

## Flexible, Cost-Effective Ship-to-Shore Communication

UDgateway optimizes data communication by compressing data and eliminating undesired or redundant traffic. Its superior technology ensures that only “useful bytes” are transmitted via the satellite link(s). Communication costs are therefore reduced. OneAccess UDgateway encompasses specific enhancements for maritime communication, such as the need to switch between different access technologies (e.g. Ku/Ka band, L-band, Wifi) for cost optimization or the control of Internet bandwidth dedicated to crew welfare.

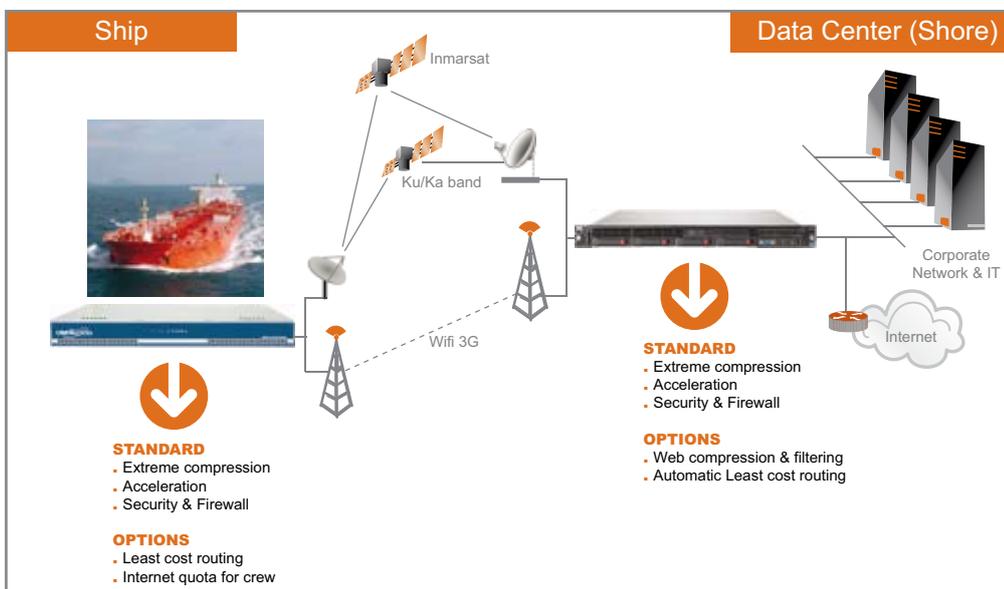
UDgateway results from 10 years continuous R&D of IP optimization technology over satellite. UDgateway is a future-proof choice. The product development is backed by OneAccess cloud-enabling Customer Premises Equipment (CPE) strategy, the #2 worldwide leader in branch office routers for Small and Medium Enterprise.

### Customer Benefits

- Bandwidth optimization delivers data communication cost control and enhanced user experience
- Link Management ensures a robust, always-on connectivity and selects least-cost routing
- The transparent optimization enables the vessel is seamlessly integrate in corporate network and IT
- Staff motivation is improved with Internet access controlled by user bandwidth management

### Service Provider Benefits

- Single-box solution for VPN, acceleration, compression, firewall and user bandwidth management
- Increased competitiveness with cost-effective bandwidth packages and differentiating services
- Increased market visibility with branding using SSP styles and logos



## UDgateway – Features



### ➔ Acceleration

UDgateway is purpose-designed to make up for the latencies, narrow bandwidth and high losses encountered on satellite links.



### ➔ Application-agnostic compression

Any TCP traffic is compressed and enables +50% up to +300% transfer rate acceleration.



### ➔ Traffic redundancy elimination

In enterprise communication (including vessel), files and data are sent back and forth between central and remote location (ie. between ship and shore). They are transmitted either in their original form or with slight modifications. UDgateway replaces redundant data with signatures and can reduce transmitted data by up to 99%. The write-back feature ensures superior redundancy elimination. The synchronization between ship and shore does not require management traffic during idle periods. The UDgateway technology thus ensures that the minimum amount of bandwidth is used on pay-per-volume links.



### ➔ Encryption

Data can be encrypted to preserve communication security. In addition to encryption, data are compressed and accelerated.



### ➔ Web compression and filtering

The WEBcompress option adds efficiency in preserving bandwidth by removing useless web contents, such as advertising. The HTTP content is gzip-compressed to lower bandwidth. Images are re-compressed at the desired trade-off between quality preservation and bandwidth saving. When a page is loaded for the first time, data reduction can reach up to 75%.



### ➔ Least cost routing

The link management chooses the best path for every packet to reach shore. A smart decision is based on link availability, cost,

and traffic priority. The link can be used only in case of emergency, when decided by the captain.



### ➔ Internet café-style web access

Internet access is a key aspect of boat crew welfare, as it provides the link to families and relatives as well as entertainment. Because bandwidth is costly, UDgateway can provide a password-protected web access with a quota associated to every user or group of users.



### ➔ Web acceleration

UDgateway includes a transparent HTTP cache, as well as a DNS cache. Web browsing of recurrently open pages is then accelerated, while reducing the amount of data on satellite link.



### ➔ Firewall & security

The firewall filters unwanted traffic and protects against external threats. Bandwidth is then preserved for useful traffic.



### ➔ Application visibility & control

The Deep Packet Inspection (DPI) engine detects business-critical application, such that they can profit from QoS prioritization. Web-based, business-critical applications can be discriminated from low-priority, standard Internet browsing. Recreational traffic, such as peer-to-peer, are notoriously difficult to block with simple port-based firewall rules. DPI detects such traffic and blocks them.



### ➔ Reporting

UDgateway exports detailed traffic information towards OneAPM, an optional reporting server, which generates detailed reports about traffic usage and quality of experience. This tool enables to pinpoint wasted bandwidth and root cause of unexpected network performance.