



# Value packed

Sandro Delucia, Inmarsat maritime market manager, presents some useful tips for the optimisation of the FleetBroadband solution

## 1) Using the right connection

FleetBroadband offers two types of IP service. The most widely used service is Standard IP which is suited to office applications such as email, web-browsing and FTP, and maritime applications such as electronic charts and weather updates. This is the standard type of connection that will be used 95 per cent of the time with most typical maritime applications.

Some tasks such as real-time video for training or telemedicine, remote maintenance, or large database synchronisations need a Streaming IP connection. This premium service is charged for the duration of the connection. It's advisable to make only the required connection type explicitly visible to the user, so that the wrong connection type is not used.

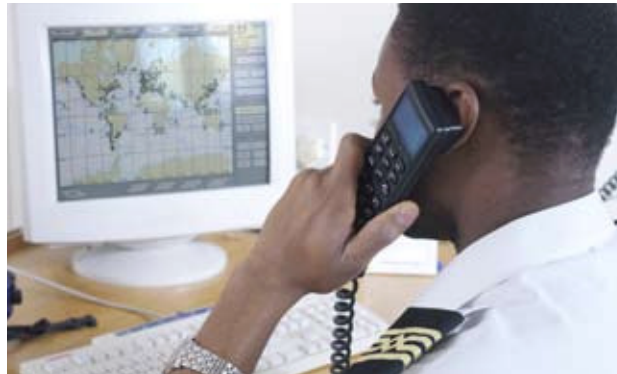
It is highly unlikely the crew will require a Streaming IP connection. Using this to browse the internet will generate unnecessary costs.

## 2) TCP Accelerator

The TCP Accelerator Client for FleetBroadband is installed on the user's PC to enhance performance in the send or upload direction. It is highly recommended that the TCP accelerator software is installed and activated, to maximise the potential of your FleetBroadband IP connectivity and enhance the user experience and operational efficiency. This software is downloadable from the Inmarsat website.

## 3) The importance of firewalls and FleetBroadband

The number of new threats from malicious code, bots, Trojans and worms is increasing daily. To protect your PCs, you should first install a firewall, to prevent unauthorised access to or from your computer and the internet. Firewalls exist as both software and dedicated



hardware. Most operating systems have basic firewall support; however, there are many well established software firewall suites embellished with a broad spectrum of additional security functionality.

Hardware firewalls either come as dedicated units or are integrated into a router. You might use a hardware firewall to protect a group of networked PCs on a vessel. Hardware firewalls tend to be faster, can handle larger traffic loads and have enhanced security controls.

When using an IP network, a whole fleet's traffic can be routed to a shore-based firewall, so users can implement corporate IT and security policies, protect onboard computers and control exactly what traffic they allow over the satellite link. Partners and solution providers also provide firewall services as a component of their end-to-end solution.

## 4) Anti-virus software and updates

Anti-virus software protects your onboard PCs from malevolent software but is as only good as the last virus update. In a satcom environment, the size and expense of updates has been feared, especially when multiple machines each download the same virus definition update, causing unnecessary expense.

However, there are ways of downloading the virus definition only once, and distributing this to all machines

on the vessel. Other solutions involve maritime-orientated anti-virus systems, which download small updates on a daily basis, or systems that perform anti-virus scanning and spam filtering onshore before data is sent over the satellite network. Anti-virus software is essential, but make sure there is a policy and system for controlling your updates efficiently and cost-effectively.

## 5) Compression

Compressing and batching will lead to cost savings over a Standard IP connection, which is charged per MB sent and received. If you can reduce the overall size of data payload and batch files together, the associated overhead will be less. Different formats can reduce the size of a file, which can then be compressed to reduce the file size even further.

## 6) FleetBroadband and the web

When accessing the web via satellite, companies must strike a balance between cost and content accessibility.

Websites generally cater for high speed terrestrial broadband environments, so each page can equal a lot of data. On accessing one page, other web pages or links might be pre-fetched to improve the user experience as their next click is pre-empted, but this might not be as desirable on a satellite connection. Some

browsers allow you to switch off pre-fetching. You can also switch off pictures, pop-ups, video and audio.

On opening a web page, there can be much communications protocol chatter back and forth across the link, as various web page components are retrieved.

To get round this, use a shore-based system to access the page, re-encapsulate using a faster comms protocol and send the whole page to the vessel in one block.

Using a shore-based system to access the web page means that beneficial features which affect speed, security, user experience and cost can be implemented, such as the ability to implement white and black lists, to only allow access to predefined websites, or bar others.

## 7) Value added services

This is an integral component of your end-to-end connection, which adds immense value to the FleetBroadband end-to-end solution. Web portals have been developed to allow the customer to activate their FleetBroadband SIM card, determine what traffic is allowed to pass to the vessel and execute usage threshold control to manage expenditure. Some partners offer services to monitor traffic based on IP address, so customers can track expenditure down to different connections on various parts of the vessel.

Partners can also extend shore-side FleetBroadband connectivity via services like QoS, VPN and many more. Talk to your service provider if you have specialised network requirements.

## 8) PC best practices

Unwanted random traffic should not be passed across the satellite link. Use a virus checker and firewall, but make sure you have an update policy in place.

Disable automatic updates. Lock down the PC's MAC address to the interface of the terminal or router if you can, to prevent other 'random' PCs, which may not adhere to a corporate security policy, from being connected. Talk to your service provider for a list of best practices.

Awareness of best practices can help to maximise the potential of your FleetBroadband solution, facilitate reductions in operational costs and enhance efficiency onboard and on shore.

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