



CathexisVision Enterprise 5 Installation Guide

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1. Introduction

This document details the process of installing the 64-bit CathexisVision Enterprise 5 on the Ubuntu 20.04 LTS operating system.

CathexisVision Enterprise 5 is compatible with CathexisVision 2021.1 and later.

1.1 CathexisVision Enterprise

CathexisVision Enterprise is a premier solution for multi-site management. Enterprise installations can be accessed through the Carbon user interface. An Enterprise connection allows the user to view/review cameras and other resources from multiple sites, navigating with the following tabs:

- Monitoring
- Databases
- Maps
- Configuration
- Feature search
- Archive player
- Site monitors
- Dashboard
- Hardware
- Monitors*
- Alarms*

All site resources can be viewed from an Enterprise installation.

* Alarms and the Enterprise Video Wall are supported in Enterprise 5.1 and later.

1.2 Installation Requirements

1.2.1 Hardware Requirements

- Intel i3 or equivalent processor
- 8GB memory
- 2TB (SSD recommended)

1.2.2 Supported Operating Systems

- Ubuntu 20.04.X LTS 64-bit Desktop
- Ubuntu 20.04.X LTS 64-bit Server

1.2.3 Software Requirements

- Enterprise installation file

1.3 Ubuntu 20.04 Installation Notes

Note: For more information on installing the 64-bit CathexisVision software on the Ubuntu 20.04 LTS operating system, consult the *CathexisVision Installation Guide on Ubuntu 20.04*, available to download on the Cathexis website.

Perform a standard server or desktop Ubuntu 20.04 installation.

1.3.1 Run Critical OS Updates

After Ubuntu has been installed, perform the Ubuntu updates to install the latest Ubuntu packages, drivers and security updates.

Enter the following terminal commands:

```
# sudo apt-get update
```

```
# sudo apt-get upgrade
```

1.3.2 Optional Packages

It is recommended that the following software packages are installed.

1.3.2.1 FTP Client to Download Software from an FTP Server: FileZilla

```
# sudo apt-get install filezilla
```

1.3.2.2 Time Synchronization to Local or Public Time Servers: NTP

```
# sudo apt-get install ntp
```

1.4 Enterprise Licensing

Refer to the *CathesisVision 2023 Software Product Description and Licensing* document for more information on CathesisVision licensing requirements.

✓ Included ○ License required

Package	Enterprise connection
LITE	No
CORE	<ul style="list-style-type: none"> ○ A camera channel on a CORE site requires a per-camera enabler license (CETC-1001) in order for it to be represented in Enterprise. <i>*Note: All camera channels require an enabler license. If less than 80% of the cameras have enabler licenses, the connection to the Enterprise will be blocked.</i> ✓ Features are presented automatically: A CORE site <i>does not</i> need feature licenses installed in order for its resources to be presented in the Enterprise Video Wall, Map and Alarms. <i>See note below.</i>
PROFESSIONAL	<ul style="list-style-type: none"> ○ A camera channel on a PROFESSIONAL site requires a per-camera enabler license (CETC-1001) in order for it to be represented in Enterprise. <i>*Note: All camera channels require an enabler license. If less than 80% of the cameras have enabler licenses, the connection to the Enterprise will be blocked.</i> ✓ Features are presented automatically: A PROFESSIONAL site <i>does not</i> need feature licenses installed in order for its resources to be presented in the Enterprise Video Wall, Map and Alarms. <i>See note below.</i>
PREMIUM	<ul style="list-style-type: none"> ✓ PREMIUM packages <i>do not</i> require per-camera enabler licenses for Enterprise. ✓ Features are presented automatically: Video Wall, Map and Alarms are included in PREMIUM site packages. Therefore, site resources are presented in the Enterprise Video Wall, Map and Alarms automatically. <i>See note below.</i>

- Note:**
- A site that meets the requirements for connecting to Enterprise (as specified above) will be licensed for Maps on Enterprise. Only enabled cameras will be supported on the map.
 - This will not allow local site maps to work. Local site maps will only work with the appropriate site map license.

1.5 Documents

For information about connecting to Enterprise through the Carbon GUI, consult the following manuals, available on the Cathesis website (cathesisvideo.com):

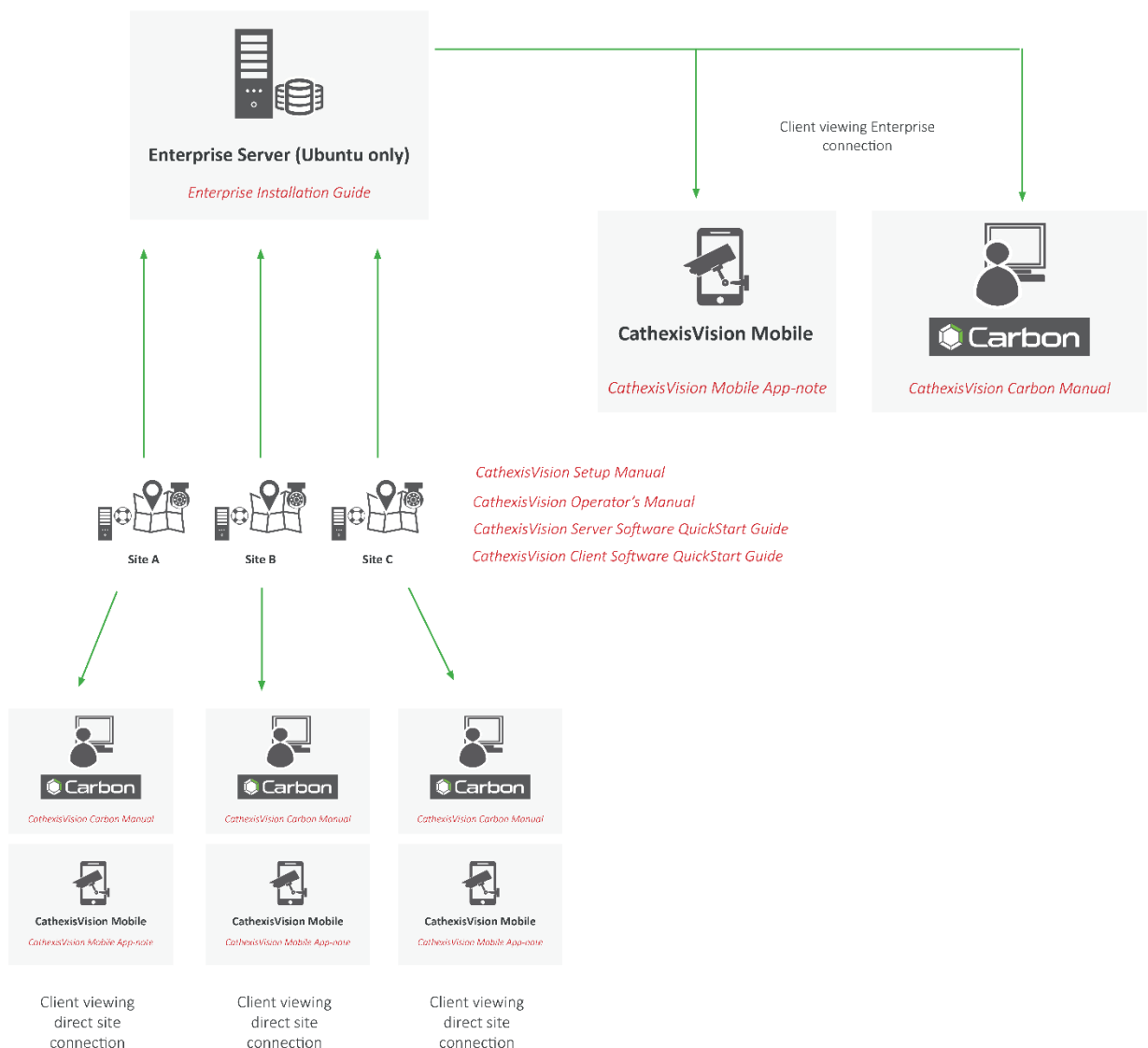
- ***CathesisVision Carbon 5 Manual***
- ***CathesisVision Carbon 5 White Paper***

For information about connecting to Enterprise through CathesisVision Mobile, consult the following:

- ***CathesisVision Mobile 5 App-note***

For information on setting up the CathesisVision VMS, consult the following:

- ***CathesisVision 2023 Setup Manual***
- ***CathesisVision 2023 Operator's Manual***
- ***CathesisVision 2023 Server Software QuickStart Guide***
- ***CathesisVision 2023 Client Software QuickStart Guide***



2. Installation Process

2.1 Enterprise Installation File

1. Contact the Cathesis Support Desk to request the Enterprise 5 installation file:
support@cathesisvideo.com

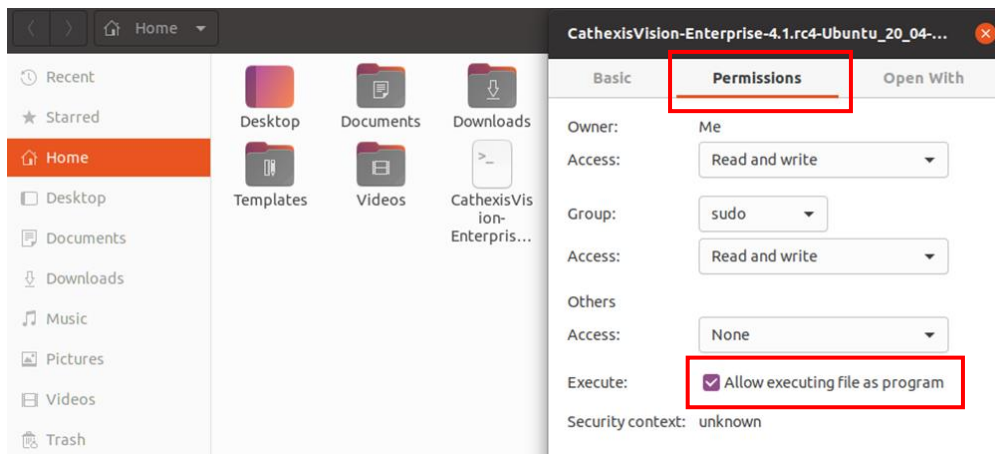
2.2 Copy the Enterprise Installation File into the Admin User Folder

1. Upload/copy the CathesisVision Enterprise 5 installation file into the **/home/admin_user** folder.

Note: **admin_user** needs to be replaced with the admin user created during the installation.

An FTP client (FileZilla) or an external USB drive can be used to copy the installation file onto the server.

2. Select the **Files** icon from Ubuntu taskbar, right-click on the installation file, and select **Properties**.
3. Select the Permissions tab and check **Allow executing file as program**.



4. From the terminal window, navigate to the **/home/admin_user** folder and run the installation. **Note:** The installation file name below is an example. The version number will vary depending on the version being installed.

```
# cd /home/admin_user
```

```
# sudo ./CathesisVision-Enterprise-5.1-Ubuntu_20_04-x86_64
```

5. A prompt for the administrator password will appear. The CathesisVision installation will start services and complete installing from the terminal.

It should install to **/cathesis/programs/enterprise-cloud**

2.3 Set Up the Organisation Database

1. Enable root access:

```
# sudo su
```

2. Create /usr/entcloud symbolic link for easy access:

```
# cd /usr/  
# ln -s /cathesis/programs/enterprise-cloud entcloud
```

3. Navigate to /usr/entcloud/assets/linux/database/

```
# cd /usr/entcloud/assets/linux/database/
```

4. Run the organisation setup script:

```
# sudo ./setup_organisation.sh orgid 'org name'
```

- orgid = lowercase alphanumeric organisation id with no spaces
- 'org name' = human-readable name of the organisation, which should be in quotation marks if it contains spaces e.g., `./setup_organisation.sh abcorg 'ABC Organisation'`

Note: In the above script example, **orgid** and **'org name'** must be the required ID and name of the organisation respectively.

The table below indicates the restrictions on the **orgid**.

Must/must not include	
orgid	<ul style="list-style-type: none"> • Should be alphanumeric • Without any special characters • Spaces are <i>not</i> permitted • No _ (underscore character) must be used

```
entadmin@catenterprise:/usr/entcloud$ cd assets/linux/  
alarms/ database/  
entadmin@catenterprise:/usr/entcloud$ cd assets/linux/database/  
entadmin@catenterprise:/usr/entcloud/assets/linux/database$ sudo ./setup_organisation.sh abcorg  
'ABC Organisation' _
```

This configures the postgres cluster, creates the cloud database and adds an organisation.

- i. It expects the software to have been configured in the default location **/cathesis/programs/enterprise-cloud**.
- ii. It creates the database in **/cathesis/database/enterprise**.


```
>> Successfully created database schema

>> Stopping database
[INFO] Stop - trying to stop database
[INFO] Stop - db_path is /cathexis/databases/enterprise
[INFO] Run --> 'Stopping'      'waiting for server to shut down....'
[INFO] Run --> 'Stopping'      'done'
[INFO] Run --> 'Stopping'      'server stopped'
[INFO] Run - database has stopped
[INFO] -----
>> Successfully stopped database

>> Installing service
>> Successfully installed service

>> Creating organisation
[NORM] Connected to version 14.12
[NORM] Successfully added org 1, with root domain 1 and admin user 1
>> Successfully created organisation

-----
Organisation has been set up
- login with user 'admin' and password '123456'
```

2.4 Set Up Alarm Module

1. Create Alarm database:

```
# cd /usr/entcloud/assets/linux/alarms
# sudo ./setup_alarms.sh orgid
```

Note: Use the same **orgid** created in [Section 2.3](#), step 4.

3. Next Steps

Note:

- The CathesisVision Carbon GUI is required for the configuration and viewing of CathesisVision Enterprise Server and sites.
- Instruction manuals for latest Carbon GUI and the CathesisVision Mobile app are available on the Cathesis website (<http://cathesisvideo.com/>).
- For more information on connecting to an Enterprise installation using Carbon, consult the **Carbon 5 Manual**.

3.1 Download and Install Carbon

Download and install CathesisVision Carbon (available on the Cathesis website <https://downloads.cathesisvideo.com/>).

3.2 Add an Enterprise Connection in Carbon

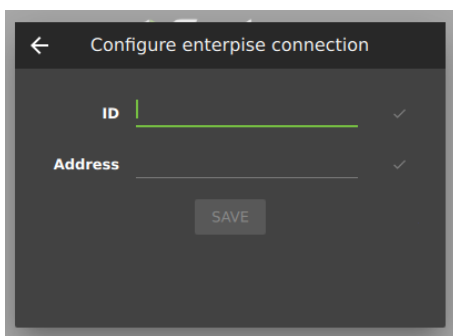
Follow the steps below to make the first connection to an Enterprise and to add CathesisVision sites.



→ After opening Carbon for the first time, choose **Enterprise / MultiSite**.

This will open a configuration dialogue box.

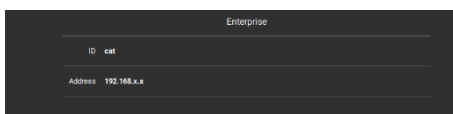
3.2.1 Configure Enterprise Connection



→ Enter the organisation **ID** that was configured in [2.3 Set Up the Organisation Database](#).

→ Enter the **IP address** of the Ubuntu server.

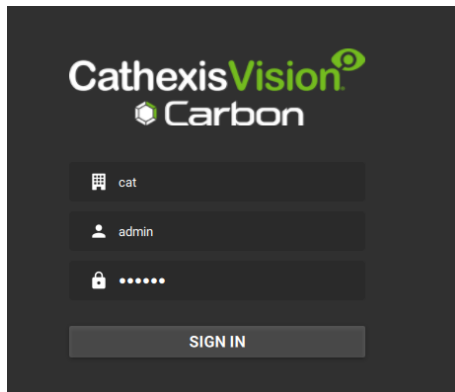
→ Click **SAVE**.



Note: If returning to Carbon, the configuration screen will look different.

3.2.1.1 Enterprise Login

Return to the login screen.



→ Enter the credentials for **username** and **password**.



Note: The default login for Enterprise is

Username: admin

Password: 123456

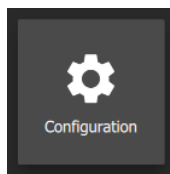
→ Click **SIGN IN**.

3.2.2 Add a Site to Enterprise

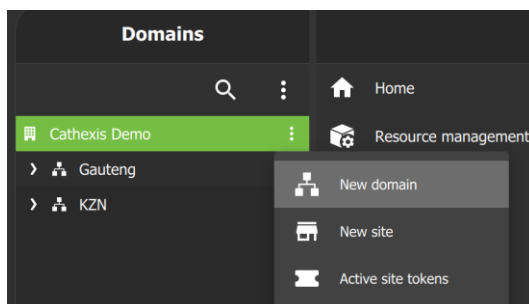
To add or connect to a CathexisVision site from the Enterprise, the user should first add or organise domains (groups) in Carbon.

The individual sites will need to be arranged in groups or domains on a folder tree. Add these in the Carbon configuration menu.

3.2.2.1 Add Domain



→ Click **Configuration** to open a new tab from the home screen.



→ Click on the **root folder** in the folder tree.

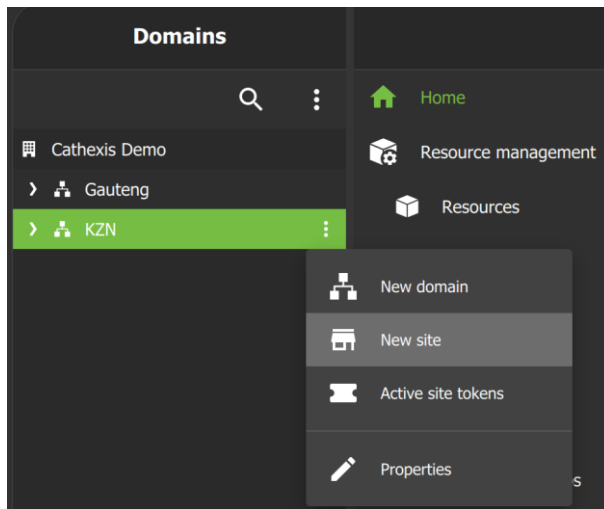


→ **Hover** using the mouse then click the menu icon.

→ Click on **New Domain** to extend the tree structure.

3.2.2.2 Get Token

To add a site, a user must first initiate a token from Carbon. This token can be entered on CathesisVision client or server software.

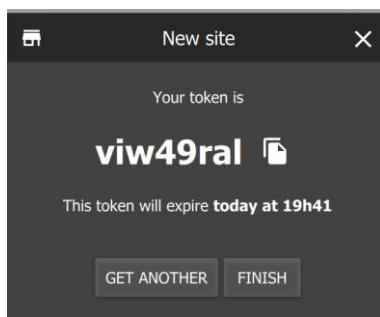


→ To begin adding a site, **select the relevant domain or group** to which the site will belong.



→ **Hover** over the folder tree to see the **menu icon**. Click to select.

→ Then click **New site** to begin generating a token.



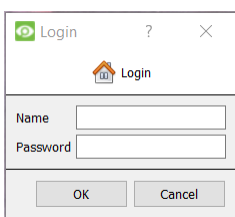
→ **Copy** the token by clicking the copy icon.

→ Click **FINISH**.

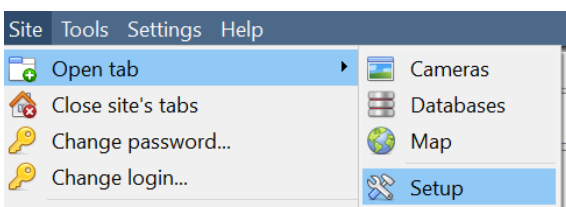


Note: Clicking FINISH will complete the process of generating the token.

3.3 Connect a CathesisVision Site to Enterprise



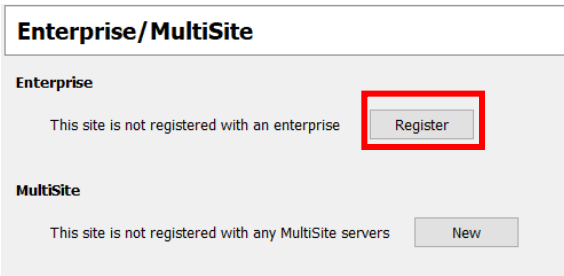
→ **Log in** to the CathesisVision client or server interface with a username and password.



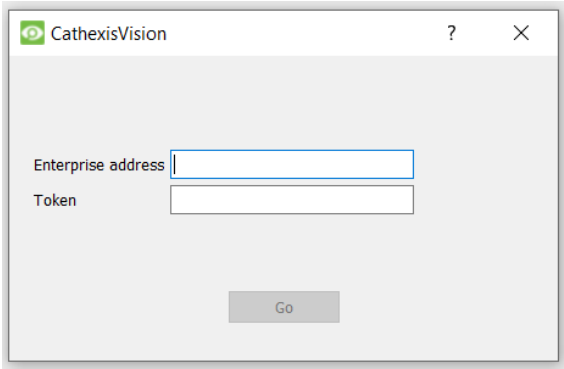
→ Navigate to General setup by following the path: **Site / Open tab / Setup**.



→ Click on the **Enterprise/MultiSite icon** on the menu on the left.



→ From the Enterprise panel, click **Register**.

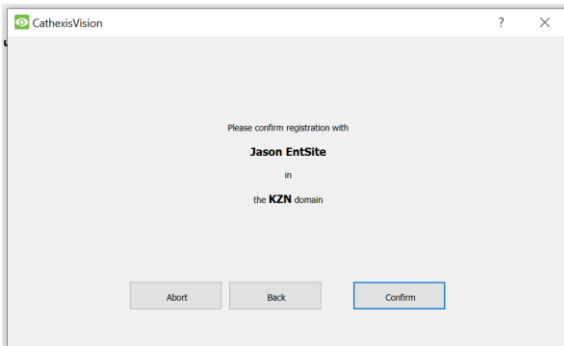


The administrator will provide the **address**.

→ Enter the Enterprise **address**.

→ Enter the **token** code.

→ Click **Go**.



A window will open.

→ To confirm the site registration, click **Confirm**.

A window will pop up, confirming registration.



The Enterprise/MultiSite management area will now show that the site has been registered and a connection has been established.



Enterprise/MultiSite

Enterprise

This site is registered with **Jason EntSite** in the **KZN** domain at **192.168.33.187**

Deregister

Change address

Enterprise registration status: buttons

Deregister

To deregister the site from the Enterprise server, click **Deregister**.

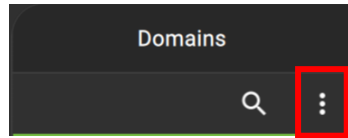
Change address

Click to change the address.

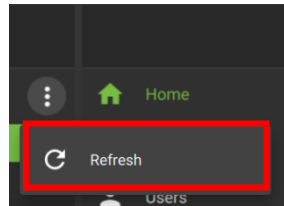
3.4 View Added Site in Carbon

To view the site, return to the Resources folder tree in Carbon. Once refreshed, the site will appear on the folder tree.

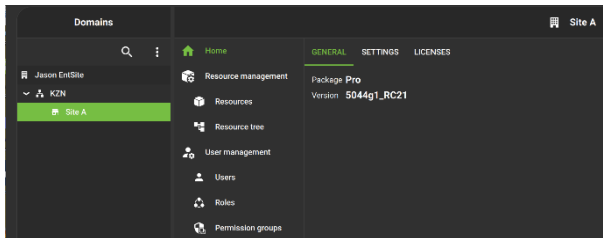
To refresh:



→ Click the horizontal ellipses (menu) icon.



→ Click **Refresh**.

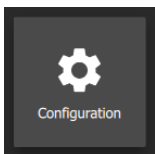


The newly-added site will appear in the folder tree.

3.5 Complete Configuration of Site Connection to Enterprise in Carbon

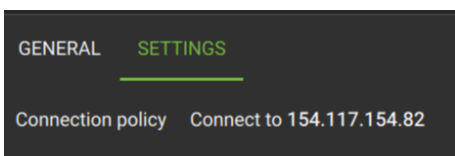
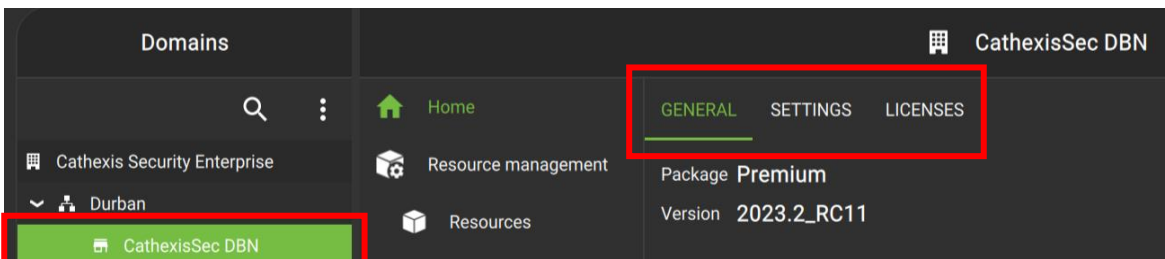


Note: The configuration of the site’s connection to Enterprise will need to be completed in the Configuration tab of Carbon.



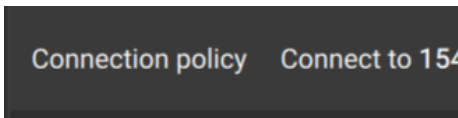
→ Click **Configuration** to open a new tab from the home screen.

→ Select the site in the Domains panel on the left. The right configuration panel will show three tab options: General, **Settings** and Licenses.



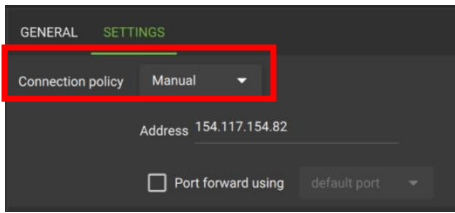
→ Select the Settings tab.

Under Settings, the user may edit the site’s connection policy.

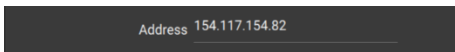
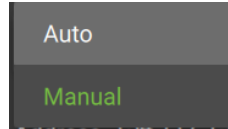


→ Click anywhere in the field.

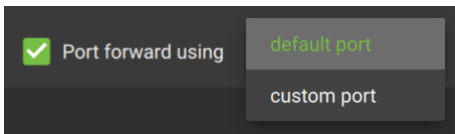
The options for editing will appear.



→ **Connection policy:** Choose between Manual and Auto. See table below for information on different connection types.



→ **Address (if Manual connection policy is selected):** Enter the IP address.

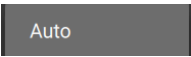
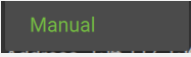
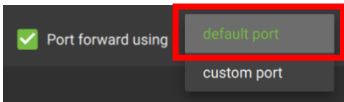
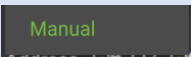
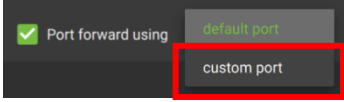


→ **Port forward using:** Choose between default port and custom port.



→ Click the **save icon** to save changes.

3.5.1 Site Connection Types

Connection	Description – cases when connection type is used
Auto 	The Enterprise can determine the IP for the site by looking at the source address of the connection. Site → provides IP to → Enterprise (Carbon can get this IP)
Manual (port forwarding – default port) 	If the site sits behind a firewall, the details may be different. If the firewall has a single port opened and forwarded through to 30011 on the site, the operator can <i>enable port forwarding and use the default port</i> . Site → Firewall → different IP to site → <i>Manual port forwarding with default port if configured on firewall (30011 to 30011 on site)</i> 
Manual (port forwarding – custom port) 	If the site sits behind a firewall, the details may be different. If the firewall has a single port opened and forwarded through to 30011 on the site, the operator can <i>enable port forwarding and specify the port in the firewall which is being forwarded</i> . Site → Firewall → different IP and incoming port for site → <i>Manual port forwarding with custom port (custom port to 30011 on internal site)</i> 

4. Conclusion

Please note that this document was designed to deal with the installation of CathexisVision Enterprise 5.

For information about connecting to Enterprise through the Carbon GUI, consult the following manual, available on the Cathexis website: ***CathexisVision Carbon 5 Manual***.

For further information about the CathexisVision software, consult the ***CathexisVision Setup Manual***, available on the Cathexis website: <https://downloads.cathexisvideo.com/>.

For support, please contact support@cathexisvideo.com