

# TWELVESEC



## MARITIME

## THE CYBER THREAT

**You most likely have already been hacked.**

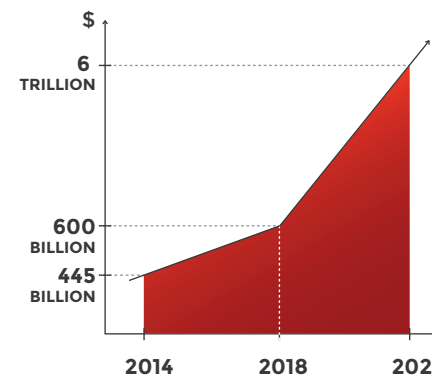
*This is not scaremongering - it is a fact.*

Governments & Companies are hacked daily and your company is no exception. You have in all probability already suffered a cyber intrusion or an attempt.



### > COST OF A MALWARE ATTACK

The average cost of a corporate malware attack in 2017 was calculated at \$2.4 million.



### > CYBERCRIME COST

In 2014 the commercial cost of cybercrime was calculated at \$445 billion, by 2017 that number had risen to \$600 billion, and expectations are that the damage from cybercrime will rise to \$6 trillion by 2021.

## MARITIME CYBER THREATS

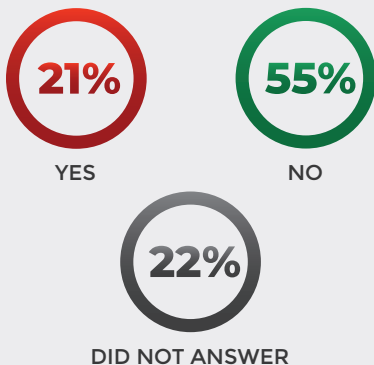
### > OUTDATED IT/OT SYSTEMS

Ships are built to last 30 years, IT systems are not. Older designs were less security focused than what is considered standard practices today.

### > MARITIME EXECUTIVES SURVEYED

2017 | BIMCO survey

Have your firm been compromised by a cyber attack?

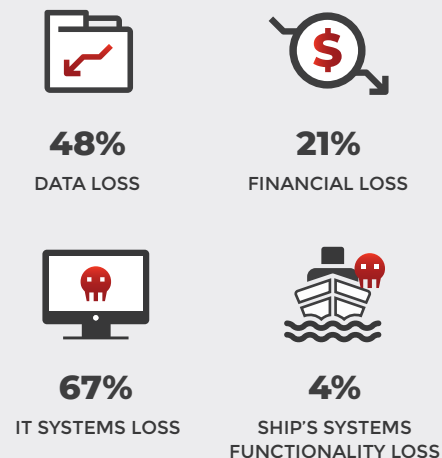


A fifth of maritime executives admitted that their companies have been a victim of a cyber attack in 2017.

### > MODERNISATION COMES WITH A COST

Most ships are now connected online 24x7 and are thus vulnerable; cybercriminals can pick and choose any of the 50,000 ships sailing the seas as their target at any time.

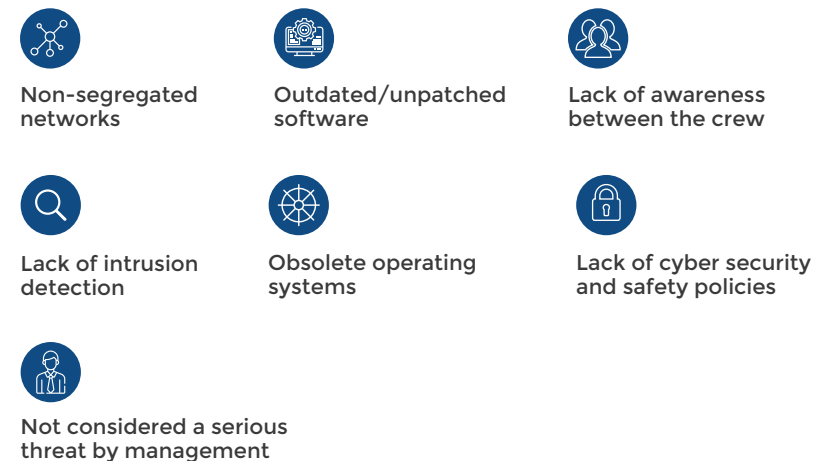
What happened when your company got hacked?



That means that roughly **450 ships and their crews** were in danger due to a cyber-attack in a single year.



### VULNERABILITIES ON BOARD



### Once they have breached a ship's defences, cyber criminals can:

- Alter the vessel's route remotely;
- Cause the engine's sensors to provide erroneous data;
- Cause an engine's components to be unavailable for use for a long period of time thus forcing the vessel to stop;
- Gain unauthorized access to the cargo control system;
- Create a physical threat to crews and possible loss of life.

## WHAT TWELVESEC CAN DO TO HELP



### › FOR ON-SHORE OPERATIONS

#### Penetration Testing (System/VoIP/Wi-Fi)

Make sure that your network is safe and no one can intercept your calls.

#### Vulnerability Assessment

We help you find and patch the cracks on your IT before they sink your ship.

#### Honeypots

We can set up traps to lure unwanted visitors and identify them.

#### Compromise Assessment

Establish if you have been hacked or not.

#### Forensic Investigation

In case you have been hacked, enhance discovery regarding the impact of the incident and gather court-supporting digital evidence.



### › FOR MANAGEMENT

#### Risk Assessment

#### Countermeasures Scenarios

When things go bad;

#### Business Impact Assessment

What will it cost you when things get out of control;

#### Data Classification

Protect your data by limiting exposure;

#### GDPR Consulting

A necessity if you do business within EU borders;

#### ISMS Development & Implementation

Tailormade solutions for your organisation.



### › FOR VESSELS

Everything outlined for on-shore operations plus:

#### OT systems OS assessment

Keep the on-board machinery safe from external threats.

#### OT Control Applications Assessment

Make sure that your monitoring equipment is displaying the correct data.



### › FOR OFFICE PERSONNEL & CREW

#### Security Training for IT

Keep your first line of defence up to date;

#### Security Training for Everybody

Increase general awareness of threats; your security is only as strong as your weakest link;

#### Live Hacking Awareness Training

Seeing is believing! We present real life scenarios custom-made for your company to increase awareness and to decrease any resistance in applying new security protocols.



### › FOR COMPANIES THAT FEEL SECURE ENOUGH

#### Red Teaming

If your company is confident that it has taken all the measures it needs in order to be cyber secure, an engagement scenario is the final test. Have an external team try to beat your defences in real life!



## CERTIFICATIONS





TwelveSec's aim is to make the Internet a safer place for everyone. Our consultants work day in, day out in order to keep companies and organisations around the globe safe and sound.

We can help you build your security procedures from scratch if necessary, or we can provide continuous support to maintain existing security structures.

We are also happy to teach companies and organizations how to keep their data safe; our consultants can share their experiences with everyone willing to learn through our training programmes.



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