ClickShare Application Note:
Wi-Fi considerations during ClickShare installation

Summary:

Optimize your ClickShare's Wi-Fi performance and reliability by using the following guidelines during ClickShare Base Unit installation.

Requirements:

- ClickShare Base Unit with access to the web interface
- Free download InSSIDer software
- Location for installation

Description:

The strength of your Wi-Fi device is dependent on a number of environmental factors including distance, obstructions and interference.

Distance

The range of a Wi-Fi signal is maximum 30 meters however this can vary depending on the environment. Ideally the Base Unit should be installed in a central location to all clients (ClickShare Button/dongle) with a clean "line of site" between them. The antennas can also be adjusted towards the direction of the clients.

Obstructions

Physical obstructions also have an effect on Wi-Fi signal strength. Plaster and brick walls have the most negative impact but reflective surfaces such as windows and metal objects can also cause issues and should be avoided between the Base Unit and Clickshare Buttons. Since potential barriers such as furniture are normally on floor level it is recommended to place the Base Unit centrally on the ceiling if possible.

Interference

Wi-Fi interference can be caused from other wireless devices using the same channels and/or electrical equipment in close proximity. It is recommended that other electrical equipment is at least 1 meter (3 foot) distance if possible.

In additional to physical location you can also select the Wi-Fi channel used by the Base Unit in order to reduce the risk of using a channel which is too congested. ClickShare does not channel hop and the default frequency setting is 2.4GHz to accommodate devices which cannot use the 5GHz. **In more crowded environments where there are a number of Wi-Fi devices it is recommended to change this to a channel in the 5GHz band**
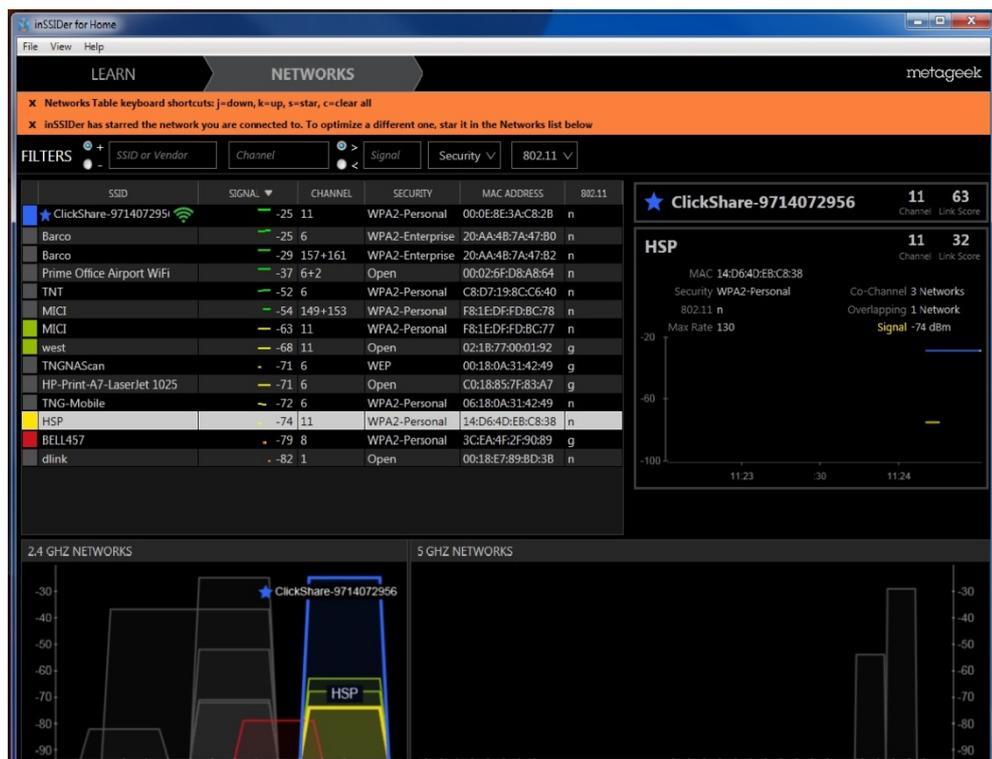
where there is less traffic resulting in improved performance and a better customer experience.

There are a number of tools available to analyze the Wi-Fi traffic in your location; we recommended a program called InSSIDer. It's a free download for PC that can be found at http://www.metageek.net/support/downloads/.

This program is:
- compatible with PC and MAC OS
- can measure the strength of the wireless networks in the area
- able to determine potential overlapping channel interference
- also available as a mobile app for iOS and Android

From the screen shot below you can see the four wireless networks active on the 2.4GHz spectrum using channel 11, but in this particular case the other networks are far enough away where performance should not be impacted by the demonstration. You can see in this scenario, there were very few active networks using the 5GHz spectrum which is why it is generally preferred.

Once you have designated the channel to use this can be selected in the ClickShare web interface under Wi-Fi settings. Please note that Wi-Fi regulations vary per country and only channels allowed in your area will be selectable.

Choose language: English ▼

ClickShare Base Unit

Setup Maintenance Help

Basic Wallpaper Display Audio **Advanced**

General Settings

Hostname: CS-Cloud

LAN Network Settings

Addressing: ● DHCP Assigned
○ Fixed Address

DHCP Client ID: [   ]

WiFi Settings:

IP Address: 192 . 168 . 2 . 1
Subnet Mask: 255 . 255 . 255 . 0
SSID: CS-Cloud
Broadcast SSID: ☑
Old Password: ••••••••
Enter New Password: [   ]
Confirm New Password: [   ]
Frequency Band: 2.4 GHz ▼
WiFi Channel: 6 ▼

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