Using GTMail optimised for Fleetbroadband

Sending Email easily and efficiently

Version 1.0

February 2010
1 Overview

GTMail offers a high end e-mail, fax and SMS solution for ships. GTMail Version 12.0.1.62 and above is optimised for Inmarsat Fleetbroadband. It can also be used with other Inmarsat services such as Mini M, Inmarsat B, Fleet 33/55/77, BGAN. GTMail is a cost effective communications solution. It is suited to vessels who wish to send and receive email, fax, SMS to/from shore over Fleetbroadband or other communications circuit types.

2 Key Features

GTMail has many features that allow vessels and operators the opportunity to communicate effectively while keeping control of airtime bills. GTMail integrates directly with Microsoft Outlook / Outlook Express which is a very familiar interface even to novice users.

2.1 At Sea

- Full Duplex Transmission
- Does not require Launchpad application
- Automatic start and stop of internet session
- Automatic Compression
- Tracking facility using Fleetbroadband GPS
- Fleetbroadband usage pop up monitoring
- Restart from Point of Interruption
- Delivery, non-delivery, read and unread receipts
- EDI (Electronic Data Interchange)
- Variable Batch Sizes
- Account Codes
- Uses the very popular GTMail Protocol, designed for Satellite and GSM circuits
- Can install GT over any sized network onboard
- Ship staff can send and receive e-mail to and from ashore whilst in their cabin
- Size restrictions for sending externally can be put in place
- Ship staff can exchange e-mails internally so becomes a more efficient method of exchanging data onboard
- Provides an office environment onboard
- Captain can still view all incoming and outgoing messages

2.2 In the Office

Online Mailbox Management Facility:

- GTAlert
- GTAAlarms
- View Mailbox contents
- Filter senders messages
- Communications Report
- View Airtime used
- Forward Messages
- Track Vessel Location
3 Benefits of using GTMail with Fleetbroadband

Reliability

GTMail over Fleetbroadband has been tested vigorously from our offices and with customers at sea.

- Connections are reliable
- Consistent performance during mail transfer

Speed

One of the key advantages of GTMail is the ability to perform fully-duplex connections. Mail can be sent and received at the same time efficiently.

The following tests were performed on a Thrane & Thrane terminal in Sept 2009. Connections used standard IP connections. The same compressed data was sent inbound and outbound on each transmission test.

<table>
<thead>
<tr>
<th>Email sent/received (Compressed size)</th>
<th>Transmission time</th>
</tr>
</thead>
<tbody>
<tr>
<td>16KB in/out</td>
<td>14 sec</td>
</tr>
<tr>
<td>32KB in/out</td>
<td>18 sec</td>
</tr>
<tr>
<td>64KB in/out</td>
<td>24 sec</td>
</tr>
<tr>
<td>128KB in/out</td>
<td>38 sec</td>
</tr>
<tr>
<td>256KB in/out</td>
<td>1 min 2 sec</td>
</tr>
<tr>
<td>512KB in/out</td>
<td>1 min 55 sec</td>
</tr>
<tr>
<td>1MB in/out</td>
<td>3 min 32 sec</td>
</tr>
<tr>
<td>2MB in/out</td>
<td>6 min 55 sec</td>
</tr>
<tr>
<td>5MB in/out</td>
<td>16 min 59 sec</td>
</tr>
</tbody>
</table>
4 Network Installation Considerations

GTMail can be installed on a standalone communications PC or vessel network. It will work directly with Fleetbroadband terminals over the Ethernet or ISDN interface.

Customers may choose to deploy a firewall to lock down the Fleetbroadband terminal solely for GTMail use. GT supply a Cisco firewall which can be pre-configured to only allow GTMail traffic over the Fleetbroadband terminal. All other internet traffic e.g. web browsing, automatic updates can be disallowed.

If the vessel already has a firewall solution we will advise of the TCP/IP addresses and ports that are required for GTMail operation.

How to Install the GT Firewall With Inmarsat Fleet Broadband

1. Connect one end of an ethernet cable to the Ethernet Port on the Fleet Broadband BOU
2. Connect the other end of ethernet cable to Port 0 of the Cisco Firewall provided by GT
3. Connect the ship network to Port 1 of the Cisco Firewall
4. Connect the power to the firewall
5. From the GTMail Server PC Attempt an Email Connection
5 Installing and Configuring GTMail for Fleetbroadband

Installing GTMail is wizard based and the installer has been designed for the end-user without the need for an engineer. On standalone or network configurations the message handling system in GT Mail is configured...

5.1 PC Hardware and Software requirements

Minimum PC requirements are

Pentium III Processor, 1GB RAM, CD-ROM drive

Software requirements are


5.2 The Message Handling System Wizard

The user would now enter the main mailbox details provided when an account has been requested from GT.
Additional onboard email accounts can now be created. For example, if the vessel was called the “Falcon” the main email address could be falcon@gtships.com. Then additional accounts such as master.falcon@gtships.com or joebloggs.falcon@gtships.com could be created for use on other PCs on the vessel network.

Finally the wizard starts all the services required.
5.3 The Mail Setup Wizard

Once the message handling system has been configured, Mail clients can be set up. This is done with the Mail Setup Wizard.

Firstly, the wizard checks the Windows/Outlook configuration on the PC.

The user will then add their email address as defined in 2.3.1 step 3.
Step 3 of the wizard is for specifying the location of Outlook data files associated with the mail account.

Finally, the profile and other settings are applied and GTMail is now configured to work with Microsoft Outlook.
5.4 Setting up GTMail to make connections with Fleetbroadband

GTMail can now be configured to send or receive email from shore. A Fleetbroadband circuit type can be added for making connections to the GTHub. Again, a wizard performs this task and configures access IP addresses etc automatically.

In this example a Thrane&Thrane Sailor 150 terminal has been manually selected.
6 Using GTMail with Fleetbroadband

Clients using Microsoft Outlook have a variety of methods for initiating a connection over the Fleetbroadband. They can click the "send/receive" button in the Outlook toolbar.

GTMail will then bring up a list of items to send in the transmission. The screen below shows the uncompressed size and the compressed size of messages. It will also indicate cost in USD when tariffs have been configured.

The user can then click the large button (bottom centre) to use the default connection - in this example a Thrane&Thrane Sailor 500 or click next to use a different circuit.
GTMail by default will use a Fleetbroadband standard IP session. The software will automatically open the Fleetbroadband standard IP connection, transfer outbound and receive inbound in full duplex and then close the connection automatically. Below is an example of a 5MB inbound and outbound transfer in progress.

There are advanced settings for Fleetbroadband users. For example, streaming circuits can be specified in the Quality Of Service (QOS) field in advanced properties, see below.

7 Monitoring and control of costs

Using the standard features of GTMail, users can monitor airtime usage. Tariffs can be configured within GTMail to indicate cost before a transmission takes place.
8 Further Details and Support

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