

# ALAN SPICER MARINE TELECOM

Cellular 3G Fast Internet and Voice (Analog/PBX) for Yachts Sold Here! [Ericsson W25](#) WiFi Sharing Systems as well <http://www.wifiyacht.net>. Other systems available call 954-683-3426. Installation, consulting, computer networking services - here.

## Cellular (and other) Internet for Sailing and Motor Yachts

by: Alan Spicer 07-11-2008  
[Alan Spicer Marine Telecom](#)



Owners and Captains/Crews of sailing and motor yachts are looking for ways to keep in touch via the Internet with the business aspects of the boat, from the home office to logistics of supplies and gear for the vessel. Internet Access also helps out with Crew Morale. If the crew has Internet access by a local onboard wireless system to their laptops computers, linked back to the ships Main Internet Access Grid, then they can keep in touch with family, friends, and take care of their own personal business affairs. A happy crew performs better. And trust me - I've seen it - Internet Access makes for a happy yacht crew. Often such an Internet Access is also available to guests on yachts that do charters. It's another added amenity that makes their charter cruise much better.

One popular method for providing Internet Access has been Cellular based Internet Access. The technology has been improving over the years and the cellular providers are in full swing to provide various levels of Internet Access speed to Wireless devices such as laptop cards and Personal Digital Assistants such as the Blackberry and similar handheld devices.

In the past few years we've put a number of yachts on GSM Cellular which gave them voice and GPRS Internet - using equipment such as the Ericsson F221 and F251m units and Telular SX5e units. They provided a reasonable, if a little slower, Internet Access method. They typically required a 9-pin modem (called a Serial Port on Computers) connection to a PC (typically a desktop computer) located somewhere centralized - and we shared that onto the vessel using Windows Internet Connection Sharing. This allowed many boats to have their Satellite (often Inmarsat Fleet 33, 55, or 77) also connected to the PC and then it was just a matter of switching which connection (Cellular or Satellite) was shared via Windows Internet Connection Sharing (ICS) onboard the boat. We set up

secure Wireless Access Points and this all worked over them rather well. With exception of the fact that Windows ICS tended to be flaky and would stop working, requiring the ICS to be disabled, rebooting of the PC, and re-enabling the ICS again.



Telular SX5E



Ericsson F251m

Later on in the 2000's years - Cellular Cards for Laptops started being available - with Verizon being pretty much first out the gate with a Fast Internet via a PC Card (PCMCIA Card) Modem Unit. Following that several individual users did experiments with creating a Mobile Router for Cellular Internet Cards. One notable such project was "Stomp Box" which the creator installed in an automobile for use on land on the highways and streets. It shared the Internet to a laptop onboard the automobile and basically created (probably) if not the..., one of... the first mobile hotspots using Cellular Internet Access with Laptop Cards.

Commercial entities such as Junxion Box and Top Global came out with Cellular Router boxes that could handle multiple cellular providers and the majority of available Cellular Laptop Cards - and most of them even provided Firmware Software Upgrades that allowed them to update the routers software and support newer cards as they came out. If you got the right card with an external antenna jack, we could hook one up on a yacht and

connect an outside omni-directional marine cellular antenna with a nice gain factor (gain is had by pulling in the vertical beam width instead of wasting energy and receive capacity in the up and down they concentrate on where the transmit and receive capability is really normally needed) and share this Internet Access onboard a boat. These were also linked up with onboard wired and wireless networking, using Wireless Access Points to cover the areas the vessel wanted covered. I also have to say that Dlink and Kyocera (I believe the Dlink is made by Kyocera?) also came out with "single technology" Cellular Routers - but you had to have one made specifically for the cellular carrier that you were going to use. They are very inexpensive and provide the same functionality typically as the other ones that I've mentioned. The only problem is that you can't change your mind later and Switch from Verizon (CDMA) to AT&T or T-Mobile (GSM/UMTS.)



Junxion Box



**Part Number: 805283**  
**Com Code: 1511132111**

- Pure Wireless & Mobile
- Simple to install/maintain
- Top security and reliability
- Low total cost of ownership
- Provide Wireless Internet Access in Anywhere at Anytime

Top Global MB8000

Another new Cellular Card Router has emerged - that solves a new problem that cropped up. Cellular Carriers and Cellular Card manufacturers, in keeping up with computer technology, started releasing Cellular Cards that were USB (Universal Serial Bus) and Express Card based products. This caused a number of people a problem either with older laptops, or older cellular routers... and including those shopping for newer cellular routers. The Cradlepoint Company came out with a router (which I sell and install) the MBR1000. This Cellular Sharing Router handles the newer USB and Express Cards

among other features that it has. There's also a smaller one: Persona WiFi Hotspot the CTR500 - of which I have a demo unit available. I've installed MBR1000 for yachts and know how to get it done if anyone wants to try it out.



Ericsson W25 - The Ericsson W25 Fixed Cellular Terminal (better called a Cellular Mobile Voice and High Speed Internet Router) came out not too long ago and was cleared by the FCC and such for sale in the U.S. I've been selling and deploying quite a few of these lately as well. The unit provides 2 critical things to yachts: 1.) Voice Cellular for the PBX or Analog Telephone Equipment, and 2.) UMTS - HSDPA - High Speed Internet Access, with it's own built-in Wireless Access Point (bigger boats probably still need a few more additional Wireless Access Points added onboard to cover everywhere) and a 4-port Fast Ethernet Switch which is the ground work for providing a wired as well as wireless networking and Internet system on a yacht.



Ericsson W25

I've come across quite a few vessels that take my advice (or their own advice) and want both WiFi Hotspot Sharing Systems as well as Cellular Internet Sharing Systems onboard for flexibility and coverage wherever they may roam. So methods and systems have to be created to make it easy to switch between the systems depending on which one is available or which one is the best to use for a given location. I've done these so if you need help please contact me. One thing that you have to watch out for with Cellular is Roaming. The cellular bill can sneak up and surprise you if you roam without knowing outside of the US on Voice or Internet or both via cellular. So contact me for the skinny on how to stomp on that little monster.

Amplifiers for Cellular - There's a lively debate going on about cellular amplifiers and in particular a little thing called a "cellular repeater". I'm going to hold off on mentioning company names, but suffice it to say that the "cellular repeater" if not designed well - may go into oscillation between the outside and inside antenna and cause interference to other cellular (and even public service) wireless communications. It's also been stated that using cellular amplifiers is not liked by cellular companies. They say that they are really not needed, because the cellular towers power-control the mobile cellular device to keep locked onto the tower with sufficient signal. It's also been questioned that the end user has sufficient FCC and Cellular Provider permission to operate such an amplifier on a carriers cellular network. So just know that if you use cellular amplifiers, you might be told to remove it one day very soon.

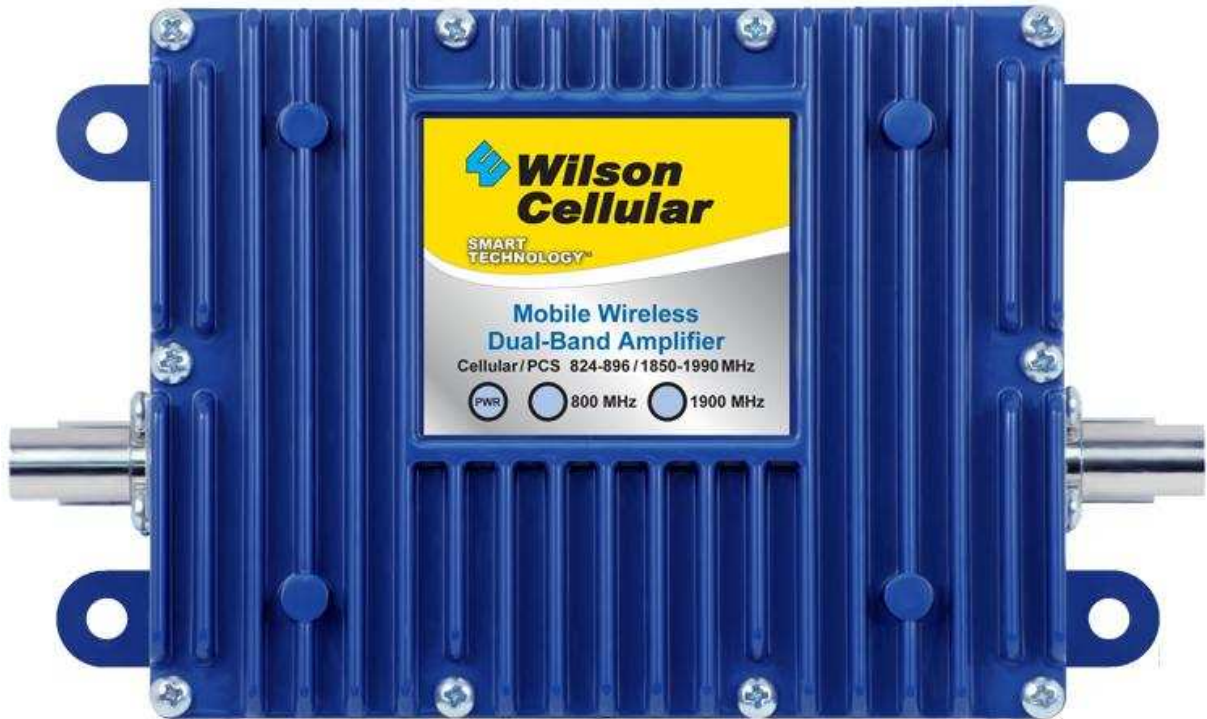


DA4000



Complete System #4KSBR-50U

**Note: Images are not to scale**



Wilson Cellular (Repeaters and Inline Amplifiers are available)

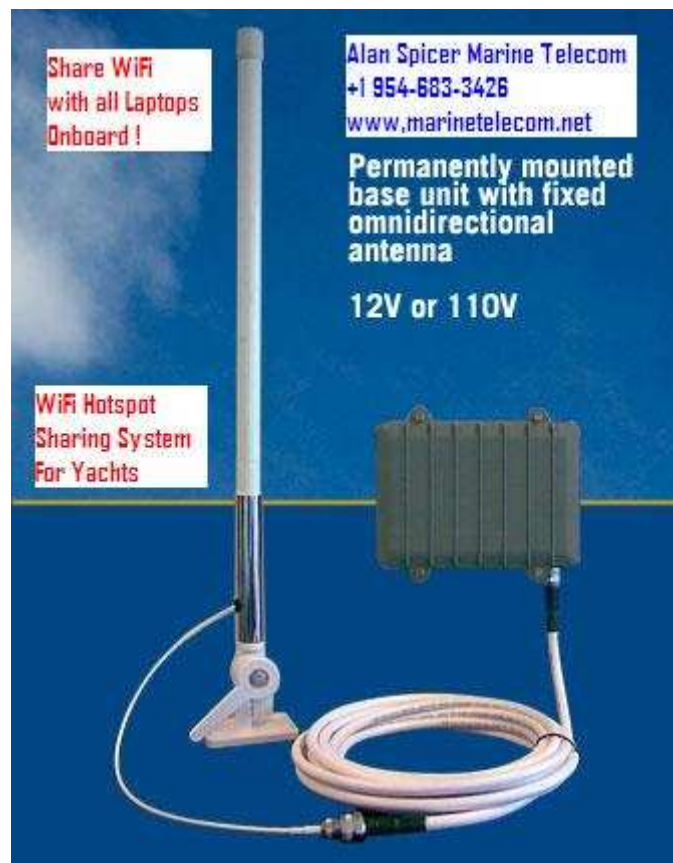


Wilson (bubble pack) 3 Watt Direct Inline Amplifier

Satellite Internet - I know this article is about Cellular Internet, so I'm just mentioning this so that you can know that I've worked with older and newer satellite systems as well, integrating them with a yachts onboard network (creating such network if needed) for Inmarsat, VSAT, and newer Fleet Broadband and Mini-VSAT systems. So if you're

getting one of those installed and you need help integrating the Internet onboard - give me a call.

WiFi Hotspot Internet – It's often desirable to save money on Internet access on board a sail or motor yacht by using WiFi (802.11b and g) Hotspots since they are available in many marinas, yards, and anchorages. Some times they are free or included with your docking fees, and other times they can be paid for by credit card by the day, week, or other time period. WiFi Internet is usually very fast, often faster than 3G Cellular Internet. I have a WiFi Hotspot Sharing Router system that I sell to the yachting market that takes the WiFi signal from any Hotspot and shares it on board to multiple computers. It doesn't come with wireless for inside the boat – but that can be easily added with common WiFi Routers that come with a 4 port Fast Ethernet Switch. It then becomes quite easy to build your own onboard network with this system. Here is the picture.



Marine WiFi System from Alan Spicer Marine Telecom

Building an onboard network, even with multiple Internet Access Systems such as Satellite, Cellular, and WiFi – can be very useful in adding Internet Access to your vessel for Crew, Guests, and Owners use. It can save you money by being able to switch in the most cost-effective system depending on your current geographic location. You will want Alan Spicer Marine Telecom on your team to provide the capability to switch in the

system that you need, to your on board network. I provide installation support on most systems that I sell. And I also sell yearly consulting and support agreements at prices much lower than what IT companies sell them for.

Thanks! And I hope this has been interesting and informative.

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Alan Spicer Marine Telecom (communications (at) marinetelecom.net)  
<http://www.marinetelecom.net>



The business card features a background image of a coastal landscape with mountains and water. The text is arranged as follows:

- Top center: <http://www.marinetelecom.net>  
[communications@marinetelecom.net](mailto:communications@marinetelecom.net)  
+1 954-977-5245
- Center: ALAN SPICER MARINE TELECOM
- Bottom left: *Alan Spicer*  
Voice, Fax, Data, High-Speed Internet  
Satellite, Cellular, WiFi, Networking,  
General Computer Services
- Bottom right: Cell # 954-683-3426  
tel: +1 954 977 5245  
tel: +1 954 683 3426  
[a\\_spicer@bellsouth.net](mailto:a_spicer@bellsouth.net)  
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Thank You for Visiting.

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