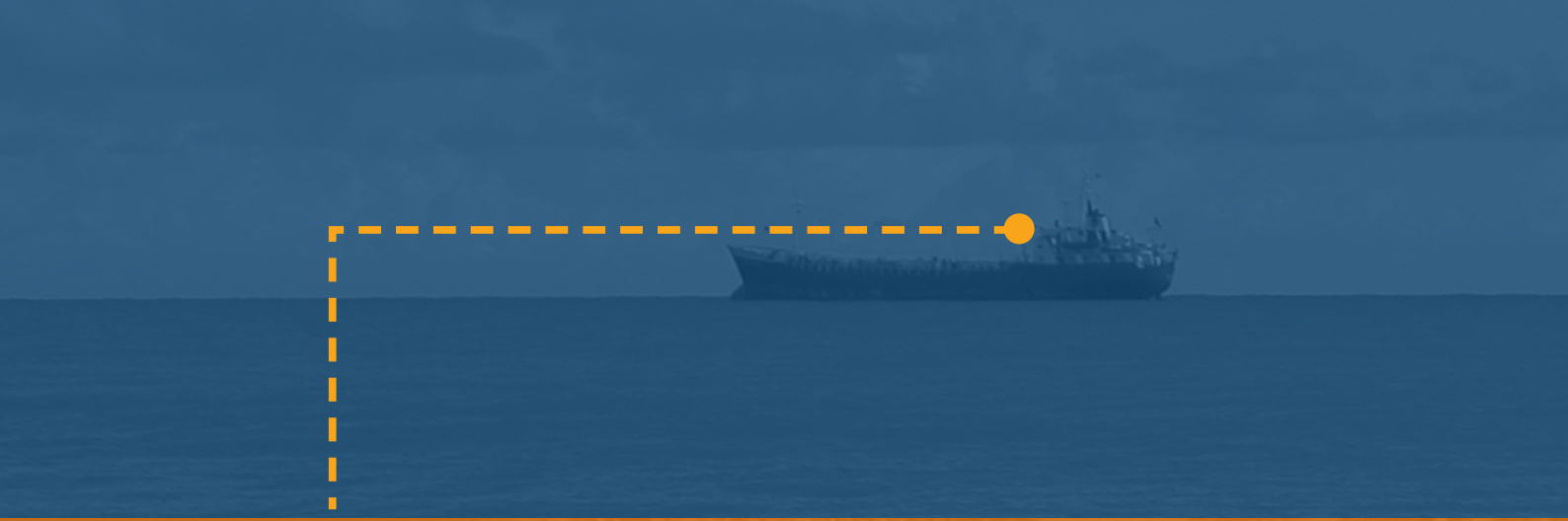


A blue-tinted photograph of a ship on the horizon. A dashed orange line starts from the left edge, goes down, then right, ending at a solid orange dot on the ship.

KVH CommBox™ Software Modules

QuickFile™

Concept

The key function of QuickFile is to safely and cost efficiently transfer files from anywhere to anywhere. On a daily basis many files in the office are needed on vessels, and vice versa. This automated file transfer functionality seamlessly transfers files to and from the vessels, as if they were a part of the office network.

You can set up directories or specific files to be synchronized ship-to-shore and shore-to-ship. The files are automatically compressed and transferred at the next scheduled transfer. CommBox also has a differential file synchronization algorithm (DiffSync), further reducing the amount of data transferred over the links.

QuickFile Highlights & Features

- Uses the optimal compression, on a per-file basis
- Cost saving on both time and amount of data
- One-to-many transfers
- Synchronize files and folders using the highly efficient differential synchronization feature
- Automatic transfers and synchronization jobs
- Unlimited number of transfer jobs, for all vessels
- Transaction logs for each vessel
- Advanced scripting features
- Multiple protocols for fetching and delivering files, like FTP, CIFS, NAS, email.

Secure Transfer

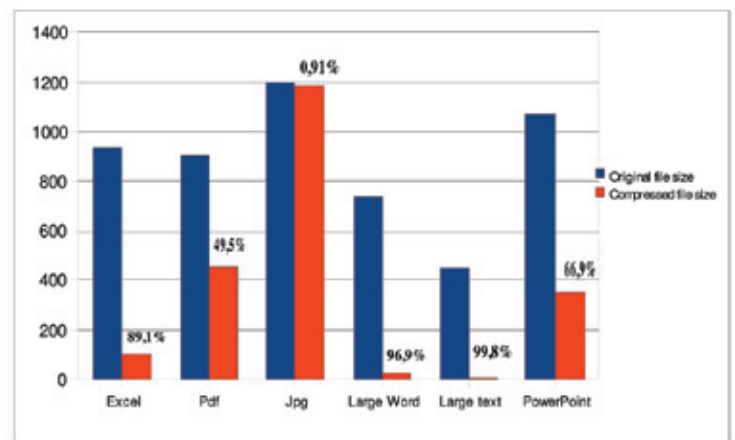
The QuickFile transfer system guarantees that files are delivered, and will give you a notification of delivery. If for instance there was a problem with delivery due to noisy links, you will receive a notification of non-delivery.

QuickFile with Differential Synchronization

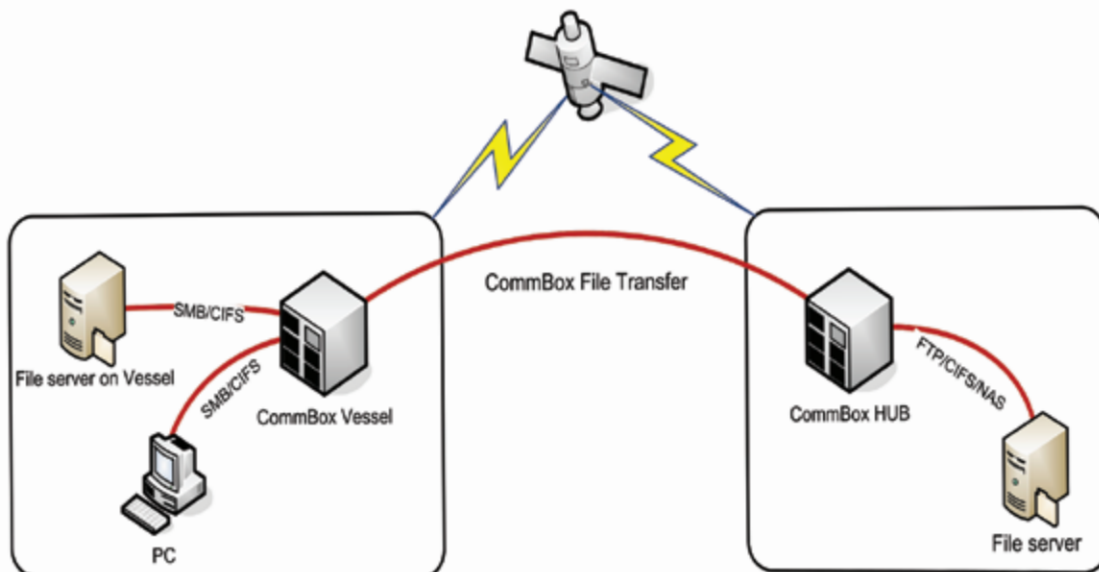
Many files transferred to the vessels are almost identical to the ones transferred earlier. With the DiffSync bit-level synchronization of QuickFile, only new changes to the files are transferred. This ensures that files and folders can be kept fully synchronized, and reduces costs considerably.

Typical usage for DiffSync are transferring and updating anti-virus software, general software upgrades, charts, databases, documents and intranet.

QuickFile Compression Results



The average compression results presented above do not represent the DiffSync part of QuickFile. With DiffSync you will have cost savings and data reduction that will be in the 99% range! This is because DiffSync will only transfer the new changes of the documents, and when you compare the document size with the new changes, you will clearly see the huge potential for cost savings.



QuickMail™

Concept

With the CommBox QuickMail module, commercial fleets gain the advantage of a dedicated e-mail capability that will work easily with their own network and IT infrastructure as well as with the CommBox built-in e-mail applications. CommBox supports POP3/SMTP and IMAP as well as giving the crew access to use webmail via IMAP, the built-in webmail client, or any other client of choice.

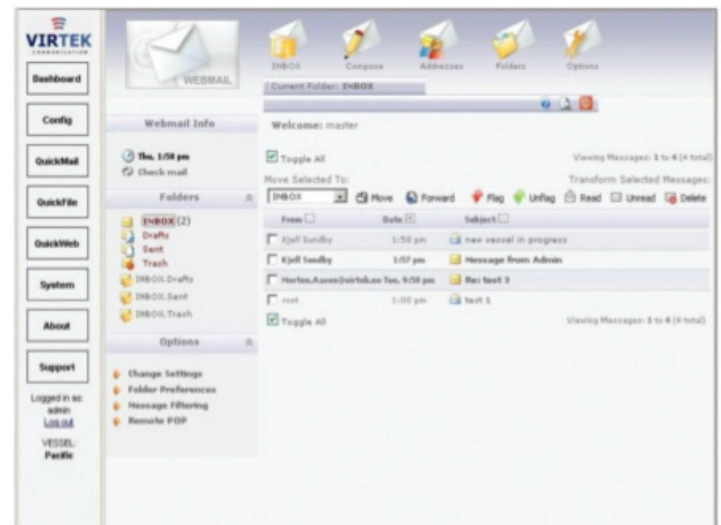
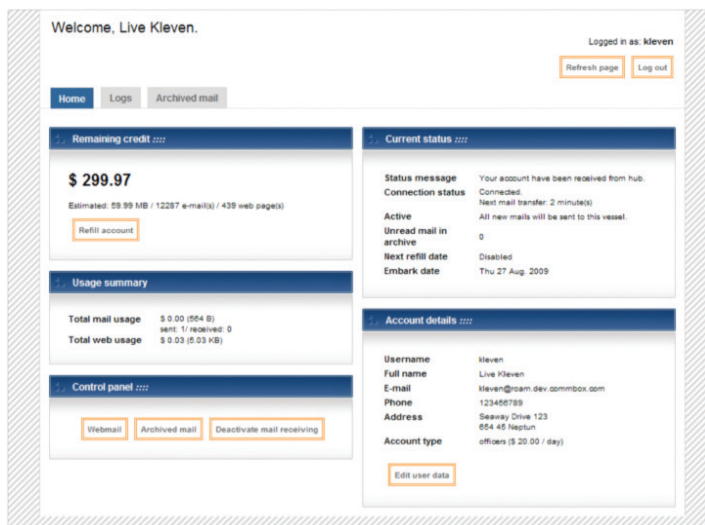
The CommBox e-mail server is also both a full e-mail server and an e-mail relay server for added convenience and efficiency. Even if your vessels are already equipped with onboard e-mail servers, the CommBox relay server function will still dramatically reduce your data usage costs thanks to its advanced compression algorithms.

Offer Flexible, Pre-paid E-mail Access to the Crew

When you combine QuickMail's relay service with the powerful QuickCrew™ software module, you have the ability to offer crew members roaming e-mail with dedicated pre-paid accounts that will be accessible anywhere within the fleet's network or from the web. As a result, crew members will be able to read and respond to their e-mail from any vessel in a fleet and check their business e-mails from any web browser anywhere in the world.

QuickMail Highlights & Features

- Standard POP3/SMTP and IMAP with encryption
- Compatible with any known e-mail client onboard the vessel, including Outlook, Outlook Express, Lotus Notes, Mozilla Thunderbird, etc.
- Dedicated web-based e-mail based on IMAP and external POP3
- Mail restrictions based on users, domains, files, and attachment sizes, etc.
- Split billing on incoming and outgoing e-mails
- Anti-spam and anti-virus filters
- Option to synchronize corporate address book with dedicated web-based e-mail application
- Advanced compression to minimize transfer size
- Configurable filter and attachment conversion
- Automatic notification of e-mails that exceed size limits
- Configurable alert when files are delivered



QuickWeb™

Concept

The key function of QuickWeb is to reduce both the costs for "pay per byte" transmissions and the bandwidth requirements during web surfing. Web traffic is compressed in real time, advertisements are removed and content is checked against a previous copy (local cache on vessel CommBox), all with an eye toward streamlining the amount of data you are downloading over your communication link.

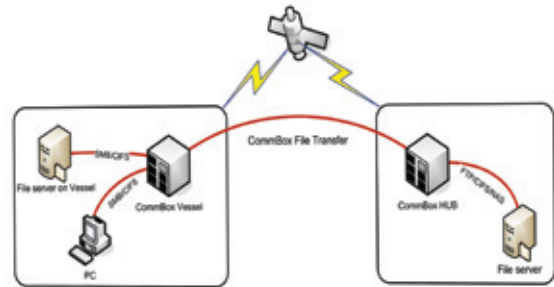
With this powerful technology working for you, QuickWeb makes it possible to surf the Internet for 1/10th of the price!

QuickWeb Highlights & Features

- Reduce cost on pay-per-byte carriers by an average of more than 85% when web surfing
- Optimize bandwidth on fixed price carriers (VSAT)
- Remove advertisements
- Remove all unnecessary data
- Patented Red-line technology to clearly identify compressed and optimized content
- Pre-paid web surfing
- Full web caching for all users on the vessel
- Advanced web filter with black-list, white-list and no-touch-list (URL based)
- Block streaming media
- Block downloads of media like MP3, mpegs & similar content

Reduce Costs & Optimize Bandwidth

The savings you gain by using QuickWeb are remarkable as the web traffic over the link is minimized. Combined with the built-in filtering system, only allowed websites (configured by the customer) are transferred over the links.



Compared to direct access to the Internet, CommBox and QuickWeb compress the data, remove advertisements and use cache functionality if a web page is visited more than once.



Original full size picture



Compressed with QuickWeb, identified with our patented Red-line technology

Below pictures are examples of a maritime web-page, with and without optimization:



Web-surfing without QuickWeb



Compressed & optimized with QuickWeb, flagged by Red-line technology

QuickCrew™

Concept

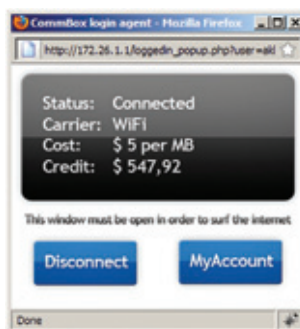
The QuickCrew module includes roaming crew e-mail, which enables the crew member to keep one personal e-mail account for usage on any vessel in the fleet, as well as on shore. The e-mail account will follow the user when he embarks on a vessel by a simple login procedure. E-mails to this account will only be transferred to the specific vessel for the duration of the stay. When the crew member logs off, e-mails will be waiting on the CommBox hub until the crew member logs on from another vessel.

QuickCrew Highlights & Features

- The e-mail account follows the crew member from vessel to vessel
- E-mails are only transferred to the actual vessel the crew member is currently on
- E-mail clients can be locked to pre-paid only, or opened for free usage
- The pre-paid accounts can easily be refilled
- Easy to use interface via web
- The user has full control of used airtime and remaining credits
- Use the CommBox web mail client, or any POP3/SMTP/IMAP client
- The credits can be used for both e-mails and web browsing
- All usage is logged, and can be retrieved from the system

Pre-paid E-mail and Web Browsing

The QuickCrew module also includes a pre-paid solution for both e-mails and web browsing. Access to Internet activities is limited to the credit registered to the account. When the credit reaches zero, no e-mail applications or web browsing is accessible, and the crew member will have to buy more credits to refill the account. Refill can be done by the administrator, or by creating an activation code the crew member types in for refill.



When using the prepaid web browsing, the user logs on locally to the vessel CommBox™. After login, a status window will pop up, showing which carrier is active, and a live updated status of the credit balance. The status window must be open for the duration of the browsing session. Closing the status window will terminate the browsing session. All IP services, for instance MSN, will be accessible when the status window is open.

Welcome, Live Kleven.

Logged in as: kleven

Refresh page Log out

Home Logs Archived mail

Remaining credit ::::

\$ 299.97

Estimated: 59.99 MB / 12287 e-mail(s) / 439 web page(s)

Refill account

Usage summary

Total mail usage	\$ 0.00 (564 B)
sent: 1/ received: 0	
Total web usage	\$ 0.03 (5.03 KB)

Control panel ::::

Webmail Archived mail Deactivate mail receiving

Current status ::::

Status message	Your account have been received from hub.
Connection status	Connected.
	Next mail transfer: 2 minute(s)
Active	All new mails will be sent to this vessel.
Unread mail in archive	0
Next refill date	Disabled
Embark date	Thu 27 Aug. 2009

Account details ::::

Username	kleven
Full name	Live Kleven
E-mail	kleven@roam.dev.commbbox.com
Phone	123456789
Address	Seaway Drive 123 654 45 Neptun
Account type	officers (\$ 20.00 / day)

Edit user data