



USER GUIDE

**cnHeat 1.0**



**Accuracy**

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# cnHeat Overview

Built upon Cambium Networks' expertise in RF planning, propagation, and modeling as seen in LINKPlanner and integrated with GIS data down to 1-meter precision, cnHeat generates highly accurate RF predictions and derivative services that accurately represent the reality of the RF world.

## How to Login

cnHeat can be accessed via a supported web browser at <https://cnheat.cambiumnetworks.com>.



**Note** Currently Chrome and Firefox are the only supported web browsers.

At the prompt, enter your cnHeat account name and password:

Figure 1 Login Screen

Please enter your cnHeat account name and password

Account Name

Password



**Note** The account name and password are provided after an order has been placed and the account has been properly activated. For more information, visit the Cambium Networks website at <https://www.cambiumnetworks.com/products/software/cnheat>.

## How to Navigate

The following types of navigations are supported:

- **Mouse**
- **Keyboard**
- **Onscreen**

### Mouse

- **Pan:** Click + Drag
- **Zoom In:** Double Left Click
- **Zoom Out:** Double Right Click
- **Zoom In/Out:** Wheel Scroll

## Keyboard

- **Pan:** Arrows
- **Page Pan:** Home/End/Page Up/Page Down
- **Zoom In:** (+)
- **Zoom Out:** (-)

## Onscreen

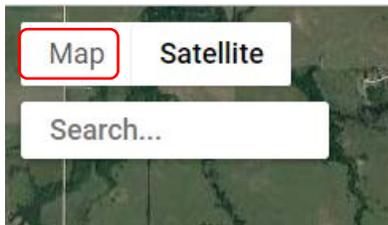
**Zoom In/Out:** +/- buttons (Bottom right corner of screen)



## How to toggle between base maps

cnHeat supports the standard Road and Satellite base maps from Google. By default, Satellite view is selected. To select the Road map, click the **Map** button in the upper left corner of the **Screen**.

**Figure 2 Toggle between base Maps**



Click **Satellite** to revert to the Satellite base map.

## How to search for a location

A search bar has been added to assist in navigation. When the address is known click the **Search** button, type the address, and hit the Enter key on the keyboard. The map will attempt to place a red marker and navigate to the location identified.

Figure 3 Search Location

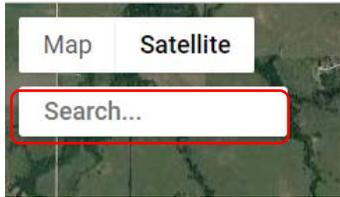
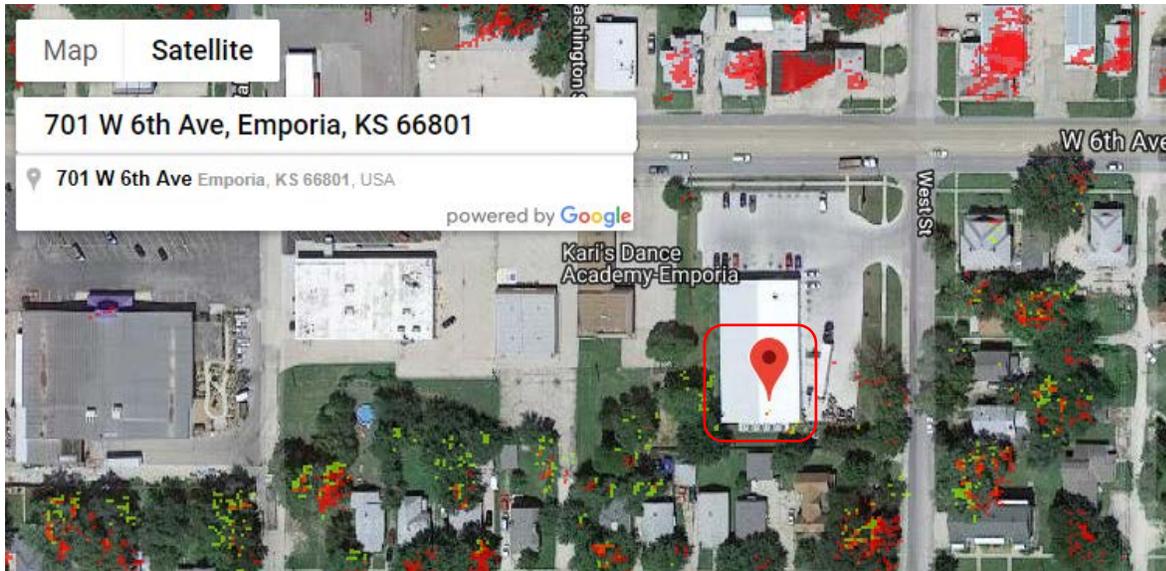


Figure 4 Search Location (Sample)



**Note** All locations provided through the **Search** button are best effort and as such the accuracy is not guaranteed. When possible seek additional means to verify the position of the address. (e.g. customer description of the property or turn by turn directions from the customer).

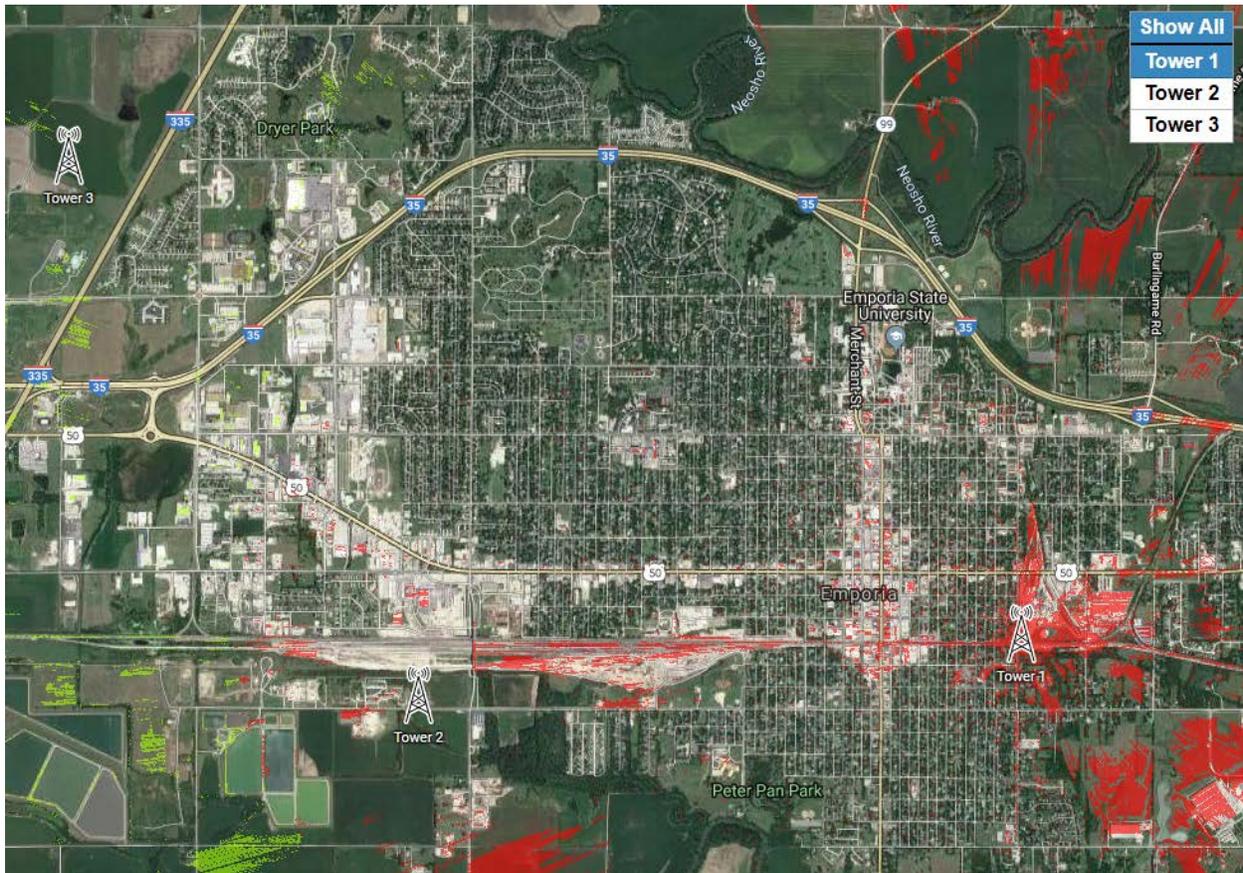
## How to enable/disable coverage

Because it may be desirable to hide coverage from certain towers when reviewing connectivity options, the coverage for each tower can be enabled/disabled by Left Clicking the tower name in the top right corner of the screen. Blue background indicates the coverage is enabled and white background indicates the coverage is disabled.

In the below example, Tower 1 is enabled while Towers 2 and 3 are disabled.

All the towers can be shown at the same time by Left Clicking **Show All** in the top right corner of the screen. If all towers are selected, then **Show All** is changed to **Hide All**. Left Clicking **Hide All** causes all towers to be unselected.

Figure 5 Enable/Disable coverage



## How to adjust opacity of coverage

A slider has been provided in the bottom right corner of the screen to allow the user to adjust the opacity of the coverage maps. This can be important when the coverage obscures the base map below it.

Sliding to the left reduces opacity while sliding to the right increase opacity.

Figure 6 Adjust opacity of coverage



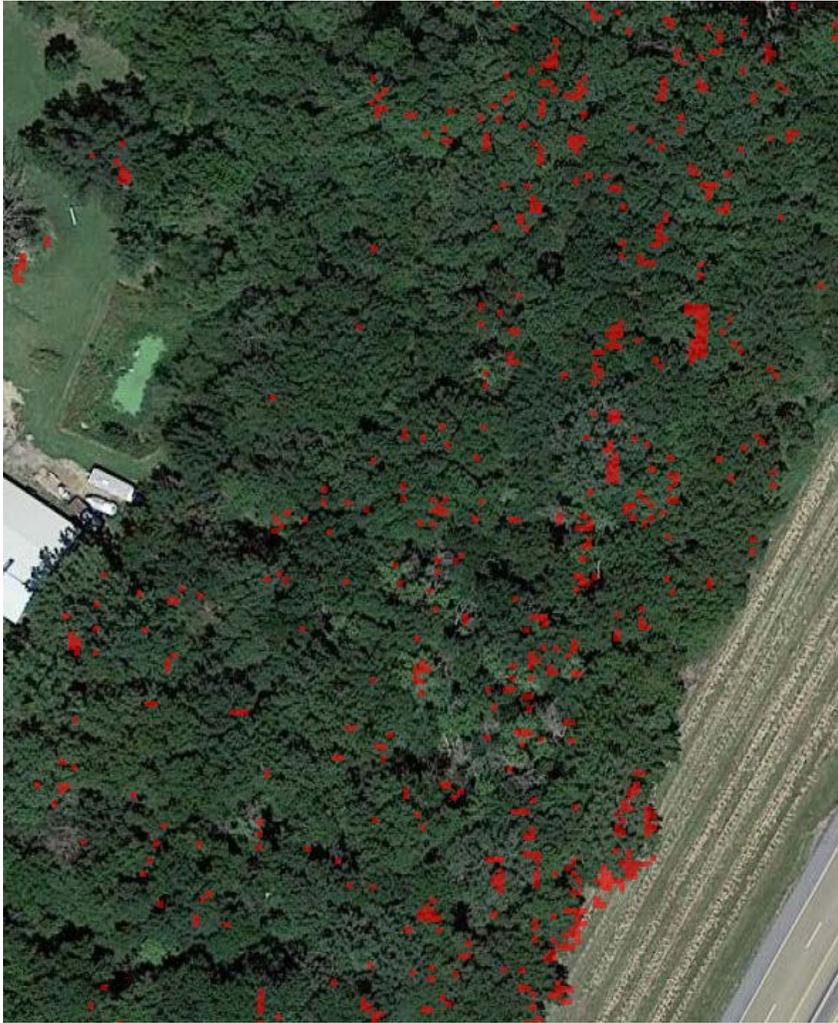
## How to interpret data

This section provides the following details:

- [Color coding of coverage](#)
- [Trees](#)
- [Confidence](#)
- [Phantom coverage](#)



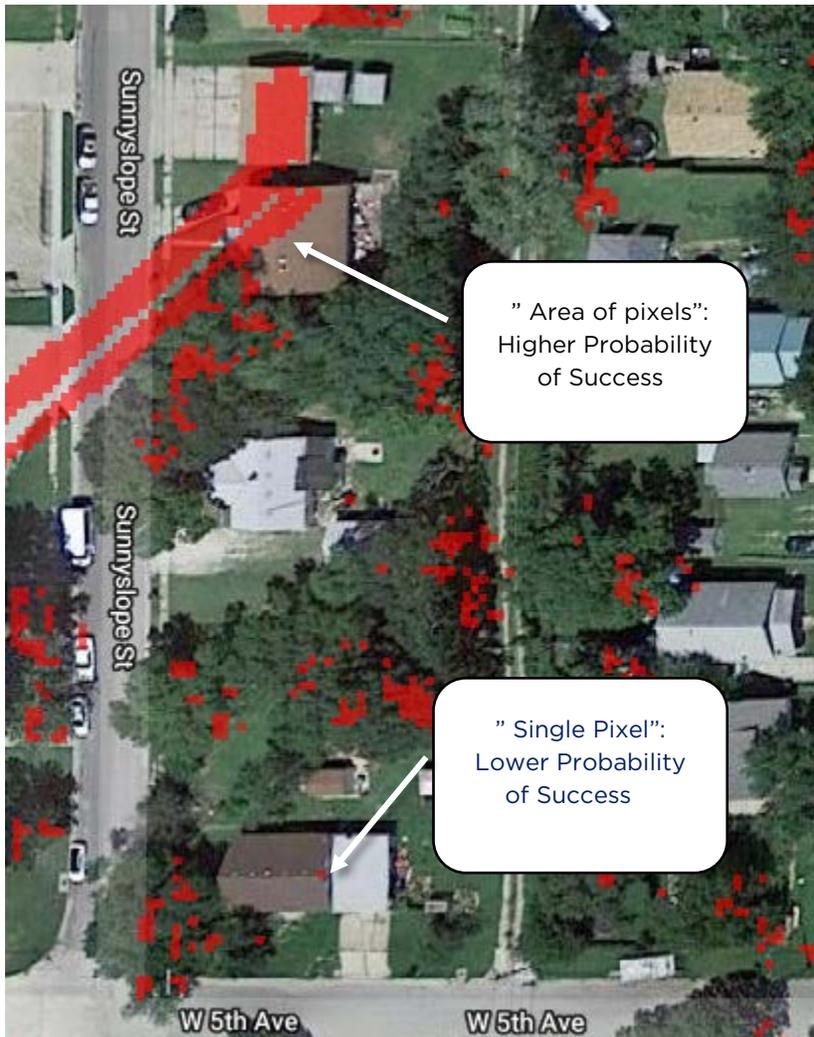
Figure 8 Trees



## Confidence

The confidence of connectivity can typically be correlated to the number of pixels shown for a building.

Figure 9 Confidence



**Note** In cases where the probability of success is lower, the risk can typically be mitigated if the height of the SM can be raised above the height of the prediction.



**Note** The cnHeat service provides estimates of wireless coverage based on information provided by customer and other publicly available information. The maps produced by the cnHeat service are maps of estimated coverage and should be used for informational purpose only. Cambium makes no guarantees that such maps are accurate.

## Phantom coverage

cnHeat is a composite of multiple data sets taken over different points in time. As such datasets will not always align and sometimes phantom coverage is created.

### Example:

A tree was present in RF prediction data but is missing in Google satellite base map. Consequently, cnHeat appears to falsely show coverage at this location.

Figure 10 Phantom coverage



This anomaly can typically be identified because coverage in trees tends to show a distinctive “shotgun” pattern. Also, in this case coverage starts in the yard and extends over a portion of the home which is unlikely given the grove of trees around the property and the lack of coverage for other buildings in the area.

## Cambium Networks

Cambium Networks provides professional grade fixed wireless broadband and microwave solutions for customers around the world. Our solutions are deployed in thousands of networks in over 153 countries, with our innovative technologies providing reliable, secure, cost-effective connectivity that's easy to deploy and proven to deliver outstanding metrics.

Our award-winning Point to Point (PTP) radio solutions operate in licensed, unlicensed and defined use frequency bands including specific FIPS 140-2 solutions for the U.S. Federal market. Ruggedized for 99.999% availability, our PTP solutions have an impeccable track record for delivering reliable high-speed backhaul connectivity even in the most challenging non-line-of-sight RF environments.

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Cambium Networks solutions are proven, respected leaders in the wireless broadband industry. We design, deploy and deliver innovative data, voice and video connectivity solutions that enable and ensure the communications of life, empowering personal, commercial and community growth virtually everywhere in the world.

## Contacting Cambium Networks

Support website:	<a href="https://support.cambiumnetworks.com">https://support.cambiumnetworks.com</a>
Main website:	<a href="http://www.cambiumnetworks.com">http://www.cambiumnetworks.com</a>
Sales enquiries:	<a href="https://www.cambiumnetworks.com/solutions/">https://www.cambiumnetworks.com/solutions/</a>
Support enquiries:	<a href="https://support.cambiumnetworks.com">https://support.cambiumnetworks.com</a>
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