

REX Ansible

Banque activité Corporate

Ansible comme solution “technique” d’automatisation utilisée par un portail pour des équipes de dev.

Je veux du stockage, je veux un “*name space*”, je veux une base de données, etc.

Les use cases sont connus d’avance.

Des métriques financières informatives

Des vérifications que l’asset demandé est toujours utilisé.

Banque pour l'ensemble de ses activités

Ansible comme base pour faire de l'infra "as code" ou "as a service".

Composants sur étagère à assembler et certains sont utilisables comme squelette pour des populations plus averties

Job Ansible de compliance

Extension de l'usage d'Ansible pour d'autres éléments que du "RHEL" (routeurs dans des agences, envir. On Prem et Off Prem, patching d'OS., remédiation automatique d'incidents, configuration réseau, etc.)

Main use cases / Achievements:

- Infrastructures Provisioning (Servers, Lan Datacenter, Virtualization, OS)
- Infrastructures provisioning & Configuration Management
- OS Linux configuration/day2 management (Patch/update/remediation/Compliance) / Firewalls & LB configuration management, Inter-sites Wan & remote sites Lan (Campus Network) / Applications provisioning and Day 2 management (Ex. Apigee...)
- Integration with DevOps Toolchain to manage all the applications deployments
- Certificate renewal use case: 4h/certificate before AAP / 10mn with AAP
- Patch Mngt RHEL use case: 1h/server before AAP / 1h/xServers with AAP



Ansible Automation Platform allowed us to automate the delivery of IT environments through their solution XaaS (Everything as a Service).

Challenge

The customer was facing issues with their existing vmWare solutions (VRA) to deliver IT environments to IT users (developers, Operations, etc).

They were looking for a solution to be more agile and reactive to the users needs, and decrease the time needed to deploy new environments .

Solution

In a first stage, Ansible Automation has been implemented to interface with VRA and automate the delivery of IT environments.

This 1st version was not satisfactory because it was too complex and did not fully benefit of the Ansible API mode.

In a second stage, the customer replaced VRA by a new containerized IHM deployed on OpenShift. The new portal is called "ITaaS" (IT as a Service).

Why Red Hat

- Long presence / strategic partner
- Open source strategy
- Ansible easy to deploy and integrate with the ecosystem
- Consulting skills

Results

- XaaS portal based on Ansible Automation has a large adoption (+16000 nodes)
- New use cases to come (Network devices...)

CUSTOMER MAIN METRICS

Total Managed Hosts, Type of hosts & Infrastructure providers	Community of users / contributors	Number of managed Playbooks	Number of Job templates executed by day/Month	Number of clusters & Number of nodes/Cluster	3rd Party integrations
16.000 Nodes Infras/Systems Providers: VMware, Nutanix, AWS Ecosystem Managed: Linux, Windows	3256 (Products teams / Architects / DevOps / Support)	353	39K Jobs templates/month 30K IT Operations/month	AAP 2.3 Deployed on Openshift 4 in HA HA PostgreSQL (EDB)	378 API 128 IHM integration EDB

Main use cases / Achievements:

- A custom services catalog to delivers a set of PaaS items (more than 60) from infras to applications and including Day1 & Day2 operations, to the Business lines of the customer
- More than 40K requests/month delivered thru the services Catalog
- Sample of integrations with AAP:
 - Infrastructure: VMware, Nutanix, Openshift, AWS, Pure Storage, Rubrik
 - Monitoring: Centreon, Kibana, Grafana
 - Systems: Linux, Windows, Active Directory, Red Hat Satellite, WSUS
 - CI/CD: Gitlab, Nexus
 - Network: Efficient IP, Cisco, F5, Fortinet
 - Security: PKI, Qualys, Vault, Cyberark
 - Database: Oracle, Elastic Search, MySQL, Cassandra ...

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4 000 Nodes Infrs/Systems 1 300 Nodes Network Providers: VMware & AWS (50/50) Ecosystem Managed: Linux, Windows, F5, Checkpoint, Fortinet, Arista, Juniper, Cisco, pure storage, brocade (San)...	20 (internal systems, network & DBA teams)	110	12 000	1 cluster 3 nodes Pre-Prod & Prod Managed PostgreSQL in Failover	Jira Insight Logic Monitor Gitlab Netbackup Netbox RH Satellite Infoblox Terraform

Main use cases / Achievements:

- Servers provisioning (Terraform) and systems configurations management (Ansible) seamlessly on premise and on AWS
- In the roadmap: network & security automation (Dynamic inventories, backup/restore use cases)
- Significant gains observed on time to deliver resources especially in the cloud and in the human error reduction on repetitive tasks

Automation Core team organization:

- One platform Owner, systems, DBA and network teams are relying on AAP to build and execute their own use cases

REX Deploiement OCP

Résultat = f (cahier des charges)

- Compatibilité avec l'infrastructure et pré-requis à la mise en œuvre
 - Matériel
 - Réseau / sécurité
 - Hébergement / contraintes data centers existants (latence, gigue et bande passante)
 - Déploiement multi-site NewDocaCloud (AZ ? Région ?)
- Interface de l'outil de pilotage et impact sur l'intégration dans les data centers
- Résilience
 - Mécanismes de haute disponibilité internes
 - Mécanismes de haute disponibilité inter-AZ / inter-régions
 - Résilience active - active
 - Reprise après sinistre / Plan de Continuité Informatique
- Mécanismes de débordement / Hybridation
 - débordement sur Cloud Privé
 - débordement sur Cloud Public
- Approche RSE : autoscaling des ressources physiques, rationalisation des ressources
- Compatibilité avec les outils CI/CD : Terraform, Ansible, etc.
- Compatibilité avec l'IT existant
 - Mécanismes de migration depuis l'existant

Portail à destination de développeurs, avec une liste exhaustive de services disponibles (optique PaaS)

Clusters OCP créés par les Ops avec différentes "flavor" (Sand Box + Hors Prod & Prod), clusters "typés" (critique / non critique /

Sujet 1 : type d'infrastructure utilisée par les clients en France et explication de l'existant et des tendances

Sujet 2: les portails de demande (portail maison, service now, ACM self service) et l'utilisation des opérateurs comme un sous portail cloud

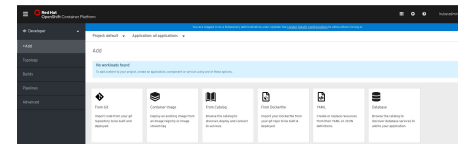
Sujet 3: les offres ci/cd

Sujet 4: mono ou multi cluster

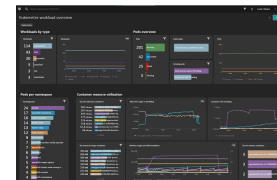
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Composants
Eco-système

Je crée
Je développe
Je déploie
J'opère
Je fais vivre
Je sécurise



Portail de
consommation



Monitoring

