

Wi-Fi on board

BY CASEY CONLEY

Editor's note: To get an idea of how Wi-Fi networking is being used by live-aboard voyagers today, we asked a selection of voyagers about their approach on board their boats. Here are their responses.



Valiant 40 Brick House
Rebecca Childress and her husband Patrick live aboard their Valiant 40 Brick House. Patrick is a retired professional yacht captain and Rebecca was an experienced sailor prior to departure. They recently crossed the Indian Ocean.

Do you have a Wi-Fi router on your boat?

Well, sort of. We have a few different kinds of things that may be considered routers, though none are really advertised as routers per se. Perhaps because it would scare non-techies away? I'm a techie from way back, but they

kind of scare me a bit — or should I say, I haven't discovered the benefit of them yet. Here is what we have:

- We have a RedPort long-distance Wi-Fi extender. It has a RedPort Optimizer as part of the system. It acts as a Wi-Fi hotspot as well as a router and firewall, and though it's user configurable, this user — even with an IT background — doesn't mess much with the settings.

- We also have, through the years, had a number of Huawei Wi-Fi hotspots through various cellular providers around the world. Again, not really that configurable by the user, but acting as a Wi-Fi hotspot as well as a router that we can share files and printers through on our local network. I do know this is probably NOT the ideal way to do it, though.

- We also have a FileHub Plus system. This allows me to plug a USB drive or hard drive into it, and then connect to it wirelessly through an application on my iPad or on the laptop. It's more for file sharing than much of anything else. It runs on 110-volt power, so it's only used once in a while.

- I actually do have a Belkin 110-volt router,

and it has Wi-Fi, but I've never quite figured out the benefit of it and have never wasted much power to figure it out. Anything that requires 110-volt power and an inverter I don't really have much use for.

But a real true-blue stand-alone router for the soul purpose of being a router and firewall? No, perhaps we have not had one of those. Most of the ones off the shelf at CompUSA or similar require 110-volt power, and many of them require a data cable. They don't take a SIM card, which is the way we mostly get our Internet throughout the world. The RedPort long-distance Wi-Fi extender we use in marinas and other places to get actual Wi-Fi, and I should utilize the settings in that more but have instead relied on VPNs, such as CyberGhost, for security in addition to the defaults that RedPort configures in. File sharing on the boat has been mostly via a hard drive, and printer sharing has gone through the cellular Huawei Wi-Fi hotspots. So, I have never felt the need for a true-blue stand-alone router. With that said, if there was one that was 12 volts with

A look at
how some
voyagers
use
networks

very low amperage and a very dummy-proof interface to use, I'd probably add a dedicated one and just have one big hard drive instead of five of them floating around.

Did you buy off the shelf or a marinated unit?

Always off the shelf except for the RedPort Optimizer one, which is special for marine and RV environments.

Have your Wi-Fi routers ever failed due to the marine environment? How often have you had to replace a router?

We have never had to replace any of the Huawei units or the RedPort unit. They seem to last

pretty well. I sometimes have to search for a replacement battery because that's the first and only thing that breaks on them.

What are the pros and cons of such a setup?

I'm not sure. The main pros I see are easier asset sharing on the boat ... not having so many hard drives floating about to keep organized where to find what. And probably some good security features too. My background was IT, centuries ago of course, but I've never seen the use on the boat besides what we have used so far. But there are probably a lot of points I'm missing.



Trimaran Migration

Bruce Balan and Alene Rice sail aboard their 1969 46-foot trimaran Migration. They have been living aboard and voyaging in the Pacific since 2005 and have sailed more than 60,000 miles. More at migrations.brucebalan.com.

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Do you have a Wi-Fi router on your boat?

We have two Wi-Fi systems on the boat: one that is just connected to a network-attached storage (NAS) array that I turn on and use only to back up my laptop; the other is a Brookhouse iMux, which we use to share data over Wi-Fi with the laptop and other devices.

We don't actually share an Internet connection over the Wi-Fi. We use a phone's mobile hotspot for that.

Did you buy off the shelf or a marinized unit?

The NAS is off the shelf. As

far as the iMux, I don't know if it is marinized, but it is obviously a product for the marine market.


Have your Wi-Fi routers ever failed due to the marine environment? How often have you had to replace a router?

One of the off-the-shelf units started having problems, but I don't know if it was from the marine environment. It might have just been a crappy model (it was very cheap from Thailand). It lasted one year. On the other hand, our current off-the shelf unit has lasted three years and is fine.

What are the pros and cons of such a setup?

For the NAS: It is probably more trouble than it is worth, but I am more likely to flip a switch and connect to it for backups than to pull out an external hard drive from a cabinet and plug it into my laptop.

For the iMux, the con is that it's a bit complicated. On the pro side, it's so important and convenient to have solid GPS and instrument data in OpenCPN on the laptop and with no wires!



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Mason 33 Carina

Philip and Leslie live aboard their Mason 33 Carina and have sailed extensively in the Pacific. Their article about their passage from the tropics to Alaska appears in this issue (see page 22).

What is your network setup?

In terms of data transfer between instruments, our instruments are exchanging data using NMEA 0183 that is hardwired. To bring the NMEA data to our navigation computer, we use serial-to-USB cables. The exception to that is our small backup GPS, which uses a direct Garmin-USB link for data exchange.

We did have a HooToo Wi-Fi device for a while, which was quite handy for moving data from our main ship's computer to our tablet. It was not designed to act as a router.

Do you have a Wi-Fi router on your boat?

No. *Carina* is small, so rarely is more than one person using a computer at one time. There just isn't the space. Also, when cruising we saw Internet as a tool, so we tried to do our necessary business on the Internet and then get out

and explore.

We brought Internet to the ship's main computer using an Alfa long-range Wi-Fi adapter (Realtek) with a high-gain antenna or by using whatever Internet dongle/chip was available in the country we were visiting.

We don't have a satphone or Iridium GO, so when sailing our communications is via a radio modem.



Valiant 42 Alchemy

Dick and Ginger Stevenson live aboard their Valiant 42, Alchemy. They recently crossed the Atlantic east to west and are currently in Atlantic Canada.

Do you have a Wi-Fi router on your boat?

No, no router, but we keep thinking about one for the boat (or, perhaps more useful, an antenna or both). When we have no access to Wi-Fi, which is most of the time for us, we use a personal hotspot on our iPhones, which serves a similar function and has been adequate to good. When we get to a country, we buy a SIM card for the carrier that our research has indicated gives the best (coastal) coverage. If

we're going to be there awhile, we may get a SIM card for each of our iPhones, but with different carriers to give us the best chance of having coverage. We have done this for probably 20 to 25 countries now. A router makes sense if you are around Wi-Fi more than we are.

Right now we are in Dan Blain's Cove, West Dover, Nova Scotia (gorgeous), and I have a bit of a connection to a cell tower on the phone — more than adequate for our needs, but our needs do not include Facebook, YouTube and other high-bit-rate usage.

Part of our hesitation is that routers/antennas seem to come and go and have not entered the realm of reliable/settled equipment, and I am getting too old to fuss with things. I just want STAW (s--- that always works).



Crossbow 42 Adamastor

Jessica Lloyd-Mostyn and James left England in 2011 aboard Adamastor, a Crossbow 42, intending to circumnavigate in a couple of years. They have had two children while voyaging: daughter Rocket and son Indigo. Follow their exploits at www.water-log.com.

Do you have a Wi-Fi router on your boat?

Yes and no. We tend to go ashore for Wi-Fi in general, but in some countries where we have spent or plan to spend a long period of time (such as Panama, New Zealand and Indonesia), we buy either a plug-in USB dongle for Wi-Fi or have a wireless mobile Wi-Fi box that works over the local mobile phone network. I write for many sailing and parenting magazines internationally, in addition to having a close relationship with our 30 sponsors who are involved in our journey, so there are times when we need to get in touch, file copy or even just let the children Skype with their grandparents. Additionally, we manage our property in the U.K. remotely from the boat, so in those instances having Wi-Fi on board is very useful. We also have an Iridium GO satphone/Wi-Fi system. We don't use this for browsing at all but rely on it for weather and we pair it with a PredictWind weather routing package.

If not, why not?

When we don't have Wi-Fi, it's actually a relief. As we sail worldwide and live aboard full time (and have done for the last seven years), we relish the lack of connectivity that the cruising life brings. We're not looking to mimic our old land-life habits on board, as a change of lifestyle involves embracing the differences of a new environment. And it's quite nice having to go ashore and seek out a nice

spot to have your time of being plugged in and connected to the rest of the world, then returning to your floating sanctuary. This works quite well with my journalistic work as it's like going ashore to an office briefly to get a particular job done.

"I couldn't recommend the Iridium GO and PredictWind highly enough. They have allowed us to cruise some very remote stretches, including untouched outer atolls of Papua New Guinea where there was no electricity ashore, let alone Internet."

*Jessica and James Lloyd-Mostyn
on Adamastor*

Did you buy off the shelf or a marinized unit?

The USB dongles and wireless Wi-Fi units tend to be cheap, off the shelf, and seem to be locked with a SIM that only works in one country in particular on one local mobile phone network, so they are somewhat consumable. Our Iridium GO, however, is a proper marinized purpose-built system that has always worked flawlessly on board, which is exactly what you need with a

weather system you can depend on. We've sailed some pretty remote stretches, ocean passages and places where there is no phone network, so only a sat-phone system would work there.

Have your Wi-Fi routers ever failed due to the marine environment? How often have you had to replace a router?

We haven't experienced a failure of any. We accept the limitations of the cheap Wi-Fi systems that we have on board from time to time and try to preempt any pressing business or logistics for when we know we have good signal and connectivity. The only system we rely on heavily is the Iridium GO and PredictWind package, which has never failed us once.

What are the pros and cons of such a setup?

I couldn't recommend the Iridium GO and PredictWind highly enough. They have allowed us to cruise some very remote stretches, including untouched outer atolls of Papua New Guinea where there was no electricity ashore, let alone Internet. It's also far more efficient than relying on the SSB radio for weather information. The standard cheap Wi-Fi systems that we dabble in from place to place tend to give us headaches with topping up data and getting good signal, etc. However, we try to keep philosophical about it and take it as a bonus if it works and not worry too much if it doesn't. But then, that attitude is what long-term live-aboard cruising is all about. ■