



Islander August 2012 Technology Update

4G LTE currently being installed in Antigua's English and Falmouth harbours

On Thursday afternoon, 12th July, 2012, Mark Smith, the manager of our office in Antigua and I attended the launch presentation of the deployment of cutting-edge Fourth Generation Long Term Evolution (4G LTE) technology to 85% of the population of Antigua and Barbuda in the fourth quarter of 2012.

The Government of Antigua & Barbuda and Digicel are partners on a collaborative project, involving significant investment from Digicel, which will provide yachts with faster broadband than in almost any cruising ground anywhere else on earth!

This will make the small twin island state the most technically advanced in the Caribbean and more advanced than all of us here in Europe!

The launch presentation, appropriately held in the Admiral Lord Nelson's Ballroom at the Sandals Grande Resort, was given by Victor Corcoran, CEO of Digicel Antigua and Barbuda and the Honourable Dr Edmond A. Mansoor, Minister of State for Information, Broadcasting, Telecommunications, Science and Technology with remarks made by the Minister of Finance and the Prime Minister.

Currently Ericsson is installing the new technology around the island. There will be a mast that provides excellent, dedicated, coverage to the whole of English Harbour and Falmouth Harbour including Turtle Bay and surrounding areas. The Government has made the coverage for yachting, resorts and hotels an important feature in their strategy.

4G is wireless broadband received by using a USB pen drive attached to your laptop or via a 4G router incorporating a wireless access point.

Every yacht, sail or motor and of any size, will be able to have access to a real world speed of 10 Mbps enabling a new world of video calling, streaming, and data transfer that in the past has only been available to the extremely large yachts using VSAT at enormous expense. I say real world speed as the specified speed is 70+ Mbps, which is unlikely to be achieved.

4G LTE is a version of 4G that has been adopted in the USA by AT&T and Verizon as their technology of choice and is 3 to 4 times faster than other implementations of 4G. It is hundreds of times

HEAD OFFICE

Palma de Mallorca, Spain

TEL +34 971 404 208

www.e3s.com

FAX +34 971 404 431

info@e3s.com



faster than 3G.

The plan is for 85% coverage in the first phase with coverage continuing to improve to a full 100% coverage based on demand. All the yachting areas will be covered in the first phase.

e3 involvement

The planning and development of 4G LTE in Antigua has been of major interest to us because communications integration for yachts is our main business. Antigua, like all the Caribbean islands, has poor wireless communications technology, and we know because we have an office there!

Our involvement with the project starts with us providing advice on the location of the mast to make sure the service covers all the yachting locations needed. We are also helping Digicel design the service contracts specifically for yachts, based on our experience of what yachts need, demand and use. The contracts will be very different to the land based contracts. A prime example will be that they will only be for the length of the yachting season.

The Digicel 4G service will roam on the Digicel networks in the other islands but it will drop down to HSPA+ service levels. HSPA+ service is effectively a super 3G service and will not have the performance that 4G LTE has in Antigua.

We plan to eliminate the chance of “Bill Shock” by offering roaming for an inexpensive fixed fee on the other Digicel networks during the winter season of 2012 to 2013. Roaming will be limited to about ten other islands to start with but this will grow as the HSPA+ technology gets installed around the other islands.

Currently there are no plans to install 4G LTE in any of the other islands in the Caribbean.

Antigua has always been popular as a great yachting destination; safe anchorage, the best yacht services, great sailing, water sports and diving and friendly people but now it will be the ONLY place to base and run a yacht from during the winter yachting Caribbean seasons.

We will announce details of the developments and more contract details as they happen over the next months starting at the Monaco Show and with a big launch together with Digicel and the Antigua and Barbuda Government at the Antigua Charter Show in early December.

The 4G LTE frequency challenge

There is a major issue with 4G in that it operates on numerous different frequencies around the world. Different regions of the

HEAD OFFICE

Palma de Mallorca, Spain

TEL +34 971 404 208

www.e3s.com

FAX +34 971 404 431

info@e3s.com



world have chosen to use different frequencies. This means you will have to use a different dongle, modem or router in different locations. If you buy an iPad in the USA through AT&T it will work on the Antigua and Barbuda network but it will not work in Europe on any planned 4G LTE networks. Likewise future iPads or tablets that work on 4G in Europe will not work in the USA or Antigua. These are then all different to the frequencies used in Korea and Japan!!

There is currently 90% penetration of 4G in the USA and Korea with predicted 600 million 4G LTE handsets in use in 2016. However roaming will only be available within regions.

So with yachting, the solution is to have a regional USB dongle, modem or router with a seasonal contract for the location in question just as is done with regional satellite TV services. A router that incorporates a wireless access point can be configured to allow regional devices such as iPads to use the service via it's own wi-fi or the vessel's own wi-fi network.

Do not hesitate to contact us with any questions.

Roger Horner of e3 Systems

For further information on any of the above, please contact us.

email on info@e3s.com and website www.e3s.com

Tel: +34 971 404 208

HEAD OFFICE

Palma de Mallorca, Spain

TEL +34 971 404 208

www.e3s.com

FAX +34 971 404 431

info@e3s.com