

# Guide Installation OpenCTI Ubuntu

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# Préambule

Ce guide détaille la configuration de la plateforme OpenCTI sur une station équipée d'une distribution Ubuntu 20.04.

Une connexion Internet est indispensable pour effectuer les téléchargements de briques logicielle *ad hoc*.

# 1 Composants logiciels de la Plateforme OpenCTI

| Composant                   | Version |
|-----------------------------|---------|
| Plateforme OpenCTI          |         |
| OpenJDK                     |         |
| NodeJS                      |         |
| Python                      |         |
| ElasticSearch               |         |
| MinIO                       |         |
| Redis                       |         |
| RabbitMQ                    |         |
| RabbitMQ Management Pluggin |         |

## 2 Installation des briques logicielles

### 2.1 Installation OpenJDK-8

```
# sudo -s
# apt update
# apt install openjdk-8-jre
```

### 2.2 Installation NodeJS

- Suivre les instructions sur le site [Github NodeJS](https://github.com/nodesource/distributions/blob/master/README.md) <https://github.com/nodesource/distributions/blob/master/README.md>.

```
# sudo -s
# apt update
# apt install curl
# curl -sL https://deb.nodesource.com/setup\_12.x | bash -
# apt install -y nodejs
```

### 2.3 Installation Python

```
# sudo -s
# apt update
# apt install python3
# apt install python3-pip
```

### 2.4 Installation ElasticSearch / LogStash / Kibana

```
# sudo -s
# apt update
# apt install apt-transport-https
# apt install wget
# wget -qO - https://artifacts.elastic.co/GPG-KEY-elasticsearch | apt-key add -
# echo « deb https://artifacts.elastic.co/packages/7.x/apt stable main » | tee -a /etc/apt/sources.list.d/elastic-7.x.list
# apt update
# apt install elasticsearch
# apt install logstash
# apt install kibana
```

### 2.5 Installation MinIO

```
# sudo -s
# mkdir /usr/share/minio
# cd /usr/share/minio
# wget https://dl.min.io/server/minio/release/linux-amd64/minio
```

```
# chmod +x minio
```

## 2.6 Installation Redis

```
# sudo -s  
# apt update  
# apt install redis-server
```

## 2.7 Installation RabbitMQ & Erlang-OTP

```
# sudo -s  
# apt update  
# curl -fsSL https://github.com/rabbitmq/signing-keys/releases/download/2.0/rabbitmq-signing-key.asc | apt-key add -  
# echo « deb https://dl.bintray.com/rabbitmq-erlang/debian bionic erlang » >>  
/etc/apt/sources.list.d/bintray.rabbitmq.list  
# echo « deb https://dl.bintray.com/rabbitmq/debian bionic main » >>  
/etc/apt/sources.list.d/bintray.rabbitmq.list  
# apt update  
# apt install rabbitmq-server -y --fix-missing
```

## 2.8 Installation Plateforme OpenCTI

```
# sudo -s  
# cd /usr/share  
# wget https://github.com/OpenCTI-Platform/opencti/releases/download/3.2.2/opencti-release-N.tar.gz  
# tar xvfz opencti-release-N.tar.gz  
# cd /opencti/src/python  
# pip3 install -r requirements.txt  
# cd ../../worker  
# pip3 install -r requirements.txt  
# chown -R root:root /usr/share/opencti
```

## 2.9 Installation Yarn

```
# sudo -s  
# apt update  
# curl -sS https://dl.yarnpkg.com/debian/pubkey.gpg | apt-key add -  
# echo « deb https://dl.yarnpkg.com/debian/ stable main » | tee /etc/apt/sources.list.d/yarn.list  
# apt update  
# apt install yarnpkg
```

## 3 Configuration des briques logicielles

```
# sudo -s
# cd /var
# mkdir log
# mkdir data
# chmod 777 /var/log
# chmod 777 /var/data
```

### 3.1 Configuration Elasticsearch / LogStash / Kibana

- Exécuter les commandes infra.

```
# sudo -s
# mkdir -p /var/log/elasticsearch
# mkdir -p /var/log/logstash
# mkdir -p /var/log/kibana
# mkdir -p /var/data/elasticsearch
# mkdir -p /var/data/logstash
# mkdir -p /var/data/kibana
# mkdir -p /var/lib/kibana
```

| Fichiers à configurer                     |
|---|
| /etc/elasticsearch/elasticsearch.keystore |
| /etc/elasticsearch/elasticsearch.yml      |
| /etc/elasticsearch/jvm.options            |
| /etc/elasticsearch/log4j2.properties      |
| /etc/elasticsearch/role_mapping.yml       |
| /etc/elasticsearch/roles.yml              |
| /etc/elasticsearch/users                  |
| /etc/elasticsearch/users_roles            |
| /lib/systemd/system/elasticsearch.service |
| /etc/logstash/*                           |
| /lib/systemd/system/logstash.service      |
| /etc/kibana/*                             |
| /lib/systemd/system/kibana.service        |

- Exécuter les commandes infra.

```
# sudo -s
# usermod -d /usr/share/elasticsearch -c « ElasticSearch Service User » -s /usr/sbin/nologin elasticsearch
# usermod -d /usr/share/logstash -c « LogStash Service User » -s /usr/sbin/nologin logstash
# usermod -d /usr/share/kibana -c « Kibana Service User » -s /usr/sbin/nologin kibana
# cd /etc
# chown -R root:elasticsearch elasticsearch/
# chown -R root:logstash logstash/
# chown -R root:kibana kibana/
# cd /usr/share
# chown -R root:elasticsearch elasticsearch/
```

```
# chown -R root:logstash logstash/  
# chown -R root:kibana kibana/  
# cd /var/log  
# chown -R elasticsearch:elasticsearch elasticsearch/  
# chown -R logstash:logstash logstash/  
# chown -R kibana:kibana kibana/  
# cd /var/data  
# chown -R elasticsearch:elasticsearch elasticsearch/  
# chown -R logstash:logstash logstash/  
# chown -R kibana:kibana kibana/  
# cd /lib/systemd/system  
# systemctl daemon-reload  
# systemctl enable elasticsearch.service  
# systemctl start elasticsearch.service  
# systemctl enable logstash.service  
# systemctl start logstash.service  
# systemctl enable kibana.service  
# systemctl start kibana.service
```

## 3.2 Configuration MinIO

- Exécuter les commandes infra.

```
# sudo -s  
# cd /usr/share/minio  
# mkdir -p /var/log/minio  
# ln -sfv /var/log/minio/ log
```

### Fichiers à configurer

```
/lib/systemd/system/minio.service
```

- Exécuter les commandes infra.

```
# sudo -s  
# useradd minio -U -s /usr/sbin/nologin -d /usr/share/minio -c « MinIO Service User »  
# cd /usr/share  
# chmod -R 755 minio  
# cd /var/log  
# chown -R minio:minio minio/  
# cd /var/data  
# chown -R minio:minio minio/  
# cd /lib/systemd/system  
# systemctl daemon-reload  
# systemctl enable minio.service  
# systemctl start minio.service
```

## 3.3 Configuration Redis



- Exécuter les commandes infra.

```
# sudo -s
# cd /usr/bin
# mkdir -p /var/log/redis
# mkdir -p /var/data/redis
```

| Fichiers à configurer                    |
|--|
| /etc/redis/redis.conf                    |
| /lib/systemd/system/redis-server.service |

- Exécuter les commandes infra.

```
# sudo -s
# usermod -d /usr/bin -c « Redis Service User » -s /usr/sbin/nologin redis
# cd /etc
# chown -R root:redis redis
# cd /var/log
# chown -R redis:redis redis/
# cd /var/data
# chown -R redis:redis redis/
# cd /lib/systemd/system
# systemctl daemon-reload
# systemctl enable redis-server.service
# systemctl start redis-server.service
```

### 3.4 Configuration RabbitMQ

- Exécuter les commandes infra.

```
# sudo -s
# mkdir -p /var/data/rabbitmq
# mkdir -p /var/log/rabbitmq
```

| Fichiers à configurer                       |
|---|
| /etc/rabbitmq/rabbitmq.conf                 |
| /etc/rabbitmq/rabbitmq-env.conf             |
| /etc/rabbitmq/enabled_plugins               |
| /etc/rabbitmq/config/                       |
| /lib/systemd/system/rabbitmq-server.service |

- Exécuter les commandes infra.

```
# sudo -s
# usermod -d /usr/lib/rabbitmq/bin -c « RabbitMQ Service User » -s /usr/sbin/nologin rabbitmq
# cd /etc
# chown -R root:rabbitmq rabbitmq
```

```
# cd /usr/lib/
# chown -R root:rabbitmq rabbitmq/
# chmod -R 770 rabbitmq/
# cd /var/log
# chown -R rabbitmq:rabbitmq rabbitmq/
# cd /var/data
# chown -R rabbitmq:rabbitmq rabbitmq/
# cd /lib/systemd/system
# systemctl daemon-reload
# systemctl enable rabbitmq-server.service
# systemctl start rabbitmq-server.service
```

### 3.5 Configuration Plateforme OpenCTI

- Exécuter les commandes infra.

```
# sudo -s
# cd /usr/share/opencti
# mkdir -p /var/data/opencti
# mkdir -p /var/log/opencti
# cd /usr/share/opencti
# ln -sfv /var/log/opencti/ log
```

| Fichiers à configurer  |
|--|
| /usr/share/opencti/01-Start-OpenCTI-Platform   |
| /usr/share/opencti/02-Stop-OpenCTI-Platform  |
| /usr/share/opencti/config/production.json  |
| /usr/share/opencti/worker/config.yml   |
| /usr/share/opencti/connectors/export-file-stix/src/config.yml                        |
| /usr/share/opencti/connectors/import-file-pdf-observables/src/config.yml             |
| /usr/share/opencti/connectors/import-file-stix/src/config.yml                        |
| /usr/share/opencti/connectors/mitre-attack-enterprise/src/config.yml                 |
| /usr/share/opencti/connectors/mitre-attack-enterprise/src/mitre-attack-enterprise.py |
| /usr/share/opencti/connectors/mitre-attack-enterprise/src/requirements.txt           |
| /usr/share/opencti/connectors/opencti/src/config.yml                                 |
| /lib/systemd/system/opencti-platform.service   |

- Exécuter les commandes infra.

```
# sudo -s
# useradd opencti -U -s /usr/sbin/nologin -d /usr/share/opencti -c « OpenCTI Service User »
# useradd opencti staff
# cd /usr/share/
# chown -R root:opencti opencti/
# chmod 775 opencti/
# cd /usr/share/opencti
# chmod -R 640 worker/
# chmod 775 worker/
```

```
# cd /usr/share/opencti/connectors
# chmod -R 640 *
# chmod 755 *
# chmod 644 ./LICENSE ./CODE_OF_CONDUCT.md ./README.md
# chmod 755 */src
# cd /var/log
# chown -R opencti:opencti opencti/
# cd /lib/systemd/system
# systemctl daemon-reload
# systemctl enable opencti-platform.service
# systemctl start opencti-platform.service
```