# Cloud Agent – User's Manual

**12/14/2022**

# Contents

Welcome to the user manual of your Exchange Cloud Agent (ECA). The aim of this document is to present the different features of the software and guide you through its workflows.

# 1. Introduction

The ECA is a lightweight application that serves multiple purposes:

1. Automatically uploads/downloads content to and from NEP (News Exchange Platform),
2. Is fully configurable and supports multiple watchfolders,
3. Provides a web-interface showing a list of transfers and configuration options that is visible from any computer within your organization's local network,
4. Requires no complex installation, a simple double-click on the application will launch the software,
5. It runs on any operating system with Java installed,
6. Is easily integrated with different types of workflows, like forwarding, including Amazon S3 buckets.

# 2. Getting started with the ECA

## 2.1. Introduction and requirements

First, to run the ECA smoothly, you'll need to have **Java** installed (at least version 1.8). Once you have received your Cloud Agent package, unpack it and place its contents on a machine that will host these services. Please note that the Cloud Agent has no minimal system requirements, but it will attempt to use as much network bandwidth as possible on its host to maximize the efficiency of transfers corresponding to the large number of news items being published on a daily basis.

Note that the Cloud Agent does not require a large amount of RAM or CPU to run.

Once unpacked, you need to:

1. Provide identity information that you should receive from the administrator. To proceed edit file eca.properties in folder config and fill in entry eca.identity


2. Launch application as follows:
    a. Windows:  double-click on the "run.bat" application, which will open the default browser with the interface already visible.
    b. LINUX: launch script "run.sh"

Once you have started the Cloud Agent, if this is the first time you start the Cloud Agent, this list will be empty as shown below:
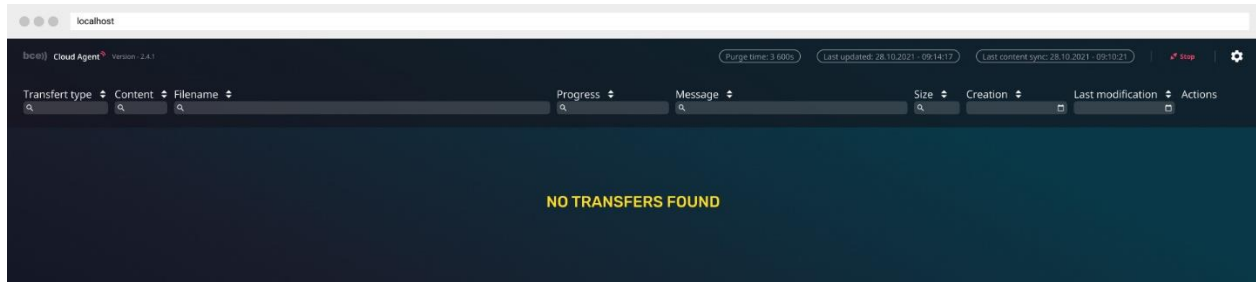


This page can be opened from Internet browser see paragraph 2.4. When first launched, the ECA will create several folders (the workspace, the download folder and the sent items folder). If it has no permissions to do so, it will simply fall back to using the default local folders, which are already included in the ECA package that you received. In any case, you will be able to change these folders in the configuration page (discussed in the next sections)

## 2.2.　Proxy setup

If you are using proxy in your organization, you will need to add the following lines to your config/eca.properties :

nep.transfer.socks.host = <proxy.ip.address>

nep.transfer.socks.port = <proxy.port.number>

## 2.3.　Run as Service (Admin Rights NEEDED)

You can manage the Cloud Agent service by using the scripts in the script folder: use service-install.* to install the service. To define a custom Launcher options e.g.: Port number, before the installation, edit the script and set the variable below:

Linux: LAUNCHER_OPTIONS .

Windows: LauncherOptions .

use service-start.* to start the service.

use service-restart.* to restart the service.

use service-stop.* to stop the service.

use service-remove.* to stop and uninstall the service.

Note: On some Linux installations it is necessary to modify the service-install.sh script to replace the $JAVA_HOME variable according to your local java installation folder like: "/bin/java"

## 2.4. Accessing the interface locally and from other machines

The web interface is accessed simply on the host machine by opening a browser and typing:

localhost:8080/nep-cloud-agent-webinterface

*Note that the port 8080 is set by default but it can be changed by editing run.bat/sh **file LauncherOptions value: -httpPort=8080**.*

The link above only works on the machine where the Cloud Agent is installed. To access it from another machine (in the same network), simply replace "localhost" with the IP address of the Cloud Agent. For example, if its IP address is 1.2.3.4, then use: 1.2.3.4:8080/nep-cloud-agent-webinterface. It could also be reachable by DNS entry if this machine is registered into your domain.

## 3. Running the Cloud Agent

Once opened, the Cloud Agent's transfer page is shown as following:
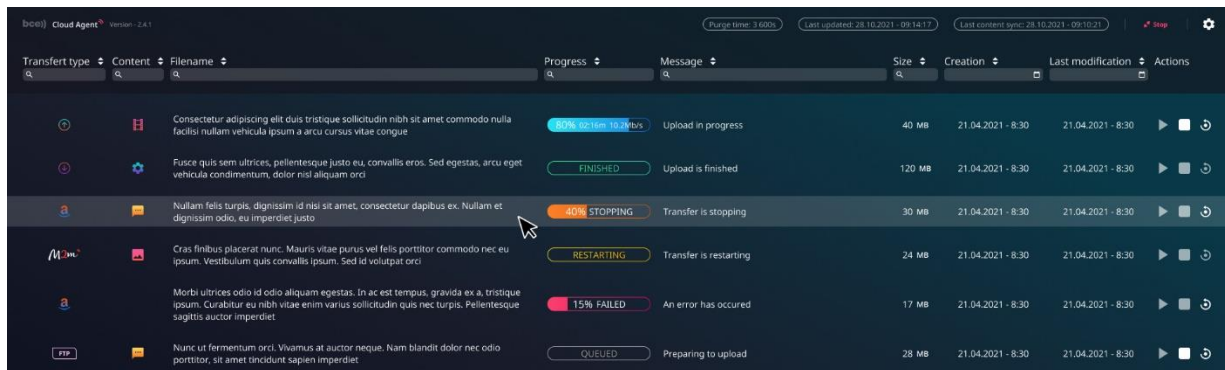


This page displays all transfers to/from NEP as well as any other workflows with all needed information such as the status, the content type, etc.

You can control each transfer using the buttons on the right-hand side of the screen as shown in the following figure.

You can filter displayed information by using the navigation bar at the top of each column.

## 3.1.    The configuration page

The configuration page can be accessed by clicking on the small gear icon ⚙ in the top right corner. This page contains multiple options as well as useful information on the state of the application and its components. You can switch back to the transfers page by clicking on the same icon.



Basic configuration options and information about the system can be found on the left-hand side of the page. Please note that you must click on the green "Save" button on the top right corner to apply any settings that have been changed.

Before going any further, make sure that the folder paths are correctly set up, such as the "workspace" (the root folder of the Cloud Agent), and the "download" folder, which will contain all assets automatically downloaded by the Cloud Agent once the transfers have begun.

Logs destination is not configurable in this page. If needed it is possible to change as follows. In file log4j2.xml located in config folder which in ECA install folder:

- fileName="./log/log.txt"
- filePattern="./log/log-%d{MM-dd-yyyy}-%i.txt"

### 3.1.1. Communication with the central servers

Before using the software, it is in general a good idea to check the quality of the connection to the central NEP network. This can be done using the corresponding options on the bottom of the page:
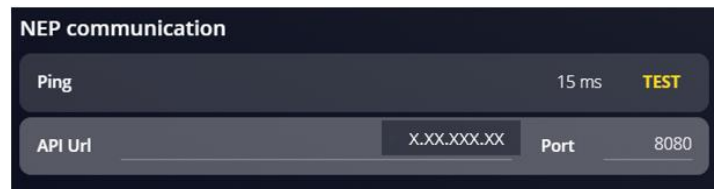


By clicking on "TEST", the Cloud Agent will calculate the round-trip-time (RTT) of a ping message to our central servers. This can be used to test the quality of a connection.

### 3.1.2. Workflow settings

The Cloud Agent has several tasks than run in the background. Some of these are essential for the correct functioning of the application. You can view the tasks on the config page, on the right-hand side of the screen:



These tasks will execute at every interval specified by the "Period" parameter, with an initial delay set by the "Delay" parameter. If any of these tasks fails (for any reason), you can simply restart it with the corresponding button on the right-hand side of the row.

### 3.1.3. Sync back time for ECA downloads

After initial start ECA downloads by default past 3h of news items. To change this parameter please use the option available under Global Settings – Download News items max age. 3.1.4. ECA forwarding rule
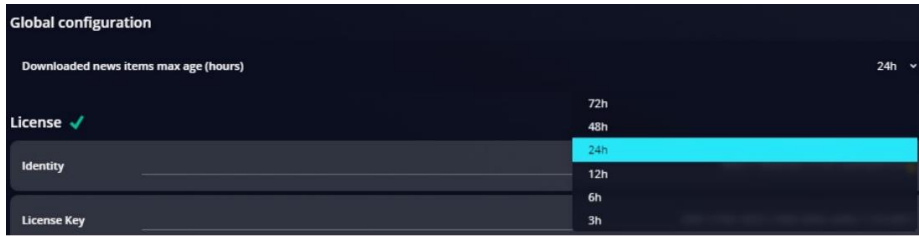
### 3.1.4. ECA forwarding rules

Even if the main goal of ECA is to download from NEP the whole content available for you it could be possible to forward the downloaded content to another destination. Each forwarding rule will be completely independent and could be customized for a specific purpose. You will be able to select which elements you 'll forward and where it has to be done. For that, you can configure in the Cloud Agent different ways to forward the content. The forwarding could be done automatically or manually in FTP, SFTP, FTPS and on a S3 storage.

The automatic forwarding will be triggered just after the download of elements coming from NEP. By comparison, the manual forward will be triggered directly by the NEP's user interface where user will select the rule that you will create in the ECA.
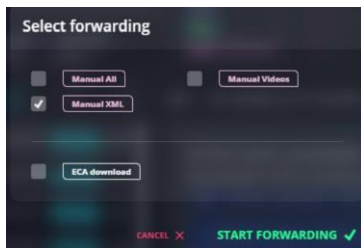




You can configure multiple forwarding to propagate the same content to multiple destinations:



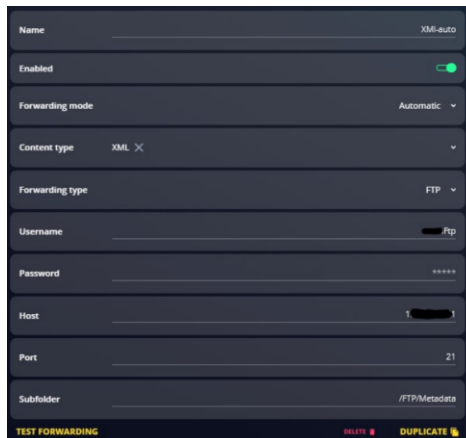Content type for forwarding can be for example:

- HIRES: video → orga-2022_101950-compressed-1-WhatsApp_global_outage_FILE.mp4
- LOWRES: video preview → orga-2022_1011950-preview-1-WhatsApp_global_outage_FILE.mp4
- THUMBNAIL: first keyframe → orga-2022_1011950-thumbnail-1-00000500-WhatsApp_global_outage_FILE.jpg
- XML: metadata file in NewsML-g2 → orga-2022_1011950-metadata-8-WhatsApp_global_outage_FILE.xml
- KEYFRAME: keyframes (except first one) → orga-2022_1011950-thumbnail-1-00000900-WhatsApp_global_outage_FILE.jpg

**For FTP**

Following fields are required:
- Username
- Password
- Host
- Port
- Subfolder



**For SFTP**

Following fields are required:
- Host
- Port
- Subfolder
- Authentication details can be:
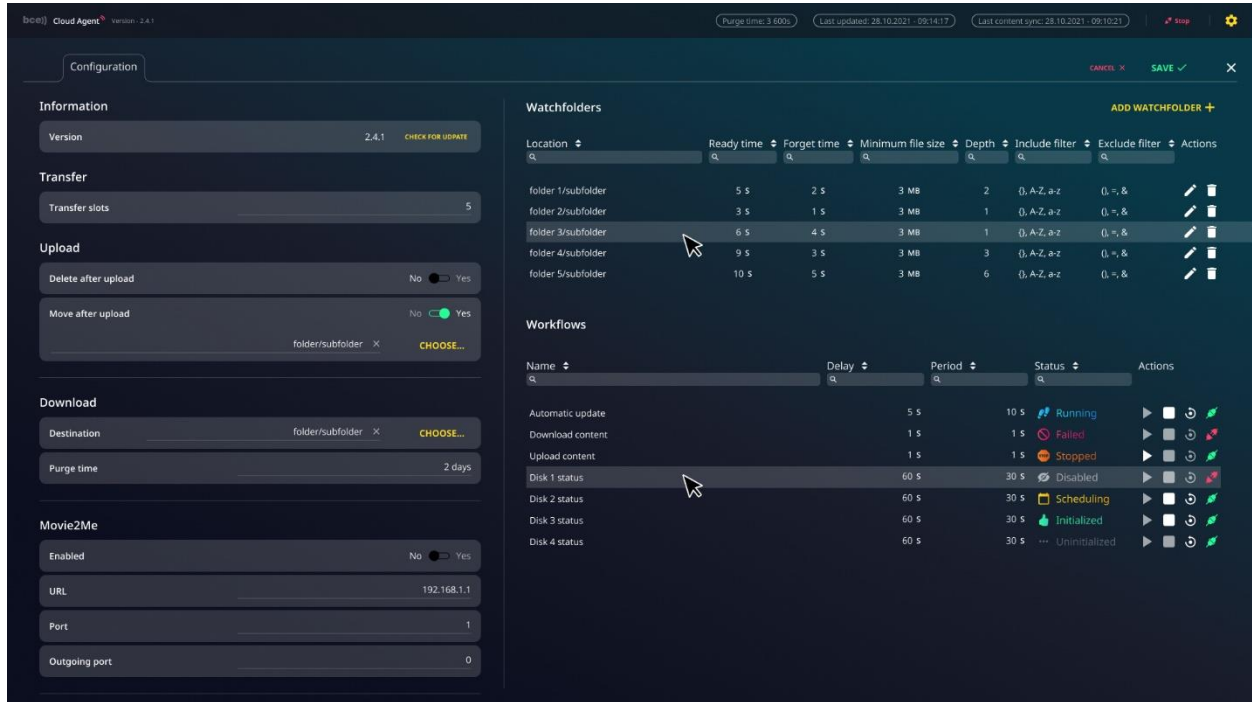    - Username
    - Password

or

    - RSA key URL
    - Known hosts file

**For FTPS**

Following fields are required:

- Username
- Password
- Host
- Port
- Subfolder



**For S3**

The ECA is also able to forward all downloaded content to an Amazon S3 bucket. To do so, activate the option on the configuration page and set your bucket's parameters. An example of S3 configuration can be as following:

```
bucketTest = "test-cloud-agent";
accessKeyTest = "AKIAYJLSV6FQUC6A2CV";
secretKeyTest = "yXXXXXXXXXXXXX6X+xxxxxXXXXXX";
 regionStr = "EU-west-4";
```
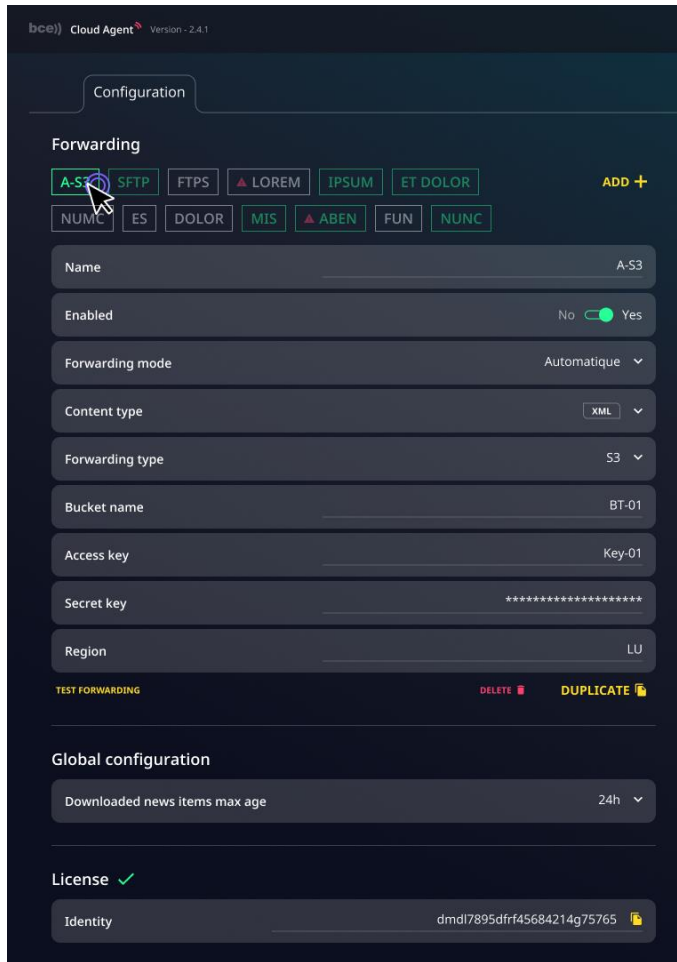
Once saved, if the automatic forwarding was selected, the workflow will automatically be activated and all content that comes from NEP will be sent to the given bucket, in addition to being saved on the disk.

Through the configuration interface, you have also the possibility to test a forwarding before using it by clicking on "test forwarding" button, as depicted by the following figure. You can also duplicate an existing forwarding rule. In this case all the field are copied, the name is also copied with an alias -copy and you only need to re-enter the password field which is not copied due to security reasons.
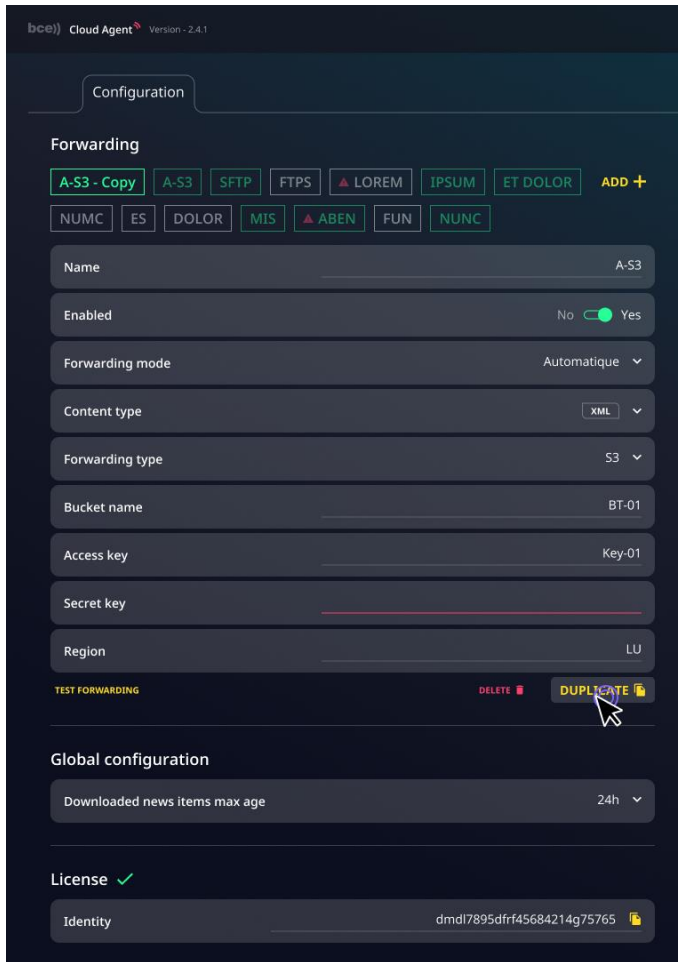
## 3.2. Downloading content

Content is exchanged with the NEP platform through a highly secure channel whose security parameters are safely stored within the Cloud Agent's configuration files. These credentials and keys are supplied along with your installation and thus you do not need to configure anything.

Downloading content is done automatically, as soon as new content becomes available, and the Cloud Agent is licensed.
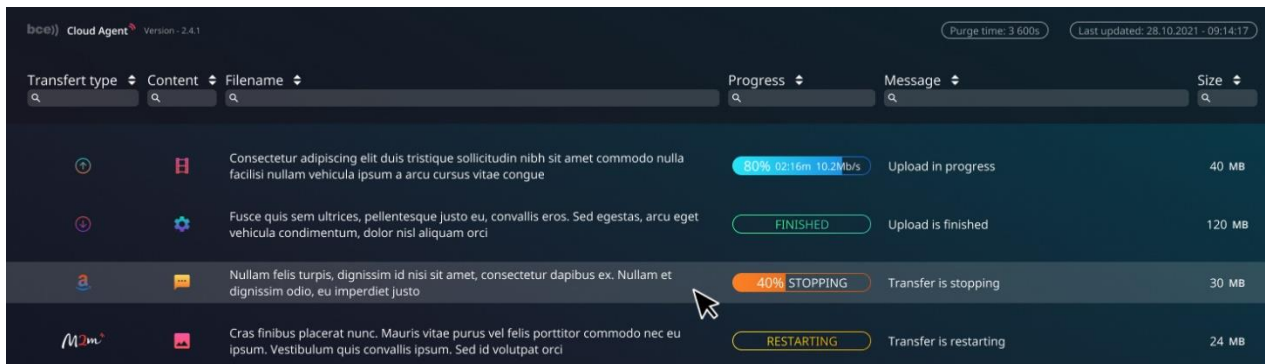
### 3.3. Uploading content

In order to upload a new item, you can either use the manual contribution via the NEP portal (please check the details in NEP documentation) or choose the automatic upload via the ECA. This is possible by following the steps bellow:
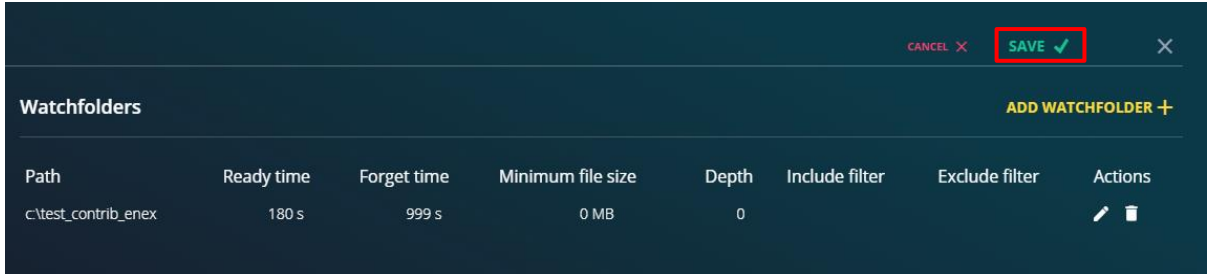
- the creation of a specific watchfolder, for that you need to go to the configuration part and click on Add Watchfolder
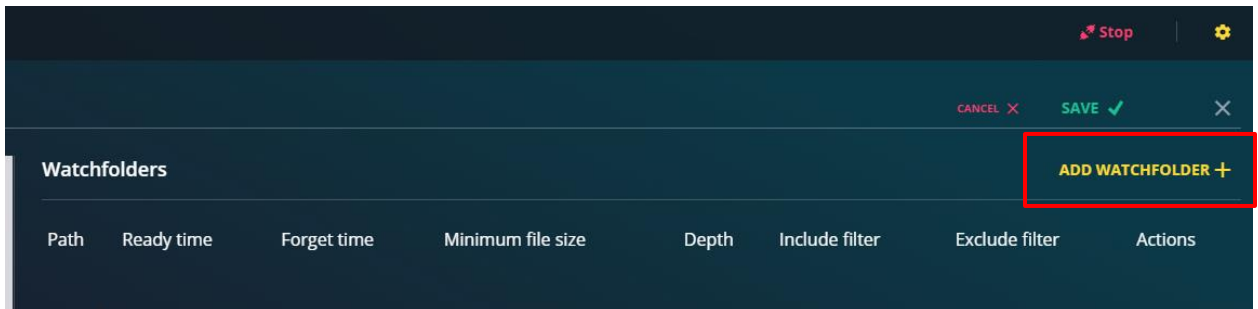


A pop up will appear and you need to specify the location of your watchfolder



Click on save and the Watchfolder will be created and ready to receive your contributions.

- If no Watchfolder is created for contribution via the ECA interface as described above, then the default Watchfolder can be used. This is the "upload" folder created in the default workspace under the ECA folder. Your contribution can be then considered by putting your files under this folder.

You can see your contribution that are sent for approval on your ECA interface with an up arrow, as depicted by the following figure:



Once approved, your item will be published on NEP Home page and will be visible to all users who have the permission to access the item. Note that if you have chosen to exclude one or more partners from viewing your contributions, they will not see your items and will not be able to download them manually or automatically.

Please note that the approval process might take some time as your content will enter the various ingest channels, such as transcoding to the ENEX standard format as well as the creation of a thumbnail and low-res video.

## 3.4. Updates

Updates of ECA will be delivered automatically. Once an update is available ECA will show the following message below in the GUI.
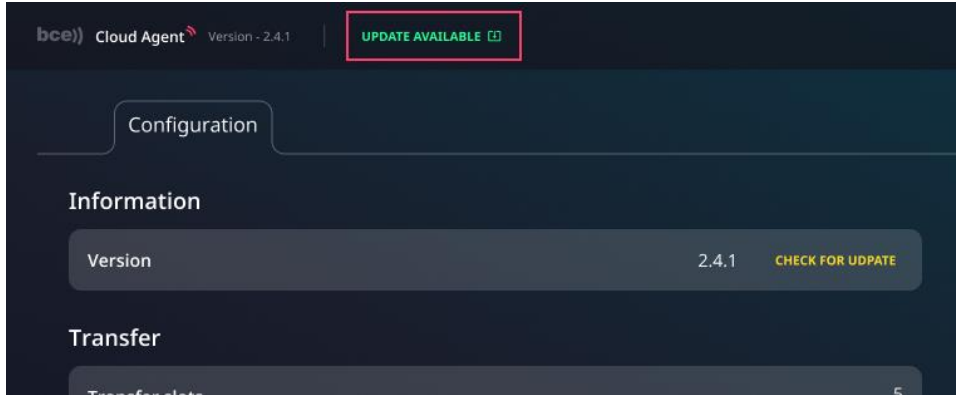
Please click the INSTALL button to apply new configuration, clean browser cache and start ECA again. NOTE: It is important to clean browser cache after updating ECA as otherwise frontend updates might not be correctly recognized.

## 3.5. Closing the Cloud Agent

If you need to stop the Cloud Agent, you can do so by clicking on the "Stop" button on the top of the Transfers page. This will stop all background services and make sure that all resources are immediately freed up on the host system.
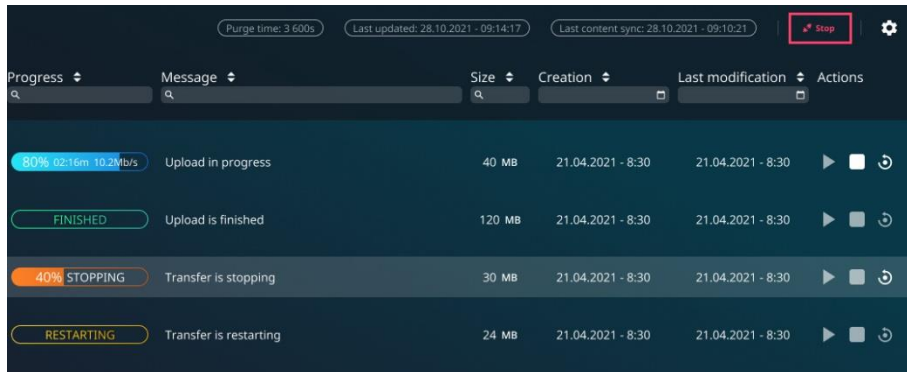


## 3.6. Troubleshooting the application

In case of any issues or questions regarding the features of the Cloud Agent, please feel free to send an email to our special support address:

nep_support@bce.lu

In addition, you can send us the log file which is found in the log directory where the Cloud Agent is running from. That will provide us with valuable information regarding any issues you might have.