CHMI installation guide version 14.5.4
Table Of Contents

1. Introduction ...................................................................................................................... 6
   1.1 Identification ................................................................................................................. 6
   1.2 Scope ........................................................................................................................... 6

2. User Documentation ......................................................................................................... 6

3. Help Desk .......................................................................................................................... 6

4. License agreement ........................................................................................................... 7

5. PC Hardware prerequisite ............................................................................................... 8
   5.1 Minimum requirements ................................................................................................. 8
   5.2 Monitor: minimum screen resolution: 1024*768 ............................................................ 8
   5.3 Recommended requirements ........................................................................................ 8
   5.4 Supported platforms ...................................................................................................... 8

6. Connectivity prerequisite for Internet Connection .......................................................... 9
   6.1 Network consideration .................................................................................................. 9
   6.2 Proxy consideration ...................................................................................................... 9

7. Connectivity prerequisite for SITA Connection ............................................................... 10

8. Download CHMI software ............................................................................................... 11
   8.1 Via the web site (preferred choice) .............................................................................. 11
   8.2 Via the ftp server (second choice) .............................................................................. 11

9. CHMI software packaging info ....................................................................................... 12

10. Upgrade information ...................................................................................................... 13
    10.1 Migration information ................................................................................................. 13
    10.2 CHMI 14.0.4 already installed .................................................................................. 13
    10.3 CHMI 14.5.4 installation ........................................................................................... 13

11. Installation of CHMI software ....................................................................................... 14
    11.1 Introduction ................................................................................................................ 14
    11.2 Retrieve internet proxy information. ........................................................................ 14
    11.3 Execute the CHMI software ..................................................................................... 15
        11.3.2 Select Installation type ..................................................................................... 17
            11.3.2.1 Option 1 Typical : Internet connection ..................................................... 17
            11.3.2.2 Option 2 Complete : Internet and Extranet connection ..................... 17
            11.3.2.3 Option 3 Custom : Extranet connection ONLY ................................... 18
    11.3.3 Ready to install the application ............................................................................. 20
    11.3.4 Check Your Files And Folder Permissions ......................................................... 21

12. Import of CHMI preferences ........................................................................................... 22
12.1 Migration of preference files for Windows 10 –32bits. ................................................. 22
12.2 Migration of preference files for Windows 10 – 64 bits ............................................... 22
12.3 Migration of preference files for Windows 10............................................................... 22

13. Available shortcuts......................................................................................................... 23
13.1 Internet Shortcuts ....................................................................................................... 23
13.2 Extranet Shortcuts ..................................................................................................... 23

14. Operations ...................................................................................................................... 24
14.1 Introduction ................................................................................................................. 24
14.2 Internet Connection ..................................................................................................... 24
14.3 Extranet Connection. ................................................................................................. 26

APPENDICES .......................................................................................................................... 27
A Network troubleshooting ............................................................................................... 28
A.1 CHMI connected to the SITA network ................................................................. 28
B Start the CHMI application in DEBUG mode ................................................................. 29
C To determine CHMI system variables............................................................................. 30
D Removal of CHMI software ........................................................................................... 31
E Chmi folders and files permissions. .............................................................................. 33
F Reset Map errors, reinitialise all actions........................................................................ 35
G CHMI QueryReplay Viewer ........................................................................................... 36
H CHMI Certificate check ................................................................................................. 37
H.1 Background information ........................................................................................... 37
H.2 Certificate errors ....................................................................................................... 37
H.3 Enable Certificate check ......................................................................................... 39
H.4 Disable Certificate check .......................................................................................... 39
H.5 Remove certificate information from the chmi.preferences file ............................. 39
I RSA SecurID Software Token for Windows .................................................................. 40
I.1 RSA software for Windows 10. .................................................................................. 40
J CHMI software digitally signed ..................................................................................... 41
J.1 EUROCONTROL Code Signing ................................................................................. 41
K Windows 10 screen parameter consideration. ............................................................ 42

DOCUMENT FINAL PAGE ..................................................................................................... 43
Table Of Figures

Figure 1: Base - Welcome menu ............................................................................................... 15
Figure 2: Base - License agreement .......................................................................................... 16
Figure 3: Internet Proxy ........................................................................................................... 17
Figure 4: Select Installation type .............................................................................................. 17
Figure 5: Select features .......................................................................................................... 18
Figure 6: Select features .......................................................................................................... 19
Figure 7: Ready to install ......................................................................................................... 20
Figure 6: Successfully installed ................................................................................................. 21
Figure 7: CHMI Internet proxy logon ......................................................................................... 24
Figure 8: CHMI ACE logon ....................................................................................................... 25
Figure 9: CHMI ACE logon ....................................................................................................... 26
Figure 10: Unable to connect .................................................................................................. 28
Figure 11: Display CHMI system environment ......................................................................... 30
Figure 12: Add or Remove Programs confirmation window 14.0.4 .......................................... 31
Figure 14 Destination Folder Access Denied .......................................................................... 34

Table Of Tables

Table 1: CHMI connection for Internet users ........................................................................... 9
Table 2: CHMI online help page for Internet users ................................................................. 9
Table 3: CHMI connection for SITA users ............................................................................... 10
Table 4: CHMI online help page for SITA users ..................................................................... 10
1. Introduction

1.1 Identification

(1) This document forms part of the "CHMI" documentation.
(2) This document has a document reference of "CHMI/USD/CHMiaoinst".
(3) This document has a Title of "CHMI installation guide version ".

1.2 Scope

(1) This document is made available to technical staff to allow the installation of the CHMI application.
(2) This software can be used by AO (Aircraft Operator), ANSP (Air Navigation Service Provider) and AMC (Airspace Management Cell) users.

2. User Documentation

(1) Main link:

http://www.eurocontrol.int/network-operations/library

http://www.eurocontrol.int/network-operations/publications

3. Help Desk

(1) If you have any problems, please contact the CSO Help Desk ++ 32 2 745 1997
(2) You may also forward your questions to nm.cso.help-desk@eurocontrol.int
4. License agreement

Service Agreements
Access to the NM (former CFMU) System is authorised only to those Customers who have signed the relevant Service Agreements with EUROCONTROL.

NM (former CFMU) Security Rules
The Customer shall abide by the general security rules issued by EUROCONTROL for the use of the NM (former CFMU) Systems as set out in the NM Security Rules which is provided to the Customer together with the Agreements for NM System Access.

The Customer is obliged to check regularly the latest version of the NM Security Rules at the CFMU web site: 
http://www.eurocontrol.int/network-operations/nm-operations-security-rules

Any related questions may be addressed by fax +32 2 729 9023 (NM Contact Points - CSO Help Desk)

For other contact names, refer to

http://www.eurocontrol.int/articles/network-management-contacts
5. PC Hardware prerequisite

5.1 Minimum requirements

(1) Memory size: 2 Gigabytes of RAM minimum

5.2 Monitor: minimum screen resolution: 1024*768

5.3 Recommended requirements

(1) 8 Gigabytes of RAM.

(2) PC with dual video outputs: 2 screens are recommended for intensive user of the application (one screen for data input or information display, the second screen to display the map).

5.4 Supported platforms

(1) The recommended operating system is Windows 10, Windows 7 will also be supported.
6. Connectivity prerequisite for Internet Connection

6.1 Network consideration

1. The CHMI via Internet application connects to www.nm.eurocontrol.int on ports 80 and 443.
2. Ensure that your PC can resolve the fully qualified domain name of the NM server (www.nm.eurocontrol.int).
3. A CHMI ON-LINE help is also available, at http://www.nm.eurocontrol.int/chmi_apphelp/index.html
4. To resume:

<table>
<thead>
<tr>
<th>CHMI PRIMARY SERVER</th>
<th>TCP ports</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td><a href="http://www.nm.eurocontrol.int">www.nm.eurocontrol.int</a></td>
<td>80 &amp; 443</td>
<td>Internet server</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CHMI contingency SERVER</th>
<th>TCP ports</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td><a href="http://www.contingency.nm.eurocontrol.int">www.contingency.nm.eurocontrol.int</a></td>
<td>80 &amp; 443</td>
<td>Internet backup server (only available during contingency).</td>
</tr>
</tbody>
</table>

Table 1: CHMI connection for Internet users

<table>
<thead>
<tr>
<th>CHMI ONLINE HELP PAGE</th>
<th>URL=<a href="http://www.nm.eurocontrol.int/chmi_apphelp/index.html">http://www.nm.eurocontrol.int/chmi_apphelp/index.html</a></th>
</tr>
</thead>
</table>

Table 2: CHMI online help page for Internet users

6.2 Proxy consideration

1. The CHMI also supports Internet Proxy (also called proxy server). If it is the case, you may specify the name and port number of your internet proxy during the installation phase. If you are unsure please contact your network or PC administrator for more explanation.
2. If CHMI version CHMI 14.0.4 is installed, you may use the same internet proxy value for this release CHMI 14.5.4. Refer to Appendix C to determine which value is currently defined.
3. If you want to increase your security settings, refer to appendix (CHMI Certificate check) during the CHMI authentication start-up session.
7. Connectivity prerequisite for SITA Connection

(1) For SITA (private network) connected users, it is assumed that the PC is connected and can communicate with the SITA network.

(2) The CHMI via Extranet connects to harwbs01.nm.eurocontrol.int on ports 80 & 443.

(3) To find out the current value, use the command the dos command nslookup (nslookup harwbs01.nm.eurocontrol.int).

(4) Ensure that DNS and Firewall are correctly updated to allow CHMI traffic.

(5) The ICMP ping command is allowed to reach harwbs01.nm.eurocontrol.int.

(6) A fallback site (near Paris) is also foreseen for CHMI, the fallback route is brewbs01.nm.eurocontrol.int on standard ports (80 & 443).

(7) A CHMI ON-LINE help is also available, at http://harwbs01.nm.eurocontrol.int/chmi_apphelp/index.html (primary connection) and http://brewbs01.nm.eurocontrol.int/chmi_apphelp/index.html (fallback site).

(8) To resume:

<table>
<thead>
<tr>
<th>SERVERS NAME</th>
<th>TCP ports</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>harwbs01.nm.eurocontrol.int</td>
<td>80 &amp; 443</td>
<td>Primary Server for SITA (Pens) users</td>
</tr>
<tr>
<td>brewbs01.nm.eurocontrol.int</td>
<td>80 &amp; 443</td>
<td>Contingency Server for SITA users</td>
</tr>
</tbody>
</table>

*Table 3: CHMI connection for SITA users*

| CHMI ONLINE HELP PAGE | URL= http://harwbs01.nm.eurocontrol.int/chmi_apphelp/index.html | URL= http://brewbs01.nm.eurocontrol.int/chmi_apphelp/index.html |

*Table 4: CHMI online help page for SITA users*

(9) Contact your network administrator to ensure that your network configuration is correctly implemented. Refer to appendix A (Network troubleshooting) for further information.
8. Download CHMI software

8.1 Via the web site (preferred choice)

(1) This documentation is available at
(2) [http://www.nm.eurocontrol.int/chmi_appsoft/CHMI/14.5.4/chmiaoinst14.5.4.pdf](http://www.nm.eurocontrol.int/chmi_appsoft/CHMI/14.5.4/chmiaoinst14.5.4.pdf)
(3) The software is available when using the following URL:
(4) [http://www.nm.eurocontrol.int/chmi_appsoft/CHMI/14.5.4/chmi14.5.4ao.msi](http://www.nm.eurocontrol.int/chmi_appsoft/CHMI/14.5.4/chmi14.5.4ao.msi)
(5) If you have participated to the “NM 22.5 External OPT validation exercise”, you will need to remove and install the latest available CHMI version.
(6) It is the same url link, but the version has been updated.
(7) The software has been digitally signed. Refer to annex J.

8.2 Via the ftp server (second choice).

(1) The CHMI software is stored on the NM FTP server.
(2) FTP information :
   a) Address (or URL) : [ftp.nm.eurocontrol.int](ftp.nm.eurocontrol.int)
   b) Username : raocop1
   c) Password : chmi4cfmu
(3) Download the file : [chmi14.5.4ao.msi](chmi14.5.4ao.msi)
9. CHMI software packaging info

1. The software needs to be installed with PC full administrator rights.
2. This software package can be used for Internet connection, SITA connection or both.
3. The software package can be installed with both types of connections (SITA and Internet). This allows some flexibility for network contingency (SITA and Internet) or for performance reasons for some AOs will find that Internet access is faster than SITA Connection.
4. The software package has been validated on Windows 7 Service Pack 1.
5. For a new installation, the average size of the application is approximately 250 Mbytes.
6. During the normal operation of the application, the average user data files are approximately 30 Mbytes.
7. At each start-up, the CHMI software will check for new software version. Once a new software upgrade is available, it will prompt to download new version. Therefore, it is important to ensure that the location where the CHMI software is stored has sufficient permissions to overwrite its own files.
8. Check that the “end-user” permissions are suitable to allow files modification (write/modify access) to the default CHMI folders (normally C:\Program Files\Eurocontrol\NM Applications\xxxx). Otherwise, the automatic CHMI upgrade shall fail.
9. During the CHMI software upgrade process, some temporary folders will be created. Eg, c:\Program Files\Eurocontrol\NM Applications\14.5.4\download
10. A small script is available to check whether the Windows folder permissions are correctly set, refer to appendix E.
10. Upgrade information

10.1 Migration information

(1) The date of the CHMI migration will be communicated via AIM (ATFCM Information Message) and via NM Portal (www.nm.eurocontrol.int).
(2) Prior to this date, only CHMI version 14.0.4 will work correctly.
(3) After migration date, only CHMI 14.5.4 will operate correctly. CHMI 14.0.4 will not work anymore.
(4) You will be informed by AIM and NM Portal when the migration is successful.
(5) A few days after the migration, you may remove CHMI 14.0.4

10.2 CHMI 14.0.4 already installed

(1) If CHMI 14.0.4 is already installed, leave the software installed until the migration date.
(2) Once, the version 14.5.4 is operational, version 14.0.4 becomes obsolete.
(3) Refer Appendix D for the removal of this version.

10.3 CHMI 14.5.4 installation

(1) It is recommended to install CHMI 14.5.4 as soon as possible.
(2) Both versions (14.0.4 and 14.5.4) can be installed on the same PC (no conflict).
(3) For testing purposes, after installing the application, launch the application, you should see the NM Welcome window. This means that the CHMI is communicating with the NM servers.
(4) If you try to login prior to the migration date, you will get an authentication error even if your username/passcode is valid.
11. Installation of CHMI software

11.1 Introduction

(1) If you accept all the default settings, the CHMI software will be installed for an Internet Connection.

(2) If you want to use this software only for a SITA connection, you will have to choose the Custom installation type and select SITA Connection and unselect Internet connection.

(3) Only enter a valid Internet proxy during the installation. In case of doubt, leave the Internet proxy field blank. If you typed in a wrong value, you must uninstall then re-install the application.

(4) Ensure that you are installing the software with Windows administrator rights.

(5) Whenever it is possible, we recommend that the default settings are used during the installation phase. This will allow our technical staff to better support the application.

11.2 Retrieve internet proxy information.

(1) During the installation you will be prompted to enter your internet proxy information.

(2) The internet proxy information is defined as a system environment variable.

(3) To determine the value of the “CHMI_PROXYHOST_22_5” value, refer to appendix C
11.3 Execute the CHMI software

(1) **Execute the file “chmi14.5.4ao.msi”**

(2) You will see the Welcome window

![Welcome window](image)

*Figure 1: Base - Welcome menu*

(3) If you see another window (Application Maintenance), it means that the software is already installed (refer to appendix D to remove the CHMI software).

(4) Click “Next” button to continue

(5) You will be prompted with the license agreement
If you accept the license agreement, select “I accept the license agreement” then click “Next” to continue.
(7) If you have an Internet Proxy, type in a valid proxy server name and port number separated by a colon (e.g. server_name:1234), then click the next button.

(8) If CHMI 14.0.4 is already installed, you may use the same value. Refer to Appendix C to display the internet proxy name and port number.

(9) If you are unsure, contact your network administrator.

(10) If you are not using the application via Internet, click “Next” to continue.

11.3.2 Select Installation type

11.3.2.1 Option 1 Typical : Internet connection

(1) If you need the Internet connection, select the “Typical”, then click “Next” button to continue. To continue, go to section 11.3.3 (page 20).

(2) If you want to change the target directory, select option 3.

11.3.2.2 Option 2 Complete : Internet and Extranet connection

(1) If you would like both types of connection, select “Complete”, then click “Next” button to continue. To continue, go to section 11.3.3 (page 20).
11.3.2.3 Option 3 Custom: Extranet connection ONLY

(1) If you only need the SITA connection, select “Custom”, then click “Next” button to continue.

(2) At the “Select Features” windows, you may choose which feature you want to install.

![Figure 5: Select features](image)

(3) You will need to deselect, Internet Connections and Proxy.

(4)

(5)
(6) You will then see the following window

![Screenshot of the InstallShield Wizard]

**Figure 6: Select features**

(7) Click then on the “Next” button.
11.3.3 Ready to install the application

(1) After choosing the appropriate feature, the following window will appear:

![Ready to install](image)

*Figure 7: Ready to install*

(2) Click on the “Install” button, the software will now be installed.
When the installation software is complete, the following screen will appear:

![Successfully installed](image)

Figure 8: Successfully installed

Click on Finish.

The installation is now completely done.

11.3.4 Check Your Files And Folder Permissions

The CHMI requires to write and to move files and folders within the CHMI subfolders.
12. **Import of CHMI preferences.**

12.1 **Migration of preference files for Windows 10 – 32bits.**

(1) If you wish to import, CHMI preferences of the previous version (14.0.4), you need to execute the following script:

```batch
C:\Program Files\Eurocontrol\NM Applications\14.5.4\bin\ao-migrate_workspace_and_preference-32BITS.bat
```

(2) The script assumes that the old preference files are located in “c:\Program Files\Eurocontrol\NM Applications\14.0.4\etc\preferences” and that the new version is located in “c:\Program Files\Eurocontrol\NM Applications\14.5.4\etc\preferences”

12.2 **Migration of preference files for Windows 10 – 64 bits.**

(1) If you wish to import, CHMI preferences of the previous version (14.0.4), you need to execute the following script:

```batch
C:\Program Files (x86)\Eurocontrol\NM Applications\14.5.4\bin\ao-migrate_workspace_and_preference-64BITS.bat
```

(2) The script assumes that the old preference files are located in “c:\Program Files (x86)\Eurocontrol\NM Applications\14.0.4\etc\preferences” and that the new version is located in “c:\Program Files (x86)\Eurocontrol\NM Applications\14.5.4\etc\preferences”

12.3 **Migration of preference files for Windows 10.**

(1) If you are unsure, you may try to execute the following script:

```
..\ao-migrate_workspace_and_preference-both.bat
```

(2) The script will look at the most likely location used by Eurocontrol.
13. Available shortcuts

13.1 Internet Shortcuts

(1) The following Internet shortcuts are available in the start menu:

(2) **Start/Programs/NM Applications/CHMI 14.5.4 via Internet** shortcut which is the main shortcut to start the CHMI application.

(3) **Start/Programs/NM Applications/Contingency access/CHMI Reinitialize Map Cache** shortcut can be executed when the CHMI is not started.

(4) **NM technical staff recommends executing this shortcut when you notice a slow performance of the CHMI application or when you are unable to plot a flight**.

(5) **Start/Programs/NM Applications/Contingency access/CHMI Reinitialize All** shortcut should be used when instructed by NM technical staff (eg: problems downloading software patches).

13.2 Extranet Shortcuts

(1) The following Internet shortcuts are available in the start menu:

(2) **Start/Programs/NM Applications/CHMI 14.5.4 via Extranet** shortcut which is the main shortcut to start the CHMI application.

(3) **Start/Programs/NM Applications/Contingency Access/CHMI 14.5.4 via Extranet (contingency)** shortcut which is the main shortcut to start the CHMI application. If the Network Manager enters into a contingency situation, the CHMI application is still available but via another remote host site (Paris instead of Brussels). Only use this shortcut when instructed by the NM staff.
14. Operations

14.1 Introduction

(1) After the successful migration of the NM applications, you will be prompted with the CHMI logon window.

14.2 Internet Connection

(1) To start CHMI 14.5.4, launch the applications from Start/Programs/NM Applications/CHMI 14.5.4 via Internet.

(2) If you have configured the software with an Internet proxy, you will first be prompted with “NM authentication for Internet Access proxy” logon screen:

![Figure 9: CHMI Internet proxy logon](image)

(3) Enter your company “Internet Proxy” user name and password. If you are unsure, please contact your PC or network administrator.

(4) After a successful login, you will be prompted with the “NM authentication” logon screen.
a) Enter the CHMI user name assigned by the Network Manager Customer Support.
b) Enter the passcode generated with the RSA software token tool.
c) For more information, refer to appendix H
14.3 Extranet Connection.

(1) To start CHMI 14.5.4, launch the applications from Start/Programs/NM Applications/CHMI 14.5.4 via Extranet.

(2) After a few seconds, you will be prompted with the “CFMU authentication” logon screen. If you do not see this window then refer to the Appendix (Network troubleshooting).

(3) This CHMI logon window requires that you enter your login.
   a) Enter the CHMI user name assigned by the Network Manager.
   b) Enter the passcode generated with the RSA software token tool.
   c) For more information, refer to appendix “I”.

![Figure 11: CHMI ACE logon](image)
APPENDICES
A  Network troubleshooting

A.1  CHMI connected to the SITA network

(1) If you get this error message (see below) after starting the application, it means that the CHMI application cannot communicate with the CHMI server.

Figure 12: Unable to connect

(2) From the PC, perform the following tests

(3) Test 1 (to ensure that the PC can resolve correctly IP name resolution)
- PING harwbs01.nm.eurocontrol.int
- Action: contact your network specialist

(4) Test 2 (to ensure that the PC can resolve correctly IP name resolution)
- PING brewbs01.nm.eurocontrol.int
- Action: Contingency site is only available during disaster recovery operations.
B  Start the CHMI application in DEBUG mode

(1) If you experience any technical problems with the CHMI (e.g., network, windows or application problems related to the CHMI application, you might be requested by the NM technical staff to start the CHMI application with extended log files.

(2) Execute the shortcut “start menu\NM Applications\Contingency Access\CHMI 14.5.4 debug mode”

(3) It will display a similar window

(4) Press enter to continue

(5) From now on, every time when you start the CHMI application, every CHMI transactions will be recorded locally in log folder.

(6) Normally the log file is located under “c:\Program Files (x86)\Eurocontrol\NM Applications\14.5.4\log\” folder.

(7) CHMI logs files are kept 62 days on the PC (file retention date).

(8) In order to allow NM technical staff to analyse the problem, you will have to send these log files (including dir.log.zip) to the help desk.
C To determine CHMI system variables

1. Press Start, and then choose Run option, type “CMD”.
2. At the Windows DOS box, type “set CHMI” and then press ENTER button.
3. It will display a similar window:

   ![CHMI system environment](image)

   *Figure 13: Display CHMI system environment*

4. In the above example, the “CHMI_PROXYHOST_19.5” value is “myairline.com:8080”, where myairline.com is “your” server name and port number is 8080.
5. For the CHMI 14.5.4, the system variable is now called “CHMI_PROXYHOST_22.5”.
6. Setting up this proxy server is only needed for Internet connection via a corporate internet server.
7. Contact your PC or network administrator for more information.
D Removal of CHMI software

(1) Ensure that the CHMI application is not running.
(2) for Windows 7: Start/Control Panel/Programs and Features
   i) To remove the CHMI software, select CHMI_14.0.4_AO and then right-click on the “uninstall” option.
   ii) Click “ok” button when prompted that the setup must update files or services.
   iii) After a few seconds, you will see the following window:

   ![Figure 14: Add or Remove Programs confirmation window 14.0.4](image)

   iv) Choose “Yes” button.
   v) Also remove the folder : “c:\Program Files\Eurocontrol\CFMU Applications\14.0.4\” and/or “c:\Program Files (x86)\Eurocontrol\CFMU Applications\14.0.4\”

(4) For Windows 10, Start/Setting/Apps
   i) To remove the CHMI software, select CHMI_14.0.4_AO and then click on the “uninstall” option.

   ![Apps & features](image)

   i) Also remove the folder : “c:\Program Files\Eurocontrol\CFMU Applications\14.0.4\” and/or “c:\Program Files (x86)\Eurocontrol\CFMU Applications\14.0.4\”
<table>
<thead>
<tr>
<th><strong>DNM</strong></th>
<th><strong>EUROCONTROL</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Document Title:</td>
<td>Document Reference:</td>
</tr>
<tr>
<td>CHMI installation guide version14.5.4</td>
<td>CHMI/USD/CHMIaoinst</td>
</tr>
</tbody>
</table>
E  Chmi folders and files permissions.

(1) A small script is available to check your Windows folders/file permissions.
(2) Login to Windows with the end-user profile (used for CHMI operations).
(3) Launch `c:\Program Files (x86)\Eurocontrol\NM Applications\14.5.4\bin\test_permissions.bat`
(4) If you see, the following message

```
***********************************************************************
TEST OK
TEST OK
TEST OK
folder log2 and file HelpLink.txt exist, thus the test is OK,
CHMI Folder permission looks good
TEST OK
TEST OK
TEST OK
***********************************************************************
```

(5) Then you may assume that the CHMI can create folders and write files within the CHMI folders.
(6) Then the test is successful.
(7) In case of failure, you will see:

```
File Not Found
Press any key to continue . . .
The system cannot find the path specified.
***********************************************************************
TEST NOT OK
TEST NOT OK
TEST NOT OK
TEST file is missing after copy operation
Please check CHMI Folder permission with your PC administrator
TEST NOT OK
TEST NOT OK
TEST NOT OK
***********************************************************************
Press any key to continue . . .
```

(8) If the CHMI installation is not correctly configured, at the next CHMI software upgrade, the CHMI shall fail the download operation and will no longer operate.
(9) There is a second script (`..\Eurocontrol\NM Applications\14.5.4\bin\reinitialize_all.bat`) which will allow to “repair” the download and patch directories but the execution of the second script can only be done when `c:\Program Files\Eurocontrol\NM Applications\14.5.4\bin\test_permissions.bat` execution has been successful.
(10) The repair script is accessible via the start menu `Start/Programs/NM Applications/Contingency access/CHMI Reinitialize All` shortcut should be used when instructed by NM technical staff (eg: problems downloading patches).
(11) In some extreme cases, if the user is given “administrator right”, the script will give a wrong indication (you’ll need to provide administrator permission) but the CHMI application will be able to correctly download and update the CHMI software.

![Destination Folder Access Denied](image)

*Figure 15 Destination Folder Access Denied*

(12) In case of doubt, please check with your PC administrator.
F Reset Map errors, reinitialise all actions

(1) We recommend your local IT/Administrator to verify the permissions directly on the CHMI 14.5.4 folder:
   a) On C:\Program Files (x86)\Eurocontrol\NM Applications\14.5.4
   b) Right click with the mouse on the 14.5.4 folder. Choose Properties – on Security tab click on Edit – Add – Type: Everyone.
   c) Then click on Check Names – OK
   d) Allow Full control and apply it for the sub folders as well.

(2) Afterwards kindly go to: My computer/Windows (C:\)\ program Files (X86)\ Eurocontrol/NM Applications/ 14.5.4/bin/ then double-click reinitialize_all.bat/type "Y"(in uppercase) and press enter when prompted by the script.

(3) You will prompt to type "Y" (in uppercase) 3 times in total, afterwards the screen will disappear.

(4) Kindly log in to CHMI again, after you are logged into CHMI, you will get a popup that reads “CHMI Software upgrade” click on download now.

(5) Close and restart CHMI for the new upgrade to take effect, log in again and provide us with a feedback.

(6) Please notice that before you run reinitialize_all.bat your local IT department should verify the permissions to CHMI 14.5.4 folder.
G  CHMI QueryReplay Viewer

(1) The CHMI QueryReplay Viewer allows replaying particular queries made by some specific users (mainly flow management positions, ciam users).

(1) To display data prior to NM Release 22.0 (02/05/2018), you must use another CHMI version called "CHMI QueryReplay Viewer".

(2) This version is available on all Network Operations Terminals (ANSP desktops, formerly called the ‘CFMU Terminals’). Such PCs are also referred as Option2-PCs.

(3) An internet version “CHMI QueryReplay viewer” is also available.

(4) For more information, please refer to http://www.nm.eurocontrol.int/chmi_apphelp/index.html
H CHMI Certificate check

H.1 Background information

1. As from CHMI version 10, there is a possibility to enhance certificate check during the CHMI authentication start-up session.

2. By default, the certificate check is disabled 

   `SET CHMI_PROXYHOST_SSLCERT_CHECK=no`

   (to ensure compatibility with previous CHMI version).

3. If the variable is set to yes, CHMI will start-up and check for validity and against the list of trusted certificate issuers.
   a) Verify that the certificate is signed by one of the trusted CA’s;
   b) Verify that the certificate is valid at the time of testing (validity period);
   c) Verify that the certificate is issued for the CFMU SSL server (distinguished name).

H.2 Certificate errors

4. If at least one untrusted certificate is found, the entire certificate chain is considered untrusted and a warning to the user is displayed regarding the invalid certificates.

5. You will be prompted with a similar “Certificate Problem” popup window:

   ![Certificate Problem popup window]

   Would you like to continue?

   Yes
   No

6. If the CHMI user clicks No, CHMI terminates. If the user clicks Yes, CHMI continues and a warning icon is displayed at the bottom right side corner:

   ![Warning icon]

   13/04/19 15:36

7. When the user clicks on the icon, the certificate problem dialog (above) is displayed.
Because it can be annoying to the user to be shown the certificate warning dialog every time he starts CHMI, once the user has approved the invalid certificates, the certificate data is extracted as a string and is added as a read-only Preference value:

Next time when CHMI is started if invalid certificates are found, they are compared with the value stored in the preferences. If all the invalid certificates match the certificate data stored in the Preferences, no warning dialog is displayed and only the warning icon at the bottom is shown.

The CHMI-user can view the data for the certificates that failed the validation check by clicking on the certificate warning icon; the certificate problem dialog with information about the untrusted certificates is shown.
If there is an undesirable behavior of the certificate check functionality, which would inhibit the normal system operation, like for example the user not being able to log on, or being given false warnings, the certificate check can be disabled.

**H.3  Enable Certificate check**

To enable the certificate check, set the value of `SET CHMI_PROXYHOST_SSLCERT_CHECK` to **yes**

To do this, edit the file `run_CHMI_14.5.4_via_internet.bat` (located in `c:\Program Files (x86)\Eurocontrol\NM Applications\14.5.4\bin\chmi`)

```
SET CHMI_PROXYHOST_SSLCERT_CHECK=yes
```

**H.4  Disable Certificate check**

To do this, in the `run_CHMI_14.5.4_via_internet.bat` (located in `c:\Program Files\Eurocontrol\NM Applications\14.5.4\bin\chmi`) file that is used to start CHMI include the following line:

```
SET CHMI_PROXYHOST_SSLCERT_CHECK=no
```

This will bypass the certificate check and will let the user connect even if there are untrusted certificates. Of course, this has to be used only until the problem is fixed, the value has to be switched to yes, or the above line deleted.

**H.5  Remove certificate information from the chmi.preferences file**

**H.5.1  Certificate cleanup Script**

If you have installed the CHMI with all default settings (default destination folder), execute `c:\Program Files\Eurocontrol\NM Applications\14.5.4\bin\remove-certificateinfo-ao-migrate_workspace_and_preference.bat`

**H.5.2  Manual cleanup**

Edit `c:\Program Files\Eurocontrol\NM Applications\14.5.4\etc\preferences\chmi.preferences`

**delete** the line containing the following sting : `chmi.container.certificateinfo`
I RSA SecurID Software Token for Windows

I.1 RSA software for Windows 10.


2. For your convenience a copy of the software is available on our Eurocontrol NM web site:


4. [http://www.nm.eurocontrol.int/chmi_appsoft/CHMI/Tokens/rsasecuridtoken502-64bits.zip](http://www.nm.eurocontrol.int/chmi_appsoft/CHMI/Tokens/rsasecuridtoken502-64bits.zip) for Windows - 64 bits

5. Supported platforms by RSA: Windows 10, 8.1, 7 & Vista

6. RSA Installation Instruction available at

7. [http://www.nm.eurocontrol.int/chmi_appsoft/CHMI/Tokens/RSA-SecurID-Software-v5.0.2-Installation-Procedure.pdf](http://www.nm.eurocontrol.int/chmi_appsoft/CHMI/Tokens/RSA-SecurID-Software-v5.0.2-Installation-Procedure.pdf)
J   CHMI software digitally signed

J.1   EUROCONTROL Code Signing

(1) To ensure that the software is issued by Eurocontrol and has not been tampered by a “third person”, the software has been digitally signed.

(2) You may check the property of the “.msi” file).

(3) In the properties of the file, you will find the Digital Signatures tab.

(4) In details, you will see that GlobalSign is the Certificate issuer and EUROCONTROL is the signer.
**K Windows 10 screen parameter consideration.**

1. If you noticed that the chmi text seems miss aligned:

2. Set your java.exe property to: Override high DPI scaling behaviour: “Scaling performed by System”.
DOCUMENT FINAL PAGE