



Islander August 2015

## Technology Update

### The Internet of Things (IoT)

Have you heard of this? If you haven't yet, then you will do soon. You are probably aware that everything around us is gradually becoming connected. The Internet of Things is the name that has now been given to this network of physical objects or "**things**" that are embedded with electronics and connectivity, which enable objects to exchange data with everyone else.

#### Getting Wi-Fi connected in the kitchen and galley

A couple of months ago I was invited to sit on a panel at a conference in Malta together with an old friend and colleague who is captain of a large yacht and who loves his technology.

During one of the sessions, he mentioned that he had just installed a WiFi enabled oven in the galley on-board, which intrigued me. Richard Ayoade, in his entertaining show the Gadget Man on Channel 4, recently expounded the merits of the WiFi enabled kettle. So between these two, and without wanting to step on the toes of my illustrious colleague the Galley Goddess, I have been investigating what's new in tomorrow's kitchen

Sure enough, it's all about the Internet of Things. You can now have a full suite of WiFi-enabled smart appliances to help you stay connected in your kitchen and to your kitchen, no matter where you are.

#### iKettle

The sales blurb for the iKettle says that if you own one you are "embracing laziness". I thought that was a good, honest start! Basically it's an electric kettle that's connected to WiFi and you have a smart phone app. You can switch the kettle on from anywhere in your home or boat and it tells you when it's boiled. You can set the kettle to boil on a timer to wake you up in the morning, but it doesn't make the tea.



What if it did make the tea? Just imagine that? Well, it's quite easy to imagine if you've ever heard of the old fashioned Teasmade. This gadget was extremely popular in the 60s and 70s and would you believe was patented in 1892 by Samuel Rowbottom. But apparently it's not cool because it's not on the internet, and it needs a serious design makeover.

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The other sales feature for the iKettle which caught my eye is “welcomes you home by asking you, via your smartphone, if you would like to pop the kettle on”. How sad is that? I wouldn’t invest in the company!

### WiFi enabled Ovens

Take a look at the picture - when you have seen something on the supermarket shelf that you want to cook immediately, you need an oven from GE that is WiFi enabled,



allowing you to set timers, check cooking status and preheat so it’s good to go as soon as you get home! Do you ever have that problem?

These ovens are currently available, as are the WiFi enabled GE washer and dryers which allow you to stay on top of your laundry.

### WiFi enable washer and dryer

By using your smartphone you can easily see when the load is done, you can monitor cycles and settings, download specialty cycles and more importantly receive alerts if you haven’t removed the clothes after it’s finished. I bet that’s really irritating.

As if that’s not enough, we can look forward to the autumn when the GE WiFi- enabled Dishwasher and Refrigerator will be available. You will be able to check on the status of the dishwasher from your phone, and get an alert once it’s finished. Helpful alerts from the fridge will tell you that it’s time for a replacement water filter, or that you’ve left the door open!

I see Samsung have a refrigerator with an 8” WiFi enabled LCD screen built in which allows you to browse the web, access apps and connect to other Samsung devices. I thought I had read a while back that this sort of tech on fridges was supposed to keep stock of what you have in the fridge, and provide you with recipes of what you can make from what you have, but no, it is just a PC on the fridge, and it can make phone calls. Imagine making a phone call from the fridge?

One of the reviews on the Samsung website says, “This is a fine quality product, my wife loves it, imagine a PC with a refrigerator attached to it. It’s real not fiction.”

We are just witnessing the start of the Internet of Things. The apps will mature to the extent that the iKettle will probably not just make tea but allow you to select what type of tea, the exact temperature

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and brew time you want, memorise it and record every cup you drink and feed that information to your doctor and the supermarket!

**OneWeb, the new low earth orbit satellite constellation is deadly serious.**

At this time of year, with Wimbledon in full flight, we are always reminded of the now infamous cry by John McEnroe at the umpire “you cannot be serious”.

Well, when I first read about Greg Whyler’s plan for OneWeb to launch 4,000 low earth orbiting satellites by 2020 I thought the very same thing “you cannot be serious!” Clearly I was wrong - he is deadly serious.

I wrote about OneWeb in this column in the May issue. OneWeb, is building a new global communications system to create affordable broadband services for the world. In June, Greg Whyler, founder of OneWeb, announced it has raised \$500 million of funding from a group of leading international companies.

This group of companies is pretty impressive and includes Airbus Group, Bharti Enterprises, Hughes Network Systems, (Hughes), a subsidiary of EchoStar Corp., Intelsat, Qualcomm Incorporated, The Coca-Cola Company, the Virgin Group, Totalplay and Grupo Salinas Company, owned by Ricardo B. Salinas.

Greg Whyler now has a pretty impressive Board of Directors with Sunil Bharti Mittal, Founder and Chairman of Bharti Enterprises and Tom Enders, CEO of Airbus Group, Sir Richard Branson, founder of the Virgin Group and Dr. Paul Jacobs, Executive Chairman of Qualcomm Incorporated. Each of the other founding shareholders, who will also be Board observers, will continue to advise the company and support the programme directly through provision of technical and manufacturing expertise, launch capabilities, and enabling access to potential customers.

This funding allows OneWeb to further develop key technologies to enable affordable broadband for rural and underdeveloped locations.

As can be seen, the OneWeb User Terminals are optionally solar powered with a flat satellite panel and with their embedded LTE, 3G, 2G and Wifi access capabilities will extend the mobile operator's reach. The network will also provide unprecedented speeds and low



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latency access to ships, planes, trains and oil platforms while providing seamless interoperability with Intelsat's fleet of Ku band satellites.

In mid-June OneWeb announced that it would be contracting the Airbus Group to design and manufacture its first 900 microsattellites.

OneWeb also announced at the end of June the largest commercial rocket acquisition ever of more than 65 rockets including 21 Soyuz launch orders from Arianespace and 39 launches from Virgin Galactic's LauncherOne.

By the sheer scale of this, the quantity and pedigree of the new board members and their companies, each of which provide complementary services, this *is* serious, and it is planned for 2019!

Roger Horner of e3 Systems

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