

TECHNICAL NOTES



Article Number - 00039-2012

Date - 6th November 2013

Article applies to - WL510 and iNavConnect

ISSUE: Using WL510 with iNavConnect

This year we have received a number of reports of customers having problems getting the WL510 and iNavConnect to log in to some Marina Hotspots. We have found that this is caused by a technique that come marinas use called "Captive Portal" where the marina wi-fi network appears to be "Open" (no password required to connect) but then when you try and access the internet, the first web page that you try to visit triggers a re-direction to the marina's log-in or registration page.

Until you fill in the registration page or enter a voucher or password (that you buy from the marina), you cannot browse the internet.

It is this triggering of the marina log in page that some customers were having trouble with and this is due to the DNS settings not being passed correctly from the WL510 to the iNavConnect. We have tracked this problem down to the Raymarine Settings that we include with iNavConnect and if the customer is not using the iNavConnect with a Raymarine system, then we recommend the following solution to the "Captive Portal" problem.

SOLUTION:

1. Using a CAT5 RJ45 standard network cable (as supplied), connect the WL510 to the iNavConnect connector that is labelled **"WAN INTERNET (WL510 Option)"** as shown below.



- 2. Make sure that the WL510 and iNavConnect are wired on the same circuit breaker/switch and that they turn on at the same time.
- 3. When the WL510 and iNavConnect power up together, the iNavConnect will get the WAN network settings from the WL510, but sometimes the correct DNS address is not passed through from the Marina you are connected to and it is this that stops the marina Welcome/Login page from appearing.
- 4. In order to fix this, we need to set the iNavConnect to issue a primary and secondary DNS address to all wireless devices that connect to it, the primary address being the WL510 and the secondary address being the iNavConnect.
- 5. Once the iNavConnect has powered up, connect your wireless devices to the iNavConnect wireless network and make sure that the devices receive an IP address between 10.22.0.0 and 10.22.0.255. Then open a browser on your wireless device and type 10.0.0.1 (the iNavConnect IP Address) in to the address bar and press enter. You should see the iNavConnect login page appear login using the password "inavconnect" unless you have previously changed this to something else.
- 6. Once logged in, click on the "Network" tab and you will see a screen similar to the one below.

iNavConnect - Interfaces ×							X
← → C ♠ 10.0.1/cgi	bin/luci/;stok=46cf5eb1f3d29cd85	9645f10842fe483/a	dmin/network/		ති <mark>ම</mark>	× 😼	=
YACHT					Changes: 0		
	System Network Logout						
Interfaces Wifi	Switch DHCP and DNS Hostname	s Static Routes Fi	rewall Diagnostics	5	_		
Interfaces							
Interface Over	view						
Network	Status		Actions				
LAN 양 (문왕) br-lan	Uptime: 2h 25m 30s MAC-Address: F8:D1:11:4E:0:7D RX: 567.42 KB (7581 Pkts.) TX: 584.80 KB (3496 Pkts.) IPv4: 10.00.1/8	🖉 Connect 🥝	Stop 🖉	Edit 🗙	Delete		
WAN	Uptime: 0h 0m 0s MAC-Address: F8:D1:11:4E:0:7F RX: 0.00 B (0 Pkts.) TX: 0.00 B (0 Pkts.)	🖉 Connect 🥘	Stop 🖉	Edit	Delete		
Add new interfac	:e						
	Powered	by Digital Yacht Ltd.					
					_		

7. Click on the LAN "Edit" button as shown above and you will be taken to the LAN network settings page, click on the "Advanced Settings" tab in the lower *DHCP Server* section of the page and you will see a screen similar to the one shown on the next page.

8. In the bottom most box labelled *DHCP-Options*, enter the following text as shown and then press the "Save & Apply" button;

6,192.168.10.20,10.0.0.1

General Setup Advanced Settings	
Dynamic <u>DHCP</u>	Ø Dynamically allocate DHCP addresses for clients. If disabled, only clients having static leases will be served.
Force	\square 🔞 Force DHCP on this network even if another server is detected.
IPv4-Netmask	Override the netmask sent to clients. Normally it is calculated from the subnet that is served.
DHCP-Options	6,192.168.10.20,10.0.0.1 Define additional DHCP options, for example "6,192.168.2.1,192.168.2.2" which advertises different DNS servers to clients.
	l Save & Ap

- 9. The iNavConnect will now apply the changes, takes a few seconds during which time a timer icon will display and then the new settings should be stored.
- 10. At this stage it is good practice to power cycle the iNavConnect and WL510, reconnect your wireless device to the iNavConnect and then check to make sure that your device has got the new DNS settings by looking at the status/properties of the wireless connection.

Assuming that all of the steps above have been completed correctly, you should now be able to connect to a marina hotspot and the first time that you try and access an external internet webpage i.e. <u>www.google.com</u> or similar, you will see the marina's welcome/login page appear.