

DÉVELOPPEMENT D'UN SERVICE AVEC ANSIBLE

T. Roche & M. Simon & S. Cat

LES ÉTAPES SUIVIES

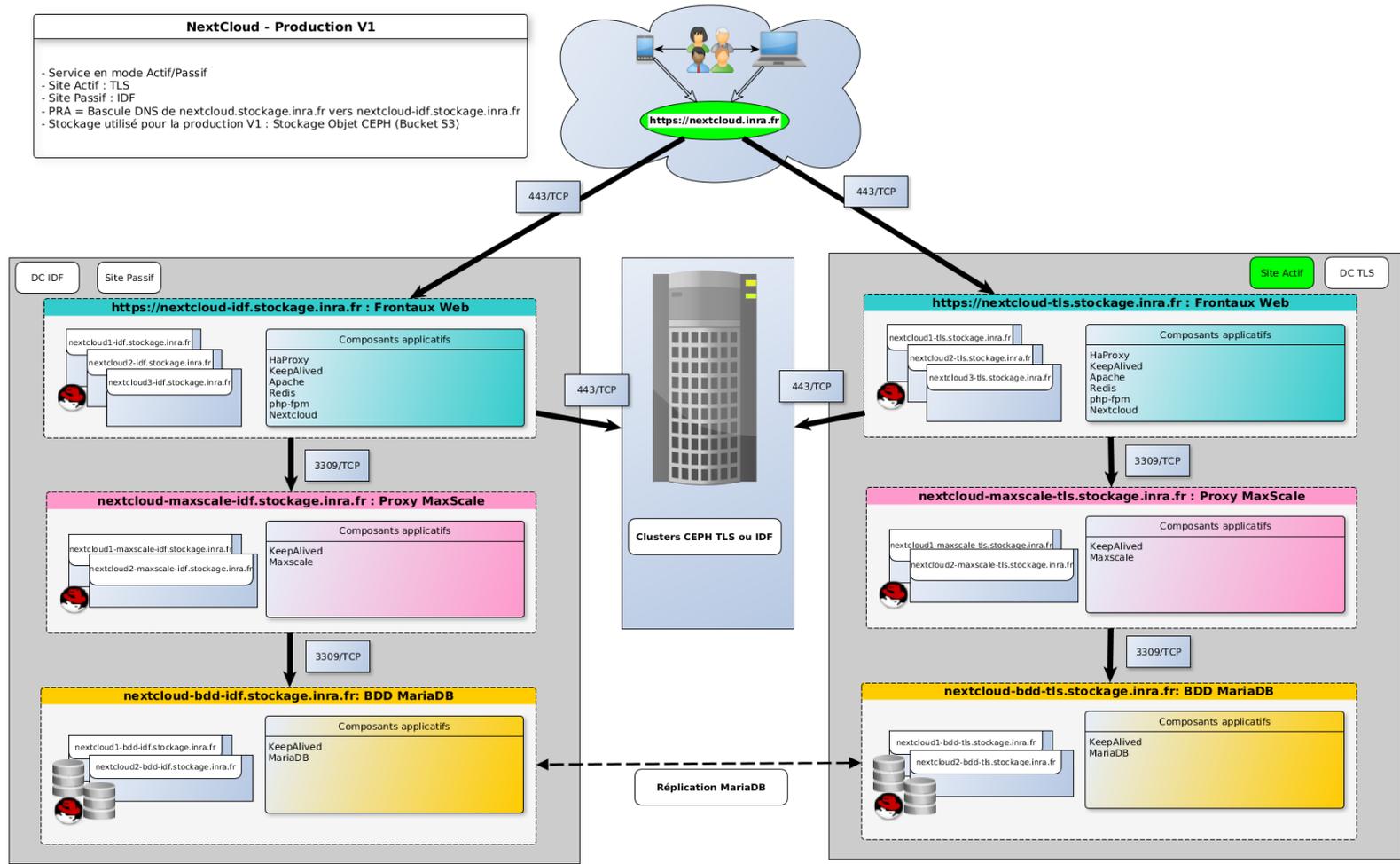
Conception, déploiement et intégration continue

CONCEPTION, DÉPLOIEMENT ET INTÉGRATION CONTINUE

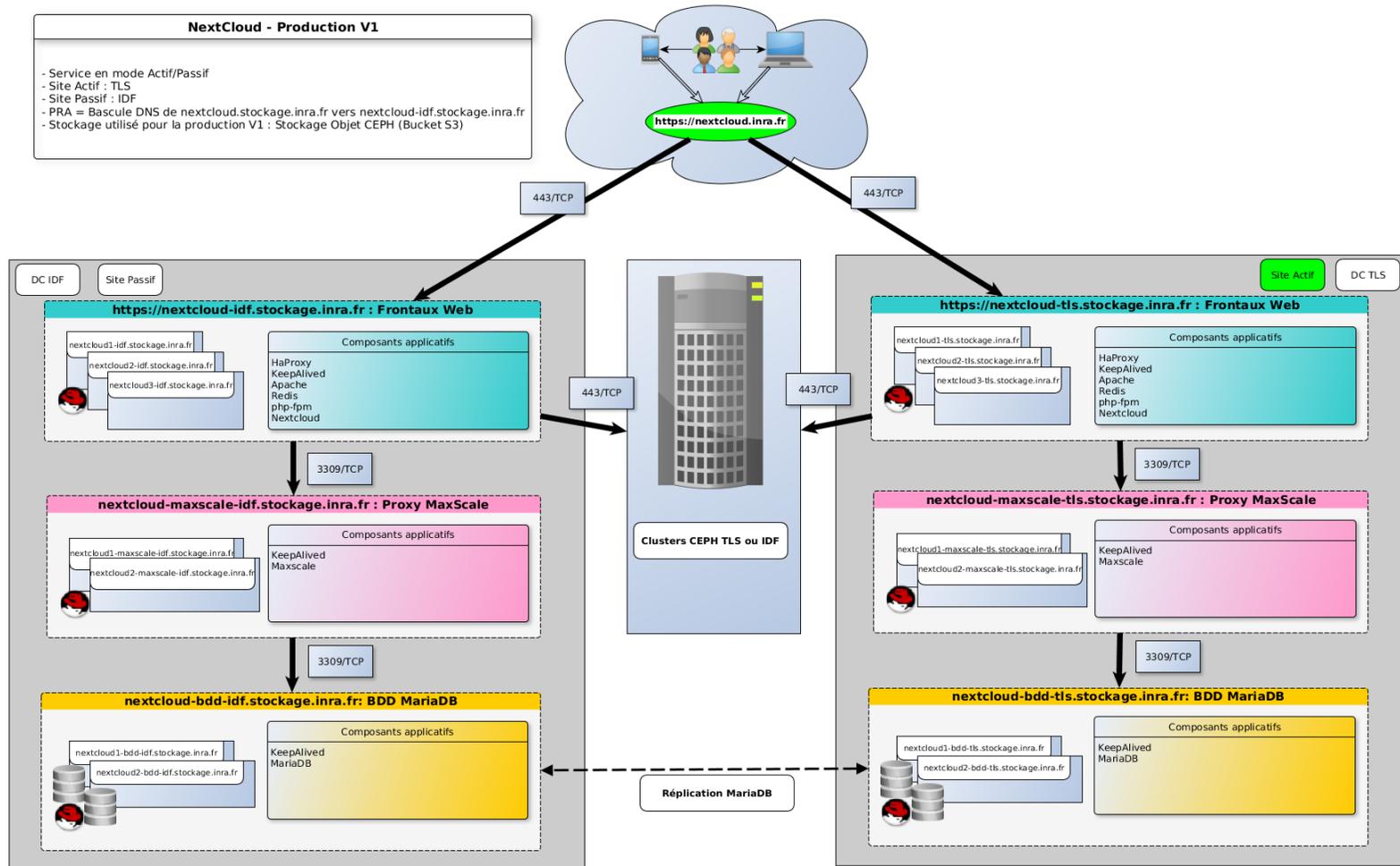
PHASE 1 : CONCEPTION

- Ce service s'appuie sur plusieurs composants applicatifs
- Le choix des composants applicatifs et le design de l'architecture initiale sont faits en lien avec les experts métiers
- Les composants applicatifs sont déployés sur une première architecture de machines cibles pour éviter les SPOF

ARCHITECTURE CIBLE POUR NEXTCLOUD



ARCHITECTURE CIBLE POUR NEXTCLOUD



Design initial puis validation itérative en dev

3 ENVIRONNEMENTS PRÉVUS :

Dev : Facile à reconstruire

Pré-prod : ISO prod

Prod : Aucune administration manuelle

PHASE 2 : COMMENT DÉPLOYER ET MAINTENIR LES COMPOSANTS APPLICATIFS SUR CETTE ARCHITECTURE ?

Via Ansible & Gitlab

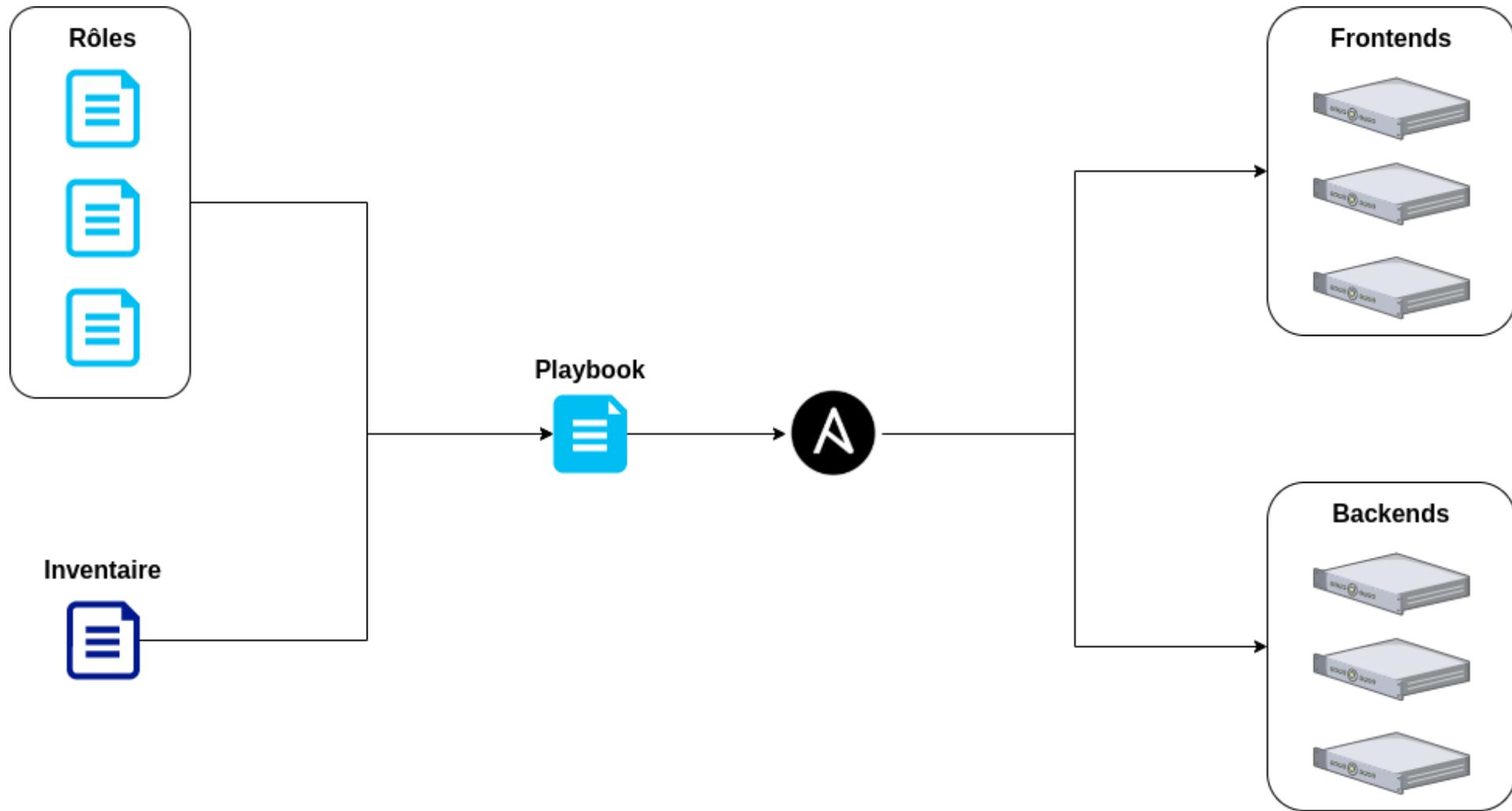


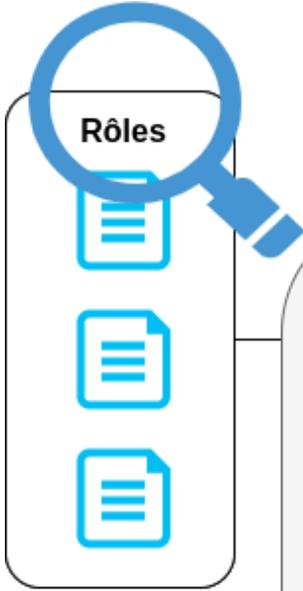
Des groupes de travail sont organisés pour écrire les
"rôles" ansible

LES RÔLES DANS UN PROJET COMME NEXTCLOUD

Rôles	Description	Equipe
Apache	Service web	YC/SC/XC/MS
HAProxy	LoadBalancer	MS/ML
Redis	cache clé/valeur	MS/ML/SC
Nextcloud-apps	Apps NextCloud	YC/XC/SC
Nextcloud-config	Config NextCloud	YC/XC/SC
MariaDB	service BDD	MLA/HJC

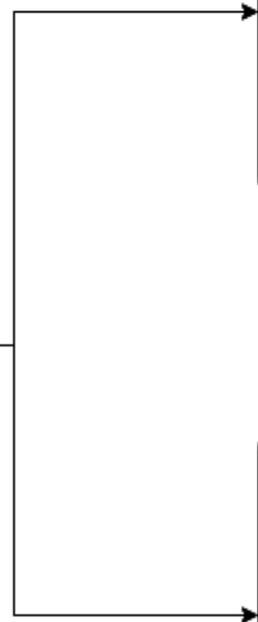
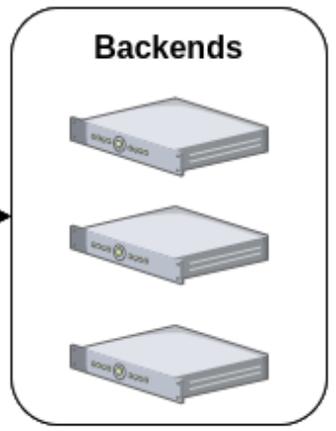
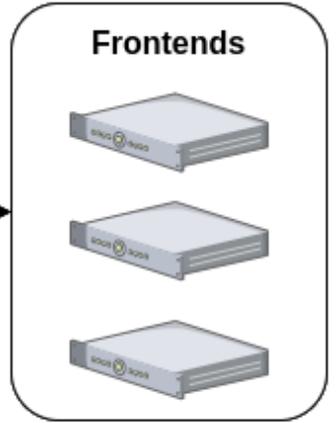
ANSIBLE - FONCTIONNEMENT





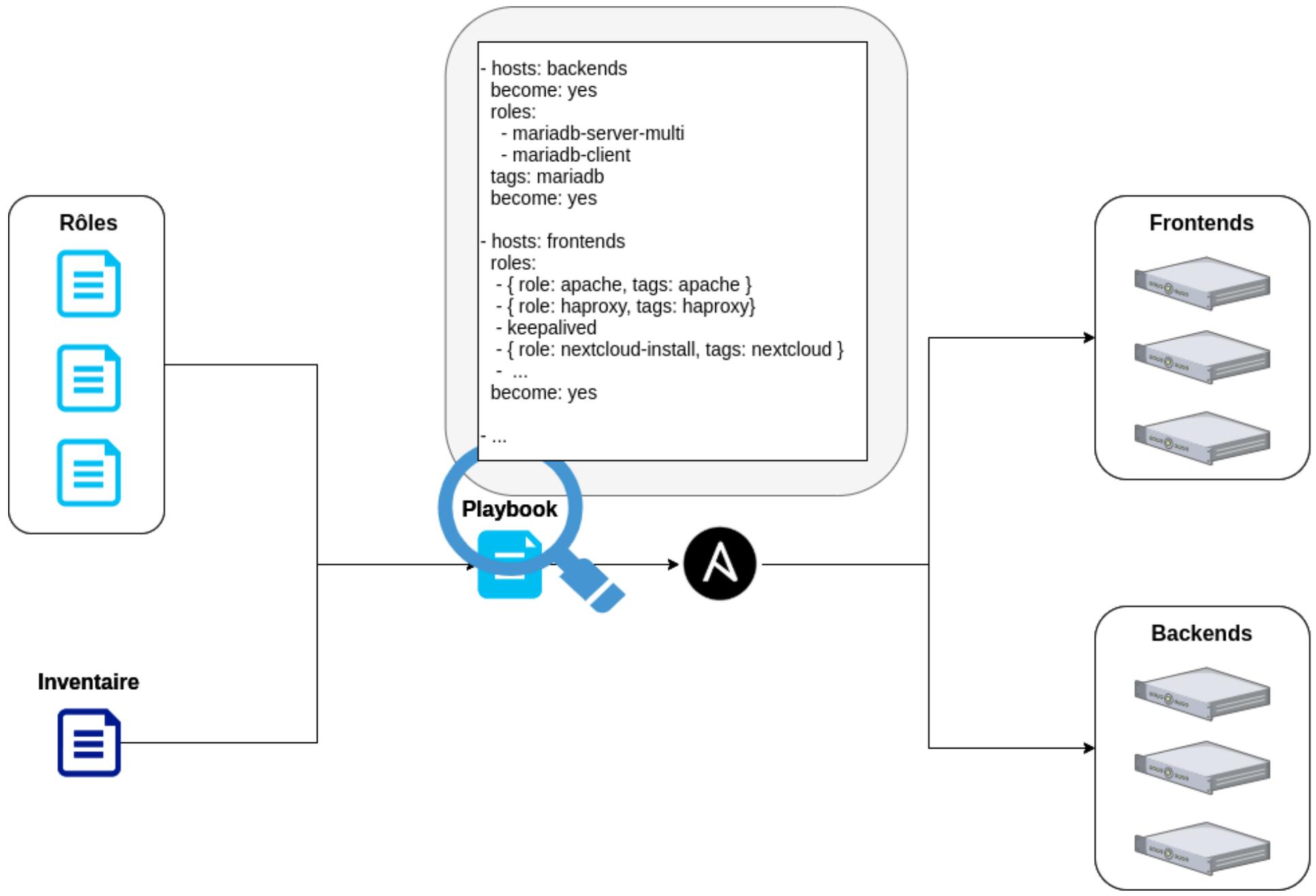
roles/apache/tasks/install-apache.yml

```
---  
- name: Install Webserver  
  package:  
    name: "httpd"  
    state: "{{ package_status }}"  
  
- name: copy maxscale conf  
  template:  
    src: maxscale.conf  
    dest: /etc/maxscale.conf  
  
- name: Configure haproxy  
  template:  
    src: haproxy.cfg  
    dest: /etc/haproxy/haproxy.cfg  
  
- name: install MariaDB 10.2  
  yum:  
    name: "{{ item }}"  
    enablerepo: MariaDB  
    state: latest  
  with_items:  
    - MariaDB-server  
    - MariaDB-client  
    - MySQL-python
```



ANSIBLE - FONCTIONNEMENT

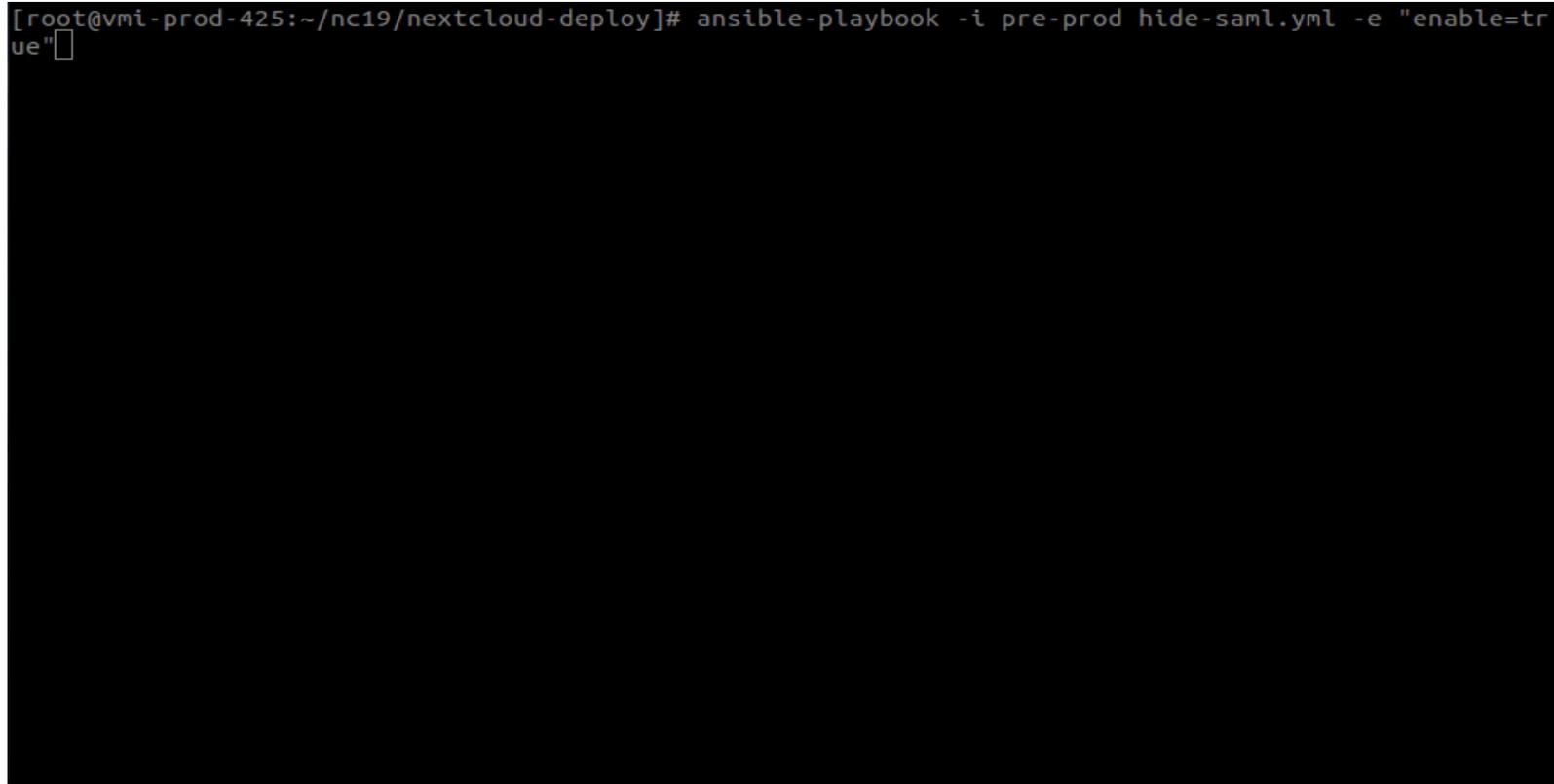




PHASE 3 : DÉPLOIEMENT

```
[root@vmi-prod-425:~/nc19/nextcloud-deploy]# ansible-playbook -i pre-prod hide-saml.yml -e "enable=true"

```



Ici, on regarde le fruit de notre travail, on vérifie que tout se passe comme prévu

FOCUS GITLAB

stockage > Nextcloud > Nextcloud Deploy > Details

Nextcloud Deploy
Project ID: 35

876 Commits 51 Branches 0 Tags 102.2 MB Files 254.4 MB Storage

Rôles de déploiement du service Nextcloud

dev nextcloud-deploy / +

History Find file Web IDE Clone

Merge branch '439-update-to-19-0-5' into 'dev'
Sebastien Cat authored 5 days ago

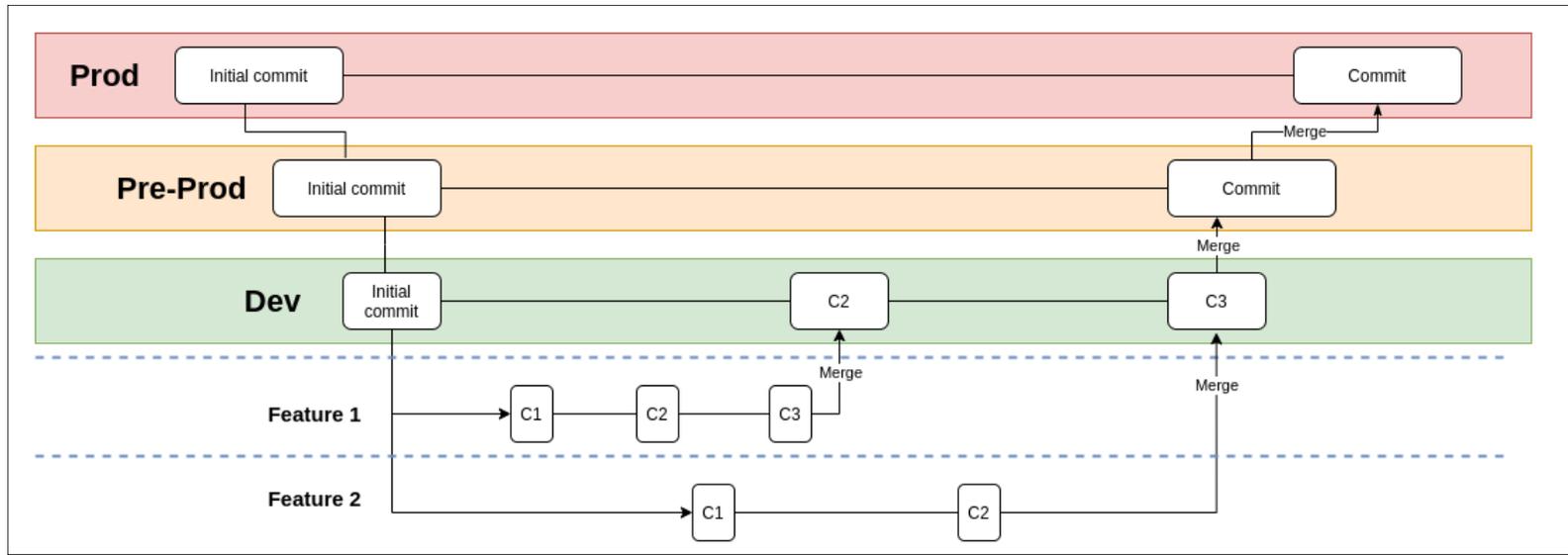
af506581

README CI/CD configuration Add LICENSE Add CHANGELOG Add CONTRIBUTING Add Kubernetes cluster

Name	Last commit	Last update
.vscode	Add argon2 parameters in config.php	4 months ago
dev	Update to Nextcloud 19.0.5	1 week ago
maintenance	Add playbook to enable or disable maintenance mode	4 months ago
pre-prod	Update to Nextcloud 19.0.5	1 week ago
prod	Update to Nextcloud 19.0.5	1 week ago
ressources	Modification du slogan et ajout url	5 months ago
roles	Merge branch '437-add-circles-app' into 'dev'	1 week ago
.gitignore	update gitignore	5 months ago
.gitlab-ci.yml	User et password sont passés en arguments au script	5 months ago

L'outil tout en un pour l'équipe projet : Code + revue de projet + docs + CI/CD + ..

GIT BRANCHES



GITLAB - WIKI

GitLab Projects Groups More

stockage > Nextcloud > Nextcloud Deploy > Wiki > Home

Last edited by **MatthGyver** 2 months ago Page history New page

Home ✎

I. Organisation du développement et du projet

- [CR de réunions](#)
- [Organisation des sprints](#)
- [Configurer son environnement de travail](#)

II. Documentations

1) Architecture générale

- [Architecture du service](#)
- [Environnement de dev](#)
- [Environnement de pré-prod](#)
- [Environnement de prod](#)

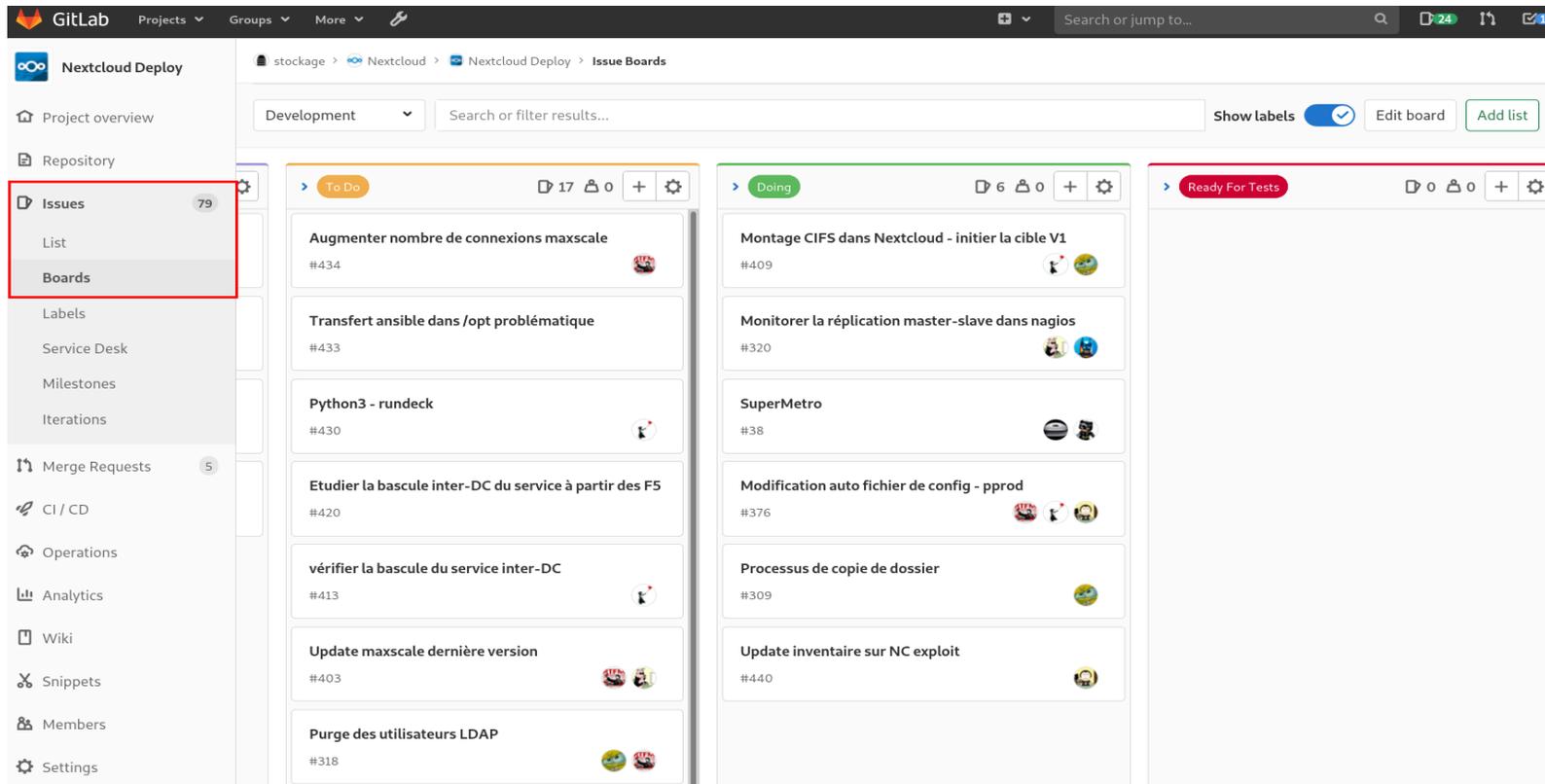
2) Description des composants

- [Nextcloud](#)
- [MariaDB et Maxscale](#)

Nextcloud Deploy

- Project overview
- Repository
- Issues 79
- Merge Requests 5
- CI / CD
- Operations
- Analytics
- Wiki**
- Snippets
- Members
- Settings

GITLAB - KANBAN



Organisation : tâches prises en charge par une ou 2 personnes, réunion projet bimensuel.

GITLAB - PIPELINES

The screenshot shows the GitLab web interface. On the left is a sidebar with navigation options: Nextcloud Deploy, Project overview, Repository, Issues (79), Merge Requests (5), CI/CD (highlighted with a red box), Pipelines, Jobs, Schedules, Operations, Analytics, Wiki, Snippets, Members, and Settings. The main area displays a list of pipelines. The pipeline #2793 is selected, and its details are shown in a modal window. The pipeline status is 'passed', indicated by a green checkmark and a magnifying glass. The pipeline consists of several stages: Check, Test, Reset, Deploy, Validate, and Reconfigure. The 'Check' stage includes a job 'Ansible-check s...' which is marked as 'passed'. The 'Test' stage includes a job 'Ansible-Dry run...'. The 'Reset' stage includes a job 'Reset Dev (opti...'. The 'Deploy' stage includes jobs 'Deploy Dev' and 'Update Dev'. The 'Validate' stage includes a job 'Check post inst...'. The 'Reconfigure' stage includes a job 'Reconfigure log...'. A code block is overlaid on the bottom right, showing Ansible playbook snippets for the 'check', 'test', and 'reset' stages.

```
13 Ansible check syntax all branches except preprod and prod :
14 stage: check
15 script: "sudo ansible-playbook site.yml -i dev --syntax-check"
16 except:
17   - pre-prod
18   - prod
19 tags:
20   - newDev
21
22 Ansible-Dry run all branches except preprod and prod :
23 stage: test
24 script: "sudo ansible-playbook site.yml -i dev --check"
25 except:
26   - pre-prod
27   - prod
28 tags:
29   - newDev
30
31 Reset Dev (optionnel) :
32 stage: reset
33 script:
34   - "sudo ansible-playbook site-reset.yml -i dev"
35 except:
```

GIT PIPELINES & BRANCHES

