REDHAT SUMMIT

OCP STANDARDS IN THE CLOUD STRATEGY OF LA POSTE / I.T. DEPARTMENT SERVICES-MAIL-PARCELS

SERVICES-MAIL-PARCELS
IT DEPARTMENT

May 3rd 2017
01. LA POSTE

02. BUSINESS UNIT SERVICES-MAIL-PARCELS

03. IT DEPARTMENT

04. CLOUD SERVICE
A GROUP THAT COUNTS: A MAJOR GROUP IN THE FRENCH ECONOMY

€23bn* in revenue

- 250,000 employees around the world
- 17,000 retail outlets
- 44 countries
- 5 continents

79.1% from France
20.9% from the rest of the world

* 2015 figures.
A GROUP THAT COUNTS: A MAJOR GROUP IN THE FRENCH ECONOMY

4 PUBLIC SERVICE MISSIONS

- Provide home mail delivery six days a week to all people in France
- Provide access to banking services for all through “La Banque Postale”
- Contribute to regional planning through the presence of postal services
- Transport and deliver newspapers and magazines

3 NEW PUBLIC INTEREST ACTIVITIES

- Be a major player in the energy transition
- Help modernise public action
- Offer trusted third party digital solutions

A RESPONSIBLE GROUP

100%
Of the mail and parcel services are carbon neutral

100%
Of electricity used is sourced from renewable energy sources

100%
Of employees attend a training course every two years
A GROUP ORGANIZATION IN FIVE BUSINESS UNITS

SERVICES-COURRIER-COLIS (Services-Mail-Parcels)

GÉOPOST (International express delivery)

LE RESEAU (Post Offices)

LA BANQUE POSTALE (Banking activities)

NUMERIQUE (Digital services)
"LA POSTE 2020 : CONQUERING THE FUTURE” STRATEGIC PLAN.

To become a reference in terms of innovation for both customers and employees

Being the European leader in local services

Providing a digital trust guarantee

3 OBJECTIVES

« In 2020, you will not recognise La Poste, but you will recognise its values »

Philippe Wahl  Chairman and Chief Executive Officer of Le Groupe La Poste
SERVICES-MAIL-PARCELS
To a world of services
TO A WORLD OF SERVICES

3 strong objectives:

TO BE A REFERENCE PARTNER OF THE E-COMMERCE

TO BE A MAJOR PLAYER IN URBAN LOGISTICS

TO BE AN ACTOR FOR THE DEVELOPMENT OF LOCAL AND IN-HOME NEW SERVICES

May 2017
A QUICK OVERVIEW

680 employees

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May 2017
CHANGING OUR INFORMATION SYSTEM

Our Information System will have to:

- change from an industrial-oriented IS to an IS of services
- support and test new business models on shared value chains with partners
- drive the profitability of offers in "real time"
- integrate with transversal IS models from Group La Poste, holding and subsidiaries
- take into consideration all customer requests

May 2017
CLOUD SERVICE AT IT DEPARTMENT SERVICE-MAIL-PARCELS
CLOUD STRATEGY

A cloud service to

- Ease solving the problem of obsolescence infrastructures and applications
- Accelerate the conquest of “new territories” with rapid implementation of new applications
- Be a cloud provider for the Group La Poste

Resilient infrastructure

IaaS

PaaS

Physical machines (Appliances, etc ...)

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May 2017
Building our PaaS solution

Working on IaaS
(Automated VMs deployment factory)

July 2015

Working on a PaaS based on the IaaS
- OpenShift 3.0,
- Build a test plateform
- New exploitation toolkit: ELK, Centreon,

A new organization: pizza team
- Use of the «agile» method with the help of RedHat Experts (organization and knowledge transfer),
- Iterative method: 2 weeks per iteration.
- Contributors both Dev and Ops.

October 2015

Results
- Customer opening:
  - PaaS for Test purpose December 2015
  - PaaS for Build purpose January 2016
  - PaaS for Run purpose May 2016

- Service offered: out of the box services / no customisation / use of solution & Editor standards

January 2016
A NEW DYNAMIC FOR THE PROJECT

IT Department : « ITaaS task force »

To integrate new technologies in our existing portfolio.

May 2016 : new goals for the project

“ITaaS Task Force” : A stand-alone, multi-site and multi-skills team, with DEV and OPS structure, implementing Agile methodology.

• Help projects from legacy to migrate their apps (in order to manage obsolescence)

• Help new strategic / business application.

• Maintain ITaaS offers up to date, and add new services and functionnalities.
1ST OBJECTIVE : MIGRATION

• Help projects from legacy to migrate their applications systems (in order to manage obsolescence).

• A target of moving a first set of 10 apps in 6 months, to an up-to-date software stack

• Continue to operate these apps (in a DevOps model)
2nd Objective: Conquest

- Host a new set of 10 strategic business applications before December 2016 with for some of them the use of new stacks (FUSE AMQ, ...),

- Deliver apps environments faster, using Editor’s standards,

- Benefit from newly offered PaaS functionalities,

- Use of the DevOps model
3RD OBJECTIVE : TRANSFORM

Transform IT Department:

- Upgrade team’s skills
- Share these skills and knowledge.
- New technical patterns for Cloud apps:
  - Stateless,
  - Micro services,
  - No scheduling system
  - Design for failure
  - Deploy everywhere (independent application from infrastructure)
PAAS PROJECT ACHIEVEMENTS

In 16 months:

• Total of 15 applications moved from our legacy platform
• Total of 17 more new applications developed directly on the ITaaS platform

A lot of changes for the project teams:

• A new development pipeline (using Continuous Integration and Continuous Delivery) which allows to go quickly to production, with the guarantee to deploy the same way on each environment (from build to run)
• A change of mind to a DevOps model
• Automated tests are now mandatory

A growing Cloud service offer:

• OCP (3.0, 3.1, 3.2)
• The availability of new tools for the projects: ELK / Graphana
• Projects are increasingly self-reliant with the use of the cloud platform.
INTEGRATION OPENSHIFT CONTAINER PLATFORM

Continuous Integration Platform

OCP BUILD

Log management stack

IaaS

Log management stack

OCP RUN
FOCUS ON AN APPLICATION BASED ON FIS-AMQ

Project: "Plateforme de Notification Client» (Customer Notification Platform).

- Offer a set of REST API for internal IT Department Services-Mail-Parcel applications to centralized and standardised all customer notifications.
- Supports different kind of media: email, SMS, pushMobile.
- A notification is build on a template, and may include a set of attached document/files.

Current features:
- Asynchronous process
- Mass operations
- PDF Document generator
- Notifications Auditing
- Templates management
- Reporting

To come:
- Notification priority management
FOCUS ON AN APPLICATION (FIS-AMQ)

• Microservices architecture, loosely coupling between services with the use of A-MQ broker.
• Fault tolerant
• Autoscaling
• Continuous Integration and Continuous Deployment with the use of Jenkins and OpenShift
• Real hot deployment (rolling update mode) due graceful Fuse Integration Services shutdown
• « 12 factor application » compliant
• 110 000 notifications/month. All migrated and new apps use PNC instead of their own solution.

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May 2017
Target:

- Additionnal 20 applications moved from our legacy platform
- Additionnal 15 new applications developed directly on the ITaaS platform

More changes for the projects teams:

- With the use of automated tests and containers, all Project teams can update their product stacks to follow editors updates and their own life-cycle demands.
- We set up a dedicated organization to move all apps from the legacy platform to our cloud platform.

A still growing Cloud service offering:

- OCP (3.3, 3.4, ...)
- Working on a Storage as a Service solution.
- CloudForms
- Stress test as a service
- News services: Varnish / Elastic Search / NodeJS / ...
- To an hybrid cloud (private & public)
LESSONS LEARNED

• Installing an OCP platform is a technical project, without any difficulty for experts or architects, but it needs a good planning in advance.

• Communication is the key to lead change into people’s mind, and transform an organization.

• Too complicated to change a large number of people working at the same time while doing any other activity.

• Customers (project teams) have great expectations from the Cloud ! (platform alone cannot turn lead into gold)
Based on the lessons learned we increased our efficiency on migrations significantly:
COLLABORATION WITH REDHAT

Services:
- Mixed team at the beginning or the project: incl. RedHat experts, architects to setup the platform.
- RedHat experts (4 days / month)
- Pre-sales

TAM:
- Knows perfectly our environments and configuration,
- Helps communicate with the support team
- Dedicated chat group
THANK YOU

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