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.

<table>
<thead>
<tr>
<th>Network Speed</th>
<th>Viewers (Per Instance)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 Mbps</td>
<td>8</td>
</tr>
<tr>
<td>100 Mbps</td>
<td>80</td>
</tr>
<tr>
<td>1000 Mbps</td>
<td>800</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Hosting Plan</th>
<th>Viewers (Per Instance)</th>
</tr>
</thead>
<tbody>
<tr>
<td>$5 USD PM</td>
<td>50</td>
</tr>
<tr>
<td>$10 USD PM</td>
<td>150</td>
</tr>
</tbody>
</table>

Add more instances as audience size increases

Amazon AWS

<table>
<thead>
<tr>
<th>Hosting Plan</th>
<th>Viewers (Per Instance)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M1.small</td>
<td>120</td>
</tr>
<tr>
<td>M1.medium</td>
<td>285</td>
</tr>
<tr>
<td>m1.xlarge</td>
<td>570</td>
</tr>
</tbody>
</table>

Add more instances as audience size increases
Massive Grid

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

<table>
<thead>
<tr>
<th>Hosting Plan</th>
<th>Viewers (Per Instance)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managed Dedicated I</td>
<td>800</td>
</tr>
</tbody>
</table>

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

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.
Next select the region closest to you for best performance.

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

```bash
#cloud-config

runcmd:

- 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.

Once complete the IP address will be shown.

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.

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.

One you have selected and instance size proceed and click the ‘Review and Launch’ button.

Click the ‘Edit security groups’ link.

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

Click the ‘Review and launch’ button again.

Click the ‘Launch’ button.
You will see the prompt blow. Choose to create a new key pair and give the key pair a name.

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.

Select ‘Connect’ from the actions menu
You will see the prompt below. Follow the instructions to connect to your instance via SSH.

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.
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.
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.

```bash
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`
- `libsdx2-2.0-0`
- `libsoxr0`
- `libspeex1`
- `libva-drm1`
- `libva-x11-1`
- `libvdpau1`
- `libwavpack1`
- `libx264-142`
- `libxcb-shm0`
- `libxvidcore4`
- `libluajit-5.1-2`
- `libluajit-5.1-common`
- `libdouble-conversion1`
- `liblz4-1`
- `libpq5`
- `libsnappy1`
- `php5-fpm`
- `php5-cli`
- `binutils`
- `ghosftscript`
- `gsfonts`
- `imagemagick`
- `ghostscript`
- `gsl-common`
- `gsl-sh2`
- `libavahi-client3`
- `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`
- `libcupscimage`
- `libfftw3-double3`
- `libgd3`
- `libgflags2`
- `libgoogle-glog0`
- `libgs9`
- `libgs9-common`
- `libjbig0`
- `libjpeg-turbo8`
- `libjpeg8`
- `liblcms2-2`
- `liblqr-1-0`
- `libltdl7`
- `libmagiccore5`
- `libmagicwand5`
- `libmcrypt4`
- `libmemcached10`
- `libmysqlclient18`
- `libonig2`
- `libpaper-utils`
- `libpaper1`
- `libpq5`
- `libtbb2`
- `libtiff5`
- `libunwind8`
- `libvpx1`
- `libxml2-2.7.5`
- `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/hhvm_3.15.2~trusty_amd64.deb)
- [http://updates.datavideo.co.uk/updates/debian/nginx-dvss_1.8.0-4ubuntu45_amd64.deb](http://updates.datavideo.co.uk/updates/debian/nginx-dvss_1.8.0-4ubuntu45_amd64.deb)
- [http://updates.datavideo.co.uk/updates/debian/nginx-dvss-webui_1.12ubuntu29_all.deb](http://updates.datavideo.co.uk/updates/debian/nginx-dvss-webui_1.12ubuntu29_all.deb)
- [http://updates.datavideo.co.uk/updates/debian/ffmpeg_3.1.4+git1~trustyubuntu9_amd64.deb](http://updates.datavideo.co.uk/updates/debian/ffmpeg_3.1.4+git1~trustyubuntu9_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_1.1.0.101.569_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.