

WCS in WSL 2

Windows SubSystem for Linux (WSL) is a Linux environment in Windows 10 and above. WSL 2 is a full-fledged Hyper-V virtual machine and supports a number of main Linux distros. This allows to deploy WCS on Windows PC to test

WSL installation

In latest Windows releases, use the following command with Administrator privileges

```
wsl --install
```

This will require system reboot. By default, Ubuntu 20.04 will be installed. Use the following command to see all available distros

```
wsl --list --online
```

Choose the distro as follows:

```
wsl --install -d Ubuntu-18.04
```

Read [Microsoft official documentation](#) for details.

It is recommended to update installed packages after successful installation:

```
sudo apt-get update  
sudo apt-get upgrade -y
```

WCS deployment

JDK installation

Any of [JDK versions supported](#) may be installed from repositories or manually depending on JDK packages availability in distro used. For example, JDK 8 is available in repositories for Ubuntu 18.04:

```
sudo apt-get install -y openjdk-8-jdk
```

and JDK 14 should be installed manually

```

# Download JDK package
sudo rm -rf jdk*
curl -s
https://download.java.net/java/GA/jdk14.0.1/664493ef4a6946b186ff29eb326336a2/7/G
14.0.1_linux-x64_bin.tar.gz | tar -zx
[ ! -d jdk-14.0.1/bin ] && exit 1

# Prepare installation folder
sudo mkdir -p /usr/java
[ -d /usr/java/jdk-14.0.1 ] && sudo rm -rf /usr/java/jdk-14.0.1

# Move JDK files to installation folder
sudo mv -f jdk-14.0.1 /usr/java
[ ! -d /usr/java/jdk-14.0.1/bin ] && exit 1

# Make /usr/java/default symlink to installation folder for convenience
sudo rm -f /usr/java/default
sudo ln -sf /usr/java/jdk-14.0.1 /usr/java/default

# Make the necessary symlinks
sudo update-alternatives --install "/usr/bin/java" "java" "/usr/java/jdk-
14.0.1/bin/java" 1
sudo update-alternatives --install "/usr/bin/jstack" "jstack" "/usr/java/jdk-
14.0.1/bin/jstack" 1
sudo update-alternatives --install "/usr/bin/jcmd" "jcmd" "/usr/java/jdk-
14.0.1/bin/jcmd" 1
sudo update-alternatives --install "/usr/bin/jmap" "jmap" "/usr/java/jdk-
14.0.1/bin/jmap" 1
sudo update-alternatives --set "java" "/usr/java/jdk-14.0.1/bin/java"
sudo update-alternatives --set "jstack" "/usr/java/jdk-14.0.1/bin/jstack"
sudo update-alternatives --set "jcmd" "/usr/java/jdk-14.0.1/bin/jcmd"
sudo update-alternatives --set "jmap" "/usr/java/jdk-14.0.1/bin/jmap"

```

WCS installation

Use the following command to install latest WCS build:

```

wget https://flashphoner.com/download-wcs5.2-server.tar.gz -O- | tar -zx
cd FlashphonerWebCallServer-*
sudo ./install.sh

```

Activate WCS license (you can get a trial [here](#))

```

cd /usr/local/FlashphonerWebCallServer/bin
sudo ./activation.sh

```

WCS launching

Unfortunately, systemd is not shipped with Ubuntu for WSL 2. So WCS can be launched as follows

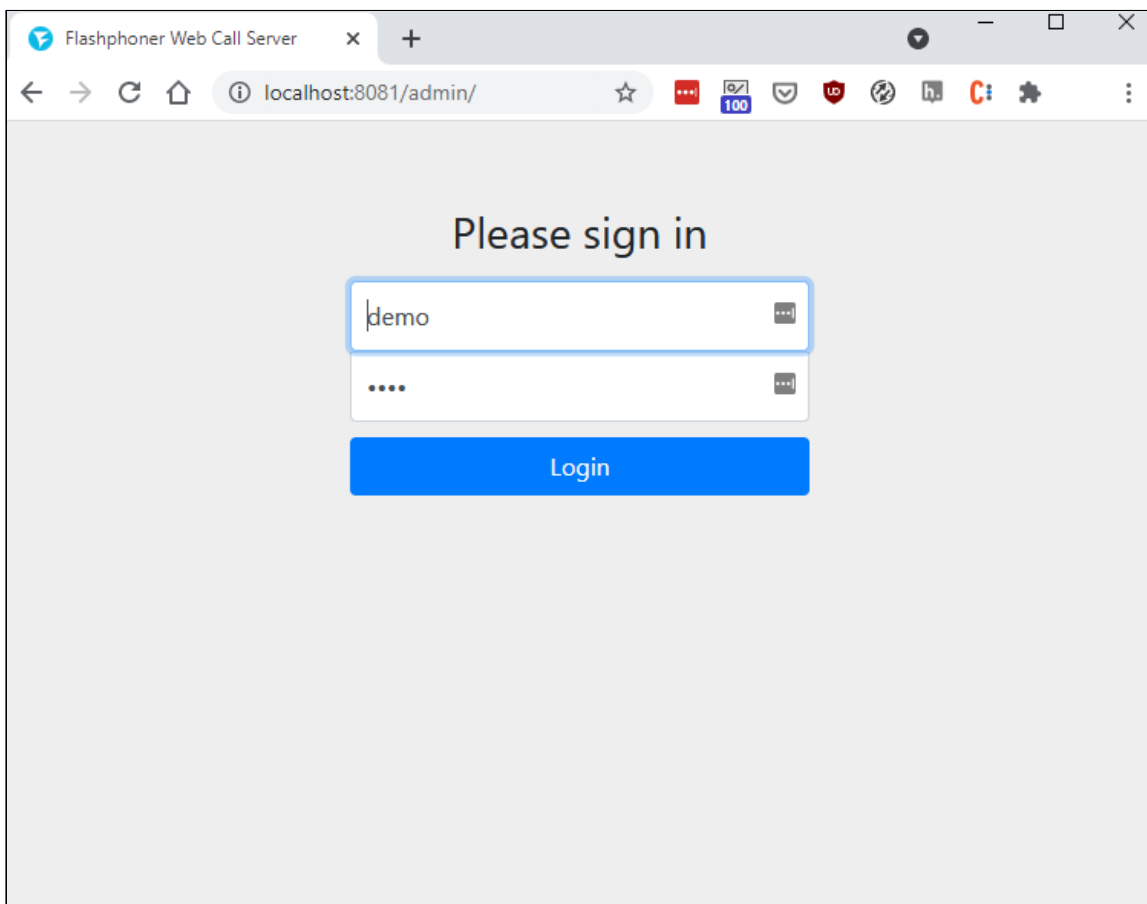
```
cd /usr/local/FlashphonerWebCallServer/bin
sudo ./webrtcserver set-permissions
sudo ./webrtcserver start
```

Check if WCS is successfully started with command

```
sudo ./webrtcserver status
```

Testing

1. Open WCS web interface in local browser by the link <http://localhost:8081/admin/> and enter user name demo, password demo



2. Choose Two Way Streaming example in left menu

Flashphoner Web Call Server x +

localhost:8081/admin/demo.html#

Demo Security License v.2.0.198-5.2.1037-a678a7846a8ceaec10c5d460e

Streaming

Two-way Streaming

Streamer

Local Player

Player

Two-Way Streaming

Firewall Stream

WebRTC as RTM

Stream Recordi

Several Stream: Recording

Stream Server Snapshot

Stream Local Snapshot

Stream Diagno:

Screen Sharing

Embed Player

cad2 Publish

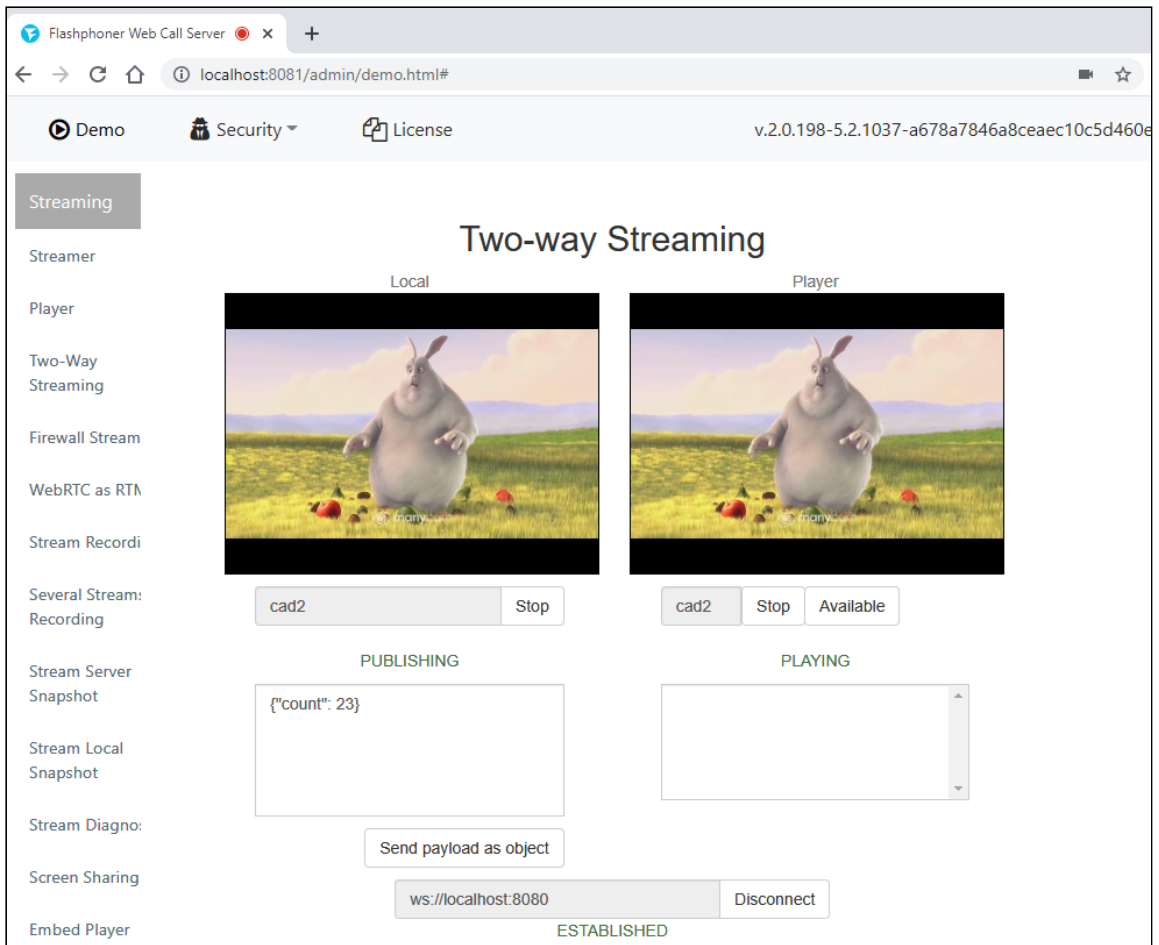
cad2 Play Available

{\"count\": 23}

Send payload as object

ws://localhost:8080 Connect

3. Publish and play a stream in the example



Known issues

1. Only one WSL instance can run simultaneously

You can install a multiple WSL instances using [some tricks](#), but they cannot be launched simultaneously.

2. WSL instance IP address is changing on every PC reboot

Symptoms

When WCS is started after PC reboot, stream cannot be published with the following error

```
No free ports available
```

✓ **Solution**

After PC reboot, start WCS with IP addresses configuration

```
cd /usr/local/FlashphonerWebCallServer/bin  
sudo ./webcallserver set-ip  
sudo ./webcallserver start
```