

Just Sit

Documentation

Déploiement d'un serveur mail au sein d'un cluster docker swarm

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1 – Création de la stack docker

J'ai choisi de déployer ce serveur ail au sein d'un environnement docker swarm afin de garantir la haute disponibilité du service. Pour ce faire, j'ai créé une stack docker au sein d'un fichier .yaml. Cette stack est composé de :

- Mailserver (Cœur de la stack – Serveur mail)
- Postfixadmin (Panneau de configuration admin du serveur mail)
- MariaDB (Base de données)
- Rainloop (Interface utilisateur – client mail web)
- Redis

Ainsi, j'ai pu construire ma stack autour de ces services, en ajoutant également les labels essentiels au bon fonctionnement de Traefik et ainsi rendre ces services accessible via un nom de domaine.

```
version: "3.8"

services:
  mailserver:
    image: hardware/mailserver:1.1-stable
    domainname: justsit.me
    hostname: mail
    ports:
      - "25:25"
      - "110:110"
      - "143:143"
      - "465:465"
      - "587:587"
      - "993:993"
      - "995:995"
      - "4190:4190"
    networks:
      - traefik-net
      - mailserver-net
    volumes:
      - /mnt/nfs/mailserver/mail-data:/var/mail/
      - /mnt/nfs/mailserver/config:/tmp/docker-mailserver/
#      - /mnt/nfs/mailserver/dovecot:/etc/dovecot/conf.d/
    environment:
      - FQDN=mail.justsit.me
      - DOMAIN=justsit.me
      - DBPASS=Mail-iuop-78re
      - RSPAMD_PASSWORD=123+aze
      - ENABLE_POP3=true
    depends_on:
      - mariadb
      - redis
    deploy:
      replicas: 1
      placement:
        constraints:
```

```

        - node.role == worker
labels:
  - "traefik.enable=true"
  - "traefik.docker.network=traefik-net"
  - "traefik.constraint-label=traefik-net"
  - "traefik.frontend.rule=Host:mail.justsit.me"
#
#   TRAEFIK   WEB   LABELS
#
#   - "traefik.http.routers.mailserver-spam-
http.rule=Host(`mail.justsit.local`) || Host(`pop3.justsit.local`)
|| Host(`smtp.justsit.local`) || Host(`imap.justsit.local`) ||
Host(`mail-spam.justsit.local`)"
#   - "traefik.http.routers.mailserver-spam-
http.entrypoints=web"
#   - "traefik.http.routers.mailserver-spam-
http.middlewares=https-redirect"
  - "traefik.http.routers.mailserver-spam-
https.rule=Host(`mail.justsit.me`) || Host(`pop3.justsit.me`) ||
Host(`smtp.justsit.me`) || Host(`imap.justsit.me`)}`) || Host(`mail-
spam.justsit.me`)"
  - "traefik.http.routers.mailserver-spam-
https.entrypoints=websecure"
  - "traefik.http.routers.mailserver-spam-https.tls=true"
  - "traefik.http.routers.mailserver-spam-
https.tls.certresolver=myresolver"
  - "traefik.http.services.mailserver-
spam.loadbalancer.server.port=11334"

postfixadmin:
  image: hardware/postfixadmin
  restart: unless-stopped
  domainname: justsit.me
  hostname: mail.justsit.me
#  volumes:
#    - /mnt/nfs/mailserver/postfixadmin:/postfixadmin/
  deploy:
    replicas: 1
    placement:
      constraints:
        - node.role == worker
    labels:
      - "traefik.enable=true"
      - "traefik.docker.network=traefik-net"
      - "traefik.constraint-label=traefik-net"
#    - "traefik.http.routers.mailserver-postfixadmin-
http.rule=Host(`postfixadmin.justsit.local`)"
#    - "traefik.http.routers.mailserver-postfixadmin-
http.entrypoints=web"
#    - "traefik.http.routers.mailserver-postfixadmin-
http.middlewares=https-redirect"
  - "traefik.http.routers.mailserver-postfixadmin-
https.rule=Host(`postfixadmin.justsit.me`)"
  - "traefik.http.routers.mailserver-postfixadmin-
https.entrypoints=websecure"

```

```
    - "traefik.http.routers.mailserver-postfixadmin-  
https.tls=true"  
    - "traefik.http.routers.mailserver-postfixadmin-  
https.tls.certresolver=myresolver"  
    - "traefik.http.services.mailserver-  
postfixadmin.loadbalancer.server.port=8888"  
  environment:  
    - DBPASS=Mail-iuop-78re  
    - FQDN=mail.justsit.me  
    - DOMAIN=justsit.me  
  depends_on:  
    - mailserver  
    - mariadb  
  networks:  
    - traefik-net  
    - mailserver-net
```

```
rainloop:  
  image: hardware/rainloop  
  restart: unless-stopped  
  volumes:  
    - /mnt/nfs/mailserver/rainloop:/rainloop/data  
  deploy:  
    replicas: 1  
    placement:  
      constraints:  
        - node.role == worker  
    labels:  
      - "traefik.enable=true"  
      - "traefik.docker.network=traefik-net"  
      - "traefik.constraint-label=traefik-net"  
#      - "traefik.http.routers.mailserver-rainloop-  
http.rule=Host(`emails.justsit.me`)"  
#      - "traefik.http.routers.mailserver-rainloop-  
http.entrypoints=web"  
#      - "traefik.http.routers.mailserver-rainloop-  
http.middlewares=https-redirect"  
      - "traefik.http.routers.mailserver-rainloop-  
https.rule=Host(`emails.justsit.me`)"  
      - "traefik.http.routers.mailserver-rainloop-  
https.entrypoints=websecure"  
      - "traefik.http.routers.mailserver-rainloop-https.tls=true"  
      - "traefik.http.routers.mailserver-rainloop-  
https.tls.certresolver=myresolver"  
      - "traefik.http.services.mailserver-  
rainloop.loadbalancer.server.port=8888"  
    depends_on:  
      - mailserver  
      - mariadb  
    networks:  
      - traefik-net  
      - mailserver-net
```

```
mariadb:
  image: mariadb:10.2
  hostname: mariadb.db
  restart: unless-stopped
  # Info : These variables are ignored when the volume already
exists (if databases was created before).
  environment:
    - MYSQL_RANDOM_ROOT_PASSWORD=yes
    - MYSQL_DATABASE=postfix
    - MYSQL_USER=postfix
    - MYSQL_PASSWORD=Mail-iuop-78re
  deploy:
    placement:
      constraints:
        - node.role == worker
  volumes:
    - /mnt/nfs/mailserver/mariadb:/var/lib/mysql/
  networks:
    - mailserver-net
```

```
redis:
  image: redis:4.0-alpine
  hostname: redis.db
  restart: unless-stopped
  command: redis-server --appendonly yes
  deploy:
    placement:
      constraints:
        - node.role == worker
  volumes:
    - /mnt/nfs/mailserver/redis:/data/
  networks:
    - mailserver-net
```

```
networks:
  traefik-net:
    external: true
  mailserver-net:
    driver: overlay
    attachable: true
```
















Ensuite, il m'as juste suffit de déployer cette stack.

2 – Configuration du serveur mail

2.1 – Enregistrement DNS

Afin de pouvoir accéder aux différents services, j'ai enregistré les différents noms de domaines sur notre DNS interne :

- Emails.justsit.me
- Mail-spam.justsit.me
- Postfixadmin.justsit.me
- Imap.justsit.me
- Pop3.justsit.me
- @justsit.me

Name	Type	Data	Timestamp
 (same as parent folder)	Start of Authority (SOA)	[12], ad01.justsit.local., ho...	static
 (same as parent folder)	Name Server (NS)	ad01.justsit.local.	static
 (same as parent folder)	Name Server (NS)	ad02.justsit.local.	static
 emails	Host (A)	172.16.61.20	static
 imap	Host (A)	172.16.61.20	static
 mail	Host (A)	172.16.61.20	static
 mail-spam	Host (A)	172.16.61.20	static
 pop3	Host (A)	172.16.61.20	static
 postfixadmin	Host (A)	172.16.61.20	static
 rocketchat	Host (A)	172.16.61.20	static
 smtp	Host (A)	172.16.61.20	static
 web	Host (A)	172.16.61.20	static
 whoami	Host (A)	172.16.61.20	static
 nextcloud	Host (A)	172.16.61.20	static
 (same as parent folder)	Mail Exchanger (MX)	[10] mail.justsit.me	

2.2 – Création des adresses mails

Une fois la stack déployé, j'ai pu m'attarder à la configuration du serveur mail. En me connectant à l'interface postfixadmin, j'ai pu tout d'abord créer une nouveau service mail : @justsit.me

Une fois cela créé, j'ai également créé différentes adresses mails tels que ablanc@justsit.me et jdevic@justsit.me...

J'ai ensuite pu utiliser un client mail tiers tel que Thunderbird afin de tester la connexion avec le serveur mail.

Server Settings

Server Type: IMAP Mail Server

Server Name: Port: Default: 143

User Name:

Une fois la connexion établie, j'ai pu tester l'envoi de mail qui s'est avéré concluant.