

Cambrionix Connect

Manual de usuario traducido

**Cambrionix
Connect**

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2. Introducción

Cambrionix Connect is our application designed to manage your Cambrionix hubs. It can be accessed across mobile devices, tablets, and computers running macOS, iOS, Windows, and some Linux distributions. Se puede acceder a la aplicación a través de cualquier navegador navegando a la dirección web a continuación.

<https://connect.cambrionix.com>

Cambrionix Connect can also be downloaded from <https://www.cambrionix.com/connect>. Once downloaded and installed on the host computer, Cambrionix Connect allows you to manage the hubs and gather information from both the hubs and any devices connected.

Within this application you can see all connected hubs and devices. Using Connect, you can:

- Monitor hub temperatures, power consumption, port status and error flags.
- Administrar actualizaciones de firmware.
- Manage the ports on the hub and switch between modes.
- Write and execute Cambrionix CLI scripts, Python or send JSON packets to control your hub

You will have the option to create a Cambrionix Connect account, which will allow you to save preferences and templates. With an appropriate license, it will also enable you to connect to hubs remotely, meaning you can view and manage all products on your network. Each host system can be added to an organisation owned by yourself and each user from your organisation can access and manage these hubs (depending on roles and permissions). Al usar esta función, su organización podrá:

- Remotely control your products from across the room, or across the world, 24/7.
- Remotely Manage firmware updates across your whole fleet of products.
- Monitor and control your Cambrionix products using phone/tablet/computer.

Cloud storage

From version 3.3.0 all devices and hub information will be stored in the cloud, this means if you disconnect a hub or device you will still be able to access the information. If a device or hub is disconnected and you dont want the information to be stored anymore or see the hardware you can remove from the cloud storage. see the [Hubs](#) or [Dispositivos](#) pages for more information.

2.1. requisitos previos

For Cambrionix Connect to connect to your hubs, the host system the hub is connected to must have the Cambrionix Hub API installed, with a minimum of V3.12.1. The Cambrionix Hub API is a service that runs on your host system, which is what enables communication with your Cambrionix hubs.

You can find more information on the Cambrionix Hub API from the user manual. Esto se puede descargar desde nuestro sitio web en el siguiente enlace. along with the Cambrionix Hub API installation files.

www.cambrionix.com/cambrionix-api

Once the host system has the API installed, you need a browser to open the Cambrionix Connect website. Known compatible browsers, for example, will be:

- Google Chrome
- Safari*
- Borde de Microsoft

*You cannot connect to local APIs on Safari due to security reasons unless a digital certificate has been assigned, information on this can be found in the [Solución de problemas](#) section.

Su concentrador deberá estar conectado a su sistema host y visible para la API. As long as the hub is visible in the device manager or system info, then the API will be able to see the hub and interact with it. If you use any other 3rd party software that controls the port that the hub requires, the API will not be able to connect to it, and as such, the hub will not be visible in the application.

Sistema operativo

Hemos probado el Cambrionix Connect y puedo confirmar que los siguientes sistemas operativos funcionan con el Cambrionix Connect . Es posible que existan otros sistemas operativos que funcionen pero que no hayan sido probados:

- Ventanas 10
- Windows 11
- macOS 11 (Big Sur)
- macOS 12 (Monterrey)
- macOS 13 (Ventura)

- macOS 14 (Sonoma)
- macOS 15 (Sequoia)
- Linux Ubuntu
- Linux Debian

Con Linux, solo realizamos pruebas utilizando el sistema operativo mencionado anteriormente. También se ha probado una versión ARM hard float (armhf) en oDroid y Raspberry Pi.

2.2. Installing Cambrionix Connect and the Cambrionix Hub API

Cambrionix Connect and the Cambrionix Hub API is available to download as a desktop application from <https://www.cambrionix.com/software>, you will find software available for Windows™, Mac® and Linux® Systems.

Linux® OS systems tested with our software are Ubuntu 20.04 LTS or Debian 9; some other OS versions based on the two mentioned should also work. Some different Linux® OS versions may work, but we don't test against other distributions.

Para instalar en sistemas Mac® y Windows™, descargue los archivos de instalación desde el enlace anterior, una vez descargados, ejecute el proceso de instalación y los cuadros de diálogo lo ayudarán durante la instalación y la configuración inicial. Cambrionix Connect requires User Account Control (UAC) interaction to be installed. This means that the installer cannot be run silently.

For Linux® systems, download the Applmage file from the website at the above link. Once downloaded, you will need to make the file executable. This can be done by selecting the Applmage file, go to Properties > Permissions, and check the option to allow it to be executed as a program, or by making it executable via terminal `sudo chmod +x Connect(version-number).Applmage` once the file is executable run the Applmage by double-clicking it in your file manager or executing it from the terminal

3. Usando Cambrionix Connect

Cambrionix Connect tiene muchas funciones excelentes que mejorarán el uso de nuestros productos. This section is designed to explain the features in more detail.

3.1. Administrar puertos

You can manage the ports on your hub(s) easily using Cambrionix Connect. You can switch ports between the following modes*.

Carga	Convierta puertos específicos o todo el concentrador en modo de solo carga (sin datos). conexión, el concentrador emula un cargador OEM)
sincronizar	Convierta puertos específicos o todo el concentrador en modo de sincronización
Sesgado	Detecta la presencia de un dispositivo pero no lo sincroniza ni lo carga
Apagado	Encienda o apague los puertos seleccionados (sin energía ni canales de datos abiertos, imita la desconexión del dispositivo)

*some products do not have all above modes, please see individual product manuals for more information

There is more detailed information on managing your ports in the [Ports overview](#) section.

3.2. Información del dispositivo

Puede obtener información sobre los dispositivos conectados utilizando Cambrionix Connect . Para obtener la información, puede pasar por el centro para ver el [Ports overview](#) o ir directo a la [Dispositivos](#) sección del espectador.

From these pages you can obtain charging information of the device, the history of the devices location and additional information about the device.

3.3. Managing Hubs

You can manage the hub settings through Cambrionix Connect. This can be done by adjusting the settings in the [Hub settings](#) or by loading and editing templates from the [Hub Templates](#) page

Managing your hub(s) is useful as certain settings will need to be changed to alter the behaviour of the hub. For example, you can turn 'charging downstream ports' (CDP) off which will reduce the amount of charge being delivered to a device whilst syncing data. If you then save this setting change to a template, you could really easily apply the same set of settings across host systems, by applying that template.

3.4. Gestión de firmware

Using Cambrionix Connect you can manage and change the firmware version currently running on your hub(s). All you need is for the hub(s) to be connected to a host API. If doing this remotely, you'll need to ensure the API is running on those local host systems and you can then do all updates from the 'Master' host system. Once the hub is connected to the API you can go to the firmware section and update multiple hubs at a time.

We release new firmware versions regularly, to ensure the hubs are kept up to date with new devices and functionality. Keeping your hubs firmware up to date will ensure that you have the latest features along with any fixes to any known bugs.

Para obtener más información, consulte el [Firmware](#) sección.

3.5. Using Your Account

Con Cambrionix Connect , existe la función de poder iniciar sesión en una cuenta. You can sign into your account from the profile/login button along the top bar. Having an account will allow you to access the API's and settings associated with your account, from any device.

See the [cuentas](#) section for more information

3.6. Adding a Computer

When you open Cambrionix Connect you will see a section called "Computers". This is the section which will show you the computers currently available to Connect. On initial launch (without logging in) this section will show only 'localhost' provided you have the 'Cambrionix Hub API' installed

If you have logged into your Cambrionix Connect Account then you can navigate to the [Computers](#) section and will be given an option to add the computer you are currently using to your organisation. When you log into your account on a different host machine, this computer will then be available to view, in order to view hubs and devices connected along with the computer you must set up [Acceso remoto](#). For more information please see the section [cuentas](#)

You will not be able to add an API to your account through Safari due to security reasons. On macOS you must add the API through the Cambrionix Connect Desktop application.

3.7. Acceso remoto

Una gran característica de usar Cambrionix Connect es la capacidad de acceder y administrar de forma remota sus concentradores. In order to remotely access a hub you will need to ensure the host API is at least on v3.14 and the hub has a digital certificate linked (see [Certificados digitales](#) section).

A sufficient Cambrionix Connect License is required. (To use this feature, you will need a license supplied by Cambrionix Ltd. Currently, the license is not available, but it will be coming soon. If you are interested in using this feature once the license is available, please contact enquiries@cambrionix.com.)

Nota

In order to access a remote API the device used to communicate with the hub must be able to access the remote API. This can be either with the API and device being on the same local network, the API to be provided with a public IP address or to set up port forwarding using your public facing router. For more information please see the [Redes](#) section of this manual.

3.8. Ayuda y soporte

FAQs and help can be found in our Support Portal. Puede generar un ticket de soporte para un soporte más profundo aquí

- <https://support.cambrionix.com>

You can also download any of our manuals for any hardware and software and get the most up to date versions at the link here

- www.cambrionix.com/product-user-manuals

Cuando se comunique con el soporte, proporcione la información del producto para el concentrador en cuestión. Esto se puede encontrar en la placa de información del dispositivo que se encuentra en la parte inferior o posterior de la unidad.

Providing serial and Purchase Order numbers will help us identify your specific product and speed up the process.

4. cuentas

With Cambrionix Connect there is the ability to manage settings and hub(s) and save the preferences to an account. Your account is assigned to an email address which will need to be verified. Once set up to access your account settings and information you will need to sign in. To view more information on the settings please see the [Organisations Settings](#) section.

You can access your Cambrionix Connect account by clicking the 'Sign In' button:



Once selected, you can either sign in to an existing Cambrionix Connect account or create a new one.

4.1. Creando una cuenta

If you require a new Cambrionix Connect account, click on 'Sign In'. You will need to fill in some basic information such as email address and name and you will be asked to verify this email address before you're able to proceed with creating the account. Click on "Verify Email" to send you a code to the email address provided, get the code and paste it into the box. Hit "Verify Code" and you will then be able to proceed with creating the account.

5. Organizaciones

Your Cambrionix Connect account will be linked to an Organisation, which will manage the API connections. You can have multiple accounts connected to an Organisation, and each API/Host Machine can be connected to multiple Organisations. If you navigate to the Organisation settings page you can access and view all of your Organisation's and click on individual Organisations for more information.

From here view you can view/change your default organisation, change the name of Organisations, view users' accounts which are linked to the Organisation and invite other users to join the Organisation.

When a user has an organisation selected, any API they add will be visible to all other users within the same Organisation. These can then be accessed and managed from all logins simultaneously.

5.1. Nombre de la organización

When you first set up your Cambrionix Connect account, your Organisation will be set as "unknown Organisation". Puede cambiarlo para que sea cualquier nombre, incluidos caracteres y símbolos en mayúsculas y minúsculas. No recomendamos un nombre de más de 64 caracteres.

5.2. Organisation Id

Each organisation will have a random, unique id, assigned to it as a unique Organisation name can't be guaranteed. This is the way to identify an organisation, which will be required for licensing and support purposes. The Id cannot be changed and can be viewed from the Organisation settings page. This will follow the format: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx

5.3. Selección de organización

A Cambrionix Connect account can be linked to multiple organisations. Solo puede acceder a una organización y a los centros asociados con esa organización a la vez. From the Organisations page you can select any Organisation you are a part of and make that your current one.

5.4. Usuarios de la organización

You can have multiple users associated with an organisation. From the [Organisations Settings](#) page you can view all user accounts currently in your organisation.

5.5. Organisation invites

In order to add more user accounts to your organisation, you can send them an invite with an email address from the [Organisations Settings](#) page.

Once you have invited a user to your organisation, they will need to navigate to the General Settings page and accept the invitation.

6. Pages

Cambrionix Connect has several pages that can be accessed via the Navigation Panel of the application. Each page will give you access to different information and functions using the API and your hub. A continuación se puede ver una breve descripción de cada sección.

Sección	Descripción
Dashboard	An overview of connected hubs, API's and quick actions
Dispositivos	Una descripción general de los dispositivos conectados
Hubs	Una descripción general de los concentradores conectados
Computers	A list of host computers associated with your organisation.
Ajustes	Settings for API, connected hubs and Accounts
Acerca de	Information on running versions of the API, Cambrionix Connect
Help	información sobre Cambrionix y un enlace al centro de soporte de Cambrionix

These pages can be accessed by selecting the icon on the Navigation Panel.

6.1. Dashboard

From the dashboard section, you can view all connected hubs and see the status of each hub. This is the default page of Cambrionix Connect but can also be accessed by clicking on 'Dashboard' in the Navigation Panel.

Hubs

From a glance, you can see which hubs are connected to your Host Machine, what standard of USB cable is being used to connect the Hub to the Host, as well as a small icon of the hub itself.

You are able to click into any connected hubs to see further information about connected devices.

Computers

From the Dashboard section, you can see Computers connected to your Cambrionix Connect Account. You can select each Computer to navigate to the settings for that specific computer. The information available and settings are explained more in the [Computers](#) page.

Devices

You can see all devices linked to your active organisation from the Dashboard screen and the information relating to the device. More information on the devices can be found in the [Dispositivos](#) page.

Quick Actions

From the Dashboard screen you also have a 'Quick Actions' section. This has some of the more common actions and sections for user's to be able to navigate around the application quickly from the 'Dashboard' section.

6.2. Dispositivos

From this page, you can view and search for specific devices connected to a hub that Cambrionix Connect has access to. You can access this page by selecting 'Devices' on the menu.

You can see every device you have connected from the devices overview. This page can be viewed in list or tile view and can be filtered and viewed in different ways as seen in the [Customisable Data Views and Advanced Filtering](#) section. You can use filters to look at specific devices, so if you want only to view iPhones connected, you can filter for this.

From here, if you click into a connected device, you are then able to see a lot more detailed information about that device, you can also delete devices from cloud.

6.2.1 Información del dispositivo

You can obtain information on a device and even more information if the host system has been trusted on initial connection. This can be done when you first connect the device to the host computer, a prompt will appear on the page, asking you to trust the device. Consulte la documentación del dispositivo individual para obtener información sobre cómo confiar y emparejar un dispositivo con un sistema host.

Without pairing, the following information will be supplied if available:

- VID/PID
- USB Serial (UDID)
- USB location
- Host computer

If you pair the device, this additional information will be supplied if available:




- Device internal name
- Device OS version
- USB serial number
- Devices Wifi Mac address
- Battery health information (this will require iTunes or ADB to obtain this information)
- Endpoints and endpoint memory used by the device

6.2.2 Gráficos

From the device information page, if you have the Cambrionix Recorder service installed, you will also be able to obtain information on the device charging levels over time, along with the device presence history. Please see [API User manual](#) for more information on the Recorder service

Connection health

This diagram displays the USB Connection of this device, there will be circles representing each node. You can hover your mouse over each node to see information and some information is represented by the colour of the node

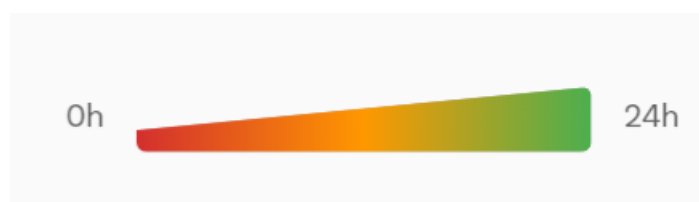
Node Colour	Descripción
	USB Node with no warnings
	USB Node below capability
	USB Node with error

Device Charging History

This is a chart will show the charging information over time for the specific device, if you were to move the device from one hub to another, the charging history will continue in this graph.

Device Presence History

This chart will show you how long the device is connected using a colour chart per day and month the colour guide on presence can be seen below



Under the chart there is a button you can press which will take you through to all the device presence information in a table format such as the below:



5/21/2024, 9:58:26 AM	Attached	15	0000004B6F54123E
1/30/2023, 10:10:11 AM	Detached	7	00000036C0C485BA
1/30/2023, 9:49:33 AM	Attached	7	00000036C0C485BA

From here you can see the date and time of the attach or detach event the port number and serial number of the hub the device was connected or disconnected from.



6.2.3 Icons

Icons may be visible against your device

if you have the necessary battery service running and the information can be collected from your device, you can find more information on battery services in the [Configuración de la API](#) section.

Icono de batería	Descripción
	El servicio de batería está funcionando y el dispositivo está emparejado
	El servicio de batería se está ejecutando pero el dispositivo no está emparejado
Sin imagen	El servicio de batería no funciona

If you have API version 3.19.0 then devices will be stored in the cloud, you will still be able to see the device information but an icon will be displayed whether the device is connected or not

Connection Icon	Descripción
	Device is stored in the cloud and is connected
	Device is stored in the cloud and is not connected or visible to the API

6.2.4 Groups

You can view and assign groups to each device from the device page, more information on hardware groups on can be found in the manual section [Hardware Groups \(Licensed\)](#).

6.2.5 Device User Assignment

With Cambrionix Connect, you can assign a device to a specific user within your organization, making it easier to track who is using each device.

To assign a user to a device, navigate to the User Assignment section and select "Add User to Device." A window will appear displaying all users within your organization, allowing you to select the user(s) you wish to assign the device to.

If multiple users share a device, you can assign more than one user to it. All assignments can be reviewed in the [Organisations Settings](#) section or on the device page. From there, you can also remove users who no longer require access to the device.

6.3. Hubs

You can select a connected hub from the available list on the Dashboard page or by selecting 'Hubs' from the Navigation Panel.

This page can be viewed in list or tile view and can be filtered and viewed in different ways as seen in the [Customisable Data Views and Advanced Filtering](#) section.

To obtain more information on the hubs, select one from this page and you'll be taken to that hub page. Once you have navigated to a particular hubs page, at the top of the page you'll see some options for:

- [Ports overview](#)
- [Gráficos](#)
- [Detalles y propiedades del concentrador](#)
- [Hub settings](#)

6.3.1 Ports overview

If you click on the Dashboard page on the Navigation Panel and select a hub, you will be taken to the Ports overview page.

Cuando seleccione un concentrador por primera vez, aparecerá de forma predeterminada la sección de descripción general de los puertos. From this page you will have more detail on the hub and connected devices such as:

- Número de puertos
- El nombre del dispositivo
- El número de serie de los dispositivos o UDID
- Tasas de carga en mA
- USB information
- Battery Health information

Desde esta página, puede cambiar el modo de puerto en todos los puertos individualmente o en varios simultáneamente.

Modos de puerto

Los diferentes modos de puerto se pueden ver a continuación. The port modes available vary between products. For more information, please see individual product user manuals at the

below link.

www.cambrionix.com/product-user-manuals

Carga	Convierta puertos específicos o todo el concentrador en modo de solo carga (sin datos). conexión, el concentrador emula un cargador OEM)
sincronizar	Convierta puertos específicos o todo el concentrador en modo de sincronización
Sesgado	Detecta la presencia de un dispositivo pero no lo sincroniza ni lo carga
Apagado	Encienda o apague los puertos seleccionados (sin energía ni canales de datos abiertos, imita la desconexión del dispositivo)

If you click on a device/port from this section you can see more information which is detailed in the [Dispositivos](#) page.

6.3.2 Gráficos

If you installed the Cambrionix Recorder service and the API, you can access charts and information on the hub charging performance and health.

If you click on the Dashboard section on the menu and select a hub, you will be taken to the Ports overview page. Select the chart symbol from this page in the top right corner to enter this section.

Puede ajustar la escala de tiempo en cada gráfico utilizando el menú desplegable en la parte superior derecha. Esto se puede cambiar desde 30 minutos hasta 1 año. You can use this to view historic charging information.

You can also zoom on the charts; this can be done by clicking on the Zoom button at the bottom of a chart and then dragging on the graph to select a specific period to zoom in to. Alternatively, you can use the scroll wheel on your mouse for fine-tuning. There is reset button for going back to the default view.

Rendimiento de carga del concentrador

Este gráfico mostrará la información de carga de los concentradores. En el gráfico, el eje Y mostrará la corriente de carga en mA y el eje X mostrará la hora.

Con este gráfico, puede ver los diferentes dispositivos que están conectados y sus tasas de carga a lo largo del tiempo. A different coloured line will represent each device.

Historial de salud del concentrador

Este gráfico mostrará el historial de salud del concentrador. Hay dos ejes Y diferentes en este gráfico, el lado izquierdo mostrará el voltaje en V y el lado derecho mostrará la temperatura en Celsius. El eje X muestra el tiempo.

Using this chart, you can see the temperature of the hub, the 12V internal voltage and the 5V internal voltage. Si la temperatura o el voltaje están por encima o por debajo de parámetros específicos, se levantará una bandera y es posible que el concentrador se apague. More information on exact values can be found in individual product user manuals, which can be found in the link below.

www.cambrionix.com/product-user-manuals

6.3.3 Detalles y propiedades del concentrador

Once you've selected a hub, you can click on the following symbol to be taken to the Hub details and properties page.



Desde esta página, puede ver información sobre el concentrador. You can view the serial port connection the hub is currently using and the actual hardware information.

Serial port information

Variable	Descripción
Computadora	The name of the computer as set by Cambrionix Connect
Puerto	The port the hub is connected to e.g. COM17
Estado	Whether the hub is active
Uptime	Time since the hub was rebooted

Hardware information

Variable	Descripción
Tipo de firmware	The type of firmware used by the hub
Nombre del Fabricante	The Manufacturer of the hub
Versión de firmware	The Version of firmware installed on the hub
Versión del cargador de arranque	The Bootloader version installed on the hub
Grupo	The Group associated with the firmware

You can now see the Hub Sensors for 'Temperature', 'External Voltage' and 'Internal Voltage' from the Hub Details page.

6.3.4 Hub settings

If you click on the Dashboard section on the menu and select a hub, you will be taken to the Ports overview page. You can select the cog symbol at the top of this page to enter this section.



The hub's settings can be accessed and changed from this page. Available hub settings differ, per hub, so only the applicable settings for that type of hub will be visible. For a list of settings applicable to each product, please see individual product user manuals.

www.cambrionix.com/product-user-manuals

You can also delete hubs from cloud from this section. if the hub is removed it will be removed permantly, if the hub is there it will be added to cloud again when the hub API discovers all connected hardware.

6.3.5 Groups

You can view and assign groups to each hub from this page, more information on hardware groups on can be found in the manual section [Hardware Groups \(Licensed\)](#).

6.3.6 Internal hub settings

Puede guardar plantillas de configuración localmente y cargarlas desde la configuración interna. You can also export the configuration string to the clipboard and import a configuration string

from the clipboard as well if you wish to copy settings between different hubs and host machines. Los ajustes que se pueden ajustar se pueden ver en la siguiente tabla.

Nombre del ajuste	Descripción	Valor por defecto
Nombre local	Opcional, "Nombre local", establecido por el usuario. Límite de 31 caracteres. Este nombre aparecerá en la información del sistema del dispositivo si está configurado.	Vacío
Adjuntar umbral (mA)	<p>The attach threshold refers to the current level (mA) at which the hub detects that a device, such as a phone, has been connected to a port. In some cases, the threshold may need to be increased—for example, when using a cable with LEDs or other electronics that draw additional power, or when the device is enclosed in a third-party sled, holder, or case (such as a battery pack) that contains electronics or supports charging pass-through.</p> <p>If the attach threshold is set too high, the hub may fail to detect that a device is connected. Conversely, if it is set too low, the hub might mistakenly detect a connection due to the power draw of the cable itself. Adjusting the threshold appropriately ensures accurate device detection while avoiding false positives or missed connections.</p>	10
Umbral cargado (mA)	El umbral cargado se usa para determinar si el dispositivo probablemente esté cargado. Si la potencia consumida cae por debajo de esta marca durante 2 minutos, entonces activamos una bandera cargada.	100
Cubo interno máximo Temperatura (°C)	Establece la temperatura máxima antes del cierre de los puertos	70
Mapeo de puertos	Cambiar el orden de los puertos desde el predeterminado	Orden secuencial

Mesa6-1

Nombre del ajuste	Descripción	Valor por defecto
Perfiles predeterminados	Cambie el perfil predeterminado para puertos específicos. Use 0 para la operación predeterminada	0
Puertos siempre activos	Configure qué puertos estarán siempre alimentados independientemente del estado de conexión. Esto solo debe usarse junto con un perfil predeterminado	Apagado
Carga de sincronización	Habilite CDP* por puerto	En
Modo de carga alternativo	Enable alternative method CDP* to support some hardware, and increase the device charging. Esto no tiene efecto si el cargo de sincronización para ese puerto está deshabilitado.	En
Modo de visualización	Cambiar el modo de visualización para los concentradores que tienen LED extendidos	Corriente (mA)
banderas	Cambiar varias banderas	Ninguna seleccionada
Retardo de escalonamiento (ms)	Introduzca un retraso entre los puertos que se encienden cuando se detecta un host o el modo se cambia a Sincronización. 0-9999 ms	3000
Desplazamiento escalonado (ms)	Un retraso adicional para agregar antes de iniciar el proceso escalonado. 0-9999 ms	0

Mesa6-1

*Puerto de carga descendente (CDP) Estar habilitado significa que un puerto es capaz de transferir datos y cargar el dispositivo al mismo tiempo con una corriente más alta que solo la sincronización de datos. With CDP enabled the hub can supply up to 1.5 A

Si deshabilita CDP, recibirá la notificación "Este concentrador tiene el modo UCS del puerto descendente de carga deshabilitado. This could limit the maximum current seen on some ports." This notification is there to ensure you haven't turned this off by accident and can still have the highest charge available.

6.4. Computers

Esta sección le permite ver y administrar las computadoras conectadas a su organización. You can access this section by selecting the computers section in the Navigation Panel.

You will see a list of computers that can be managed along with the logo of the operating system of that computer. When you select a computer, you can see the details of that computer including:

- IP Address
- Domain Name
- Operating System
- CPU Brand
- CPU Architecture
- CPU Cores

You will also see the different API services running on that computer the status of the Service and the version of that service. You can click on one of the services to be taken to the [Configuración de la API](#) page of that service.

From here, you are also able to view all connected hubs and devices to that computer. By clicking on any connected Computer under this section, you will notice a settings bar with the following options:

- Computer details and configuration
- List of ports with attached devices connected to this computer
- List of hubs connected to this computer

The Computer Details section is the landing page and if you click over to either the Ports or Hubs section, you are able to manage your hubs and devices.

Cambrionix Recorder service

Si desea utilizar gráficos e información de registro en la conexión de la API del host, necesitará que la conexión de la API del registrador esté conectada. To install the Recorder API onto your host computer, you must ensure this optional service is installed when installing the Cambrionix Hub API (This is selected by default).

Cambrionix Workflow API

If you wish to make use of [Workflows \(Licensed\)](#) within Cambrionix Connect you will need to configure and add the Workflow API to your computer in the same way you add the 'Cambrionix Hub API' and 'Cambrionix Recorder Service'. You can download the 'Cambrionix Workflow API' by downloading the 'Cambrionix Host Manager' and the Worklow API will be bundled with the CHM.

6.4.1 Configuración de la API

When you navigate to the Computers page, you will see a list of all available APIs. Deberá seleccionar una API de la lista para administrar una API. You can navigate to this page by selecting 'Computers' in the Navigation Panel and then clicking on your connected API.

Overview of API's

From the overview you can see the following information

- Status Colour
 - Green = The API is connected and you have an appropriate license.
 - Orange = The API is connected and you don't have an appropriate license.
 - Red = The API is not connected.
- Versión
 - The version information of the API
- Certificate information
 - The following symbol will show if there is no certificate or the API is unable to get the certificate information



Individual API settings

Once an API is selected, you can then click on the settings page for that API. Puede modificar la siguiente información.

Nombre	Descripción
Nombre de la computadora	This is the name you will see as a description for the host computer on your Cambrionix Connect Account. El valor predeterminado es el nombre de host.
DIRECCIÓN	This is the URL of the API; the URL will be read from the local computer when the API is added to your account. A custom URL can be entered if required.
Puerto	Este es el puerto a través del cual se conectará la API. As default this is 43427 it should not normally be changed. This is for advanced use and complex networks with restrictions on which ports can be used. The port number used must match that of the connected API.

Once you have changed the above values, you must press the save button for these changes to take effect. You can press the revert button to return to the previous settings. You can press the remove API button to remove an API from your organisation. You can also deactivate the host computer associated with an API, meaning an API can only be connected to a local host machine.

Servicios de batería

If you have iTunes installed, Apple devices (macOS has the service pre installed for Apple devices) or an adb server running on your host, you will be able to obtain battery information on connected devices. Puede ajustar la configuración de la información de actualización de la batería cambiando la frecuencia con la que se obtiene la información de la batería en mensajes de intervalos en segundos. También puede modificar la cantidad de actualizaciones de batería que se pueden ejecutar simultáneamente.

API Logging

The API can generate logging information for all USB events and store information on what has happened, along with specific hardware information. This is useful for troubleshooting any issues encountered with the API and capturing any faults or issues. You should use full logging when obtaining logs for support unless otherwise instructed, once you have enabled logging and the event has taken place zip the logs to send through to Cambrionix for investigation. El botón de zip logs actualmente solo está disponible en la versión de escritorio.

Once you have obtained some logs you will need to send them to Cambrionix, ensure they are zipped so that if the files are large, they can still be sent over. If the files are still too large, then please use an online drive that Cambrionix support can have access to or send via a file transfer service.

Certificate

From the API settings page you can view information on the certificate assigned to the API. For more information on certificates and how to assign them to an API please see the [Certificados digitales](#) section.

6.5. Ajustes

Se pueden administrar varias configuraciones diferentes usando Cambrionix Connect . You can access this page from the Navigation Panel. Se separan en otras páginas:

- [Configuración general](#)
- [Organisations Settings](#)
- [Configuración de RFID](#)
- [Hub Templates](#)
- [Developer Settings](#)
- [Configuración del concentrador dinámico](#)
- [Firmware](#)
- [Pruebas](#)

6.5.1 Configuración general

You can manage and view the general settings from this page, these settings will be saved to your account if signed in, if not signed in these settings will be saved locally. You can navigate to this page by selecting the settings in the menu and then selecting 'General'.

Updates

This is only applicable to the downloaded version of Cambrionix Connect. You can manage how Cambrionix Connect manages updates, you can select to check for updates on initial launch of Cambrionix Connect, at a scheduled time that suits you or manually when you want to check for yourself. You can also select a channel for which version of Cambrionix Connect you wish to download and install. You can select a legacy version of Cambrionix Connect the full release version or the Beta version.

Notifications

Las notificaciones gestionadas son:

- Desconexión de API
- Eventos RFID
- Available Software Updates
- Actualizaciones de firmware disponibles

In this section, you can also select 'View Organisation User Settings'. From here, you can enable or disable the notifications you wish to receive. Refer to the [Email Notifications](#) for more detailed information.

Theme selection

Desde esta página, también puede seleccionar el tema de Cambrionix Connect , que cambiará visualmente el aspecto de la aplicación.

Theme	Descripción
Default	This will match the OS theme
Light	This is a white background for typical use
Dark	This is a black background for less eye strain in lower light

Join another organisation

If you are joining another organisation you will need a user from that organisation to invite you from the [Organisations Settings](#) page. Once invited you will find the invite at the bottom of the general settings page, once you have accepted the invitation you will then be able to select that organisation as your active one.

6.5.2 Organisations Settings

From the Cambrionix Connect Organisations settings page, you can view and manage your Organisation's information. For more information on organisations please see [Organizaciones](#) section. You can navigate to this page in the Navigation Panel.

Your organisation

If you have the appropriate permissions to do so, from this section you can;

- View the current organisation selected
- View your organisation Id
- Change the name of your current organisation
- Leave the organisation
- View your license status
- Manage organisation users

- Manage users and roles (see [Roles \(Licensed\)](#) section for more info)
- Manage and view user device assignments (see [Dispositivos](#) section for information on assigning users to devices)
- Manage and view locations (see [Locations \(Licensed\)](#) section for more info)
- Manage and view metadata (see [Metadata \(Licensed\)](#) section for more info)
- Manage and view hardware groups (see [Hardware Groups \(Licensed\)](#) section for more info)
- Manage Email Notifications (see [Email Notifications](#) section for more info)
- View and Manage Audit Logs (see [Audit Logs](#) section for more info)

Manage users

From this section you can view organisation users information such as;

- Given name (first name)
- Surname (last name)
- User Id
- Email address

You can also remove users from your organisation or change their user role/permissions.

Invite users to your organisation

To be able to add users to join your organisation you will need to send them an invite. There is a section at the bottom of the page to send invites, once clicked you will then be given a prompt to input their email and assign them a role for the organisation. The invited user will need to accept the invite from the Organisations page.

6.5.3 Configuración de RFID

RFID (identificación por radiofrecuencia) es una forma de comunicación inalámbrica. The Cambrionix API is capable of managing RFID detection events and can be used to store information about RFID cards. You can access the RFID settings by selecting settings and then selecting RFID (Settings / RFID)

Currently, the API only deals with the RFID reader in the ModIT Boss module. Este es un modelo RFIDEas: RDR-80581AK0. esta pagina en Cambrionix Connect gestiona la información obtenida del lector RFID y la API.

The first time you use an RFID card, you must check the 'Enable RFID detection in the API' box so that Cambrionix Connect and the API can see the initial RFID event. Cuando escanee una tarjeta RFID, aparecerá en una lista y podrá seleccionar un nombre para la tarjeta y el comportamiento que desea que ocurra cuando la tarjeta se escanee en el futuro.

Una vez que haya escaneado las tarjetas y las haya configurado, puede exportar la configuración para que otras versiones de Cambrionix Connect puede mantener la misma configuración.

6.5.4 Hub Templates

From this page, you can manage the templates for the [Hub settings](#). The templates are saved locally. You can access this page by selecting settings in the Navigation Panel and then selecting 'Hub Setting Templates'.

Editing Templates

The first template you create will need to be done through the [Hub settings](#). Once the template is created navigate to this page and you can edit the information. You can change the name of each template by selecting the name and typing in a new one. You can edit the settings by selecting the pencil icon next to the delete icon.



Once you have the editing window open you can view all the Internal hub settings and amend each settings, once you have finished making any changes you will need to press 'OK' which will close the editing window. Remember to click save after closing the editing window or the changes will be lost.

Copying Templates

From this page you can select a template and copy it. By selecting the tick box next to the name, the 'COPY' button below will become active. Click this to make a copy of the template appear underneath. Again, remember to click save once you have created copies or navigating away will delete the copy.

Deleting Templates

You can delete any stored templates by pressing the delete icon. Ensure you click save after deleting a template, or it won't actually be deleted.

6.5.5 Developer Settings

You can use these script pages to send commands through the Host or Recorder API to the selected hub(s) or computer(s). You can navigate to this page by selecting settings in the Navigation Panel and then 'Developer'.

From the Developer settings you will be able to access the scripting pages for the installed API's. The API scripting pages are listed below.

- Hub API
- Recorder API

Hub API

The two methods of communication supported from the script page are JSON and the Cambrionix CLI.

If you wish to have detailed information on scripting and the commands/ methods that can be sent with the API and the Cambrionix CLI, please see the specific software user manuals, which can be found through the below links.

www.cambrionix.com/cambrionix-cli

<https://www.cambrionix.com/cambrionix-api>

En la parte superior derecha de la página, hay dos menús desplegables. One is to select which hub you wish to send commands to, and the other is to choose between JSON and the Cambrionix CLI.

Once you have chosen a hub and a method of communication, you can write your script or use one of the pre-made examples in the drop-down. Once you have written or selected a pre-made script, press the 'RUN' button. You will then receive the response to the script in the window below your initial script.

If you wish to send commands to a computer then you will need to select a hub that is connected to that computer. Any commands then sent will be sent to that computer, for example if you wish to find details on the USB tree for a specific computer.

Recorder API

If you selected to install the 'Recorder API' along with the 'Hub API' (this is selected by default) then you will be able to access more historical information such as battery health and device presence.

From this section you can send queries directly to obtain information. There is a drop down to select the 'Recorder API' you wish to communicate with, this list will be populated with all the

API's in your organisation. You can type your own script or there is also a drop-down to select some pre-made scripts with legacy queries. Once you have written or selected the script you can then run the query using the 'Run Query' Button.

6.5.6 Configuración del concentrador dinámico

From this page, you can create and manage 'Dynamic hubs'. A Dynamic hub is a collection of hubs that Cambrionix Connect will treat as a single hub. You can navigate to this page by selecting settings in the Navigation Panel and then 'Dynamic Hubs'.

Creating a Dynamic hub

To create a Dynamic hub, you can drag and drop your chosen hub(s) from the 'Physical Hubs' section over to the 'Dynamic Hubs' section. Once you have grouped up the hubs you want into a Dynamic hub, you have the option to rename it and then remember to press save to store this as a Dynamic hub.

6.6. Firmware

Desde esta página, puede ver y administrar versiones y actualizaciones de firmware. You can access this page by going to Settings (in the navigation panel) and then 'Firmware'.

On this page you will see two sections. One for 'Cambrionix Hubs' and one for 'Preview Updates'. You can select the hubs you want to update in one section and select and update the firmware for the chosen hub(s) in the other. Puede filtrar el hardware de las siguientes maneras.

Filtrar	Descripción
Tipo	Firmware type*
punto final	Nombre de la computadora
Descripción	Nombre del concentrador

*products and their firmware type below

Firmware	Número de parte	nombre del producto
Universal	PP15S	PowerPad15S
Universal	PP15C	PowerPad15C
Universal	PP8S	PowerPad8S
Universal	SS15	SuperSync15
Universal	TS3-16	ThunderSync3-16
ELEGANTE	TS3-C10	ThunderSync3-C10
Universal	Pala Sub-16	Pala Sub-16
Universal	U8S	U8S
Sincronización PD	PDSync-C4	PDSync-C4
Universal	ModIT-Max	ModIT-Max
Control de motor	Tablero de control de motores	ModIT-Max

Selección de concentradores

Cualquier concentrador que no tenga la última versión del firmware tendrá el número de versión del firmware en rojo. La versión del firmware será azul si el concentrador está actualizado.

You can select and update multiple hubs at once; you can see if it is selected as the box will be highlighted, and under the 'Preview Updates' section, you will see which hub(s) you have selected to be updated.

Actualización del firmware

Cambrionix Connect elegirá automáticamente la última versión del firmware para actualizar; esto se puede cambiar utilizando el menú desplegable y seleccionando el firmware que desea instalar en el concentrador. We recommend always using the latest firmware version unless there is a specific reason not to update.

Once you have selected the hubs you wish to update and the firmware version to update, press the update firmware button, which will then run the process. Once updated, a tick will appear in the Update Preview section to show the update has been successful.

errores

Es importante que una vez que haya iniciado una actualización de firmware, no desconecte el concentrador del sistema host. If you disconnect the hub while it's updating, then the hub will be in an unusable state. This state is called bootloader mode, which is a different piece of firmware used to launch the hub's firmware. If you get the hub stuck in bootloader mode then you will need to recover the hub using the Cambrionix Command line updater which can be downloaded from the below link along with the user manual.

<https://www.cambrionix.com/cambrionix-clu>

6.7. Pruebas

Cambrionix Connect tiene una instalación de prueba incorporada para probar sus concentradores. You can access this page from Navigating to Settings and then 'Testing'.

This is designed to ensure your hubs perform correctly and have no issues. Las pruebas que se ejecutan utilizando esta función se enumeran a continuación:

Prueba	Descripción
Respuesta de id de Test Hub	Valide que el concentrador devuelva información sensible en respuesta a su comando 'id'. Esto incluye verificar que la versión de firmware sea al menos 1.79 y que esté en el modo correcto.
Configuración de puerta ModIT	Si el concentrador conectado es un ModIT Pro con puertas bloqueables, esta prueba validará que la configuración sea correcta.
Ejercitador ModIT Gate	Si el concentrador conectado es un ModIT Pro con puertas bloqueables, esta prueba validará que se abren y cierran dentro del tiempo esperado y que su consumo actual está dentro de límites razonables.
Validar el estado del concentrador	Validate that there are no hub error flags set
Configuración del concentrador	Valide que el concentrador devuelva información sensible en respuesta a su comando 'settings_display'.
Validar la salud del puerto	Validate that there are no port error flags set on individual ports
Validar USB	Valide la funcionalidad USB del concentrador
Validación de API	Validar que la API esté funcionando y sea de una versión apta para otras pruebas

Hay tres páginas diferentes en la sección Pruebas:

- Test Selected Hubs
- Automatic Testing
- Configuración

Test Selected Hubs

Using this first page, you will be given a list of all connected hubs and can choose which hubs you wish to test. Once you have selected all the hubs you want to test, press the go button, and they will begin.

Automatic Testing

El uso de la página Automática ejecutará todas las pruebas en todos los concentradores conectados tan pronto como navegue hasta ella. La vista será la misma que la seleccionada pero sin la opción de elegir concentradores específicos para probar.

If you click on the down arrow on the menu, you will be shown each test that has been performed and the status of the test. Una barra de progreso se ejecutará de izquierda a derecha y se volverá verde si se completaron y aprobaron todas las pruebas. Si alguna prueba falla, la barra se volverá roja.

Configuración

En la sección Configuración, puede seleccionar qué pruebas se ejecutarán en modo Automático y Seleccionado y también configurar los valores en los que una prueba se considerará aprobada. Puede modificar los valores en tres de las pruebas.

- Respuesta de id de Test Hub
 - Versión mínima de firmware
 - Versión mínima del cargador de arranque
- Configuración de puerta ModIT
 - configuración de puesto
 - Versión mínima del firmware de control del motor
- Ejercitador ModIT Gate
 - Límite de fallas
 - iteraciones
 - Corriente máxima
 - Tiempo máximo de transición

6.8. Acerca de

From this page, you can see various pieces of information about the APIs and Cambrionix Connect. You can navigate to this page by selecting 'about' on the Navigation Panel.

You can see the version of the local API that is running alongside the version of Cambrionix Connect.

There is a link to be able to download and view the Cambrionix Hub API User manual.

<https://downloads.cambrionix.com/documentation/en/Cambrionix-Hub-API-User-Manual.pdf>

There is a link to be able to download and view the Cambrionix Connect User manual.

<https://downloads.cambrionix.com/documentation/en/Cambrionix-Connect-User-Manual.pdf>

Below the 'About' section on the Navigation Panel, there is also a 'Help' button to take you to our support centre should you ever need any assistance.

Cookies

Cambrionix uses cookies necessary for features including optimisation and performance. You can find information on the cookies included on this page, they are also listed below.

Cookie Name	Función	Duration	Descripción
msal	Authentication	Session	Used by the Single Sign-on service (SSO) to generate a user session cookie

From this page you can also view company information for Cambrionix;

- Contact information
- Social media links
- Company number
- VAT number

6.9. Help

By selecting the help page on the menu you will be taken to Cambrionix Support centre. From the support centre you can;

- Get technical support for Cambrionix hardware and software
- Suggest a new product
- Suggest a new feature for Cambrionix hardware and software
- Suggest an improvement to existing Cambrionix hardware and software

Cuando se comunique con el soporte, proporcione la información del producto para el concentrador en cuestión. Esto se puede encontrar en la placa de información del dispositivo que se encuentra en la parte inferior o posterior de la unidad. Providing serial and Purchase order numbers, can help identify your specific product and speed up the process.

With any hardware support we recommend first checking the troubleshooting section in the products user manual.

Cambrionix Product User Manuals: www.cambrionix.com/product-user-manuals

Cambrionix Support Portal: <https://support.cambrionix.com/>

7. Customisable Data Views and Advanced Filtering

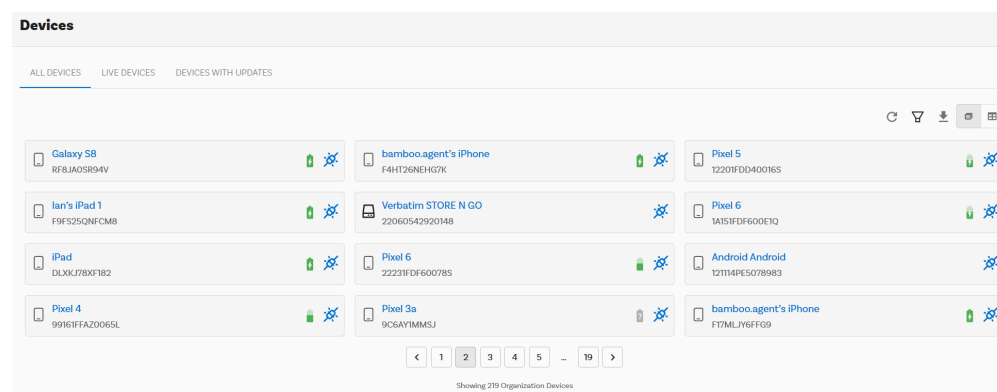
The Cambrionix Connect application provides a highly customisable and user-friendly experience for managing and viewing information. Each table of data can be displayed in various formats, allowing users to tailor the presentation to their specific needs. Columns can be selected to be visible or hidden, giving complete control over the information displayed at any given time. Users can also adjust the density of the data view, making it possible to choose between a more compact layout for a high-level overview or a more spacious format for detailed analysis.

To further enhance usability, powerful custom filtering options are available, enabling users to isolate and focus on specific subsets of data quickly and efficiently. Once tailored to their requirements, users can export all or filtered data as a CSV file, ensuring seamless integration with external tools and workflows outside the application.

7.1. Different views

There are two different views that can be used within the Cambrionix Connect application:

'Card view'



'Table view'

Devices

ALL DEVICES LIVE DEVICES DEVICES WITH UPDATES

Columns Density

Type	Name	Model Code	Connection Status	Updated At	Created At	OS Type	OS Version	Computer Id	View
	Pixel 5	Unknown Model		27 minutes ago	8 months ago	Android	Android 13, API level...	CBRXCI-007	View
	iPad	iPad Pro 11 inch 3rd ...		27 minutes ago	8 months ago	iOS	16.6	CBRXCI-007	View
	Apple Inc. iPhone	iPhone 7		about 16 hours ago	8 months ago	iOS	15.4.1	Unknown	View
	Pixel 5	Unknown Model		27 minutes ago	8 months ago	Android	Android 13, API level...	CBRXCI-007	View
	iPhone	iPhone 13		27 minutes ago	8 months ago	iOS	16.6	CBRXCI-007	View
	iPad	iPad 8th Gen (Wi-Fi...		27 minutes ago	8 months ago	iOS	15.1	CBRXCI-007	View
	Apple Inc. iPhone	iPhone XS Max Glob...		3 days ago	8 months ago	iOS	15.4.1	Unknown	View
	iPhone	iPhone XS Max Glob...		27 minutes ago	8 months ago	iOS	16.6	CBRXCI-007	View
	iPad	iPad Pro 11 inch 3rd ...		2 days ago	8 months ago	iOS	17.0.3	CBRXCI-007	View
	Kingston DataTravel...	Unknown Model		27 minutes ago	8 months ago	unknown	unknown	CBRXCI-007	View

Rows per page: 10 1-10 of 219

7.2. Filtering

You can filter the information in a variety of ways, from 'Table view' you can select 'Columns' and select and de-select columns that you wish to have visible or not.

This advanced filtering interface is designed to allow users to create custom queries and refine datasets based on multiple conditions. It provides a flexible and user-friendly approach to narrow down large amounts of data to meet specific requirements.

Creating Filters

There are two different ways that you can create a filter, you can either just open up the filter menu and start adding in conditions to filter the view you currently have, or you can create a 'Saved Filter' which will save to your current organisation for any users to use going forward.

To start creating a filter you will need to select 'Add a new Condition' you will then have a new condition added to your filter. Each condition consists of three components:

Component	Description
Field	A dropdown menu where users select the data attribute or column they want to filter, such as "Id" or "Connection Status."
Operator	A dropdown menu defining the logic for filtering, such as "Equals," "Contains," or "Does Not Equal."
Value	A text box where users enter the specific value or criteria they are targeting, such as a specific ID number or status.

To create more complex queries, users can click the "Add new condition" button, which adds another row to the filter configuration. Each condition can also be individually deleted using the trash bin icon, ensuring users can easily modify or remove unwanted conditions.

At the bottom of the interface, there are two action buttons:

Action	Description
Apply	Executes the filter and refines the displayed dataset based on the conditions specified.
Close	Closes the filter interface without applying any changes, allowing users to exit without affecting the data view.

There is also the option of selecting the plus symbol next to the dropdown which will then add the filter as a 'Saved Filter' for use within your organisation.

8. Certificados digitales

You will require a secure connection to access APIs connected to your network. Para tener una conexión segura, se requerirán certificados digitales. A digital certificate is a file or electronic password that proves the authenticity of a device, server, or user. This helps Organisations ensure that only trusted devices and users can connect to their networks, only a single certificate configuration is supported.

You must supply a certificate and private key to the API to create a secure connection which is called an SSL (Secure Sockets Layer) connection. An SSL protocol establishes authenticated and encrypted links between networked computers. Once you have an SSL connection, you can connect outside of localhost (the machine the API runs on). Without this certificate, the API will only listen for connections from the local host. External connections will only be allowed if they are secure (HTTPS or Secure WebSockets).

The identity the API is running as will need access to the files to use them, so the certificates must be stored in an accessible folder or library.

Corresponde al usuario proporcionar un certificado adecuado para su uso. Some providers are

- [Comodo](#)
- [Digicert](#)
- [Identificate](#)
- [Globalsign](#)

If a certificate authority used is not recognized by the browser, then this will have to be handled dependant on the browser that is being used. You will need to sign your certificate with your own certificate authority and adding that to your application or browser.

Con Google Chrome, puede utilizar esta [guía](#) .

Con Firefox, puedes usar esta [guía](#) .

Con Safari, puedes usar esta [guía](#) .

If you wish to use different browsers you will need to find their guides to be able to setup.

8.1. Adding a certificate

To add a digital certificate to your hub's API, the simplest method is through the Cambrionix Connect application. Navigate to the [Configuración de la API](#) page, where you will find a certificate section with blank fields for the certificate and key. Paste the contents of the certificate and key into the respective fields, then click the Add Certificate button to assign the certificate to your API.

Alternatively, you can also add a certificate directly using API methods, which are detailed in the [Cambrionix Hub API User Manual](#).

9. Redes

If your network has restrictive firewall or proxy server settings, you or your network administrator will need to whitelist certain domains and IP address ranges to ensure that Cambrionix Connect and its related services work as expected.

9.1. Nombres de dominio

Cambrionix Connect utiliza dominios con diferentes niveles de subdominios. For it to operate correctly, please allow these first-party Cambrionix domains and their levels of subdomains. Estos dominios son operados y administrados directamente por Cambrionix.

Dominio	Objetivo
*.connect.cambrionix.com	Cambrionix Connect web application and required functional services
*.descargas.cambrionix.com	Cambrionix Connect retrieves firmware from this location.

Al permitir un dominio, asegúrese de que la acción permita el dominio de nivel superior y múltiples niveles de subdominios, no solo los subdominios inmediatos.

Por ejemplo, una entrada de permiso para *.connect.cambrionix.com debería permitir *server1.connect.cambrionix.com* Y *server2.connect.cambrionix.com* .

Además, asegúrese de que los dominios de nivel superior también estén permitidos, no solo sus subdominios. Por ejemplo, *.connect.cambrionix.com debería permitir *server.connect.cambrionix.com* Y *connect.cambrionix.com* .

9.2. Rangos de direcciones IP

Cambrionix Connect no tiene una dirección IP fija. En su lugar, utiliza un rango definido de direcciones IP. Debe incluir en la lista de permitidos los rangos de IP que se describen a continuación para mantener el acceso a Cambrionix Connect .

Actualmente utilizamos una combinación de direcciones IP proporcionadas por terceros (a saber, Microsoft Azure). Debe revisar las restricciones de su red y actualizarlas para asegurarse de que Cambrionix Connect funciona según lo previsto. Los rangos de IP se utilizan tanto para recibir como para responder a solicitudes de clientes (p. ej., navegadores) y para realizar conexiones a Internet en su nombre (p. ej., webhooks y funciones de aplicaciones).

La lista de rangos de IP que se incluirán en la lista de permitidos son los rangos con la etiqueta "AzureFrontDoor" de los [rangos de IP de Azure](#) del Centro de descarga oficial de Microsoft.

9.3. Connecting from outside your network

You may wish to connect to hosts outside of your local network. One way to do this would be to enable port forwarding. You or your network administrator will need to set this up on your public facing router.

Port Forwarding

Port forwarding allows remote computers to connect to a specific computer or service within a private network. This will need to be set up on the router that the host system is connected to.

You will need to access the router settings to set up port forwarding. To access your router settings, you will need to find the default address for your router and enter it in a web browser. You will then need to log in to the router's user interface using the admin username and password. If you have not changed the username and password, you will need to use the default username and password, which will be listed in your router's user manual or online documentation.

Once you are in the router settings you will need to access the Port forwarding section which is usually found in the advanced settings section, this is different for all routers but you should be able to find information on accessing this section through your router's user manual or online documentation.

Once you are in this section, you will need to set up a custom port forwarding rule using the following information:

- Name - This is the custom name you can enter to easily identify the rule
- Type - We recommend using "Both" or "TCP/UDP" dependant on your router
- Inbound - This is the port number, you should check this port number is not currently being used before defining it
- Private or End - Enter the same port number as Inbound
- IP Address - This will be the IP address of the host computer with the API running, this should be made a static IP address to avoid any conflicts in the future

The Default port the API runs on (when a digital certificate is assigned) will be: 43424.

There are lots of guides online for each router and also guides on setting up port forwarding. If you are unsure how to perform this function, we recommend reading some documentation. For example, more information can be found [here](#).

10. Roles (Licensed)

Roles allow you to define and assign specific sets of permissions and privileges within an organisation, enabling precise control over access to resources and functionalities. By creating custom roles, organisations can manage access levels for different groups, services, and system functions based on their specific operational needs.

A sufficient Cambrionix Connect License is required to use this feature. Currently, the license is not available, but it will be coming soon. If you are interested in using this feature once the license becomes available, please contact enquiries@cambrionix.com.

Custom roles provide several key benefits:

- **Security:** Assigning permissions based on roles ensures that only authorised individuals or services can access specific resources, reducing the risk of unauthorised access, data breaches, or accidental misuse.
- **Control:** Defining roles allows organisations to enforce separation of duties, ensuring that each entity can perform only the actions permitted within its assigned role, minimising errors and maintaining compliance.
- **Scalability:** As organisations grow and evolve, custom roles make it easier to manage permissions, allowing for seamless adjustments to accommodate new structures and operational changes without compromising security or functionality.

Roles

Within your organisation, each group or service can have multiple assigned roles, allowing for flexible and structured access management. By default, the following roles are available for assignment:

Role	Description
Member	Can read everything and view all information, but cannot make any changes.
Contributor	Can perform all actions except manage/ invite users to the organisation.
Owner	Can perform all actions in the organisation.

10.1. Creating custom roles

You can create custom roles for your organisation by navigating to "Manage Roles" and selecting the "Create Role" button.

Note: This option will only be available in Cambrionix Connect with the appropriate license.

Basics

When you initially create a new role you will need to input some basic information such as the name of the user role and a short (optional) description of the role to help identify the specific role and its permissions.

Permisos

A continuación se muestra una lista de cada permiso que se puede asignar.

Grupo de permisos	Permisos	Descripción
API Permisos relacionados con el servicio API del host	API.Leer	Leer datos proporcionados por el servicio API de host.
	API.Escribir	Realizar acciones de actualización/creación/eliminación a través del servicio API del host
	API.Administrador	Realizar acciones administrativas a través del servicio Host API
Usuarios de la organización Permisos relacionados con los usuarios de la organización	Usuario.Leer	Leer usuarios de la organización
	Usuario.Escribir	Actualizar usuarios de la organización
	Usuario.Eliminar	Eliminar usuarios de la organización
Asignación de roles en la organización Permisos relacionados con las asignaciones de roles de la organización	Asignación de roles.Escribir	Asignar o eliminar un rol a un usuario
Invitaciones de la organización Permisos relacionados con las invitaciones de usuarios de la organización	Invitar.Escribir	Invitar a los usuarios a la organización
	Invitar.Leer	Leer las invitaciones de los usuarios de la organización
	Invitar.Eliminar	Eliminar invitaciones de usuarios

Grupo de permisos	Permisos	Descripción
Roles personalizados de la organización Permisos relacionados con roles personalizados de la organización	Rol personalizado.Write	Crear/actualizar/eliminar roles personalizados de la organización
	Rol personalizado.Lectura	Leer los roles personalizados de la organización
	Rol personalizado.Eliminar	Eliminar roles personalizados de la organización

Review

Once you have completed the basic information and selected the permissions required you will then have the opportunity to review the information before creating the role.

11. Audit Logs

Audit logs are records that provide a detailed account of activities and events related to a any change made inside an organisation. They ensure accountability, maintaining security, and facilitating compliance within the organisation. These logs can include a variety of data points, such as user activities, system changes, access events, and security incidents. They serve as a historical record that can be reviewed to track the actions of users and systems over time. For more information on what events are recorded with the Audit logs inside Cambrionix Connect please see the individual API manuals for more details. Your audit logs are available for 7 days. Changes to your log duration only affect new logs.

Key Purposes of Audit Logs

Security Monitoring	Help detect unauthorised access or suspicious activities by recording login attempts, access to sensitive data, and changes made by users
Compliance	Many industries are subject to regulations that require organisations to maintain audit logs for accountability and regulatory compliance.
Analysis	Help investigations into security breaches or incidents by providing a detailed time-line of events leading up to an incident.
Operational Oversight	Help organisations monitor and optimise system performance, user activities, and workflows by analysing usage patterns.
Accountability	Ensure that users are held accountable for their actions within a system, promoting responsible behaviour

You can navigate to the audit logs by selecting the organisation for the information you want to view. Once in the organisation page you can select 'View audit logs' Once you have navigated into the audit logs you will see the logs and the following information

User Identifier	The user who performed the action (username and user ID).
Acción	The nature of the action taken (e.g., login, logout, data modification).
Resource	The specific resource that was accessed or modified
marca de tiempo	The date and time when an event occurred.
View	Click View to see more information on the specific log

<div> Columns Filters Density Export Download CSV </div>						
User	Id	Action	Type	Resource	Time	View
Test Test	051075f1-80f0-43fe-9656-6d...	DELETE	Computers	/api/v1/organizations/399911a...	18/07/2024 11:01:03	View
Test Test	5e0b32bb-c9cc-40b0-9fb4-b...	DELETE	Computers	/api/v1/organizations/399911a...	18/07/2024 11:01:00	View
<div> Rows per page: 10 1-2 of 2 </div>						

This view can be filtered and sorted dependant on the users preference.

Ajustes

If you want to amend the different events you wish to capture in the audit logs you can click through to the settings and use the check boxes to select/ deselect the different information you wish to log.

12. Email Notifications

Cambrionix Connect includes an email notification feature, allowing users to receive updates or changes within their organisation via email. Notifications can be configured by an administrator or a user with the appropriate permissions. To manage notifications for an organisation, navigate to the organisation's settings page and select 'Manage Notifications'.

Once you access the notification management page, you will see a list of all notifications that can be managed within your organisation. The page displays the following information:

Enabled	A status colour indicator: red indicates "disabled", and green indicates "enabled".
Title	The title of the notification
Description	A brief description of the notification.
Severity	The severity level of the notification.
Category	The category of the notification.
View	Click the 'Manage' button to edit the notification details.

When you select 'Manage' on a notification, you will be directed to the notification details management page. From here, you can:

- Enable or disable the notification.
- Specify who receives the notification based on roles.
- Explicitly select individual recipients for the notification.

Each user can customise the notifications they receive by navigating to their [Configuración general](#).

A list of available notifications can be see below:

Notification	Description
Organisation User Invite Accepted	A user has accepted an invite to the organisation
Organisation License Expired	A license has expired in the organisation
Organisation User Role Changed	A users role has been changed
Organisation License Expiring Soon	A license is expiring soon in the organisation

Notification	Description
Organisation Hub Firmware Updates Available	Firmware updates are available for hubs in your organisation
Organisation Device Firmware Updates Available	Firmware updates are available for devices in your organisation
Organisation User Invited	Email template for organisation user invites
Organisation Service Added	A service has been added to the organisation
Organisation User Invite Declined	A user has declined an invite to the organisation
Organisation Computer Removed	A computer has been removed from the organisation
Organisation User Removed	A user has been removed from the organisation
Organisation License Revoked	A license has been removed from the organisation
Organisation Hub Added	A hub has been added to the organisation
Organisation Service Removed	A service has been removed from the organisation
Organisation License Issued	A license has been issued to the organisation
Organisation Device Removed	A hub has been removed from the organisation
Organisation Device Added	A hub has been added to the organisation
Organisation Hub Removed	A hub has been removed from the organisation
Organisation Computer Added	A computer has been added to the organisation

13. DFU Mode Management (Licensed)

DFU (Device Firmware Update) mode is a specialised, low-level mode on Apple devices such as iPhones, iPads, and MacBooks. This mode enables the device to establish a direct connection with your host without booting into the operating system or activating the bootloader. By bypassing these systems, DFU mode provides greater control over the device's firmware and software, making it a critical tool for advanced troubleshooting, firmware restoration, and software modifications.

In order to enter DFU mode on devices, you are typically required to use specific button combinations and/or certain ports on a macOS device. However, with Cambrionix Connect, this manual process is no longer necessary. Using the Connect application, multiple devices can be placed into DFU mode with the simple push of a button or by sending an API command.

With Cambrionix Connect, this process can be performed both locally and remotely, providing total control over the devices in your fleet. This streamlined approach makes managing DFU mode efficient and scalable, especially in environments with large numbers of devices.

13.1. Key Features of DFU Mode

Bypasses the iOS Operating System

Unlike Recovery Mode, which loads a limited version of the iOS system, DFU mode bypasses both the iOS operating system and the bootloader entirely. This deeper level of access allows for more extensive operations, including complete firmware restoration or modification.

Enables Advanced Troubleshooting

DFU mode is a go-to solution for addressing complex issues that cannot be resolved through standard means:

- **Fixing Unresponsive Devices:** It can be used to restore devices stuck in a boot loop, frozen screens, or other unresponsive states.
- **Factory Resetting Devices:** DFU mode allows you to erase the device entirely and restore it to factory settings when Recovery Mode fails to work.

Facilitates Firmware Restoration

- **Reinstallation of Firmware:** DFU mode allows you to reinstall the firmware entirely, which is particularly useful when the existing firmware is corrupted or malfunctioning.
- **Downgrading Firmware Versions:** If Apple is still signing an older version of iOS, DFU mode can be used to downgrade to it, giving users more flexibility over their device's software.

Supports Custom Firmware Installation

DFU mode allows for the installation of modified or custom firmware, a feature often utilised by developers or advanced users seeking to customise their devices or explore additional functionality beyond standard settings.

13.2. DFU Mode Management in Cambrionix Connect

requisitos previos

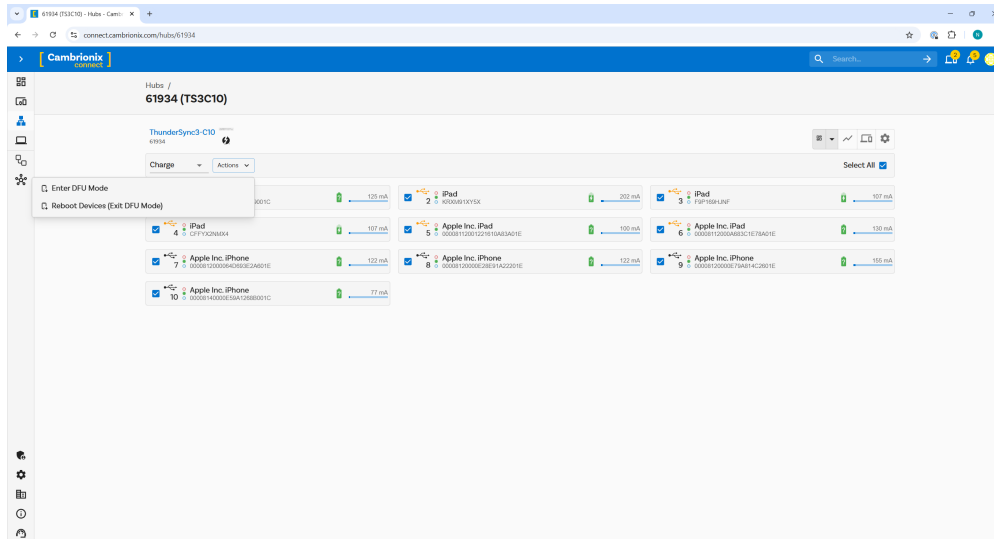
In order to use DFU mode control you will require the following:

- Cambrionix Hub API (at least V 3.24.0)
- A sufficient Cambrionix Connect License is required. (To use this feature, you will need a license supplied by Cambrionix Ltd. Currently, the license is not available, but it will be coming soon. If you are interested in using this feature once the license is available, please contact enquiries@cambrionix.com.)
- A Type-C Cambrionix Hub (such as the TS3-C10) with firmware of at least version 2.1.0

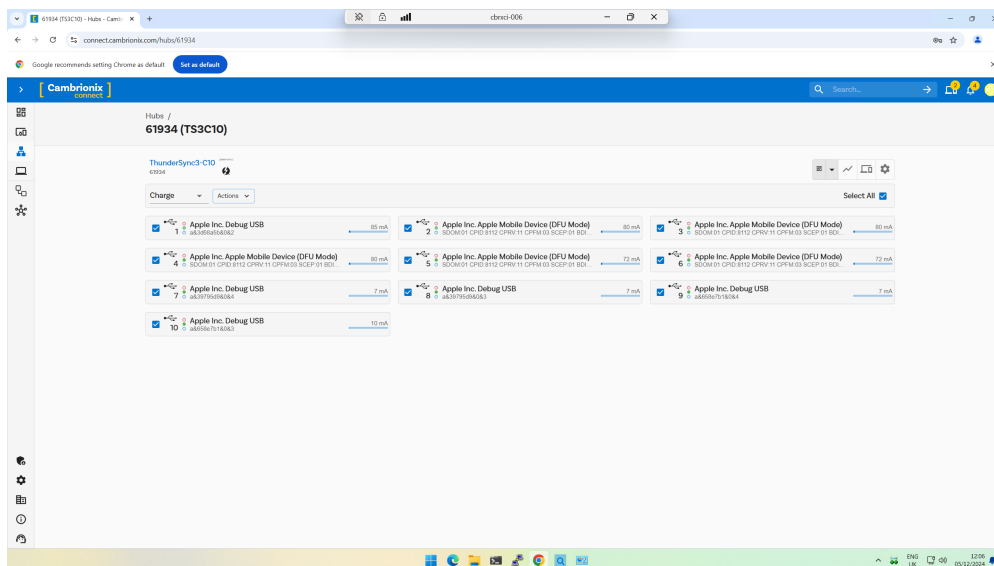
Putting devices into DFU mode

After meeting the necessary prerequisites, placing a device into DFU mode is a straightforward process. Begin by navigating to a compatible hub within the application and selecting the devices you wish to send the Enter DFU command to.

Once the devices are selected (and confirmed to be compatible), an Actions dropdown menu will appear next to the Port Mode dropdown. Opening this dropdown will reveal two options: Enter DFU Mode and Reboot Devices (Exit DFU Mode).



Simply select Enter DFU Mode and then type in the confirmation phrase, and the command will be sent to all connected devices, enabling DFU mode with ease and efficiency. The name of the devices will change to show that they are now in DFU Mode. This streamlined method ensures a smooth experience for managing multiple devices.



Exiting DFU mode

To exit DFU mode, the device needs to be rebooted. This can be achieved using the same method as entering DFU mode, but instead, select the Reboot Devices (Exit DFU Mode) option from the Actions dropdown menu.

Once this option is selected, a command will be sent to all chosen devices, prompting them to reboot. The devices will then exit DFU mode and return to their normal state seamlessly.

Device Compatibility

Apple devices with USB-C connections are expected to function seamlessly with this process. While other devices may also work, they have not been specifically tested by us, so compatibility cannot be guaranteed.

We have conducted thorough testing on the following devices and can confirm that the commands operate as intended. These verified devices provide a reliable foundation for implementing the process with confidence. For any untested devices, additional testing may be necessary to ensure functionality.

Device
iPhone 16
iPhone 16 Pro
iPhone 15
11-inch iPad Pro (M4) Wi-Fi
Apple iPad Air M2 11" (Wi-Fi Only)

*Further device testing will take place and this list will increase once validation has taken place

14. Hardware Groups (Licensed)

One of the great features within Cambrionix Connect is being able to group specific hardware into groups. This means if you want to group specific devices or hubs and view them all at once this can be done easily within your organisation.

requisitos previos

In order to use Hardware groups you will require the following

- Cambrionix Hub API (at least V 3.19.2)
- The Host computers with the connected hardware to be added to your organisation
- A sufficient Cambrionix Connect License is required. (To use this feature, you will need a license supplied by Cambrionix Ltd. Currently, the license is not available, but it will be coming soon. If you are interested in using this feature once the license is available, please contact enquiries@cambrionix.com.)

14.1. Hardware groups overview

To view and create hardware groups, first navigate to the organisation you wish to access. Once you have selected the organisation and clicked on its tile, you will then be able to click on the 'Manage Hardware Groups' button at the top of the page.

Once through to the overview page you can view a list of current hardware groups, within this list you can see each groups Name, Description and ID. You can also create a new group from this page.

14.2. Creating Hardware Groups

Clicking on the 'Create Group' button on the hardware groups overview page will allow you to start the process of making a new group.

Firstly you will need to create a name and description for your group, we would recommend creating a unique recognisable name for your group as this will make it easier to assign hardware to the groups later.

Once you have added the name and description press the create button and you will navigate back to the group overview page and see the new group has been created.

14.3. Assigning hardware to groups

Once you have created a group you can then assign hardware to the group. To assign a hub to a group you will need to navigate to the [Hub settings](#) page. From here you can see a section called 'Groups' and there is a dropdown box, if you click the down arrow you will see a list of

available hardware groups and can select the groups you want to add the hub to. You can assign a hub to multiple groups.

You can also assign devices to groups, to do this you navigate to the device page and similar to the hub use the dropdown box to assign a device to one or more groups.

14.4. Hardware Group Details

From the hardware groups overview page you can select an existing group and view the details of the group such as:

- Details
- Creation and Updates
- Dispositivos
- Hubs

The details section is where you can view the Id, Name and Description of the group and edit the Name or Description.

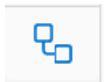
Creation and Updates you can view the name and email address of the account that created the hardware group, you can also see the information on when the latest update took place and who performed the update.

The Devices and Hubs section of the page is where you can view Names, Types and Ids of devices and hubs and also remove them from the hardware groups.

15. Workflows (Licensed)

Workflows are a feature designed to run a series of tasks or actions based off of triggers within the Cambrionix Ecosystem. These can be set up to run on any host computer you have added to your organisation.

For example Workflows can be used to schedule turning off charging on ports where the connected device has reached a certain battery charging level to improve battery longevity. You can navigate to the workflow section by selecting the workflow icon in the side-menu bar which is indicated by the below symbol.



requisitos previos

In order to run workflows you will require the following

- Cambrionix Hub API (at least V 3.15.2)
- Cambrionix Workflow API (This is bundled with Cambrionix Host Manager)
- Cambrionix Host Manager
- The Host computer to be added to your organisation
- The Cambrionix Workflow API added to your computer via the settings menu in [Computers](#).
- A sufficient Cambrionix Connect License is required. (To use this feature, you will need a license supplied by Cambrionix Ltd. Currently, the license is not available, but it will be coming soon. If you are interested in using this feature once the license is available, please contact enquiries@cambrionix.com.)

15.1. Workflows overview

Once you have navigated to the Workflows section you will land on the overview page, from this page you can view, edit and delete all current available workflows and create new workflows. For each workflow in the overview you can see the following information:

- State
- Nombre
- Created
- Updated

- Computers
- Actions

All of the workflows can be filtered and sorted in this view to see specific workflows.

State

This is a colour symbol to indicate the current state of the workflow, each colour represents the state of the applicable workflow.

Color	Descripción
Grey	The workflow is not enabled and will not be running on any computer
Verde	The workflow is enabled and will be running on the computers it has been deployed to

Nombre

This is the name of the workflow, this can be edited from the Workflows setting section.

Created

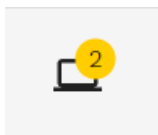
This is to show how long it has been since the workflow was created e.g. "3 days ago"

Updated

From this part you can see how long it has been since any updates have taken place to the workflow e.g. "22 hours ago"

Computers

This will show how many computers the workflow is deployed to for example if a workflow is deployed to two different computers it will show the below symbol



Actions

These are the actions possible to perform on each workflow:

Acción	Descripción
View	View and edit the workflow settings
Edit	Edit the workflow and any of the actions within it
Delete	Delete the workflow, please not this cannot be undone

15.2. Workflow settings

If you select View in the Workflows overview this will take you to the settings of that particular workflow where you can view and edit the workflow details, manage the computers that a workflow is deployed to and view the details about each execution of the workflow.

This is also where you will 'Publish' your workflow, you can edit the actions or delete the workflow.

Details

From this section of the page you can view workflow ID, View and edit the Workflow name, Enable and disable a workflow, see when it was created and when the last time it was updated.

The name will default to your "*organisation name* workflow" but you can change this to be any name including upper and lower case characters and symbols. No recomendamos un nombre de más de 64 caracteres.

Once a workflow has been published you can stop it from running by disabling it, this can be done by deselecting the enable slider so that it is not coloured.

There is a Notes section which you can use to write a description as to what the workflow does or whatever notes you may find useful. This can include upper and lower case characters and symbols, this is also limited to 500 characters

You can also view the applications that the workflow will use.

Computers

From this section you can View and manage the Computers that your Workflow will deploy to. Computers must have the Cambrionix Workflow API installed to be able to run your Workflow. If you click on the 'Add & Remove Computers' button this will bring up a list of all available computers in your organisation.

When looking at the list of computers you will be able to select which computers you wish to deploy the workflow to by clicking the check box, if there is a yellow warning symbol this means that the computer does not have an active connection to a workflow API which may mean it hasn't been installed on the computer or has not been added to the computer within the organisation. You can select the 'View Computer' button to see more information on the computer and configure the API's where required.

Executions

This is where you can details about each execution of your Workflow. You will be given an Execution ID, the start and End time of the execution (this will be displayed as "2 minutes ago", for more detail you can hover your mouse over the time to get exact date and time-stamp of the execution). You will also see the Computer this was run on, the status of the execution (which can be a tick for completed or a warning symbol if there was any issue) and a message to correspond to the symbol that is displayed for the Status.

All the executions can be filtered and sorted in this view to see specific events.

15.3. Creating and Editing Workflows

If you select 'Create Workflow' or select the edit workflow button you will be taken to the workflow editor. From this page you can view the actions on a workflow, add or remove actions and edit the function each action will perform.

Workflow Triggers

When creating a workflow you will automatically have a trigger action included. This is what will 'trigger' the start of the workflow, the trigger will be based off of an application, a list of the applications that can trigger a workflow can be seen below:

Application	Descripción
Schedule	Trigger the start of a workflow dependant on a time event

Once you have set the application you can define the event within the application which will start the workflow. For example using the 'Schedule' application for a trigger you can define when you want the workflow to run such as:

- Every Hour
- Every Day
- Every Week
- Interval

Once you have selected the event you can then configure the trigger to be an exact value. For example if you chose the event to be every week you can select what time you wish the workflow to start and which day of the week for it to be run on.

Workflow Events

To add an event following a trigger there is a plus symbol below the last event or trigger. Once you have added an event you can select the App you wish to use to run an event the applications available for events can be seen below:

Application	Descripción
Cambrionix Hub API	Events for interactions with the Cambrionix Hub API

Once you have selected an application for the event to use you can then define what the event you wish to take place will be. For example using the Cambrionix Hub API application you can select the following events:

- Switch all ports off
- Switch all ports On
- Switch all ports off when charged
- Switch all ports to Charge mode

Once you have selected an event you can then configure the event. For example using the 'Switch all ports off when charged' Event you can select the charge level you wish to be used to turn the ports off.

You can add as many events you would like following a trigger but can only have one trigger per workflow, you can use the workflow editor to delete any events you do not wish to have in the workflow.

15.4. Publishing Workflows

Once you have built your workflow you will need to press the publish button either in the workflow editor page or from the workflow settings page. Once published this will then be available for any of the host computers in your organisation to use it. You can assign the computers you wish to run the workflow from the workflow settings page. The workflows will not run until you have also Enabled the workflow from the settings page as well.

Once this is done the workflows will automatically run on the selected computers when the trigger events occur as you have specified.

16. Locations (Licensed)

A key feature of Cambrionix Connect is the ability to create and manage locations within your organisation. These locations can be assigned to specific computers, which in turn are linked to any connected hubs and the devices attached to those hubs. By setting up these locations, you can improve the organisation and oversight of your devices across multiple computers and hubs, making management more efficient.

When a location is assigned to a computer, any hub connected to that computer is automatically associated with the same location. This ensures that all devices connected to the hub are correctly categorised and managed within the defined location. This feature not only streamlines device tracking but also enhances control over asset allocation, making it easier to monitor devices within your organisation.

requisitos previos

In order to use locations you will require the following:

- Cambrionix Hub API (at least V 3.22.0)
- The Host computer to be added to your organisation
- A sufficient Cambrionix Connect License is required. (To use this feature, you will need a license supplied by Cambrionix Ltd. Currently, the license is not available, but it will be coming soon. If you are interested in using this feature once the license is available, please contact enquiries@cambrionix.com.)

16.1. Creating locations

To create a location for your organisation, start by navigating to the organisation page within the application and selecting the specific organisation to which you want to add the location.

Once you've accessed the desired organisation, scroll down to the "Locations" section within the organisation overview. Here, you will see an overview of any locations that have been previously created. To add a new location, click on 'Manage Locations'. This will take you to a more detailed locations page where you can select 'Create Location' to begin the process.

After selecting 'Create Location', you will be taken to the location creation page. Here, you will find a text box where you can type in the name of your location. The system is designed to automatically suggest and fill in the location as you type. For instance, if you begin typing "Cambrionix," the address "The Maurice Wilkes Building, Cowley Rd, Milton, Cambridge CB4 0DS, United Kingdom" will appear, allowing for quick and accurate entry.

Once the location has been selected, proceed to the next page where you'll be presented with an overview of the address. This page includes a map with a pin showing the exact location, allowing you to visually verify the address. You will then need to give this location a unique

name so it can be easily referenced in the future. Additionally, you will be asked to provide a brief description, which can help other users within your organisation understand the purpose or significance of the location in more detail.

When you're satisfied with the information, click 'Create Location' to finalise the process and add the new location to your selected organisation. This location can then be used for any other computers or hubs within your organisation, improving the efficiency of hub and device management.

16.2. Assigning locations

Once you have successfully created a location, you can easily assign it to any computer that has been added to your organisation. To do this, navigate to the computer's settings page. Under the "General" tab, you will find a drop-down menu labelled 'Select Location'. From this menu, you can choose from any of the locations you've previously created.

Once a location is assigned to a computer, all hubs and devices connected to that computer will automatically be associated with the same location. This ensures that every device linked to the hubs reflects the correct location, streamlining device management and improving the organisation of your assets across your network. By maintaining accurate location data, you enhance visibility and simplify the tracking of your hardware across different parts of your organisation.

16.3. Managing locations

If you wish to manage your locations and edit details such as the location name or description, this can easily be done from the detailed locations page. When you navigate to the locations section, you'll see a table displaying all the locations associated with your organisation. Each location is summarised with the following information:

Information	Descripción
Nombre	The designated name of the location.
ID	The Globally Unique Identifier (GUID) for the location. Which is a 128-bit number used to uniquely identify the information within the Cambrionix Connect application.
Descripción	The description assigned to the location.
DIRECCIÓN	The complete address of the location.

To view more specific details, simply click the 'View' button next to the location you want to manage. This will take you to a more detailed overview, including a breakdown of the address and a map pinpointing the location.

If you need to make changes, select the 'Edit' button. This will open the same menu that was used when the location was originally created, allowing you to modify the name, description, address, or any other relevant details. Once you've made the necessary changes, save your updates to ensure the location information remains accurate and up to date. Any computers, hubs or devices assigned to this location will automatically be updated with the new information.

17. Groups (Licensed)

A key feature of Cambrionix Connect is the ability to create and manage custom groups within your organisation. These groups allow you to assign users, roles, and services, providing a structured and efficient way to manage permissions and access control across different teams or operational units. By setting up groups, you can streamline user management, ensure consistent access levels, and simplify administrative oversight.

When a user, role, or service is assigned to a group, they automatically inherit the associated permissions, ensuring that access rights are applied consistently. This approach reduces administrative effort, enhances security, and enables organisations to enforce role-based access control effectively. By leveraging custom groups, organisations can improve operational efficiency, maintain compliance, and optimise the management of users, roles, and services within their system.

Prerequisites

In order to use groups you will require the following:

- Cambrionix Hub API (at least V 3.22.0)
- Users and Services to be grouped created or added within your organisation
- A sufficient Cambrionix Connect License is required. (To use this feature, you will need a license supplied by Cambrionix Ltd. Currently, the license is not available, but it will be coming soon. If you are interested in using this feature once the license is available, please contact enquiries@cambrionix.com.)

17.1. Creating Groups

To create a group within your organisation, start by navigating to the organisation page within the application and selecting the specific organisation where you want to add the group.

Once you've accessed the organisation, scroll down to the groups section in the organisation overview. Here, you'll see a list of any existing groups. To add a new group, click on manage groups, which will take you to a detailed groups page. From there, select create group to begin the process.

Creating a group is straightforward—simply enter a name and a description for the group. Unlike other sections, no additional details are required at this stage. Once the group is created, you can then assign users, roles, and services as needed to define access levels and permissions.

After finalising the details, click create group to complete the process. The new group will now be available within your organisation, allowing for easier management of permissions and access control.

17.2. Assigning Users and Services

Once you have successfully created a group, you can assign users to it by navigating to the users section within your organisation. Select the user you want to assign, and within their profile, you will find a groups section. Clicking on this section will open a dropdown menu where you can select one or more groups to assign the user to.

Each user can belong to multiple groups, allowing for flexible role management and access control. Assigning users to groups ensures they inherit the correct permissions and access levels, streamlining organisational management and improving efficiency. By maintaining well-structured group assignments, you can better control user access and optimise permission handling across your organisation.

17.3. Managing Roles within Groups

If you need to manage roles within a group, you can do so from the group management section. Start by navigating to the groups section within your organisation and selecting the specific group you want to manage. Within the group settings, click on manage roles, which will take you to a dedicated page for role assignments.

On this page, you will find a roles section where you can view and manage the roles assigned to the group. Clicking on this section will open a dropdown menu displaying all available roles within your organisation. From here, you can select or remove roles as needed to customise the group's access and permissions.

Once changes are made, they will automatically apply to all users and services assigned to the group, ensuring that permissions remain consistent and up to date. This approach allows for streamlined role management, making it easier to control access levels across different teams and services within your organisation.

You can create and manage roles within your organisation, for more information see the [Roles \(Licensed\)](#) page of this user manual.

18. Metadata (Licensed)

The Cambrionix Connect application includes a feature that allows users to create and manage metadata for both hubs and connected devices. This capability enhances the organisation and management of resources within the Cambrionix Connect environment.

By enabling the definition of custom metadata attributes, users can add descriptive information to their devices and hubs. This makes it easier to tag, categorise, and search for resources based on specific criteria such as device type, manufacturer, connection history, or custom tags.

This additional layer of information is particularly useful in environments where multiple hubs and devices are in use, as it helps users to organise and track these resources more effectively. The metadata can also support decision-making by providing detailed insights into device status, power usage, and other relevant factors. For instance, users can monitor the status of each port, track power consumption, and ensure that devices are used in line with organisational policies.

Overall, the metadata feature in Cambrionix Connect provides users with tools to better manage and monitor their USB hubs and connected devices, which can be beneficial for maintaining efficiency and control, particularly in more complex setups.

Prerequisites

In order to use locations you will require the following:

- Cambrionix Hub API (at least V 3.22.0)
- The Host computer to be added to your organisation
- A sufficient Cambrionix Connect License is required. (To use this feature, you will need a license supplied by Cambrionix Ltd. Currently, the license is not available, but it will be coming soon. If you are interested in using this feature once the license is available, please contact enquiries@cambrionix.com.)

18.1. Metadata overview

Navigate to the hub or device for which you wish to add metadata. From this location, you will see a metadata overview that displays the property names and their corresponding values, such as "Shelf Location". Additionally, you have the option to edit or delete any previously created metadata entries.

18.2. Adding Metadata

Once you are at the metadata overview, you can click on 'Add Metadata' to open the metadata creation panel. From this panel, you can select a property name. We offer some predefined

property names, but you are also free to create any custom property name by typing it in.

Property	Description
Shelf location	This property is used to specify a shelf location, enabling you to quickly locate hardware when managing multiple hubs and devices.
Purchase Date	This property is useful for tracking your purchase date, aiding in warranty-related enquiries.
Device Role	This property allows you to add a short description, helping to clarify the role of the hub or device in your setup.
In Use	This is a straightforward true or false option that indicates whether a device is currently in use.

After choosing or creating the property name, the next step is to specify the type of data. You can choose from the following options:

Data Type	Description
Text	This is a text field where you can enter any text to define a custom property.
Number	This is a field where you can enter a number, which can be either an integer or a decimal.
True/False	This represents a simple value of either true or false.

Once the data type is set, you will then need to enter the value corresponding to that data type. After completing these steps, you can either press the '+' button to add another line of metadata or click the save icon to save the current metadata entry.

19. Virtual Hubs (Licensed)

From this page, you can create and manage 'Virtual Hubs'. A Virtual Hubs is a collection of ports that Cambrionix Connect will treat as a single hub. You can navigate to this page by selecting it in the Navigation Panel. In Cambrionix Connect versions prior to 3.3.0 this feature was called 'Dynamic Hubs' and was located in the settings.




A sufficient Cambrionix Connect License is required. (To use this feature, you will need a license supplied by Cambrionix Ltd. Currently, the license is not available, but it will be coming soon. If you are interested in using this feature once the license is available, please contact enquiries@cambrionix.com.)

19.1. Virtual Hubs Overview

When you navigate to 'Virtual hubs' you can view all the current virtual hubs that have been created on your organisation from the list view you can see the following information:

- Virtual Hub ID - A unique ID for the virtual hub
- Name - A custom name decided by the user
- Description - A custom description decided by the user
- Hubs - The amount of hubs used in the virtual hub
- Ports - The amount of ports used in the virtual hub
- Last Updated - The last time the virtual hub was updated
- Actions - Click to view information on a specific virtual hub

[+ Create Virtual Hub](#)

Virtual Hub ID	Name	Description	Hubs	Ports	Last Updated	Actions
34d0a292-a4f4-4516-b9cb-124ac8e4b240	Hub Board T15 x2	A hub consisting of two T15 boards	2 	28	9 days ago	View
9943e768-f10f-4693-89f8-ba17fbf77a7a	iPad Hub	A collection of ports in use by iPads	6 	29	13 days ago	View
e6c9f9ca-cc2b-4d29-9a8b-caad14e8031d	shelf 4	shelf 4	2 	3	about 20 hours ago	View

Rows per page: 10 ▾
1-3 of 3
< >

You can switch between tile and list views from the page depending on personal preference. You can also filter and sort the virtual hubs and customise the columns that are visible on your overview.

19.2. Creating Virtual hubs

To create a virtual hub, click the 'Create Virtual Hub' button at the top of the page. Once selected, you will be prompted to create a name and description for the virtual hub. We recommend making the name unique and the description detailed enough so you know the purpose of the virtual hub. For example, "S4R2 - Shelf four in room two" could indicate a virtual hub for all hubs and ports on shelf number four in room two.

Once you have confirmed the name and description, you will be able to select the hubs you wish to include in the virtual hub. If you have the relevant licence, you will be able to select hubs from any of the remote computers in your organisation.

After selecting the hubs, you can then select the ports you wish to use. The hubs you have previously selected will be displayed, and you can use a drop-down menu to view and select all the ports you require.

Once all the hubs and ports have been selected, you will be given the option to assign a virtual hub number to each port. For example, if you have two hubs with sixteen ports in one location and device slots numbered one to thirty-two, you can match the virtual port numbers to your device slot numbers.

Finally, you will be shown all the previously entered information for review and confirmation before your virtual hub is created.

19.3. Viewing and Editing Virtual Hubs

Once a virtual hub has been created you can click on the tile or click the view button in list view. This will be open up the virtual hub where you can see all the previously selected ports in the same way you can view any hub in the Cambrionix Connect application. See the [Ports overview](#) section for more information on what can be seen and done.

If you click on the cog icon you will go to the virtual hub settings, this will then open up the hardware information on all the hubs included with the virtual hub. You will also see all the ports in the virtual hubs along with the virtual port number that has been assigned to it. You can delete and edit any virtual hubs from the settings section.

20. Features

Below you can see a table of all the features of Cambrionix Connect

Feature	Unlicensed	Licensed
Hub Control		
View connected hubs	✓	✓
Control ports on hubs	✓	✓
Manage internal hub settings	✓	✓
Update hub firmware	✓	✓
Perform diagnostics tests on hubs	✓	✓
Developer area for creating and testing your own API scripts	✓	✓
Device Control		
View device information	✓	✓
View mobile device battery information	✓	✓
Control, manage and update devices in Connect		coming soon
Device Firmware Update (DFU) mode for iOS and macOS devices		coming soon
Organisation Management and Search		
Cambrionix service status notifications	✓	✓
Create custom groups for hubs and devices		✓
Add metadata to hubs and devices		coming soon
Create and save hub and device filters		coming soon
Virtualise multiple hubs as one hub		✓
Receive email notifications when new firmware updates are available for hubs		coming soon
Remote Access		
Connect to remote hosts to control, manage hubs and devices		✓
View last status of hubs and devices when hosts or devices are offline		✓
Workflows and Automation		
Automate port control at specific times and or when devices reach a defined charge level		✓

Feature	Unlicensed	Licensed
Security		
Setup and manage multiple organisations		✓
Invite and manage other users		✓
Maximum concurrent users	1	1 user per hub + 10 admins
Create and Assign custom user access roles		✓
Assign built-in roles		✓
Connect Audit Log		✓
Assign devices to specific users		✓

21. Solución de problemas

If you experience any issues with Cambrionix Connect; please try the following troubleshooting steps. If your issue is not addressed in this section, please get in touch with your local vendor or Cambrionix. To contact Cambrionix Support please see [Ayuda y soporte](#). For more information on troubleshooting with your hardware please see the troubleshooting section in your products user manual. www.cambrionix.com/product-user-manuals

21.1. Logging through Cambrionix Connect

Si está experimentando un error o un problema, es posible que le pidamos que obtenga algunos registros del comportamiento para ver con más detalle lo que está sucediendo. To get logs of the behaviour use the following steps to get a zip file of them to send to us.

1. Open up the Cambrionix Connect application.
2. Once inside, select the Computers tab.
3. Then, select the button 'Go to settings'.
4. Then, under the 'Host API' section, select 'Configure'.
5. From here, you should see a section titled 'API Logging Sections'. Expand the 'Advanced logging settings' downwards.
6. Haga clic en la casilla de verificación "seleccionar todo" y luego en el botón Guardar.
7. Después de habilitar esto, use el concentrador de una manera que cause el problema que está viendo.
8. Espere a que ocurra el problema
9. Make a note of the time and date that the issue occurs then go back to the API page in Cambrionix connect, and press the zip logs.
10. Una vez que tenga los registros, desmarque la casilla "seleccionar todo" y guarde su configuración.
11. Envíenos los registros para que los revisemos.

La API mantiene un máximo de 20 registros de 256 Mb cada uno, por lo que el último suele ser más pequeño. Si se produce un bloqueo, verá un archivo de registro más pequeño y la siguiente instancia de la API mezclará las existentes.

Ubicaciones predeterminadas

Los mensajes de registro generados por CambrionixApiService van a syslog.

Al usar Windows, los registros se establecerán de manera predeterminada en la siguiente ubicación

```
C:\ProgramData\Cambrionix
```

Al usar macOS, los registros se establecerán de forma predeterminada en la siguiente ubicación

```
Biblioteca>Registros>Cambrionix
```

Al usar Linux, los registros se establecerán de manera predeterminada en la siguiente ubicación

```
/var/log/cambrionix
```

Using with a headless system

If you are using a headless system with no GUI, then and you require to enable logging for support issues, you can use the following command to create the logging cfg file manually:

```
echo  
    *=DEBUG>/etc/opt/cambrionix/cambrionix.log.cfg
```

Luego, después de reproducir el problema, puede comprimir los registros de la carpeta

```
/var/log/cambrionix
```

Puede eliminar el archivo a continuación cuando haya terminado con él.

```
/etc/opt/cambrionix/cambrionix.log.cfg
```

Using Cambrionix Connect with Safari

When using Cambrionix Connect with a local connection to the Hub API, Safari may block the connection because it requires HTTPS (a secure connection). To fix this, you need to use a certificate to tell Safari that the connection is safe.

Here's how you can make Safari accept the connection:

Create a Self-Signed Certificate A self-signed certificate is a way to secure localhost yourself. You can use tools like OpenSSL to create one. Once you have the certificate, you need to tell Safari to trust it:

1. Open Keychain Access on your Mac (under Applications > Utilities).
2. Drag and drop your certificate into the System keychain.
3. Find the certificate, double-click it, and set Always Trust in the Trust section.
4. Save and enter your Mac password if needed.

You can also use mkcert for an Easier Option

If you want a simpler solution, use mkcert, a tool that automatically creates and installs trusted certificates for localhost. Just install it, run a few commands, and it will handle the rest for you. For more information on this please see the following [link](#).

21.2. Eliminación de software

If you wish to uninstall the software (Cambrionix Connect, Cambrionix Hub API and the Cambrionix Recorder Service) from your host system, the following steps can do this.

Windows™

Para eliminar el software de un sistema Windows™, puede hacerlo accediendo a "Agregar o quitar programas", buscando el software que desea eliminar, seleccionándolo y presionando "desinstalar".

macOS®

To remove the software from a macOS® system, locate the application in the Finder, drag the application to the Trash, or select the application and choose File > Move to Trash. Es posible que se le solicite que ingrese el nombre y la contraseña de una cuenta de administrador en su Mac®. Luego, para eliminar completamente la aplicación, seleccione Finder > Vaciar papelera.

Alternativamente, utilice las siguientes instrucciones.

```
sudo /Library/Cambrionix/ApiService/bin/CambrionixApiService --remove  
sudo /Library/Cambrionix/ApiService/bin/CambrionixRecorderService --remove
```

Linux®

Para eliminar software en Linux® hay dos opciones.

La primera es usar el Centro de software, luego la lista de aplicaciones instaladas o la barra de búsqueda para encontrar el software que desea eliminar. Una vez que haya seleccionado la aplicación, haga clic en el botón Eliminar y se le solicitará una contraseña, ingrese la contraseña y se eliminará el software.

La segunda forma de eliminar el software es mediante la línea de comandos. Todo lo que necesita hacer es usar el comando de la siguiente manera:

```
sudo apt remove program_name
```

Variable	Descripción
<i>program_name</i>	The file name of the program including any version numbers

Se le pedirá que ingrese la contraseña de su cuenta. Cuando lo ingreses, no se ve nada en la pantalla. Deberá confirmar la eliminación, le pedirá su confirmación, presione la tecla Intro o la tecla Y: tenga en cuenta que deberá usar el nombre exacto del paquete en el comando apt remove, de lo contrario, mostrará 'no se puede ubicar error de paquete'. Puede escribir las primeras letras del programa que desea desinstalar y luego presionar la tecla de tabulación. Mostrará todos los paquetes instalados que coincidan con esas letras al principio de sus nombres.

Uso de marcas comerciales, marcas comerciales registradas y otros nombres y símbolos protegidos

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- Código fuente: El código fuente de nuestro software es propietario y no se puede proporcionar.

- Métodos propietarios: Las descripciones detalladas e implementaciones de nuestros métodos propietarios también están protegidas.

Como tal, las solicitudes de acceso al código fuente u otra información protegida serán rechazadas respetuosamente. Agradecemos su comprensión y cooperación.

Patentes Cambrionix

Título	Enlace	Numero de aplicacion	Conceder número
Puerto de sincronización y carga	GB2489429	1105081.2	2489429
CAMBRIONIX	ES00002646615	2646615	00002646615
CAMBRIONIX MUY INTELIGENTE...	ES00002646617	2646617	00002646617

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