LUNA SDAC Connectivity Guide

***** 5ghz WI-FI is not supported *****

For network connections, it is imperative to know the wireless security information from the router. Guessing can cause connections issues and frustration. Please contact router manufacturer if needed.

The following document will step through AD-HOC (peer to peer) connectivity from a WI-FI enabled PC to an SDAC, and how to then connect the SDAC to a local area network.

If the local network connection fails or changes, the AD-HOC (peer to peer) connection is always available, unless it is disabled; therefore, it is not recommended to disable the AD-HOC (peer to peer) connection.

When doing the AD-HOC (peer to peer) connection, the PCs wireless adapter does not need to be set with a static IP address. The SDAC will assign an IP address to the PC upon connection via DHCP.

When adding an SDAC to a wireless network, it is imperative to set a static IP address to the SDAC. Without a static IP address, the LUNA software will not be able to find the SDAC on the network. DHCP Reservation on the router can be done; however, it is recommended to set a static IP address within the SDAC unit.

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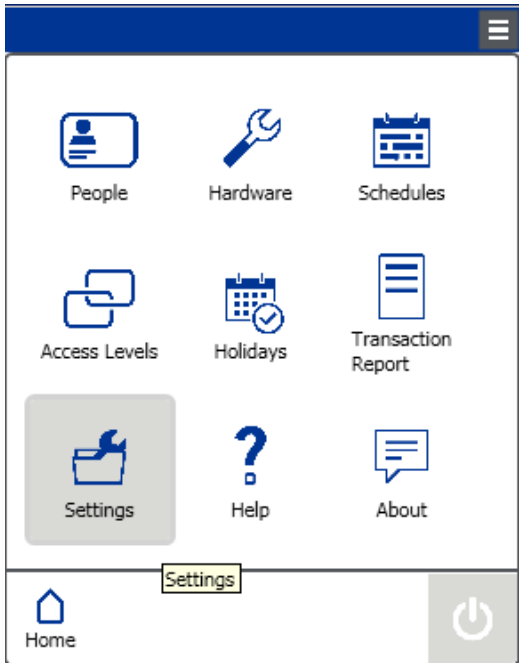
***NOTE**: This is not an official document and is not a LUNA guide or help file. This is a support guide only.*

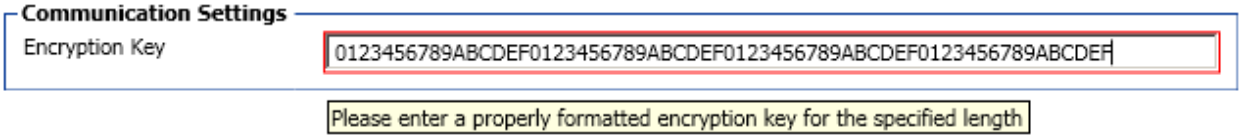
Creating an Encryption Key

Existing installations where a new SDAC is being added, can skip encryption key setup.

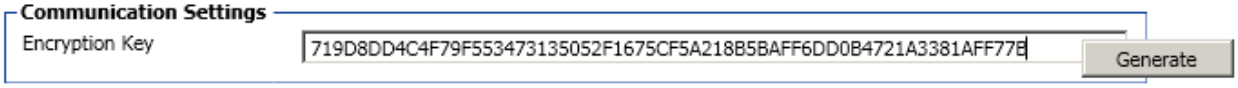
For all new installations, install and launch the Luna software, then go to the *Settings* menu.



Here you will find *Communication Settings* and a field called *Encryption Key*. This a 64bit hexadecimal key that needs to be generated or created before attempting to communicate or synchronize an SDAC. Hexadecimal values range from 0-9 and A-F. Values outside these ranges will not work.

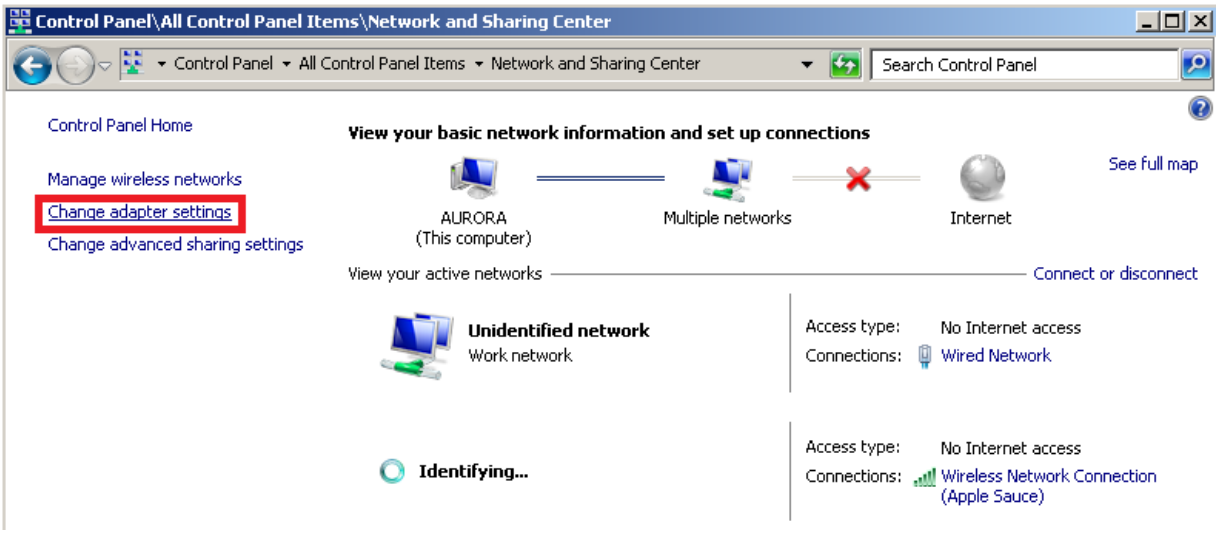


Doing a right click will display a *Generate* button that will create a key when clicked.

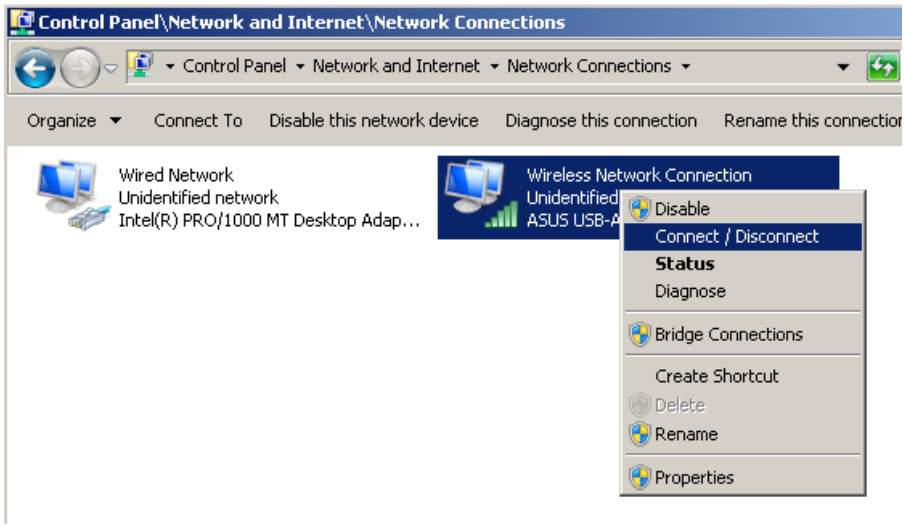


AD-HOC (Peer to Peer) Connectivity

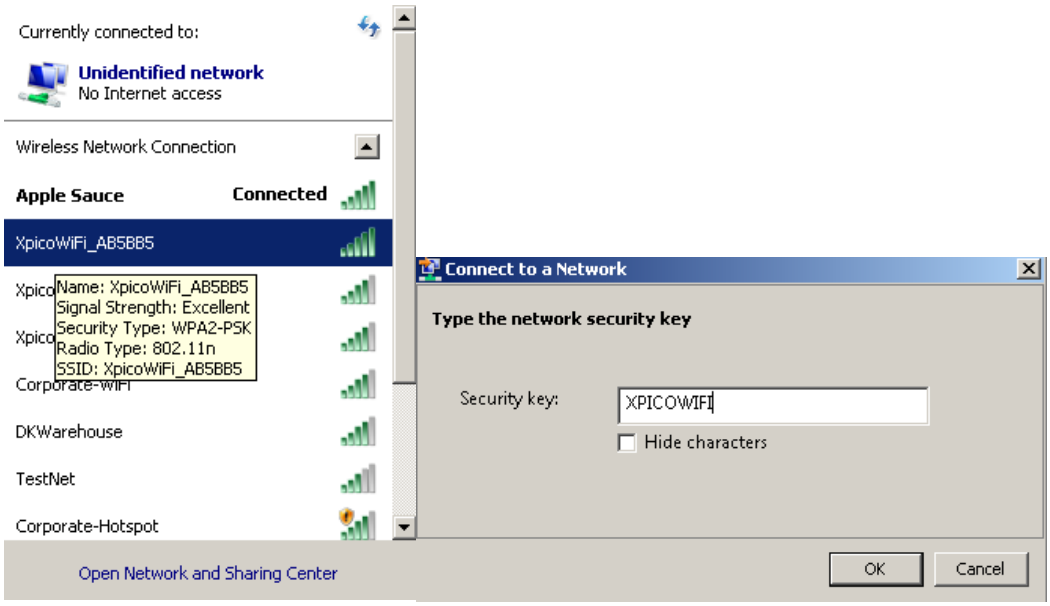
Go to Network and Sharing Center and click on *Change adapter settings*.



Right click on the wireless adapter and select *Connect/Disconnect*.



Look for the target SDAC in the list. It will be displayed as XpicoWIFI_xxxxxx, where the xxxxxx represents the last 6 digits of the SDACs MAC address. The security key to connect is XPICOWIFI.



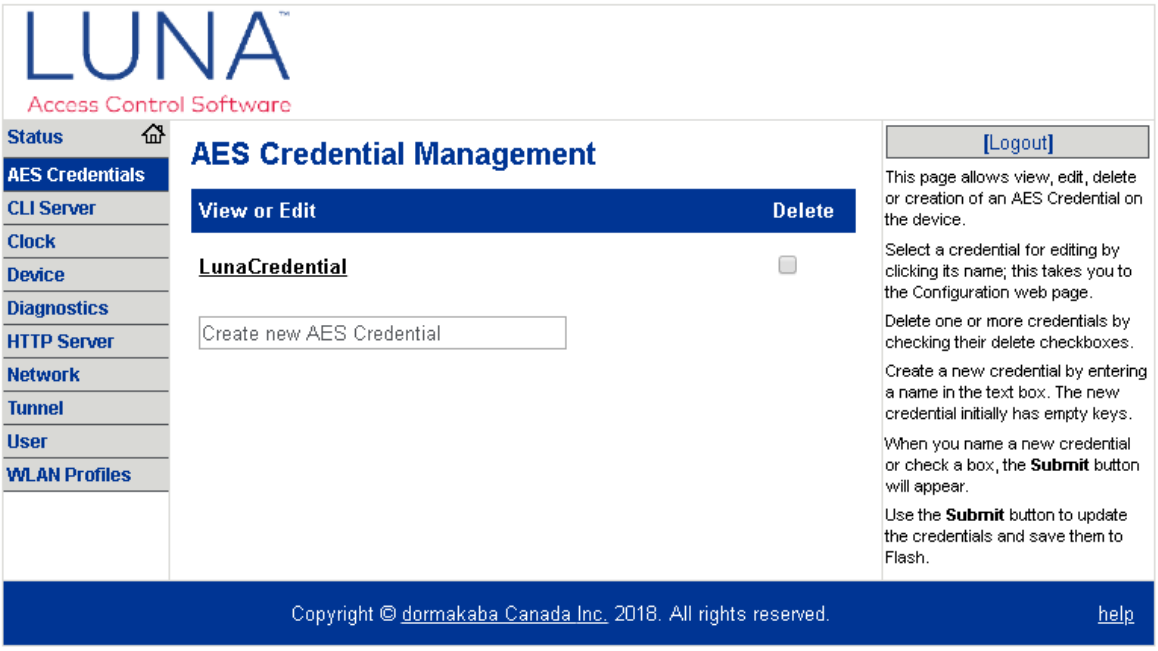
Once connected, open a web browser and connect to http://192.168.0.1. You will then be prompted for a user name and password. The password is the serial number of the SDAC.

Lantronix only supports the latest version of Internet Explorer, Mozilla Firefox, Safari and Chrome browsers.

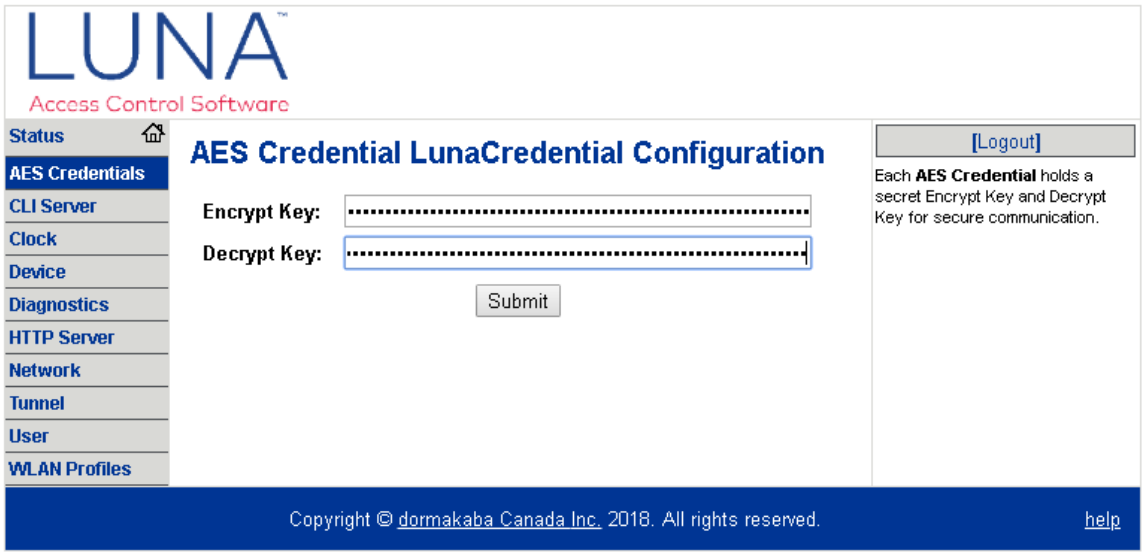
The Status window of the SDAC web portal will now be displayed.

Configuring an SDAC to Connect to a Wireless Network

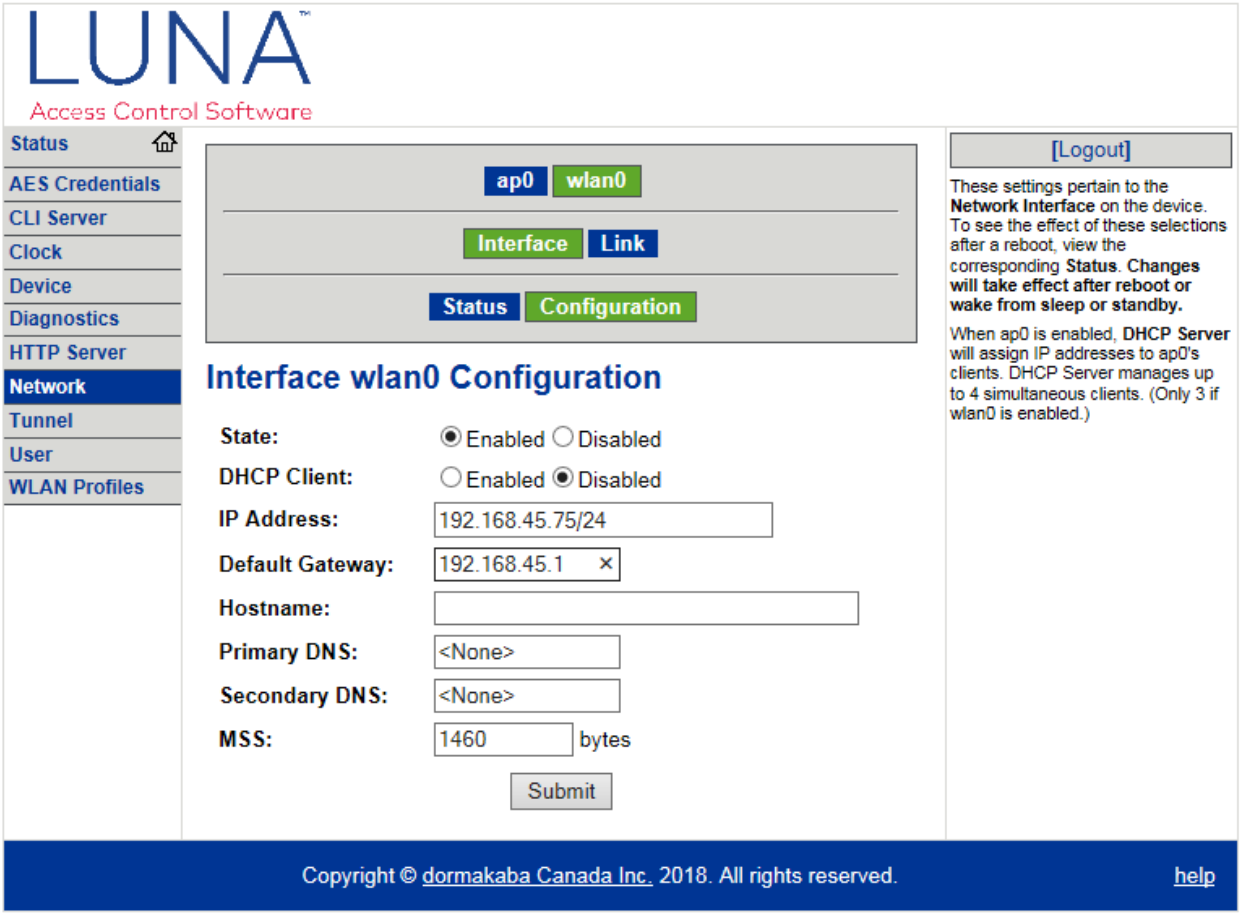
Once connected to the SDAC, the first step is to update the *AES Credentials*. Click on *LunaCrednetial*.



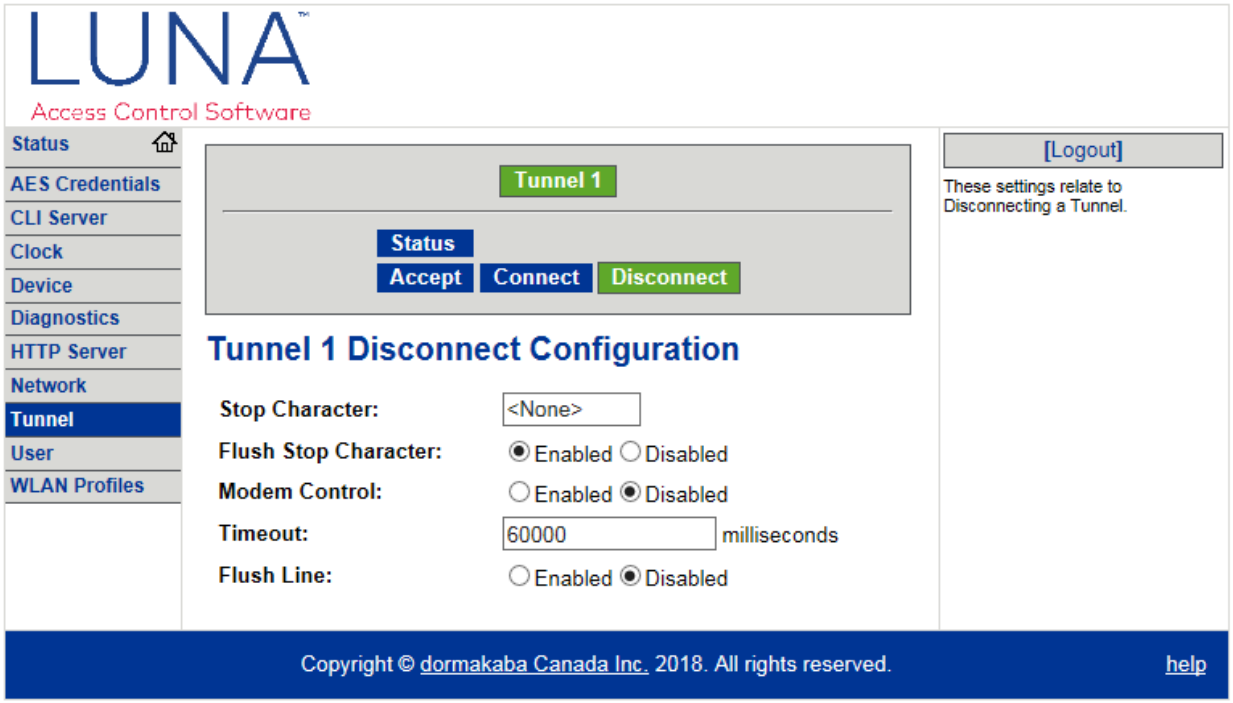
Copy the *Encryption Key* saved in Luna, on the *Settings* window and then paste it into the *Encrypt Key* and *Decrypt Key* fields on the SDAC. Hit the *Submit* button.



To set a static IP address, click on *Network* in menu, and then highlight *wlan0*, *Interface*, and *Configuration* options. Enter the desired IP address and subnet mask. Gateways are only entered if required. Hostname, DNS and MSS are not support fields. Disable the DHCP client, as the SDAC will not act as a DHCP server in this mode. Hit the Submit to complete.

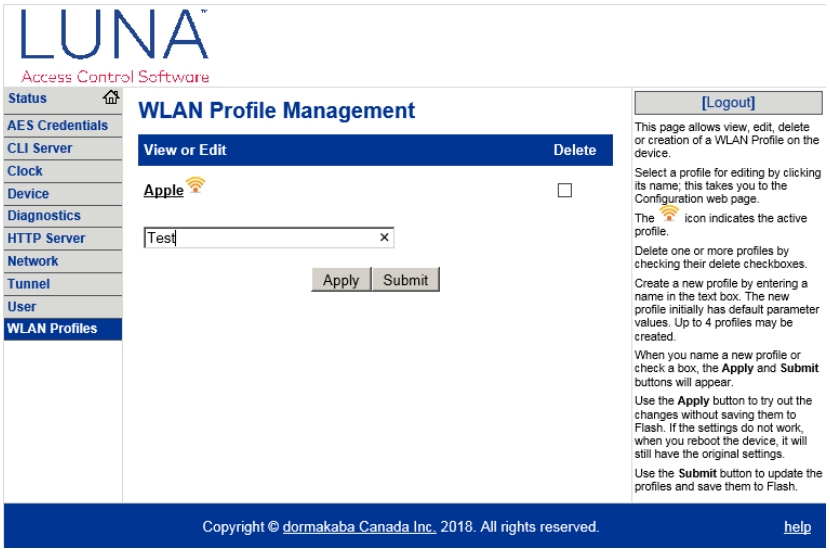


To avoid connection issues, it is advised to set a timeout value.

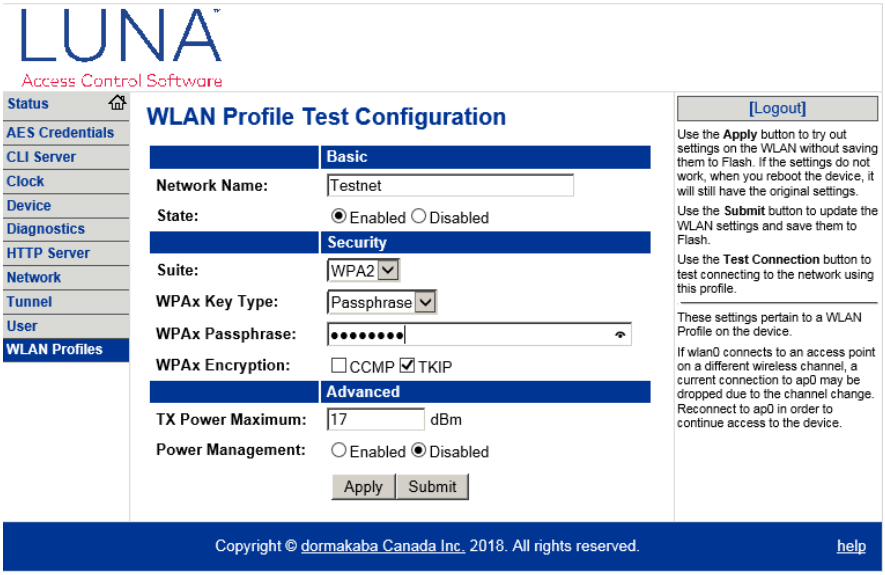


NOTE: *This value will be set in future SDAC units and may not require adjustment.*

In the SDAC web portal, select the WLAN Profiles menu item. To connect to a network, you must first give the connection a name. Once a name is entered, hit the Apply button. Do not hit the Submit button until setup is completed.



Once the name appears in the list, click on it to edit the connection settings. Complete the connection settings per the network. Network Name is also called S.S.I.D and it is critical that it is accurate (like all other fields). Hit the Apply button to test the connection and Submit to complete.



Reboot the SDAC device and check connectivity.

Subnets

Class A

Network Bits	Subnet Mask	Number of Subnets	Number of Hosts
/8	255.0.0.0	0	16777214
/9	255.128.0.0	2 (0)	8388606
/10	255.192.0.0	4 (2)	4194302
/11	255.224.0.0	8 (6)	2097150
/12	255.240.0.0	16 (14)	1048574
/13	255.248.0.0	32 (30)	524286
/14	255.252.0.0	64 (62)	262142
/15	255.254.0.0	128 (126)	131070
/16	255.255.0.0	256 (254)	65534
/17	255.255.128.0	512 (510)	32766
/18	255.255.192.0	1024 (1022)	16382
/19	255.255.224.0	2048 (2046)	8190
/20	255.255.240.0	4096 (4094)	4094
/21	255.255.248.0	8192 (8190)	2046
/22	255.255.252.0	16384 (16382)	1022
/23	255.255.254.0	32768 (32766)	510
/24	255.255.255.0	65536 (65534)	254
/25	255.255.255.128	131072 (131070)	126
/26	255.255.255.192	262144 (262142)	62
/27	255.255.255.224	524288 (524286)	30
/28	255.255.255.240	1048576 (1048574)	14
/29	255.255.255.248	2097152 (2097150)	6
/30	255.255.255.252	4194304 (4194302)	2

Class B

Network Bits	Subnet Mask	Number of Subnets	Number of Hosts
/16	255.255.0.0	0	65534
/17	255.255.128.0	2 (0)	32766
/18	255.255.192.0	4 (2)	16382
/19	255.255.224.0	8 (6)	8190
/20	255.255.240.0	16 (14)	4094
/21	255.255.248.0	32 (30)	2046
/22	255.255.252.0	64 (62)	1022
/23	255.255.254.0	128 (126)	510
/24	255.255.255.0	256 (254)	254
/25	255.255.255.128	512 (510)	126
/26	255.255.255.192	1024 (1022)	62
/27	255.255.255.224	2048 (2046)	30
/28	255.255.255.240	4096 (4094)	14
/29	255.255.255.248	8192 (8190)	6
/30	255.255.255.252	16384 (16382)	2

Class C

Network Bits	Subnet Mask	Number of Subnets	Number of Hosts
/24	255.255.255.0	0	254
/25	255.255.255.128	2 (0)	126
/26	255.255.255.192	4 (2)	62
/27	255.255.255.224	8 (6)	30
/28	255.255.255.240	16 (14)	14
/29	255.255.255.248	32 (30)	6
/30	255.255.255.252	64 (62)	2