, so that it allows to use 1 tenant as DEV and QA at the same time.

Figaf Tool: Operations perspective

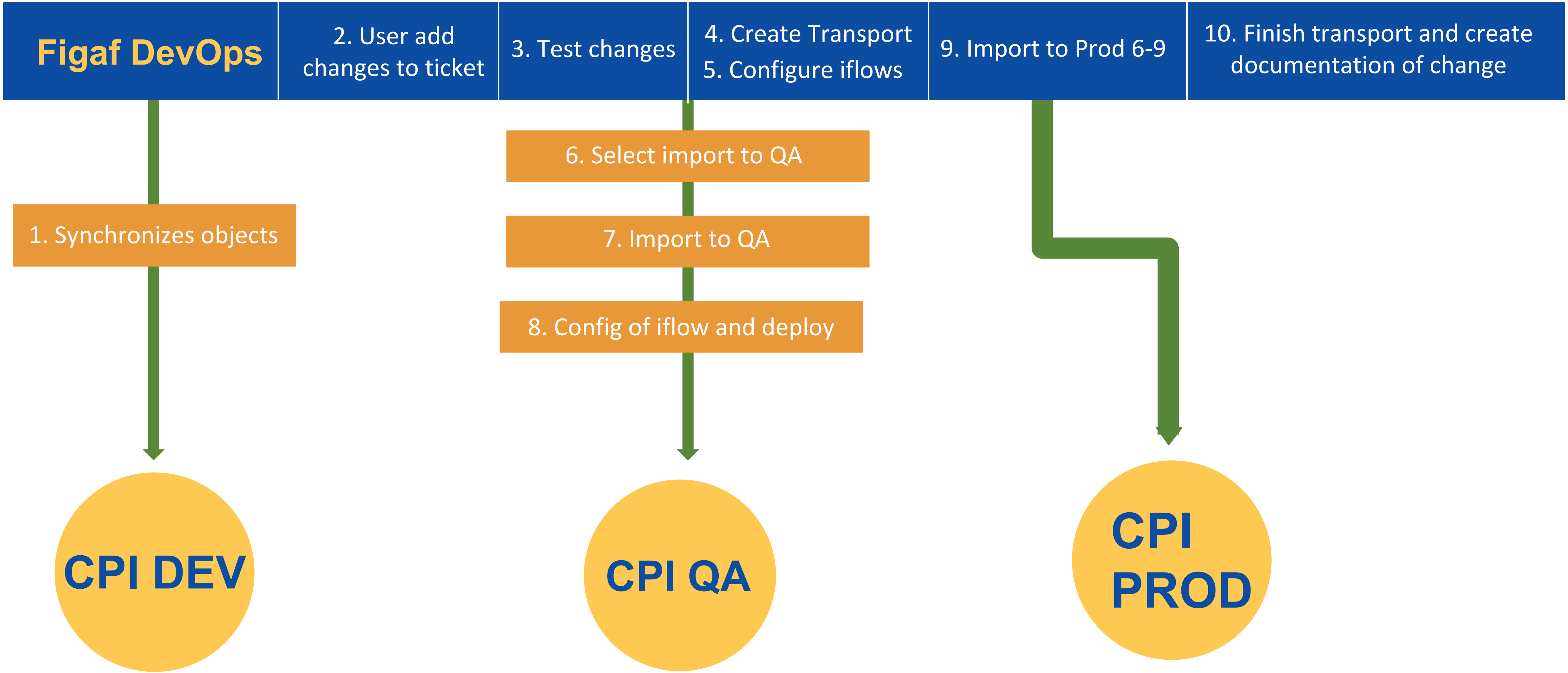
Figaf

- Monitoring tool which allows to configure required filter to register CPI message as alert, then classify it using dynamic rules and finally process configured external integrations (email or webhook).

- Extended CPI Message browser with advanced configuration of access to metadata and payloads(mpl/persisted). You can create a filter and configure, who has access to it.

SAP CPI/API management transport using Figaf

Figaf synchronizes everything in your development tenant, packages, iflows, value mappings. User create a ticket and then assign the object that is related to this change. Once it is tested user create transport, then the transport all the object in ticket. So you can transport individual iflows or API proxies. In the transport is is possible to configure iflow properties for full landscape. It is possible to specify approval roles and then import on target system.



Figaf DevOps

2. User add changes to ticket

3. Test changes

4. Create Transport
5. Configure iflows

9. Import to Prod 6-9

10. Finish transport and create documentation of change

1. Synchronizes objects

6. Select import to QA

7. Import to QA

8. Config of iflow and deploy

CPI DEV

CPI QA

CPI PROD

New: Multi iflow configuration

- One as template then make copies of it
- For each company code you can then create versions
- Simplify the deployment process
- Handle the updates of the copied iflows

Same support for

SAP API Management

- Development Tool
  - Git and Gradle
- Transport mechanism
- Monitoring
  - Modification to save to KVM

SAP PI/PO

- Transport
  - both with or without CTS+
- Testing
- Monitoring
- Documentation of changes

Deployment Options

Figaf

- Laptop for PoC Build in database.

  It takes 5 minutes to get started

- Figaf Cloud
- Production Standalone Java application that needs a database like MSSQL, Oracle, DB2, Postgresql
- Most would deploy it in Azure or AWS

Roadmap

- Cloud Foundry for CPI support
- Open Connectors to support
- Any Good ideas?

Links

Main Figaf Tool (IRT) page:

https://figaf.com/figaf-devops-tool

CPI Gradle plugin:

https://plugins.gradle.org/plugin/com.figaf.cpi-plugin

https://github.com/figaf/cpi-gradle-plugin

IRT Gradle plugin:

https://plugins.gradle.org/plugin/com.figaf.irt-plugin/1.0.RELEASE

https://github.com/figaf/irt-gradle-plugin

Signup Figaf IRT figaf.com/devops

Getting started session

support@figaf.com