



# Raidió Teilifís Éireann

## FAST: On-boarding IPU suppliers to electronic file delivery

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# 1 Introduction

## 1.1 Overview

FAST (File Acquisition Server Technology) is part of the overall RTÉ digital strategy moving from tape to server based technology. RTÉ is replacing its video tape-based broadcast systems with a system based on the acquisition, management and storage of material as electronic files. FAST also creates an environment where HD material can be delivered in electronic form, prepared for transmission, broadcast and stored for further use. It will enable transmission of commissioned and acquired programmes which are delivered in file format and will allow RTÉ to increase the level of content broadcast in HD format.

The purpose of this document is to specify the procedure for suppliers of commissioned programmes to deliver HD files which adhere to RTÉ's file specification. This document provides the details of the delivery mechanism through which RTÉ will receive files from suppliers and will be used to assist stakeholders through the process to successful on-boarding.

## 2 On-boarding Process

### 2.1 Delivering electronic content to RTÉ

Step 1: Independent Producer agrees delivery dates/time for all episodes with Genre Head. RTÉ Business/Legal Affairs confirms full delivery details in contract.

Step 2: At least six weeks prior to delivery date, Independent Producer contacts [fileonboardingDL@RTE.ie](mailto:fileonboardingDL@RTE.ie) to confirm where programme will be on-boarded from.

Step 3: Independent Producer sends three minute test file as per enclosed RTÉ's file specification and file naming convention via agreed file delivery mechanism as outlined below.

Step 4: On-boarding team will test file and notify Independent Producer with results.

Step 5: In the event of a file failing, Independent Producer sends another test file with changes required as notified by on-boarding team.

Step 6: In the event of a file passing, on-boarding team will sign off on successful process. RTÉ can then receive full programmes on file from Independent Producer.

### 3 Electronic File Format

All files delivered to RTÉ must adhere to the following specifications:

	<b>RTÉ Preferred HD File standard</b>
File Type	mxf
File Format	OP1-a
File Format Profile	Closed/Complete
Video Compression	MPEG-2 LONG GOP
GOP Format	Fixed, M=3 N=12
Colourspace	4:2:2
Commercial Name	XDCAM HD 422-50
Resolution	1920 x 1080
Video bit rate	50Mbps 8bit
Interlaced	Yes
Field Dominance	Upper Field First – Field 1
Timecode standard	MXF Timecode Track
Programme Start	10:00:00:00
Preferred Aspect Ratio	16:9 FHA
Frame Rate	50i i.e. 25 frames per second interlaced or 50 interlaced fields per second
Time code standard	MXF Timecode Track
Access Services	If there is a requirement to deliver subtitles, audio description and/or Irish Sign Language (ISL), please contact <a href="mailto:subtitle@rte.ie">subtitle@rte.ie</a>

<b>Audio</b>	<b>RTÉ Preferred HD File standard (TX copy )</b>
General	General Audio should be in stereo, if mono is supplied, ideally

	recorded on Track 1 and Track 2 (phase compatible).
Audio Stream	1 Stream up to a max of 8 tracks
Audio Tracks	Track 1 and 2: Audio Track 3 and 4 (optional): Music and Effects or Dolby E Track 5 and 6 (optional): Audio Description
Audio Spec	Codec: PCM uncompressed Wrapped: BWF (Broadcast wav) as preferable but will accept AES 8 tracks 24 Bit resolution Sample frequency: 48kHz
Audio Levels	Follow guidelines provided by the EBU Recommendation R 128, “Loudness normalisation and permitted maximum level of audio signals”

<b>Other requirements</b>	<b>RTÉ Preferred HD File standard (TX copy )</b>
Clock and programme Identification	<p>An alignment/identification leader must precede the programme recording. This should consist of:</p> <ul style="list-style-type: none"> <li>- Bars and Tone</li> <li>- Preferably 30 seconds of countdown clock with tone, minimum of ten seconds of countdown clock with tone for first 5 seconds</li> <li>- The clock should be circular format when viewed in 16:9 to allow positive identification of the programme format</li> </ul> <p>The following should be included on the leader</p> <ul style="list-style-type: none"> <li>- The Post Production company name and telephone number</li> <li>- Series Name</li> <li>- Programme Name/Episode Title</li> <li>- Series No and/or Episode Number</li> </ul>

	- Aspect Ratio and Audio Track Allocation
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## 4 File Naming Conventions

All files delivered to RTÉ should adhere to the following file naming convention. Any changes must be agreed and documented as part of the on-boarding process.

<b>RTÉ File Naming Convention (Programme and Subtitle filenames)</b>	
The filename must be unique and human readable. Subtitle should have the same filename as programme file with a different file extension. There should be no spaces in the name or the delivery mechanism will not work.	
<b>Field required</b>	<b>RTÉ standard (where applicable)</b>
Supplier name	3 letter acronym of Supplier name (e.g. BBC, Highwire)
Distributor (or Post House) name	3 letter acronym of distributor name (e.g. RED for Red Bee; WML for Windmill Lane). “ <b>DIR</b> ” if direct from supplier
Series name	4 letter acronym
Series number	Number
Episode number	Number preceded by ‘e’
File Format	XDCAM for HD
Filename Extension	.mxf for programme files, .stl for subtitle files
<b>Sample Video filenames</b>	
BBCREDeast13e1579XDCAM.mxf	BBC, Red Bee, Eastenders Series 13, Episode 1579, XDCAM, programme file
FOXDIRlost2e12XDCAM.mxf	Fox (Fox delivered direct) Lost, Series 2, Episode 12, XDCAM, programme file



## 5 File Delivery Mechanisms

The current preferred mechanism for electronic file delivery is using Aspera web client. Windows compatible, virus checked USB keys are also acceptable. The Signiant transfer mechanism will be available soon.

### 5.1 Aspera Delivery

Please use the following URL, username and password to access the delivery site:

Supported Browsers and system requirements

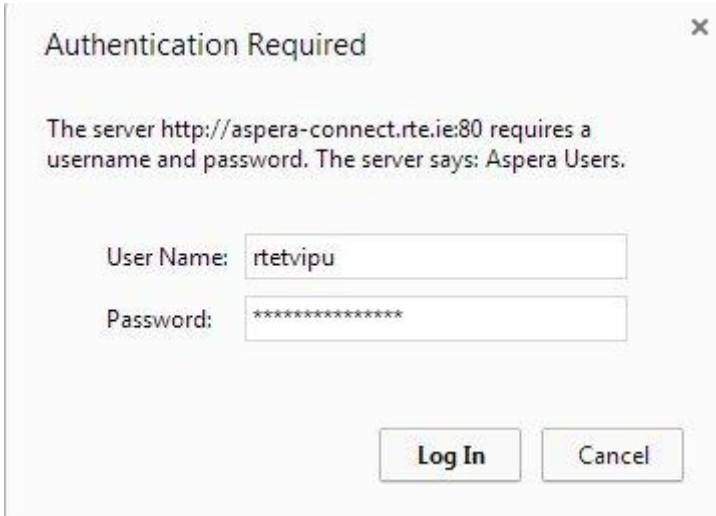
Aspera URL : <http://aspera-connect.rte.ie/aspera/user/>

Aspera Username : rtetvipu

Aspera Password : \$SRij3&#9oN"\$4;

#### 5.1.1 Installing the Aspera web client

Firstly, you will be presented with a logon screen, use the username and password provided



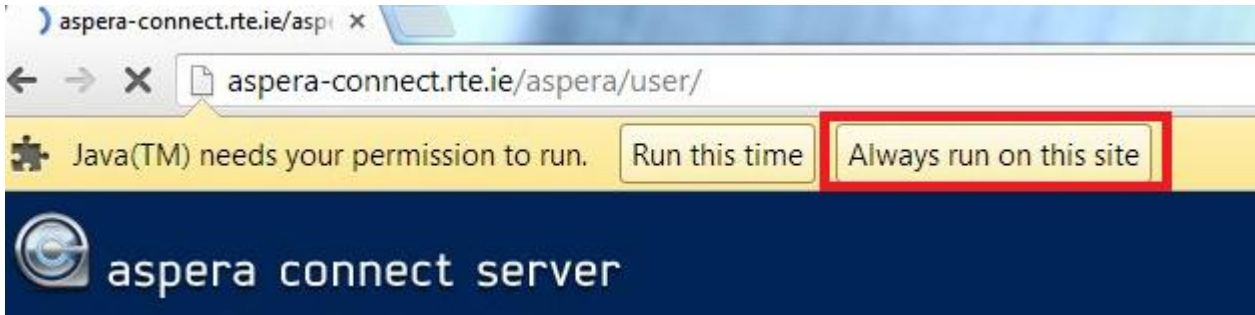
Authentication Required

The server <http://aspera-connect.rte.ie:80> requires a username and password. The server says: Aspera Users.

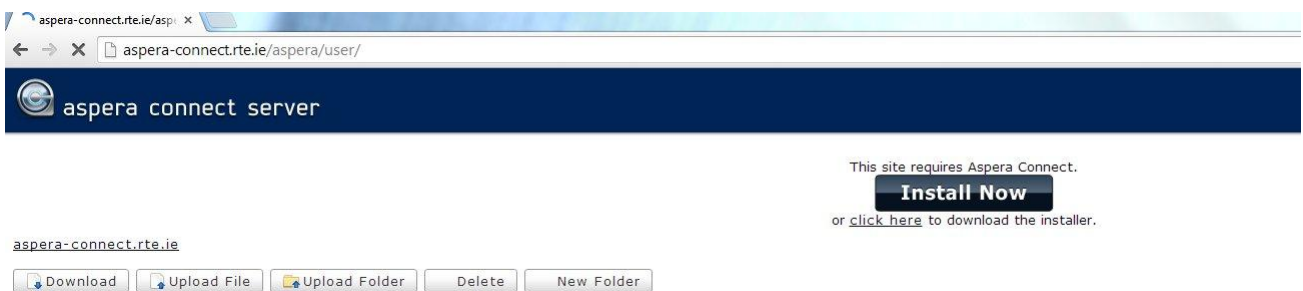
User Name:

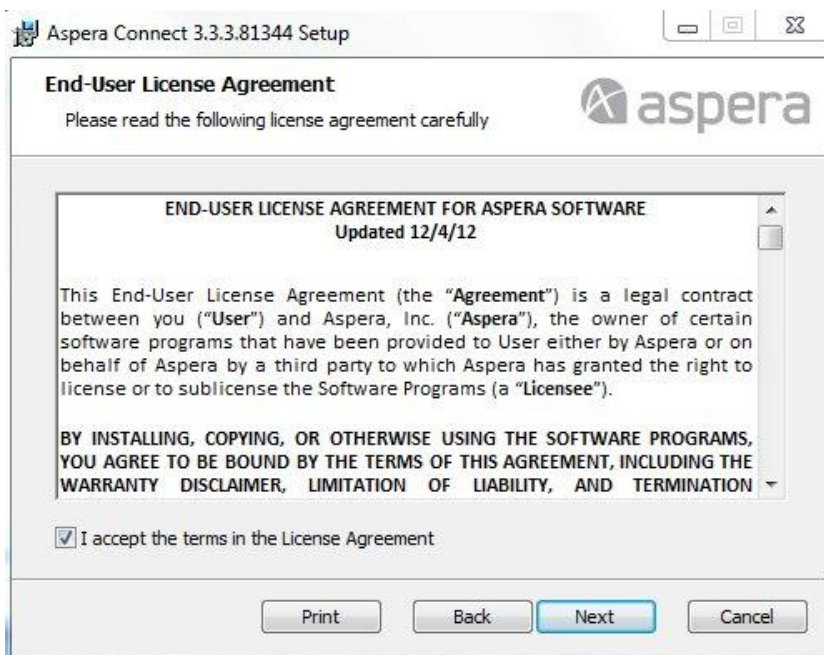
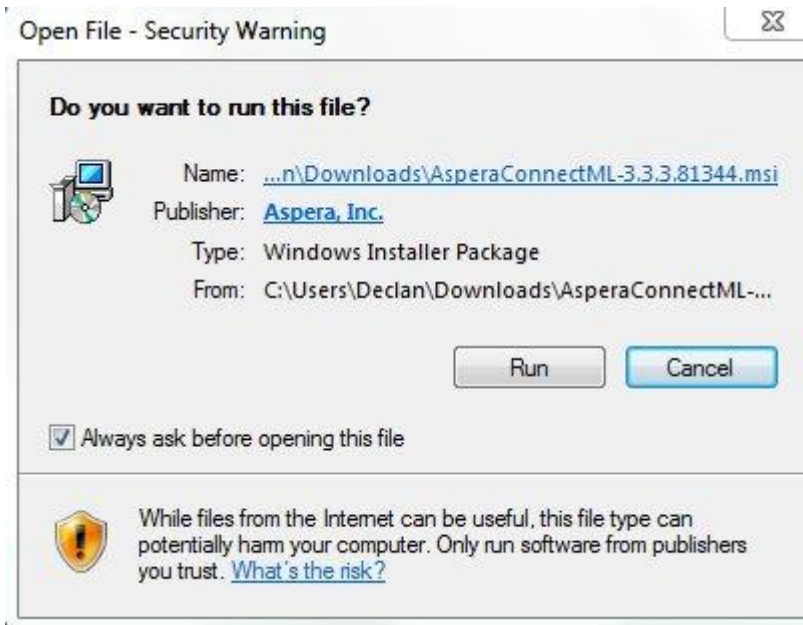
Password:

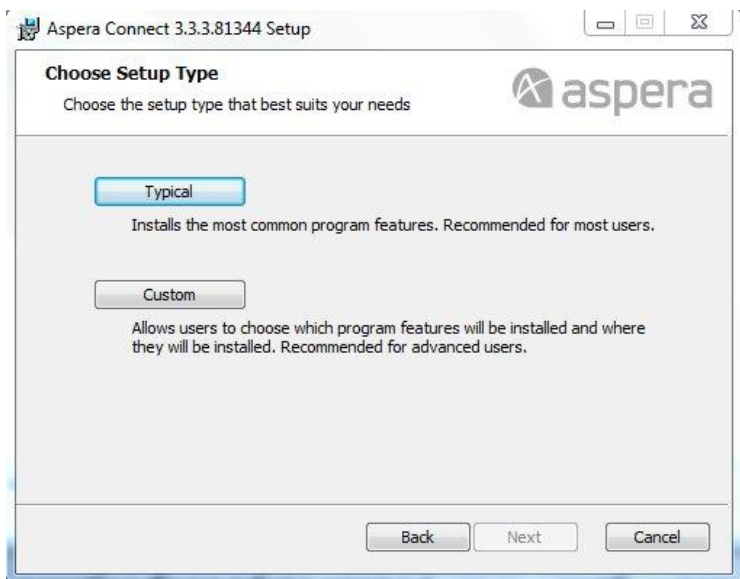
If Java is not enabled you should be asked to enable it.



If you've not installed the aspera client in you browsers before you will be prompted to “Install Now”



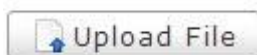




Select the Typical Install and Next.

### 5.1.2 Uploading a File via Aspera

Select the Upload File button

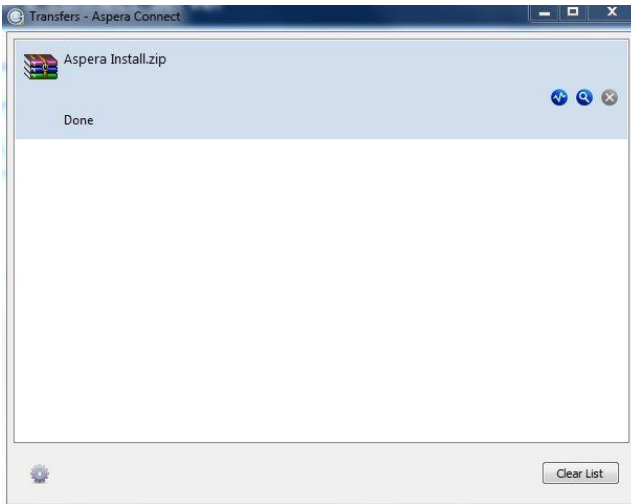


Please **DON'T** upload folders.

Which will open a browse window to navigate to the file you want to upload. Once the file is chosen you will be presented with a confirmation and a request for the username and password again.



You can remember the “Allow” your connection choice and password to stop the system prompting. This password will change in the future at which point you will be prompted again.



The transfer window provides a progress of the uploads. You can retry uploads. It is also where you can limit the bandwidth provided to your client.

### 5.1.3 Aspera Bandwidth usage

The Aspera client is licensed to use 100Mbps per active upload. The client will attempt to use all the available internet bandwidth at a client site. It is advisable to limit the local bandwidth on the Aspera client.

In the Transfer window select the  gear icon to open the preferences.

In the bandwidth tab allows you to set the transfer rates



### 5.1.4 Aspera System Requirements

#### 5.1.4.1 Browser

The following requirements are applicable when installing and running the Connect application:

- Windows XP SP2, 2003 SP2, Vista, 2008, 7, 8 (see note below)
- IE 7+, Firefox 4+ (32-bit only) or Google Chrome 5+

#### 5.1.4.2 Network Requirements

Your SSH outbound connection may differ based on your organization's unique network settings. Although TCP/22 is the default setting, refer to your IT Department for questions related to which SSH port(s) are open for file transfer. Please also consult your specific Operating System's help documentation for specific instructions on configuring your firewall. If your client host is behind a firewall that does not allow outbound connections, you will need to allow the following:

- Outbound connections for SSH, which is TCP/22 by default, although the server side may run SSH on another port (please check with your IT Department for questions related to which SSH port(s) are open for file transfer).
- Outbound connections for fasp transfers, which is UDP/33001 by default, although the server side may run fasp transfers on one or more other ports (please check with your IT Department for questions related to which port(s) are open for fasp transfers).

Reference:

[http://d3gcli72yxqn2z.cloudfront.net/connect/docs/win/en/pdf/Connect\\_3.3.3\\_Windows\\_User\\_Guide\\_English.pdf](http://d3gcli72yxqn2z.cloudfront.net/connect/docs/win/en/pdf/Connect_3.3.3_Windows_User_Guide_English.pdf)