

**Gobierno de Canarias**Consejería de Educación
y Universidades**C.I.F.P. VILLA DE AGÜIMES****CFGS:** DAW**Módulo:** DPL**Curso:** 2022/2023**Memoria de trabajo:** Actividad 7 - Instalación de Wildfly junto a Tomcat**Autor:** Cristo Rubén Pérez Suárez**Fecha:** 28/11/2022

1. Instalamos JDK.

```
root@cristomachine:/home/cristouser# sudo apt-get install default-jdk -y
Leyendo lista de paquetes... Hecho
Creando árbol de dependencias
Leyendo la información de estado... Hecho
```

2. Mostramos que se ha instalado y la versión.

```
root@cristomachine:/home/cristouser# java -version
openjdk version "11.0.17" 2022-10-18
OpenJDK Runtime Environment (build 11.0.17+8-post-Ubuntu-1ubuntu220.04)
OpenJDK 64-Bit Server VM (build 11.0.17+8-post-Ubuntu-1ubuntu220.04, mixed mode, sharing)
```

3. Nos movemos al directorio opt y descargamos Wildfly.

```
root@cristomachine:/home/cristouser# cd /opt
root@cristomachine:/opt# sudo wget https://download.jboss.org/wildfly/16.0.0.Final/wildfly-16.0.0.Final.tar.gz
--2022-11-28 00:59:53-- https://download.jboss.org/wildfly/16.0.0.Final/wildfly-16.0.0.Final.tar.gz
Resolviendo download.jboss.org (download.jboss.org)... 184.28.177.171, 184.28.177.184, 2a02:26f0:9f00:8::173e:
b4cc, ...
Conectando con download.jboss.org (download.jboss.org)[184.28.177.171]:443... conectado.
Petición HTTP enviada, esperando respuesta... 200 OK
Longitud: 180821890 (172M) [application/x-gzip]
Guardando como: "wildfly-16.0.0.Final.tar.gz"

wildfly-16.0.0.Final.tar.gz 100%[=====>] 172,44M 5,88MB/s en 30s
2022-11-28 01:00:24 (5,71 MB/s) - "wildfly-16.0.0.Final.tar.gz" guardado [180821890/180821890]
```

4. Descomprimos el paquete descargado.

```
root@cristomachine:/opt# tar -xvzf wildfly-16.0.0.Final.tar.gz
wildfly-16.0.0.Final/
wildfly-16.0.0.Final/bin/
wildfly-16.0.0.Final/bin/client/
```

5. Lo movemos al directorio de Wildfly.

```
root@cristomachine:/opt# sudo mv wildfly-16.0.0.Final /opt/wildfly
root@cristomachine:/opt#
```

6. Añadimos el grupo y usuario Wildfly.

```
root@cristomachine:/opt# sudo groupadd wildfly
root@cristomachine:/opt# sudo useradd -r -g wildfly -d /opt/wildfly -s /sbin/nologin wildfly
```

7. Damos los permisos correspondientes.

```
root@cristomachine:/opt# sudo chown -R wildfly: wildfly
root@cristomachine:/opt# sudo chmod o+x /opt/wildfly/bin/
```

8. Nos movemos al directorio etc y creamos un directorio para wildfly.

```
root@cristomachine:/opt# cd /etc/
root@cristomachine:/etc# sudo mkdir wildfly
root@cristomachine:/etc#
```

9. Copiamos las configuraciones de los documentos.

```
root@cristomachine:/etc# sudo cp /opt/wildfly/docs/contrib/scripts/systemd/wildfly.conf /etc/wildfly
root@cristomachine:/etc# sudo cp /opt/wildfly/docs/contrib/scripts/systemd/launch.sh /opt/wildfly/bin/
root@cristomachine:/etc# sudo chown wildfly: /opt/wildfly/bin/launch.sh
root@cristomachine:/etc# sudo cp /opt/wildfly/docs/contrib/scripts/systemd/wildfly.service /etc/systemd/system
```


10. Añadimos el grupo Wildfly al servicio.

```
[Unit]
Description=The WildFly Application Server
After=syslog.target network.target
Before=httpd.service

[Service]
Environment=LAUNCH_JBOSS_IN_BACKGROUND=1
EnvironmentFile=-/etc/wildfly/wildfly.conf
User=wildfly
Group=wildfly
LimitNOFILE=102642
PIDFile=/var/run/wildfly/wildfly.pid
ExecStart=/opt/wildfly/bin/launch.sh $WILDFLY_MODE $WILDFLY_CONFIG $WILDFLY_BIND
StandardOutput=null

[Install]
WantedBy=multi-user.target
```

11. Reiniciamos los servicios.

```
root@crustomachine:/etc# sudo systemctl daemon-reload
root@crustomachine:/etc# sudo systemctl enable wildfly
Created symlink /etc/systemd/system/multi-user.target.wants/wildfly.service → /etc/systemd/system/wildfly.service.
root@crustomachine:/etc# sudo systemctl start wildfly
root@crustomachine:/etc# sudo systemctl status wildfly
● wildfly.service - The WildFly Application Server
   Loaded: loaded (/etc/systemd/system/wildfly.service; enabled; vendor preset: enabled)
   Active: active (running) since Mon 2022-11-28 01:09:20 WET; 11s ago
     Main PID: 4422 (launch.sh)
       Tasks: 69 (limit: 4617)
      Memory: 197.2M
      CGroup: /system.slice/wildfly.service
              └─4422 /bin/bash /opt/wildfly/bin/launch.sh standalone standalone.xml 0.0.0.0
                 └─4423 /bin/sh /opt/wildfly/bin/standalone.sh -c standalone.xml -b 0.0.0.0
                    └─4513 java -D[Standalone] -server -Xms64m -Xmx512m -XX:MetaspaceSize=96M -XX:MaxMetaspaceSize=256M

nov 28 01:09:20 crustomachine systemd[1]: Started The WildFly Application Server.
lines 1-12/12 (END)
```

12. Mostramos Wildfly ejecutándose correctamente.



13. Abrimos el archivo de configuración y añadimos el gestor de la consola.

```
root@crustomachine:/etc# sudo nano /etc/wildfly/wildfly.conf

GNU nano 4.8 /etc/wildfly/wildfly.conf
# The configuration you want to run
WILDFLY_CONFIG=standalone.xml

# The mode you want to run
WILDFLY_MODE=standalone

# The address to bind to
WILDFLY_BIND=0.0.0.0

WILDFLY_MANAGEMENT_CONSOLE_BIND
```

14. Añadimos los -bmanagement \$4 de gestión de permisos condicional.

```
root@crustomachine:/etc

GNU nano 4.8 /opt/wildfly/bin/launch.sh
#!/bin/bash

if [ "x$WILDFLY_HOME" = "x" ]; then
    WILDFLY_HOME="/opt/wildfly"
fi

if [[ "$1" == "domain" ]]; then
    $WILDFLY_HOME/bin/domain.sh -c $2 -b $3 -bmanagement $4
else
    $WILDFLY_HOME/bin/standalone.sh -c $2 -b $3 -bmanagement $4
fi
```

15. Entramos al archivo de servicios otra vez.

```
root@crustomachine:/etc# sudo nano /etc/systemd/system/wildfly.service
root@crustomachine:/etc#
```

16. Añadimos el condicional \$WILDFLY_MANAGEMENT_CONSOLE_BIND en service.

```
GNU nano 4.8 /etc/systemd/system/wildfly.service
[Unit]
Description=The WildFly Application Server
After=syslog.target network.target
Before=httpd.service

[Service]
Environment=LAUNCH_JBOSS_IN_BACKGROUND=1
EnvironmentFile=-/etc/wildfly/wildfly.conf
User=wildfly
Group=wildfly
LimitNOFILE=102642
PIDFile=/var/run/wildfly/wildfly.pid
ExecStart=/opt/wildfly/bin/launch.sh $WILDFLY_MODE $WILDFLY_CONFIG $WILDFLY_BIND $WILDFLY_MANAGEMENT_CONSOLE_BIND
StandardOutput=null

[Install]
WantedBy=multi-user.target
```


17. Vemos que el servicio está caído después de editarlo y procedemos a repararlo.

```
root@cristomachine:/etc# sudo systemctl daemon-reload
root@cristomachine:/etc# sudo systemctl restart wildfly
root@cristomachine:/etc# sudo systemctl status wildfly
● wildfly.service - The WildFly Application Server
   Loaded: loaded (/etc/systemd/system/wildfly.service; enabled; vendor preset: enabled)
   Active: Failed (Result: exit-code) since Mon 2022-11-28 01:21:46 WET; 5s ago
     Process: 5777 ExecStart=/opt/wildfly/bin/launch.sh $WILDFLY_MODE $WILDFLY_CONFIG $WILDFLY_BIND $WILDFLY_MANAGEMENT_CONSOLE_BIND (code=exi
   Main PID: 5777 (code=exited, status=1/FAILURE)

nov 28 01:21:42 cristomachine systemd[1]: Started The WildFly Application Server.
nov 28 01:21:46 cristomachine systemd[1]: wildfly.service: Main process exited, code=exited, status=1/FAILURE
nov 28 01:21:46 cristomachine systemd[1]: wildfly.service: Failed with result 'exit-code'.
lines 1-9/9 (END)
```

18. Entramos al archivo server.xml de tomcat y añadimos las siguientes instrucciones.

```
root@cristomachine:/etc# sudo gedit /opt/tomcat/conf/server.xml
```

19.

```
1 <Connector port="8082" protocol="HTTP/1.1"
2   connectionTimeout="20000"
3   redirectPort="8443" />
4 <!-- A "Connector" using the shared thread pool-->
```

20. Permitimos las conexiones tcp en el puerto 8080.

```
root@cristomachine:/opt/wildfly/bin# sudo ufw allow 8080/tcp
Reglas actualizadas
Reglas actualizadas (v6)
```

21. Añadimos un usuario a Wildfly.

```
root@cristomachine:/opt/wildfly/bin# sudo /opt/wildfly/bin/add-user.sh

What type of user do you wish to add?
a) Management User (mgmt-users.properties)
b) Application User (application-users.properties)
(a):
Enter the details of the new user to add.
Using realm 'ManagementRealm' as discovered from the existing property files.
Username : cristo
Password recommendations are listed below. To modify these restrictions edit the add-user.properties configuration file.
- The password should be different from the username
- The password should not be one of the following restricted values {root, admin, administrator}
- The password should contain at least 8 characters, 1 alphabetic character(s), 1 digit(s), 1 non-alphanumeric symbol(s)
Password :
WFLYDM0099: Password should have at least 8 characters!
Are you sure you want to use the password entered yes/no? y
Re-enter Password :
What groups do you want this user to belong to? (Please enter a comma separated list, or leave blank for none)[ ]:
About to add user 'cristo' for realm 'ManagementRealm'
Is this correct yes/no? y
Added user 'cristo' to file '/opt/wildfly/standalone/configuration/mgmt-users.properties'
Added user 'cristo' to file '/opt/wildfly/domain/configuration/mgmt-users.properties'
Added user 'cristo' with groups to file '/opt/wildfly/standalone/configuration/mgmt-groups.properties'
Added user 'cristo' with groups to file '/opt/wildfly/domain/configuration/mgmt-groups.properties'
Is this new user going to be used for one AS process to connect to another AS process?
e.g. for a slave host controller connecting to the master or for a Remoting connection for server to server EJB calls.
yes/no? y
To represent the user add the following to the server-identities definition <secret value="MTIzNA==" />
root@cristomachine:/opt/wildfly/bin#
```

22. Configuramos las conexiones remotas al servidor.

```
root@cristomachine:/opt/wildfly/bin
GNU nano 4.8 /bin/jboss-cli.xml
<default-protocol use-legacy-override="true">remote+http://default-protocol</default-protocol>

<!-- The default controller to connect to when 'connect' command is executed w/o arguments -->
<default-controller>
  <protocol>remote+http://protocol</protocol>
  <host>localhost</host>
  <port>9990</port>
</default-controller>
```

23. Restauramos los servicios y vemos que la ejecución del programa está resuelta.

```
root@cristomachine:/opt/wildfly/bin# systemctl daemon-reload
root@cristomachine:/opt/wildfly/bin# sudo systemctl stop wildfly.service
root@cristomachine:/opt/wildfly/bin# sudo systemctl start wildfly.service
root@cristomachine:/opt/wildfly/bin# sudo systemctl enable wildfly.service
root@cristomachine:/opt/wildfly/bin# sudo systemctl status wildfly.service
● wildfly.service - The WildFly Application Server
   Loaded: loaded (/etc/systemd/system/wildfly.service; enabled; vendor preset: enabled)
   Active: active (running) since Mon 2022-11-28 01:59:38 WET; 22s ago
     Main PID: 7853 (launch.sh)
       Tasks: 135 (limit: 4617)
        Memory: 278.7M
         CGroup: /system.slice/wildfly.service
                 └─7853 /bin/bash /opt/wildfly/bin/launch.sh standalone standalone.xml 0.0.0.0
                   └─7854 /bin/sh /opt/wildfly/bin/standalone.sh -c standalone.xml -b 0.0.0.0
                     └─7944 java -D[Standalone] -server -Xms64m -Xmx512m -XX:MetaspaceSize=96M -XX:MaxMetaspaceSize=256M -Djava.net.preferIPv4Stack=

nov 28 01:59:38 cristomachine systemd[1]: Started The WildFly Application Server.
nov 28 01:59:58 cristomachine systemd[1]: /etc/systemd/system/wildfly.service:11: PIDFile= references a path below legacy directory /var/run/
lines 1-13/13 (END)
```

24. Establecemos conexión a la consola en localhost 9990 console index.

