

# Jet-Stream VDO-X CDN Manager

End User Manual



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# Jet-StreamCDN customer manual

This manual is intended for account and content holders as well as broadcasters using the Jet-Stream CDN. Please let us know if you have any feedback. If you have any questions you can contact your resellers support department.

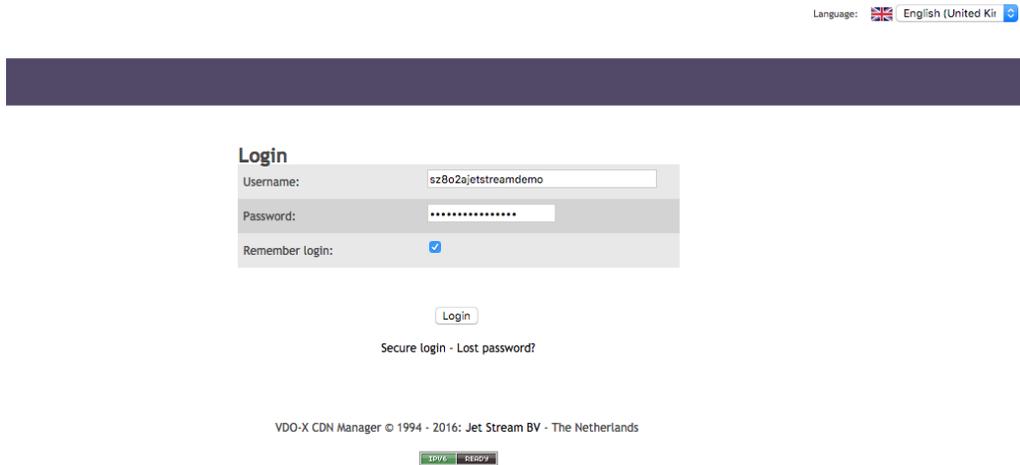
# Logging in to VDO-X

This manual is intended for account and content holders as well as broadcasters using the Jet-Stream CDN. Please let us know if you have any feedback. If you have any questions you can contact your resellers support department.

VDO-X can be controlled with the web interface and with our SOAP API. Both methods provide the same functionality. This manual focuses on the web interface. The SOAP API is described in a separate document which you can download on the API page of VDO-X.

You require a username and password to log in, which you should have received by email. Note that it is not possible to change your username or password.

Upon navigating to the VDO-X web interface URL listed in the email along with your username and password, you should see the following login screen.



Enter your credentials first, after this please click on Login. You may change the language by using the language switcher in the upper right corner. It is possible to remember your login details, the details will be remembered for 30 days after your last visit.

If you lost your credentials please see the following chapter: [Appendix C: Lost credentials](#)

# Menu Options

After logging in you will be taken to the home screen of the web interface. The main component of the interface is the row of menu options at the top of the screen. Use these menu items to navigate between the different features. The actual menu items available to you depend on your so-called user rights. For instance: if you have no permissions to create live streams, you will not see the live stream menu item. The image below shows an example of the menu items for a user with all user rights enabled. Details about user rights may be found in the [Appendix B: User rights](#).



After logging in, you will be presented with the Reseller menu (see Illustration 4). The available options are:

- [Account information](#): Show the settings of your account
- [Users](#): Manage your user accounts
- [GeolP Groups](#): Manage GeolP Groups
- [Assets](#): Manage multimedia assets
- [Live Streams](#): Create or manage livestreams
- [HTTP remote directories](#): Pull your own http server through our platform
- [Statistics](#): Access your statistics.
- [API](#): Information about the different API's we offer
- [Support](#): Download this manual and other relevant documentation

In the following chapters we will focus on each menu item.

# Account information

The Account Information page shows the account details of your account. You can find here information like your contact details and quota's. The information on this page can only be changed by your reseller. Please contact your reseller if you need any information changed.

## Account information

Company name	Jet-Stream Manual
Administration contact	Jet-Stream
Administration address	Helperpark 290 9723 ZA Groningen The Netherlands
Administration telephone	050 526 1820
Administration email address	support@jet-stream.nl
Technical contact	Jet-Stream
Technical telephone	050 526 1820
Technical email address	support@jet-stream.nl
Contact person	Jet-Stream
Email address	support@jet-stream.nl
Language	English (United Kingdom) - English

## Product information

Account name	jetstreammanual
Account product	Jet Stream
Service Level Agreement	No Support
Account status	Active
Account starts at	18 Jul 2016
Account ends at	Unlimited
Available services	NGINX Apache IceCast Webdav Push HTTP Live Streaming Wowza Media Server 4 Lighttpd IIS7 (Smooth streaming) Windows Media
Intake delivery node(s)	in1.streamzilla.xicdn.com in2.streamzilla.xicdn.com
Core delivery node(s)	cr1.streamzilla.xicdn.com cr2.streamzilla.xicdn.com cr3.streamzilla.xicdn.com

Term	Description
Technical email address	This is the e-mail address we use for technical inquiries. If there are any technical issues we will e-mail you to this e-mail address. E-mails about maintenance will also be send to this address.
Storage	The amount of (asset) storage you have with your account.
Total storage used	The amount of storage that is in use. You cannot add new assets or if applicable recordings when you are out of storage. Please contact the sales or support team of your reseller to increase your storage.
Edge / overflow storage (used)	The amount of storage that can be used for bursting. It is a percentage of your storage.
Traffic quota (in gb)	The amount of traffic included with your account.
Traffic used this month	The amount of traffic that has been used this month. You may use more traffic than you have, but you will be charged for the extra traffic.
Account name	the name of the account and should match the name displayed in the top right corner. The account name acts like a tag that will be attached to every piece of content you create and every request for that content. As a result this is also the name you have to pass to SOAP methods that require an account name. Additionally the Rediraptor will only play your content if you also pass precisely this account name.
Account product	The product is the base product including either a basic amount of storage, traffic or time quota
Service Level Agreement	and the SLA is an agreement on the level of support sold with this account.
Available services	The streaming services you may use.
Intake, core, fallback , overflow delivery nodes.	The servers your account can use for handling your content.
Live streaming	If disabled you are not permitted to use live-streaming. Please contact your reseller if you want access to this feature.
HTTP remote directory	If disabled you are not permitted to use HTTP remote directories. Please contact your reseller if you want access to this feature.
Recording	If disabled you are not permitted to use the recording feature. Please contact your reseller if you want access to this feature.
Threshold (requests /minute)	If the amount of requests for a given item grows above this (popularity) Threshold it will be marked as popular. Playlist of popular content will move from the Core servers to the Overflow/Edge servers. Please read <a href="#">Popularity</a> for more details.
Delete Threshold (in hours)	Specifies thee time the CDN will wait before removing an item from the bursting servers that is not popular anymore. Please read <a href="#">Popularity</a> for more details.

Automatically distribute (all) VoD to all delivery nodes	When enabled, every new asset you ingest will automatically be marked as popular, and hence playout will immediately be moved to the bursting servers.
Automatically relay (all) live streams to all delivery nodes	When enabled, every new live stream you create will automatically be marked as popular and hence playout will immediately be relayed to the bursting servers.

# Users

The users tab allows you to manage existing users and create new users. An user can have different rights for example: FTP only user, livestream manager or a full access user.

The screenshot shows the 'Users' management page in the VDO-X CDN Manager. At the top, there is a navigation bar with icons for Account Information, Users, GeoIP groups, Assets, Live streams, HTTP remote directories, Statistics, API, and Support. The 'Users' tab is selected. Below the navigation bar, there is a '+ Add a new user' button. The main content area displays a table of users with columns for Select, State, Options, Username, Rights, and Last login. The table contains six rows of user data. Below the table, there are controls for 'Toggle all' and an 'Action' dropdown menu. At the bottom of the page, there is a copyright notice: 'VDO-X CDN Manager © 1994 - 2017; Jet Stream BV - The Netherlands'.

Select	State	Options	Username	Rights	Last login
<input type="checkbox"/>	Active	options	demo	accountadmin,api,assets,encoder,ftp,geogroups,httppendir,livestreams,stats,users	30 Oct 2017
<input type="checkbox"/>	Active	options	s2zsvjoshua	encoder,ftp,stats	Never
<input type="checkbox"/>	Active	options	s2zsvloggingTest	api,encoder,ftp,stats	Never
<input type="checkbox"/>	Active	options	s2zsvpwitTest	api,assets,encoder,ftp,geogroups,httppendir,livestreams,stats,users	Never
<input type="checkbox"/>	Active	options	s2zsvSOAPUser	encoder,httppendir,livestreams,stats	Never
<input type="checkbox"/>	Active	options	s2zsvstef	api,assets,encoder,ftp,livestreams,stats,users	Never

The State of a user can be:

- **Active** – The user was validated and has access to VDO-X.
- **Being validated** – the user was just created and VDO-X is in the process of validating whether everything went all right. Validation of a new user should never take more than a few minutes
- **Deleted** – Before removing a user definitively from the system it has to be put in a Deleted state. A deleted user can not access VDO-X in any way, but all user data and configuration are kept in place to make it easy to Undelete. You need to purge an user to fully remove an user.
- **ERROR** –The user could not be validated. Please select the user, double check the information and select 'Update user'. This will restart the validation process. If validation keeps failing, please contact your Reseller.

In the following sections we will focus on the User management features:

- [Add a new user](#)
- [Edit User](#)
- [User Actions](#)
- [User Options](#)

# Add a new user

Select the 'Add a new user' link next to the big plus to create a new user. The following form should appear. A new user can be created by entering the requested values (starred fields are mandatory) and pushing the 'Add new user' button. It can take a few minutes until the changes are processed internally.

**Add a new user**

Every username will be prefixed with "sz2xsv".  
And the password will be suffixed with "sz2xsv".

User name: sz2xsvuploadftp

Password: wU9rA4gAiy sz2xsv

Real name: FTP User

E-mail address: support@jet-stream.com

Telephone number:

Language: English (United Kingdom) - English

User rights:

- Toggle all
- Manage GeolP groups
- Manage HTTP remote directory
- Manage assets
- Manage live streams
- Manage users
- Setup live encoder
- Upload assets
- Use API
- View statistics

Add new user

Term	Description
Username	The username for the new user. Every user has a prefix (in this example sz9bgz). When the username is already taken the text-bar will turn red.
Password	The password for the new user. We recommend to use the generate button. The prefix (sz9bgz) will be added to the end of the password.
Real Name	The Real Name of the user. The real name is used for the greeting in automatically generated e-mail (the login credentials e-mail for example).
E-mail Address	The E-mail address of the user. The E-mail Address is used for sending automatically generated e-mails (the login credentials e-mail for example).
Telephone number	The Telephone number of the user. The telephone number is not used by the system and therefore optional, but it can be useful to have the telephone number of your users.
Language	The default Language for the new user. VDO-X will use the specified language when logging in as this user.
User Rights	The User rights for the new user. The new user has rights for the specified rights. Please see the <a href="#">Appendix B: User rights</a> page for more information.

# Edit User

To edit a user click on the username on the user page. Editing a user is almost the same as creating a new user. The only difference is that you cannot change the username. When are finished customizing the user please click on the Update user button. It can take a few minutes until the changes are processed internally.

**Edit user**

Every username will be prefixed with "sz2xsv".  
And the password will be suffixed with "sz2xsv".

User ID: 6717

User name: sz2xsvpwitest

Password: [Generate](#) pY0nv2kjwU sz2xsv

Real name: test

E-mail address: support@jet-stream.nl

Telephone number:

Language: English (United Kingdom) - English

User rights:  Toggle all

- Manage GeoIP groups
- Manage HTTP remote directory
- Manage assets
- Manage live streams
- Manage users
- Setup live encoder
- Upload assets
- Use API
- View statistics

Field	Description
Username	The username for the new user. Every user has a prefix (in this example sz9bgz). When the username is already taken the text-bar will turn red.
Password	The password for the new user. We recommend to use the generate button. The prefix (sz9bgz) will be added to the end of the password.
Real Name	The Real Name of the user. The real name is used for the greeting in automatically generated e-mail (the login credentials e-mail for example).
E-mail Address	The E-mail address of the user. The E-mail Address is used for sending automatically generated e-mails (the login credentials e-mail for example).
Telephone number	The Telephone number of the user. The telephone number is not used by the system and therefore optional, but it can be useful to have the telephone number of your users.
Language	The default Language for the new user. VDO-X will use the specified language when logging in as this user.
User Rights	The User rights for the new user. The new user has rights for the specified rights. Please see the <a href="#">Appendix B: User rights</a> page for more information.

# User Actions

You may execute User actions on one or multiple users simultaneously. On the user page select the target users by checking the box in the 'Select' column and select the wanted action from the '-=Action=-' pull-down menu. The available actions are:

 **Add a new user**

Page: All | 1 - 25

Show deleted users

Select	State	Options	Username
<input type="checkbox"/>	Active	options	sz9bgzszdemo
<input type="checkbox"/>	Active	options	sz9bgzuploadftp

Toggle all

✓ -=Action=-  
Email  
Delete  
Undelete  
Purge

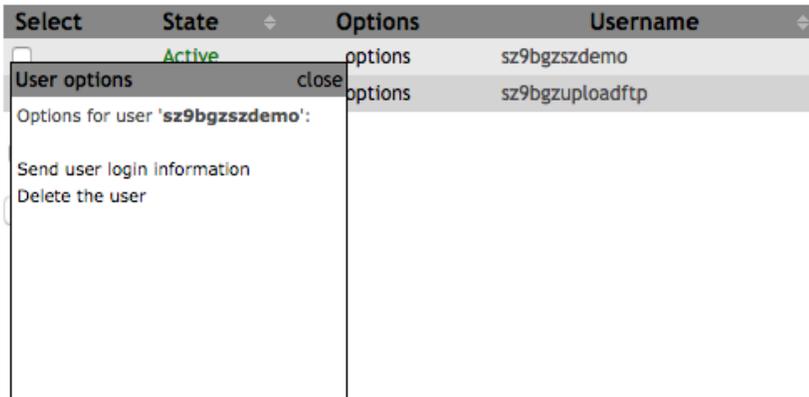
Action	Description
E-mail	You can e-mail a user by clicking on the Email action. A window will open where you can type the e-mail that will be send to the e-mail adress provided when creating the user.
Delete	You can delete a user by clicking on the Delete action. The user will be disabled, but will not be removed. If you want to completely remove a user you need to purge it afterwards.
Undelete*	You can undelete a user by clicking on the Undelete action. The deleted user will be undeleted and reactivated.
Purge*	You can purge a user by clicking on the Purge action. You can only purge deleted users. Purging a user is an irreversible action; the whole user will be deleted.

\* To view deleted users you need to check the box Show deleted users. Otherwise deleted users will not appear on the user page.



# User Options

On the user page you can click on the options button next to the Username. A menu will open with 2 options: you can send the user his credentials or delete the user.



Option	Description
Send user login information	You can e-mail a user their credentials by clicking on the Send user login information option. A window will open with with the e-mail that will be send to the user. If you want you can change the default text. After that you click on Send.
Delete the user	You can delete a user by clicking on the Delete action. The user will be disabled, but not removed. If you want to completely remove a user you need to purge it afterwards. Please see the <a href="#">User actions</a> chapter for more information about purging a user.

# GeoIP groups

GeoIP Groups are used for restricting an Asset or Livestream to specific countries. A GeoIP group can contain multiple countries. When a viewer is not from a country associated with the GeoIP group of the asset or livestream he will get a 404 error. In the following chapters we only focus on managing your GeoIP groups. If you want to attach a GeoIP group to an asset or livestream please see their respective chapters.

We have made some default groups for you to get you started. The default groups are the continents. You can change these groups, but we recommend to create a new GeoIP group if you need any changes.

[+ Add a new GeoIP group](#)

Page: All | 1 - 25

Show deleted GeoIP groups

Select	GeoIP group name	GeoIP countries	State
<input type="checkbox"/>	Africa	AD, BF, BI, BJ, BW, CD, CF, CG, CI, CM, CV, DJ, DZ, EG, EH, ER, ET, GA, GH, GM, GN, GQ, GW, KE, KM, LR, LS, LY, MA, MG, ML, MR, MU, MW, MZ, NA, NE, NG, RE, RW, SC, SD, SH, SI, SN, SO, ST, SZ, TD, TG, TN, TZ, UG, YT, ZA, ZM, ZW	Active
<input type="checkbox"/>	Antarctica	AQ, BV, GS, HM, TF	Active
<input type="checkbox"/>	Asia	AE, AF, AM, AP, AZ, BD, BH, BN, BT, CC, CN, CX, CY, GE, HK, ID, IL, IN, IO, IQ, IR, JO, JP, KG, KH, KP, KR, KW, KZ, LA, LB, LK, MM, MN, MO, MV, MY, NP, OM, PH, PK, PS, QA, SA, SG, SY, TH, TJ, TL, TM, TW, UZ, VN, YE	Active
<input type="checkbox"/>	Europe	AD, AL, AT, AX, BA, BE, BG, BY, CH, CZ, DE, DK, EE, ES, EU, FI, FO, FR, FX, GB, GG, GI, GR, HR, HU, IE, IM, IS, IT, JE, LI, LT, LU, LV, MC, MD, ME, MK, MT, NL, NO, PL, PT, RO, RS, RU, SE, SI, SJ, SK, SM, TR, UA, VA	Active
<input type="checkbox"/>	North America	AG, AI, AN, AW, BB, BL, BM, BS, BZ, CA, CR, CU, CW, DM, DO, GD, GL, GP, GT, HN, HT, JM, KN, KY, LC, MF, MQ, MS, MX, NI, PA, PM, PR, SV, TC, TT, US, VC, VG, VI	Active
<input type="checkbox"/>	Oceania	AS, AU, CK, FJ, FM, GU, KI, MH, MP, NC, NF, NR, NU, NZ, PF, PG, PN, PW, SB, TK, TO, TV, UM, VU, WF, WS	Active
<input type="checkbox"/>	South America	AR, BO, BR, CL, CO, EC, FK, GF, GY, PE, PY, SR, UY, VE	Active
<input type="checkbox"/>	Unknown	AT, AZ, O1	Active

Toggle all

→Action←

- [Add a new GeoIP group](#)
- [Edit GeoIP group](#)
- [Managing GeoIP Groups](#)

# Add a new GeoIP group

A new geographical group can be created by clicking the 'Add a new GeoIP group' link. You will be taken to the Add a new GeoIP group page. In the GeoIP group name field you can specify the name for the GeoIP Group. After that you need to select the countries that should be associated with the GeoIP group. When you are done you click the 'Add new GeoIP group' button to save the new group. VDO-X should display a confirmation that the new group was created correctly.

In the image below you find an Example of a GeoIP Group called the BeNeLux, with Belgium, Luxembourg and The Netherlands.

**Add a new GeoIP group**

GeoIP group name:

<p>GeoIP countries</p> <p>Select all <input type="checkbox"/></p> <p>Select none <input type="checkbox"/></p> <p>Anonymous Proxy <input type="checkbox"/></p> <p>Satellite Provider <input type="checkbox"/></p> <p>Other Country <input type="checkbox"/></p>	<p><b>Continent Unknown</b></p> <p><input type="checkbox"/> Andorra</p> <p><input type="checkbox"/> Albania</p> <p><input type="checkbox"/> Austria</p> <p><input type="checkbox"/> Aland Islands</p> <p><input type="checkbox"/> Bosnia and Herzegovina</p> <p><input checked="" type="checkbox"/> Belgium</p> <p><input type="checkbox"/> Bulgaria</p> <p><input type="checkbox"/> Belarus</p> <p><input type="checkbox"/> Switzerland</p> <p><input type="checkbox"/> Czech Republic</p> <p><input type="checkbox"/> Germany</p> <p><input type="checkbox"/> Denmark</p> <p><input type="checkbox"/> Estonia</p> <p><input type="checkbox"/> Spain</p> <p><input type="checkbox"/> Europe</p> <p><input type="checkbox"/> Finland</p> <p><input type="checkbox"/> Faroe Islands</p> <p><input type="checkbox"/> France</p> <p><input type="checkbox"/> France, Metropolitan</p> <p><input type="checkbox"/> United Kingdom</p> <p><input type="checkbox"/> Guernsey</p> <p><input type="checkbox"/> Gibraltar</p> <p><input type="checkbox"/> Greece</p> <p><input type="checkbox"/> Croatia</p> <p><input type="checkbox"/> Hungary</p> <p><input type="checkbox"/> Ireland</p> <p><input type="checkbox"/> Isle of Man</p> <p><input type="checkbox"/> Iceland</p> <p><input type="checkbox"/> Italy</p> <p><input type="checkbox"/> Jersey</p> <p><input type="checkbox"/> Liechtenstein</p> <p><input type="checkbox"/> Lithuania</p> <p><input checked="" type="checkbox"/> Luxembourg</p> <p><input type="checkbox"/> Latvia</p> <p><input type="checkbox"/> Monaco</p> <p><input type="checkbox"/> Moldova, Republic of</p> <p><input type="checkbox"/> Montenegro</p> <p><input type="checkbox"/> Macedonia</p> <p><input type="checkbox"/> Malta</p> <p><input checked="" type="checkbox"/> Netherlands</p>	<p><b>Continent Europe</b></p> <p><input type="checkbox"/> Andorra</p> <p><input type="checkbox"/> Albania</p> <p><input type="checkbox"/> Austria</p> <p><input type="checkbox"/> Aland Islands</p> <p><input type="checkbox"/> Bosnia and Herzegovina</p> <p><input checked="" type="checkbox"/> Belgium</p> <p><input type="checkbox"/> Bulgaria</p> <p><input type="checkbox"/> Belarus</p> <p><input type="checkbox"/> Switzerland</p> <p><input type="checkbox"/> Czech Republic</p> <p><input type="checkbox"/> Germany</p> <p><input type="checkbox"/> Denmark</p> <p><input type="checkbox"/> Estonia</p> <p><input type="checkbox"/> Spain</p> <p><input type="checkbox"/> Europe</p> <p><input type="checkbox"/> Finland</p> <p><input type="checkbox"/> Faroe Islands</p> <p><input type="checkbox"/> France</p> <p><input type="checkbox"/> France, Metropolitan</p> <p><input type="checkbox"/> United Kingdom</p> <p><input type="checkbox"/> Guernsey</p> <p><input type="checkbox"/> Gibraltar</p> <p><input type="checkbox"/> Greece</p> <p><input type="checkbox"/> Croatia</p> <p><input type="checkbox"/> Hungary</p> <p><input type="checkbox"/> Ireland</p> <p><input type="checkbox"/> Isle of Man</p> <p><input type="checkbox"/> Iceland</p> <p><input type="checkbox"/> Italy</p> <p><input type="checkbox"/> Jersey</p> <p><input type="checkbox"/> Liechtenstein</p> <p><input type="checkbox"/> Lithuania</p> <p><input checked="" type="checkbox"/> Luxembourg</p> <p><input type="checkbox"/> Latvia</p> <p><input type="checkbox"/> Monaco</p> <p><input type="checkbox"/> Moldova, Republic of</p> <p><input type="checkbox"/> Montenegro</p> <p><input type="checkbox"/> Macedonia</p> <p><input type="checkbox"/> Malta</p> <p><input checked="" type="checkbox"/> Netherlands</p>	<p><b>Continent Asia</b></p> <p><input type="checkbox"/> United Arab Emirates</p> <p><input type="checkbox"/> Afghanistan</p> <p><input type="checkbox"/> Armenia</p> <p><input type="checkbox"/> Asia/Pacific Region</p> <p><input type="checkbox"/> Azerbaijan</p> <p><input type="checkbox"/> Bangladesh</p> <p><input type="checkbox"/> Bahrain</p> <p><input type="checkbox"/> Brunei Darussalam</p> <p><input type="checkbox"/> Bhutan</p> <p><input type="checkbox"/> Cocos (Keeling) Islands</p> <p><input type="checkbox"/> China</p> <p><input type="checkbox"/> Christmas Island</p> <p><input type="checkbox"/> Cyprus</p> <p><input type="checkbox"/> Georgia</p> <p><input type="checkbox"/> Hong Kong</p> <p><input type="checkbox"/> Indonesia</p> <p><input type="checkbox"/> Israel</p> <p><input type="checkbox"/> India</p> <p><input type="checkbox"/> British Indian Ocean Territory</p> <p><input type="checkbox"/> Iraq</p> <p><input type="checkbox"/> Iran, Islamic Republic of</p> <p><input type="checkbox"/> Jordan</p> <p><input type="checkbox"/> Japan</p> <p><input type="checkbox"/> Kyrgyzstan</p> <p><input type="checkbox"/> Cambodia</p> <p><input type="checkbox"/> Korea, Democratic People's Republic of</p> <p><input type="checkbox"/> Korea, Republic of</p> <p><input type="checkbox"/> Kuwait</p> <p><input type="checkbox"/> Kazakhstan</p> <p><input type="checkbox"/> Lao People's Democratic Republic</p> <p><input type="checkbox"/> Lebanon</p> <p><input type="checkbox"/> Sri Lanka</p> <p><input type="checkbox"/> Myanmar</p> <p><input type="checkbox"/> Mongolia</p> <p><input type="checkbox"/> Macao</p> <p><input type="checkbox"/> Maldives</p> <p><input type="checkbox"/> Malaysia</p> <p><input type="checkbox"/> Nepal</p> <p><input type="checkbox"/> Oman</p> <p><input type="checkbox"/> Philippines</p>	<p><b>Continent North America</b></p> <p><input type="checkbox"/> Antigua and Barbuda</p> <p><input type="checkbox"/> Anguilla</p> <p><input type="checkbox"/> Netherlands Antilles</p> <p><input type="checkbox"/> Aruba</p> <p><input type="checkbox"/> Barbados</p> <p><input type="checkbox"/> Saint Barthelemy</p> <p><input type="checkbox"/> Bermuda</p> <p><input type="checkbox"/> Bahamas</p> <p><input type="checkbox"/> Belize</p> <p><input type="checkbox"/> Canada</p> <p><input type="checkbox"/> Costa Rica</p> <p><input type="checkbox"/> Cuba</p> <p><input type="checkbox"/> Curaçao</p> <p><input type="checkbox"/> Dominica</p> <p><input type="checkbox"/> Dominican Republic</p> <p><input type="checkbox"/> Grenada</p> <p><input type="checkbox"/> Greenland</p> <p><input type="checkbox"/> Guadeloupe</p> <p><input type="checkbox"/> Guatemala</p> <p><input type="checkbox"/> Honduras</p> <p><input type="checkbox"/> Haiti</p> <p><input type="checkbox"/> Jamaica</p> <p><input type="checkbox"/> Saint Kitts and Nevis</p> <p><input type="checkbox"/> Cayman Islands</p> <p><input type="checkbox"/> Saint Lucia</p> <p><input type="checkbox"/> Saint Martin</p> <p><input type="checkbox"/> Martinique</p> <p><input type="checkbox"/> Montserrat</p> <p><input type="checkbox"/> Mexico</p> <p><input type="checkbox"/> Nicaragua</p> <p><input type="checkbox"/> Panama</p> <p><input type="checkbox"/> Saint Pierre and Miquelon</p> <p><input type="checkbox"/> Puerto Rico</p> <p><input type="checkbox"/> El Salvador</p> <p><input type="checkbox"/> Turks and Caicos Islands</p> <p><input type="checkbox"/> Trinidad and Tobago</p> <p><input type="checkbox"/> United States</p> <p><input type="checkbox"/> Saint Vincent and the Grenadines</p> <p><input type="checkbox"/> Virgin Islands, British</p> <p><input type="checkbox"/> Virgin Islands, U.S.</p>	<p><b>Continent Africa</b></p> <p><input type="checkbox"/> Angola</p> <p><input type="checkbox"/> Burkina Faso</p> <p><input type="checkbox"/> Burundi</p> <p><input type="checkbox"/> Benin</p> <p><input type="checkbox"/> Botswana</p> <p><input type="checkbox"/> Congo, The Democratic Republic of the</p> <p><input type="checkbox"/> Central African Republic</p> <p><input type="checkbox"/> Congo</p> <p><input type="checkbox"/> Cote d'Ivoire</p> <p><input type="checkbox"/> Cameroon</p> <p><input type="checkbox"/> Cape Verde</p> <p><input type="checkbox"/> Djibouti</p> <p><input type="checkbox"/> Algeria</p> <p><input type="checkbox"/> Egypt</p> <p><input type="checkbox"/> Western Sahara</p> <p><input type="checkbox"/> Eritrea</p> <p><input type="checkbox"/> Ethiopia</p> <p><input type="checkbox"/> Gabon</p> <p><input type="checkbox"/> Ghana</p> <p><input type="checkbox"/> Gambia</p> <p><input type="checkbox"/> Guinea</p> <p><input type="checkbox"/> Equatorial Guinea</p> <p><input type="checkbox"/> Guinea-Bissau</p> <p><input type="checkbox"/> Kenya</p> <p><input type="checkbox"/> Comoros</p> <p><input type="checkbox"/> Liberia</p> <p><input type="checkbox"/> Lesotho</p> <p><input type="checkbox"/> Libyan Arab Jamahiriya</p> <p><input type="checkbox"/> Morocco</p> <p><input type="checkbox"/> Madagascar</p> <p><input type="checkbox"/> Mali</p> <p><input type="checkbox"/> Mauritania</p> <p><input type="checkbox"/> Mauritius</p> <p><input type="checkbox"/> Malawi</p> <p><input type="checkbox"/> Mozambique</p> <p><input type="checkbox"/> Namibia</p> <p><input type="checkbox"/> Niger</p> <p><input type="checkbox"/> Nigeria</p> <p><input type="checkbox"/> Reunion</p> <p><input type="checkbox"/> Rwanda</p>	<p><b>Continent Antarctica</b></p> <p><input type="checkbox"/> Antarctica</p> <p><input type="checkbox"/> Bouvet Island</p> <p><input type="checkbox"/> South Georgia and the South Sandwich Islands</p> <p><input type="checkbox"/> Heard Island and McDonald Islands</p> <p><input type="checkbox"/> French Southern Territories</p> <p><b>Continent South America</b></p> <p><input type="checkbox"/> Argentina</p> <p><input type="checkbox"/> Bolivia</p> <p><input type="checkbox"/> Brazil</p> <p><input type="checkbox"/> Chile</p> <p><input type="checkbox"/> Colombia</p> <p><input type="checkbox"/> Ecuador</p> <p><input type="checkbox"/> Falkland Islands (Malvinas)</p> <p><input type="checkbox"/> French Guiana</p> <p><input type="checkbox"/> Guyana</p> <p><input type="checkbox"/> Peru</p> <p><input type="checkbox"/> Paraguay</p> <p><input type="checkbox"/> Suriname</p> <p><input type="checkbox"/> Uruguay</p> <p><input type="checkbox"/> Venezuela</p> <p><b>Continent Oceania</b></p> <p><input type="checkbox"/> American Samoa</p> <p><input type="checkbox"/> Australia</p> <p><input type="checkbox"/> Cook Islands</p> <p><input type="checkbox"/> Fiji</p> <p><input type="checkbox"/> Micronesia, Federated States of</p> <p><input type="checkbox"/> Guam</p> <p><input type="checkbox"/> Kiribati</p> <p><input type="checkbox"/> Marshall Islands</p> <p><input type="checkbox"/> Northern Mariana Islands</p> <p><input type="checkbox"/> New Caledonia</p> <p><input type="checkbox"/> Norfolk Island</p> <p><input type="checkbox"/> Nauru</p> <p><input type="checkbox"/> Niue</p> <p><input type="checkbox"/> New Zealand</p> <p><input type="checkbox"/> French Polynesia</p> <p><input type="checkbox"/> Papua New Guinea</p> <p><input type="checkbox"/> Pitcairn</p> <p><input type="checkbox"/> Palau</p> <p><input type="checkbox"/> Solomon Islands</p>
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# Edit GeolP group

You can edit a GeolP group by clicking on the GeolP group name on the GeolP page. You can change the name and the countries associated with the group. When you are done you click on the Update GeolP group button. You can also delete the GeolP group by clicking on the Delete GeolP group button.

**Edit GeolP group** BeNeLux

GeolP group name

<p>GeolP countries</p> <p>Select all</p> <p>Select none</p>	<p><b>Continent Unknown</b></p> <p><input type="checkbox"/> Anonymous Proxy</p> <p><input type="checkbox"/> Satellite Provider</p> <p><input type="checkbox"/> Other Country</p>	<p><b>Continent Europe</b></p> <p><input type="checkbox"/> Andorra</p> <p><input type="checkbox"/> Albania</p> <p><input type="checkbox"/> Austria</p> <p><input type="checkbox"/> Aland Islands</p> <p><input type="checkbox"/> Bosnia and Herzegovina</p> <p><input checked="" type="checkbox"/> Belgium</p> <p><input type="checkbox"/> Bulgaria</p> <p><input type="checkbox"/> Belarus</p> <p><input type="checkbox"/> Switzerland</p> <p><input type="checkbox"/> Czech Republic</p> <p><input type="checkbox"/> Germany</p> <p><input type="checkbox"/> Denmark</p> <p><input type="checkbox"/> Estonia</p> <p><input type="checkbox"/> Spain</p> <p><input type="checkbox"/> Europe</p> <p><input type="checkbox"/> Finland</p> <p><input type="checkbox"/> Faroe Islands</p> <p><input type="checkbox"/> France</p> <p><input type="checkbox"/> France, Metropolitan</p> <p><input type="checkbox"/> United Kingdom</p> <p><input type="checkbox"/> Guernsey</p> <p><input type="checkbox"/> Gibraltar</p> <p><input type="checkbox"/> Greece</p> <p><input type="checkbox"/> Croatia</p> <p><input type="checkbox"/> Hungary</p> <p><input type="checkbox"/> Ireland</p> <p><input type="checkbox"/> Isle of Man</p> <p><input type="checkbox"/> Iceland</p> <p><input type="checkbox"/> Italy</p> <p><input type="checkbox"/> Jersey</p> <p><input type="checkbox"/> Liechtenstein</p> <p><input type="checkbox"/> Lithuania</p> <p><input checked="" type="checkbox"/> Luxembourg</p> <p><input type="checkbox"/> Latvia</p> <p><input type="checkbox"/> Monaco</p> <p><input type="checkbox"/> Moldova, Republic of</p> <p><input type="checkbox"/> Montenegro</p> <p><input type="checkbox"/> Macedonia</p> <p><input type="checkbox"/> Malta</p> <p><input checked="" type="checkbox"/> Netherlands</p> <p><input type="checkbox"/> Norway</p> <p><input type="checkbox"/> Poland</p> <p><input type="checkbox"/> Portugal</p> <p><input type="checkbox"/> Romania</p> <p><input type="checkbox"/> Serbia</p> <p><input type="checkbox"/> Russian Federation</p> <p><input type="checkbox"/> Sweden</p> <p><input type="checkbox"/> Slovenia</p> <p><input type="checkbox"/> Svalbard and Jan Mayen</p> <p><input type="checkbox"/> Slovakia</p> <p><input type="checkbox"/> San Marino</p> <p><input type="checkbox"/> Turkey</p> <p><input type="checkbox"/> Ukraine</p> <p><input type="checkbox"/> Holy See (Vatican City State)</p>	<p><b>Continent Asia</b></p> <p><input type="checkbox"/> United Arab Emirates</p> <p><input type="checkbox"/> Afghanistan</p> <p><input type="checkbox"/> Armenia</p> <p><input type="checkbox"/> Asia/Pacific Region</p> <p><input type="checkbox"/> Azerbaijan</p> <p><input type="checkbox"/> Bangladesh</p> <p><input type="checkbox"/> Bahrain</p> <p><input type="checkbox"/> Brunei Darussalam</p> <p><input type="checkbox"/> Bhutan</p> <p><input type="checkbox"/> Cocos (Keeling) Islands</p> <p><input type="checkbox"/> China</p> <p><input type="checkbox"/> Christmas Island</p> <p><input type="checkbox"/> Cyprus</p> <p><input type="checkbox"/> Georgia</p> <p><input type="checkbox"/> Hong Kong</p> <p><input type="checkbox"/> Indonesia</p> <p><input type="checkbox"/> Israel</p> <p><input type="checkbox"/> India</p> <p><input type="checkbox"/> British Indian Ocean Territory</p> <p><input type="checkbox"/> Iran, Islamic Republic of</p> <p><input type="checkbox"/> Jordan</p> <p><input type="checkbox"/> Japan</p> <p><input type="checkbox"/> Kyrgyzstan</p> <p><input type="checkbox"/> Cambodia</p> <p><input type="checkbox"/> Korea, Democratic People's Republic of</p> <p><input type="checkbox"/> Korea, Republic of</p> <p><input type="checkbox"/> Kuwait</p> <p><input type="checkbox"/> Kazakhstan</p> <p><input type="checkbox"/> Lao People's Democratic Republic</p> <p><input type="checkbox"/> Lebanon</p> <p><input type="checkbox"/> Sri Lanka</p> <p><input type="checkbox"/> Myanmar</p> <p><input type="checkbox"/> Mongolia</p> <p><input type="checkbox"/> Macao</p> <p><input type="checkbox"/> Maldives</p> <p><input type="checkbox"/> Malaysia</p> <p><input type="checkbox"/> Nepal</p> <p><input type="checkbox"/> Oman</p> <p><input type="checkbox"/> Philippines</p> <p><input type="checkbox"/> Pakistan</p> <p><input type="checkbox"/> Palestinian Territory</p> <p><input type="checkbox"/> Qatar</p> <p><input type="checkbox"/> Saudi Arabia</p> <p><input type="checkbox"/> Singapore</p> <p><input type="checkbox"/> Syrian Arab Republic</p> <p><input type="checkbox"/> Thailand</p> <p><input type="checkbox"/> Tajikistan</p> <p><input type="checkbox"/> Timor-Leste</p> <p><input type="checkbox"/> Turkmenistan</p> <p><input type="checkbox"/> Taiwan</p> <p><input type="checkbox"/> Uzbekistan</p> <p><input type="checkbox"/> Vietnam</p> <p><input type="checkbox"/> Yemen</p>	<p><b>Continent North America</b></p> <p><input type="checkbox"/> Antigua and Barbuda</p> <p><input type="checkbox"/> Anguilla</p> <p><input type="checkbox"/> Netherlands Antilles</p> <p><input type="checkbox"/> Aruba</p> <p><input type="checkbox"/> Barbados</p> <p><input type="checkbox"/> Saint Barthelemy</p> <p><input type="checkbox"/> Bermuda</p> <p><input type="checkbox"/> Bahamas</p> <p><input type="checkbox"/> Belize</p> <p><input type="checkbox"/> Cocos (Keeling) Islands</p> <p><input type="checkbox"/> Canada</p> <p><input type="checkbox"/> Costa Rica</p> <p><input type="checkbox"/> Cuba</p> <p><input type="checkbox"/> Curaçao</p> <p><input type="checkbox"/> Dominica</p> <p><input type="checkbox"/> Dominican Republic</p> <p><input type="checkbox"/> Grenada</p> <p><input type="checkbox"/> Greenland</p> <p><input type="checkbox"/> Guadeloupe</p> <p><input type="checkbox"/> Guatemala</p> <p><input type="checkbox"/> Honduras</p> <p><input type="checkbox"/> Haiti</p> <p><input type="checkbox"/> Jamaica</p> <p><input type="checkbox"/> Saint Kitts and Nevis</p> <p><input type="checkbox"/> Cayman Islands</p> <p><input type="checkbox"/> Saint Lucia</p> <p><input type="checkbox"/> Saint Martin</p> <p><input type="checkbox"/> Martinique</p> <p><input type="checkbox"/> Montserrat</p> <p><input type="checkbox"/> Mexico</p> <p><input type="checkbox"/> Nicaragua</p> <p><input type="checkbox"/> Panama</p> <p><input type="checkbox"/> Saint Pierre and Miquelon</p> <p><input type="checkbox"/> Puerto Rico</p> <p><input type="checkbox"/> El Salvador</p> <p><input type="checkbox"/> Turks and Caicos Islands</p> <p><input type="checkbox"/> Trinidad and Tobago</p> <p><input type="checkbox"/> United States</p> <p><input type="checkbox"/> Saint Vincent and the Grenadines</p> <p><input type="checkbox"/> Virgin Islands, British</p> <p><input type="checkbox"/> Virgin Islands, U.S.</p>	<p><b>Continent Africa</b></p> <p><input type="checkbox"/> Angola</p> <p><input type="checkbox"/> Burkina Faso</p> <p><input type="checkbox"/> Burundi</p> <p><input type="checkbox"/> Benin</p> <p><input type="checkbox"/> Botswana</p> <p><input type="checkbox"/> Congo, The Democratic Republic of the</p> <p><input type="checkbox"/> Central African Republic</p> <p><input type="checkbox"/> Congo</p> <p><input type="checkbox"/> Cote d'Ivoire</p> <p><input type="checkbox"/> Cameroon</p> <p><input type="checkbox"/> Cape Verde</p> <p><input type="checkbox"/> Djibouti</p> <p><input type="checkbox"/> Algeria</p> <p><input type="checkbox"/> Egypt</p> <p><input type="checkbox"/> Western Sahara</p> <p><input type="checkbox"/> Eritrea</p> <p><input type="checkbox"/> Ethiopia</p> <p><input type="checkbox"/> Gabon</p> <p><input type="checkbox"/> Ghana</p> <p><input type="checkbox"/> Guinea</p> <p><input type="checkbox"/> Equatorial Guinea</p> <p><input type="checkbox"/> Guinea-Bissau</p> <p><input type="checkbox"/> Kenya</p> <p><input type="checkbox"/> Comoros</p> <p><input type="checkbox"/> Liberia</p> <p><input type="checkbox"/> Lesotho</p> <p><input type="checkbox"/> Libyan Arab Jamahiriya</p> <p><input type="checkbox"/> Morocco</p> <p><input type="checkbox"/> Madagascar</p> <p><input type="checkbox"/> Mali</p> <p><input type="checkbox"/> Mauritania</p> <p><input type="checkbox"/> Mauritius</p> <p><input type="checkbox"/> Malawi</p> <p><input type="checkbox"/> Mozambique</p> <p><input type="checkbox"/> Namibia</p> <p><input type="checkbox"/> Niger</p> <p><input type="checkbox"/> Nigeria</p> <p><input type="checkbox"/> Reunion</p> <p><input type="checkbox"/> Rwanda</p> <p><input type="checkbox"/> Seychelles</p> <p><input type="checkbox"/> Sudan</p> <p><input type="checkbox"/> Saint Helena</p> <p><input type="checkbox"/> Sierra Leone</p> <p><input type="checkbox"/> Senegal</p> <p><input type="checkbox"/> Somalia</p> <p><input type="checkbox"/> Sao Tome and Principe</p> <p><input type="checkbox"/> Swaziland</p> <p><input type="checkbox"/> Chad</p> <p><input type="checkbox"/> Togo</p> <p><input type="checkbox"/> Tunisia</p> <p><input type="checkbox"/> Tanzania, United Republic of</p> <p><input type="checkbox"/> Uganda</p> <p><input type="checkbox"/> Mayotte</p> <p><input type="checkbox"/> South Africa</p> <p><input type="checkbox"/> Zambia</p> <p><input type="checkbox"/> Zimbabwe</p>	<p><b>Continent Antarctica</b></p> <p><input type="checkbox"/> Antarctica</p> <p><input type="checkbox"/> Bouvet Island</p> <p><input type="checkbox"/> South Georgia and the South Sandwich Islands</p> <p><input type="checkbox"/> Heard Island and McDonald Islands</p> <p><input type="checkbox"/> French Southern Territories</p>	<p><b>Continent South America</b></p> <p><input type="checkbox"/> Argentina</p> <p><input type="checkbox"/> Bolivia</p> <p><input type="checkbox"/> Brazil</p> <p><input type="checkbox"/> Chile</p> <p><input type="checkbox"/> Colombia</p> <p><input type="checkbox"/> Ecuador</p> <p><input type="checkbox"/> Falkland Islands (Malvinas)</p> <p><input type="checkbox"/> French Guiana</p> <p><input type="checkbox"/> Guyana</p> <p><input type="checkbox"/> Peru</p> <p><input type="checkbox"/> Paraguay</p> <p><input type="checkbox"/> Suriname</p> <p><input type="checkbox"/> Uruguay</p> <p><input type="checkbox"/> Venezuela</p>	<p><b>Continent Oceania</b></p> <p><input type="checkbox"/> American Samoa</p> <p><input type="checkbox"/> Australia</p> <p><input type="checkbox"/> Cook Islands</p> <p><input type="checkbox"/> Fiji</p> <p><input type="checkbox"/> Micronesia, Federated States of</p> <p><input type="checkbox"/> Guam</p> <p><input type="checkbox"/> Kiribati</p> <p><input type="checkbox"/> Marshall Islands</p> <p><input type="checkbox"/> Northern Mariana Islands</p> <p><input type="checkbox"/> New Caledonia</p> <p><input type="checkbox"/> Norfolk Island</p> <p><input type="checkbox"/> Nauru</p> <p><input type="checkbox"/> Niue</p> <p><input type="checkbox"/> New Zealand</p> <p><input type="checkbox"/> French Polynesia</p> <p><input type="checkbox"/> Papua New Guinea</p> <p><input type="checkbox"/> Pitcairn</p> <p><input type="checkbox"/> Palau</p> <p><input type="checkbox"/> Solomon Islands</p> <p><input type="checkbox"/> Tokelau</p> <p><input type="checkbox"/> Tonga</p> <p><input type="checkbox"/> Tuvalu</p> <p><input type="checkbox"/> United States Minor Outlying Islands</p> <p><input type="checkbox"/> Vanuatu</p> <p><input type="checkbox"/> Wallis and Futuna</p> <p><input type="checkbox"/> Samoa</p>
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# Managing GeolP Groups

A GeolP group may be Deleted, undeleted and purged. This can be done by first selecting the GeolP group and then click on the ==Action= dropdown menu.

Action	Description
Delete	When you delete a GeolP group the group will be disabled. Any associations with Assets and Livestreams will be removed. You still can recover the group if you want by selecting undelete, but the associations will not be restored.
Undelete	First you need to check the box: Show deleted GeolP groups. After this select the deleted group and choose Undelete. The GeolP group is now restored, but you need to reassociate the GeolP group to your Assets or Livestreams.
Purge	You can permanently remove a deleted GeolP group by purging it. To do this you need to first check the box: Show deleted GeolP groups. After this select the deleted group and choose Purge. The GeolP group is now gone.

# Transcoding

With transcoding you get the ability to upload a single file in a high bitrate and let it transcode based on the configured profile. This way you can create multi bitrate VoD content with a single upload with an easy workflow.



A started transcoding job cannot be canceled anymore. Costs of the job will be billed

In the pages below you can find more information about transcoding VoD:

- [Queues](#)
- [Profile](#)
- [Content](#)

# Queues

## Active queue

When selecting transcoding an overview of active transcoding jobs is shown. Here you have the ability to cancel a queued transcoding job.

Select	Options	Source filename	Status	Upload date	Transcode date	Source filesize	Source duration	Profile	Destination profiles	Destination storage	Estimated costs
<input type="checkbox"/>	cancel	Gorilaz_-_Saturnz_Barz_360vr.mp4	queued	28 Jun 2018, 15:48:13	N/A	337.88 MiB	5:37	Multibitrate	Full HD - 1920x1080 - 4Mbps, HD Ready - 1280x720 - 2Mbps, SD - 853x480 - 1Mbps, Mobile - 540x320 - 0.5Mbps	Streaming	€ 1.19

## Processed queue

In the processed queue you can see an overview of all the transcoding jobs that are done including the costs of a transcoding job. This list is just for reference and cannot be changed.

Options	Source filename	Status	Upload date	Transcode date	Source filesize	Source duration	Profile	Destination profiles	Destination storage	Total costs
details	Gorilaz_-_Saturnz_Barz_360vr.mp4	done	28 Jun 2018, 15:48:13	28 Jun 2018, 15:50:23	337.88 MiB	5:38	Multibitrate	Full HD - 1920x1080 - 4Mbps, HD Ready - 1280x720 - 2Mbps, SD - 853x480 - 1Mbps, Mobile - 540x320 - 0.5Mbps	Streaming	€ 1.19

# Profile

In order to use transcoding a profile has to be created. This can be done at the profile sub-menu. This will give a new list of all existing transcoding profiles in your account.

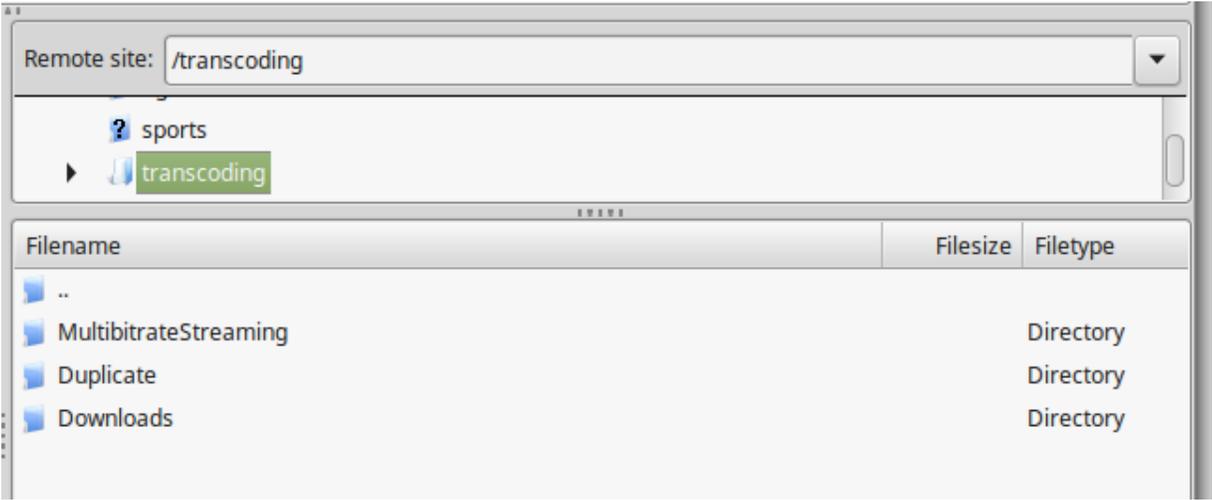
Select	Options	Profile name	Outputs	Use source	Use priority	Storage	Price per minute
<input type="checkbox"/>	delete	Multibitrate	Full HD - 1920x1080 - 4Mbps, HD Ready - 1280x720 - 2Mbps, SD - 853x480 - 1Mbps, Mobile - 540x320 - 0.5Mbps	no	no	Streaming	€ 0.2
<input type="checkbox"/>	delete	Duplicate	Full HD - 1920x1080 - 4Mbps, HD Ready - 1280x720 - 2Mbps, SD - 853x480 - 1Mbps, Mobile - 540x320 - 0.5Mbps	no	no	Download, Streaming	€ 0.2
<input type="checkbox"/>	delete	Downloads	HD Ready - 1280x720 - 2Mbps, SD - 853x480 - 1Mbps, Mobile - 540x320 - 0.5Mbps	no	no	Download	€ 0.14

By clicking on the 'Create new transcoding profile' you can create a new transcoding profile. By clicking on the name in the profile list, you are able to change the existing transcoding profile.

Field	Description
Transcoding profile name	This is the name of the transcoding profile. This name will then show up in the FTP dropbox in the /transcoding/ folder. Make sure you do <b>NOT</b> use spaces in the name. This can have undefined effects.
Transcoding presets	Here you select the different presets. Each preset has a different resolution or bitrate. Per preset the price per minute transcoding is shown. You can select any amount of presets. The minimum is at least one preset.
Transcoding output storage	Here you can select where the transcoded files will be placed. This can be download for progressive downloads. This can also be Streaming for streaming files. Or you can select both. Keep in mind selecting both, will increase your storage usage faster.
Use source file	This option will you use the original file in the output VoD. If the uploaded content is Full HD, it can be used as part of the transcoded output for payout.
Use priority queue	When selecting this, the transcoding job will use a faster but also more expensive transcoding queue.

Price per minute	Here you can see what the transcoding price would be per minute transcoding. This is the price of all the presets together and will update when changing the presets.
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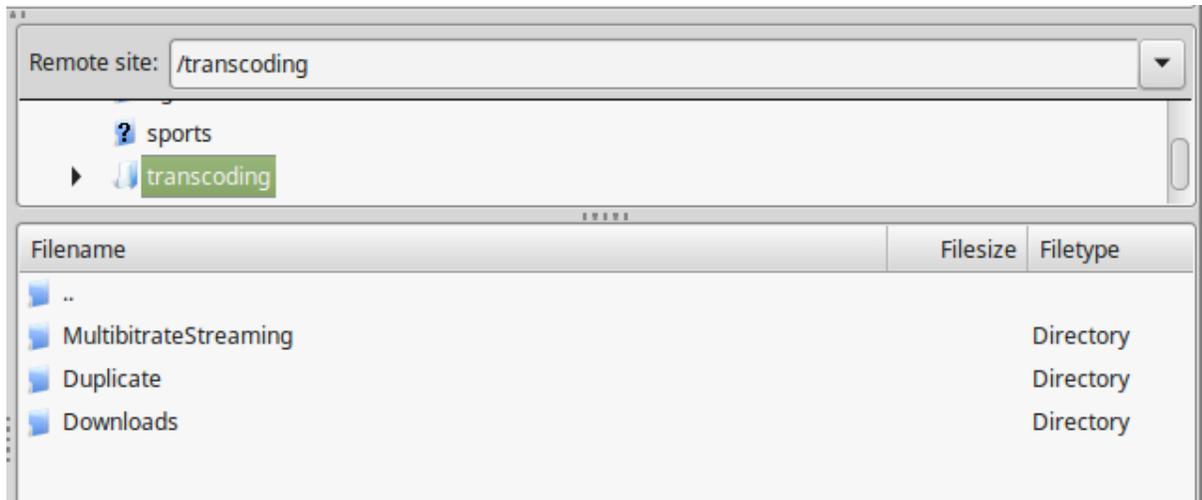
When you login into the FTP Dropbox, you will see a folder 'transcoding' that contains one or more folders that hold the names of the transcoding profiles. For example:



# Content

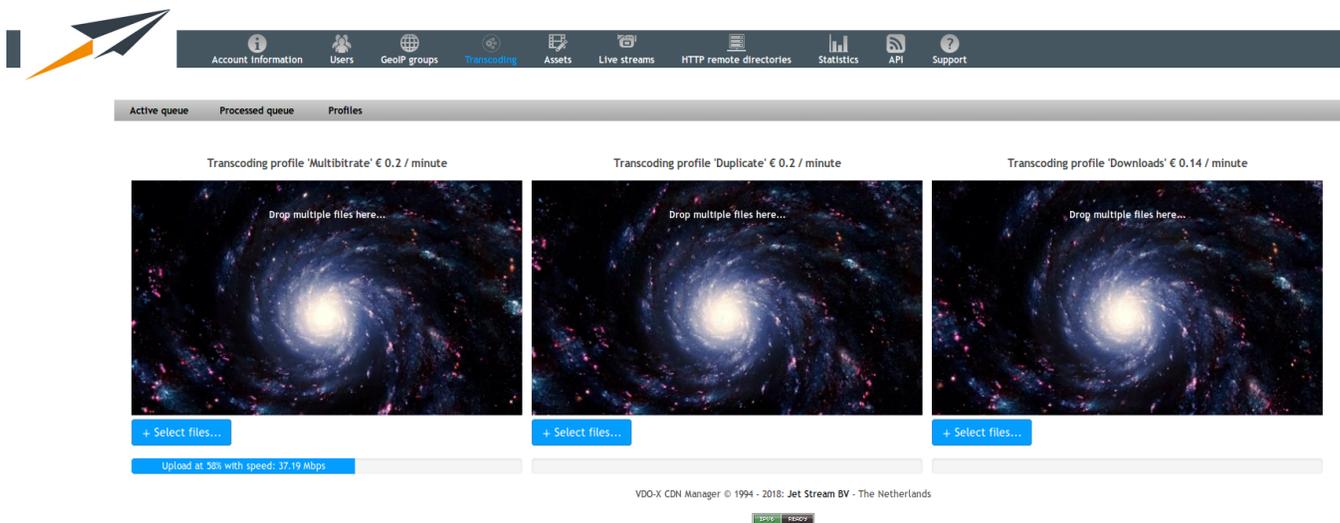
## FTP Dropbox

The transcoding profile will show up in the FTP dropbox below the folder 'transcoding'. Here you will find one or multiple folders containing the name of the transcoding profile. By uploading a file in one of those folders will start the transcoding action.



## Webbased

In order to transcode VoD, you have to upload the source file in the according transcoding folder in the FTP Dropbox. Or you can use the webbrowser to upload a single file. This can be done by clicking on 'Upload file for transcoding'. This will give a new page with multiple dropboxes for each transcoding profile. By either dropping files on the transcoding profile or use the 'Select files' button to upload files for transcoding.



When the upload is done, the progressbar will fill 100% and will give a message that the file is uploaded. Go to the active queue to see the uploaded file for transcoding.

# Assets

The assets page allows you to manage your assets. Assets need to be uploaded first to your platform using FTP or Webdav for more information see the [Uploading Assets](#) chapter.

We have 2 types of assets: Streaming and Download assets. In the table below we will explain the difference between the 2 assets types.

Type	Description
Download	Downloadable files are regular files like PDF and the new WebM and OGG formats. These files are served from a web server and will be fully downloaded. For non-video or video that can't be streamed this the normal and preferred way. For playing any video that supports being streamed, it is strongly recommend to use streaming.
Streaming	A streaming file will be served by a streaming server, which will essentially send the file frame by frame to the viewer. An important advantage is that a streaming server does not allow downloading the file in full. This way the user can watch the video, but can't download it to the computer. If the user watches 50% of the video, only 50 % of the traffic is used. In case it was a download asset it would have been fully downloaded. We highly recommend to use Streaming assets. Please See <a href="#">Appendix G: Streamable files</a> for supported formats.

In the next chapters we will tell you all you need to know about asset management:

- [Uploading new VOD assets](#)
- [Managing your assets](#)

# Uploading new VOD assets

New VoD assets may be uploaded through FTP or WebDAV. Once the upload has finished, VDO-X will process the new file and distribute it through the CDN. Please be aware that after a file is processed it cannot be downloaded from the ftp or webdav server. Please see [Appendix J: Recommended encoding settings](#) for recommended encoding settings for your video content.

Uploading files with FTP is the preferred way. We will explain the process below:

First you need your FTP credentials. You can find your credentials on the API page. You see here Assets Ingest API. Below the access ingest api you find your FTP details. For your username and password you need to click on the Click here for login details button.

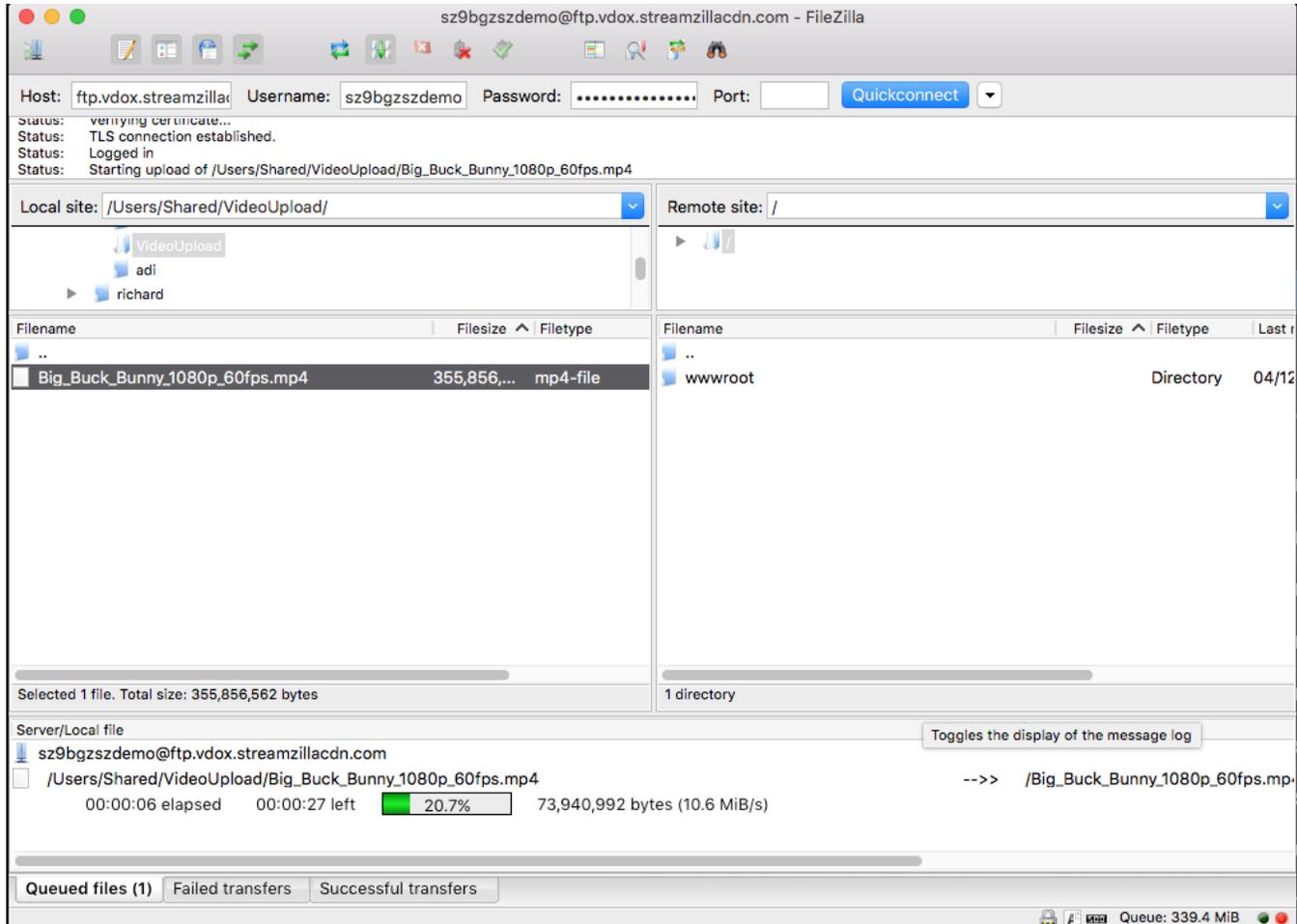
Now that we have your login credentials it is time to open your FTP client. In this example I use FileZilla, which is an Open Source FTP client for all major platforms. It can be downloaded from the following page: [https://filezilla-project.org/download.php?show\\_all=1](https://filezilla-project.org/download.php?show_all=1).

When you start FileZilla you notice the Host:, Username and Password field. Here you need to put the credentials we found earlier. After this you click on quick connect.

Files uploaded to the / (root folder) are treated as streaming files. Files uploaded in the wwwroot are treated as download files.

To upload a file you need to drop the file to the right pane (remote site).

When the file finished uploading it will be processed in our CDN. After this you can find it in your assets.



Please consider the following points:

- It is not possible to delete files from the FTP dropbox. If you accidentally uploaded a wrong file you should wait until VDO-X processed the file and subsequently delete the file through the interface
- Do not close the FTP connection before the upload has finished
- You can create any number of sub-folders you want, but do not remove the wwwroot folder
- If you're using both Windows and non-Windows systems and/or services, we strongly recommend to use either uppercase or lowercase (i.e. do not mix) when naming folders and files
- Don't use spaces in your filenames. Use dashes(-) instead

# Managing your assets

You can manage your assets by clicking on the assets button in the control panel. Now you see all your assets. We have put some demo assets in your account to get you started.

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Select	Lock	GeoIP lock	Filename	Size	Type	Bitrate	Resolution	Duration	Upload	Statistics	Status	Management	Publish
<input type="checkbox"/>			mpeg4_3gp_MPEG4_AAC_128kbit_qcif_stream.3gp	823.78 KIB	streaming	105.9 Kib/s	176x144	30	18 May 2017, 14:09:42			Delete, Distribute, Purge caches	Publish
<input type="checkbox"/>			mpeg4_3gp_MPEG4_AMR_gprs_3slots_qcif_stream_1.3gp	173.99 KIB	download	21.98 Kib/s	176x144	30	18 May 2017, 14:28:11			Delete, Distribute, Purge caches	Publish
<input type="checkbox"/>			mpeg4_3gp_MPEG4_AMR_gprs_3slots_qcif_stream_1.3gp	173.99 KIB	streaming	21.98 Kib/s	176x144	30	18 May 2017, 14:09:42			Delete, Distribute, Purge caches	Publish
<input type="checkbox"/>			mpeg4_3gp_MPEG4_AMR_gprs_3slots_qcif_stream.3gp	174.01 KIB	download	21.98 Kib/s	176x144	30	18 May 2017, 14:26:54			Delete, Distribute, Purge caches	Publish
<input type="checkbox"/>			mpeg4_3gp_MPEG4_AMR_gprs_3slots_qcif_stream.3gp	174.01 KIB	streaming	21.98 Kib/s	176x144	30	18 May 2017, 14:09:42			Delete, Distribute, Purge caches	Publish
<input type="checkbox"/>			mpeg4_CS_3gp_H263_AMR_128kbit_qcif_stream_1.3gp	674.77 KIB	download	87.9 Kib/s	176x144	30	18 May 2017, 14:28:11			Delete, Distribute, Purge caches	Publish
<input type="checkbox"/>			mpeg4_CS_3gp_H263_AMR_128kbit_qcif_stream_1.3gp	674.77 KIB	streaming	87.9 Kib/s	176x144	30	18 May 2017, 14:09:42			Delete, Distribute, Purge caches	Publish
<input type="checkbox"/>			mpeg4_CS_3gp_H263_AMR_128kbit_qcif_stream.3gp	674.76 KIB	download	87.9 Kib/s	176x144	30	18 May 2017, 14:23:43			Delete, Distribute, Purge caches	Publish
<input type="checkbox"/>			mpeg4_CS_3gp_H263_AMR_128kbit_qcif_stream.3gp	674.76 KIB	streaming	87.9 Kib/s	176x144	30	18 May 2017, 14:09:42			Delete, Distribute, Purge caches	Publish
<input type="checkbox"/>			mpeg4-1000kbps.mp4	3.94 MIB	download	1.07 Mib/s	428x240	30	18 May 2017, 14:28:11			Delete, Distribute, Purge caches	Publish
<input type="checkbox"/>			mpeg4-250kbps.mp4	1.25 MIB	download	346 Kib/s	428x240	30	18 May 2017, 14:23:48			Delete, Distribute, Purge caches	Publish
<input type="checkbox"/>			mpeg4-400kbps.mp4	1.79 MIB	download	496 Kib/s	428x240	30	18 May 2017, 14:23:48			Delete, Distribute, Purge caches	Publish
<input type="checkbox"/>			⚡ mpeg4-multibitrate.smil	359 B	streaming	N/A	N/A	30	18 May 2017, 14:09:43			Delete, Split up, Distribute, Purge caches	Publish
<input type="checkbox"/>			⚡ mpeg4-test.smil	359 B	streaming	N/A	N/A	30	18 May 2017, 14:10:11			Delete, Split up, Distribute, Purge caches	Publish
<input type="checkbox"/>			mpeg4.mp4	2.93 MIB	download	397 Kib/s	428x240	30	18 May 2017, 14:23:48			Delete, Distribute, Purge caches	Publish
<input type="checkbox"/>			mpeg4.mp4	2.93 MIB	streaming	397 Kib/s	428x240	30	18 May 2017, 14:09:43			Delete, Distribute, Purge caches	Publish
<input type="checkbox"/>			⚡ mpeg4.smil	359 B	streaming	N/A	N/A	30	18 May 2017, 14:09:43			Delete, Split up, Distribute, Purge caches	Publish
<input type="checkbox"/>			⚡ New_Kids_Nitro_MOV_135566_2205840.mp4	1.35 GiB	streaming	2.53 Mib/s	1280x720	1:14:00	18 May 2017, 14:13:07			Delete, Split up, Distribute, Purge caches	Publish
<input type="checkbox"/>			nw2-1.m4v	163.38 MIB	streaming	3.13 Mib/s	1916x1080	7:07	18 May 2017, 14:10:11			Delete, Distribute, Purge caches	Publish
<input type="checkbox"/>			nw2-2.m4v	268.44 MIB	streaming	5.16 Mib/s	1916x1080	7:07	18 May 2017, 14:11:09			Delete, Distribute, Purge caches	Publish
<input type="checkbox"/>			nw2-3.m4v	110.19 MIB	streaming	2.11 Mib/s	1916x1080	7:07	18 May 2017, 14:11:20			Delete, Distribute, Purge caches	Publish
<input type="checkbox"/>			nw2.mp4	151.22 MIB	streaming	2.89 Mib/s	1920x1080	7:07	18 May 2017, 14:12:07			Delete, Distribute, Purge caches	Publish
<input type="checkbox"/>			ogg.ogg	2.29 MIB	download	607 Kib/s	400x226	30	18 May 2017, 14:28:11			Delete, Distribute, Purge caches	Publish
<input type="checkbox"/>			PCPlayer.exe	0.73 MIB	download	N/A	N/A	N/A	18 May 2017, 14:22:43			Delete, Distribute, Purge caches	Publish
<input type="checkbox"/>			podcast.m4a	520.3 KIB	download	128 Kib/s	N/A	30	18 May 2017, 14:28:11			Delete, Distribute, Purge caches	Publish

Page: All | 1 - 25 | 26 - 50 | 51 - 75 | 76 - 100 | 101 - 125 | 126 - 150

Toggle all

--Action--

In the following table I will explain all columns on the asset page:

Field	Description
Select	A checkbox to select the asset so you can manipulate it by using an action in the dropdown menu which can be found on the bottom of the page.
Lock	With this button you can lock an asset. A token is needed to view the asset. Please see the API page for information about token generation.
GeoIP Lock	With this button you can make the asset only available to a specific set of countries. When you click on the button a box will open where you can select the allowed GeoIP groups. If you need to create custom GeoIP groups please see the GeoIP Group chapter in the manual.
Filename	The filename of the asset. If you click on it you can rename the file. This is only the display name, the filename will be the same.
Size	The file size of the asset.
Type	The asset type of the file. This can be Download or Streaming please see the parent page for more information: <a href="#">Assets</a>
Bitrate	The bitrate of the asset. The bitrate will be presented in kbps or mbps.
Resolution	You can find here the resolution of the asset, this only applies to video content of course.
Duration	The duration (time) of the asset.

Upload	The date and time the asset was uploaded to our system
Statistics	When you click on the icon you see the requests/minute/network of the given asset.
Status	The status should always be a green checkmark. If it is not a green checkmark, then the asset is not available. And you should probably contact the support department of your reseller. When you click on the icon you get more information.
Delete	With this button you delete (remove) the asset.
Distribute	Distribute will mark the asset as popular and send the asset to one or multiple Bursting servers and to redirect new viewers to the Bursting server(s) (normally you don't need this function, because the system decides by it's own what is popular).
Purge caches	Purge caches will remove any caches in the CDN. If you have trouble watching the video, this may fix the issue (normally you don't need this function).
Publish	With this button a box will open which creates embed code for you. This can be our iFrame player or a link to one of our supported protocols. See <a href="#">Appendix E: Embed code Generator</a> for more information.

You can also select multiple items by selecting the checkbox before the filename. After this you can select one of the following options in the --actions-- dropdown menu:

Action	Description
Embed code	With this option a box will open which creates embed code for you. This can be our iFrame player or a link to one of our supported protocols. See <a href="#">Appendix E: Embed code Generator</a> for more information. You can only select multiple items if the file is MP4 or WEBM. In this case the Embed code Generator will generate a HTML5 tag with the video's combined.
Delete	Delete the selected assets.
Distribute	Distribute will mark the selected asset as popular and send the asset to one or multiple Bursting servers and to redirect new viewers to the Bursting server(s) (normally you don't need this function, because the system decides by it's own what is popular).
Lock	Lock the selected assets. A token is needed to view the asset. Please see the API page for information about token generation.
Unlock	Unlock the selected assets. A token is no longer needed to view the asset.
Group to multi bitrate	Group multiple assets of the same video with different bitrates as one combined asset. This way the viewer automatically decides what the best quality will be for the client. A box will open where you provide the information about the assets and the name for the combined asset. After this you can use the Publish button next to the combined asset. If you want you can also create your own smil file see <a href="#">Appendix D: Create your own multibitrate SMIL file</a> .
Ungroup multi bitrate to single	You can ungroup a multibitrate file. This way the combined asset will be removed and you get the assets as separate files.
GeoIP lock files	GeoIP lock the selected assets. The assets will only be available to a specific set of countries. When you select this action a box will open where you can select the allowed GeoIP groups. If you need to create custom GeoIP groups please see the GeoIP Group chapter in the manual.
Purge all caches for selected files	Purge caches will remove any caches in the CDN. If you have trouble watching the video, this may fix the issue (normally you don't need this function).

# Live streams

We offer different types of livestreaming: Windows Media, Microsoft Smooth Streaming, Wowza (Flash, Smooth, iPhone), Icecast, Webdav Push HTTP Live Streaming and Origin Pull HTTP Streaming. For more information about the different protocols please see: [Appendix H: Stream protocols](#). In this appendix you also find specific setup information for all types of livestreaming we support.

In 99 percent of all cases Wowza (Flash, Smooth, Iphone) is the best choice. In this chapter we will focus on this type of livestream.

In the pages below you can find more information about live streaming:

- [Add a livestream](#)
- [Setting up your encoder](#)
- [Managing your live streams](#)
- [Record a livestream](#)

# Add a livestream

In this chapter we will learn you how to create a LiveStream for the Wowza Media Server. Other types of streaming are setup in the same way, so you can use this guide for all types of streaming.

Please see [Appendix J: Recommended encoding settings](#) for our recommended encoding settings.

First you go to the Live Stream Tab. After that you click on the Add a livestream button. A wizard will appear, in this wizard you need to select Flash, Smooth, iPhone (Wowza). Then you click on next.

 Add a live stream

Page: All | 1 - 25

search

**Livestream wizard - step 1**

Setup up your live stream in a few easy steps. Please choose a streaming format first:

Select	Stream type	Formats	Delivery protocols	Multi bitrate	Encoder setup
<input type="radio"/>	Windows Media	WMV, WMA	MMS/RTSP	No	Push and Pull
<input type="radio"/>	Microsoft Smooth Streaming	H.264, AAC	HTTP	Yes	Push and Pull
<input checked="" type="radio"/>	Flash, Smooth, iPhone (Wowza)	FLV, H.264, AAC	RTMP, RTSP, HTTP	Yes	RTMP Push, RTSP automatic unicast and Pull
<input type="radio"/>	Icecast	MP3, AAC	HTTP	No	Push and Pull
<input type="radio"/>	Webdav Push HTTP Live Streaming	H.264, AAC	HTTP (caching)	Yes	Push
<input type="radio"/>	Origin Pull HTTP Streaming	H.264, AAC	HTTP (caching with NGINX)	Yes	Pull

Please select a live stream user for the new live stream

Select	Username	Name
<input checked="" type="radio"/>	sz9bgzsdemo	TeamZilla

In the next screen you need to specify the Stream Method, Multibitrate and the stream name. In the table below we will explain those things.

Field	Description
Method	<p>We offer 3 different stream Methods. RTMP, RTSP and Pull.</p> <ul style="list-style-type: none"> <li>RTMP: The default choice and should be used in most cases.</li> <li>RTSP: An older protocol, you only need to use this method if your encoder doesn't support RTMP.</li> <li>Pull: We download your rtmp or rtsp stream. You need to host your own stream. This can be used to pull your ip camera, without using an encoder. See <a href="#">Appendix K: Pull a RTSP stream (IP cams)</a> for more information.</li> </ul>
Multi bitrate	If you are planning to send multiple bitrates simutanesly you need to select yes. If you only provide a single bitrate you need to select no.
Primary / Fallback Wowza URL	You should always connect to both servers. This way your stream is redundant and highly available, even when one of the servers fail.
Stream	Here you can specify the name of your stream. Please don't use spaces or special charcaters. Dashes (-) are allowed.
Username	The username you need to specify in your encoder.
Password	The password you need to specify in your encoder.

When you have filled in all fields please click on Next.

Livestream wizard - step 2
close

Configure the following settings in order to setup a new Wowza Media Server live stream

Method:  RTMP -  RTSP -  pull

Multi bitrate  yes -  no

Primary Wowza URL:

Fallback Wowza URL:

Stream:

Username:

Password:

Please choose a stream name. This is a free field. Do not use spaces or special characters.

Back
Next

Now a screen will open with all your provided settings. If everything is okay you can click on Next. The stream will now be created, this will take a minute.

Livestream wizard - final step
close

Please setup your streaming encoder with the following settings before starting the Wowza Media Server live stream

Summary settings:

Method:

Primary Wowza URL:

Fallback Wowza URL:

Stream:

Username:

Password:

In order to get the best performance, please use the H.264 video codec, AAC audio codec, and set the framerate to 25 frames per second or lower. Keyframes should be sent every 2 seconds, so if the frame rate is 25 frames per second, a keyframe should be inserted every 50 frames.

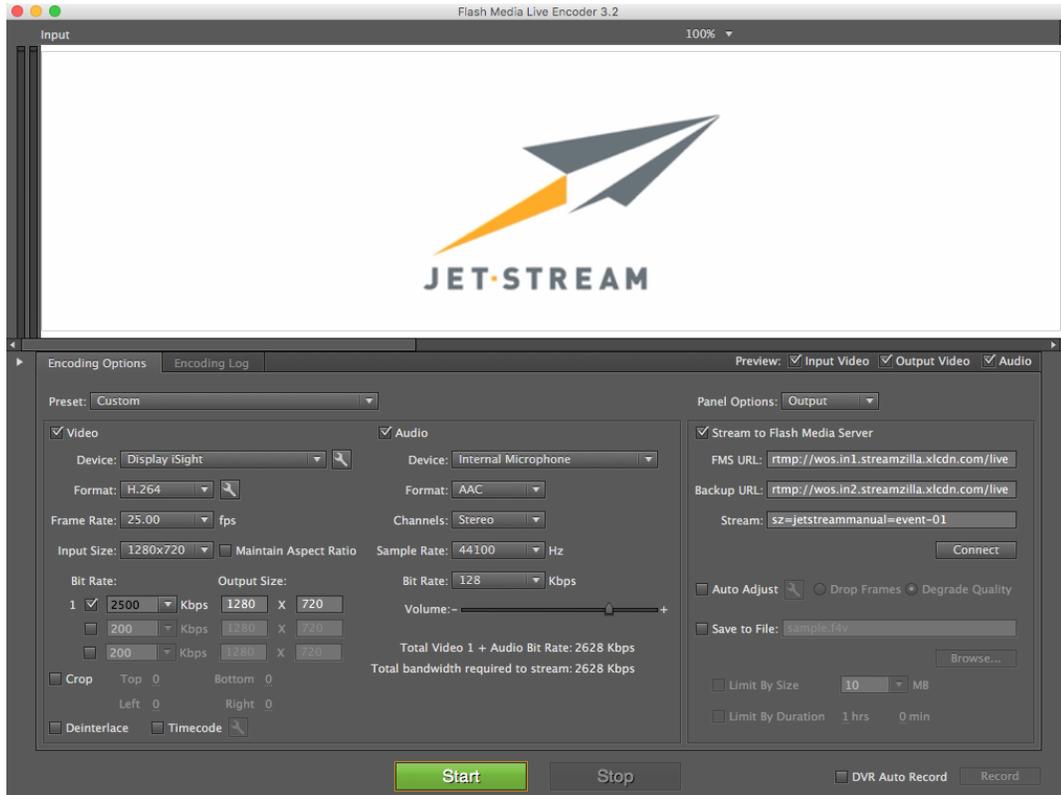
Please press next to save the live stream

Back
Next

Next we need to setup your encoder. See [Setting up your encoder](#) for more information.

# Setting up your encoder

The following guide will help you setup your encoder. In this case we learn you howto setup the Adobe Flash Media Live Encoder. Which can be downloaded for free on <http://offers.adobe.com/en/na/leap/landings/fmle3.html>. After you installed the program you need to start The Flash Media Live Encoder.



First you need to select your Video device. And choose H264 as the format. After that you click on the wrench next to the format. For best results choose Baseline 3.2 with keyframes every 2 seconds. If your content is hd or higher (1280\*720) you need to High 4.1. See [Appendix J: Recommended encoding settings](#) for more information.

After configuring the H264 options you select your bitrate and output size.

Now you select your Audio Input Device in the audio tab. And select AAC as audio format (for Windows only mp3 is available). After that you can configure the bitrate for audio.

Now we need to go to the VDO-X management interface. After that go to the Live streams tab. Now you Click on broadcast next to the live stream. A dialog will open with the settings you need to specify in your encoder (Flash Media Live Encoder).

**Broadcast settings** close

In order to start your live stream, please use the following data in your encoder:

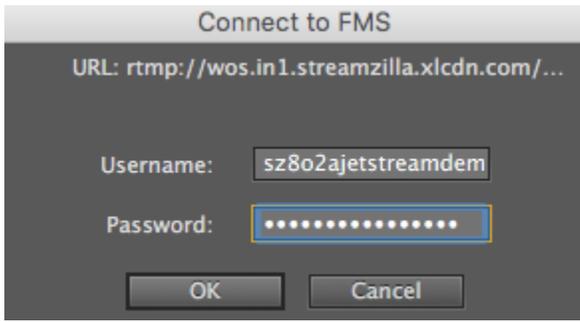
Primary Wowza URL:	<input type="text" value="rtmp://wos.in1.streamzilla.xlcdn.com/live"/>
Fallback Wowza URL:	<input type="text" value="rtmp://wos.in2.streamzilla.xlcdn.com/live"/>
Stream:	<input type="text" value="sz=jetstreammanual=event-01"/>
Username:	<input type="text" value="sz8o2ajetstreamdemo"/>
Password:	<input type="text" value="bl5yO6qLfmsz8o2a"/>

**In order to get the best performance, please use the H.264 video codec, AAC audio codec, and set the framerate to 25 frames per second or lower. Keyframes should be sent every 2 seconds, so if the frame rate is 25 frames per second, a keyframe should be inserted every 50 frames.**

[Click here to send these details to the live encoder user Jet-Stream \(support@jet-stream.nl\)](#)

In the FMS URL you need to provide the Primary Wowza URL. In the Backup URL you need to specify the Fallback Wowza URL. In the stream box you need to copy the Stream.

Now you click on connect. The program will ask for the username and password 2 times. Please make sure that Save to File is unchecked.



Now you can click on the Start button and the stream will begin. When you exit the program all settings will be saved. You only need to specify the username and password again if you restart the program. For information about watching the livestream or embed it to your own website see [Appendix E: Embed code Generator](#).

# Managing your live streams

You can manage live streams by clicking on the live streams button in the control panel. Now you see all your live streams.

 Add a live stream

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Select	Lock	GeoIP lock	Stream name	Format	Type	Bitrate	Resolution	Upload	# Current viewers	Statistics	Status	Management	Publish
<input type="checkbox"/>			event-01	Wowza Media Server 4	live	N/A	N/A	18 Jul 2016 13:53:59	-1			Broadcast, Delete, Distribute, Purge caches	Publish
<input type="checkbox"/>			event-02	Wowza Media Server 4	live	N/A	N/A	18 Jul 2016 14:44:55	-1			Broadcast, Delete, Distribute, Purge caches	Publish
<input type="checkbox"/>			radio-hls	Wowza Media Server 4	live	N/A	N/A	18 Jul 2016 14:45:32	-1			Broadcast, Delete, Distribute, Purge caches	Publish
<input type="checkbox"/>			radio-icecast	IceCast	live	N/A	N/A	18 Jul 2016 14:46:22	-1			Broadcast, Delete, Distribute, Purge caches	Publish

Page: All | 1 - 25

Toggle all

--Action--

In the following table I will explain all columns on the live stream page:

Name	Description
Select	A checkbox to select the asset so you can manipulate it by using an action in the dropdown menu which can be found on the bottom of the page.
Lock	With this button you can lock an asset. A token is needed to view the asset. Please see the API page for information about token generation.
GeoIP Lock	With this button you can make the asset only available to a specific set of countries. When you click on the button a box will open where you can select the allowed GeoIP groups. If you need to create custom GeoIP groups please see the GeoIP Group chapter in the manual.
Stream Name	The filename of the asset. If you click on it you can rename the file. This is only the display name, the filename will be the same.
Format	The streaming software used. In most cases this is Wowza Media Server
Type	The type is always live.
Bitrate	The bitrate of the livestream. The bitrate will be presented in kbps or mbps.
Resolution	You can find here the resolution of the livestream, this only applies to video content of course.
Upload	The time the livestream was created.
Current viewers	The amount of viewers of the live stream.
Statistics	When you click on the icon you see the requests/minute/network of the selected live stream.
Status	The status should always be a green checkmark. If you hover the icon. You can see if the encoder is connected correctly.
Broadcast	When you click on the Broadcast button a window will open with the settings needed to connect your encoder to the livestream.
Delete	With this button you delete (remove) the live stream.
Distribute	Distribute will mark the live stream as popular. All new viewers will be processed by the Bursting servers (normally you don't need this function, because the system decides by its own what is popular).
Purge caches	Purge caches will remove any caches in the CDN. If you have trouble watching the livestream, this may fix the issue (normally you don't need this function).
Publish	With this button a box will open which creates embed code for you. This can be our iFrame player or a link to one of our supported protocols. See <a href="#">Appendix E: Embed code Generator</a> for more information.

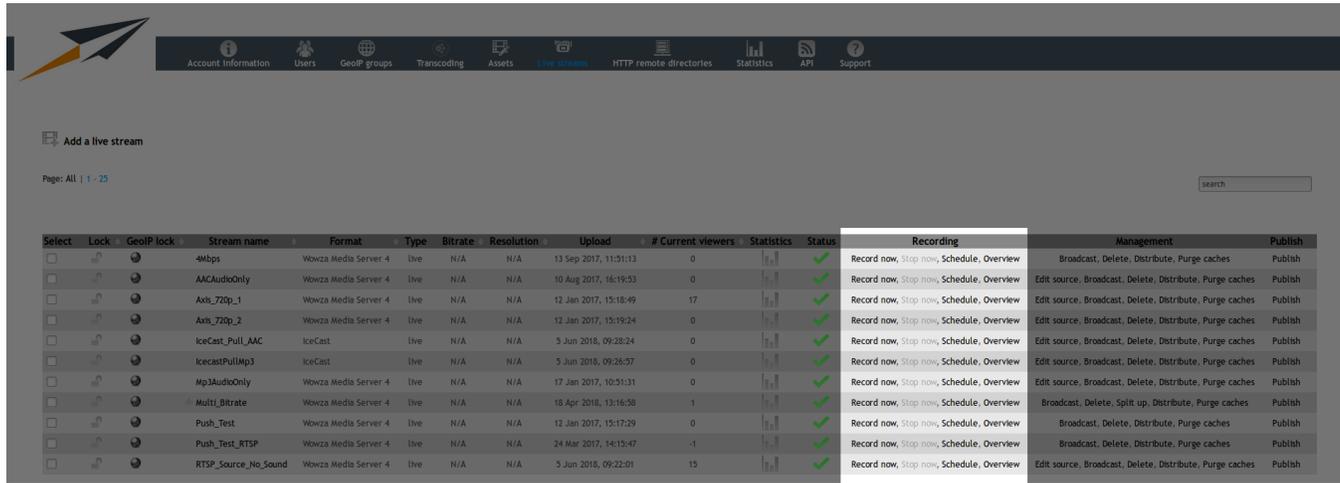
You can also select multiple items by selecting the checkbox before the filename. After this you can select one of the following options in the --actions-- dropdown menu:

Action	Description
--------	-------------

Embed code	With this option a box will open which creates embed code for you. This can be our iFrame player or a link to one of our supported protocols. See <a href="#">Appendix E: Embed code Generator</a> for more information.
Delete	Delete the selected live stream.
Distribute	Distribute will mark the live stream as popular. All new viewers will be processed by the Bursting servers (normally you don't need this function, because the system decides by it's own what is popular).
Lock	Lock the selected live stream. A token is needed to view the live stream. Please see the API page for information about token generation.
Unlock	Unlock the selected live stream. A token is no longer needed to view the live stream.
GeoIP lock live streams	GeoIP lock the selected live streams. The live streams will only be available to a specific set of countries. When you select this action a box will open where you can select the allowed GeoIP groups. If you need to create custom GeoIP groups please see the GeoIP Group chapter in the manual.
Purge all caches for selected files	Purge caches will remove any caches in the CDN. If you have trouble watching the livestream, this may fix the issue (normally you don't need this function).

# Record a livestream

You can record a live stream in multiple ways. The easiest is by manual start and stop the recording for a livestream. Here are the basic steps for starting a recording of a live stream. The recording controls are next to the green status indicator in front of the live stream managing tools. The recording service is capable of recording multi bitrate live streams. When a live stream is multi bitrate, the recording server will detect this, and create a multi bitrate VoD when the recording is done including a needed smil file.



It is possible to update a scheduled or running recording. For a running recording, the stop time can be extended when needed. To update a scheduled or running recording look at the [recording overview](#) section

## Record now

With the record now option you can start a recording instantly. You will need to fill in some extra information like

**Live stream recording schedule** close

Live stream name: Axis\_720p\_1

Recording name:

Recording start time: Now

Recording duration in minutes:

Recording save path:

Save recording as:

Streaming

Download

Transcoding

**Start recording**

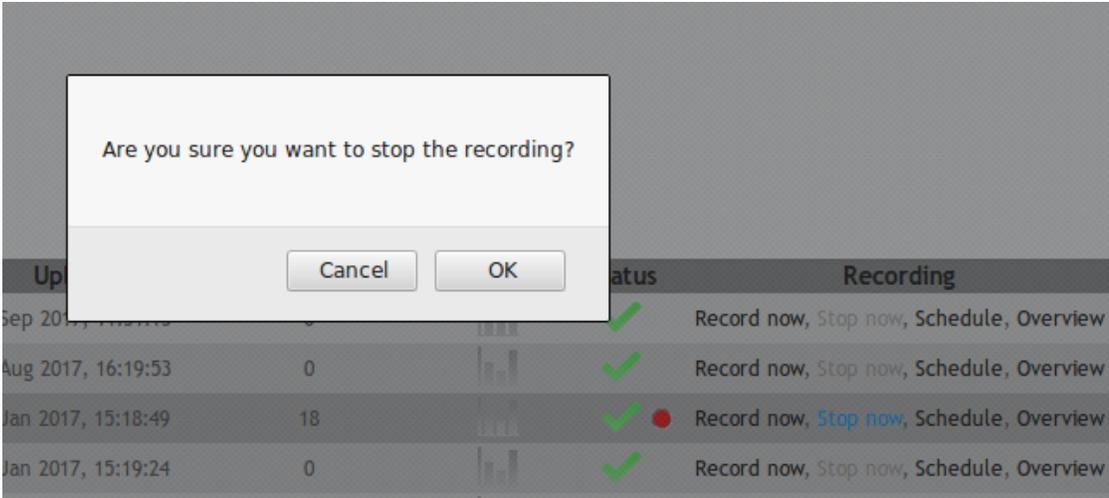
Field	Description
Recording name	Enter the name of the VoD name for this recording. An initial name is giving based on the live stream name. Make sure the recording name is unique. Existing VoD will be overwritten when the recording name is re-used

Recording duration	Enter the duration in minutes for this recording.
Recording VoD location	Enter the storage path where the recording should be placed when done. This can either be '/' which is the default or any other location starting with '/'. Do not use spaces
Recording VoD type	Select whether the recording should be placed in the 'streaming' root, 'download' root or 'transcoding' root.

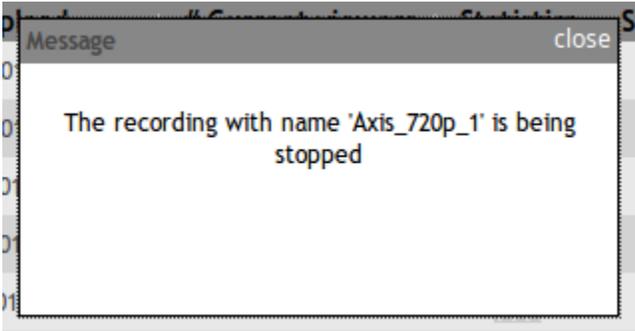
With this option you can schedule a recording for X minutes starting **NOW**.

### Stop now

With this option, you can stop the active recording for that live stream. When there is no recording running, the option is grayed out. When clicking the 'stop now' you will be asked to confirm first before the actual stop is sent.



When the action is done a confirmation message is shown.



### Schedule

With the schedule option you will almost see the same options as for record now. The difference is that you now specify a start and end time for the recording. This way you can schedule (multiple) recording(s) up front.

**Live stream recording schedule**
close

Live stream name: Axis\_720p\_1

Recording name:

Recording start time:  
 15

Recording stop time:  
 15

◀
June 2018
▶

Sun	Mon	Tue	Wed	Thu	Fri	Sat	
27	28	29	30	31	1	2	16:40
3	4	5	6	7	8	9	16:41
10	11	12	13	14	15	16	16:42
17	18	19	20	21	22	23	16:43
24	25	26	27	28	29	30	16:44
							16:45

Field	Description
Recording name	Enter the name of the VoD name for this recording. An initial name is giving based on the live stream name. Make sure the recording name is unique. Existing VoD will be overwritten when the recording name is re-used
Recording start time	Enter or select the recording start time
Recording stop time	Enter or select the recording stop time
Recording VoD location	Enter the storage path where the recording should be placed when done. This can either be '/' which is the default or any other location starting with '/'. Do not use spaces
Recording VoD type	Select whether the recording should be placed in the 'streaming' root, 'download' root or 'transcoding' root.

## Overview

The overview option will give a list of all recording done for that specified live stream. Also you can edit here scheduled and running recordings.

Recording schedule										close
Status	Name	Scheduled start	Secheduled end	Recording started	Recording ended	Recorded duration	Recored size	Actions		
running	Axis_720p_1	28 Jun 2018, 16:27	- 28 Jun 2018, 16:43	28 Jun 2018, 16:27	- ...	2:34	12.75 MIB	edit,stop		
finished	Axis_720p_1	16 Apr 2018, 11:16	- 16 Apr 2018, 11:20	16 Apr 2018, 11:17	- 16 Apr 2018, 11:20	2:59	18.34 MIB			
finished	Axis_720p_1	26 Jan 2018, 11:34	- 26 Jan 2018, 11:43	26 Jan 2018, 11:34	- 26 Jan 2018, 11:43	8:59	55.64 MIB			
finished	Jet-Stream-Test-1	8 Sep 2017, 10:36	- 8 Sep 2017, 10:38	8 Sep 2017, 10:36	- 8 Sep 2017, 10:38	1:57	12.54 MIB			
finished	petit	5 Sep 2017, 16:35	- 5 Sep 2017, 16:36	5 Sep 2017, 16:35	- ...	0	0 B			
finished	petit	5 Sep 2017, 16:12	- 5 Sep 2017, 16:13	5 Sep 2017, 16:12	- ...	0	0 B			
queued	7899	2 Sep 2017, 11:52	- 2 Sep 2017, 11:53	...	- ...	0	0 B	edit,delete		
finished	Axis_720p_1	16 Aug 2017, 12:11	- 16 Aug 2017, 12:13	16 Aug 2017, 12:11	- 16 Aug 2017, 12:13	1:57	13.47 MIB			
finished	Axis_720p_1	25 Jul 2017, 13:51	- 25 Jul 2017, 13:56	25 Jul 2017, 13:51	- 25 Jul 2017, 13:56	4:55	40.79 MIB			
finished	Axis_720p_1_test2	30 Jun 2017, 16:30	- 30 Jun 2017, 16:35	...	- ...	0	0 B			
finished	Axis_720p_1_test1	30 Jun 2017, 16:10	- 30 Jun 2017, 16:12	30 Jun 2017, 16:10	- 30 Jun 2017, 16:13	1:58	15 MIB			
finished	Axis_720p_1 met spaties test 3	12 May 2017, 10:35	- 12 May 2017, 10:38	12 May 2017, 10:35	- 12 May 2017, 10:39	2:58	24.36 MIB			
finished	Axis_720p spaties test 2	12 May 2017, 10:25	- 12 May 2017, 10:27	12 May 2017, 10:25	- 12 May 2017, 10:27	1:56	15.96 MIB			
finished	Axis 720p met spaties	12 May 2017, 10:15	- 12 May 2017, 10:17	12 May 2017, 10:15	- 12 May 2017, 10:17	1:59	7.47 MIB			

This information is updated once per minute

## Extending

It is also possible to extend a running recording. By clicking on the overview option of the livestream which is being recorded, you will get the above overview. In that overview you have an option to edit the recording. When clicking on this option, you will get the same window as for scheduling a recording. But the difference is that the name and start time are fixed / read only. So you are only able to change the end time. This can be extended, but also shortened. When the end time is set to a past time, the recording will stop instantly.

Live stream recording schedule
close

Live stream name: Axis\_720p\_1

Recording name:  
Axis\_720p\_1

Recording start time:  
28-06-2018 16:27

Recording stop time:  
28-06-2018 16:45

Recording save path:  
/

Save recording as:

Streaming

Download

Transcoding

Update recording

# HTTP remote directories

HTTP remote directory is a technique that lets the Jet-Stream CDN cache a complete directory from an external source. This could be all content available on a (your) server, or just a single directory on the external server. With HTTP remote directory you only need to create a link with the external location once and then any content present will become available, making it unnecessary to create an item in VDO-X for every single asset on the remote location. In a way the name of the HTTP remote directory you create becomes an alias for the external location.

The only limitation is that content must be cacheable. In other words: all normal (static) web content including downloadable movie files, can be delivered through an HTTP remote directory, as well as all types of HTTP streams, both VOD and live.

HTTP remote directory also supports sending a virtual hostname with each request. This makes it possible to support origins on shared hosts (the server hosts multiple domains).

In the following chapters we will tell you everything you need to know about HTTP remote directories:

- [Add a HTTP remote directory location](#)
- [Managing your HTTP remote directories](#)
- [Generating your url](#)

# Add a HTTP remote directory location

First you go to the HTTP remote directories Tab. After that you click on the Add a HTTP remote directory location button. A wizard will appear, with only one option. So click on next. After that you need to specify the Primary source location, secondary source location. See the table below for more information.

Field	Description
Primary source location	The url to your server from which we will pull from. Only static content is supported.
Secondary source location	Optionally you can configure a second origin for High availability. The server need to have the same assets as the primary server.
Remote directory name	The display name in VDO-X of this HTTP remote directory location.
Virtual Hostname	Eventually you can send a virtual hostname to the remote directory. This is used for shared hosting.

HTTP remote directory wizard - step 2 close

Please enter the full URL of the source directory, including, if required, the port number. Examples: http://webserver.com:8080 or http://webserver.com/sourcestream.  
Be aware that the path on the primary and secondary source \*must\* be the same.

Primary source location:

Secondary source location:

Remote directory name /sz/jetstreammanual/

(optional) Virtual Hostname

The primary intake node will connect to your encoder with one of these IP addresses:      The secondary intake node will connect to your encoder with one of these IP addresses:

82.150.152.10,      82.150.152.150,  
82.150.152.38,      82.150.152.151,  
82.150.152.40      82.150.152.153

Please make sure your firewall(s) do not block our servers!

Back Next

When you are finished please click on next. A confirmation window will appear with the information provided. If all looks good click on next. The HTTP remote directory location will now be generated.

# Managing your HTTP remote directories

You can manage your HTTP remote directories by clicking on the HTTP remote directories tab in the control panel. Now you see all HTTP remote directories.

 Add a HTTP remote directory location

Page: All | 1 - 25

Select	Lock	GeoIP lock	Filename	Size	Bitrate	Resolution	Upload	# Current viewers	Statistics	Status	Management	Publish
<input type="checkbox"/>			jet-stream	N/A	N/A	N/A	19 Jul 2016 11:09:23	-1			Edit source, Delete, Distribute, Purge caches	Publish

In the following table I will explain all columns on the live stream page:

Name	Description
Select	A checkbox to select the HTTP remote directory so you can manipulate it by using an action in the dropdown menu which can be found on the bottom of the page.
Lock	With this button you can lock a HTTP remote Directory. A token is needed to view the HTTP remote directory. Please see the API page for information about token generation.
GeoIP Lock	With this button you can make the HTTP remote Directory only available to a specific set of countries. When you click on the button a box will open where you can select the allowed GeoIP groups. If you need to create custom GeoIP groups please see the GeoIP Group chapter in the manual.
Filename	The display name of the HTTP remote directory. If you click on it you can rename the display name.
Size	Not applicable
Bitrate	Not applicable
Resolution	Not applicable
Upload	The time the HTTP remote directory was generated.
Current viewers	The amount of viewers of the HTTP remote directory..
Statistics	When you click on the icon you see the requests/minute/network of the selected HTTP remote directory.
Status	The status should always be a green checkmark. If it is a red cross please double check your source url. And try to click on the button Purge caches. If you are still experiencing issues you should contact your resellers support department.
Edit source	By clicking on this button you can edit the origin urls of the HTTP remote directory.
Delete	With this button you delete (remove) the HTTP remote directory.
Distribute	Distribute will mark the HTTP remote directory as popular. All new viewers will be processed by the Bursting servers (normally you don't need this function, because the system decides by it's own what is popular).
Purge caches	Purge caches will remove any caches in the CDN. If you have trouble accessing the HTTP remote directory, this may fix the issue (normally you don't need this function).
Publish	With this button a box will open which helps you generate the url to access your stream. Please see <a href="#">Generating your url</a> for more information.

You can also select multiple items by selecting the checkbox before the filename. After this you can select one of the following options in the --actions-- dropdown menu:

Action	Description
Embed code	With this button a box will open which helps you generate the url to access your stream. Please see <a href="#">Generating your url</a> for more information.
Delete	Delete the selected HTTP remote directories.
Distribute	Distribute will mark the HTTP remote directories as popular. All new viewers will be processed by the Bursting servers (normally you don't need this function, because the system decides by it's own what is popular).

Lock	Lock the selected HTTP remote directories. A token is needed to access the HTTP remote directories. Please see the API page for information about token generation.
Unlock	Unlock the selected HTTP remote directories. A token is no longer needed to access the HTTP remote directories.
GeoIP lock live streams	GeoIP lock the selected HTTP remote directories. The HTTP remote directories will only be available to a specific set of countries. When you select this action a box will open where you can select the allowed GeoIP groups. If you need to create custom GeoIP groups please see the GeoIP Group chapter in the manual.

# Generating your url

To generate a url to access your asset on the HTTP remote Directory you need to click on the Publish button next to the HTTP remote directory on the HTTP remote directories tab.

You will be presented a window where you need to provide the Remote filename. After you provided this you can click on next. Depending on the type of the file one of the following will happen:

- When you provide an videofile or a playlist of a multimedia stream (HLS, HDS, MSS) the embed code generator will launch. See [Appendix E: Embed code Generator](#) for more information.
- In all other cases you will be presented with the direct url to the asset. You can create your own url by editing the &asset= in the url.

Embed code generator close

Delivery service:

Publishing point: jet-stream

Remote server: http://www.jet-stream.nl

Remote filename:

Please enter the name of the asset in the remote directory you would like to view.

Next

# Statistics

You can access your statistics by going to the Statistics tab. The page that will open will show your realtime statistics. To access your historic statistics you need to click on the Piwik statistics button. You can find your credentials by clicking on the [Click here for login details](#) link on the Statistics page.

[Windows Media](#)   [Apache](#)   [IceCast](#)   [Lighttpd](#)   [Wowza Media Server 4](#)   [IIS7 \(Smooth streaming\)](#)   [NGINX](#)   [Piwik statistics](#)   [404 errors](#)

Please note that the buttons Windows Media, Apache, IceCast, Lighttpd, Wowza Media Server 4, IIS7 (Smooth streaming) and NGINX are deprecated. We still provide these pages so you can access your statistics before March 2016.

In the following pages we give you more information about:

- [Realtime statistics](#)
- [Historical statistics \(Piwik\)](#)
- [404 errors](#)

# Realtime statistics

Real time statistics may be accessed by clicking the Statistics menu item. Because these are real time statistics there are no options to specify a date or time range.

The top left diagram shows where requests for content in the account originate from. Requests are collected in the networks configured in VDO-X. Any request that does not match one of the networks will be put in the default bin 'Generic/Unknown'.

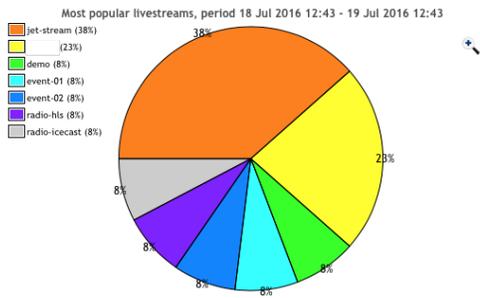
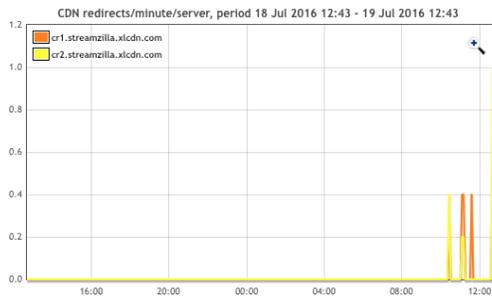
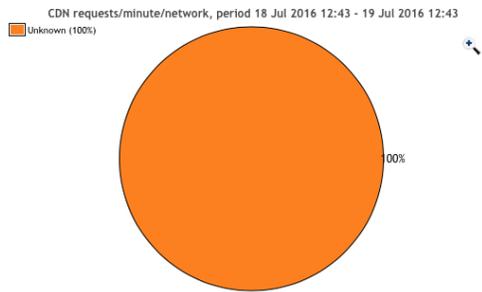
The top right diagram and the diagram below that display respectively the 15 most popular assets and live streams during the indicated period. In this example the period is 24 hours, but this may have been configured differently in your VDO-X installation.

The middle graph in the left column displays the number of redirects per minute executed by the Rediraptor, split up between the XL-Media Servers present in the CDN. If you have Bursting servers in your account and a file becomes popular, you should see the number of redirects to Core servers decrease, and the number of redirects to Bursting servers increase.

The bottom row displays the distribution of assets and live streams in the CDN respectively in the left and right diagram. Most assets should be on the Core layer and a small percentage of popular files can be on a Bursting server. For live streams the primary and secondary intake parts should be about the same size as the core part, and a small percentage may be present for popular live streams that were distributed to Bursting servers.



To access your historical reports in the menu above, use the following login details:  
[Click here for login details](#)



# Historical statistics (Piwik)

To access your historical statistics you need to go to the Statistics page. First click on the Click here for login details link. We need these credentials to access Piwik. After this click on the Piwik statistics button. A window will open which asks for the credentials we found earlier. Now you can see all your statistics of the given month.

The screenshot displays the Piwik dashboard interface. On the left is a navigation sidebar with options: Dashboard, Visitors, Actions, Referrers, and Goals. The main content area is divided into several widgets:

- Visits Over Time:** A line chart showing visits from 2012 to 2016. The y-axis ranges from 0 to 200. A red line shows a steady increase over the years.
- Visitors in Real-time:** A table with columns for DATE, VISITS, and ACTIONS. It lists recent visitor activity with details like date, time, IP address, and actions.
- Length of Visits:** A horizontal bar chart showing the distribution of visit durations. The x-axis represents time intervals (e.g., 0-10s, 10-15 min, etc.).
- Welcome!** A central widget with the Piwik logo and a video player.
- Referrer Websites:** A table listing the websites that refer visitors to the site, with columns for WEBSITE and VISITS.
- Visits by Server Time:** A bar chart showing the number of visits per hour from 0h to 22h.
- Visitor Map:** A world map showing the geographical distribution of visitors, with a '250 visits' count.
- Visitor Browser:** A table listing the different browsers used by visitors, such as Chrome, Firefox, and Safari.

## 404 errors

You can access 404 errors by clicking on the link on the statistics tab. You will see the 404 errors of the last 30 minutes. An 404 error will happen when the resource cannot be accessed. Below you find some scenarios when a 404 error will happen:

- The asset doesn't exist (typos included)
- The requested file is locked and the token received by the Rediraptor is not correct. Please check the code on your website that generates the token.
- The requested file is geo-locked to certain countries and the request does not originate from one of the permitted countries.
- The requested file is not processed yet.

# API

We offer several tools to integrate your workflow with VDO-X. On the API page you find all the API's we offer.

Use these tools to integrate your workflow with VDO-X:

**Assets Ingest API**  
**Protocol(s):** FTP, WebDAV

**FTP Details:**  
 Server: ftp.vdox.streamzillacdn.com  
[Click here for login details](#)

**WebDAV Details:**  
 Server: http://webdav.vdox.streamzillacdn.com/jetstreammanual  
[Click here for login details](#)

Drop streaming assets (like MP4, 3GP, FLV, MOV, WMV) in the root.  
 Drop any (progressively) downloadable asset in the wwwroot.  
 Note that these are dropbox services: assets will be removed after being processed.  
 Use the SOAP API or web Interface to delete and manage assets.  
 It is allowed to create subdirectories in both roots, these will not be removed.  
 If you want to update an asset, drop the new version in the drop box.

**Control API**  
**Protocol(s):** SOAP via HTTPS

SOAP API URL: <http://vdox.streamzillacdn.com/soap/soap.php?wsdl>  
 The above url can also be accessed through SSL. Change the protocol http:// to https://

[Click here for login details](#)

Click on the SOAP API URL to get the WSDL of the SOAP service.  
 You always need to initialize the SOAP and you need a valid session.  
 After doing so, you can use all available commands as documented in the WSDL file.  
 For detailed information, [please download the SOAP documentation here](#).

**Traffic Report API**  
**Protocol(s):** XML via HTTPS

URL: <https://ab3.streamzillaxicdn.com/>  
[Click here for login details](#)

The above details will provide access to the traffic XML feed  
 This feed reports per account, per year, per month, per service and the total of used bytes.

**Statistics access details**  
**Protocol(s):** HTTP

To access your near real time statistics at the [statistics](#) page of your account, please use the following login details:  
[Click here for login details](#)

**Status Report API**  
**Protocol(s):** XML via HTTPS

**XML feeds URLs:**  
 Streaming root feed: [http://vdox.streamzillacdn.com/xml/feed\\_streaming.php?numberOfFiles=50](http://vdox.streamzillacdn.com/xml/feed_streaming.php?numberOfFiles=50) \*  
[http://vdox.streamzillacdn.com/xml/feed\\_streaming.php?numberOfHours=2](http://vdox.streamzillacdn.com/xml/feed_streaming.php?numberOfHours=2) \*

**Progressive root feed:** <http://vdox.streamzillacdn.com/xml/feed.php?numberOfFiles=50> \*  
<http://vdox.streamzillacdn.com/xml/feed.php?numberOfHours=2> \*

**Live streams feed:** [http://vdox.streamzillacdn.com/xml/feed\\_live.php?numberOfFiles=50](http://vdox.streamzillacdn.com/xml/feed_live.php?numberOfFiles=50) \*  
[http://vdox.streamzillacdn.com/xml/feed\\_live.php?numberOfHours=2](http://vdox.streamzillacdn.com/xml/feed_live.php?numberOfHours=2) \*

**HTTP remote directory feed:** [http://vdox.streamzillacdn.com/xml/feed\\_remote\\_directories.php?numberOfFiles=50](http://vdox.streamzillacdn.com/xml/feed_remote_directories.php?numberOfFiles=50) \*  
[http://vdox.streamzillacdn.com/xml/feed\\_remote\\_directories.php?numberOfHours=2](http://vdox.streamzillacdn.com/xml/feed_remote_directories.php?numberOfHours=2) \*

**404-errors feed:** [http://vdox.streamzillacdn.com/xml/feed\\_404.php?numberOfFiles=50](http://vdox.streamzillacdn.com/xml/feed_404.php?numberOfFiles=50) \*  
[http://vdox.streamzillacdn.com/xml/feed\\_404.php?numberOfHours=2](http://vdox.streamzillacdn.com/xml/feed_404.php?numberOfHours=2) \*

The above urls can also be accessed through SSL. Change the protocol http:// to https://

[Click here for login details](#)

The XML feeds contain a list of available assets per root and for live streams.  
 Each asset record includes a MD5 hash, a filesize and possible one or more streaming URLs.  
 The account quota information is available in the header of the feed.  
 Note that not all browsers will show the XML feed correctly, please look at the source of the XML feed to see the structure.

\* To speed up these APIs please always use the numberOfFiles=xx or numberOfHours parameters=xx.  
 Otherwise the feed will show you all assets which affects the performance if you have many assets or live streams.  
 Best practice is to load the entire feed occasionally to check the full account status  
 and for all other checks only check for the latest files or the latest hours.

**Secure Token API**  
**Protocol(s):** URL based token

Token based access control:  
 To use the secure tokenid, you have to lock the asset or live stream in the filemanagement or the SOAP API  
 Then generate a token with the following steps:

1. Take the current time stamp in GMT in seconds. (time() function in PHP)
2. Make a hex value of the current time stamp from 1. Save it in a separated variable
3. Combine the normal time stamp from 1, with the complete filename of your movie including the sub folders and your SecureID. In that order.
4. Generate a MD5 hash from the variable of step 3
5. Add the hex time stamp in front of the MD5 hash, separated with a '|'

Example token: 4992eb8|ed1a308d965aea412ae8191d41c783a

Your SecureID (1 line):  

```
[NixAmB9W]jpB4cQGfY4lp77eVaeRH04sb36gEoxbqjwCJ6k40z8Ue7GunR2o3Kp77F4D4sr5QPpLJcs05uupTX7663yQg
jT8b0Vp8B8dcIozewF3QV7TQDLr0
```

Token time out: 5 minutes  
[PHP example code for token generation](#)

API	Description
Assets Ingest API	This table contains the contains information for uploading your own assets. Assets can be upload with the following protocols: FTP or WebDAV. See <a href="#">Uploading new VOD assets</a> for more information.
Control API	This table gives you information about the SOAP control API VDO-X offers. This API can be accessed with http and https. Everything you can do in the web interface can also be achieved by using this API. You can find here the URL and credentials. You can also download the manual for the SOAP API in this column. This manual gives you many examples on how to use the control API.
Traffic Report API	This table contains the information to access your traffic usage. You see here the credentials and the url which are needed for accessing your traffic usage.
Statistics access details	This table contains the credentials used for accessing your statistics. See the <a href="#">Statistics</a> chapter for more information.
Status Report API	VDO-X generates xml feeds which can be used to verify the status of uploaded streaming assets, uploaded downloading assets, live streams, HTTP remote directory and information about 404 errors. This api can be used over http and https.
Secure Token API	Here you find your unique secure ID. This is a random string that you need to access locked items in your account. You may click on the 'PHP example code for token generation' to display four lines of PHP code that show you how to use the secure ID for generating the token that should be passed to the Rediraptor when requesting a locked item.

# Support

The support page shows you the contact information of your reseller. You can find the newest version of this manual on this page.

# Appendix A: Glossary

Term	Description
404-movie	When a stream can't be reached a 404 video will be served to the viewer. It is possible to change this movie see: <a href="#">Appendix F: Custom 404 errors</a> for more information.
Account administrator	The Account administrator is the principal user of a VDO-X account: this is the only user that has the ability to make changes to data associated with the account
Account rights	An account can have the following features: Live streaming, HTTP remote directory and Recording. You can contact your reseller if you want a feature enabled.
Active request routing	Active request routing routes requests based on real time statistics of the CDN performance
Afterburner	Afterburner collects all logs from XL-Media Servers in the Jet-Stream CDN and processes these in order to calculate historical request statistics which may for instance be used for billing
Anti Rediraptor-bypass mechanism (ARB)	ARB is a mechanism built-in the Jet-Stream CDN that ensures that it is impossible to request content from an XL-Media Server without using the Rediraptor.
API	Application Programming Interface is a standard abbreviation used in software design to refer to a collection of predefined interactions available in your software that may be used by other software to access functionality in your own software.
Bursting server	Bursting servers are used to handle popular content. This can be an Overflow or an Edge server.
CDN (Content Delivery Network)	A CDN is an network that has functionality built-in ensuring the best possible delivery of content from its storage location to the location from which a request originates
CDN Modus	CDN Modus is the strategy used to configure the networks which will be connected with Edge locations
Chunk	Chunk is used by HTTP based streaming protocols. It is a video cut in chunks of a couple of seconds.
Chunking	Chunking is the process of making a stream chunked.
Core server	The Core server(s) is an XL-Media Server optimized for storage. Core servers handle requests for non-popular content
Distribute files	Distribute files is a feature in VDO-X to mark an asset as populair and send the asset to one or multiple Bursting servers and to redirect new viewers to the Bursting server(s)
Download files	Download files are files(assets) that can be downloaded by a webserver. A download file cannot be used by streaming protocols.
Edge server	Edge servers are essentially a geographically optimized Overflow server. An Edge server must be configured with a list of networks and when the number of requests for a certain item from those networks grows above the popularity threshold, that item will be moved to the Edge server. On top of that requests that do not originate from one of the connected networks will never be directed to the Edge server.
Embed Code Generator	The Embed Code Generator is a wizard that produces code to embed given content in your website and the Rediraptor-URL required to request it
File Lock	File lock is a feature to lock : files, live streams, and HTTP Remote Directories, meaning that playout is only possible when the correct token is passed to the Rediraptor
Framerate	Framerate is the number of video frames in a video, expressed as a number per second. Your eye has a processing power of about 10 to 12 fps, movie content should at least have about 20 fps in order to make it look 'smooth'.
Geo-group	A Geo-Group is sa set of countries, used for geo-locking
Geo-lock	Geo-locking can be used on assets an livestreams. This way only viewers from the specified Geo-Group can watch the video.
Historical statistics	Historical statistics are an exact calculation of bandwidth usage based on the logs of all XL- Media Servers in the CDN. The Afterburner component does all the work in collecting the logs and doing all the calculations. The historical statistics are split up between the used services.
HTTP streaming	HTTP-based streaming technologies HLS (Apple), HDS (Adobe), Smooth (Microsoft) and MPEG-DASH break up your movie into chunks, and then use the standard HTTP protocol to download each chunk and mending all chunks together while playing

Ingest	Ingest is the all pre-processing process that needs to be executed before new content can be made available for viewing
Intake server	an XL-Media Server specialized for ingesting live streams. Pull streams will be pulled from these servers and push streams will need to publish to these servers.
Keyframe	Most streaming formats don't send full frames, but only differences between frames. This results in a massive compression of the required data transfer. The downside is that small errors in the transmission will build up in time. For that reason every few frames a full frame is transferred, resetting any accumulated errors. We advise to configure your encoder to send a keyframe every 2 seconds, i.e. every 2*FR frames, with FR the framerate.
Live stream	Live stream is streaming content that is generated in realtime and must be played in realtime as well to prevent parts of the contents not being displayed
Lock	lock is a feature to lock : files, live streams, and HTTP Remote Directories, meaning that playback is only possible when the correct token is passed to the Rediraptor
Management server	The Management server is the application server in the Jet-Stream CDN solution
Multi bit rate	Multi bit rate is a streaming asset that is composed of a number of versions of the same video at different bit rates. This allows players that support such files to switch between bit rates in reaction to the available bandwidth.
Overflow server	The Overflow server is an XL-Media Server optimized for traffic. As soon as content becomes popular, the Rediraptor will start to redirect new requests for it to (one of) these servers
Passive request routing	Passive request routing is Fixed, static load balancing, found with many different names, but essentially nothing more than a Round Robin DNS balancer of a predetermined pool of servers.
Popular content	An asset is considered popular content when the number of requests per minute for a given item grows above a pre-configured threshold (individually configurable for each account) new requests will be sent to Bursting servers instead of Core servers
Pseudo-streaming	Pseudo-streaming is playing a normal movie download while it is being downloaded. It looks as if the file is being streamed, because it starts playing very quickly, but you can't skip to a part that has not been downloaded
Pull stream	A live stream that is pulled from an origin location by the Intake server(s)
Push stream	A live stream that is actively pushed by the encoder to the Intake server(s)
Real time statistics	VDO-X is capable of displaying some basic (near) real time statistics, which are calculated from Rediraptor data
Rediraptor	The Rediraptor-URL is the active request router used to access content in the Jet-Stream CDN. Being an active router it is possible to respond in realtime to changes in the CDN, enabling realtime optimization of delivery
Rediraptor-URL	Rediraptor-URL is a general name used to refer to the full URL that should be sent to a Rediraptor in order to view content stored in the CDN.
Secure ID	The Secure ID a random string, unique to each account, which is required for calculating the Token that must be passed to the Rediraptor in order to access items with a Lock
Redundancy	Redundancy is making sure that each component in an integrated system has a backup
Single point of failure	Single point of failure is a component in an integrated system that causes the full system to fail if just that component fails
Streaming files	A Streaming file is a file that is physically present (VOD) and which will be played by a streaming service, i.e. a service that does not allow downloading the file, but instead sends frames
Token	A Token is a string of characters, calculated by hashing a long input string that amongst other things includes the Secure ID, and because the Secure ID is only known by the owner, the token can not be reproduced by anyone other than the owner.
True streaming	Examples of True streaming protocols are: MMS, RTMP (and variants) or RTSP. These protocols provide a more or less continuous stream of frames, in contrast with HTTP streaming or pseudo-streaming
Undistribute files	Undistribute files is a function in VDO-X. The function will remove a file from a Bursting server, and to send new viewers to Core servers
User rights	User rights are a list of rights assigned to an individual user which controls
VoD (Video on Demand)	VoD is a physical file that stores some movie content
XL-Media Server	The XL-Media Server is a media server in the Jet-Stream CDN, which may run any combination of software capable of playing out movie content. Their contents is controlled by the Management server, and they handle requests, but only if the original request was handled by a Rediraptor.

# Appendix B: User rights

User rights are used to give users permissions (rights) to features of VDO-X. This way you can create individual users for FTP or API access. Or create multiple accounts with all rights so you can have multiple administrators.

User rights can be enabled or disabled respectively by selecting or deselecting the corresponding checkbox in the User rights list found at the bottom of the Add a new user and Edit user screens.

For instance, a user with the user rights as displayed in the image below would be allowed to manage live streams, start a broadcast, upload new VOD content, use the SOAP API and check statistics. The user is not allowed to work with geo-groups, HTTP remote directories or make changes to any users (this includes making changes to settings of the user itself).

**Add a new user**

Every username will be prefixed with "sz2xsv".  
And the password will be suffixed with "sz2xsv".

User name: sz2xsv

Password: [Generate](#)  sz2xsv

Real name:

E-mail address:

Telephone number:

Language:

User rights:

- Toggle all
- Manage GeolP groups
- Manage HTTP remote directory
- Manage assets
- Manage live streams
- Manage users
- Setup live encoder
- Upload assets
- Use API
- View statistics

User Right	Shortened name	Privileges
n/a	accountadmin	There is one user with this user right: the account administrator. This right can not be removed from the user, as it is your primary account.
Manage GeolP groups	geogroups	Enable the Geo groups menu item, which allows the user to create, edit and delete geo groups. This right does not apply the user to link geo-groups to any type of content.
Manage HTTP remote directory	httpopendir	Enable the HTTP remote directories menu item, which allows the user to create, edit, delete and distribute HTTP remote directories as well as generate embed codes for content inside these directories.
Manage assets*	assets	<p>Enable the Assets menu item, which allows the user to</p> <ul style="list-style-type: none"> <li>• combine and split assets</li> <li>• delete assets</li> <li>• distribute assets, undistribute assets, purge caches</li> <li>• generate embed codes and preview assets</li> <li>• Set GeolP groups on assets</li> </ul> <p>Uploading assets is <b>not</b> allowed.</p>

Manage live streams*	livestreams	<p>With this user right the Live streams menu item is enabled, which allows a user to</p> <ul style="list-style-type: none"> <li>• create, edit and delete live streams</li> <li>• distribute, undistribute live streams and purge caches for HTTP streams</li> <li>• generate embed codes</li> <li>• Set GeolP groups on livestreams</li> </ul> <p>Notice that live streams can only be created for users with the Setup live encoder right. Similarly publishing a live stream is <b>not</b> allowed, hence previewing by the current user is only possible if the current user also has the Setup live encoder user right.</p>
Manage users*	users	Enable the <i>Users</i> menu item, allowing the user to create, update, delete and purge users, and to change user rights.
Setup live encoder	encoder	This user right allows a user to connect an encoder to the CDN, hence to publish the live stream. To be clear: a user with only this right is unable to login to VDO-X or to ingest VOD.
Upload assets	ftp	This user right allows a user to upload files with FTP into VDO-X. <i>Deleting</i> files is not allowed. To be clear: a user with only this right is unable to login to VDO-X or to publish live streams. Without the Manage assets rights the user cannot manage his uploaded assets.
Use API*	api	Enable the <i>API</i> menu item and allow the user to <b>connect</b> to the SOAP API. In order to do anything through the API (even to get a listing) with HTTP remote directories, assets, live streams, or users, the user will additionally need to have the corresponding user right.
View statistics*	stats	Enable the <i>Statistics</i> menu item, allowing the user to access statistics of the account. This user right also allows the user to login to Afterburner to get historical statistics.

\* Some user rights are starred. If a user has at least one of the starred user rights, the user has the ability to log in to VDO-X either through the web interface, or through the SOAP API.

# Appendix C: Lost credentials

In case you lost your user name and/or password or your password was compromised, you may request a new password.

If you only lost your user name and/or password you don't have to request a new password, but instead you could ask a different user of the same account to login and email your credentials. The user can achieve this by going to Users, finding your user name in the list and selecting Send user login information from the Options menu.

If this not an option for you, then you can use the 'Lost password?' link on the bottom of the login page of VDO-X. You will be presented with a form where you need to enter either

- your user name
- your account name with the associated email address

Upon selecting Send the first of two emails will be sent to the email address that was registered with the user name. This email contains a reset link which you should open in your favourite browser either by clicking or by copying the link. This link is valid for three days.

When you click on this link a new e-mail will be send with new credentials.

## Request new password

Through this form you may request a new password. Either enter the username you use to log in, or the account name and the e-mail address registered with your login. You will be sent an email with a confirmation link that will remain valid for 3 days. Please follow the URL in the mail to get a new pass

Username:	<input type="text" value="sz8o2ajetstreamdemo"/>
Accountname:	<input type="text"/>
Your VDO-X email address:	<input type="text"/>
<input type="button" value="Send"/>	

# Appendix D: Create your own multibitrate SMIL file

It is possible to upload your own multi bit rate smil-file along with the single bit rate files that will make up the multi bit rate file. This technique can be used to generate multi bit rate Flash, iOS, Smooth and Adobe HLS streams from single bit rate files that are H264/AAC encoded (typically, but not always mp4 files). Just make sure that the VOD files and the smil file that together make up the multi bit rate asset are uploaded to the same folder.

All you need to specify in the smil-file are the names and bit rates and movie widths of the individual VOD files. Please make sure that the lowest bit rate is named first. There is no limit to the amount of files that make up the multi bit rate file, but it is advisable not to have more than five bit rates.

Below you can find an example of a smil-file that is made up of the three single bit rate files stream\_1.mp4, stream\_2.mp4 and stream\_3.mp4:

```
<?xml version="1.0"?>
<smil>
  <head/>
  <body>
    <switch>
      <video src="stream_1.mp4" system-bitrate="354304" width="428"/>
      <video src="stream_2.mp4" system-bitrate="507904" width="428"/>
      <video src="stream_3.mp4" system-bitrate="1122304" width="640"/>
    </switch>
  </body>
</smil>
```

This is a rather more complex version which holds **multiple audio tracks**

```
<?xml version="1.0"?>
<smil>
  <head/>
  <body>
    <switch>
      <video src="video_small.mp4" height="360" width="640" system-bitrate="187290">
        <param name="videoCodecId" value="avc1.66.30" valuetype="data"/>
        <param name="videoOnly" value="TRUE" valuetype="data"/>
        <param name="cupertinoTag.AUDIO" value="aac" valuetype="data"/>
        <param name="audioCodecId" value="mp4a.40.2" valuetype="data"/>
      </video>
      <video src="video_high.mp4" height="720" width="1280" system-bitrate="340890">
        <param name="videoCodecId" value="avc1.66.30" valuetype="data"/>
        <param name="videoOnly" value="TRUE" valuetype="data"/>
        <param name="cupertinoTag.AUDIO" value="aac" valuetype="data"/>
        <param name="audioCodecId" value="mp4a.40.2" valuetype="data"/>
      </video>
      <video src="video_high.mp4?audioindex=0" system-language="de" title="Deutsch" audio-bitrate="512000">
        <param name="audioOnly" value="TRUE" valuetype="data"/>
        <param name="cupertinoTag" value="EXT-X-MEDIA" valuetype="data"/>
        <param name="cupertinoTag.GROUP-ID" value="aac" valuetype="data"/>
        <param name="cupertinoTag.DEFAULT" value="YES" valuetype="data"/>
      </video>
      <video src="video_high.mp4?audioindex=1" system-language="en" title="English" audio-bitrate="512000">
        <param name="audioOnly" value="TRUE" valuetype="data"/>
        <param name="cupertinoTag" value="EXT-X-MEDIA" valuetype="data"/>
        <param name="cupertinoTag.GROUP-ID" value="aac" valuetype="data"/>
        <param name="cupertinoTag.DEFAULT" value="YES" valuetype="data"/>
      </video>
      <video src="video_high.mp4?audioindex=2" system-language="fr" title="France" audio-bitrate="512000">
        <param name="audioOnly" value="TRUE" valuetype="data"/>
        <param name="cupertinoTag" value="EXT-X-MEDIA" valuetype="data"/>
        <param name="cupertinoTag.GROUP-ID" value="aac" valuetype="data"/>
        <param name="cupertinoTag.DEFAULT" value="YES" valuetype="data"/>
      </video>
    </switch>
  </body>
</smil>
```

# Appendix E: Embed code Generator

The embed code generator allows you to generate embed codes for our iFrame player and embed codes for the different protocols we support. In the following chapters we will explain how to do this. To access the Embed code generator you need to click on the Publish button next to the asset or livestream. We recommend you to use the iFrame player.

- [iFrame player](#)
- [Advanced embedcode generator](#)

# iFrame player

To access the Embed code generator you need to click on the Publish button next to the asset or livestream. It will automatically launch the embed code generator for the iFrame player.

Embed code generator close

Select embedcode type:  iFrame player  Advanced embedcode generator

Filename	Big_buck_bunny_720p.mp4
Delivery service	Wowza Media Server 4 <span style="font-size: 0.8em;">v</span>
Movie size	1280x720 <span style="font-size: 0.8em;">v</span>
Poster image	BigBuckBunny.jpg <span style="float: right; font-size: 0.8em;">?</span>
VMAP XML	<input type="text"/> <span style="float: right; font-size: 0.8em;">?</span>
Automatically start playback	<input type="radio"/> Yes <input checked="" type="radio"/> No
Repeat playback	<input type="radio"/> Yes <input checked="" type="radio"/> No

Tip: for the best performance use H264 video codec and preferably AAC audio codec in stead of a mp3 audio codec.

```
<iframe src="//rrr.sz.xlcdn.com/?account=jetstreammanual&file=Big_buck_bunny_720p.mp4&type=streaming&service=wowza&poster=BigBuckBunny.jpg&output=player" width="1280" height="720" frameborder="0" seamless allowfullscreen="true" webkitAllowFullScreen="true"></iframe>
```

[http://rrr.sz.xlcdn.com/?account=jetstreammanual&file=Big\\_buck\\_bunny\\_720p.mp4&type=streaming&service=wowza&poster=BigBuckBunny.jpg&output=player](http://rrr.sz.xlcdn.com/?account=jetstreammanual&file=Big_buck_bunny_720p.mp4&type=streaming&service=wowza&poster=BigBuckBunny.jpg&output=player)

In the table below you find information about the fields. When you are done please click on the Generate button. In the text area the HTML embed code will be generated. In the text box below you can find the direct url to the player with your parameters. After you click on generate you can watch a preview of your iFrame player by clicking on the Preview button. The iFrame player supports HTTP and HTTPS to change the protocol you only need to edit the link.

Field	Description
Filename	The filename of the selected asset
Delivery service	The service used for delivery of your media. In most cases this is the Wowza Media Server or Nginx.
Movie size	The size of the iFrame player on your website.
Poster image	A poster image will be displayed before playback of the video. The poster image needs to be uploaded in the wwwroot folder using FTP. See chapter <a href="#">Uploading new VOD assets</a> for more information. You only need the filename, this field supports autocomplete.
VMAP XML	VMAP XML is a XML used for advertising. You can specify the URL for your advertising XML here. See chapter <a href="#">Advertising</a> for more information.
Automatically start playback	When yes is selected the asset will be played as soon as the page loads.
Repeat playback.	When yes is selected the asset will repeat after playback.

Embed code generator close

Select embedcode type:  IFrame player  Advanced embedcode generator

Filename close

Delivery service

Movie size

Poster image

VWAP XML

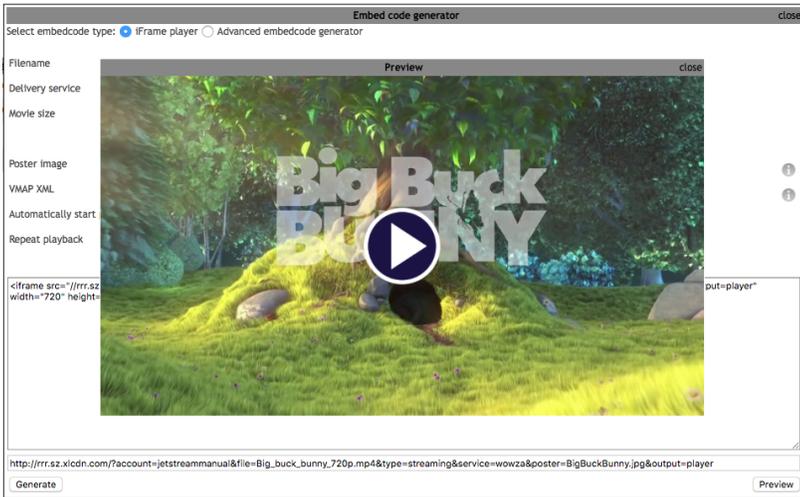
Automatically start

Repeat playback

`<iframe src="//rrr.sz.xicdn.com/7account=jetstreammanual&file=Big_buck_bunny_720p.mp4&type=streaming&service=wowza&poster=BigBuckBunny.jpg&output=player" width="720" height="400" frameborder="0" allowfullscreen="true" allow="autoplay; fullscreen; picture-in-picture" data-bbox="138 100 510 268" output="player"`

[http://rrr.sz.xicdn.com/7account=jetstreammanual&file=Big\\_buck\\_bunny\\_720p.mp4&type=streaming&service=wowza&poster=BigBuckBunny.jpg&output=player](http://rrr.sz.xicdn.com/7account=jetstreammanual&file=Big_buck_bunny_720p.mp4&type=streaming&service=wowza&poster=BigBuckBunny.jpg&output=player)

Generate Preview



# About the iFrame player

The iFrame player is a free and easy to use HLS video player that you can embed onto your website. The player is based on JW Player and supports most operating systems and Internet browsers.

## Supported operating systems:

- Microsoft Windows 7 and up
- Apple OS X 10.6 and up
- Apple iOS 7 and up
- Google Android 4.1 and up

## Supported browsers:

- Latest version of Google Chrome
- Latest version of Mozilla Firefox
- Latest version of Apple Safari
- Microsoft Internet Explorer IE9 and up

## Asset unavailable message:

If a stream doesn't connect in 10 seconds, an Asset Unavailable message will be displayed. It is possible to customise this message see [Appendix F: Custom 404 errors](#) for more information.

# Advertising

We offer our clients the possibility to display advertisements in our iFrame player. You can choose to display advertisements pre, mid or end-roll. We support the Video Ad Serving Template (VAST) specification as released by the Interactive Advertising Bureau. VAST sets the standard for communication requirements between ad servers and video players and is used by most companies.

In order to play the advertisement in the video player, the player must be instructed to request the advertisement video file at the VAST ad server. This is done by uploading an XML file, as an asset in the VDO-X account. Please do so by uploading it in your FTP progressive (wwwroot) folder

## VAST XML options

Jet-Stream offers the option to use either VAST XML 2.0 or 3.0. For specific details about these XML types, please click [the following link for VAST 2.0](#) or [this link for VAST 3.0](#). We will detail briefly the purpose and recommended way to use each XML type in VDO-X.

### VAST 2.0

This XML type is typically used for usage of advertisements which are uploaded in VDO-X. You can use it for an external ad server as well, but VAST 3.0 is recommended for that.

You can upload your advertisements as mp4 files to VDO-X in the progressive download root. This provides complete control over the advertisements that are displayed. Below you will find an example static XML file to use as a reference. Do not copy it for usage.

### VAST 3.0

This XML type is typically used for retrieving advertisements from an external VAST ad server. This provides you with the complete database of advertisements on that ad server and allows for a more diverse selection of advertisements. With VAST 3.0 tracking options are also available, through a 3<sup>rd</sup> party. VDO-X does not support tracking of viewers.

In the VAST XML file you can link to the correct asset, the ads that you need to display. Please make sure that the advertisements you need to display are progressive downloads.

## Publishing your advertisements

Once you have uploaded the correct XML file in VDO-X, you can start publishing pre-roll advertisements. According to your requirement you can either enter the assets or the live-stream menu in VDO-X. The process is the same.

Please select the media you want to publish and click publish on the right side of the screen. The publishing wizard will pop up. In the publishing wizard you will see an item called VMAP XML with an entry field. Enter the filename of your XML in VDO-X in the entry field and complete the wizard with any other settings you require. Alternatively, if you have multiple XML files, start typing the name of the XML file and select the correct one from the list of XML files that is shown.

If you now press generate, you will get an URL that you can embed on your website. Please make sure to use the complete URL. The advertisements will now automatically be played in your video.

## Example static XML

```
<?xml version="1.0"?>
<VAST version="2.0">
  <Ad id="static">
    <InLine>
      <AdSystem>Static VAST 2.0 Template</AdSystem>
      <AdTitle>Static VAST 2.0 Tag</AdTitle>
      <Impression>//example.com/pixel.gif</Impression>
      <Creatives>
        <Creative sequence="1">
          <Linear>
            <Duration>00:00:30</Duration>
            <TrackingEvents>
              <Tracking event="start">//example.com/pixel.gif</Tracking>
              <Tracking event="firstQuartile">//example.com/pixel.gif</Tracking>
              <Tracking event="midpoint">//example.com/pixel.gif</Tracking>
              <Tracking event="thirdQuartile">//example.com/pixel.gif</Tracking>
              <Tracking event="complete">//example.com/pixel.gif</Tracking>
              <Tracking event="pause">//example.com/pixel.gif</Tracking>
              <Tracking event="mute">//example.com/pixel.gif</Tracking>
              <Tracking event="fullscreen">//example.com/pixel.gif</Tracking>
            </TrackingEvents>
            <VideoClicks>
              <ClickThrough>//www.jet-stream.nl</ClickThrough>
              <ClickTracking>//example.com/pixel.gif</ClickTracking>
            </VideoClicks>
            <MediaFiles>
              <MediaFile id="1" delivery="progressive" type="video/mp4" bitrate="400" width="640" height="360"
                ><![CDATA[//rrr.jgr.devel.jet-stream.nl/?account=demo&file=mpeg4.mp4&type=download&service=apache&output=flv]]><
              /MediaFile>
            </MediaFiles>
          </Linear>
        </Creative>
      </Creatives>
    </InLine>
  </Ad>
</VAST>
```

# Advanced embedcode generator

To access the Embed code generator you need to click on the Publish button next to the asset or livestream. In the Window you need to click on the radio button: Advanced embedcode generator.

close
Embed code generator

Select embedcode type:  IFrame player  Advanced embedcode generator

Filename:

Delivery type:

Player type:  3G Mobile  Adobe Zeri  Flash  MPEG DASH  Quicktime  Smooth  IOS

Delivery service:

Metafile format:

Protocol:

Portnumber:

Movie size:

Width:  Height:

Player ID/name:

Automatically start playback:  Yes  No

Hide the control bar:  Yes  No

Repeat playback:  Yes  No

Tip: this setting requires your assets and live streams to be encoded with H.264 video and AAC audio.

```

<video class="html5videoplayer" width="640" height="340" autoplay controls poster="">
  <source src="http://rrr.sz.xicdn.com/?account=jetstreammanual&file=Big_buck_bunny_720p.mp4&type=streaming&service=wowza&protocol=http&output=playlist.m3u8"
  type="video/mp4"></source>
</video>

```

http://rrr.sz.xicdn.com/?account=jetstreammanual&file=Big\_buck\_bunny\_720p.mp4&type=streaming&service=wowza&protocol=http&output=playlist.m3u8

Generate
Preview
Download embed files

The Advanced embedcode generator allows you to generate urls and embed codes. You need to configure your own player. When you click on the Download embed files button you can download example players for all formats with a manual on how to embed the player on your own website. When you have configured everything you can click on the generate button, eventually you can click on the preview button to see a preview of the asset. Previewing of an iOS / HTML5 asset will only work on Mac OS X or iOS.

Field	Description
Filename	The filename of the selected asset
Delivery Type	Shows if the asset is a streaming or download asset.
Player type	The method used for delivery. 3G Mobile = RTSP Adobe Zeri = Adobe HTTP Dynamic Streaming Flash = RTMP Quicktime = Quicktime over RTSP Smooth = Microsoft Smooth Streaming iOS = Apple HTTP Live Streaming (HLS)
Delivery service	The service used for delivery of your media.
Metafile format	The format of the metafile.
Protocol	The protocol used for delivery.
Portnumber	The port that will be used for delivery.
Movie size	The dimensions for embedding the asset on your site.
Player ID/name	The html class that will be used for the embed code.
Automatically start playback	When yes is selected the playback will be started automatically.
Hide the control bar	When yes is selected the controls of the player will be hidden.
Repeat playback	When yes is selected the asset will repeat after playback.

Embed code generator close

Select embedcode type:  iFrame player  Advanced embedcode generator

Filename: Big\_buck\_bunny\_720p.mp4 ?

Delivery type

Player type

Delivery service

Metafile format

Protocol

Portnumber

Movie size

Player ID/name

Automatically start playback

Hide the control bar

Repeat playback

Preview close

```

<video class="html5videoplayer" width="640" height="340" autoplay controls poster=""
<source src="http://r1.s2.xicdn.com/?account=jetstreammanual&file=Big_buck_bunny_720p.mp4&type=streaming&service=wowza&protocol=http&output-playlist.m3u8"
type="video/mp4"></source>
</video>

```

[http://r1.s2.xicdn.com/?account=jetstreammanual&file=Big\\_buck\\_bunny\\_720p.mp4&type=streaming&service=wowza&protocol=http&output-playlist.m3u8](http://r1.s2.xicdn.com/?account=jetstreammanual&file=Big_buck_bunny_720p.mp4&type=streaming&service=wowza&protocol=http&output-playlist.m3u8)



# Appendix F: Custom 404 errors

You can upload your own 404 error movie. This movie will be displayed when the asset is not available, the livestream is offline or when GeoLocking is active for the viewer.

To upload your own 404-videos, do the following:

- Log in with FTP (please see [Uploading new VOD assets](#) for more information)
- Create a new folder in the Streaming root and the wwwroot called: 'custom\_errors'

Your directory tree will then look like this:

```
/
/custom_error/
/wwwroot/
/wwwroot/custom_error/
```

In most cases you only need to upload one 404 error movie. With the name VDO-X-404.mp4. The movie should be encoded with h264/aac. See [Appendix J: Recommended encoding settings](#) for more information, You need to upload this file to both custom\_errors folders.

If you want to be sure that every device and delivery service gets your custom 404 movie you should also upload the following error movies:

Filename	Description
VDO-X-404.mp4	Needed for Wowza. Used for RTMP/HLS/HDS/MPEG-DASH
VDO-X-404.3gp	Needed for RTSP
VDO-X-404.ism VDO-X-404.ismc VDO-X-404.ismv	Needed for Microsoft Smooth Streaming
VDO-X.mp3	Needed for mp3 audio files.
VDO-X-404.aac VDO-X-404.m4a	Needed for aac audio files.
VDO-X-404.wmv	Needed for Windows Media.
VDO-X-404.mkv	Needed for mkv files.
VDO-X-404.ogg	Needed for ogg files.
VDO-X-404.webm	Needed for webm files.

## iFrame player 404 stream not found

For our iFrame it is also possible to upload an extra image that will be shown when the encoder is disconnected. Normally you will get a 404 image that the encoder is offline. But that can be customized by uploading an image to the location:

```
/wwwroot/custom_error/iframe_player_streamoffline.jpg
```

Make sure the resolution is in 16:9



## Appendix G: Streamable files

In the table below you can find the files supported by streaming. Make sure the file has the correct extension before uploading.

Extension	Associated service
wmv	Windows media
asf	Windows media
wma	Windows media
mp3	Windows media Wowza Media Server
jpg	Windows media
wav	Windows media
mov	Wowza Media Server
mp4	Wowza Media Server
m4a	Wowza Media Server
aac	
mp4v	Wowza Media Server
3gp	Wowza Media Server
3g2	Wowza Media Server
flv	Wowza Media Server
f4v	Wowza Media Server
m4v	Wowza Media Server
smil	Wowza Media Server
ism	Microsoft Smooth Streaming
isma	Microsoft Smooth Streaming
ismv	Microsoft Smooth Streaming
ismx	Microsoft Smooth Streaming
ism1	Microsoft Smooth Streaming

# Appendix H: Stream protocols

Below you can find a quick description about the protocols we offer. In the following chapters we will provide all details about the protocols.

Service	Description	Protocols supported
<a href="#">Wowza Media Server</a>	Wowza Streaming Engine is a unified streaming media server software developed by Wowza Media Systems. The server is used for streaming of live and on-demand video. Wowza supports most protocols and is the primary choice.	RTMP, RTSP, Apple HTTP Live Streaming, MPEG-DASH, Microsoft Smooth Streaming, Adobe HTTP Dynamic Streaming and Quick Time over RTSP
<a href="#">Windows Media</a>	Windows Media Services (WMS) is a streaming media server from Microsoft that allows an administrator to generate streaming media (audio/video). Only Windows Media, JPEG, and MP3 formats are supported. It only supports RTSP, MMS and MMS proxied over HTTP.	Windows Media (RTSP, MMS and MMS proxied over HTTP)
<a href="#">Microsoft Smooth Streaming</a>	Smooth Streaming, an IIS Media Services extension, enables adaptive streaming of media to Silverlight and other clients over HTTP. Smooth Streaming provides a high-quality viewing experience that scales massively on content distribution networks, making true HD 1080p media experiences a reality.	Microsoft Smooth Streaming and Apple HTTP Live Streaming
<a href="#">Icecast</a>	Icecast is a streaming media server which supports AAC and MP3 audio streams. It is primary used to support older internet radios.	Icecast protocol (HTTP)
<a href="#">Webdav Push HTTP Live Streaming</a>	VDO-X is capable of handling a HLS live stream that is pushed using WebDAV by external encoders. This way you can use your one encoder with your own pre-chunked material.	Apple HTTP Live Streaming
<a href="#">Origin Pull HTTP Streaming</a>	VDO-X is capable of pulling HTTP streams using a caching mechanism. The following pre-chunked formats are supported: Apple HTTP Live Streaming, Adobe HTTP Dynamic Streaming and Microsoft Smooth Streaming.	Apple HTTP Live Streaming, Adobe HTTP Dynamic Streaming and Microsoft Smooth Streaming

For streaming there are 2 types of protocols:

- **True streaming protocols:** These protocols provide a continues stream which results in minimal delays(about 3 seconds). RTMP, RTSP, Icecast and Windows Media are True Streaming protocols. You need a specific player to play this content. It will not work on mobile devices and it cannot be cached. MultiCDN is not possible with these protocols.
- **HTTP based protocols:** These protocols chunk the video in 10 seconds. It uses the standard HTTP protocol, this way it can be cached or used with MultiCDN and works on mobile devices. A specific player is not needed for this content, because of the chunking process you have a delay of around 40 seconds. Apple HTTP Live Streaming, MPEG-DASH, Microsoft Smooth Streaming and Adobe HTTP Dynamic Streaming are HTTP based protocols.

When minimal delays are necessary for your livestream you should use a true streaming protocol in all other cases we recommend HTTP based protocols.

# Windows Media

In order to set up a Windows Media live stream, start the Live stream wizard (see [Add a livestream](#) for more information) and select Windows Media as stream type. A Windows Media live stream supports true streaming, both push and pull ingest, and multiple bit rates.

Please keep the following points in mind when working with Windows media:

- when creating a pull stream, source addresses must start with http:// or rtsp:// - it is not possible to pull a stream that uses mms:// as protocol in the URL
- although the wizard does not mention it, Windows Media streams do support multiple bit rates. You may simply add the wanted bit rates in the encoder.

# Microsoft Smooth Streaming

In order to set up a Microsoft Smooth Streaming live stream, start the Live stream wizard (see [Add a livestream](#) for more information) and select the Microsoft Smooth Streaming as stream type. Microsoft Smooth Streaming is one of the standard HTTP streaming technologies and supports both push and pull ingest, as well as multiple bit rates, which may be added in the encoder and will be automatically detected.

A Microsoft Smooth stream needs an encoder when it is pushed to our platform. The recommended encoder is the Microsoft Expression Encoder. Only the pro version of the Microsoft Expression Encoder supports livestreaming.

Keep in mind though that when you create a pull stream the source location(s) should always start with `http://` and have file extension `.smil`.

# Icecast

In order to set up a IceCast radio stream, start the Live stream wizard (see [Add a livestream](#) for more information) and select IceCast as the stream type. Icecast supports both push and pull ingest. For pushing your stream to our platform you need an encoder. An example of a good IceCast encoder is AltaCast. We recommend to use mp3 or aac as the audio codec. If you choose to use pull ingest, notice that the source location(s) must start with [http://](#).

Please note that IceCast works on port 8000. You need to be able to access port 8000 from the viewers network, otherwise you cannot listen to the stream. With the following URL you can test if you can access port 8000: [portquiz.net:8000](#).

# WebDAV push HTTP streaming

VDO-X is capable of handling a HLS live stream that is pushed using WebDAV by external encoders. In other words: the external encoder creates chunks for a HLS live stream and pushes the chunks and playlist to VDO-X using WebDAV. Subsequently VDO-X ensures that this stream of chunks is properly handled and distributed to the viewers. It is also possible to use HTTP pull instead of Webdav. See [Origin HTTP Live streaming](#) for more information.

The encoder must support basic HTTP authentication in order to connect to the XL-Media Server. We strongly advise to configure the encoder to clean up chunks that have already been used, because otherwise you may hit the account storage quota which will cause the live stream to stop without notification. A proven setup is to keep about 10 chunks, which is around 1 minute and 40 seconds of movie. But of course, if you have sufficient quota, you may deviate from this.

## Setup example

In order to set up a WebDAV push HLS stream, start the Live stream wizard (see [Add a livestream](#) for more information) and select the option Webdav Push HTTP Live Streaming.

Like any other push stream, all that is required after selecting the user and clicking 'Next', is to choose a stream name. On the summary page you may notice:

- The stream name is transformed into a directory name. As a result chunks from multiple simultaneous streams will not get mixed up.
- VDO-X adds the file name playlist.m3u8. This ensures that the stream is recognized as a HLS stream. Remember however that in order to request this stream from the Rediraptor you have to postfix the stream name you chose with the string %2Fplaylist.m3u8. The Embed Code Generator will do this automatically for you.

Make sure your encoder pushes the HLS manifest to the file playlist.m3u8 and that all chunks are pushed to the proper folder. Also note that HLS streaming is only supported when the stream is encoded using H264 video and AAC audio.

Multi bit rate streams are supported, as long as you make sure that you add the required bit rates to the manifest file and make sure the required chunks are also available in the right directory.

# Origin HTTP Live streaming

VDO-X is capable of pulling HTTP streams using a caching mechanism. The following pre-chunked formats are supported: Apple HTTP Live Streaming, Adobe HTTP Dynamic Streaming and Microsoft Smooth Streaming.

In order to use this technique you should set up an external HTTP server where the chunks can be downloaded. This server needs to be accessible for our platform (82.150.152.10,82.150.152.38,,82.150.152.40,82.150.152.150,82.150.152.151,82.150.152.153).

Any Expire (HTTP) headers sent by your origin server(s) will be respected by VDO-X. Incorrect headers may cause:

- the live stream may not play at all, or
- the live stream may stop at some point
- the live stream may keep repeating a small segment
- VDO-X may suddenly start to repeat requests a lot

If you experience any of this happening, the first thing to check is the Expire headers created by your origin server(s).

## Setup example

In order to setup an Origin Pull HTTP Stream start the Live stream wizard (See [Add a livestream](#) for more information) and select the option 'Origin Pull HTTP Streaming'. Then click on the next button.

Now you need to specify the source URL (origin). Eventually you can add a secondary a secondary origin for high availability. The second origin should have the same content as the primary. The urls provided should be resolvable to a livestream in one of the three supported formats (HLS, HDS and MSS).

The publishing point name is generated dynamically based on the primary source location. When you provided the primary and eventually the secondary source location you click on the button next. A confirmation page will be shown with the information provided. Click on next. The Origin Pull HTTP Stream is now created.

The screenshot shows a web-based configuration window titled "Livestream wizard - step 2" with a "close" button in the top right corner. The main content area contains the following text and form elements:

- Instruction: "Please enter the full URL of the source file, including, if required, the port number. Examples: http://webserver.com:8080 or http://webserver.com/sourcestream."
- Warning: "Be aware that the path on the primary and secondary source \*must\* be the same."
- Form fields:
  - "Primary source location:" with a text input field and a small square icon to its right.
  - "Secondary source location:" with an empty text input field.
  - "Publishing point name:" with a text input field containing the value "/sz/jetstreammanual/" and a greyed-out button to its right.
- IP address lists:
  - Left side: "The primary intake node will connect to your encoder with one of these IP addresses:" followed by a list: 82.150.152.10, 82.150.152.38, 82.150.152.40.
  - Right side: "The secondary intake node will connect to your encoder with one of these IP addresses:" followed by a list: 82.150.152.150, 82.150.152.151, 82.150.152.153.
- Footer note: "Please make sure your firewall(s) do not block our servers!"
- Navigation buttons: "Back" in the bottom left and "Next" in the bottom right.



# Appendix I: Subtitles

It's possible to add subtitles to your live streams and VoD content.

## Live streams

Wowza Media Server includes support for closed captioning for live streams. Your encoder need to send the closed caption in the CEA-608 format. When publishing the video, the captions will be automatically converted to a supported format for the chosen stream type. See <https://www.wowza.com/forums/content.php?447-How-to-configure-closed-captioning-for-live-streaming> for more information.

## VoD / Assets

For VoD the following subtitle formats are supported: VTT(WebVTT).

The Subtitles are needed to be uploaded as progressive downloads. In order to let VDO-X match the subtitles with the asset, make sure the WebVTT has the filename in the following format: [ORIGINAL\_ASSET\_NAME]\_[LANGUAGE].vtt where LANGUAGE is a 2 letter combination of the language name. When this WebVTT is uploaded, it is added to all assets that have the same base name. This means that the subtitle can be used on both streaming and downloads files. So subtitles can be re-used.

If you create a multi bitrate asset, use for ORIGINAL\_ASSET\_NAME the name of the smil file, and not an individual bitrate name.

Per language 1 WebVTT file is needed. In the embed code generator you can select all the languages you want to use. There is no limit to it.

More information: <https://en.wikipedia.org/wiki/WebVTT>

# Appendix J: Recommended encoding settings

We recommended the following encoding settings:

Field	Description
Container	MP4 (Only if applicable)
Videocodec	H264
Keyframes	2 seconds. When you are using 25 FPS you need to configure a keyframe every 50 frames
H264 profile	When the resolution is below 1280*720: Baseline 3.2 When the resolution is 1280*720 or higher: High 4.1
Video bitrates	424*240 512 kbit (Baseline 3.2) 640*360 1 mbit (Baseline 3.2) 1280*720 2,5 mbit (High 4.1) 1920*1080 5 mbit (High 4.1)
Audiocodec	AAC-LC or AAC when AAC is not an option for you, you should use MP3 Samplerate: 48kHz

Please see the following websites for more information:

[https://developer.apple.com/library/ios/technotes/tn2224/\\_index.html](https://developer.apple.com/library/ios/technotes/tn2224/_index.html)

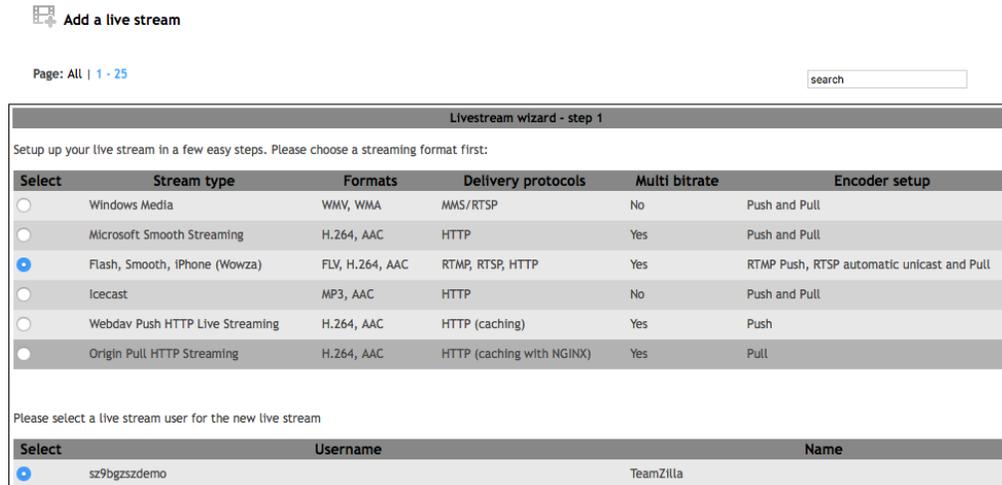
<http://www.lighterra.com/papers/videoencodingh264/>

<https://developer.android.com/guide/appendix/media-formats.html>

# Appendix K: Pull a RTSP stream (IP cams)

In this chapter we will learn you how to PULL a RTSP LiveStream using the Wowza Media Server. This can be useful to pull your own ip camera's. You need the RTSP url of your camera with H264 video. Please see [Appendix J: Recommended encoding settings](#) for recommended settings.

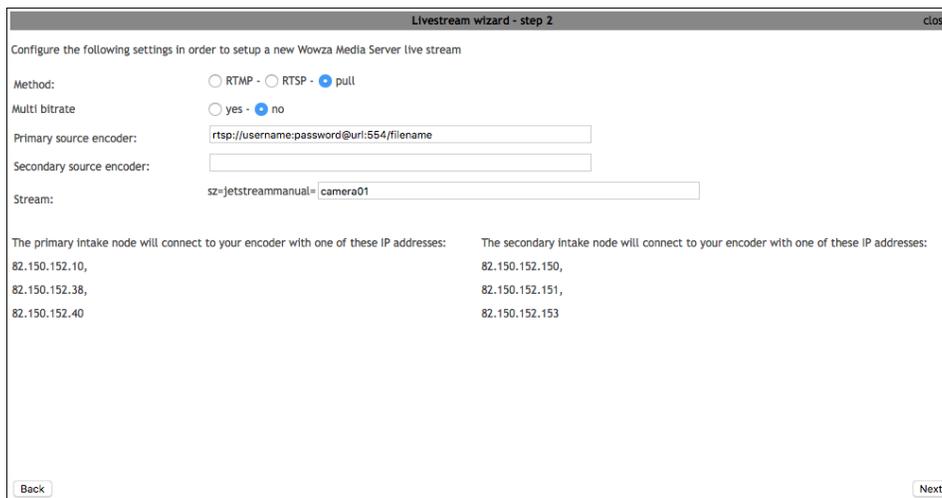
First you go to the Live Stream Tab. After that you click on the Add a livestream button. A wizard will appear, in this wizard you need to select Flash, Smooth, iPhone (Wowza). Then you click on next.



In the next screen you need to specify the Stream Method, Multibitrate and the stream name. In the table below we will explain those things.

Field	Description
Method	Select pull
Multi bitrate	Select no
Primary Wowza URL	The url to the h264 RTSP stream of your camera. RTMP and http is also supported. For Example: rtsp://username:password@url:554/filename
Fallback Wowza URL	Leave blank
Stream	Here you can specify the name of your stream. Please don't use spaces or special charcaters. Dashes (-) are allowed.

When you have filled in all fields please click on Next.



Now a screen will open with all your provided settings. If everything is okay you can click on Next. The stream will now be created, this will take a minute. To watch your stream or embed it to your website please see: [Appendix E: Embed code Generator](#).

# Appendix L: VoD encoding with Handbrake

## Handbrake manual v1.1

The screenshots are made on a macbook with Mac OS.  
The layout of HandBrake and the tabs are different in other OS.

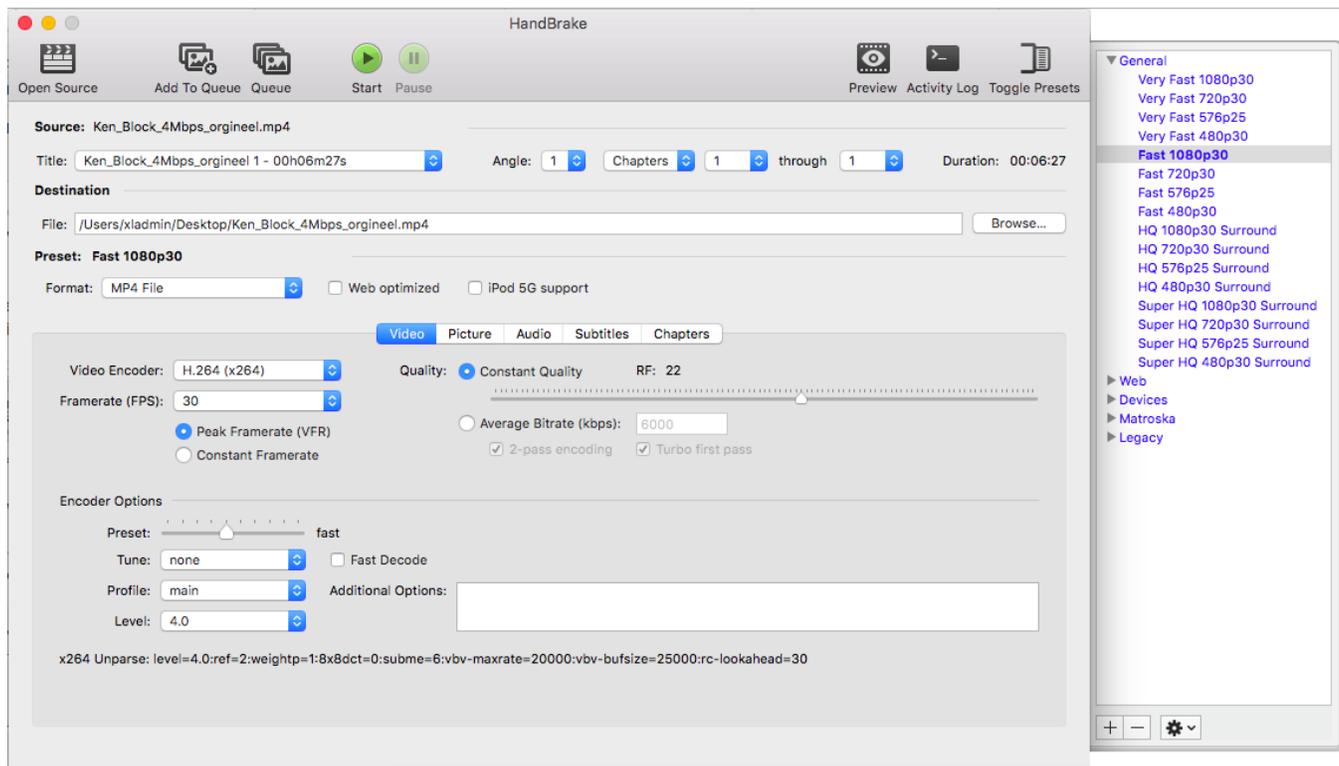
In this manual we will explain how to use Handbrake for encoding.  
You can download handbrake at: <https://handbrake.fr/>.  
The install is easy, For macOS, once downloaded open the .dmg file and drag the handbrake file to your applications folder.

### Resolutions and bitrates

The resolution and bitrate of a video file are both decisive for the size of the video file. The bitrate is also decisive for the quality. 5MBps is of course better than 2MBps but the 5MBps would make the file a lot bigger and will probably give issues for some devices. 2MBps is just fine as it's good enough for the most devices. For more information take a look at the next link: [Appendix J: Recommended encoding settings](#)

### Encoding a video.

Now open Handbrake.  
After you opened Handbrake you'll get a window in which you can select your video. After you selected and loaded your video file you'll get the following screen:



On the right side you have a list with presets which make encoding easier for you. After you selected a preset there are a few points you'll have to check because some settings might not be on the best setting for encoding yet.

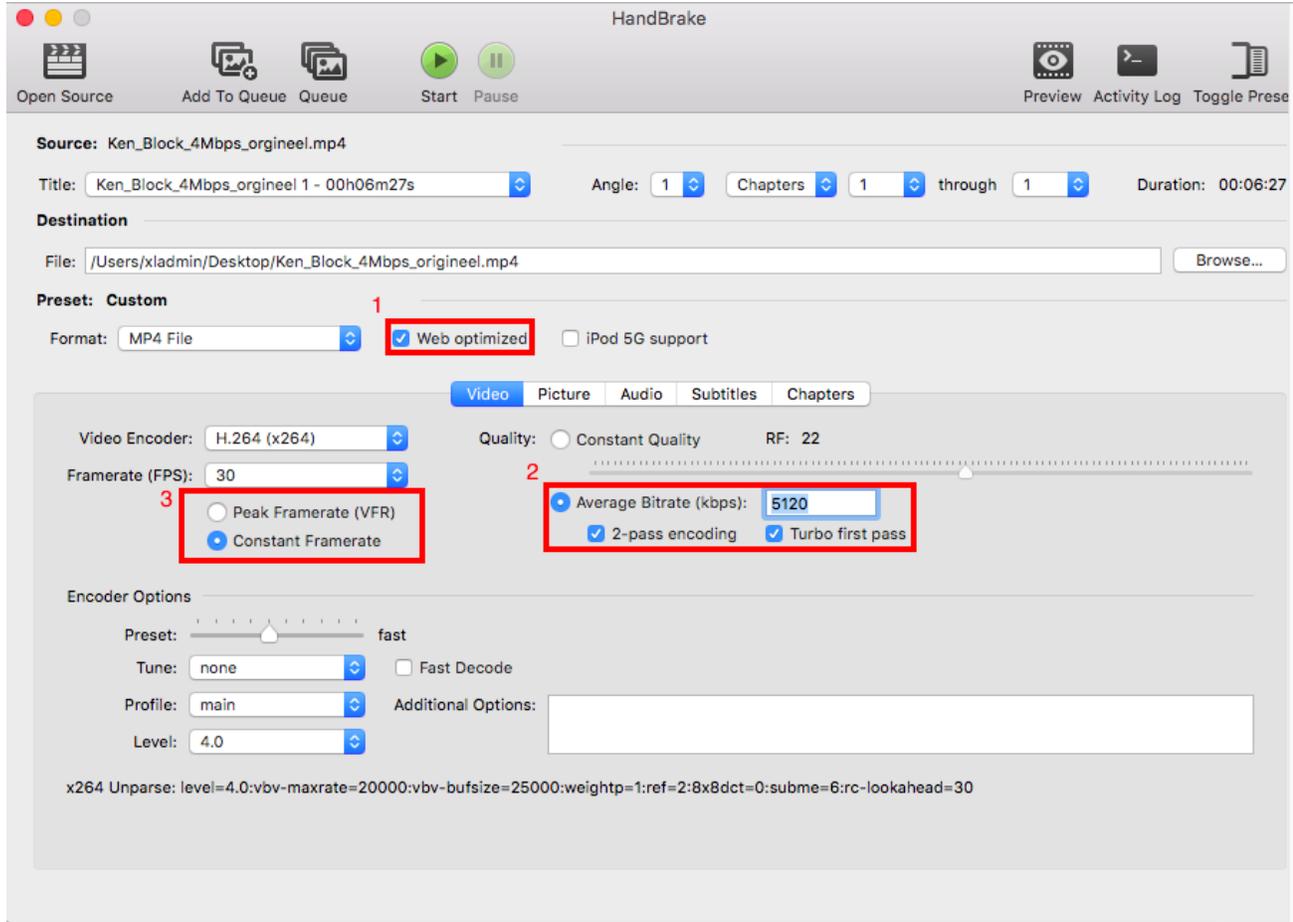
### Encoding your video with handbrake.

We'll go through the important tabs for you starting with the video tab. Everything you see in the screenshots below is set for the most ideal encoding for a video.

For an ideal encoding of your video you should set everything as it's shown in my screen except for resolution as this is source dependant and depending on what you want.

Below each screenshot is information about what the items in the red lined squares are and what they actually do.

## Video tab:



1. Web optimized: Optimizes MP4 for progressive downloads. After encoding data will be reorganized and rewritten so that you can play the video without having to download the whole movie first.

2. Average bitrate (kbps): Average bitrate varies the quality to ensure that the data rate stays relatively consistent throughout the video.

2.1 2 pass encoding: 2 pass encoding analyses the whole source video before it gets encoded. The information gathered enables the encoder to make more informed decisions about data rate and quality in average bitrate mode.

2.2 Turbo first pass: Speeds up the first pass of the 2 pass encoding for a slight penalty to analysis.

3 Variable framerate allows each framerate to have it's own length , matching the source file.

3.1 Peak framerate: Peak framerate is the same as variable framerate and limited to the maximum set by framerate (FPS). Useful for ensuring frame rate compatibility, regardless of the source.

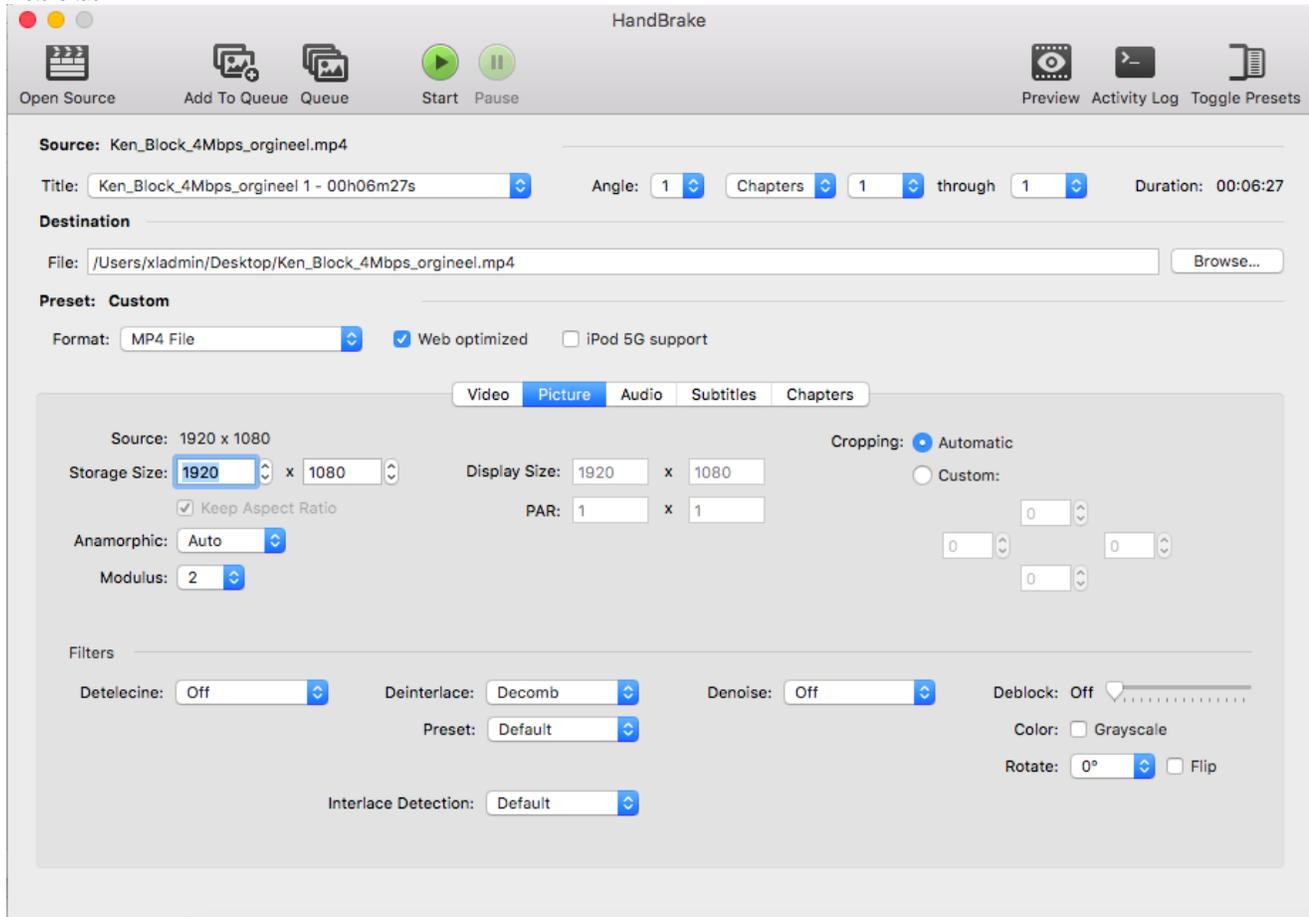
3.2 Constant framerate forces all frames to be the same length as the framerate.

The encoder options are already configured properly but we will give some explanation anyway.

Video encoder preset: Adjusts the encoder settings to balance compression efficiency and encoding speed. Slower encoding settings may use settings that are less compatible with certain devices.

Fast decode: Fast decode uses settings that reduce CPU usage during playback of the encoded video. Useful for devices that struggle to play videos without stuttering.

Picture tab:



If you have a good source file this page will be filled in correctly. You don't have to necessarily change anything.

The source is the resolution of your video. At storage size you can enter your own video size if you want. For this you need to select custom at anamorphic. This also depends on the preset you choose.

The display size will be automatically adjusted if you enter a different size at storage size.

Cropping is always set on automatic. On automatic, cropping removes the black bars in your video. When you put it on custom you can crop the black bars yourself.

We don't do anything with filters so we leave that as it is.

Audio tab:

Track	Codec	Mixdown	Samplerate	Bitrate	Gain	DRC
0: Unknown (AAC) (2.0 ch)	AAC (CoreAudio)	Stereo	Auto	160	0	0
None	No Value	None	Auto	N/A	0	0

For the audio codec we advise AAC. If this is not possible for you, you can choose MP3.

Mixdown: controls how multi channel audio is mixed into fewer channels or whether the original channels are preserved. This depends on your source file.

The subtitles and chapters tab are not important as there is nothing you have to change at those tabs for encoding.

If you still want to know what the ideal encoder settings are you could take a look at the following link: [Appendix J: Recommended encoding settings](#)

If you followed this manual correctly you can click on Start and handbrake will encode the file with your selected settings.

## Encoding your video for multi bitrate.

Just follow the steps above but before hitting start, click on add to queue.

Now change the bitrate and click add to queue again.

Once more change the bitrate and click on Start Queue. Now HandBrake will encode your queue and your preset as you set it up in your tabs.

Now as you can see in the screen-shot below I have one file in my queue and instead of start it now says start queue.



## SMIL file for multi bitrate

Be aware that the SMIL file is a separate step from HandBrake itself. HandBrake is only for encoding and not making the SMIL file.

The next step is to make a SMIL file for the multi bitrate.

See the next link for help on that: [Appendix D: Create your own multibitrate SMIL file.](#)

You can upload your SMIL file along with the 3 video files that make the multi bitrate video.

Just make sure that in the SMIL file you type in the names and bitrates of the three videos you encoded.

And please start with the lowest bitrate first. Make sure that you upload the SMIL file and the videos in the same folder.

Make sure that the names are all identical to the names of the SMIL file before uploading your files.

There is an example of a SMIL file under [Appendix D: Create your own multibitrate SMIL file.](#)

## Upload your file.

The last step is to upload your file(s).

You need an FTP client like Filezilla to upload your files.

Your FTP credentials can be found on your VDOX account. Go to your API page. Below the Assets ingest API you can find your FTP credentials.

Once you logged in on your FTP area, you are in the root folder and there is a subfolder named wwwroot.

If you want to upload a streaming file just upload it to the root folder. If it needs to be a downloadable file upload in the wwwroot folder.

If you still don't understand completely you can take a look at the next link as it gives proper information on this: [Uploading new VOD assets.](#)

# Appendix M: Radio streams

An explanation about radio streams by icecast and the pull method.

## Radio stream via Icecast

In this quick guide, we explain how to setup a radio stream by icecast. To start, you will need a winamp or VLC media player.

In this quick guide, we use a VLC media player. You can download it here: <http://www.videolan.org/vlc/index.nl.html>

Furthermore, you can use a program like nicecast to stream. We use nicecast in this quick guide. You can download it here: <https://www.rogueamoeba.com/nicecast/>

Attention! The free version works for one hour without advertising, after one hour advertising flows through your stream. If you buy it, this does not happen.

We will discuss the following topics in this quick guide:

- How to set up a livestream
- How to create a playlist in VLC Connect
- How to link Nicecast
- How to start and test a livestream

## How to set up a live stream

First, log into [vdox.streamzillacdn.com](http://vdox.streamzillacdn.com).

Go to Livestreams and click on 'add a livestream'. Here you should get the following screen.

Livestream wizard - step 1 close

Setup up your live stream in a few easy steps. Please choose a streaming format first:

Select	Stream type	Formats	Delivery protocols	Multi bitrate	Encoder setup
<input type="radio"/>	Windows Media	WMV, WMA	MMS/RTSP	No	Push and Pull
<input type="radio"/>	Microsoft Smooth Streaming	H.264, AAC	HTTP	Yes	Push and Pull
<input type="radio"/>	Flash, Smooth, iPhone (Wowza)	FLV, H.264, AAC	RTMP, RTSP, HTTP	Yes	RTMP Push, RTSP automatic unicast and Pull
<input type="radio"/>	Icecast	MP3, AAC	HTTP	No	Push and Pull
<input type="radio"/>	Webdav Push HTTP Live Streaming	H.264, AAC	HTTP (caching)	Yes	Push
<input type="radio"/>	Origin Pull HTTP Streaming	H.264, AAC	HTTP (caching with NGINX)	Yes	Pull

Please select a live stream user for the new live stream

Select	Username	Name
<input checked="" type="radio"/>	demo	Joshua Rubingh
<input type="radio"/>	sz2xsvjoshua	sdfsdf
<input type="radio"/>	sz2xsvloggingTest	logging
<input type="radio"/>	sz2xsvpiwitest	test
<input type="radio"/>	sz2xsvstef	Stef van der Ziel

Choose here for Icecast and at live stream use, you choose your own user name.

Click on next and you will see the following screen.

Livestream wizard - step 2
close

Configure the following settings in order to setup a new IceCast live stream

Method:  push -  pull

Primary server: ice.in1.streamzilla.xlcdn.com

Primary server port number: 8000

Fallback server: ice.in2.streamzilla.xlcdn.com

Fallback server port number: 8000

Publishing point name: /sz=demo=

Password: KFlmg0vy6mSZ

Please choose a publishing point name. It is not possible to use spaces or special characters.

Back
Next

At publishing point you enter your stream name. The name cannot contain spaces or dashes. Underscores are allowed.

Furthermore, you can see some pre-filled fields that you cannot change. This information is important, but you will see the screen again on the next page, so you click on next.

You will now see the following screen.

Livestream wizard - final step
close

Please setup your streaming encoder with the following settings before starting the IceCast live stream

Summary settings:

Method: push

Primary server:

Primary server port number:

Fallback server:

Fallback server port number:

Publishing point name:

Password:

Please press next to save the live stream

Back
Next

**Do not** click on next yet. You will need this data later.

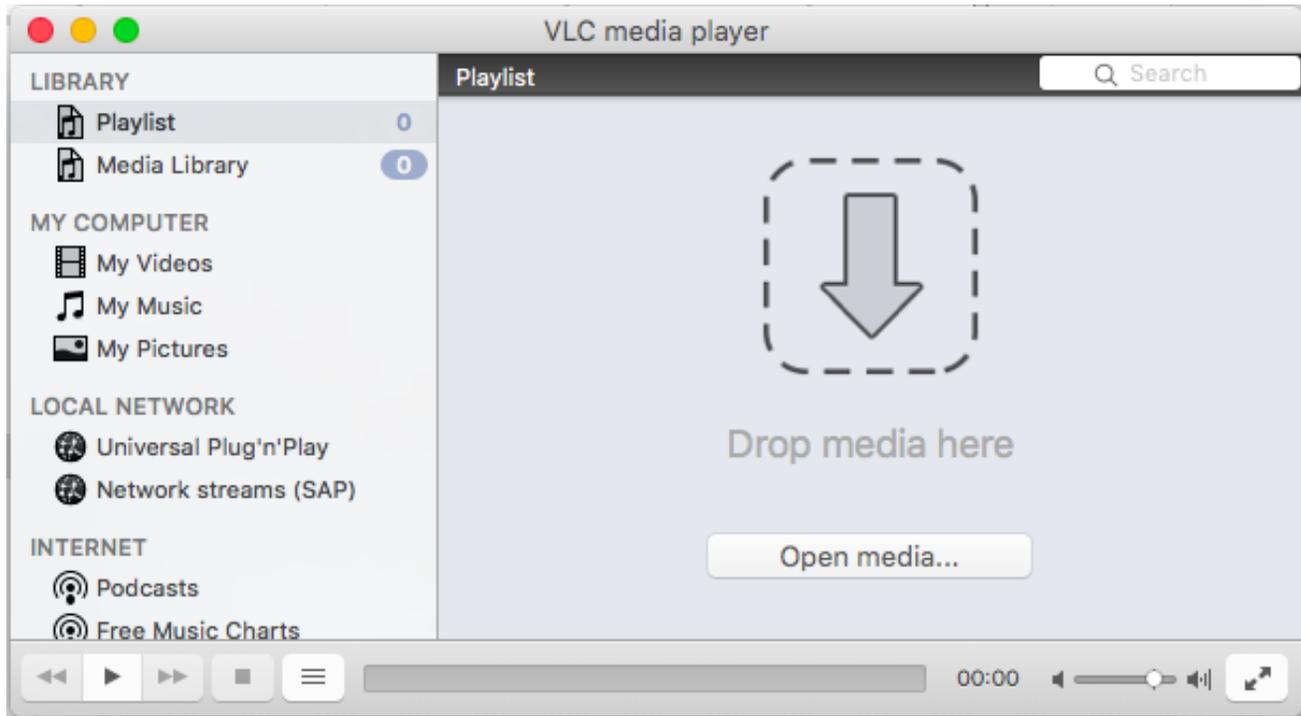
Here you can find a short explanation about this data.

Settings	Wat betekent het?
method	The method for the stream, in this case: push
Primary server	This is the server to which the stream connects.
Primary server port number	This is the port that is used to connect to the stream.
Fallback server	This is for redundancy. If the intake server falls out then fallback picks it up.
Fallback server port number	This is the port that is used to connect to the stream.
Publishing point name	The name of the stream.
password	You must enter this password in your encoder / streaming program.

## How to create a playlist in VLC Connect

Now open the VLC media player to create the playlist.

VLC looks like this on the mac:



Drag the songs you want in your playlist to the right part into **Drop media here**.

Put the music on hold for now.

This is all you do in VLC.

## How to link Nicecast

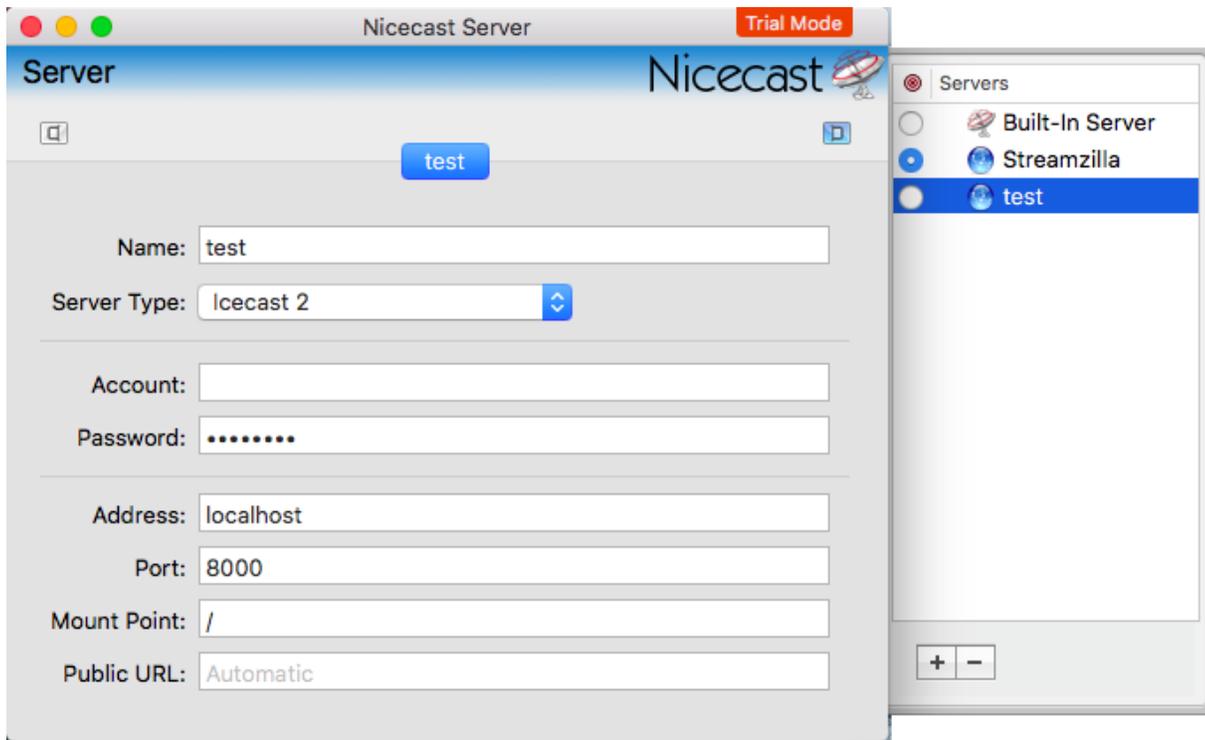
Start Nicecast. You will see the following screen.



Press select to choose VLC. If VLC is not an option, click on select application, search for VLC and select VLC.

Now go to *window* at the top of your screen and choose *show server* to see the server section.

You will see the next screen, by default it will be on Built-in server.



Now you need the data in your vdox page that you did not click away.

In the field above, you are adding some of these details.

Data	What to add/choose?
Name	You can decide yourself what you enter here
Server Type	Choose here icecast2
Account	You can leave this field empty
Password	Enter the password you see in the table on the vdo-x page
Adress	Enter here what is behind the primary server
Port	This is pre-filled and already on the correct port
Mount point	Enter the name of your stream here
Public URL	You can leave this field empty

## How to start and test a livestream

The last thing to do now is to start and test the livestream.

In VLC you can start the first number. Now go to Nicecast and click on start broadcast. Now you already hear that Nicecast is transferring it from VLC. Do not close VLC!! Nicecast retrieves its data from VLC.

Go back to your vdox page and click on next. Now your livestream will be saved.

Wait a moment until it is actually there and click on publish behind the livestream. Choose Flash.

Click on generate and then click on preview. Now click on play and if everything is right, you will hear your music double. This means that you have successfully created the livestream and that the settings in Nicecast are correct.

Enjoy your radiostream!

# HLS Pull stream

## Radio stream via Wowza(HLS)

In this quick guide we explain how to make an HLS pull radio stream.

If you follow this quick guide, it is useful if you have already run a radio stream via icecast. You can not make a pull stream without an already working radio stream. You get your source from your already working radio stream.

The following topics will be discussed in this quickguide:

- How to setup a livestream
- How to test a livestream

### How to setup a livestream

To start, log into [vdox.streamzillacdn.com](http://vdox.streamzillacdn.com).

If you are logged in, go to live streams and click add a live stream. You will now see the following screen.

Livestream wizard - step 1close

Setup up your live stream in a few easy steps. Please choose a streaming format first:

Select	Stream type	Formats	Delivery protocols	Multi bitrate	Encoder setup
<input type="radio"/>	Windows Media	WMV, WMA	MMS/RTSP	No	Push and Pull
<input type="radio"/>	Microsoft Smooth Streaming	H.264, AAC	HTTP	Yes	Push and Pull
<input type="radio"/>	Flash, Smooth, iPhone (Wowza)	FLV, H.264, AAC	RTMP, RTSP, HTTP	Yes	RTMP Push, RTSP automatic unicast and Pull
<input type="radio"/>	Icecast	MP3, AAC	HTTP	No	Push and Pull
<input type="radio"/>	Webdav Push HTTP Live Streaming	H.264, AAC	HTTP (caching)	Yes	Push
<input type="radio"/>	Origin Pull HTTP Streaming	H.264, AAC	HTTP (caching with NGINX)	Yes	Pull

Please select a live stream user for the new live stream

Select	Username	Name
<input checked="" type="radio"/>	demo	Joshua Rubingh
<input type="radio"/>	sz2xsvjoshua	sdfsdf
<input type="radio"/>	sz2xsvloggingTest	logging
<input type="radio"/>	sz2xsvpiwitest	test
<input type="radio"/>	sz2xsvstef	Stef van der Ziel

Choose here Flash, Smooth, Iphone (Wowza) and select your own username.

Now click on next and you will see the following screen.

Livestream wizard - step 2 close

Configure the following settings in order to setup a new Wowza Media Server live stream

Method:  RTMP -  RTSP -  pull

Multi bitrate  yes -  no

Primary Wowza URL: rtmp://wos.in1.streamzilla.xlcdn.com/live

Fallback Wowza URL: rtmp://wos.in2.streamzilla.xlcdn.com/live

Stream: sz=demo=

Username: demo

Password: KFlmg0vy6mSZ

Please choose a stream name. This is a free field. Do not use spaces or special characters.

Choose at method for pull, this makes the primary and fallback Wowza URL a fillable box.

At primary Wowza URL you enter your source. You can get these from your working radio stream. You also need to process the stream name of the already working stream. Do not forget to add *http://* otherwise it will not work. The source will look like this: <http://ice.in1.streamzillacdn.xlcdn.com/sz=jestreamnaam>.

At Fallback Wowza URL you can copy the source from the primary with, but the only change you make from *in1, in2*.

At stream you enter a new name with for example HLS in it to keep it clear. The name can not contain spaces or dashes. Underscores are allowed.

Now click on next and you will see the next screen for you.

Livestream wizard - final stepclose

Please setup your streaming encoder with the following settings before starting the Wowza Media Server live stream

Summary settings:

Method:	pull
Source URL primary (full):	http://ice.in1.streamzilla.xlcdn.com/sz=demo=rolf_mp3test
Source URL secondary (full):	http://ice.in2.streamzilla.xlcdn.com/sz=demo=rolf_mp3test
Stream:	<input style="width: 90%;" type="text" value="sz=demo=HLSpulltest"/>

The primary intake node will connect to your encoder with one of these IP addresses:

82.150.152.10,	The secondary intake node will connect to your encoder with one of these IP addresses:
82.150.152.38,	82.150.152.150,
82.150.152.40	82.150.152.151,
	82.150.152.153

In order to get the best performance, please use the H.264 video codec, AAC audio codec, and set the framerate to 25 frames per second or lower. Keyframes should be sent every 2 seconds, so if the frame rate is 25 frames per second, a keyframe should be inserted every 50 frames.

Please press next to save the live stream

BackNext

You can now click on next and save the stream.

## How to test a livestream

Wait 1 minute until the stream is finished and click on publish behind the stream.

You will now see the following screen.

Embed code generator
close

Select embedcode type:  iFrame player  Advanced embedcode generator

Filename: rolf\_HLSpulltest

Delivery service: Wowza Media Server 4

Movie size: Custom

Width: 720 Height: 405

Poster image:

VMAP XML:

Automatically start playback:  Yes  No

Repeat playback:  Yes  No

360 VR playback:  Yes  No

Tip: for the best performance use H264 video codec and preferably AAC audio codec in stead of a mp3 audio codec.

Please select a player type and corresponding settings. When you're finished, please select the 'Generate' button, which will generate an embed code and Rediraptor URL for you.

Generate
Preview

To test, press generate and copy the generated link to safari (other browsers do not work with pull streams). If you now hear double noise, you know it works.

Choose Advanced embedcode generator here.

Select iOS and click on generate now. This also works on the macbook, but only in safari. This means the stream also works on iPhones and iPads.

Unfortunately, this does not work for Android devices.

# Appendix N: Transcode recordings

In VDO-X it is possible to transcode a single (high) bitrate recording to a multi bitrate VoD asset. This document will describe the necessary steps. We expect that the recording is done in Full HD and that that is the maximum bitrate of the VoD that is created of the recording.

## Transcoding setup

Make sure you have setup a transcoding profile according to the [transcoding](#) manual. Create a profile with the following options:

- Give the profile a easy to remember name like 'MultibitrateRecording'
- Select all the wanted presets to create a multi bitrate VoD. Leave the highest bitrate un-ticked.
- Select 'Use source file'. This will be the highest bitrate of the VoD.

This will create a new transcoding profile that uses the recording source as highest bitrate and will give the option to start the playback even when the transcoding is still running. \*

## Recording setup

Next step is to schedule a recording. Or manual start a new recording. This can be done following the [recording](#) manual. Use the following settings in the recording window:

- Select an easy to remember name for the VoD
- Select your recording start and duration
- Use the following path as recording save path: '/**MultibitrateRecording**'
- Select '**transcoding**' at 'Save recording as'

With this setup, the recording will be pushed to the FTP dropbox when ready at the location: /transcoding/MultibitrateRecording. And that will trigger the transcoding actions based on the transcoding profile '*MultibitrateRecording*' created above.

\* The recording will be pushed to the transcoding folder, in which the transcoding daemon will pick it up and start the transcoding actions. In the same time a smil file with a single bitrate is created from the recorded asset. This smil file will be updated with the other bitrates when the transcoding is done. This will be done without any human interaction.