

DVS-100/200 Installation Guide

DVS-100/200 can be installed on any system running the **Ubuntu 14.04 64** bit Linux operating system, the guide below covers some common installation scenarios.

The installation procedure for DVS-100 and DVS-200 is the same. Once installed the software will be running in free mode (DVS-100) you must install a valid licence to enable DVS-200 features.

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System resource recommendations

The guide below makes some recommendations on system specifications, please use these as guidelines only. We assume one 1Mbps video stream with 96Kbps audio, the max viewer count is per instance (per server).

On-Premise Installations

8GB of RAM and a SSD (Solid state drive) is recommended for larger audiences, approximate network limitations are as below.

Network Speed	Viewers (Per Instance)
10 Mbps	8
100 Mbps	80
1000 Mbps	800

Add more instances or additional network interfaces as audience size increases

For encoding / transcoding HD video we recommend a 4 core 7th generation i7 CPU and 8GB ram at minimum.

Cloud hosting installations

Hosting Examples

Digital Ocean

Digital Ocean is ideal for scenarios with low viewer counts.

All Digital Ocean instances share a 1Gbps connection to the internet, Digital Ocean recommend consistently not exceeding 300Mbps I/O.

Hosting Plan	Viewers (Per Instance)
\$5 USD PM	50
\$10 USD PM	150

Add more instances as audience size increases

Amazon AWS

Hosting Plan	Viewers (Per Instance)
M1.small	120
M1.medium	285
m1.xlarge	570

Add more instances as audience size increases

Massive Grid

Massive grid offer affordable dedicated servers with dedicated 1Gbps connectivity.

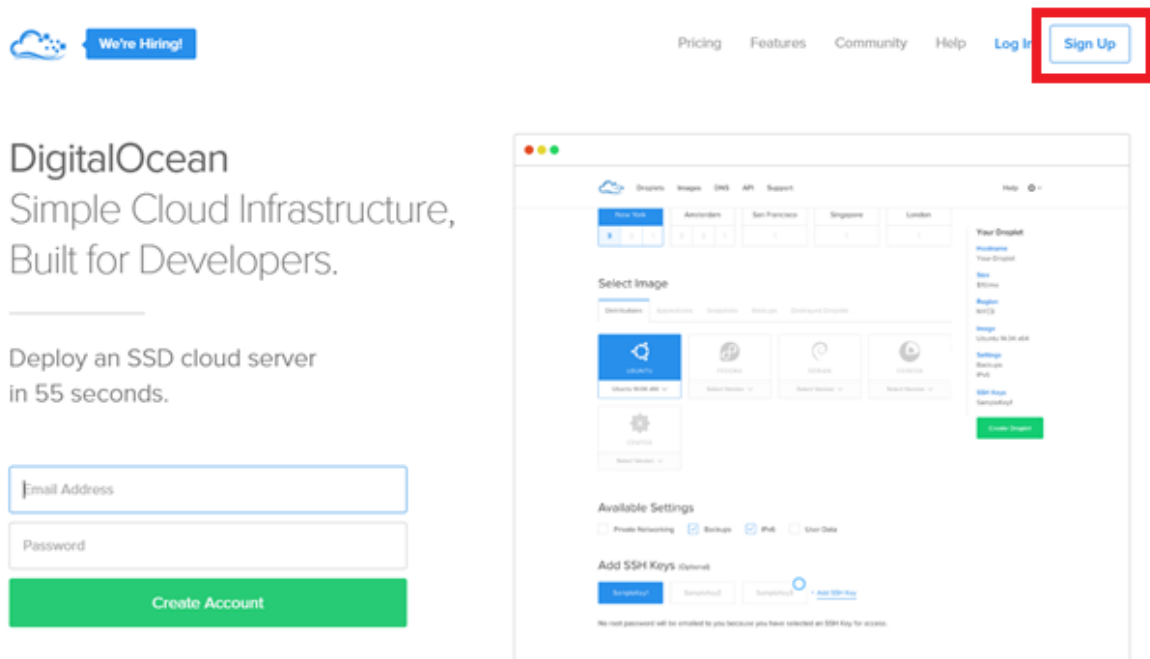
Hosting Plan	Viewers (Per Instance)
Managed Dedicated I	800

Add more instances as audience size increases

Installation Walkthroughs

Digital Ocean

Visit www.digitalocean.com and sign up for a new account



Once you have created your account click the 'Create Droplet' button









You will see the page below.

Finally you need to select an image, please choose **Ubuntu 14.04 x64**.

Choose an image 

Distributions

One-click apps

 Ubuntu 14.04.5 x64 ▾	 FreeBSD Select version ▾	 Fedora Select version ▾	 Debian Select version ▾	 CoreOS Select version ▾	 CentOS Select version ▾
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Next choose a size, the size required depends on how many users you need to serve. Use the guide at the begging of this document to help with selection.

Select Size

\$5 /mo \$0.007/hour 512 MB / 1 CPU 20 GB SSD Disk 1000 GB Transfer	\$10 /mo \$0.015/hour 1 GB / 1 CPU 30 GB SSD Disk 2 TB Transfer	\$20 /mo \$0.030/hour 2 GB / 2 CPUs 40 GB SSD Disk 3 TB Transfer	\$40 /mo \$0.060/hour 4 GB / 2 CPUs 60 GB SSD Disk 4 TB Transfer	\$80 /mo \$0.119/hour 8 GB / 4 CPUs 80 GB SSD Disk 5 TB Transfer
\$160 /mo \$0.238/hour 16 GB / 8 CPUs 160 GB SSD Disk 6 TB Transfer	\$320 /mo \$0.476/hour 32 GB / 12 CPUs 320 GB SSD Disk 7 TB Transfer	\$480 /mo \$0.714/hour 48 GB / 16 CPUs 480 GB SSD Disk 8 TB Transfer	\$640 /mo \$0.952/hour 64 GB / 20 CPUs 640 GB SSD Disk 9 TB Transfer	

Next select the region closest to you for best performance.

Select Region

 New York	 Amsterdam	 San Francisco	 Singapore	 London
321	321	1	1	1

Now check the 'User data box' and copy the text below into the text box.

#cloud-config

runcloud:

- wget http://updates.datavideo.co.uk/install-dvss.sh
- bash install-dvss.sh

Please ensure it looks like the image below.

Select additional options ?

☐ Private networking ☐ Backups ☐ IPv6 ☒ User data ☐ Monitoring

```
#cloud-config
runcloud:
  - wget http://updates.datavideo.co.uk/install-dvss.sh
  - bash install-dvss.sh
```

Finally give your Droplet a hostname (here I have chosen DVSS) and Click create the droplet to finish.

Finalize and create

How many Droplets?

Deploy multiple Droplets with the same [configuration](#).

—

1 Droplet

+

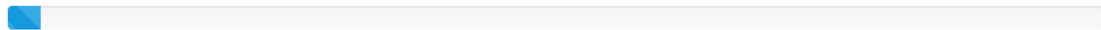
Choose a hostname

Give your Droplets an identifying name you will remember them by. Your Droplet name can only contain alphanumeric characters, dashes, and periods.

[Add Tags](#)



Create

We are now creating your droplet



Approximately 58 seconds remaining

Once complete the IP address will be shown.

Name	IP Address	Created ▲	Tags
 ubuntu-512mb-lon1-01 512 MB / 20 GB Disk / LON1 - Ubuntu 14.04.5 x64	138.68.169. 	12 minutes ago	More ▼

Simply enter the Droplets IP address into a web browser to access the login page. **If the login page doesn't show please wait 60 seconds for the installation to complete.**

Enter Your Login Credentials

Login Screen

Login User

User Password

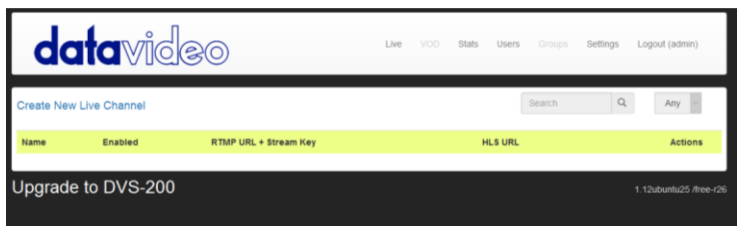
Login

The default credentials are:

User: admin

Password: 000000

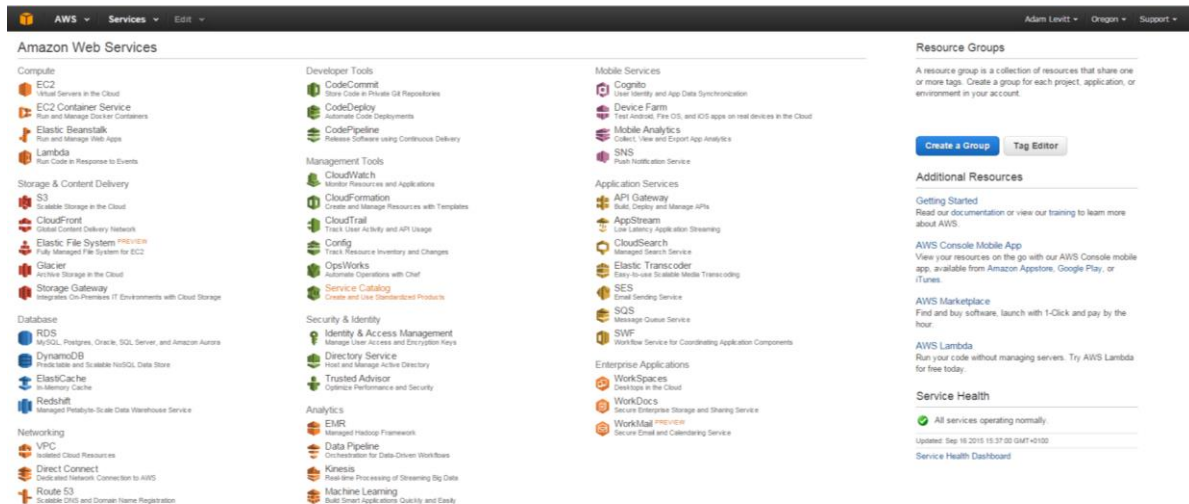
After logging in you will see the software is running in free (DVS-100) mode, to enable DVS-200 features you need a valid licence.



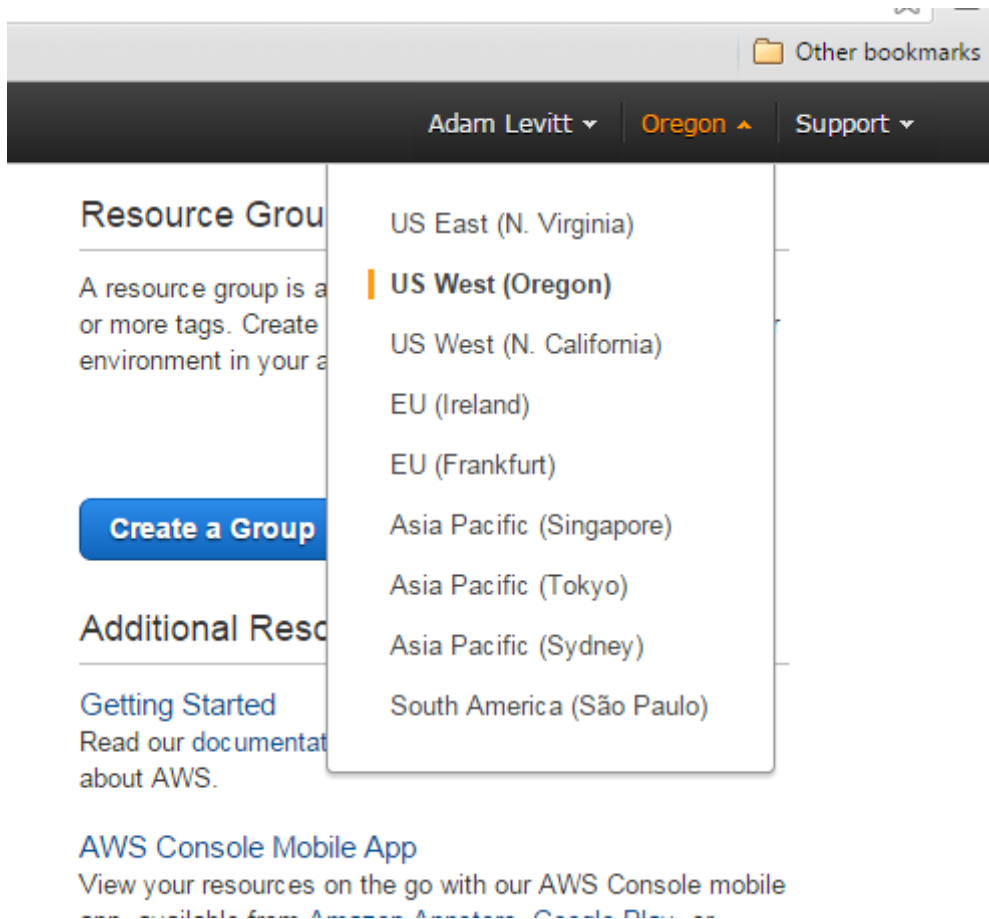
Installation on Amazon AWS Cloud

Visit <http://aws.amazon.com> and sign up for a new account

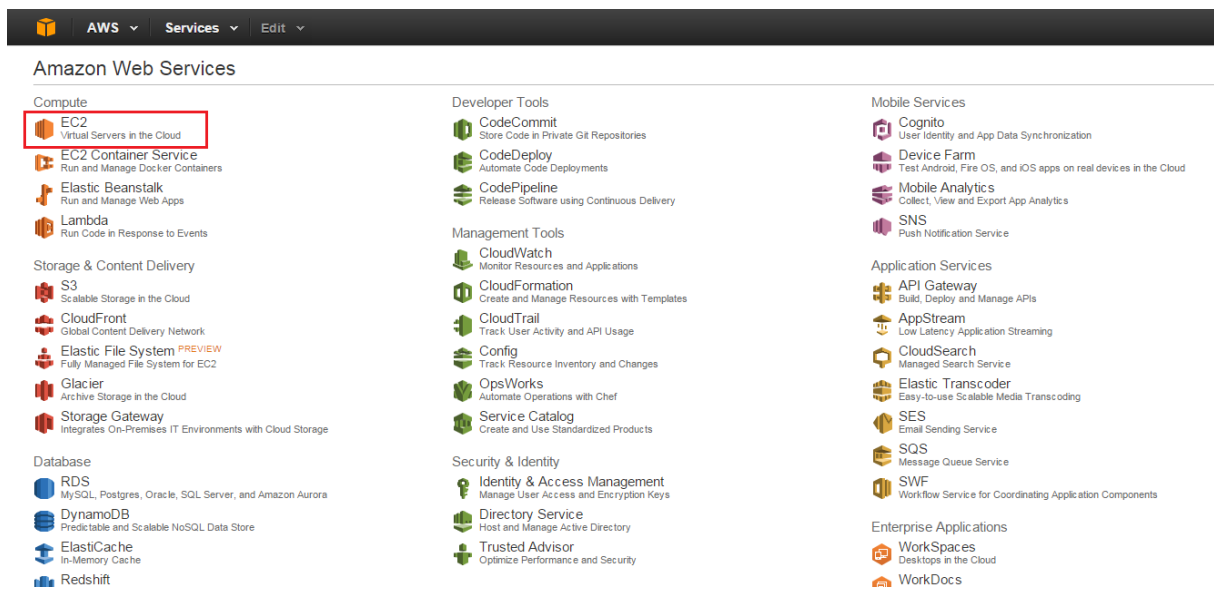
Once you have created your account sign in and you will see the page below



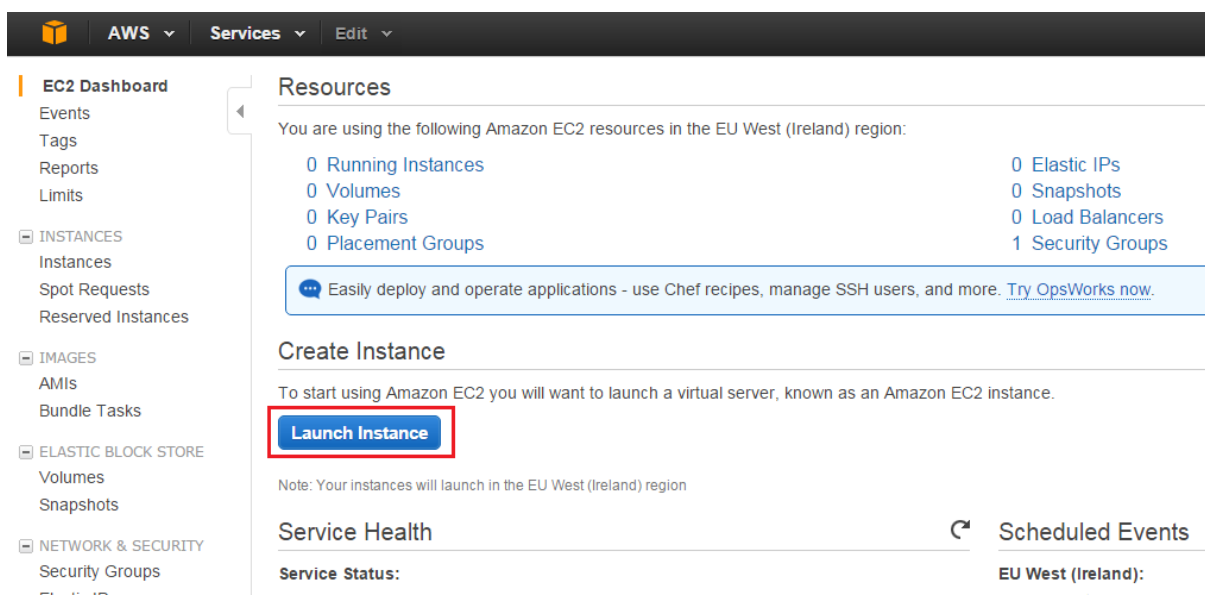
First change the region in the top right corner to the region where you would like to setup your cloud server



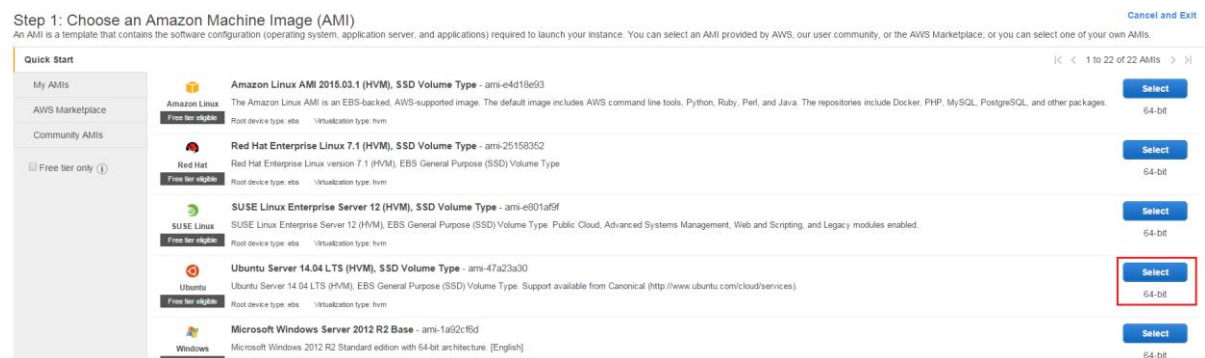
Now click the 'EC2' link under compute to the left of the page



Click the 'Launch Instance' button



Select the **Ubuntu 14.04 64 bit** image as shown below



Now select your instance type, the size required depends on how many users you need to serve. Use the guide at the beginning of this document to help with selection.

	Family	Type	vCPUs	Memory (GiB)	Instance Storage (GiB)	EBS-Optimized Available	Network Performance
<input checked="" type="checkbox"/>	General purpose	t2.micro <small>Free tier eligible</small>	1	1	EBS only	-	Low to Moderate
<input type="checkbox"/>	General purpose	t2.small	1	2	EBS only	-	Low to Moderate
<input type="checkbox"/>	General purpose	t2.medium	2	4	EBS only	-	Low to Moderate
<input type="checkbox"/>	General purpose	t2.large	2	8	EBS only	-	Low to Moderate
<input type="checkbox"/>	General purpose	m4.large	2	8	EBS only	Yes	Moderate
<input type="checkbox"/>	General purpose	m4.xlarge	4	16	EBS only	Yes	High
<input type="checkbox"/>	General purpose	m4.2xlarge	8	32	EBS only	Yes	High
<input type="checkbox"/>	General purpose	m4.4xlarge	16	64	EBS only	Yes	High
<input type="checkbox"/>	General purpose	m4.10xlarge	40	160	EBS only	Yes	10 Gigabit
<input type="checkbox"/>	General purpose	m3.medium	1	3.75	1 x 4 (SSD)	-	Moderate
<input type="checkbox"/>	General purpose	m3.large	2	7.5	1 x 32 (SSD)	-	Moderate

Once you have selected an instance size proceed and click the 'Review and Launch' button.



Click the 'Edit security groups' link

Step 7: Review Instance Launch
Please review your instance launch details. You can go back to edit changes for each section. Click **Launch** to assign a key pair to your instance and complete the launch process.

⚠ Improve your instances' security. Your security group, launch-wizard-1, is open to the world.
Your instances may be accessible from any IP address. We recommend that you update your security group rules to allow access from known IP addresses only. You can also open additional ports in your security group to facilitate access to the application or service you're running, e.g., HTTP (80) for web servers. [Edit security groups](#)

AMI Details [Edit AMI](#)

Ubuntu Server 14.04 LTS (HVM), SSD Volume Type - ami-47a23a30
Free tier eligible
 Ubuntu Server 14.04 LTS (HVM), EBS General Purpose (SSD) Volume Type. Support available from Canonical (<http://www.ubuntu.com/cloud/services>).
Root Device Type: ebs Virtualization type: hvm

Instance Type [Edit instance type](#)

Instance Type	ECUs	vCPUs	Memory (GiB)	Instance Storage (GB)	EBS-Optimized Available	Network Performance
t2.micro	Variable	1	1	EBS only	-	Low to Moderate

Security Groups [Edit security groups](#)

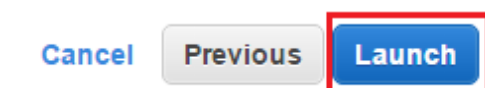
Add two new custom TCP rules for ports 80 and 1935 as shown below.

Type	Protocol	Port Range	Source
SSH	TCP	22	Anywhere
Custom TCP Rule	TCP	1935	Anywhere
Custom TCP Rule	TCP	80	Anywhere

Click the 'Review and launch' button again



Click the 'Launch' button



You will see the prompt below. Choose to create a new key pair and give the key pair a name.

Select an existing key pair or create a new key pair

A key pair consists of a **public key** that AWS stores, and a **private key file** that you store. Together, they allow you to connect to your instance securely. For Windows AMIs, the private key file is required to obtain the password used to log into your instance. For Linux AMIs, the private key file allows you to securely SSH into your instance.

Note: The selected key pair will be added to the set of keys authorized for this instance. Learn more about [removing existing key pairs from a public AMI](#).

Create a new key pair

Key pair name

DVS100

Download Key Pair

You have to download the **private key file** (*.pem file) before you can continue. **Store it in a secure and accessible location.** You will not be able to download the file again after it's created.

Cancel

Launch Instances

Click the 'Download Key Pair' button and save the file somewhere safe (you will need it later) before clicking the 'Launch Instance' button. You will see the page below, click the 'View Instances' button to proceed.

Launch Status

✓ Your instances are now launching

The following instance launches have been initiated: [i-750x29di](#) [View launch log](#)

📧 Get notified of estimated charges

Create billing alerts to get an email notification when estimated charges on your AWS bill exceed an amount you define (for example, if you exceed the free usage tier).

How to connect to your instances

Your instances are launching, and it may take a few minutes until they are in the **running** state, when they will be ready for you to use. Usage hours on your new instances will start immediately and continue to accrue until you stop or terminate your instances. Click [View Instances](#) to monitor your instances' status. Once your instances are in the **running** state, you can **connect** to them from the Instances screen. [Find out](#) how to connect to your instances.

▼ Here are some helpful resources to get you started:

• [How to connect to your Linux instance](#)

• [Learn about AWS Free Usage Tier](#)

• [Amazon EC2: User Guide](#)

• [Amazon EC2: Discussion Forum](#)

While your instances are launching you can also:

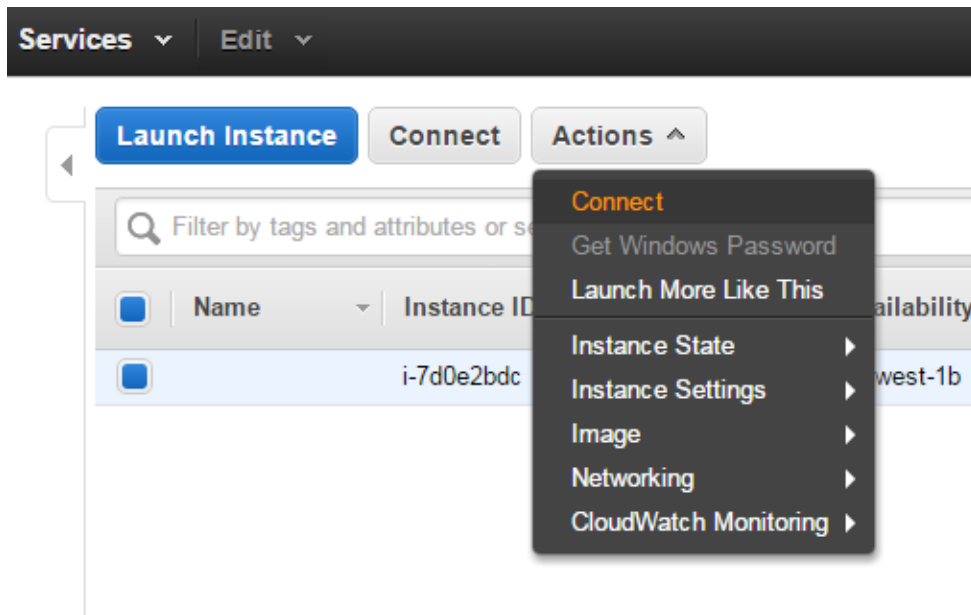
Create status check alarms to be notified when these instances fail status checks. (Additional charges may apply)

Create and attach additional EBS volumes. (Additional charges may apply)

Manage security groups

View Instances

Select 'Connect' from the actions menu



You will see the prompt below. Follow the instructions to connect to your instance via SSH.

Connect To Your Instance

I would like to connect with

☐ A standalone SSH client

☒ A Java SSH Client directly from my browser (Java required)

Enter the required information in the fields below to connect to your instance. AWS automatically detects the key pair name, and Public IP for your instance. You need to enter the location and name of the .pem file containing your private key.

Public IP	54.72.253.137
User name	<input type="text" value="ubuntu"/>
Key name	DVS100.pem
Private key path	<input type="text" value="eg. C:\KeyPairs\DVS100.pem"/>
Save key location	<input type="checkbox"/> Store in browser cache

Once connected via SSH execute the following commands on the server.

```
wget http://updates.datavideo.co.uk/install-dvss.sh -O - | bash
```

Once installation is complete enter the instances public IP or public DNS into a web browser to connect to the DVS-200 web interface.

Enter Your Login Credentials

Login Screen

Login User

User Password

Login

The default credentials are:

User: admin

Password: 000000

After logging in you will see the software is running in free (DVS-100) mode, to enable DVS-200 features you need a valid licence.

datavideo

Live VOD Stats Users Groups Settings Logout (admin)

Create New Live Channel

Search

Any

Name	Enabled	RTMP URL + Stream Key	HLS URL	Actions
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Upgrade to DVS-200

1.12ubuntu25 / free-r26

Generic Installation Instructions (All Providers)

Automated Script

The following command can be executed on any system running the **Ubuntu 14.04 64** bit Linux operating system.

Ensure the system has internet access and execute the commands below as the root user to install DVS-200.

```
wget http://updates.datavideo.co.uk/install-dvss.sh -O - | bash
```

After a successful installation the stream server's web interface will be running on port 80.

Manual installation (Advanced Users)

Prerequisites

libv4lconvert0 libv4l-0 libv4l2rds0 v4l-utils libasound2 libyaml-0-2 libass4 libmp3lame0 libopencore-amrnb0 libopencore-amrwb0 libopus0 libpulse0 libSDL2-2.0-0 libsoxr0 libspeex1 libva-drm1 libva-x11-1 libva1 libvdpau1 libwavpack1 libx264-142 libxcb-shape0 libxcb-shm0 libxv1 libxvidcore4 libluajit-5.1-2 libluajit-5.1-common libdouble-conversion1 liblz4-1 libpq5 libsnappy1 php5-fpm php5-cli binutils ghostscript gsfonts imagemagick-common libavahi-client3 libavahi-common-data libavahi-common3 libboost-context1.54.0 libboost-filesystem1.54.0 libboost-program-options1.54.0 libboost-regex1.54.0 libboost-system1.54.0 libboost-thread1.54.0 libc-client2007e libcups2 libcupsfilters1 libcupsimage2 libfftw3-double3 libgd3 libgflags2 libgoogle-glog0 libgs9 libgs9-common libijs-0.35 libjasper1 libjbig0 libjbig2dec0 libjemalloc1 libjpeg-turbo8 libjpeg8 liblcms2-2 liblqr-1-0 libltdl7 libmagickcore5 libmagickwand5 libmcrypt4 libmemcached10 libmysqlclient18 libonig2 libpaper-utils libpaper1 libsqlcipher0 libtbb2 libtiff5 libunwind8 libvpx1 libxpm4 libxslt1.1 mlock mysql-common poppler-data php5-curl libgmp10 alsa alsa-tools alsa-utils

Packages

http://updates.datavideo.co.uk/updates/debian/hhvm_3.15.2~trusty_amd64.deb

http://updates.datavideo.co.uk/updates/debian/nginx-dvss_1.8.0-4ubuntu50_amd64.deb

http://updates.datavideo.co.uk/updates/debian/nginx-dvss-webui_1.12ubuntu35_all.deb

http://updates.datavideo.co.uk/updates/debian/ffmpeg_3.1.4+git1~trustyubuntu21_amd64.deb

Hardware I/O Card Support

Datavideo

Datavideo have a range of hardware encoding cards, all are supported by the driver package below.

http://updates.datavideo.co.uk/updates/debian/datavideo+h264+cards_1.1.0.101.600_amd64.deb

Blackmagic Design

We support all Decklink, Mini Monitor and Mini Recorder cards by Blackmagic Design. You must install Desktop Video version 10.8.4 or newer.