

WCS в Amazon EC2

WCS-сервер может быть развернут в Amazon Elastic Compute Cloud (EC2) следующими способами:

Настройка виртуальной машины и установка WCS с нуля

Этим способом можно воспользоваться, если Вам необходима более тонкая настройка операционной системы, установка дополнительных компонентов и т.п. Запустите виртуальную машину Linux по [инструкции от AWS](#), настройте ее по необходимости, затем установите WCS [по краткой](#) или [подробной](#) инструкции.

Развертывание готового образа WCS из Amazon AWS Marketplace

1. Откройте [страницу Web Call Server](#) на Amazon AWS Marketplace, нажмите **Continue to Subscribe**:

Web Call Server 5
By: [Flashphoner](#) Latest Version: 5.2.267

WebRTC streaming media server designed for real-time low-latency streaming in browsers and native mobile apps, having SDKs for Web, iOS and Android. WCS uses a wide range of [Show more](#)

Linux/Unix ☆☆☆☆☆ (0) **BYOL** **Free Tier**

[Continue to Subscribe](#)

[Save to List](#)

Typical Total Price
\$0.100/hr
Total pricing per instance for services hosted on c4.large in US East (N. Virginia). [View Details](#)

[Overview](#) [Pricing](#) [Usage](#) [Support](#) [Reviews](#)

Product Overview

Web Call Server is a WebRTC streaming media server designed for real-time low-latency streaming in browsers and native mobile apps. WCS is supplied with SDKs (Software Development Kit) for Web, Android and iOS platforms. Each SDK has a dozen of open source samples presenting server capabilities. Using these three SDKs with convenient API, developers can create such low-latency streaming applications as video chats, live broadcasting, video conferencing, screen sharing, live video transcoding, and low-latency audio and video delivery to desktop and mobile browsers on Android and iOS platforms. WCS supports SIP protocol and can operate as a WebRTC-SIP gateway or RTMP-SIP gateway. Using these features, developers can implement own browser-based or mobile applications such as web-phone, click-to-call, and various telephony cases and VoIP integrations for calling to external mobile or landline phones or for processing of VoIP calls on browsers and mobile apps.

WCS supports RTSP protocol for work with IP cameras and CCTV systems. Using WCS, developers can create a cross-platform WebRTC mobile or browser-based application for low-latency video playback from IP cams and media servers with RTSP support.

WCS uses a wide range of communication technologies and protocols such as WebRTC, RTMP, RTMFP, WebSocket, WebSocket streaming, HLS, RTSP, and SIP.

Version **5.2.267**
[Show other versions](#)

Highlights

- WebRTC streaming with low-latency: web cam broadcasting, video chats, conferencing, stream recording, streaming from RTMP live encoders, low-latency streaming to iOS Safari, HLS streaming, WebRTC re-streaming to YouTube Live
- RTSP-HTML5 streaming from IP cameras, CCTV and media servers to browsers and mobile apps using WebRTC, RTMP and WebSocket streaming technologies
- WebRTC-SIP gateway and RTMP-SIP gateway features for two-way audio and video SIP calls between a browser or mobile app and standalone SIP and VoIP environment

2. Откроется страница с описанием продукта и почасовой стоимостью в зависимости от выбранной конфигурации сервера. Нажмите **Continue to Configuration**:

The screenshot shows the 'Web Call Server 5' product page. At the top right, there is a yellow button labeled 'Continue to Configuration' with a red arrow pointing to it. The main heading is 'Subscribe to this software'. Below this, there is a section for 'Terms and Conditions' and a 'Flashphoner Offer' section. A table lists the product details:

Product	Effective date	Expiration date	Action
Web Call Server 5	6/23/2016	N/A	Hide Details

Below the table, there is a section for 'Web Call Server 5 BYOL' with a table showing pricing for different EC2 instance types:

EC2 Instance Type	Software/hr
t2.micro	\$0
t2.small	\$0
t2.medium	\$0

3. Откроется страница конфигурации сервера. Выберите регион размещения сервера и нажмите **Continue to Launch**:

The screenshot shows the 'Web Call Server 5' configuration page. At the top right, there is a yellow button labeled 'Continue to Launch' with a red arrow pointing to it. The main heading is 'Configure this software'. Below this, there are three sections for configuration: 'Fulfillment Option' (64-bit (x86) Amazon Machine Image (AMI)), 'Software Version' (5.2.267 (Aug 02, 2019)), and 'Region' (US East (N. Virginia)). The 'Ami Id' is listed as ami-0bcc3eccd8134e445. On the right side, there is a 'Pricing information' sidebar with the following details:

Software Pricing
Web Call Server 5 BYOL running on c4.large: \$0/hr

Infrastructure Pricing
EC2: 1 * c4.large
Monthly Estimate: \$72.00/month

4. Откроется страница запуска сервера. Выберите тип виртуальной машины, который будет использован для создания экземпляра сервера:

The screenshot shows the 'Web Call Server 5' launch configuration page. At the top left is the Flashphoner logo. The main heading is 'Web Call Server 5'. Below it are navigation links: '< Product Detail', 'Subscribe', 'Configure', and 'Launch'. The main heading is 'Launch this software'. Below it is the instruction: 'Review your configuration and choose how you wish to launch the software.'

Configuration Details

Fulfillment Option	64-bit (x86) Amazon Machine Image (AMI) Web Call Server 5 <i>running on c4.large</i>
Software Version	5.2.267
Region	US East (N. Virginia)

[Usage Instructions](#)

Choose Action

Launch from Website Choose this action to launch from this website

EC2 Instance Type

c4.large

Memory: 3.75 GiB
CPU: 8 EC2 Compute Units (2 virtual cores with 4.0 Compute Units each)
Storage: EBS storage only
Network Performance: Moderate

5. Прокрутите страницу до настройки **Security Group Settings**, нажмите **Create New Based On Seller Settings**:

The screenshot shows the 'Security Group Settings' configuration page. The heading is 'Security Group Settings'. Below it is the text: 'A security group acts as a firewall that controls the traffic allowed to reach one or more instances. You can create a new security group based on seller-recommended settings or choose one of your existing groups. [Learn more](#)'. Below this is a dropdown menu with 'default' selected and a refresh icon. Below the dropdown is a button labeled 'Create New Based On Seller Settings'.

6. Отобразится страница создания Security Group. Укажите имя группы, описание и нажмите **Save**:

Create new based on seller settings

A new security group will be generated by AWS Marketplace. It is based on recommended settings for Web Call Server 5 version 5.2.267.

Name your security Group

WCS 5.2

Description

WCS server 5.2

Connection Method	Protocol	Port Range	Source (IP or Group)
SSH	tcp	22	Anywhē 0.0.0.0/0
	tcp	554	Anywhē 0.0.0.0/0
	udp	30000-33000	Anywhē 0.0.0.0/0
	tcp	8080-8084	Anywhē 0.0.0.0/0
	tcp	8443-8445	Anywhē 0.0.0.0/0
	tcp	8888	Anywhē 0.0.0.0/0
	tcp	9091	Anywhē 0.0.0.0/0
	tcp	1935	Anywhē 0.0.0.0/0
	udp	1935	Anywhē 0.0.0.0/0

Rules with source of 0.0.0.0/0 allows all IP addresses to access your instance. We recommend limiting access to only known IP addresses.

Cancel Save

7. Выберите новую группу в выпадающем списке:

Security Group Settings

A security group acts as a firewall that controls the traffic allowed to reach one or more instances. You can create a new security group based on seller-recommended settings or choose one of your existing groups. [Learn more](#)

WCS 5.2

Create New Based On Seller Settings

8. Нажмите Launch:

Flashphoner Web Call Server 5

Security Group Settings

A security group acts as a firewall that controls the traffic allowed to reach one or more instances. You can create a new security group based on seller-recommended settings or choose one of your existing groups. [Learn more](#)

WCS 5.2

Create New Based On Seller Settings

Key Pair Settings

To ensure that no other person has access to your software, the software installs on an EC2 instance with an EC2 key pair that you created.

test_key_pair

Create a key pair in EC2 [↗](#)
(Ensure you are in the region you wish to launch your software)

Launch

9. Отобразится сообщение об успешном запуске:

Congratulations! An instance of this software is successfully deployed on EC2!

AMI ID: `ami-0bcc3eccd8134e445` ([View Launch Configuration Details](#))

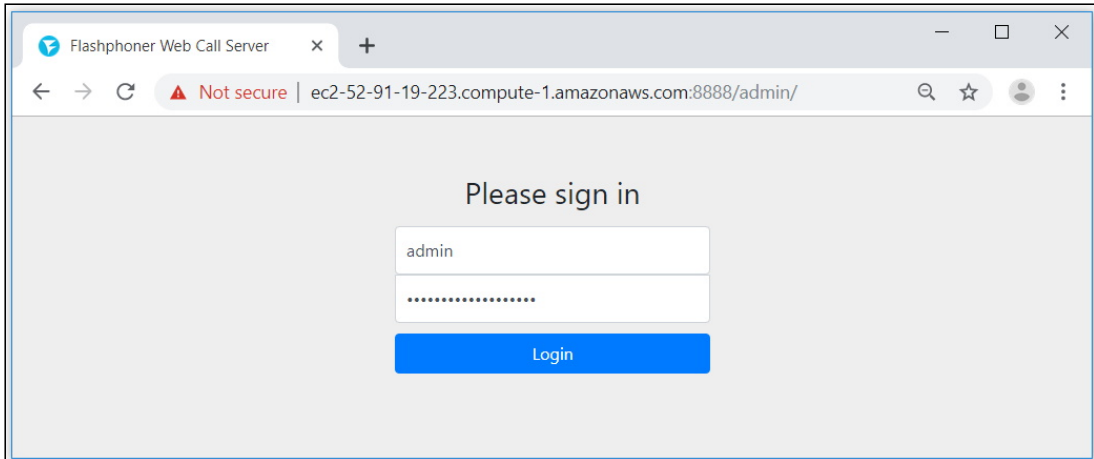
You can view this instance on [EC2 Console](#). You can also view all instances on [Your Software](#). Software and AWS hourly usage fees apply when the instance is running and will appear on your monthly bill.

10. Нажмите на ссылку **EC2 Console**. В разделе **Instances** найдите запущенную виртуальную машину:

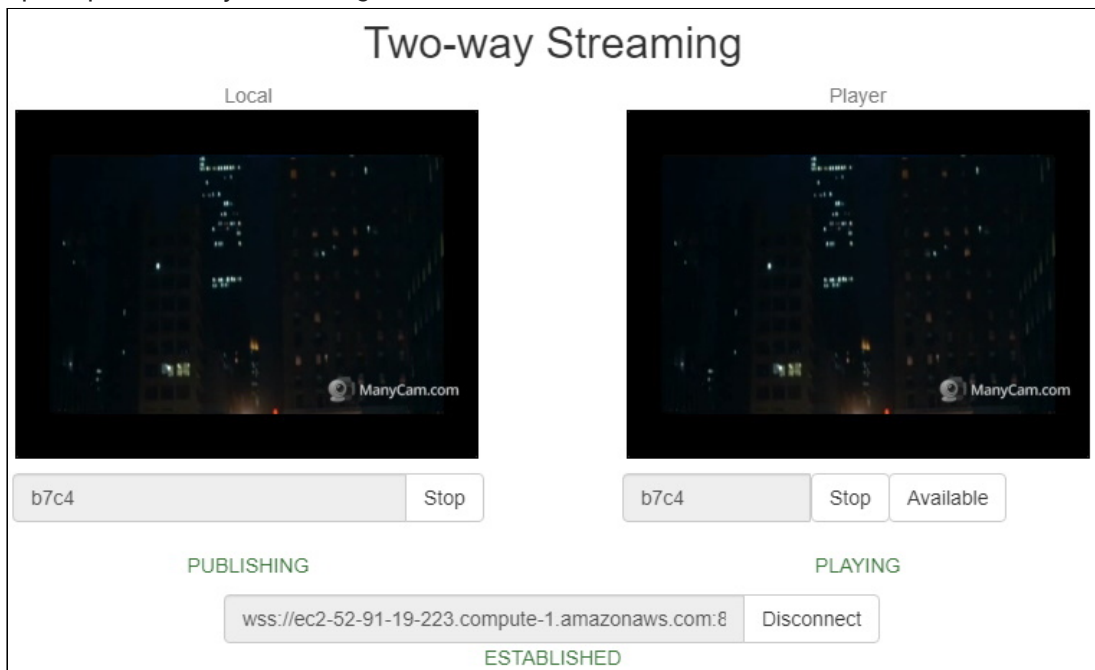
Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public DNS (IPv4)	IPv4 Public IP
	i-0edecdee2fe0b2bb3	t2.micro	us-east-1d	running	2/2 checks passed	None	ec2-52-91-19-223.comp...	52.91.19.223

11. Откройте в браузере адрес веб-интерфейса запущенного WCS-сервера `https://host.amazonaws.com:8888`, примите исключение безопасности. В качестве пароля администратора используйте Instance ID запущенной виртуальной

МАШИНЫ:



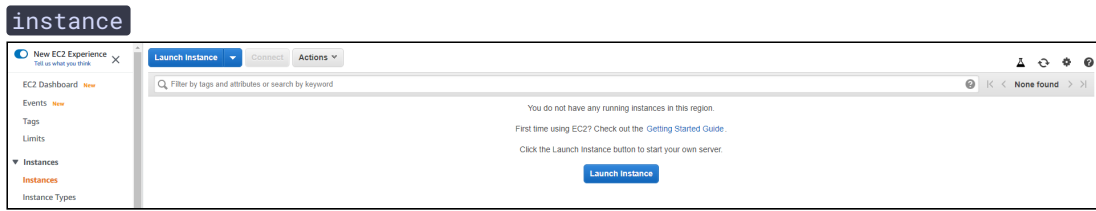
12. Проверьте публикацию и воспроизведение WebRTC-потока с веб-камеры на примере Two Way Streaming:



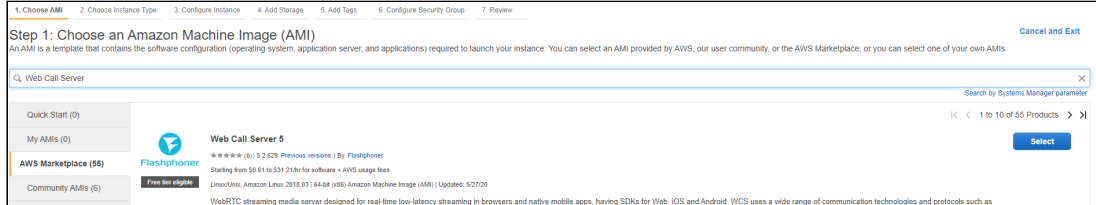
Развертывание WCS из образа на AWS Marketplace с дополнительной настройкой

Готовый образ WCS на AWS Marketplace содержит лишь базовые настройки. Для изменения настроек необходимо зайти по SSH в созданный экземпляр сервера и перезапустить WCS. Для получения готового к работе экземпляра "из коробки" можно указать пользовательский скрипт для изменения настроек при первом запуске сервера. Эта возможность полезна, например, при развертывании [группы масштабирования](#).

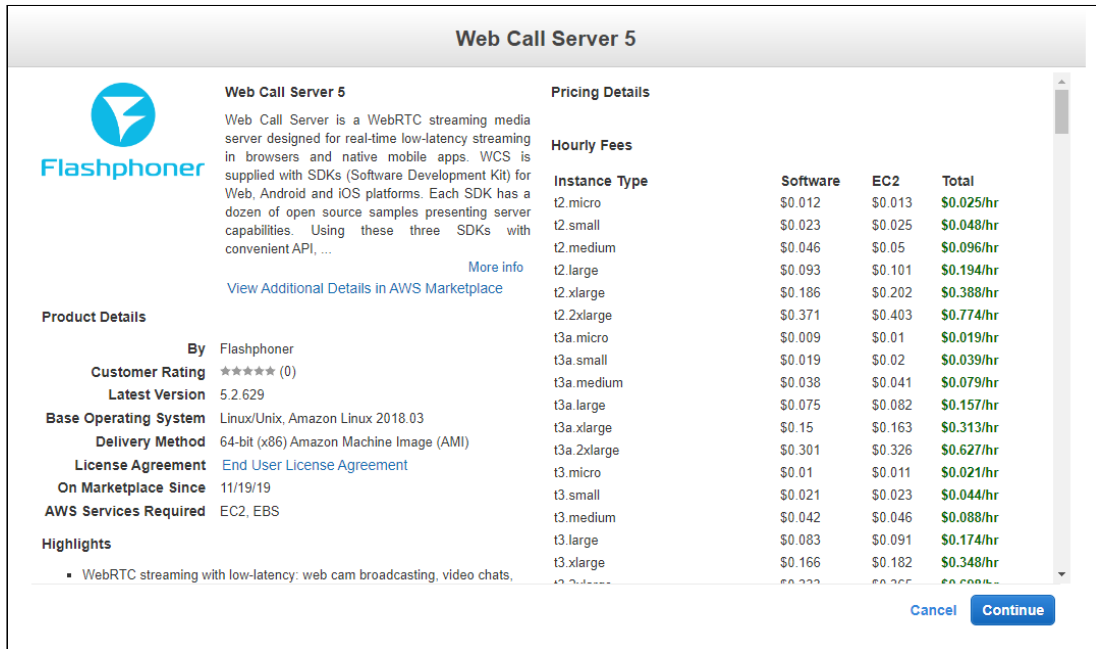
1. В EC2 Console перейдите в раздел **Instances** - **Instances** и нажмите **Launch**



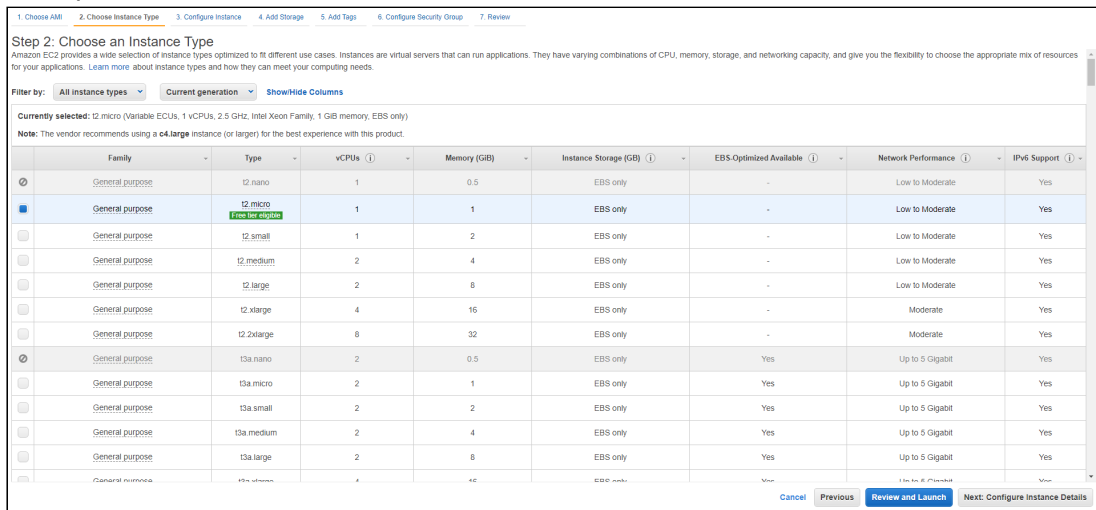
2. Выберите образ, указав при поиске "Web Call Server"



3. Просмотрите информацию об образе

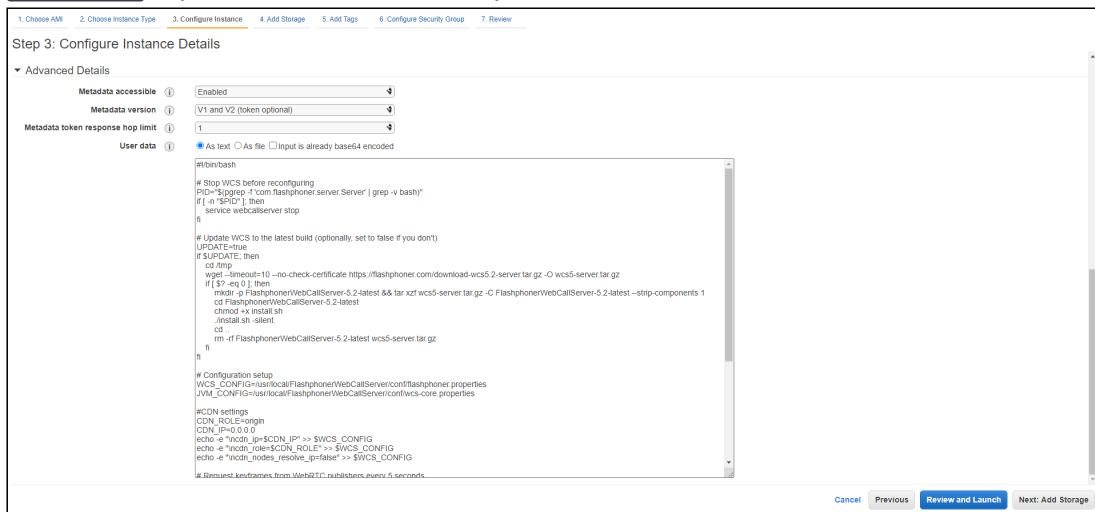


4. Выберите тип VM



5. Прокрутите вниз до конца страницу **Configure Instance Details** и вставьте в поле

User data скрипт обновления и настройки WCS



Пример скрипта, который обновляет WCS до последней сборки и настраивает Origin сервер для публикации WebRTC и RTMP потоков
??? example "Origin setup script"

```
#!/bin/bash

# Stop WCS before reconfiguring
PID=$(pgrep -f 'com.flashphoner.server.Server' | grep -v bash)
if [ -n "$PID" ]; then
    service webcallserver stop
fi

# Update WCS to the latest build (optionally, set to false if you don't)
UPDATE=true
if $UPDATE; then
    cd /tmp
    wget --timeout=10 --no-check-certificate https://flashphoner.com/download-wcs5.2-server.tar.gz -O wcs5-server.tar.gz
    if [ $? -eq 0 ]; then
        mkdir -p FlashphonerWebCallServer-5.2-latest && tar xzf wcs5-server.tar.gz -C FlashphonerWebCallServer-5.2-latest --strip-components 1
        cd FlashphonerWebCallServer-5.2-latest
        chmod +x install.sh
        ./install.sh -silent
        cd ..
        rm -rf FlashphonerWebCallServer-5.2-latest wcs5-server.tar.gz
    fi
fi

# Configuration setup
WCS_CONFIG=/usr/local/FlashphonerWebCallServer/conf/flashphoner.properties
JVM_CONFIG=/usr/local/FlashphonerWebCallServer/conf/wcs-core.properties

#CDN settings
CDN_ROLE=origin
CDN_IP=0.0.0.0
echo -e "\ncdn_ip=$CDN_IP" >> $WCS_CONFIG
echo -e "\ncdn_role=$CDN_ROLE" >> $WCS_CONFIG
echo -e "\ncdn_nodes_resolve_ip=false" >> $WCS_CONFIG
```



```

echo -e "\ncdn_ip=$CDN_IP" >> $WCS_CONFIG
echo -e "\ncdn_role=$CDN_ROLE" >> $WCS_CONFIG
echo -e "\ncdn_nodes_resolve_ip=false" >> $WCS_CONFIG

# Request keyframes from WebRTC publishers every 5 seconds
echo -e "\nperiodic_fir_request=true" >> $WCS_CONFIG

# Disable RTMP keepalives to publish from OBS
echo -e "\nkeep_alive.enabled=websocket,rtmfp" >> $WCS_CONFIG

# Configure heap settings
HEAP_SIZE=512m
sed -i -e "s/^\(-Xmx\).*\$/\1$HEAP_SIZE/" $JVM_CONFIG

# Start WCS after reconfiguring
PID="$(pgrep -f 'com.flashphoner.server.Server' | grep -v bash)"
if [ -n "$PID" ]; then
    service webcallserver restart
else
    service webcallserver start
fi

# Disable internal firewall, ports are allowed/blocked on security group
level
iptables -F

```

6. Настройте группу безопасности. По умолчанию, группа будет создана из настроек образа. При необходимости, добавьте порты

1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

Step 6: Configure Security Group

A security group is a set of firewall rules that control the traffic for your instance. On this page, you can add rules to allow specific traffic to reach your instance. For example, if you want to set up a web server and allow internet traffic to reach your instance, add rules that allow unrestricted access to the HTTP and HTTPS ports. You can create a new security group or select from an existing one below. [Learn more](#) about Amazon EC2 security groups.

Assign a security group: Create a new security group
 Select an existing security group

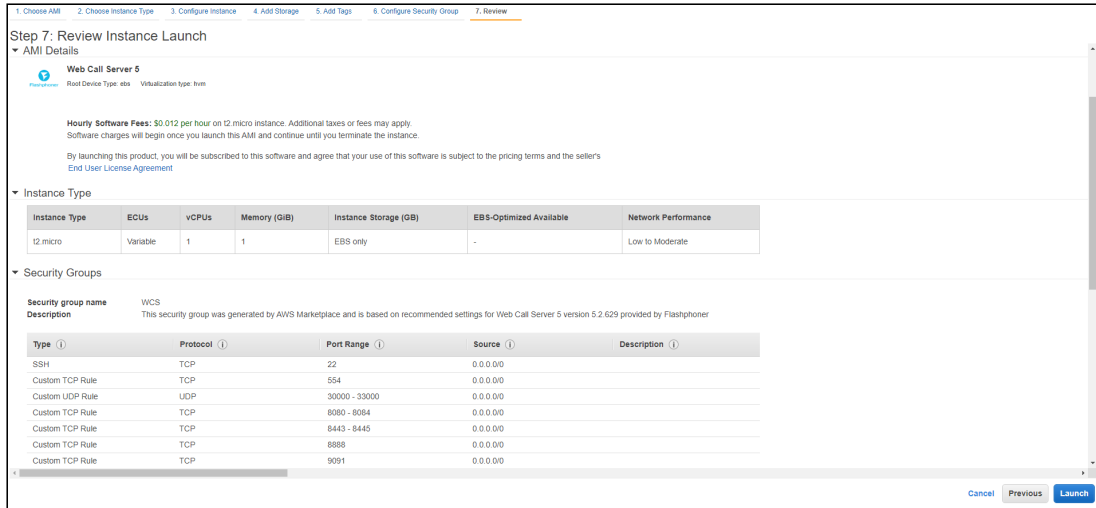
Security group name:

Description:

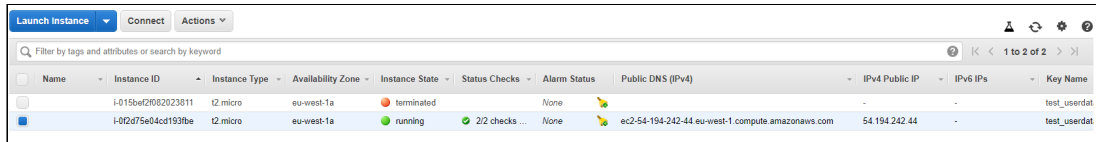
Type	Protocol	Port Range	Source	Description
SSH	TCP	22	Custom 0.0.0.0/0	e.g. SSH for Admin Desktop
Custom TCP I	TCP	554	Custom 0.0.0.0/0	e.g. SSH for Admin Desktop
Custom UDP I	UDP	30000 - 33000	Custom 0.0.0.0/0	e.g. SSH for Admin Desktop
Custom TCP I	TCP	8080 - 8084	Custom 0.0.0.0/0	e.g. SSH for Admin Desktop
Custom TCP I	TCP	8443 - 8445	Custom 0.0.0.0/0	e.g. SSH for Admin Desktop
Custom TCP I	TCP	8888	Custom 0.0.0.0/0	e.g. SSH for Admin Desktop
Custom TCP I	TCP	9091	Custom 0.0.0.0/0	e.g. SSH for Admin Desktop
Custom TCP I	TCP	1935	Custom 0.0.0.0/0	e.g. SSH for Admin Desktop
Custom UDP I	UDP	1935	Custom 0.0.0.0/0	e.g. SSH for Admin Desktop

Warning
 Rules with source of 0.0.0.0/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only.

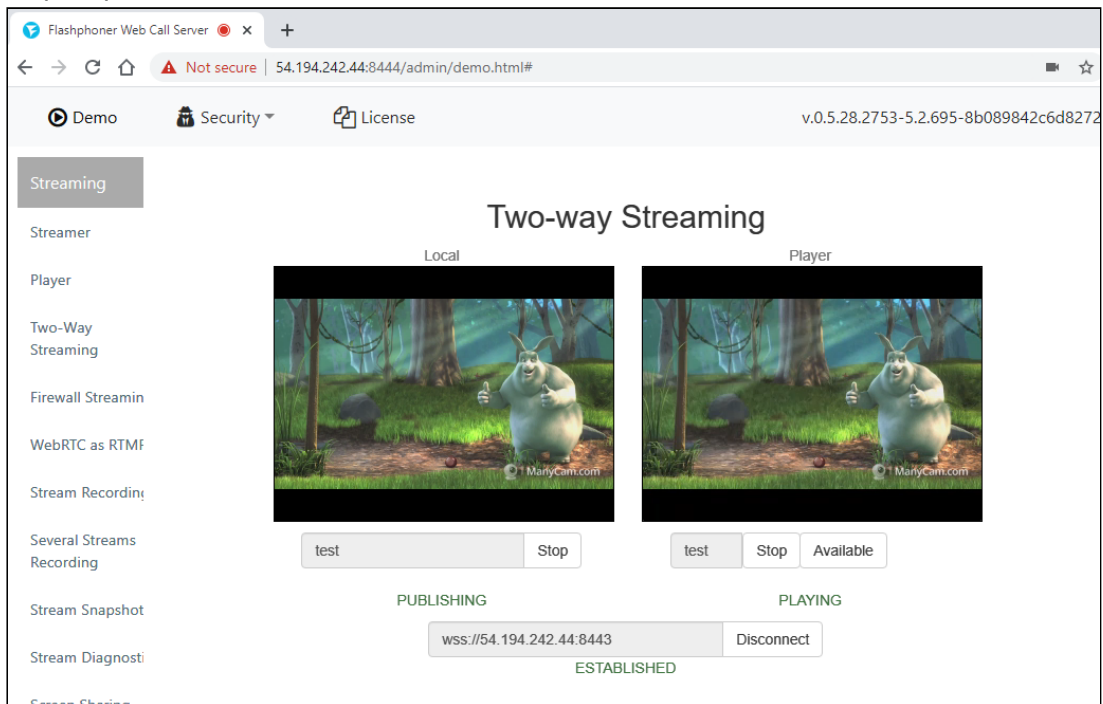
7. Нажмите **Review and Launch**. Если в параметрах нет ошибок, нажмите **Launch**



Будет запущен экземпляр сервера



8. Откройте веб интерфейс сервера, опубликуйте поток в примере Two Way Streaming и проиграйте его



Известные проблемы

1. При переходе к Amazon Linux 2 AMI в качестве базового образа, для управления сервисами используется systemd



Симптомы

Команда

```
sudo service webcallserver start
```

возвращает

```
Redirecting to /bin/systemctl start webcallserver.service
```

КОМАНДА

```
sudo service webcallserver check_update
```

не работает



Решение

а) для запуска, остановки, перезапуска использовать `systemctl`

```
sudo systemctl start webcallserver  
sudo systemctl stop webcallserver  
sudo systemctl restart webcallserver
```

б) для проверки обновлений использовать скрипт `webcallserver`

```
cd /usr/local/FlashphonerWebCallServer/bin  
sudo ./webcallserver check_update  
sudo ./webcallserver update
```