

# 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

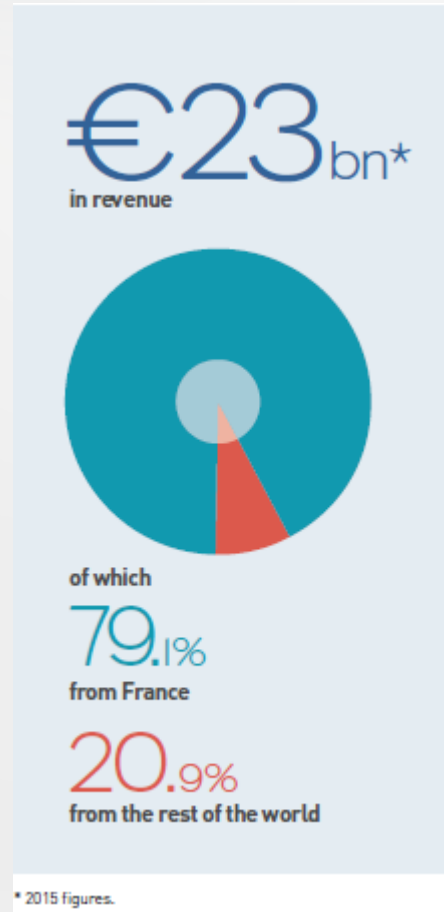
04.

CLOUD SERVICE

# LA POSTE



# A GROUP THAT COUNTS : A MAJOR GROUP IN THE FRENCH ECONOMY



# 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

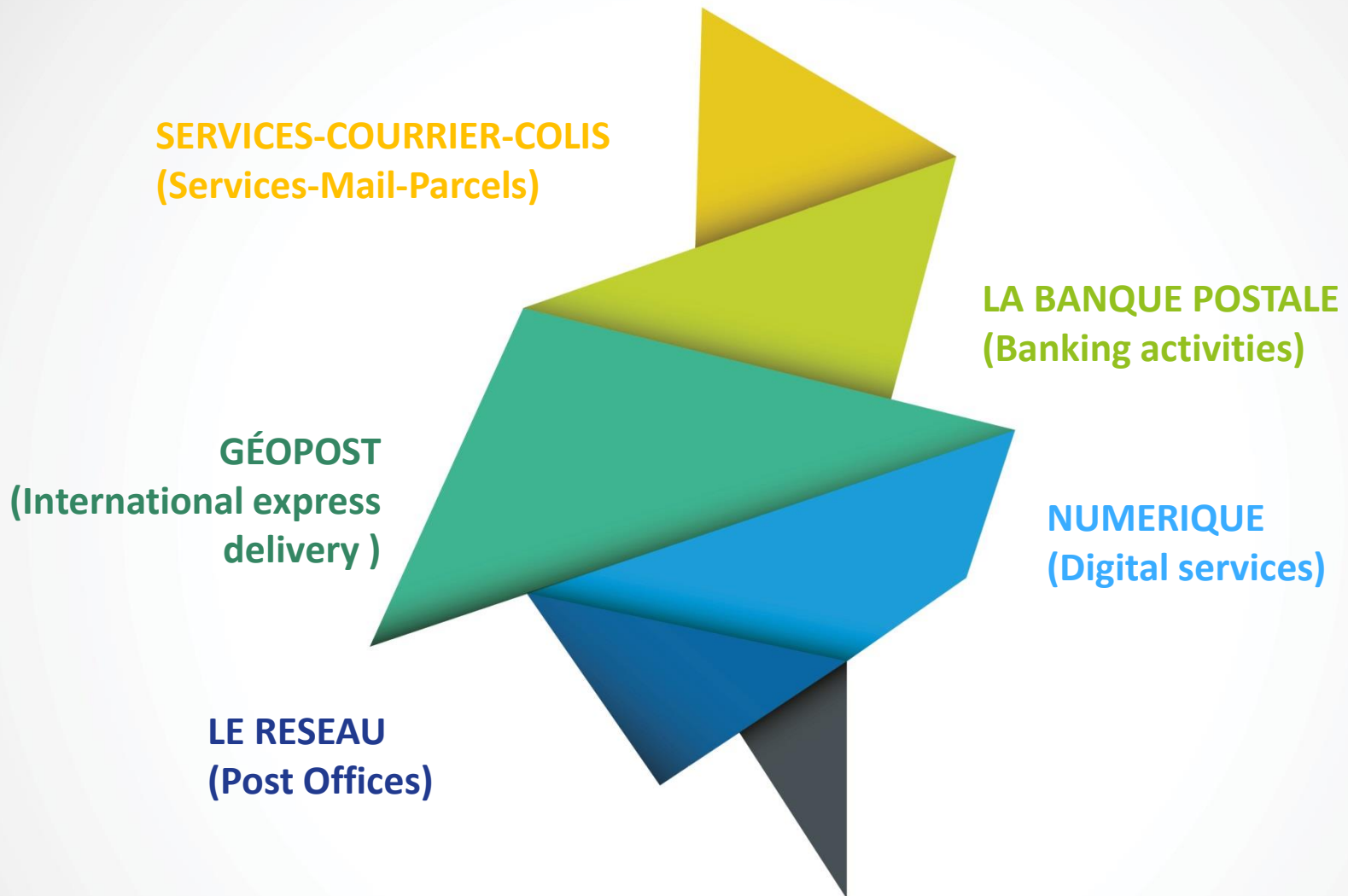
100%

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



# "LA POSTE 2020 : CONQUERING THE FUTURE" STRATEGIC PLAN.

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

Providing a digital trust guarantee

3 OBJECTIVES



Being the European leader in local services

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



# 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**

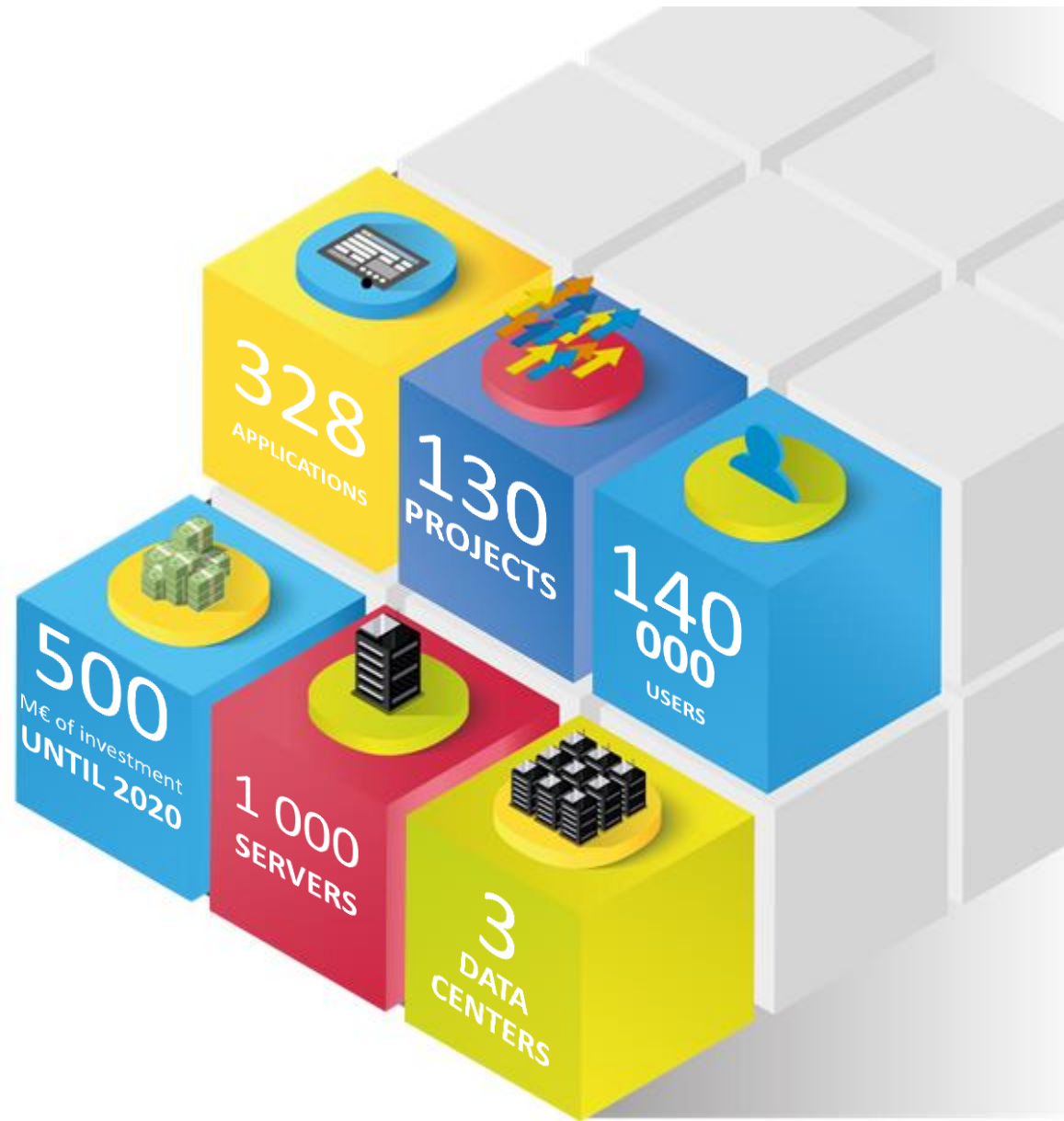


A woman with brown hair in a ponytail, wearing sunglasses and a yellow and purple long-sleeved top, is shown in profile from the chest up. She is holding a black smartphone in her right hand and looking at it. The background is a bright, sunny outdoor scene with a body of blue water and a hazy horizon under a clear sky. A semi-transparent white rectangular box is overlaid on the left side of the image, containing the text 'IT DEPARTMENT SERVICES-MAIL-PARCELS' in blue, uppercase letters.

# IT DEPARTMENT SERVICES-MAIL-PARCELS

# A QUICK OVERVIEW

680  
employees

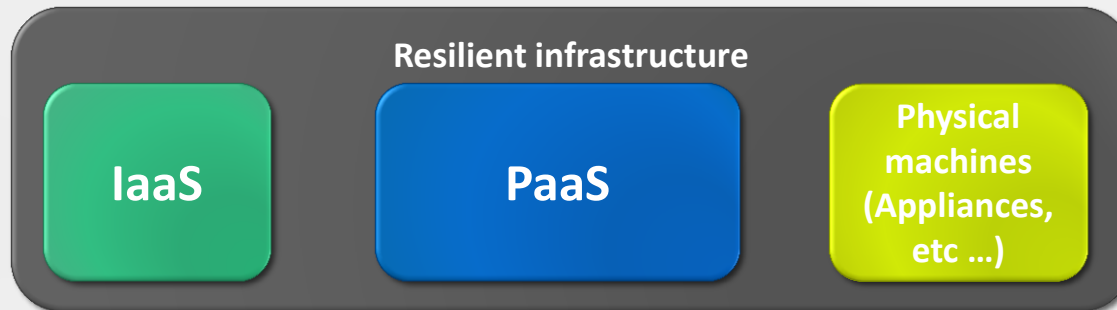
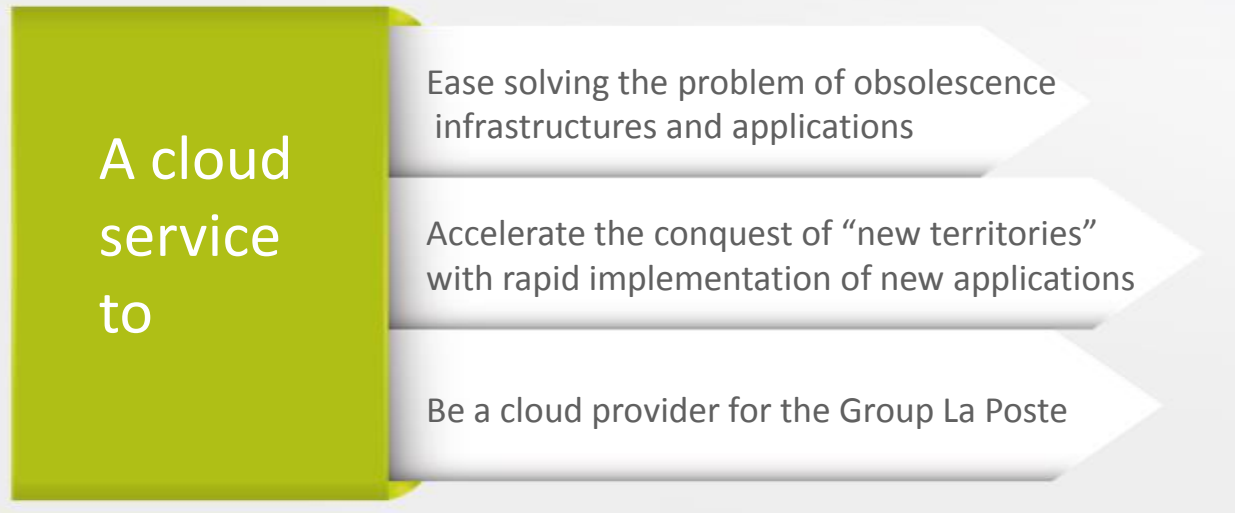


# CHANGING OUR INFORMATION SYSTEM



# CLOUD SERVICE AT IT DEPARTMENT SERVICE-MAIL-PARCELS





# PAAS AT IT DEPARTMENT SERVICES-MAIL-PARCELS

## Working on IaaS

(Automated VMs deployment factory)

## Working on a PaaS based on the IaaS

- OpenShift 3.0,
- Build a test platform
- 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.

## 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

July 2015

October 2015

January 2016

# Building our PaaS solution



# 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 functionalities.





# 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)



## 2<sup>ND</sup> 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 OPENSIFT CONTAINER PLATFORM

## Continuous Integration Platform



OCP BUILD



IaaS



OCP RUN



Log management stack

Log management stack

# 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:

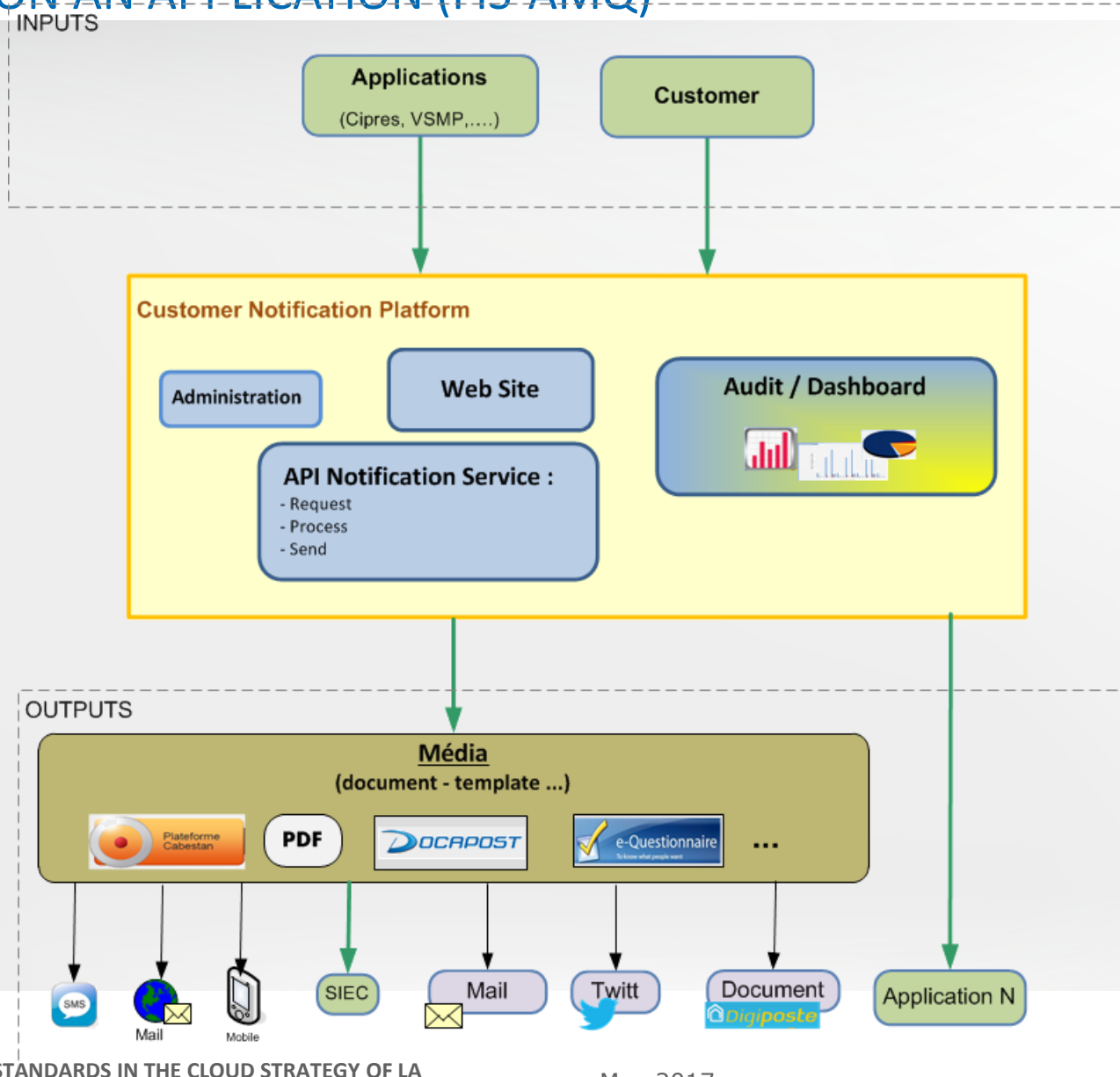
- Asynchronous process
- Mass operations
- PDF Document generator
- Notifications Auditing
- Templates management
- Reporting

## To come:

- Notification priority management

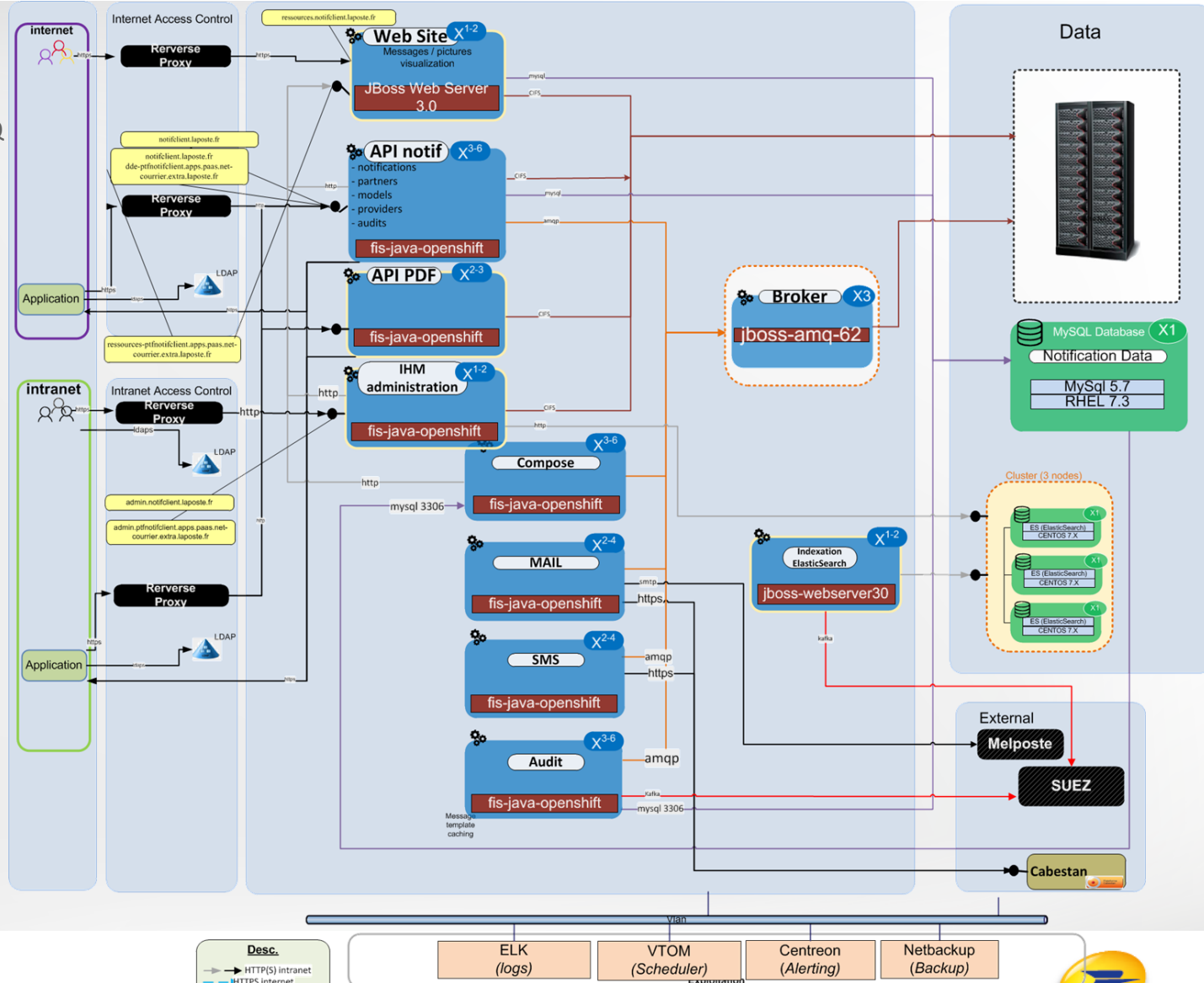
Afficher uniquement	Email	SMS	Brouillon	Publié	Trier par
☑					v1.0 Créé le 18/04/17 à 07:37 par 640e6346-1256-11e7-93ae-92361f020671
☑					v2.0 Modifié le 18/04/17 à 17:13 par 3149205d-50ce-475e-ad46-b23ae8902727
☑					v3.0 Modifié le 21/04/17 à 14:38 par 6d85e855-fc9a-4744-8822-2547a119d01c
☑					v1.0 Créé le 18/04/17 à 07:37 par 640e6346-1256-11e7-93ae-92361f020671
☑					v2.0 Modifié le 18/04/17 à 16:35 par 3149205d-50ce-475e-ad46-b23ae8902727
☑					v1.0 Modifié le 18/04/17 à 09:39 par 3149205d-50ce-475e-ad46-b23ae8902727
☑					v1.0 Modifié le 18/04/17 à 09:39 par 3149205d-50ce-475e-ad46-b23ae8902727
☑					v1.0 Modifié le 21/04/17 à 09:47 par 6d85e855-fc9a-4744-8822-2547a119d01c

# FOCUS ON AN APPLICATION (FIS-AMQ)



# 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.







## Target :

- Additionnal 20 applications moved from our legacy platform
- Additionnal 15 new applications developped 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 form 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)

# INTEGRATION OPENSIFT CONTAINER PLATFORM

## Continuous Integration Platform



Jenkins



sonarqube



CHECKMARX



OCP



php

Java

MySQL

JBoss Fuse

Drupal

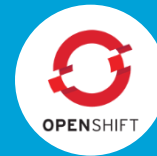
Private / Public Cloud

OCP BUILD



IaaS

OCP RUN



php

Java

JBoss Fuse

Drupal

MySQL

PostgreSQL

php

Java

JBoss Fuse

Drupal

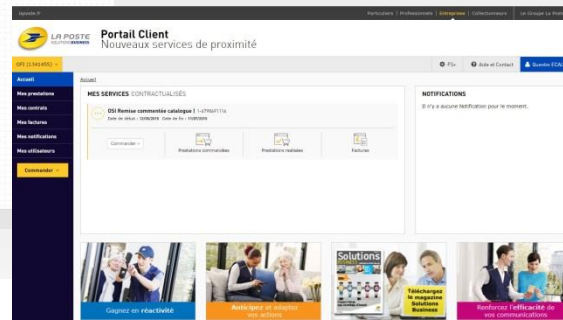
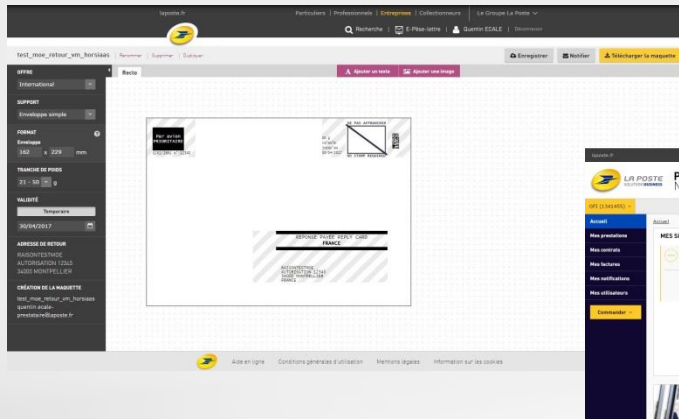
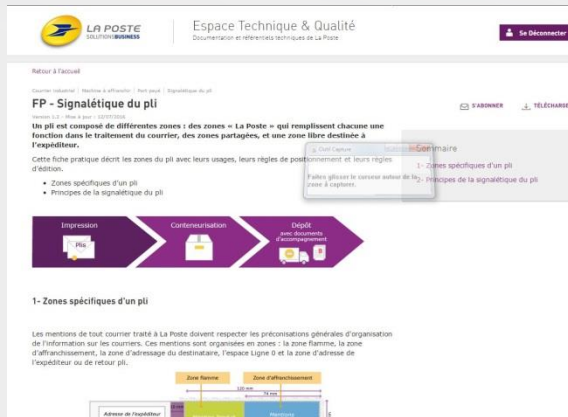
Log management stack

Log management stack

Private Cloud

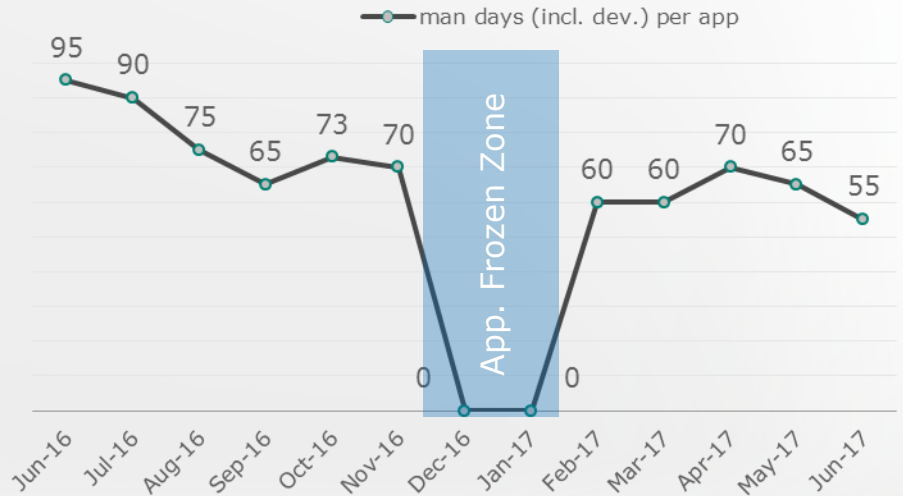
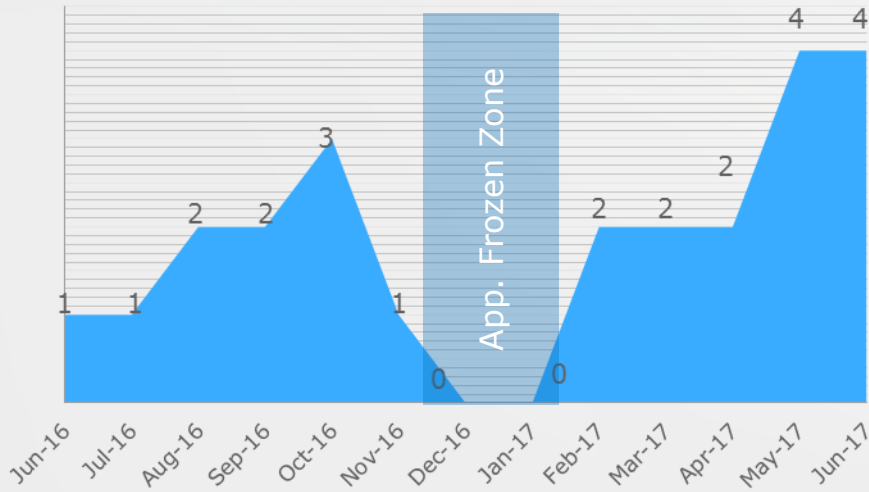
# LESSONS LEARNED

- 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)



# LESSONS LEARNED

Based on the lessons learned we increased our efficiency on migrations significantly :



# COLLABORATION WITH REDHAT



## Services :

- Mixed team at the beginning of 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

## CONTACT :

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