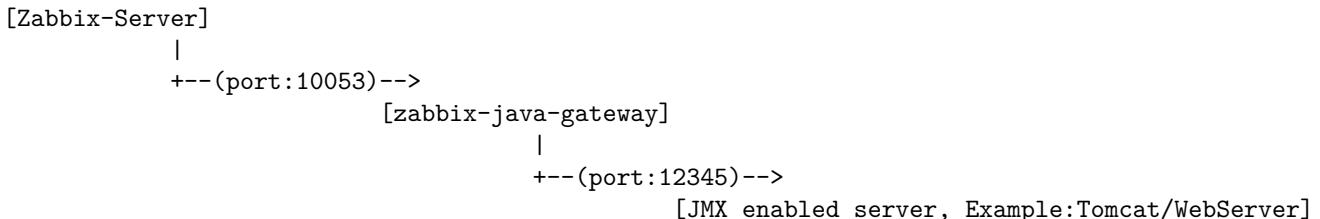


# Installing zabbix-java-gateway on Centos 6.5

Zabbix 2.0 adds native support for monitoring JMX applications by introducing a new Zabbix daemon called **Zabbix Java gateway**. **Zabbix Java gateway** is a daemon written in Java. When Zabbix server wants to know the value of a particular JMX counter on a host, it asks **Zabbix Java gateway**, which uses the JMX management API to query the application of interest remotely. The application does not need any additional software installed, it just has to be started with `-Dcom.sun.management.jmxremote` option on the command line.

## How does zabbix-java-gateway work?

1. First we configure system which needs to be monitored using the `JAVA_OPTS`.
2. Next we add a **JMX Interface** in Zabbix server UI under **hosts**.
3. **zabbix-server** will communicate with **zabbix-java-gateway** which intern communicates to the system/server where we need to get all the JMX data.
4. JMX is set using the `JAVA_OPTS`.



## Step 1 : Install zabbix-java-gateway on zabbix-server

```
[ahmed@ahmed-server ~]$ sudo yum install zabbix-java-gateway
```

## Step 2 : Configure the host with JMX which needs to be monitored.

Setting Tomcat/JMX Options. Add the below lines to `setenv.sh` and save it under `apache-tomcat-7/bin/` So when the `start.sh` is started then these JMX options will be added to `tomcat` server.

**NOTE: To make the monitoring secure use ssl and authentication options. You can find more information in the links at the end of this post.**

IMPORTANT Lines are below. We will be getting data from port 12345.

```
-Dcom.sun.management.jmxremote\
-Dcom.sun.management.jmxremote.port=12345\
-Dcom.sun.management.jmxremote.authenticate=false\
-Dcom.sun.management.jmxremote.ssl=false"
```

But here are the complete `JAVA_OPTS`. you can ignore the first few lines which sets the Heap Memory size.

```

export JAVA_OPTS="$JAVA_OPTS\
-server\
-Xms1024m\
-Xmx2048m\
-XX:MaxPermSize=256m\
-XX:MaxNewSize=256m\
-XX:NewSize=256m\
-XX:SurvivorRatio=12\
-Dcom.sun.management.jmxremote\
-Dcom.sun.management.jmxremote.port=12345\
-Dcom.sun.management.jmxremote.authenticate=false\
-Dcom.sun.management.jmxremote.ssl=false"

```

### Step 3 : Configuring zabbix-server.

1. Here we configure the zabbix server to let it know where the `zabbix-java-gateway` is running.
2. Since we are running the `zabbix-java-gateway` in the same server as `zabbix-server`, so we will be using the same ip for both.
3. Only difference is that `zabbix-java-gateway` will be running on port 10053

Configuration in `zabbix-server.conf`. Add the below line. Rather un-comment them and add the IP/ports

```

### Option: JavaGateway
#      IP address (or hostname) of Zabbix Java gateway.
#      Only required if Java pollers are started.
#
# Mandatory: no
# Default:
JavaGateway=10.10.18.27

### Option: JavaGatewayPort
#      Port that Zabbix Java gateway listens on.
#
# Mandatory: no
# Range: 1024-32767
# Default:
JavaGatewayPort=10053

### Option: StartJavaPollers
#      Number of pre-forked instances of Java pollers.
#
# Mandatory: no
# Range: 0-1000
# Default:
StartJavaPollers=5

```

### Step 4 : Configuring zabbix-java-gateway.

1. We now set where the `zabbix-java-gateway` will be running and which port it will be listing on.
2. Configuration in `zabbix-java-gateway`, here same ip as the `zabbix-server` and port 10053.

```

### Option: zabbix.listenIP
#       IP address to listen on.
#
# Mandatory: no
# Default:
LISTEN_IP="10.10.18.27"

### Option: zabbix.listenPort
#       Port to listen on.
#
# Mandatory: no
# Range: 1024-32767
# Default:
LISTEN_PORT=10053

### Option: zabbix.pidFile
#       Name of PID file.
#       If omitted, Zabbix Java Gateway is started as a console application.
#
# Mandatory: no
# Default:
# PID_FILE=

PID_FILE="/var/run/zabbix/zabbix_java.pid"

### Option: zabbix.startPollers
#       Number of worker threads to start.
#
# Mandatory: no
# Range: 1-1000
# Default:
START_POLLERS=5

```

#### Useful Links:

<https://www.zabbix.com/documentation/2.4/manual/concepts/java>  
[https://www.zabbix.com/documentation/2.4/manual/config/items/itemtypes/jmx\\_monitoring](https://www.zabbix.com/documentation/2.4/manual/config/items/itemtypes/jmx_monitoring)