



FLOW Install Guide

Release 2021.3

May 2021

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Preface

This guide provides the installation procedures and the information used for the FLOW system.

Conventions

The following conventions are used throughout this guide:

Bold text in procedures indicates icons, buttons, links, or menu items that you click on.

Italic text indicates variables.

`Monospace text` indicates text displayed on screen.

Technical Support

For questions not addressed in our documentation, contact EditShare Technical Support. Have the exact version number of your EditShare implementation, as well as your support agreement number.

EditShare strongly recommends that you purchase a support agreement for your system.

Please contact EditShare Technical Support at the following URL:

<http://www.editshare.com/support>

Information about new features and bug fixes are available in the EditShare ReadMe for your server's version, the EditShare update web site <http://updates.editshare.com/> or your server's Landing Page.

Chapter 1: Introduction

This Installation Guide takes you through the steps required to install a complete FLOW system on your own servers.

Note: if you have purchased a hardware or cloud system from EditShare you can ignore the sections on installing and configuring your server.

1. Chapter 2: Creating an EditShare Account
2. Chapter 3: Installing the FLOW Server
3. Chapter 4: Configuring Disks Media/Proxy Storage
4. Chapter 5: Installing FLOW Story
5. Chapter 6: Updating the FLOW Server
6. Chapter 7: Installing Additional Applications
7. Chapter 8: Data Migration
8. Chapter 9: Troubleshooting

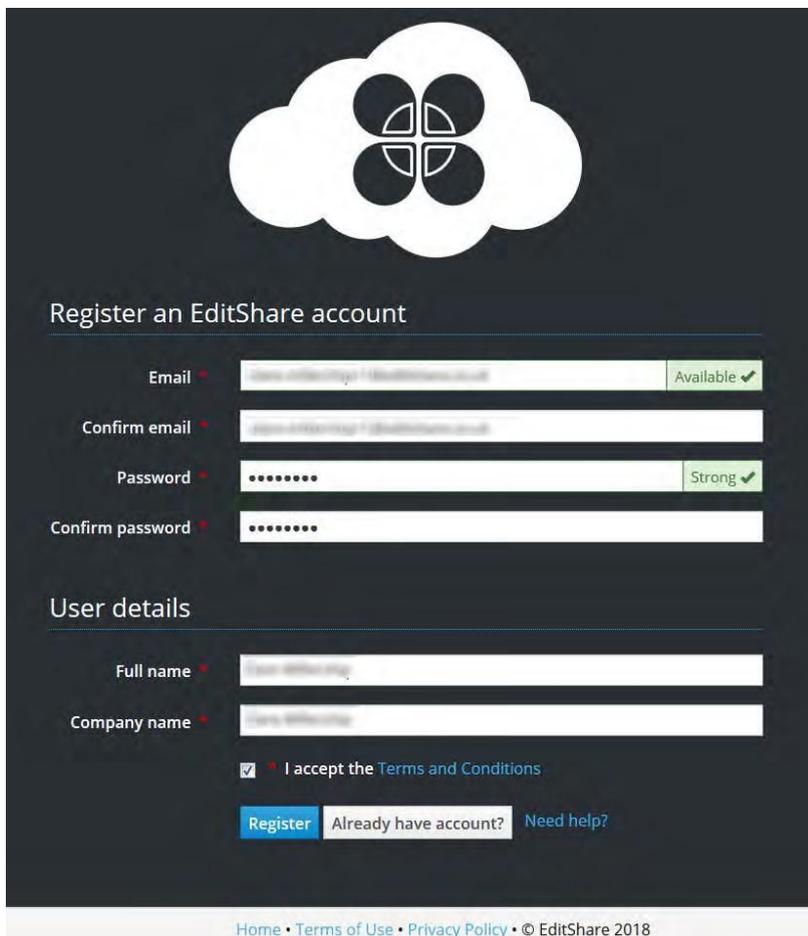
For details on configuring Storage to work with FLOW please refer to the 'FLOW Storage Guide'

Chapter 2: Creating an EditShare Account

To access FLOW and its components, you must register an account so that you can gain access to the FLOW portal to download the trial version of the software. You can then use these details to activate the server trial license or purchase a license.

To create an EditShare account:

1. In your web browser, navigate to <https://my.editshare.com/login>
2. Click Create Account.
3. Enter your email address.
4. Enter your email address again in the Confirm email field.
5. Enter a password for the account.
6. Enter the password again for verification.
7. Enter your full name.
8. Enter the name of your company.
9. Click on the Terms and Conditions link, read and confirm that you agree by selecting the checkbox.
10. Click Register.

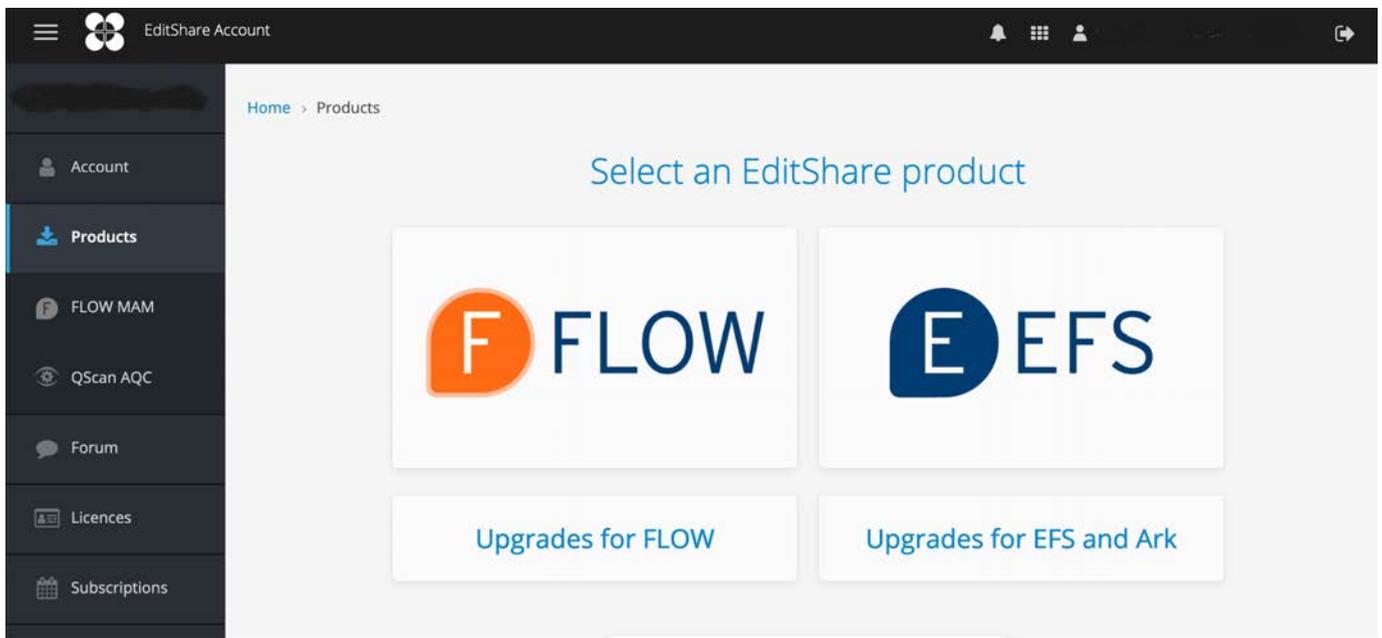


The screenshot shows the 'Register an EditShare account' form. At the top is the EditShare logo, a white cloud with four black circles inside. Below the logo is the title 'Register an EditShare account'. The form is divided into two sections: 'Email' and 'User details'. The 'Email' section has four fields: 'Email', 'Confirm email', 'Password', and 'Confirm password'. The 'Email' field has a green 'Available' status with a checkmark. The 'Password' field has a green 'Strong' status with a checkmark. The 'User details' section has two fields: 'Full name' and 'Company name'. Below these fields is a checkbox labeled 'I accept the Terms and Conditions'. At the bottom of the form are three buttons: 'Register' (blue), 'Already have account?' (white), and 'Need help?' (white). At the very bottom of the page is a footer with links for 'Home', 'Terms of Use', 'Privacy Policy', and '© EditShare 2018'.

Signing into the EditShare Portal

To sign in to the EditShare portal:

1. In your web browser, navigate to <https://my.editshare.com/login>
2. Enter your email address.
3. Enter your password.
4. Click the Sign In button.

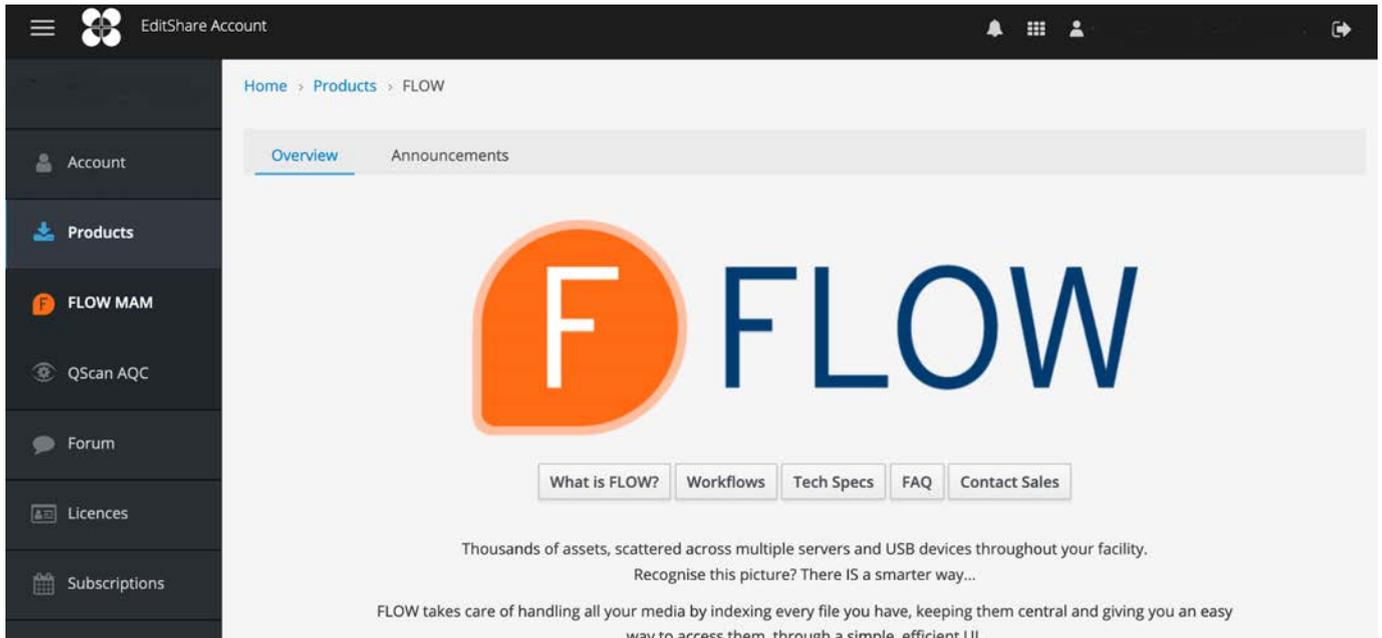


Accessing the FLOW MAM Download Page

When you have created an EditShare account you must select the FLOW MAM option from the portal, and supply more details to gain access to FLOW.

To select FLOW and complete the necessary information to gain access:

1. From the EditShare portal page, select the FLOW MAM product.



2. Click the Try FLOW Now link:

Try FLOW now [X]

Customer type * - Select type -

Role in company *

Company sector

- Broadcast
- News
- Post-Production
- Film
- Agency
- Education
- Corporate
- Government
- Other

Address *

Country * - Select country -

Phone * *Please include international code eg. +44*

Website *

Tell us about your *Please supply detailed information here regarding your workflow and facility*

3. Complete the fields in the Try FLOW Now form to gain access to FLOW:When you have completed all of the fields, click in the required hardware check box to select it and click Try Now:

* I have the [required hardware](#)

[Try Now](#) [Need help?](#)

4. Follow the on screen installation instructions. See “Chapter 4: Installing the FLOW Server” for more information.

Chapter 3: Installing the FLOW Server



FLOW has been engineered to maximize the value of existing storage infrastructure by adding an intelligent media management layer that can manage millions of assets across multiple storage tiers in different locations.

FLOW requires a Linux Ubuntu machine or VM or cloud instance to install FLOW on. See the [Preparing Your Machine](#) section.

When installing to a VM or machine on your local network you need a Windows or macOS workstation to run the FLOW installer on.

Preparing Your Machine

Current FLOW Installer Limitations

- Do not close the application during installation.
- You will not be able to run the installation again on the same system.

System Requirements

- 4 CPU cores.
- 8 GB RAM.
- 64 GB Disk.
- 1 GB Network Interface.

Proxies are stored on system disk so add on what you think the proxy storage needs to be:

- FLOW and its packages currently require approximately about 5 GB.
- Proxy storage at 1mbit/sec is approximately 2 hours per GB.

IMPORTANT: *These are the minimum system requirements. If you have heavy workloads, a lot of content, or a large number of users, consider using a higher specification machine.*

Supported Cloud Environments

- Amazon AWS
- Microsoft Azure

Note: When you start an Azure VM make sure that the deployment model is set to "Resource Manager".

- Google Compute Cloud
- Tencent Cloud
- Alibaba Cloud
- Huawei Cloud

Supported Virtual Machines

- VMware (Workstation, Fusion, ESXi).
- VirtualBox.
- Hyper-V.
- oVirt.

Installing Ubuntu 16.04

Note: Ubuntu 16.04, 64-bit Server image is required.

The Ubuntu 16.04 Server image can be downloaded from the Ubuntu website:

<http://releases.ubuntu.com/16.04/>

For example, if you use the 16.04.4 iso, the filename of the iso image is:

`Ubuntu-16.04.4-server-amd64.iso`

Restricted Usernames for Ubuntu Setup

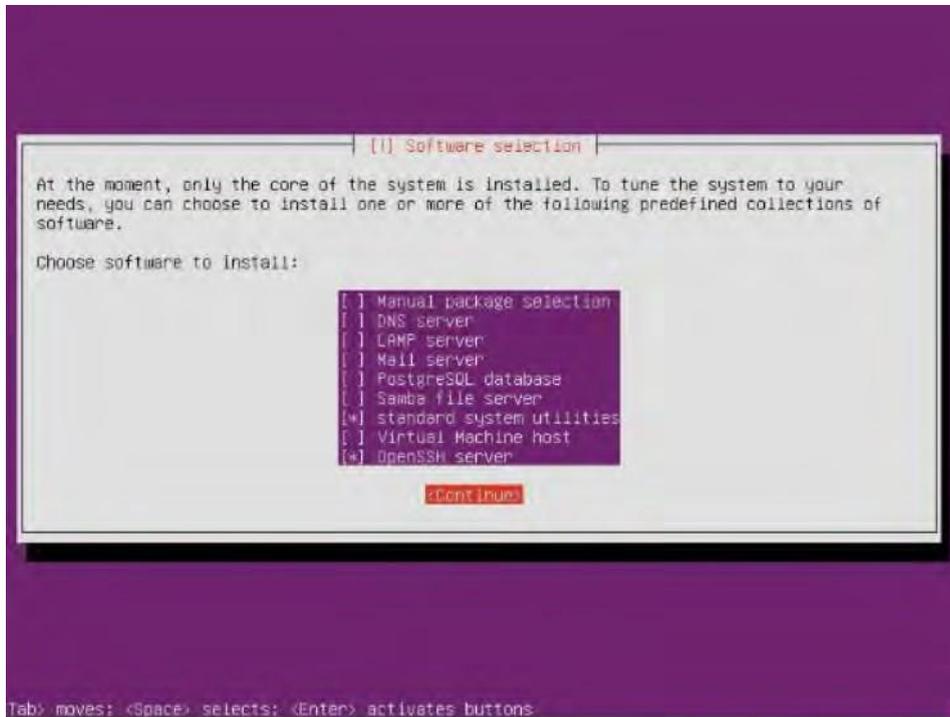
Prerequisites

PREREQUISITE There are usernames that can have special meaning within the FLOW and EditShare environment. To avoid any confusion or conflicts between the system users created by the customer and those automatically created during the installation of FLOW and EditShare services.

Please do not use the following usernames:

- editors
- editshare
- flow
- geevs
- _adsso_editors
- _ark
- _flow
- _flow_proxy

1. Follow the instructions on the screen for setting up an Ubuntu Server.
2. Pay particular attention to the Software Selection screen.
3. Select: Standard system utilities and OpenSSH Server using the spacebar.
4. All other software to install should be left unselected. (See example image below):



5. Reboot after installation.
6. Login as the user you created during the install process.
7. Make sure you are connected to the Internet.
8. Update Ubuntu by typing:

```
sudo apt-get update
```

```
sudo apt-get upgrade
```

9. To find the IP address of the installed machine type:

```
ifconfig
```

This is the IP address you need for the FLOW Installer Setup below.

AFTER COMPLETING THIS TASK: If you are running in a virtual environment, make a snapshot.



Please do not use a number (e.g. '123') for the hostname as this can cause issues with services running on the FLOW server. If a number is used, a notification requesting the hostname to be changed will be displayed in FLOW Control.

Installing FLOW Server Software

The FLOW server install application can be run from a Windows or Mac client targeting the Ubuntu system.

Downloading the FLOW Server Client Installer

To download the FLOW Server Client Installer:

1. Register for an EditShare account if you have not already done so.
2. Go to the portal page <https://my.editshare.com/login> and sign in.
3. Go to the Downloads page and make sure the FLOW MAM tab is selected.
4. Select the Windows or Mac installer and download it to your system.

Opening the FLOW Server Installer

PREREQUISITE: You must have a system setup running Ubuntu 16.04 and configured. See the [Installing Ubuntu 16.04](#) section. The system must be setup with a valid IP address, username, and password and you must know these details before installing the FLOW Server application.

1. Double click the downloaded installer file. The package installer opens. If you are installing on Windows, proceed to Step 4.
2. On Mac systems, drag and drop the Flow.app file over the Applications folder to install it.
3. On Mac systems, navigate to the Applications folder and double-click Flow.app to start FLOW. Please see the troubleshooting section should you experience any issues.

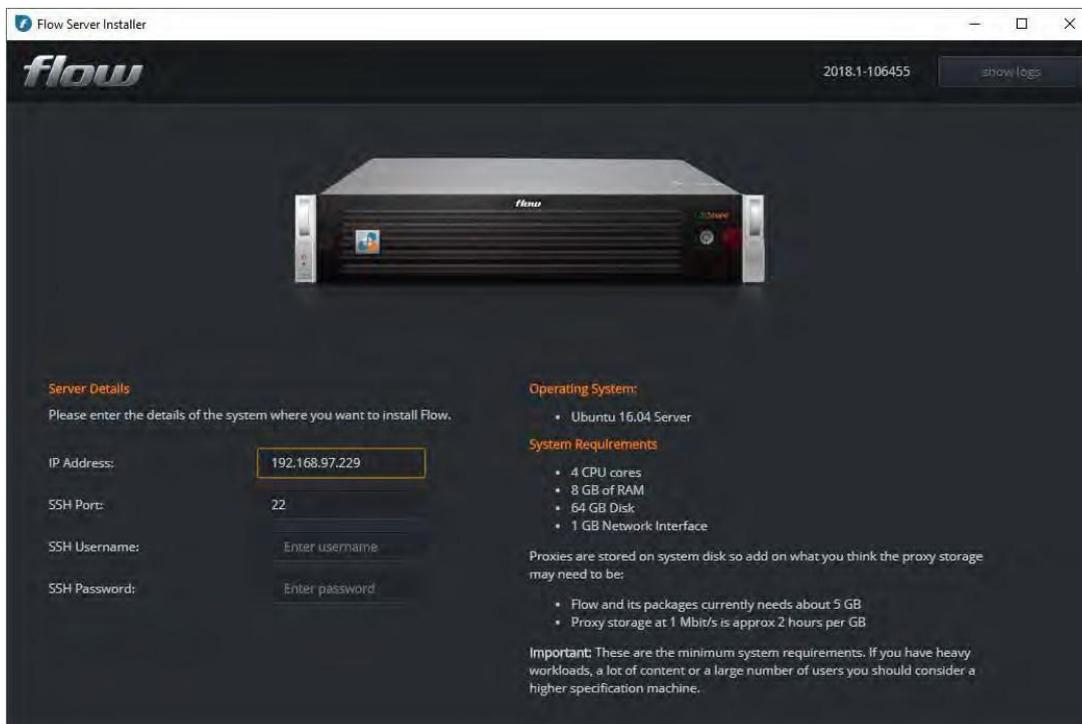
Now you can install the FLOW Server Software. See ["Running the FLOW Server Installer"](#).

Running the FLOW Server Installer

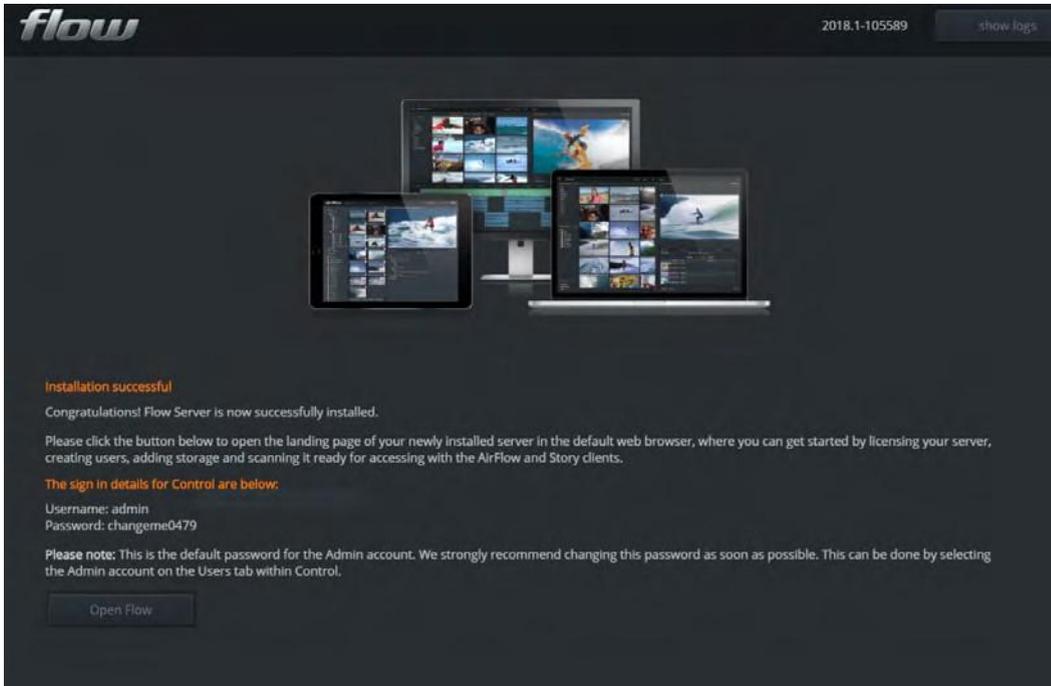
1. When you launch the installer file the first installer page displays.



2. Click Install.
3. On the second installer page enter the IP address of the server you installed as part of the prerequisite. See the [Installing Ubuntu 16.04](#) section. Port 22 is selected by default as the SSH Port:



4. Enter the Username and Password that you installed as part of the Ubuntu installation. See the [Installing Ubuntu 16.04](#) section.
5. Click Install. The installation process begins, (this takes approximately 15 - 20 minutes to install). When installation is complete the Installation successful screen displays:



6. Click the Open FLOW button. The FLOW landing page is displayed in the default web browser.

Cloud Installation (installing without using the FLOW Installer)

1. ssh to the Ubuntu instance you have created. Make sure the Ubuntu instance is up to date. This should already be done per the ["Installing Ubuntu 16.04"](#) section.

```
sudo apt-get update && sudo apt-get upgrade
```

2. Run the following:

```
sudo apt-get install python-minimal
wget https://flow-installers.editshare.co.uk/setup-flow.py sudo python
setup-flow.py
```

This will install FLOW on the instance. Once done you must ensure firewall/instance access - see the section on ports below.

3. Open your Chrome browser at <https://<your machine>:8009> to access the FLOW Control application and login with the default credentials:

Username: admin
Password: changeme0479

The following ports must be accessible in order to use FLOW:

Port	Description
8005	AirFLOW.
8006	EditShare API Gateway.
8009	FLOW Control.
8012	FLOW Automation.

The following ports can optionally be made accessible:

Port	Description
22	To allow access to the FLOW Server using the default ssh port.
80	To allow access to the FLOW Landing page. This has the links to the client installers, web applications and documentation.]

Installing a FLOW Worker Node

A worker node is any server that is in addition to the main (FLOW Admin) server.

In order to setup a machine as a worker node start, as usual, with a correctly spec'd and installed Ubuntu 16.x system as documented in the "FLOW Install and Update Guide"

1. ssh to the Ubuntu instance you have created. Make sure the Ubuntu instance is up to date. This should already be done per the ["Installing Ubuntu 16.04"](#) section.

```
sudo apt-get update && sudo apt-get upgrade
```

2. Run the following setup script:

```
sudo apt-get install python-minimal
```

```
wget https://flow-installers.editshare.co.uk/setup-flow.py
```

```
sudo python setup-flow.py
```

3. You will see the menu below.

```
*** Welcome to FLOW Setup v65 ***
```

```
This is the first time you have setup this machine. Please select  
installation type
```

```
1/ Basic install (all-in-one)
```

```
2/ Add proxy worker to existing setup
```

```
3/ Add ingest to existing setup
```

```
4/ Add ingest and proxy worker to existing setup q/ Quit
```

You can add or change more roles after installation is complete. If you are not sure, choose option 1

4. Choose option 2, 3 or 4 and press Enter.
5. You will then be asked for the FLOW Admin users credentials:
 - The admin server IP
 - Username
 - Password

The install will then proceed as normal.

Once the Worker has been installed check the license is enabled on the 'License' tab of FLOW Control.

"Worker Nodes" and the number will appear under "Features.

Configuring The Worker Node:

1. Open FLOW Control to the 'System' tab
2. Select the 'Render Master' service
3. Configure the number of 'slots' (default should be 1)
4. If any configuration errors are encountered a warning will appear
 - No proxy worker services set up
 - No slots (i.e. slot count is 0 on all workers)

Worker Node Restrictions

If more worker nodes are connected than there are licensed this will 'violate' the license and the system will be locked down until either the license has been updated to allow the worker nodes OR the worker nodes have been removed from the system.

Chapter 4: Configuring Disks

Media/Proxy Storage (Optional)

By default proxy and image files are stored in the following folder location:

```
/home/editshare/flow-files
```

It is possible to change this default location to an alternate disk. Follow the steps below for adding and configuring a disk.

Adding a Disk for Media and or Proxy Storage

By default proxy and image files are stored in the following folder location:

```
/home/editshare/flow-files
```

Before following this task ensure the disk has been added to the environment you are running. This section does not give instructions for adding the disk to the environment.

If you are running within a hosted virtual environment such as AWS, Azure, or VMware or VirtualBox or KVM you must consult the help for that environment to find out how to add a disk.

Once the disks are added you can follow this standard Linux procedure to add the disk to the operating system. The steps below are a summary of the following article:

<https://help.ubuntu.com/community/InstallingANewHardDrive>

1. Find the disk path:

```
sudo lshw -C disk
```

2. Make a partition and format it:

```
sudo mkfs.xfs -f -b size=4096 /dev/sdXX
```

3. Make a mount point:

```
sudo mkdir /media/flowdisk1
```

4. Fetch the UUID (it is important to use the UUID rather than path):

```
sudo blkid
```

5. Add to fstab:

```
sudo vi /etc/fstab
```

6. Add a line similar to this:

```
UUID=f41002b0-dda2-483e-91bb-3a6fb4d4fbb3 /media/flowdisk1 xfs defaults 0 2
```

7. Write the correct permissions:

```
sudo chown -R editshare:editshare /media/flowdisk1
```

8. Reboot:

```
sudo reboot
```

Setup for Using the Disk as Media

Note that there are no security considerations here. These instructions use the user name "editshare" but you should use an appropriate username. The user must exist as a Linux user.

1. Make a directory to use as the root of the share (optional):

```
mkdir /media/flow/media1
```

2. Append the following to the /etc/samba/smb.conf (sudo vi /etc/samba/smb.conf)

```
[FlowMedia_1]
comment = Shared Media Files

create mask = 0775

directory mask = 0775

guest ok = No

path = "/media/flow/media1"

read only = No

force group = editshare
```

3. Add a password for the user that you want to use:

```
sudo smbpasswd -a editshare
```

4. You should then be able to access the shared directory:

```
\\<machine ip>\FlowMedia_1
```

5. Copy some media into it and scan it with FLOW.

Setup for Using the Disk for FLOW Proxies

For these instructions we assume the new disk is mounted at: /media/flow

1. Make sure FLOW is not running:

```
sudo systemctl stop flow-daemon
```

2. If you have existing proxy files you must copy them over:

```
sudo cp -rp /var/flow/files/ /media/flow/
```

3. Otherwise you need to create a sub-directory to hold the flow files:

```
sudo mkdir /media/flow/files
```

4. Now configure FLOW to use the new location:

```
cd /usr/lib/flow/setup/
```

```
sudo ./setup_files.sh -i -l /media/flow/files
```

5. Now you can restart FLOW:

```
sudo systemctl start flow-daemon
```

Chapter 5: Installing FLOW Story

FLOW Story is a remote editing application that allows you to edit and upload local content or edit content that exists on the storage either locally or remotely. Sequences can be published from Story to be viewable in AirFLOW and opened in Avid Media Composer, Adobe Premiere, Apple FCPX, and Lightworks.



Installing on Windows

To install FLOW Story on Windows, do the following:

1. To open the FLOW landing page, do either of the following:
 - Type the IP address of the server you installed into the address bar.
 - Open the FLOW Landing Page from the installer by clicking the Open FLOW button.
2. Click the Windows download button under the Story heading.
3. Save the file and run the installation package.
4. Follow the on screen prompts.
5. Click Finish to complete the installation.

Installing on macOS

To install FLOW Story on macOS do the following:

1. Open a Web Browser.
2. To open the FLOW landing page, do either of the following:
 - Type the IP address of the server you installed into the address bar.
 - Open the FLOW Landing Page from the installer by clicking the Open FLOW button.
3. Click the Mac download button.
4. The DMG file opens to display a file called `Flow Story.app` and the Applications folder.
5. Drag and drop the `Flow Story.app` file over the Applications folder to install it.
6. Navigate to the Applications folder and double-click `Flow Story.app` to start FLOW Story.

Chapter 6: Updating the FLOW Server



WARNING: *If you are an EditShare Storage customer looking to upgrade FLOW, please run the "Check for Updates" on EditShare storage.*

OS Updates

- It is okay to apply updates to newer Ubuntu 16.x components (apt-get update/upgrade). EditShare tests with the latest version but it is always possible that a latest component may stop FLOW from working.
- DO NOT under any circumstances upgrade to Ubuntu 18.

FLOW Updates

1. ssh to the FLOW machine(s)
2. run `sudo python setup-flow.py`
3. Choose option: "3/ Update FLOW"

Chapter 7: Installing Additional Applications

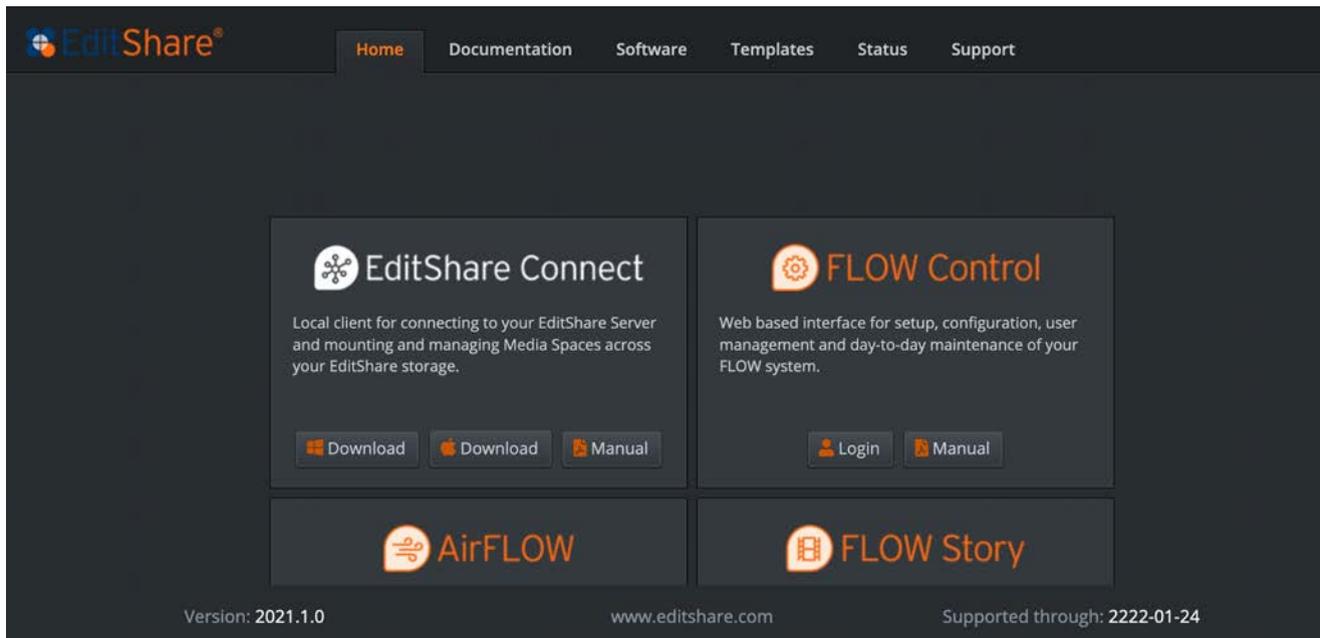
Send To FLOW for Avid Media Composer

The Send To FLOW application allows the sending of compatible sequences from Avid Media Composer to FLOW. The Send To FLOW application is only required if you are running Avid Media Composer on a Mac. It is not needed for Windows.

macOS

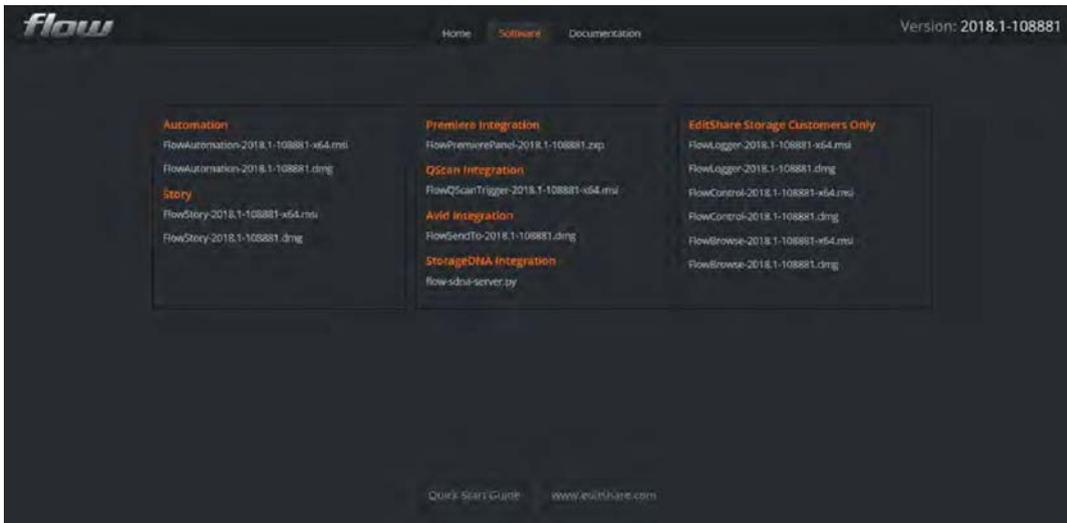
1. Open a Web Browser.
2. To open the FLOW landing page, do either of the following:
 - Type the IP address of the server you installed into the address bar. For example:

192.168.97.216



- Open the FLOW Landing Page from the installer by clicking the Open FLOW button.

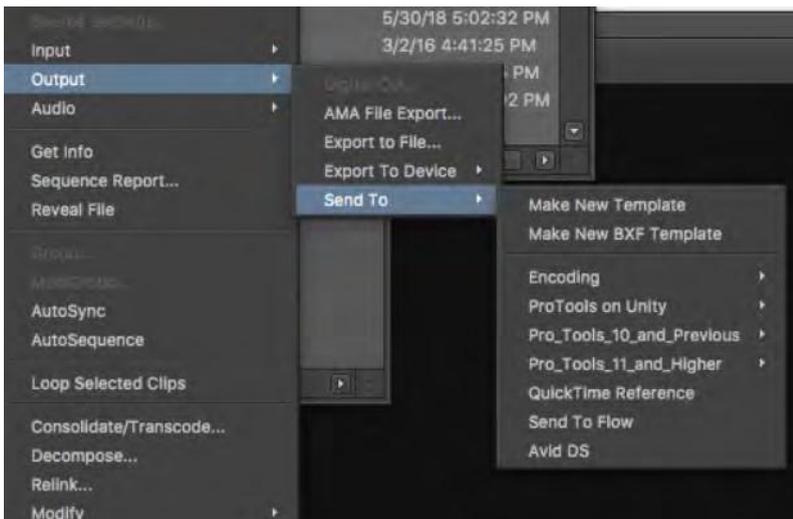
3. Click the Software tab.



4. Click the Send To FLOW application name to run it. The name of the application will change depending on the revision number of the current build. For example, FlowSendTo-2019.x-xxxxxxx.dmg where x is the number of the build. The following dialog is displayed.



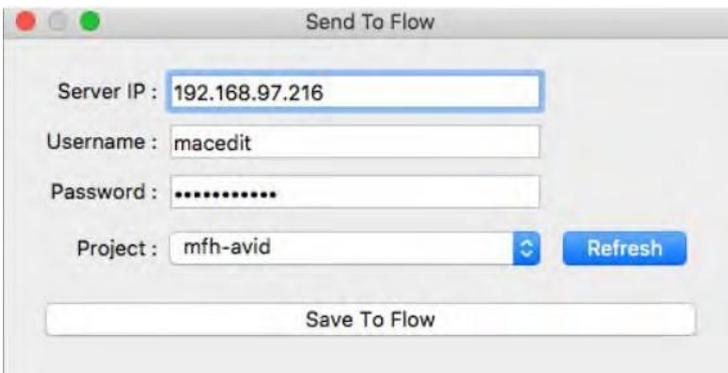
5. Click OK to close the dialog.
6. Start or restart Avid Media Composer.
7. Right-click on a sequence and choose Output >Send To >Send To FLOW. For example:



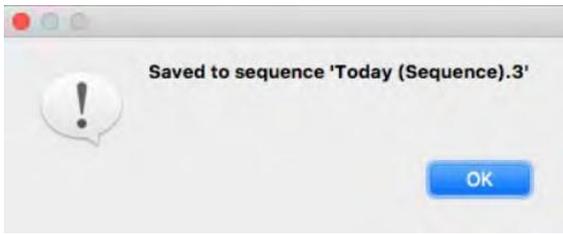
- Click the Options button and define the export as AAF using the 'Link to' setting for both video and audio. The 'send to' will fail if AAF is not defined here.



- You will then see a dialog asking for your FLOW server IP address and credentials. Fill these in and press Refresh. Your projects are displayed. You can then select the project you want to export the sequence to. For example:



10. Click Save To FLOW. A dialog displays, indicating the export to FLOW was successful:



Chapter 8: Data Migration

The FLOW data migration tool can be used to copy FLOW data from an existing FLOW system to a replacement server. This is useful, for example, when migrating between instances or from VMs to dedicated hardware.

Install and configure the FLOW Server software on your new system as documented in the “Installing the FLOW Server” in this Guide. The new system can be licensed either before or after the data migration.

Note: Make sure the new system is connected to the same network as the existing FLOW Server.

Data that is Migrated

All users, asset metadata, proxies and thumbnails.

Migrating The Server Data

On the new FLOW Server installation, ie, the Server that the data is to be migrated to.

1. Stop FLOW services, run:

```
sudo systemctl stop flow-daemon
```

2. Run:

```
sudo flow-migrate -h [IP ADDRESS OF OLD/EXISTING SERVER]
```

3. Enter the password and press Enter. The data migration will begin from the old server to the new. Depending on the number of proxy files to be transferred this could take several hours.
4. Once complete, start FLOW services:

```
sudo systemctl start flow-daemon
```

Checking The Data Migration

Once the you have completed the above instructions and the FLOW service is running, you can check the migrated data using the following:

1. Start a FLOW client (Story, AirFLOW) and sign in.
2. Verify the same storage spaces, metadata, proxies etc are accessible.
3. Verify all user credentials were carried across.

The system should now work just like the original system.

If not already licensed, please contact the FLOW Team flowinfo@editshare.co.uk with regards to migrating the license.

Chapter 9: Supported Operating Systems

Desktop Client Applications

macOS

- 10.16 (Big Sur)
- 10.15 (Catalina)
- 10.14 (Mojave)

Windows

- Windows 10

Web based applications

Recommended browser:

- Chrome (latest stable at time of release)
- FireFox (latest stable at time of release)

Chapter 10: Troubleshooting

Problem While Installing FLOW Story

If you experience issues when you are installing FLOW Story, try completing the following:

1. Run the `Flow.app` directly from the DMG by double clicking the `Flow.app`.
2. If FLOW starts correctly this time, close FLOW and then drag and drop the `Flow.app` file over the applications folder again.

