



Commander Hub Overview

Commander Hub is the cloud-based meeting place for Commanders, their owners, their installers, and their service providers.



Commander Hub extends the power of Commander, North's building controller, by providing easy remote viewing and editing, long-term recording of building data, and management of shared access.

Shared remote monitoring

Commander Hub provides secure remote monitoring and editing, without the need for on-site PCs or a complex VPN set-up. All building data is encrypted, in transit and at rest.

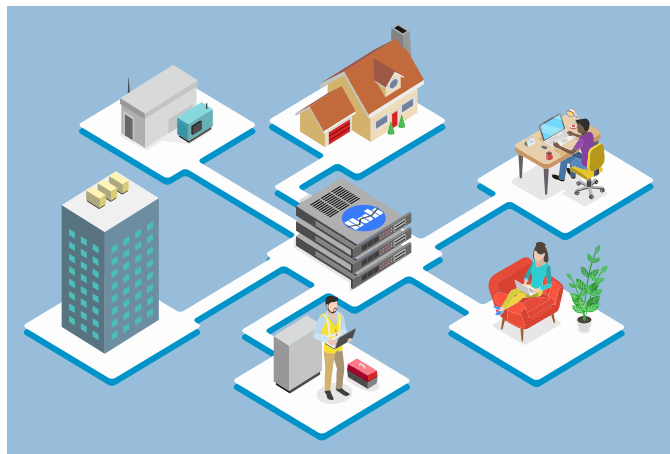
Commander Hub sends pro-active notifications when events occur in Commander.

Commander Hub is built around managed shared access. Users can invite others to view data from their Commanders easily, to help improve building operation.

Who is Commander Hub for?

For a building occupant, Commander Hub stores data from their building and provides simple value adjustment. Stored data can be viewed from anywhere. Data access can be shared easily with service providers, who can then offer better support, whilst keeping your IT networks secure.

For an installation company, Commander Hub provides remote monitoring and editing, without the need for on-site PCs or complex VPN set-up. All Commander's Essential Values are recorded to the Hub, and historical data can be examined from anywhere. A history of events, called alarms within Commander, is also available.



For a maintenance or service provider, Commander Hub combines multiple client sites into a single dashboard, enabling easier real-time monitoring that can become more pro-active. It simplifies the management of staff access to your end-user's sensitive data. It also enables new layers of operation, such as concierge services for busy customers.

For North, Commander Hub allows us to add enhancements without affecting any operational Commanders.

Data Collection

Each Commander monitors every entry in its Essential Values and Alarm History and records any changes locally. Then, typically every 5 minutes, it sends those changes to Commander Hub, where they are stored.

Secure data transfer and storage

Commander encrypts data using AES-128, before sending the data to Commander Hub. The data stays encrypted when it is stored. Commander Hub decrypts the data when an authorised user views the data – and this is visible only over secured server-to-browser links.

Redundant servers

Redundant servers are used to increase reliability. Commanders can send the encrypted data to either. Each server shares received data with the other, naturally creating a data backup. The servers are in different locations and use different communications providers.

Easy connectivity from anywhere

Commanders are responsible for sending data to Commander Hub. They use standard protocols, so most networks require no firewall modification. Data requests are always outgoing, so no incoming servers or VPNs are needed on the Commander's network. Static IP addresses are not required as the servers do not contact the Commanders, so even low-cost 3G/4G routers can be used.

Browsers on PCs, laptops, tablets, TVs, and mobile phones can be used with Commander Hub - access from anywhere!

Privacy

Privacy is hugely important, especially when buildings have people inside, so is a major part of Commander Hub. Here is how it works.

A user is given a role that defines the tasks the user can perform with a particular Commander's data. There are four different roles: Owner, Manager, Editor, and Viewer.

Role	Level	Edit values	Assign Roles
Owner	Highest	Yes	to Owner level
Manager	High	Yes	to Manager level
Editor	Medium	Yes	No
Viewer	Low	No	No

Ownership

By default, a Commander does not send any data to the Commander Hub – the feature must be enabled within the Commander and initial ownership established. The initial owner may be an engineering company working remotely, or an end-user in whose property the Commander physically exists.

Ownership can be passed from one user to another – perhaps when an engineering company hands over a working system, or when a property is sold.

Whoever has ownership ultimately controls the role other users can perform with a Commander's data.

Walkthrough

Commander Hub is available at www.cmdrhub.com

Below is a brief walkthrough of the main webpages of Commander Hub. For clarity, the diagrams do not show the website's navigation menu or title bars.

My Hub

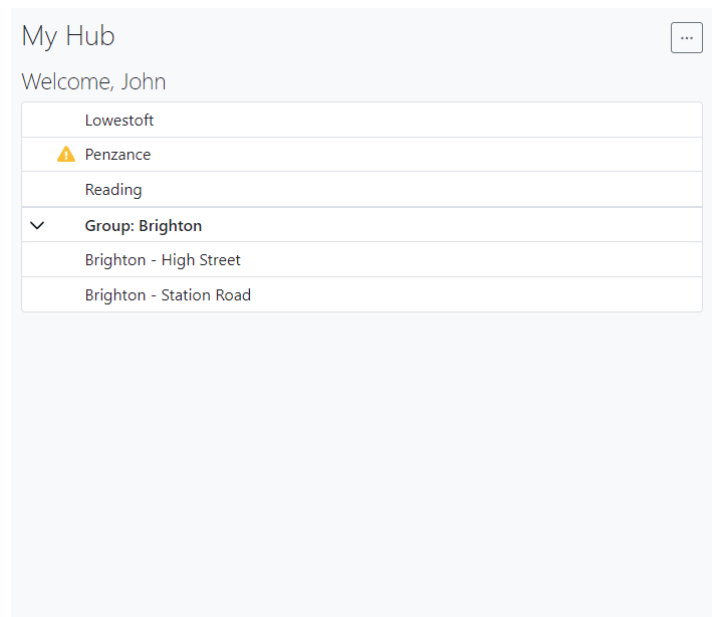
After you sign into Commander Hub, you see the list of Commanders you can access.

A warning triangle appears next to a Commander if it has had events during the day, any Essential Values are not currently healthy, or the device itself is not healthy.

You can specify your own label and location details for each Commander, and include the Commander in a group using a hyphen in the label.

Click on a group name to expand the group and see the Commanders within. Click on the Commander's label to see its Overview page.

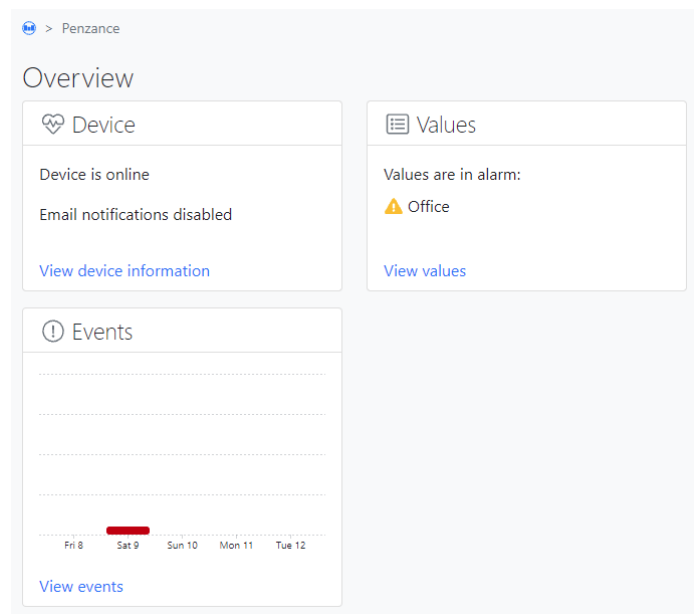
The Options menu allows sorting based on condition, and the ability to search.



Commander Overview

When you select a Commander, its Overview page is shown, which highlights areas within the Commander that need more investigation: the device itself, the values, or the events.

Click to look deeper into the device's information, view the latest values, or examine the events.



Latest Values

Each Commander periodically sends its Essential Values to Commander Hub, where they can be viewed.

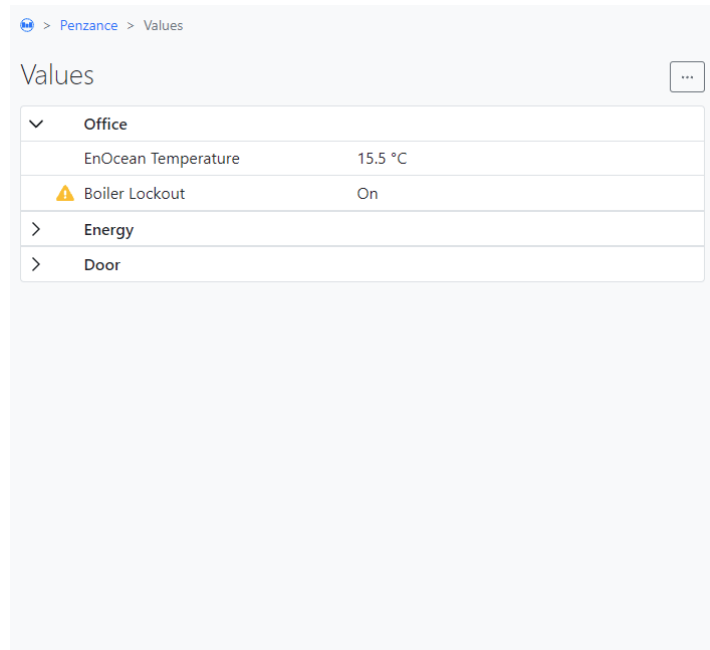
Values are presented using the same page/value structure as they are defined within Essential Values.

Click on a page name to expand the page and see its values.

Click on a value to view its summary.

The Options menu allows the list to be sorted as required.

Note: as Commander sends values typically every 5 minutes, the values may be up to 5 minutes old.

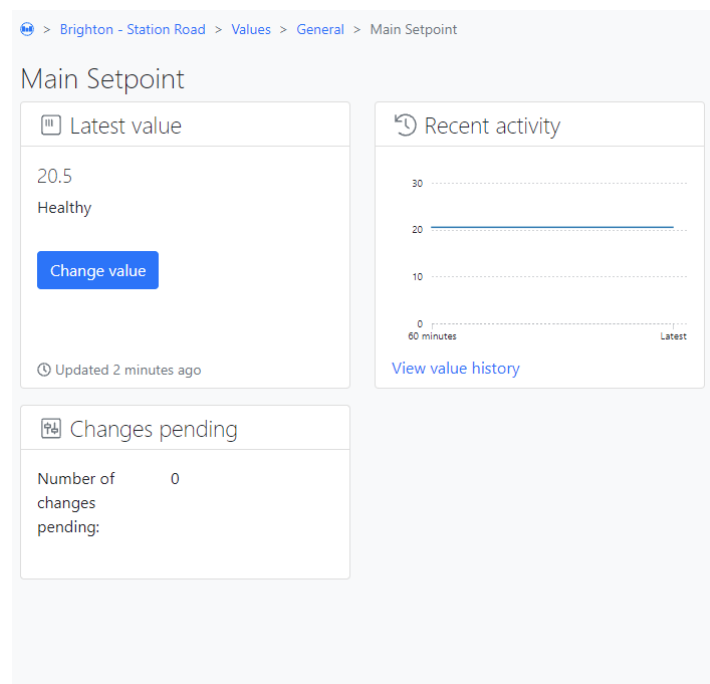


Value Summary

When you select a value, Commander Hub shows a summary of that value, including any alarm condition; a graph of recent changes; and if you have privileges, a 'Change value' option.

Click on 'Change value', set the required value on the popup window and press 'Save changes' – the new value is held at Commander Hub until Commander requests changes – which it usually does after sending data to the Hub.

Click on 'View value history' to view historical data already collected by Commander Hub.



Value History

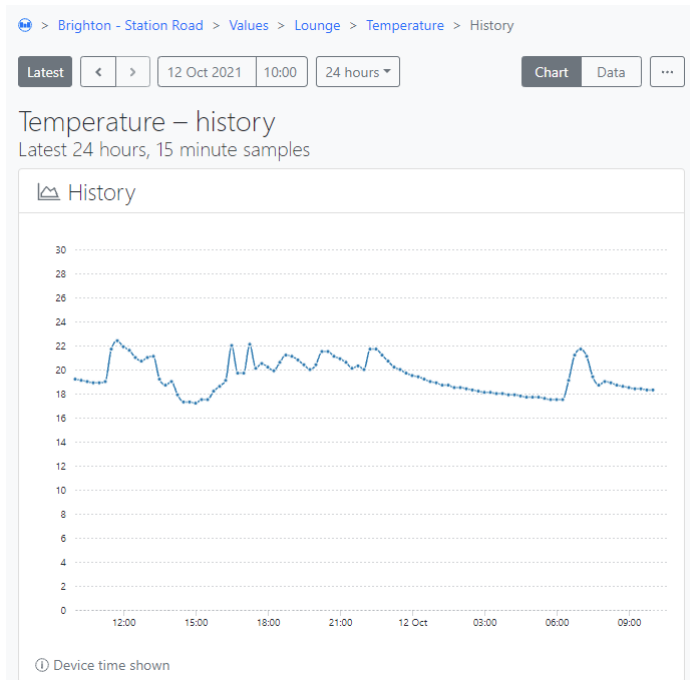
Commander Hub remembers all values sent by the Commander. The History page shows how a value changes over a period.

It is possible to select a different sample rate and period: all data samples over a 1-hour period; 1-hour samples over 7 days; 4-hours samples over 28 days, up to 7-day samples over 2 years.

Choose the period of the Chart by using the back/forward buttons or by specifying a date and time.

Other graphs of the data are shown: The Distribution graph shows the frequency of values in the period; the Healthy graph shows the percentage of samples which were out-of-range or had communications faults.

Choose the Data view to see the values in a text form, with more sorting options. The data text can be exported as a CSV file for importing into other data packages.



Events

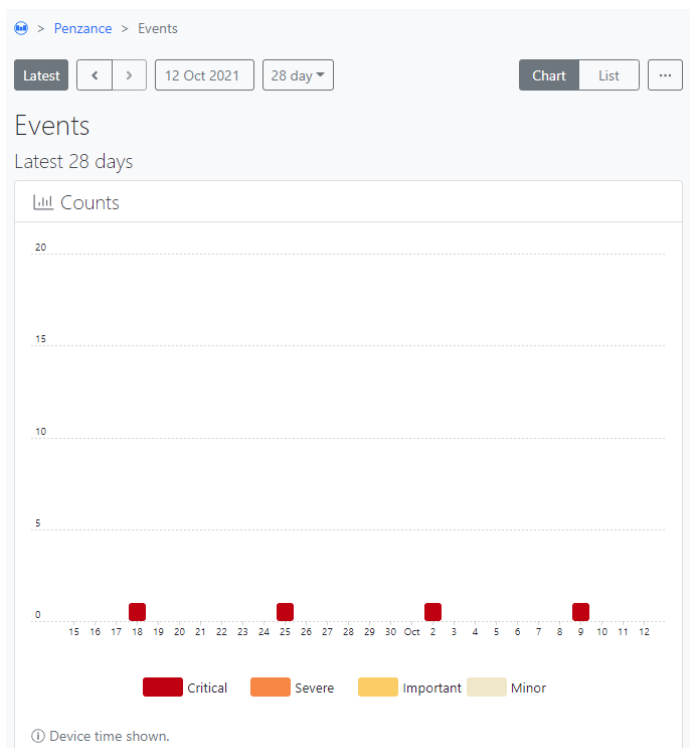
Besides sending Essential Values, Commanders also send alarms in their Alarm History. These events can be viewed as a Chart of event counts over time, or as a List of the event text.

The Chart view shows the number of events of different priorities that occurred on different days over a period. The event priorities in different colours. You can easily see which days were more eventful.

Choose the time shown in the graph by using the back/forward buttons or by selecting a specific date.

The List view shows the text of each event. Text is made up of a point name (where the event came from), a condition (what has happened to the point), a priority (how important the event is), and the date and time that the event occurred. The events in the table can be sorted as required.

The List can be exported as a CSV file for importing into other data packages.



Users and Sharing

If you have been assigned Owner role for a Commander, you can see the usernames of all others with access to the Commander; if you have been assigned Manager role, you can only see those who have Manager, Editor, or Viewer roles.

Click on an existing username to change their role or remove their access to the Commander's data.

Click on 'Share' to give a role to another user. You will need to know their username on Commander Hub to do this. When you give someone a role, you can choose not to share your personal Commander label and location details with them.

Note: you cannot change your own role – only another user with the same or higher-level role can do this.

Role: Manager	
JohnSmith	Manager
NorthTM	Manager

Role: Viewer	
NorthGS	Viewer
NorthJF	Viewer
NorthSales	Viewer

Device Information

Commander Hub collects other information from a Commander that might be useful for different users, including your own device and location name for the Commander, physical switch settings, battery status, restart information, and interface information including software versions.

Click on the Device Name to change your own name for the Commander.

Click on the Location name to change your own location details for the Commander.

Click on the Email notifications to enable an email when the Commander sends an event, or if the Commander stops reporting to the Hub.

My settings	
Device name	Brighton - Station Road
Location name	
Email notifications	Disabled

Hub connection	
Device last seen	4 minutes ago
Hub licence expires	31/12/2022
Value changes pending	0

Device hardware	
Date & time	12/10/2021, 10:15:01
Default configuration	Saved
Battery	OK
Program switch	On
Default IP switch	Off
IP address	0

Last restart	
Date & time	07/10/2021, 14:44:59 (device time)
Reason	User
Total restarts	162

Compatibility

Commanders with firmware dated October 2021 or later can work with Commander Hub. Commanders produced after January 2015 can be updated if required to work with Commander Hub.

Next Steps...

If you have a Commander with the latest firmware, and want to connect it to Commander Hub, follow these steps:

- Enable Commander Hub operation within the Commander. This can be done from the Support page within the Commander's local webpages or by using North Engineering Software.
- Wait for Commander to send some data to Commander Hub. Commander sends a full data capture every 15 minutes, on the quarter-hour.
- Register as a new user on Commander Hub. Go to www.cmdrhub.com to start. You will need a working email address to complete this.
- Sign in to Commander Hub. On the My Hub page, from the Options menu, select 'Add device...', and tell Commander Hub the Serial Number and Registration Code of your Commander – these are available on the Commander's local webpage.

If the Support page within the Commander's local webpages doesn't have a Hub Connection section, ask your installer to update the Commander's firmware.



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