CentOS Stream 8 – WildFly 26

Version:	1.0.0
Created by:	cloudimg

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1.) Overview

This document is provided as a user guide for the CentOS Stream 8 – WildFly 26 product offering on the Azure Marketplace. Please reach out to support@cloudimg.co.uk if any issues are encountered following this user guide for the chosen product offering.

2.) Access & Security

Please update the security group of the target instance to allow the below ports and protocols for access and connectivity.

Protocol	Type	Port	Description
SSH	TCP	22	SSH connectivity
HTTP	TCP	9990	WildFly Administration Console
HTTP	TCP	8080	JBOSS Welcome Page

3.)System Requirements

The minimum system requirements for the chosen product offering can be found below

Minimum CPU	Minimum RAM	Required Disk Space
1	1 GB	20 GB

4.) Connecting to the Instance

Once launched in the Azure Virtual Machines Service, please connect to the instance via an SSH client using the **azureuser** with the key pair associated at launch. Once connected as the **azureuser**, you will be able to **sudo** to the **root** user by issuing the below command.

Switch to the root user

```
sudo su -
```

5.) On Startup

An OS package update script has been configured to run on boot to ensure the image is fully up to date at first use. You can disable this feature by removing the script from /stage/scripts/ and deleting the entry in crontab for the root user.

Disable the OS update script from running on reboot

```
rm -f /stage/scripts/initial_boot_update.sh

crontab -e

#DELETE THE BELOW LINE. SAVE AND EXIT THE FILE.
@reboot /stage/scripts/initial_boot_update.sh
```

6.) Filesystem Configuration

Please see below for a screenshot of the server disk configuration and specific mount point mappings for software locations.

```
Filesystem      Size  Used Avail Use% Mounted on
devtmpfs        451M     0  451M   0% /dev
tmpfs           469M     0  469M   0% /dev/shm
tmpfs           469M  6.3M  462M   2% /run
tmpfs           469M     0  469M   0% /sys/fs/cgroup
/dev/nvme0n1p2   38G  3.5G   32G  10% /
/dev/nvme0n1p1  2.0G  220M  1.6G  12% /boot
tmpfs            94M     0   94M   0% /run/user/1002
/dev/nvme1n1    9.8G  259M  9.0G   3% /opt/wildfly
```

Mount Point	Description
/boot	Operating System Kernel files
/opt/wildfly	WildFly Installation Directory

7.) Server Components

Please see below for a list of installed server components and their respective installation paths. The below versions are subject to change on initial boot based on the initial_boot_update.sh script finding new versions of the software in the systems package repositories.

Component	Version	Software Home
Cloud-Init	22.1	/etc/cloud
JAVA	11	/bin/java
WildFly	26.1.2	/opt/wildfly
Azure CLI	2.53.1	/lib64/az

8.) Scripts and Log Files

The below table provides a breakdown of any scripts & log files created to enhance the useability of the chosen offering.

Script/Log	Path	Description
Initial_boot_update.sh	/stage/scripts	Update the Operating System with the latest updates available.
Initial_boot_update.log	/stage/scripts	Provides output for initial_boot_update.sh

9.) Using System Components

Instructions can be found below for using each component of the server build mentioned in section 7 of this user guide document.

Azure CLI

Using Azure CLI – as any OS user.

```
az
```

Cloud-Init

Edit the /etc/cloud/cloud.cfg file to reflect your desired configuration. A link to the cloud-init official documentation can be found below for referencing best practise for your use case.

https://cloudinit.readthedocs.io/en/latest/

```
vi /etc/cloud/cloud.cfg
```

Java

Java has been preinstalled on the instance and the below command can be used to verify the version currently installed.

```
```

```
java -version
```

WildFly

The WildFly service has been configured to start on boot. Issue the below commands to either start, stop or check the status of the service.

```
#Start the WildFly service
systemctl start wildfly

#Stop the WildFly service
systemctl stop wildfly

#Check the status of the WildFly service
systemctl status wildfly
```

On first use it is advised to set a strong password for the admin user of which will be used to log into the WildFly Front End Application. Execute the command below as the **root** user to set a new password.

```
/opt/wildfly/bin/add-user.sh
```

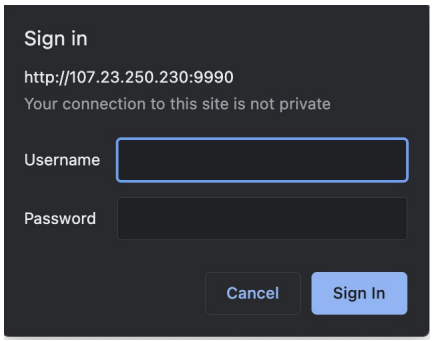
EXPECT & RESPOND – (Example inputs below in RED)

```
[root@ip-172-31-91-249 bin]# /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): a

Enter the details of the new user to add.
Using realm 'ManagementRealm' as discovered from the existing property files.
Username : admin
User 'admin' already exists and is enabled, would you like to...
 a) Update the existing user password and roles
 b) Disable the existing user
```

```
 c) Type a new username

(a): a

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 : ENTER A PASSWORD VALUE HERE

WFLYDM0102: Password should have at least 1 non-alphanumeric symbol.

Are you sure you want to use the password entered yes/no? yes

Re-enter Password : RE-ENTER THE PASSWORD VALUE HERE

What groups do you want this user to belong to? (Please enter a comma separated list, or leave
blank for none)[  ]: PRESS ENTER

Updated user 'admin' to file '/opt/wildfly/standalone/configuration/mgmt-users.properties'

Updated user 'admin' to file '/opt/wildfly/domain/configuration/mgmt-users.properties'

Updated user 'admin' with groups  to file '/opt/wildfly/standalone/configuration/mgmt-
groups.properties'

Updated user 'admin' 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 Jakarta Enterprise Beans calls.

yes/no? no

[root@ip-172-31-91-249 bin]#
```

You will now be able to access the WildFly Administration Console by navigating to the below URL exchanging the values between <> to match that of your own instance.

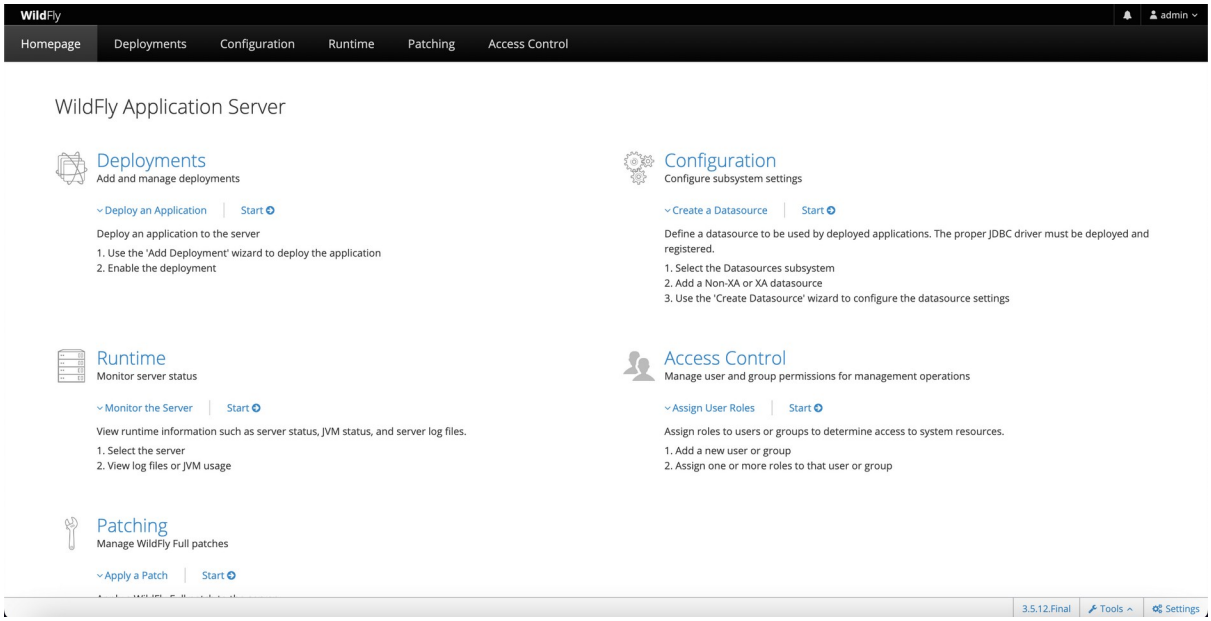
<PRIVATE/PUBLICIP>:9990



A pop up like that shown above will appear once available.

Username: admin
Password: THE VALUE ENTERERED FOR THE **add-user.sh** SCRIPT

Click Sign In



The WildFly Administration Console will now be loaded and the system is ready for use.