WCS in WSL 2

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Windows SubSystem for Linux (WSL) is a Linux environment in Windows 10. WSL 2 if 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 privilegies

```
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 successfuk 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

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

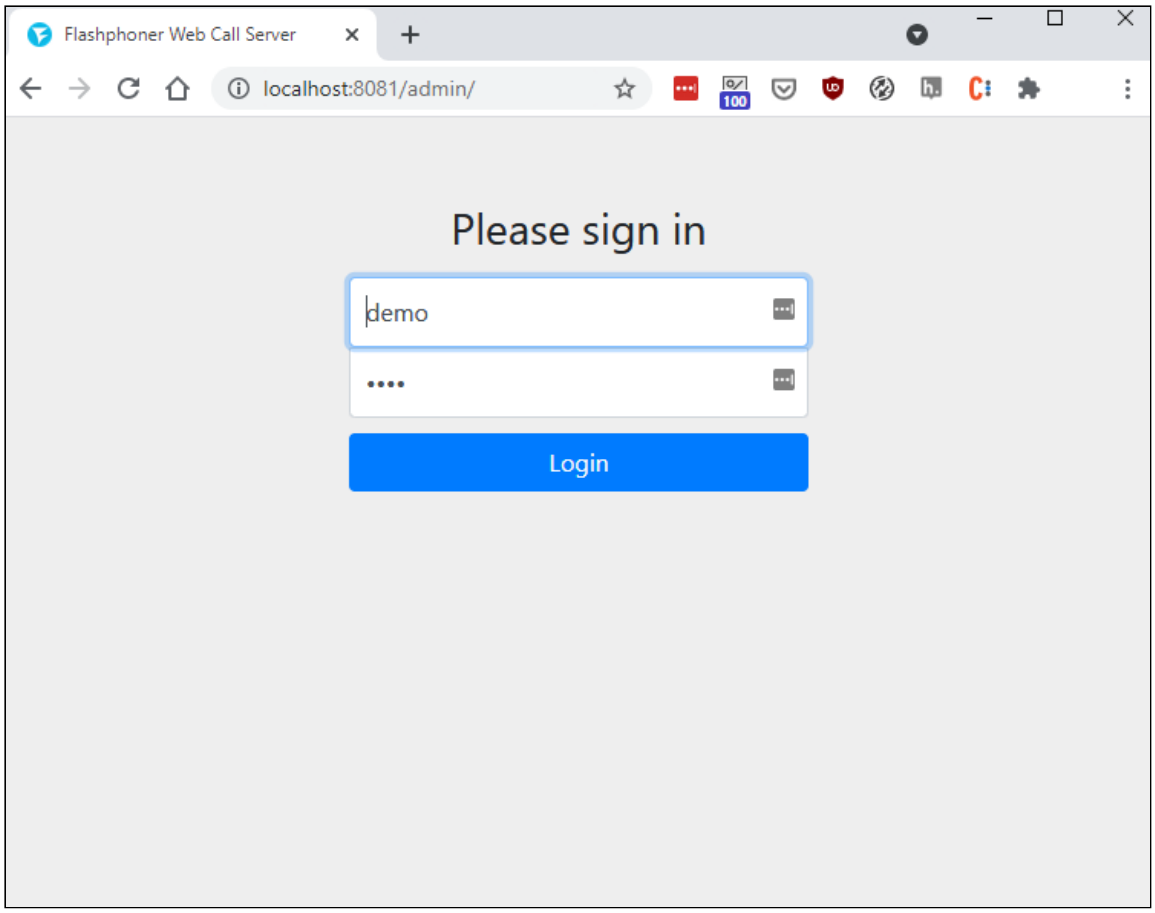
```
cd /usr/local/FlashphonerWebCallServer/bin
sudo ./webcallserver set-permissions
sudo ./webcallserver start
```

Check if WCS is successfully started with command

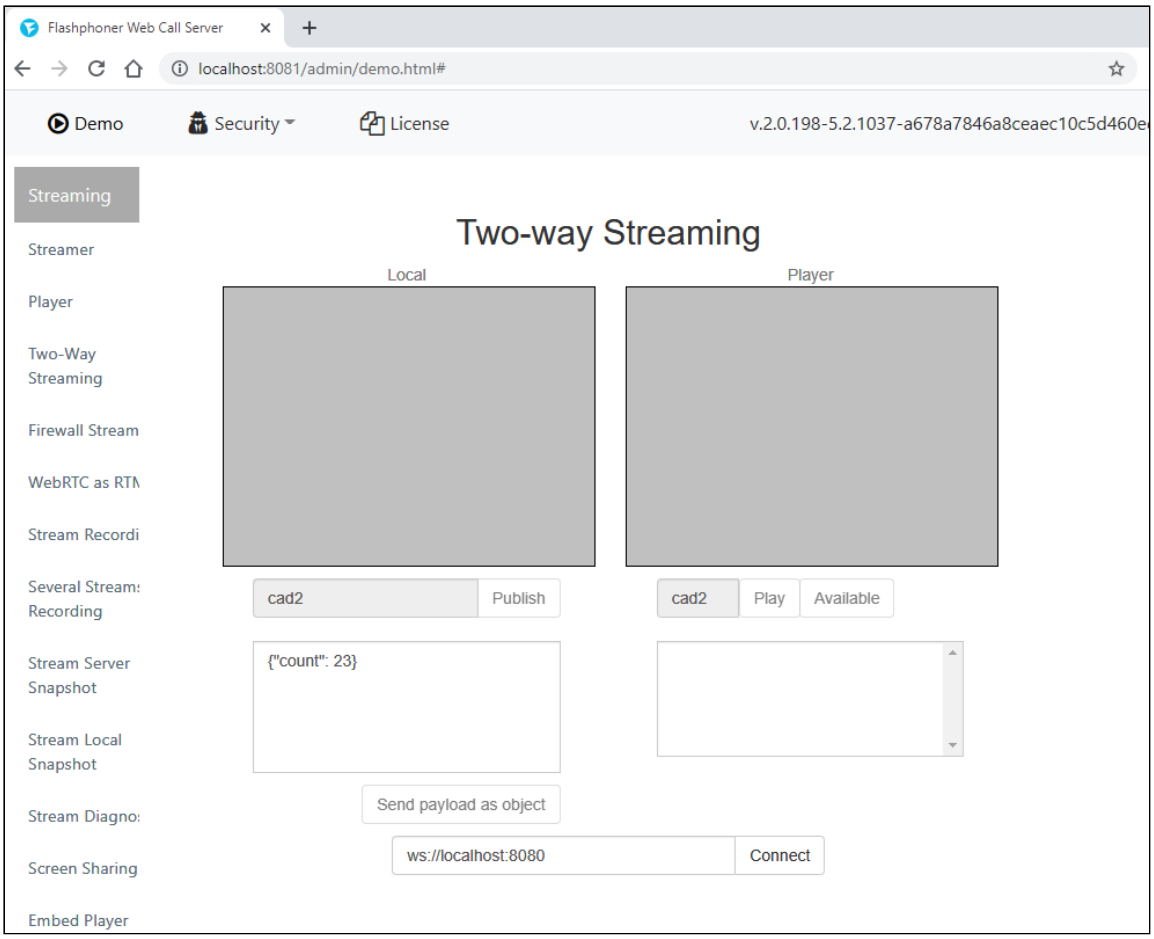
```
sudo ./webcallserver status
```

Testing

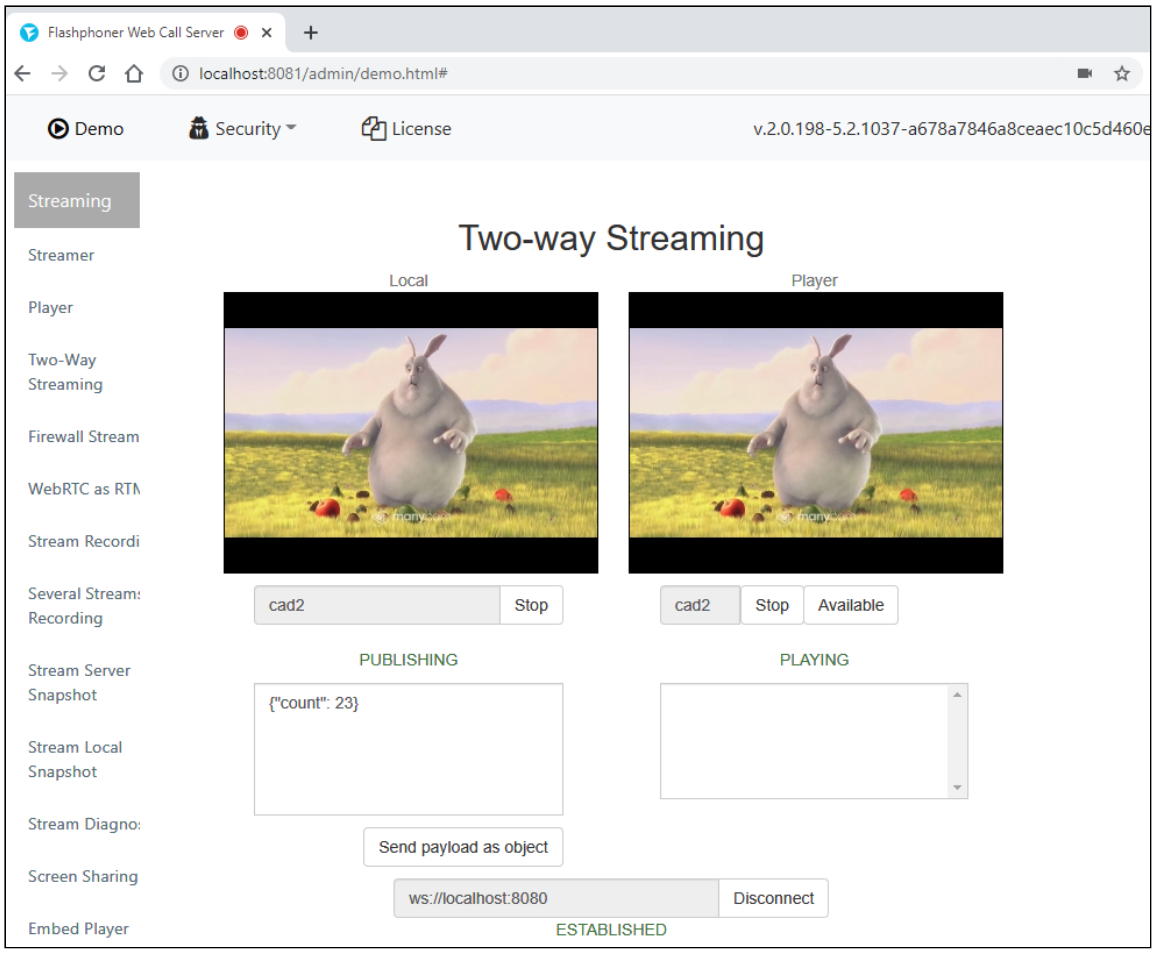
1. Open WCS web interface in local browser by the link http://localhost:8081/admin/ and enter user name demo, password demo



2. Choose Two Way Streaming example in left menu



3. Publish and play a stream in the example



Known issues

1. Only one WSL instance can run simultaneously

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

Symptoms: when WCS is started after PC reboot, streeam 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
```

Attachments:

- image2021-9-21_15-14-51.png (image/png)
- image2021-9-21_15-16-59.png (image/png)
- image2021-9-21_15-26-34.png (image/png)