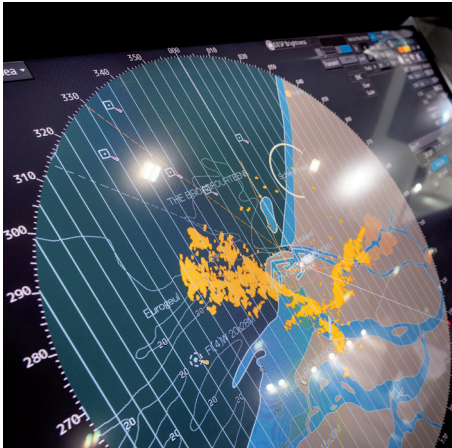


## Elcome Bridge Protect

PROTECT AGAINST CYBER INVASIONS

[elcome.com](http://elcome.com)





# Are you prepared to face the increasing cyber threats that's affecting the shipping industry?



## Growing cyber threat

The shipping industry's growing reliance on automation, electronics and digitization increases the danger of cyber "bugs" being introduced into ships and shoreside IT infrastructure. Cyber attacks in the maritime industry have risen by over 900 percent in the last three years, ranging from malware introductions causing navigational errors to full-blown access-denial ransomware.

A major point of entry for cyber infections is shipboard downloads from shoreside networks when loading electronic nautical charts or operating system updates using USB sticks or other devices.

Electronic Chart Display and Information Systems (ECDIS), which are now mandated on most SOLAS ships, rely on up-to-date electronic nautical charts or raster cartography and security updates to ensure compliance and navigational safety. Integrated bridge Systems (IBS) are complex networks that include radar,

conning, ECDIS and other navigational sensors, which are connected using Ethernet or Local Area Networks (LAN) with serial data cables. An infected file introduced into one of the subsystems can rapidly spread through the entire bridge network with potentially disastrous consequences.

## Dangers of virus introduction

Notices to Mariners and new editions of electronic charts are normally delivered to ships in electronic form by email or online via satellite data links underway or on DVDs when in port. The method of uploading these critical data files into ECDIS or IBS is commonly using a USB stick. Unfortunately, the use of an infected USB stick to execute software updates or maintenance on ECDIS or IBS may have disastrous consequences.





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# Elcome Bridge Protect

TRANSFER FILES SECURELY BETWEEN PC AND ECDIS

**ELCOME**  
BRIDGE PROTECT



## Elcome Bridge Protect shields your ship's systems from infected downloads

Elcome International, one of the world's largest suppliers of electronic charts and Notices to Mariners - has introduced a new secure tool called Bridge Protect to defend against viruses from being transferred with file downloads on a USB stick into the ship's ECDIS or IBS. It uses a protected USB 3.0 flash drive that prevents security risks while exchanging files from internet-enabled PCs for updating charts or uploading new ECDIS software upgrades, as well as other interconnected equipment on the integrated bridge. It is simple and efficient method of transferring files without the need to use password or fingerprint checks.

The Bridge Protect locks the flash drive with a low-level file system in a way that leaves no empty memory space in the USB storage medium, thereby preventing harmful files from being transferred intentionally or accidentally aboard ship.

Bridge Protect is compatible with Windows and Linux operating systems. As per the field tests and lab tests, it is also compatible with all ECDIS brands and models manufactured by Danelec Marine, Furuno, JRC, Kongsberg, Raytheon Anschütz, Simrad and all other models supporting either FAT32 or NTFS file systems.

Elcome Bridge Protect can be incorporated as a part of the Safety Management System stipulated by International Maritime Organization (IMO) Resolution MSC.428(98) and which becomes a mandatory part of the annual verification of the company's Document of Compliance, which came into effect since 1<sup>st</sup> January 2021.



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Our full-service offices from Spain to Singapore provide rapid service to major customers.

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Our highly trained, skilled work force includes more than 200 engineers and technicians.

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Our factory-trained service engineers make flyaway ship service calls worldwide.



### **HEADQUARTERS**

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### **Everything but engines and steel**

For more than 50 years, Elcome has been a premier maritime and defense technology solutions provider. The company is headquartered in Dubai and is one of the world's largest maritime companies with a diversified portfolio of technologies and solutions.

### **One-stop integrated solutions for diverse applications**

Elcome is a specialist turnkey solutions provider of navigation, communication, connectivity, automation, control, instrumentation and safety systems. The company designs and integrates a broad array of electronic sensors and processing systems for marine, offshore, energy, security, infrastructure and naval applications.

### **Strategic partner for maritime solutions and technical support**

As a turnkey solutions provider, we pursue a hardware-agnostic approach for the benefits of end-users and draw on our expertise in deep integration of sensors from various OEMs making Elcome a strategic partner for newbuild, retrofit and special projects worldwide.

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