ECMWF training course - 2015

ECaccess tutorial

N O T E S:

1. This session is meant to give you a flavour of the services provided with ECaccess.
2. As you are at ECMWF and have no ActivIdentity card for the training UID's, we cannot use the normal gateway (ecaccess.ecmwf.int).
3. For this tutorial **only**, we have set up the training UIDs on a gateway called **ecaccess-vzone.ecmwf.int**.
4. We have also forced the passcode to be **fixed** for all UIDs. See email message for your own passcode. Make sure you use your own **UID**!
5. As we stay within the ECMWF local network, there is no real need to use ECaccess, but imagine that you are back in your office at "HOME".
6. Once this tutorial is over, you can forget about "ecaccess-vzone.ecmwf.int" and the fixed passcode.
7. Back at your place, simply remember "**ecaccess.ecmwf.int**" (or the ECaccess gateway installed locally) and the passcodes generated by your ActivIdentity card.
8. When "tr??" or "class??" is given below, use your own training UID and local desktop system.

1. Interactive access

1. ssh - [X11]

$ ssh [-X] tr??@ecaccess-vzone.ecmwf.int

… you will be prompted for a hostname. If you just press enter the default "ecgate" will be chosen.

2. NX

As we don't have NX clients installed on the local desktop systems, you will not be able to test this option.

2. FTP and SFTP

From a local terminal, run "ftp ecaccess-vzone.ecmwf.int" or "sftp ecaccess-vzone.ecmwf.int". This allows you to transfer files from or to ECMWF.

From a web browser (or from a file manager which supports FTP or SFTP, such as konqueror), you can try to use the URL

ftp://tr??@ecaccess-vzone.ecmwf.int/

OR

sftp://tr??@ecaccess-vzone.ecmwf.int/

3. Web access

From your web browser, you can access the URL

http://ecaccess-vzone.ecmwf.int/

Use your "tr?" UID and the fixed passcode to login. You can try the browsing, monitoring, submission facilities …

4. ECtools

Please copy an example batch job using the following command:

cp ~trx/Retrieve_decode_grib_api.cmd ~/.

On your local desktop system (class??), we will try to download a script, run it in batch mode and then get the output back. A sample ksh session with comments follows:

change into a working directory
$ cd /tmp/tr??

# request the certificate, you can check its validity with "ecaccess-certificate-list"
$ ecaccess-certificate-create

In the $HOME directory at ECMWF try to find a suitable job to "download",
e.g. Retrieve_decode_grib_api.cmd
$ ecaccess-file-dir

download the file
$ ecaccess-file-get Retrieve_decode_grib_api.cmd myjob.cmd

submit the job to ecgate; A job-id (jid used below) will be returned.
$ ecaccess-job-submit myjob.cmd

# monitor the job
$ ecaccess-job-list [jid]

get job output back and check.
$ ecaccess-job-get [jid] output_file
$ less output_file

The files generated by our example job are located in $SCRATCH
$ ecaccess-file-dir scratch:

get the GRIB file which was generated by the example job
$ ecaccess-file-get scratch:grib_file.grb

check the grib file
$ grib_ls grib_file.grb

delete the job from spool area
$ ecaccess-job-delete [jid]

check that all your jobs have been removed from the queue
ecaccess-job-list

preparation for unattended file transfers
$ cd /tmp/tr??; mkdir ecmwf

5. ectrans (unattended transfers):

1. **Setup of destination information via new ECtools 4.0.0**
   $ ecaccess-association-get -template tr??_assoc tr??_assoc.txt
   Edit top of file tr??_assoc.txt:

```
##############################
# Main Parameters
##############################
$name='tr??_assoc';                 # the name you have used when
                                    # requesting template, which you can change
$active='yes';                      # activate this association
$comment='My test association';     # you can give it a comment
$grantedUserList='';                # you can provide comma separated uids to allow
                                    # others to use this association
$directory='/tmp/tr??/ecmwf';       # the destination directory
$hostName='class??.ecmwf.int';      # the destination host
$login='tr??';                      # the destination user name
$protocol='genericFtp';             # the protocol which is supported at your destination
```

   $ ecaccess-association-put -password tr??_assoc.txt

This command will prompt you for a password, and this time you will have to use your Unix password!!!

OR

2. **Setup of destination information via the web. Access the URL:**

   http://ecaccess-vzone.ecmwf.int/

   Go to "Ectrans Setup" – lower left corner, then select "add association". Enter the lollowing info:

   Association name: **tr??_assoc** # you are free to choose this name.

"from_reading" is most likely already used

Host name: **class??.ecmwf.int** # Once at home, this will be one of your # local systems

Directory: **/tmp/tr??/ecmwf**
Default Destination: **genericFtp**
Login: **tr??** # At home, this will be your UID on your # local systems.

Password: ******* # your tr?? Unix password

Three default destination types are defined and are available to you: genericFtp, genericSftp and genericFile. Use "genericFtp" or "genericSftp". Now you can create the association by pressing the "MS User" button.

3. **From ecgate, you can now use ectrans …**

login to ecgate

$ ssh ecgate

check the syntax

$ ectrans

find an appropriate file

$ ls ~trx/bufr_decode

use ectrans; transfer ID returned

$ ectrans –gateway ecaccess-vzone.ecmwf.int –remote tr??_assoc
-verbose –source ~trx/bufr_decode/practicals.tar

check with ectrans whether the transfer is successful

$ ectrans –check <TID>

Check it in /tmp/tr??/ecmwf on your local system

$ ls /tmp/tr??/ecmwf

Transfer file again; Mistake … the remote file is already there.

**$ ectrans –gateway ecaccess-vzone.ecmwf.int –remote tr??_assoc **
-verbose –source ~trx/bufr_decode/practicals.tar

4. **Check status from your local system:**

shows the status of the transfer.

$ ecaccess-ectrans-list

The transfer is no longer needed delete it **OR**

$ ecaccess-ectrans-delete <TID>

to retry the transfer and overwrite the local file

$ ecaccess-ectrans-restart –overwrite <TID>

5. **You can go back to the web and resume the transfer from "Monitoring – FileTransfers".**