



## Islander November 2009 Technology Update

### New and unique “Bill Shock” warning device

In my column in the June edition of the Islander, I wrote about “Data Roaming Issues in Yacht Communications” and specifically referred to the number of yachts we have come across that have suffered from “Bill Shock” when roaming with their GSM/3G data services.

“Bill Shock” is a very recent term created to describe the reaction of the captain when he has just received a monthly GSM data invoice that is in the tens of thousands of euros. The previous month, his bill was only for a hundred euros. The only thing that had changed was that the yacht had sailed into the waters of the neighbouring country. The use of email and the Internet hadn’t changed on board, the guests had been very happy and the captain was very pleased with the service he had been providing to the guests for the owner on that charter.

However, a month later, everything had been turned upside down and his job was in jeopardy, because he had just received an enormous bill, that he could not justify to the owner or retrospectively charge to the charter guests. During the charter he had had too much on his mind and he had completely overlooked the fact that he hadn’t swapped the 3G SIM card/s to those of the country they had now cruised into and that the original SIMS were now roaming.

During the busy season this problem occurs on a regular basis.

In the June edition, we made the following recommendations as to how to avoid high bills and especially those that no one wants to pay!

The options we offered were.

1. Don’t offer internet access via 3G on board
2. Offer 3G with ROAMING deactivated.
3. Offer 3G with ROAMING activated, but with restricted access.
4. Offer 3G with ROAMING activated, access unrestricted.

The first method is the only infallible solution to providing “No Bill Shock”.

The second method will work by stopping usage as soon as the yacht moves into a neighbouring country. The downside is that, unless you have another GSM contract for the next country, usage will be blocked and you and your guests may need it urgently for business or essential communication.

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The third method requires control of who can do what where. This will require the investment in and use of a clever controller. Read on as the new eDSC product provides this service.

The fourth method provides total flexibility but the management of it is totally dependant on the captain or crew, which is subject to human error, which at some point will result in “Bill Shock”. However the eDSC product provides an automated solution.

### **The eDSC Data Service Controller**

The eDSC is the unique new communications cost control system that simplifies the control of the various data connections arriving on a vessel.

It allows the users on the network to be managed and controlled. It will automatically monitor and pin point heavy users and provide warnings to avoid “Bill Shock” on expensive connections.

The Controller has 4 main features and consists of 2 main components. The features are:

The first of these features is as a Service Selector. This provides an easy way to select the data communications channel to be used on the yacht from the options available that could include VSAT, Inmarsat, 3G, Iridium or wi-fi. The software, installed on a PC, is used to select the channel required using a very simple user interface.

Once the communications channel has been selected, the second feature makes it possible to restrict individual users to only being able to perform certain functions. For example, if the communications channel selected is an expensive channel such as Fleet Broadband, then the crew can be restricted to being able to receive email only whereas the owner and the captain maybe allowed to surf the net.

The truly unique 3G Roaming “Bill Shock” early detection feature is designed specifically to avoid the shock of large 3G roaming bills. Your GSM service provider is unable to warn you about huge roaming data bills until “after the event”, when roaming charges have already been incurred.

The Data Service Controller is connected to a 3G router which automatically detects if the 3G service is roaming. If this is the case and the data usage rises above a pre-set threshold (e.g. 50Mb per day) then a warning is sent repeatedly to a selection of email addresses, and it keeps appearing on the computer screen until action is taken.



Finally the Bandwidth Net Flow Misuse Monitor feature quickly tells you which connection is currently active, how much it's being used and who or what is sharing your Internet bandwidth. Applications such as video streaming and file transfer can be easily identified and top users can be seen at a glance.

Hidden consumers, such as Windows Updates connect to the Internet automatically. It will let you know if any of your computers and laptops hasn't been optimised to prevent this kind of behaviour.

With a Bandwidth Net Flow monitor you can quickly identify, otherwise hidden data, that is creating airtime charges or dragging down contracted speeds for legitimate users - allowing you to take immediate steps to isolate the problem.

### **The Controller components**

1. Hardware: Cisco router 1812 (other Cisco routers may be considered upon request)
2. Software: a program that is installed on the PC of the person in charge of managing the connections

The Cisco router is a reliable and extremely flexible device, which can be adapted to most of the requirements of modern yachts. The main features of the Cisco 1812 are:

- Up to 9 external data connections. Most yachts need mainly VSAT, Inmarsat Fleet MPDS or Fleet Broadband, 3G and wi-fi connections
- Inmarsat Fleet or Fleet Broadband ISDN connection
- VPN configuration options. The router can be used to terminate VPN tunnels, mostly used to support yacht systems remotely

This review is really "Hot Off the Press". We were given a pre launch pre view only just this week. We think this will be a very popular product and from the few clients we have described it to they have shown major interest. It is right up to speed as it addresses the current issues yachts are having using their data connections today.

We are currently the exclusive Distributor and we will have information about it on our booth 10.614 at METS next week. So at METS we will be featuring the eDSC product and Jetstream. If you are coming to METS please drop in at our booth for some a chat and refreshments.

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