

# DVS-100P Configuration Guide

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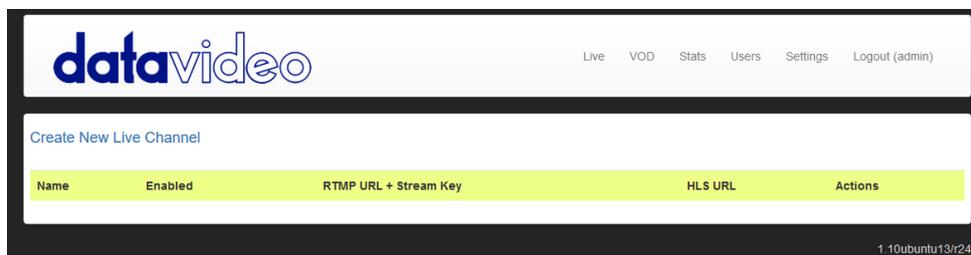
**DVS-100P**

## Web UI Overview

Once you login (Defaults User: admin Password: 000000) you will be presented with the screen shown below.

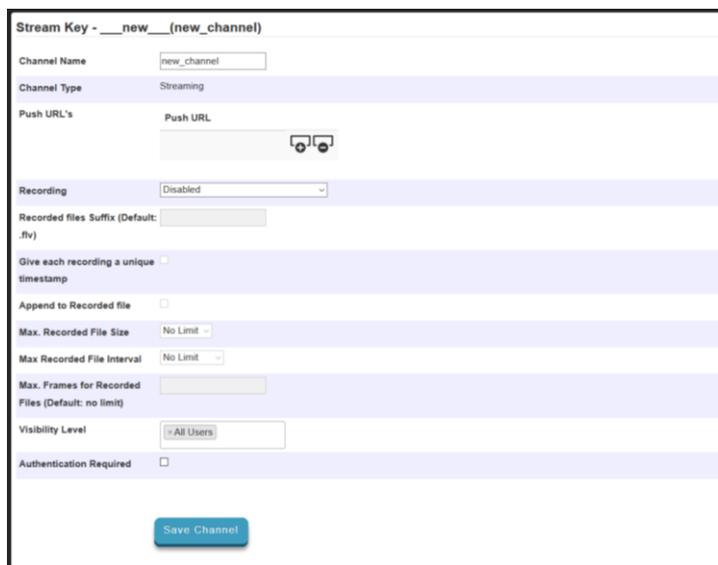
There are five options available:

- Live – Create and manage live streaming channels
- VOD – Create and manage on demand channels
- Stats – View live server statistics
- Users – Create and manage user accounts
- Settings – Manage global server settings



## Creating a live channel

When creating a new live channel you will be presented with the screen shown below.



You have the following options:

### **Channel Name**

Here you must choose a name for your live channel. The channel name can contain uppercase and lowercase characters but no white space.

## **Push URL`s**

Push URL`s are optional. Here you can tell the DVS-100P server to push the incoming stream on to one or more destinations, simply enter the RTMP URLs you would like the stream to be pushed to.

## **Recording**

Here we can enable recording, you have three options:

### **Always – Audio & Video**

The software will record as soon as an input stream is detected and will stop recording when the stream is stopped. Audio and video are recorded together.

### **Always – Audio Only**

The software will record as soon as an input stream is detected and will stop recording when the stream is stopped. Only audio is recorded.

### **Manually start/stop – Audio & Video**

Recording will not happen automatically, the user must start and stop recording manually. When enabled button to start and stop recording will be displayed next to the channel name. Audio and video are recorded together.

## **Recorded files Suffix**

By default the recorded file is name after the channel name, this option allows you to add additional text into the file name.

## **Give each recording a unique time stamp**

When checked a unique time stamp will be inserted into the file name of each recording. When this option is not checked the recorded file name will always be the same, this means subsequent recording will overwrite the previous file.

## **Append to recorded file**

This option should only be used when 'Give each recording a unique time stamp' is not checked. When checked subsequent recording will be joined to the previous file creating one long recording.

## **Max. Recorded file size**

Here we can limit the recorded file length by size, when this limit is reached a new file will be created. No limit is set by default.

## **Max. Recorded file interval**

Here we can limit the recorded file length by time, when this limit is reached a new file will be created. No limit is set by default.

## **Max. Frames for Recorded Files**

Here we can limit the recorded file length by frames, when this limit is reached a new file will be created. No limit is set by default.

## Visibility level

By default channels are visible to all users. To change this behaviour you should remove the 'All Users' marker and then select only the user accounts you wish to be able to see this channel.

**Please Note:** Administrators and Power Users can always view all channels, this option only affects viewer accounts.

## Authentication required

By default authentication is not required to view a player page or an embedded player. This means if a player was embedded in an external website or if the URL of a player page was sent to someone they would be able to view the channel without having to login. Checking this option will require that the user login with a valid account before the player loads.

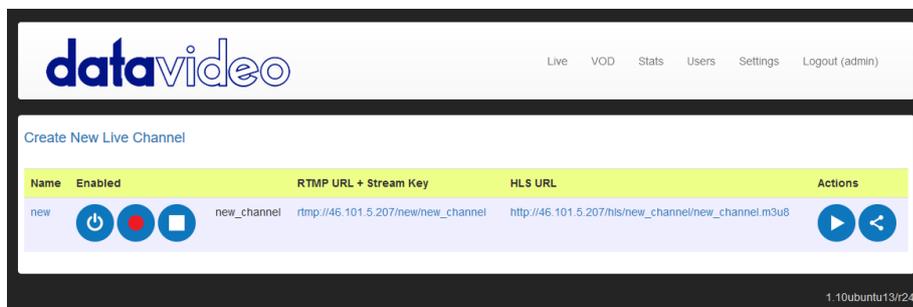
## Applying changes

After you save channel settings you will be redirected back to the main web interface. Whenever you see this message across the top of the page you know that the service must be restarted to apply some of your settings.

**Please Note:** You should only restart the service when you are not live streaming.



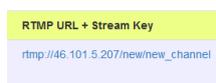
## Live channel list overview



 Enable and disable the channel.

 Start recording (only visible when manual recording is enabled).

 Stop recording (only visible when manual recording is enabled).



The RTMP URL is used to configure your encoder, for most encoders the part after the last / should be used as the stream key. This URL can be decoded by Datavideo NVD decoders with low latency.

#### HLS URL

[http://46.101.5.207/hls/new\\_channel/new\\_channel.m3u8](http://46.101.5.207/hls/new_channel/new_channel.m3u8)

The HLS URL can also be decoded by Datavideo NVD decoders, HLS will perform better over poor internet connections but latency will be considerably higher.



Open a new tab with the web video player.



Generate the code required to embed the web video player in another website.

## Creating a VOD channel

A VOD channel is automatically created for each live channel, this is where published recordings will appear.

To upload content you must manually create a VOD channel, here you have only to select a channel name. You have the same visibility level and authentication options as you do for live channels.

Stream Key - \_\_new\_\_(new\_channel)

Channel Name	<input type="text" value="new_channel"/>
Channel Type	VOD(Video On Demand)
Visibility Level	<input type="text" value="All Users"/>
Authentication Required	<input type="checkbox"/>

After you save the channel you will be redirected back to the main web interface, to upload content select your newly created channel. You will see the screen below.

Stream Key - media(Media)

Channel Name	<input type="text" value="Media"/>
Channel Type	VOD(Video On Demand)
Select Files to	<input type="text" value="Publish"/>
Upload File	<input type="button" value="Browse..."/> No file selected
Visibility Level	<input type="text" value="All Users"/>
Authentication Required	<input type="checkbox"/>

Click 'Browse' and select the video file to upload, save the channel to start the upload.

Stream Key - media(Media)

Channel Name	<input type="text" value="Media"/>
Channel Type	VOD(Video On Demand)
Select Files to	<input type="text" value="Publish"/>
Upload File	<input type="button" value="Browse..."/> song.mp4
Visibility Level	<input type="text" value="All Users"/>
Authentication Required	<input type="checkbox"/>

Uploading Data (15% complete)

Once the upload is complete you will be redirected back to the main web interface once again, finally to publish your content select your newly created channel. You will see the screen below.

**datavideo** Live VOD Stats Users Settings Logout (admin)

Stream Key - media(Media)

Channel Name:

Channel Type: VOD(Video On Demand)

Select Files to:  song.mp4

Publish:    
 Delete:    
 Unpublish(Delete):

Browse... No file selected.

Visibility Level:

Authentication Required:

Save Channel

## Publish

Will publish the selected files, this makes them available to playback and embed (Converts the original file to HLS).

## Delete

Will delete the selected files but won't delete the published (HLS) files.

## Unpublish (Delete)

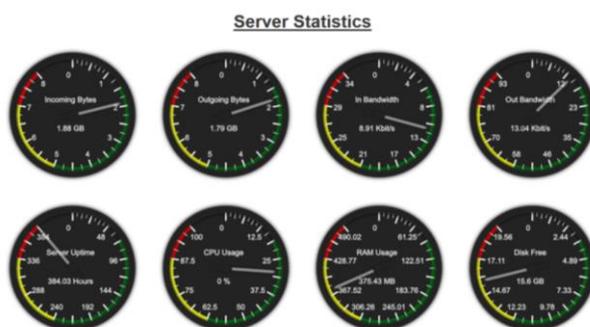
Will delete the published (HLS) files but not the original uploaded files.

To publish a file select its check box, ensure the option to 'Publish' is selected and save the channel. You will be redirected back to the main web interface and see the file is now available to play and embed.



## Stats

The stats tabs provides real time statistics relating to the server and streaming channels.



## Server Statistics

Shows global statistics.

- Incoming Bytes – Shows the amount of data that has been sent into the server
- Outgoing Bytes – Shows the amount of data the has been pulled out of the server
- In Bandwidth – Shows the incoming bandwidth usage for the entire server
- Out Bandwidth - Shows the outgoing bandwidth usage for the entire server

- Server Uptime – Shows the amount of time the server has been powered up
- CPU Usage – Shows the real time CPU usage as a percentage, if you have multiple CPU cores the maximum value will be greater than 100%. For example if you have two CPU cores this the maximum value will be 200%
- RAM Usage – Shows the real time RAM (memory) usage in MB
- Disk Free – Shows the amount of free disk space on the drive that the DVS-100 software is installed on

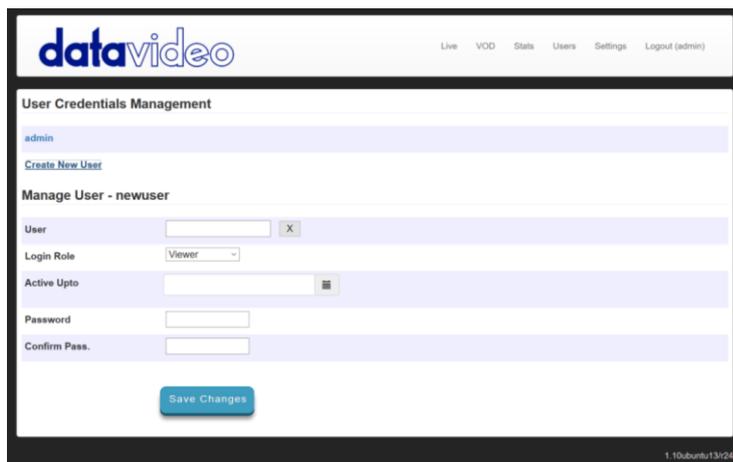
### **Channel Statistics**

Shows channel specific statistics.



## Creating and managing user accounts

To create a new user account click 'Create New User', you will see the screen below.



### **User**

Here you must choose a logon name for the user. The name can contain uppercase and lowercase characters but no white space.

### **Login Role**

- Viewer – This role only allows the user to view streams and change their own password. Viewer accounts cannot view stream URLs, create or modify channels or change settings.
- Admin - This role gives the user full control, users with admin rights can view all channels even if they are not assigned to them.
- Power User – This role gives the user the same rights as an admin however power users cannot change global server settings or change other user accounts.

## Active Upto

Allows you to set an expiry date for the account, if left blank the account will never expire.

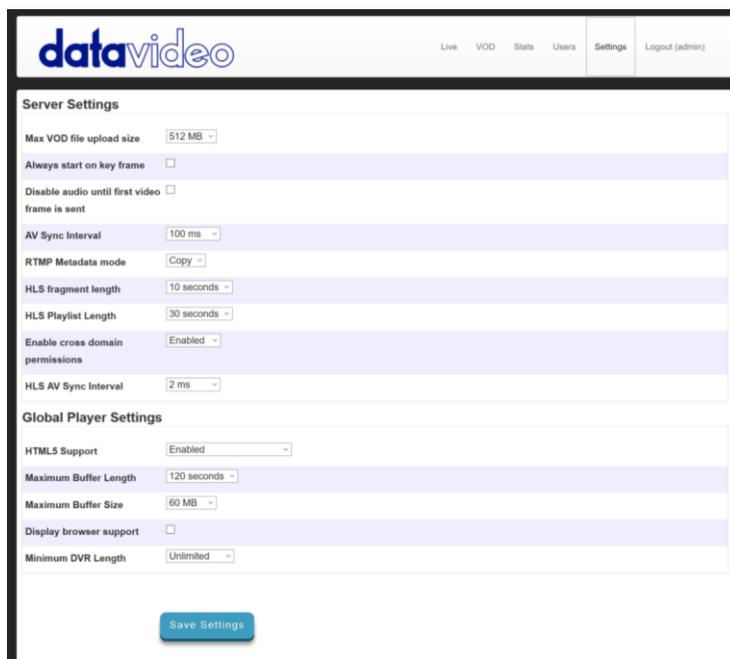
## Password

Here you must choose a password for the user.

## Confirm Pass

Here you must confirm the password.

## Settings



The screenshot shows the DataVideo settings page. At the top, there is a navigation bar with links for Live, VOD, Stats, Users, Settings, and Logout (admin). The main content area is divided into two sections: Server Settings and Global Player Settings. The Server Settings section includes: Max VOD file upload size (512 MB), Always start on key frame (checkbox), Disable audio until first video frame is sent (checkbox), AV Sync Interval (100 ms), RTMP Metadata mode (Copy), HLS fragment length (10 seconds), HLS Playlist Length (30 seconds), Enable cross domain permissions (Enabled), and HLS AV Sync Interval (2 ms). The Global Player Settings section includes: HTML5 Support (Enabled), Maximum Buffer Length (120 seconds), Maximum Buffer Size (60 MB), Display browser support (checkbox), and Minimum DVR Length (Unlimited). A Save Settings button is located at the bottom of the form.

## Server Settings

- Max VOD file upload size – Set the maximum allowed file size for uploads
- Always start on key frame – When enabled clients that connect to the RTMP stream will always start playback on a key frame, this may increase delay.
- Disable audio until first video frame is sent - When enabled no audio will be sent until after the first video frame (RTMP clients only).
- AV Sync Interval –If the RTMP client’s bandwidth is not enough to receive data at the publisher’s (encoders) rate, some frames are dropped by server leading to a synchronization problem. When the timestamp difference exceeds the value specified as sync argument an absolute frame is sent fixing that.
- RTMP Metadata mode – Sets what metadata is sent out in the RTMP stream. Copy takes metadata from the publisher (encoder), On lets the DVS-100P insert metadata, Off disables and metadata being sent.
- HLS fragment length – HLS works by creating multiple .TS video files (chunks) from the incoming RTMP stream, the player then downloads these chunks in order. This setting defines how long each chunk is, larger chunk sizes will increase delay.

- HLS Playlist Length – This setting defines how many .TS chunks are stored on the server, longer playlists lengths means live streams can be paused for longer.
- Enable cross domain permissions – Must be enabled to allow a flash media player on another server to playback content from your server.
- HLS AV Sync Interval – Sets the HLS timestamp synchronization threshold. This feature prevents crackling noises after conversion from low-resolution RTMP (1KHz) to high-resolution MPEG-TS (90KHz). Default is 2ms.

### **Global Player Settings**

- HTML5 Support – By default the web player will use HTML5 extensions if the browsers supports them, if not it will use FLASH extensions. This setting allows HTML5 extensions to be disabled for all or desktop only browsers.
- Maximum Buffer Length – This setting defines how much video the web player can buffer (in seconds) locally, larger buffer sizes result in more delay but better stability on poor networks.
- Maximum Buffer Size – This setting allows the buffer to be limited by size, this setting will override the buffer length option (the size can never be exceeded).
- Display browser support – To be used to debugging only, when enabled the player will display a message to tell you if it is using FLASH or HTML5 extensions.
- Minimum DVR Length – Sets the amount of HLS chunks that must be available on the server before the player displays the pause button, this must be set to a value less than the HLS playlist length for the pause button to be enabled.