

# Seamless high speed delivery of synchronised IMAP email and data over HF Radio.

- Seamless operation with smart phone and tablet mail apps including Exchange, Outlook, Apple Mail, and Gmail.
- Compatible with iOS, Android and Microsoft platforms.
- No additional user training – no different to sending an email from your phone, tablet, or laptop.
- Data Encryption and enhanced Link Security.
- Priority and Emergency Messaging feature.
- Fully automated link setup for HF Radio circuits.
- Up to 19.2Kbps effective throughput rates\*



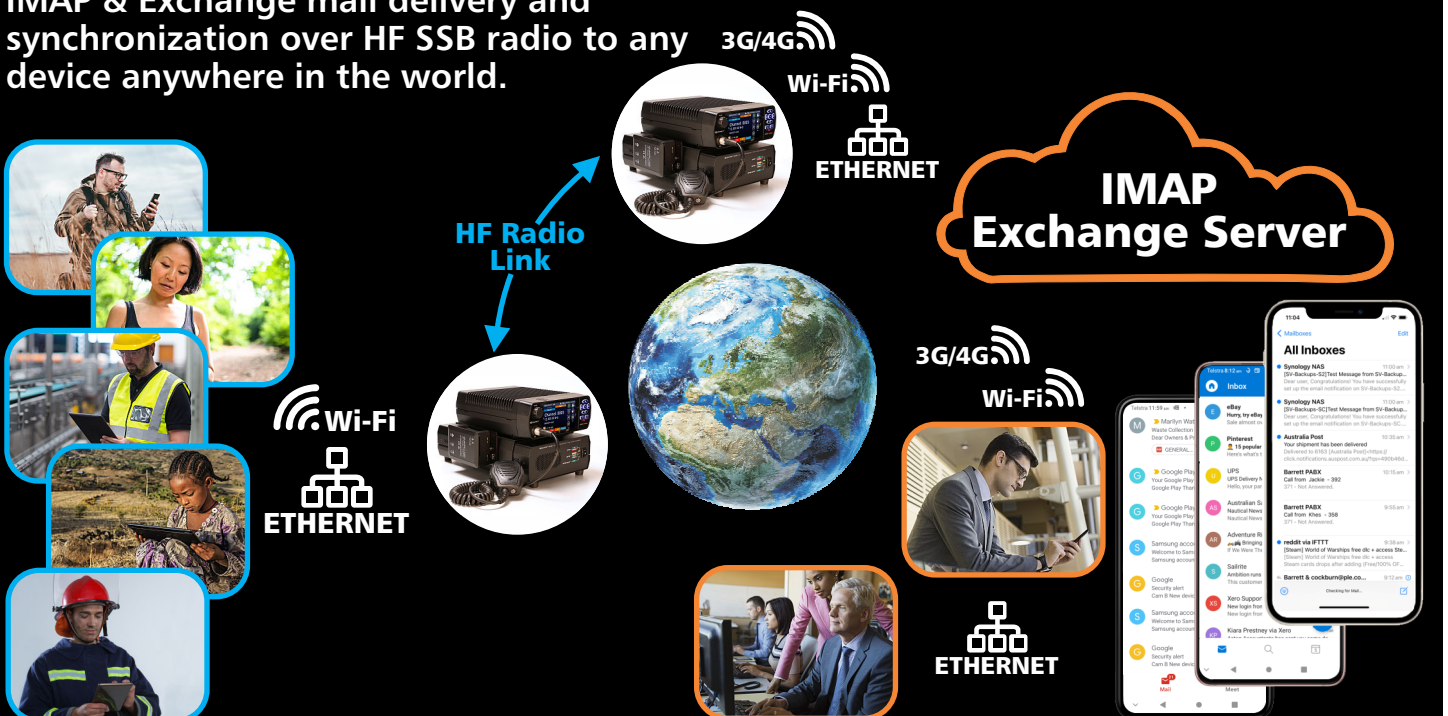
The development of the HF Radio Mailbox is based on the increasing demand for users to be able to communicate from wherever they are, including isolated locations connected only by HF radio, using the existing email client i.e. Outlook on their personal device, be it a smartphone, tablet or laptop, in much the same way as they can use the WiFi in their own office.

The mailbox acts as an Internet Gateway and provides a seamless portal to and from the Internet and HF radio network.

The HF Radio Mailbox provides direct and end to end mail synchronization over HF radio. No external computers or controllers are required over the LAN or WiFi connection.

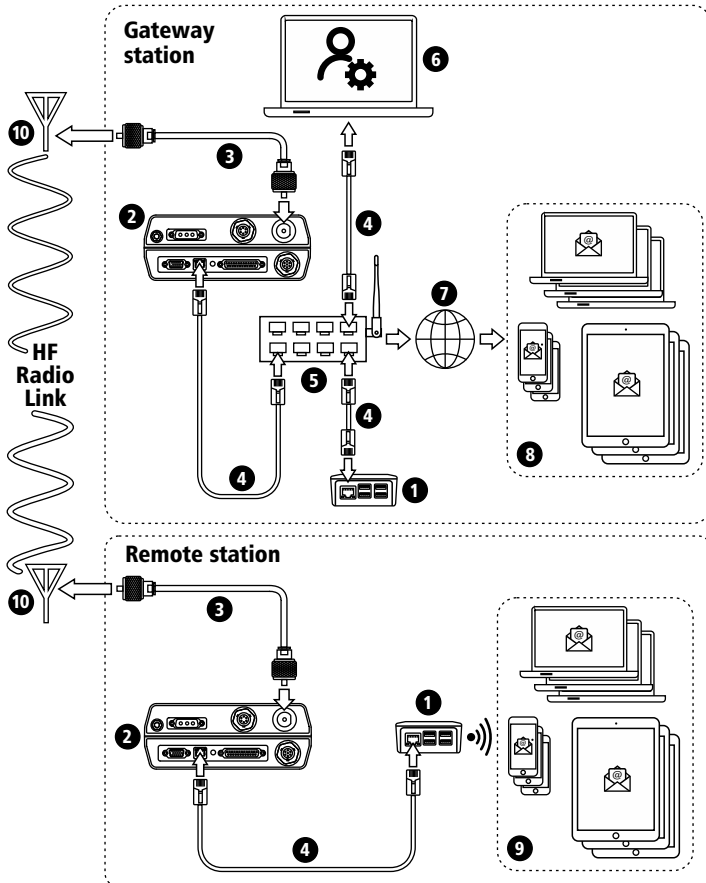
Remote Control and Configuration Management affords network managers the ability to add/drop stations using OTAR (over the air re-programming) without having to configure individual stations.

IMAP & Exchange mail delivery and synchronization over HF SSB radio to any device anywhere in the world.



Each HF radio station in the network requires a Barrett 4023 CLOVER Modem (P/N BC402301). Based on the CLOVER 2500 waveform with enhanced data throughput rates, all HF connections are managed fully automatically providing for unattended operation and mail synchronisation 24 hours a day, 7 days a week. Barrett Communications recommend using a Barrett 4050ip HF SDR Transceiver or a Barrett PRC-4090 HF SDR Transceiver for best performance.

## Example Network Diagram



- 1** Barrett 4020 HF Radio Mailbox
- 2** Barrett 4050ip HF SDR Transceiver
- 3** Coaxial cable
- 4** Ethernet cable
- 5** Router
- 6** PC for setup by Administrator
- 7** Internet
- 8** Wireless mobile phones and tablets (internet connected)
- 9** Wireless mobile phones and tablets (no internet available)
- 10** Antenna

## 4020 HF Radio Mailbox Package Includes

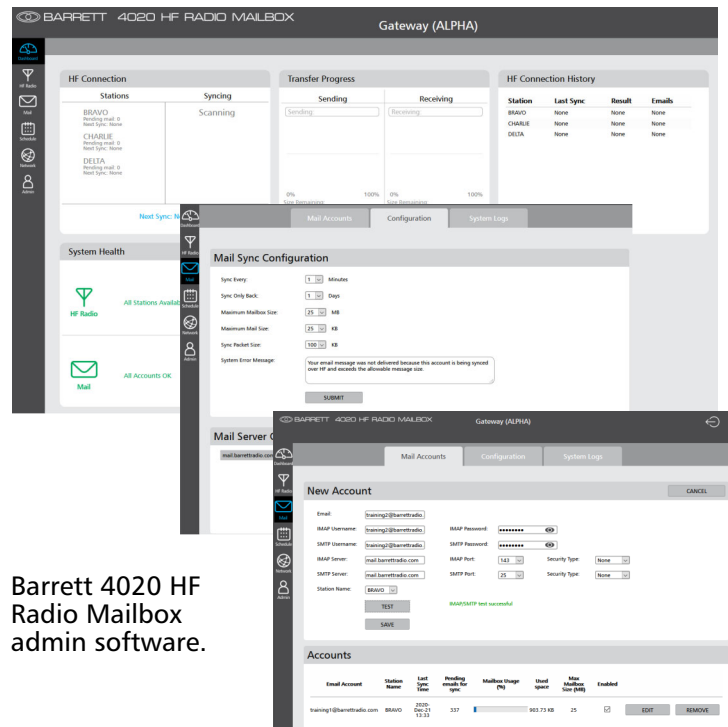
- HF Radio Mailbox Assembly
- Ethernet cable - 0.4m
- DC Power Supply Cable
- Rubber Feet - Supplied on backing, not fitted
- 4020 HF Radio Mailbox Installation Manual

## Each System Requires

- 4050 HF SDR Transceiver - P/N BC405000/ip/se
- Fan unit to suit 4050 transceiver - P/N 4090-01-11
- 2G Automatic link establishment (ALE) - P/N BCO40501
- Clover 2500 HF Data modem internal fit PCB - P/N 402025
- (The above required items are all ordered separately)



Above - Barrett 4050 HF SDR transceiver with 4020 HF Radio mailbox in base station configuration.



Barrett 4020 HF Radio Mailbox admin software.

## Clover 2500 Protocol Specifications

<b>Data Format</b>	8-tones, 8-bit transparent
<b>ARQ Modulation</b>	BPSM, QPSM, 8PSM, 8P2A, 16P4A
<b>ARQ Protocol</b>	Full-Duplex
<b>Bandwidth</b>	2500 Hz, (250-2750 @ -50 dB)
<b>Data Rate</b>	3750 bits/sec
<b>ARQ Data Rate</b>	275 to 2500 bits/sec

\*Specified data transmission speed is subject to link quality and file compression rate. Specifications are typical. Equipment descriptions and specifications are subject to change without notice or obligation.

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