Cloud Innovation Platform

By Société Générale

Patrice Lachance
Technical Advisor
@plachance
plachance

Laurent Broudoux
PaaS & DevOps Solution Architect
@lbroudoux
laurentbroudoux

Yacine Kheddache
Principal Solution Architect
@YadaYac
yacinekheddache

Tuesday, May 7th, 10:30 a.m.-11:15 a.m.

#redhat #rhsummit #TheFutureIsYou @SG_InsideIT
SOCIÉTÉ GÉNÉRALE – THE ESSENTIAL

Société Générale is one of the leading European financial services groups.

Based on a diversified and integrated banking model, the Group combines financial strength and proven expertise in innovation with a strategy of sustainable growth, aiming to be the trusted partner for its clients, committed to positively transforming the world.

3 complementary core businesses:
- French Retail Banking
- International Retail Banking & Financial Services
- Global Banking & Investor Solutions

31 million* individual clients, businesses and institutional investors

€2.8 billion Group Net Income

+ 147,000** members of staff

€23.95 billion in Net Banking Income

67 countries worldwide

11.5% Common Equity Tier 1 ratio

OUR VALUES

Team Spirit
Innovation
Responsibility
Commitment

* Excluding insurance policyholders.
** Rounded figure. Headcount at end-2017 excluding temporary staff

#redhat #rhsummit #TheFutureIsYou @SG_InsideIT
CLOUD STRATEGY

80% of eligible servers to Cloud (Public or Private) by 2020

Cloud First strategy to increase **agility**, **openness**, **resiliency** and **efficiency** in order to offer clients a wider variety of services, faster.

Hybrid Cloud-based infrastructure services platform to meet the target of migrating **80% of our eligible servers to Cloud (Public or Private) by 2020**.

Source: [https://www.societegenerale.com/sites/default/files/18100_pr_societe GENERALE accelerate its cloud strategy en 0.pdf](https://www.societegenerale.com/sites/default/files/18100_pr_societe GENERALE accelerate its cloud strategy en 0.pdf), October 18th, 2018
CLOUD STRATEGY

Ready for business-critical apps, and now for innovation!

The self-service offered by the cloud does not exempt the company from complying with regulatory constraints.

Fortunately, there was low-hanging fruits…

Proven cloud–related productivity gains based on industrialized processes defined for regulated environments were not enough to unlock innovation.
REAL EXAMPLE
DEPLOY A PUBLIC DATA MODULE IN THE CLOUD

Internal Information System
- User data
- Business Logic
- Tokens dictionary

Cloud Service Provider
- Dynamic content module

Confidential data
Public data

Send token
Get URL
Refresh
REAL EXAMPLE
DEPLOY A PUBLIC DATA MODULE IN THE CLOUD

PROJECT’S KICK-OFF

22th March
REAL EXAMPLE
DEPLOY A PUBLIC DATA MODULE IN THE CLOUD

2 MONTHS TO START EXPERIMENTING

Until 22th of May
REAL EXAMPLE
DEPLOY A PUBLIC DATA MODULE IN THE CLOUD

HIGH RISK OF SHADOW IT.
OUR SOLUTION
BUILD A CLOUD INNOVATION PLATFORM!

WE BUILT A CLOUD INNOVATION PLATFORM TO...

✓ Work closer with our consumers
✓ Improve our products & services
✓ Empower teams
✓ Optimize our processes
DESIGN PRINCIPLES

- Perimetral Security – Freedomness within boundaries
- Trusted Advisor
- Network flows logging
- Collaborate easily
- No prerequisite skills
- Professional Services – with help from partners such as
- Ready to use tools
- Traffic inspection
- Harmless if something goes wrong
CLOUD INNOVATION FACTORY & PLATFORM
END TO END OFFERING

WHICH USE CASES?

- Innovation POC
- Qualify Emerging Tech
- Internal Startup program
- External Startups
- Hackathons / Challenges
- Self-training

The right people
- Sponsors
- Innovation ecosystem
- Hybrid development team
- OIF Professional Services

The right process
- From idea to production
- @gile development
- Return on Experiment

The right tools
- Cloud Innovation Platform
- POC Delivery Packs
- Proxim’Inno Desk

Go To Prod
CLOUD INNOVATION PLATFORM – PRODUCTS FAMILIES

Tools Box
Leverage on selected tools to simplify your experimentations
- Integrated development environments
- Data Analysis
- Web-Analytics
- Sharable Cloud Storage
- Collaboration tools
- OpenID Connect proxies
- API Editors

App Box
Deploy apps on a corporate compatible enterprise grade container-based platforms
- 200+ components available
  - Red Hat Middleware catalog
  - Operatorhub.io
- Pre-integrated emerging solutions:
  - ChatBots / ChatOps
  - Speech-to-Text
  - Quantum
  - Blockchain, ...

Cloud Box
Build your solution from ground-up leveraging on Cloud Service Providers catalogs
- Internal Cloud Catalog (C0, C1, C2)
- Amazon AWS Catalog (C0)
- Azure Catalog (C0)
- Internal – Isolated POC (C2)

C0 – Public data
C1 – Internal Data
C2 – Critical Data
SOME USE CASES
MAKE POC OFF-PREMISES, DEPLOY ANYWHERE!

External Platform

1. Cloud Project
2. POC

Cloud Box

App Box

Tools Box

3 MONTHS

Internal Platform

Cloud Box

Portability assured

Your mileage may vary!

App Box
SOME USE CASES
WORK WITH STARTUPS & QUALIFY PRODUCTS

Open Innovation Platform

Github.com
OIP organization

Mail systems
Mailboxes

Startup « 16quBits »

Service Offers
• Descriptions
• Documentation
Portal

Innovation virtual team

1
Read the Docs

2
Create shared ws

3
Invite startup members

4
Notify

5

6

Product Release

B Cloud Storage
C Quantum Simulator

A Collaboration workspace

RH-provided
Custom

Console / Service Catalog

Mail systems

pull image

hub.docker.com

quirk

SOME USE CASES
WORK WITH STARTUPS & QUALIFY PRODUCTS

Service Offers
• Descriptions
• Documentation
Portal

Innovation virtual team

1
Read the Docs

2
Create shared ws

3
Invite startup members

4
Notify

5

6

Product Release

B Cloud Storage
C Quantum Simulator

A Collaboration workspace

RH-provided
Custom

Console / Service Catalog

Mail systems

pull image

hub.docker.com

quirk

SOME USE CASES
WORK WITH STARTUPS & QUALIFY PRODUCTS

Service Offers
• Descriptions
• Documentation
Portal

Innovation virtual team

1
Read the Docs

2
Create shared ws

3
Invite startup members

4
Notify

5

6

Product Release

B Cloud Storage
C Quantum Simulator

A Collaboration workspace

RH-provided
Custom

Console / Service Catalog

Mail systems

pull image

hub.docker.com

quirk
CLOUD INNOVATION PLATFORM – MULTIPLE USER EXPERIENCES

- ACCESSIBILITY -

ANY TIME,
ANYWHERE,
ANY DEVICES!

#redhat #rhsummit #TheFutureIsYou @SG_InsideIT
“GET STARTED IN MINUTES, FOCUS ON CREATING VALUE RATHER THAN MANAGING TECHNICAL INFRASTRUCTURE”
CONTRIBUTION TO OPEN SOURCE 
UPSTREAMING AND OPENING OUR CODE

Some upstream contributions to OpenShift components

- OAuth-Proxy: https://github.com/openshift/oauth-proxy/pull/96
- Deployment: https://github.com/openshift/openshift-ansible/issues/11137

Cloud Innovation Platform source code will soon be release as public open source project, follow us on
GitHub.com: https://github.com/societe-generale/cloud-innovation-platform

Twitter: @SG_IinsideIT @SocieteGenerale, @CareersSocGen, #TheFutureIsYou, #IT
CONTRIBUTION TO OPEN SOURCE SCOPE OF OUR PROJECT

First modules to be released depicted below

**Tools Box**
- Custom Kubernetes templates
- Custom Kubernetes Operators
- CodeReady Workspaces Stacks

**App Box**
- OpenShift Ansible inventory file
- OpenShift configuration tunings (proxy settings, dashboards, etc.)
- AWS CloudFormation templates

**Cloud Box**
- Cloud Internet Access Point (Octane)
- Custom images creation tool (OS Factory)
- AWS Sandbox creation tool

Vendors, peers, anyone can contribute! Help us build the Cloud Innovation Platform that fits your needs!
WHO ARE WE?

Red Hat **Senior AppDev Solution Architect**
OpenSource committer at night

Everything distributed!
#API, #OpenAPISpec, #Kubernetes, #Camel

Red Hat **Principal Solution Architect**
Helping strategic accounts on their digital journey

Proud geek!
#Innovative, #Entrepreneur, #Visionary
CLOUD INNOVATION PLATFORM
RED HAT ALREADY A CONTRIBUTOR!

Tools Box

- API Development Acceleration Pack

APICURIO

RED HAT®
CODEREADY WORKSPACES

Microcks
Cloud Innovation Platform is cool and we wanted to be the first vendor to contribute!

Even though it leverages Red Hat OpenShift service catalog, which already offers 160+ components out of the box, we thought it would be useful to showcase how our technologies can speed up Finance institutions’ Digital Transformation.

VALUE PROPOSITION
- Speed-up ideation with API BaaS
- Discover and reuse existing / standard APIs
- Build your own API
- Simplified develop process
- Collaborate easily
NEW FEATURES COMING

- With OpenShift 4.x upgrade, Functions & Monolith out of the box, thanks to Knative, OpenWisk and KubeVirt
- Can be deployed on bare-metal, virtualization and major Cloud Platforms
- Learn more on OpenShift during dedicated sessions