Cài đặt hệ thống monitor zabbix

Để triển khai hệ thống zabbix cần triển khai 2 phần như sau để đảm bảo được HA cả 2 site DR và DC

Phần 1 : Triển khai application vs webserver

* Trên DC : Mô hình triển khai Master-slave
  + Master IP : 10.0.8.40
  + Slave IP : 10.0.8.41
* Trên DR : Mô hình triển khai 1 Master
  + Master IP : 10.6.208.20

Phần 2 : Triển khai phần Databases

* Mô hình triển khai Master-Master với Master1 nằm trên DC và Master2 nằm trên DR
  + Master1 : 10.0.8.70
  + Master2 : 10.6.208.21

**1. Chi tiết triển khai application vs webserver**

* ***Trên server 10.0.8.40 tạo 1 file docker-compose.yaml để triển khai dịch vụ như bên dưới***

#vi /data/zabix-docker/docker-compose.yaml

version: '3.1'

services:

  zabbix-server:     # The main Zabbix Server Software Service

    image: zabbix/zabbix-server-mysql:ubuntu-6.4-latest

    restart: always

    environment:

      DB\_SERVER\_HOST: 10.0.8.70

      MYSQL\_DATABASE: nexttech

      MYSQL\_USER: zabbix-master1

      MYSQL\_PASSWORD: Next123Tech

      ZBX\_HISTORYSTORAGETYPES: log,text #Zabbix configuration variables

      ZBX\_DEBUGLEVEL: 1

      ZBX\_HOUSEKEEPINGFREQUENCY: 24

      ZBX\_MAXHOUSEKEEPERDELETE: 55000

    volumes:  # Volumes for scripts and related files you can add

      - /usr/lib/zabbix/alertscripts:/usr/lib/zabbix/alertscripts

      - /data/zabix-docker/config/zabbix\_server.conf:/etc/zabbix/zabbix\_server.conf

    ports:    # Port where Zabbix UI is available

      - 10051:10051

  zabbix-web:    # The main Zabbix web UI or interface

    image: zabbix/zabbix-web-nginx-mysql:ubuntu-6.4-latest

    restart: always

    environment:  # Postgre database variables

      DB\_SERVER\_HOST: 10.0.8.70

      MYSQL\_DATABASE: nexttech

      MYSQL\_USER: zabbix-master1

      MYSQL\_PASSWORD: Next123Tech

      ZBX\_SERVER\_HOST: 10.0.8.40  # Zabbix related and Php variables

      ZBX\_POSTMAXSIZE: 64M

      PHP\_TZ: "Asia/Ho\_Chi\_Minh"

      ZBX\_MAXEXECUTIONTIME: 500

    depends\_on:

      - zabbix-server

    ports:    # Port where Zabbix UI is available

      - 8090:8080

* Tạo file cấu hình để tiện cho việc điều chỉnh optimate zabbix

#vi /data/zabix-docker/config/zabbix\_server.conf

LogType=console

DebugLevel=2

​

DBHost=10.0.8.70

​

DBName=nexttech

DBUser=zabbix-master1

DBPassword=Next123Tech

​

DBPort=3306

HistoryStorageTypes=log,text

JavaGateway=10.0.8.40

​

JavaGatewayPort=10052

​

StartJavaPollers=5

​

HousekeepingFrequency=24

MaxHousekeeperDelete=55000

StartPollers=100

StartPollersUnreachable=50

StartPingers=50

StartTrappers=10

StartDiscoverers=15

StartPreprocessors=15

StartHTTPPollers=5

StartAlerters=5

StartTimers=2

StartEscalators=2

CacheSize=256M

HistoryCacheSize=64M

HistoryIndexCacheSize=32M

TrendCacheSize=32M

ValueCacheSize=256M

​

AlertScriptsPath=/usr/lib/zabbix/alertscripts

​

ExternalScripts=/usr/lib/zabbix/externalscripts

​

FpingLocation=/usr/bin/fping

​

SSHKeyLocation=/var/lib/zabbix/ssh\_keys

StartLLDProcessors=20

User=zabbix

SSLCertLocation=/var/lib/zabbix/ssl/certs/

SSLKeyLocation=/var/lib/zabbix/ssl/keys/

SSLCALocation=/var/lib/zabbix/ssl/ssl\_ca/

LoadModulePath=/var/lib/zabbix/modules/

WebServiceURL=http://zabbix-web-service:10053/report

​

HANodeName=10.0.8.40

NodeAddress=10.0.8.40:10051

* Chạy docker-compose để triển khai dịch vụ

cd /data/zabix-docker && docker-compose up -d

* Kiểm tra dịch vụ

docker ps

* ***Trên server 10.0.8.41 tạo 1 file docker-compose.yaml để triển khai dịch vụ như bên dưới***

#vi /data/zabix-docker/docker-compose.yaml

version: '3.1'

services:

  zabbix-server:     # The main Zabbix Server Software Service

    image: zabbix/zabbix-server-mysql:ubuntu-6.4-latest

    restart: always

    environment:   # The Postgres database value variable

      DB\_SERVER\_HOST: 10.0.8.70

      MYSQL\_DATABASE: nexttech

      MYSQL\_USER: zabbix-master1

      MYSQL\_PASSWORD: Next123Tech

      ZBX\_HISTORYSTORAGETYPES: log,text #Zabbix configuration variables

      ZBX\_DEBUGLEVEL: 1

      ZBX\_HOUSEKEEPINGFREQUENCY: 6

      ZBX\_MAXHOUSEKEEPERDELETE: 55000

    volumes:  # Volumes for scripts and related files you can add

      - /usr/lib/zabbix/alertscripts:/usr/lib/zabbix/alertscripts

      - /data/zabix-docker/config/zabbix\_server.conf:/etc/zabbix/zabbix\_server.conf

    ports:    # Port where Zabbix UI is available

      - 10051:10051

  zabbix-web:    # The main Zabbix web UI or interface

    image: zabbix/zabbix-web-nginx-mysql:ubuntu-6.4-latest

    restart: always

    environment:  # Postgre database variables

      DB\_SERVER\_HOST: 10.0.8.70

      MYSQL\_DATABASE: nexttech

      MYSQL\_USER: zabbix-master1

      MYSQL\_PASSWORD: Next123Tech

      ZBX\_SERVER\_HOST: 10.0.8.41  # Zabbix related and Php variables

      ZBX\_POSTMAXSIZE: 64M

      PHP\_TZ: "Asia/Ho\_Chi\_Minh"

      ZBX\_MAXEXECUTIONTIME: 500

    depends\_on:

      - zabbix-server

    ports:    # Port where Zabbix UI is available

      - 8090:8080

* Tạo file cấu hình để tiện cho việc điều chỉnh optimate zabbix

#vi /data/zabix-docker/config/zabbix\_server.conf

LogType=console

DebugLevel=1

DBHost=10.0.8.70

DBName=nexttech

DBUser=zabbix-master1

DBPassword=Next123Tech

DBPort=3306

HistoryStorageTypes=log,text

StartPollers=50

StartPreprocessors=10

StartPollersUnreachable=10

StartPingers=10

StartDiscoverers=100

JavaGateway=10.0.8.41

JavaGatewayPort=10052

StartJavaPollers=5

HousekeepingFrequency=6

MaxHousekeeperDelete=55000

CacheSize=2048M

TrendCacheSize=2048M

AlertScriptsPath=/usr/lib/zabbix/alertscripts

ExternalScripts=/usr/lib/zabbix/externalscripts

FpingLocation=/usr/bin/fping

SSHKeyLocation=/var/lib/zabbix/ssh\_keys

StartLLDProcessors=20

User=zabbix

​

SSLCertLocation=/var/lib/zabbix/ssl/certs/

SSLKeyLocation=/var/lib/zabbix/ssl/keys/

SSLCALocation=/var/lib/zabbix/ssl/ssl\_ca/

LoadModulePath=/var/lib/zabbix/modules/

WebServiceURL=http://zabbix-web-service:10053/report

HANodeName= 10.0.8.41

NodeAddress=10.0.8.41:10051

* Chạy docker-compose để triển khai dịch vụ

cd /data/zabix-docker && docker-compose up -d

* ***Trên server 10.6.208.20 tạo 1 file docker-compose.yaml để triển khai dịch vụ như bên dưới***

#vi /data/zabix-docker/docker-compose.yaml

version: '3.1'

services:

zabbix-server: # The main Zabbix Server Software Service

image: zabbix/zabbix-server-mysql:ubuntu-6.4-latest

restart: always

environment: # The Postgres database value variable

DB\_SERVER\_HOST: 10.6.208.21

MYSQL\_DATABASE: nexttech2

MYSQL\_USER: zabbix-master2

MYSQL\_PASSWORD: Next123Tech

ZBX\_HISTORYSTORAGETYPES: log,text #Zabbix configuration variables

ZBX\_DEBUGLEVEL: 1

ZBX\_HOUSEKEEPINGFREQUENCY: 1

ZBX\_MAXHOUSEKEEPERDELETE: 5000

volumes: # Volumes for scripts and related files you can add

- /usr/lib/zabbix/alertscripts:/usr/lib/zabbix/alertscripts

- /data/zabix-docker/config/zabbix\_server.conf:/etc/zabbix/zabbix\_server.conf

zabbix-web: # The main Zabbix web UI or interface

image: zabbix/zabbix-web-nginx-mysql:ubuntu-6.4-latest

restart: always

environment: # Postgre database variables

DB\_SERVER\_HOST: 10.6.208.21

MYSQL\_DATABASE: nexttech2

MYSQL\_USER: zabbix-master2

MYSQL\_PASSWORD: Next123Tech

ZBX\_SERVER\_HOST: zabbix-server # Zabbix related and Php variables

ZBX\_POSTMAXSIZE: 64M

PHP\_TZ: "Asia/Ho\_Chi\_Minh"

ZBX\_MAXEXECUTIONTIME: 500

depends\_on:

- zabbix-server

ports: # Port where Zabbix UI is available

- 8090:8080

* Tạo file cấu hình để tiện cho việc điều chỉnh optimate zabbix

#vi /data/zabix-docker/config/zabbix\_server.conf

LogType=console

DebugLevel=1

DBHost=10.6.208.21

DBName=nexttech2

DBUser=zabbix-master2

DBPassword=Next123Tech

DBPort=3306

HistoryStorageTypes=log,text

JavaGateway=10.6.208.20

JavaGatewayPort=10052

StartJavaPollers=5

HousekeepingFrequency=1

MaxHousekeeperDelete=5000

AlertScriptsPath=/usr/lib/zabbix/alertscripts

ExternalScripts=/usr/lib/zabbix/externalscripts

FpingLocation=/usr/bin/fping

SSHKeyLocation=/var/lib/zabbix/ssh\_keys

User=zabbix

SSLCertLocation=/var/lib/zabbix/ssl/certs/

SSLKeyLocation=/var/lib/zabbix/ssl/keys/

SSLCALocation=/var/lib/zabbix/ssl/ssl\_ca/

LoadModulePath=/var/lib/zabbix/modules/

WebServiceURL=http://zabbix-web-service:10053/report

HANodeName= 10.6.208.20

NodeAddress=127.0.0.1:10051

* Chạy docker-compose để triển khai dịch vụ

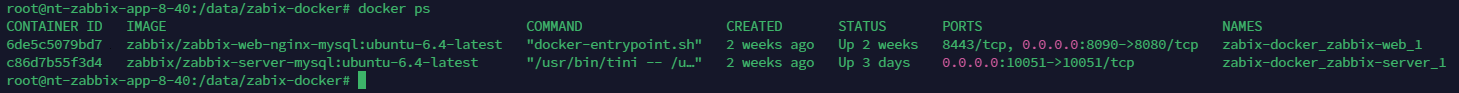
cd /data/zabix-docker && docker-compose up -d

**Lưu ý:**

Names : là tên container.

NAMES là zabix-docker\_zabbix-web\_1 "Đây là proxy chạy nginx của zabbix"

NAMES là zabix-docker\_zabbix-server\_1 "Đây là server app chạy php của zabbix"

[](https://book.saobang.vn/uploads/images/gallery/2024-02/s2MjjI0OVGv4wow4-image-1708655595270.png)

**2. Chi tiết triển khai Databases mariadb**

**Mô hình cài đặt là galera cluster gồm 2 server**

**Server 1 : 10.0.8.70**

**Server 2 : 10.6.208.21**

* Cài đặt mariadb trên cả 2 server

curl -LsS https://downloads.mariadb.com/MariaDB/mariadb\_repo\_setup | sudo bash -s -- --mariadb-server-version=11.1.3

sudo apt -y install mariadb-server mariadb-client

mariadb -V

* Cầu hình trên server 1

#/etc/mysql/mariadb.conf.d/50-server.cnf

[server]

​

pid-file                = /run/mysqld/mysqld.pid

datadir                 = /data/mariadb-zabbix

​

server\_id = 1

report\_host = master

log\_bin = /data/mariadb-zabbix/mariadb-bin

log\_bin\_index = /data/mariadb-zabbix/mariadb-bin.index

relay\_log = /data/mariadb-zabbix/relay-bin

relay\_log\_index = /data/mariadb-zabbix/relay-bin.index

log\_error = /data/mariadb-zabbix/error.log

expire\_logs\_days        = 10

max\_binlog\_size        = 1000M

innodb\_log\_file\_size = 512M

character-set-server  = utf8mb4

collation-server      = utf8mb4\_general\_ci

​

​

[galera]

​

wsrep\_on=ON

wsrep\_provider=/usr/lib/galera/libgalera\_smm.so

wsrep\_cluster\_address="gcomm://10.0.8.70,10.6.208.21"

binlog\_format=row

default\_storage\_engine=InnoDB

innodb\_autoinc\_lock\_mode=2

log-slave-updates

auto\_increment\_increment=2

auto\_increment\_offset=1

bind-address=0.0.0.0

wsrep\_cluster\_name="MariaDB\_Cluster"

wsrep\_node\_address="10.0.8.70"

systemctl restart mariadb

* Cấu hình trên server 2

#/etc/mysql/mariadb.conf.d/50-server.cnf

[server]

​

pid-file                = /run/mysqld/mysqld.pid

datadir                 = /data/mariadb-zabbix

​

server\_id = 2

report\_host = master2

log\_bin = /data/mariadb-zabbix/mariadb-bin

log\_bin\_index = /data/mariadb-zabbix/mariadb-bin.index

relay\_log = /data/mariadb-zabbix/relay-bin

relay\_log\_index = /data/mariadb-zabbix/relay-bin.index

log\_error = /data/mariadb-zabbix/error.log

expire\_logs\_days        = 10

max\_binlog\_size        = 1000M

innodb\_log\_file\_size = 512M

character-set-server  = utf8mb4

collation-server      = utf8mb4\_general\_ci

​

[galera]

wsrep\_on=ON

wsrep\_provider=/usr/lib/galera/libgalera\_smm.so

wsrep\_cluster\_address="gcomm://10.0.8.70,10.6.208.21"

binlog\_format=row

default\_storage\_engine=InnoDB

innodb\_autoinc\_lock\_mode=2

log-slave-updates

auto\_increment\_increment=2

auto\_increment\_offset=2

bind-address=0.0.0.0

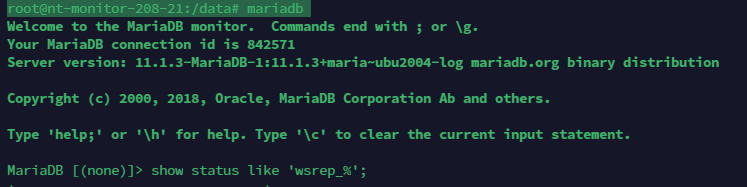
wsrep\_cluster\_name="MariaDB\_Cluster"

wsrep\_node\_address="10.6.208.21"

systemctl restart mariadb

* Check dịch vụ sau khi restart trên 2 server "Login vào mariadb và chạy lệnh sau"

show status like 'wsrep\_%';

[](https://book.saobang.vn/uploads/images/gallery/2024-02/be4DIGiHMd5aMp1w-image-1708657602379.png)