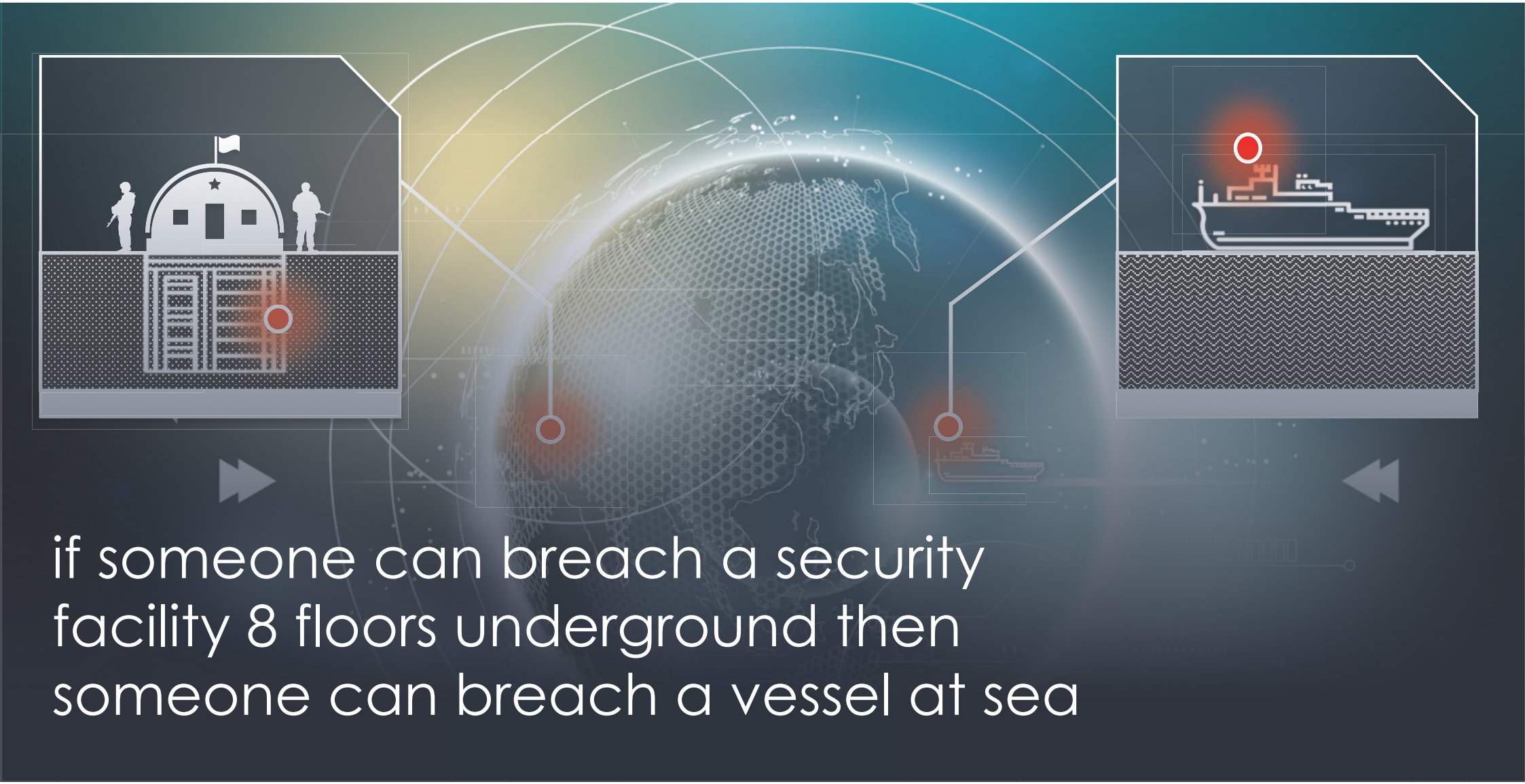
Preventing wide spread cyber attacks at sea

Itai Sela
Naval Dome's CEO


if someone can breach a security
facility 8 floors underground then
someone can breach a vessel at sea

Our Managing Partners

Asaf Shefi
CTO

Captain (Ret.), Nuclear-Engineer, former head of the Israeli Naval C4 and Cyber Defense Unit.

Itai Sela
CEO

Commander (ret.),
Israeli Navy,
Missile Ship Commander

Yohai Bar Zakay
Business Development

Colonel (Ret.), former Deputy Commander of the IDF's Cyber Intelligence Unit (8200)

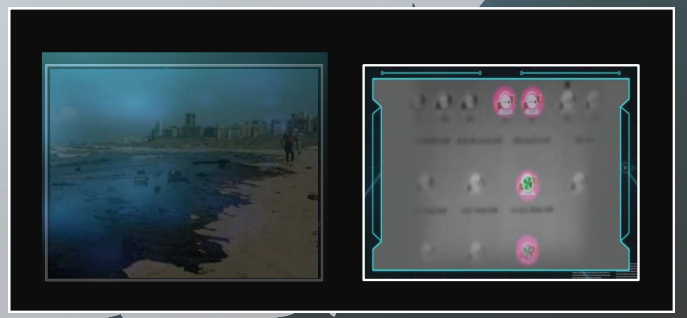
Institute Cyber Attack Exclusion Clause – Cl . 380

10/11/200

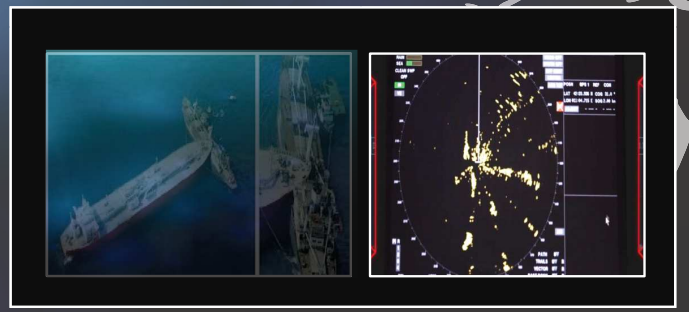
1. Subject only to clause 1.2 below, in no case shall this insurance cover loss damage liability or expense directly or indirectly caused by or contributed to by or arising from the use or operation, as a means for inflicting harm, of any computer, computer system, computer software programme, malicious code, computer virus or process or any other electronic system.

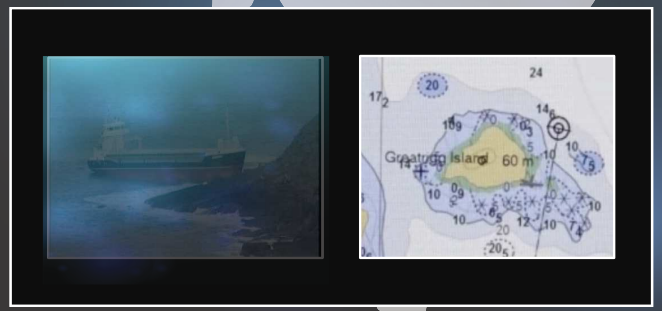
2. Where this clause is endorsed on policies covering risks of war, civil war, revolution, rebellion, insurrection, or civil strife arising therefrom, or any hostile act by or against a belligerent power, or terrorism or any person acting from a political motive, Clause 1.1 shall not operate to exclude losses (which would otherwise be covered) arising from the use of any computer, computer system or computer software programme or any other electronic system in the launch and/or guidance system and/or firing mechanism of any weapon or missile.

Pollution
Investigation said it was a technical failure



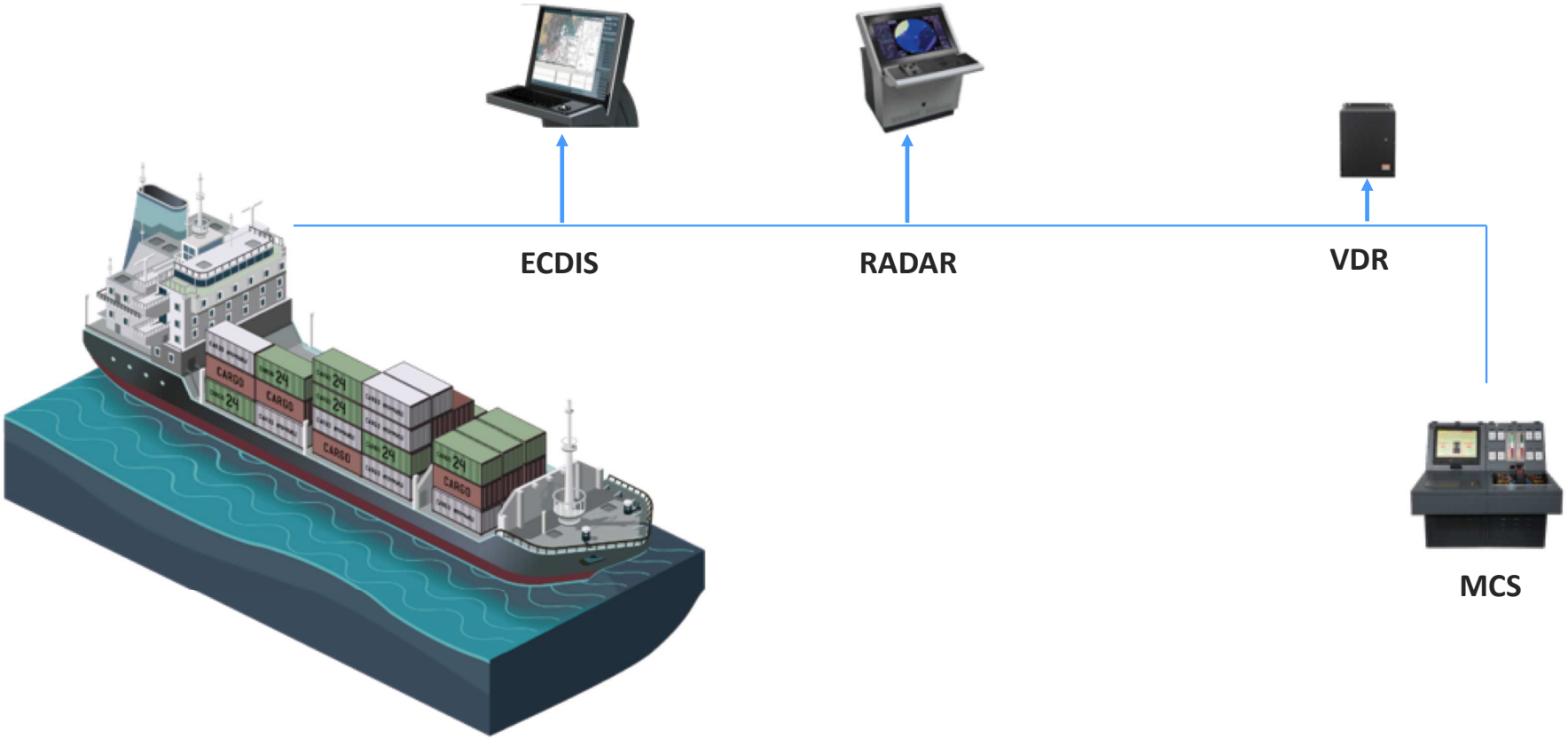
Collision
Investigation said it was human error



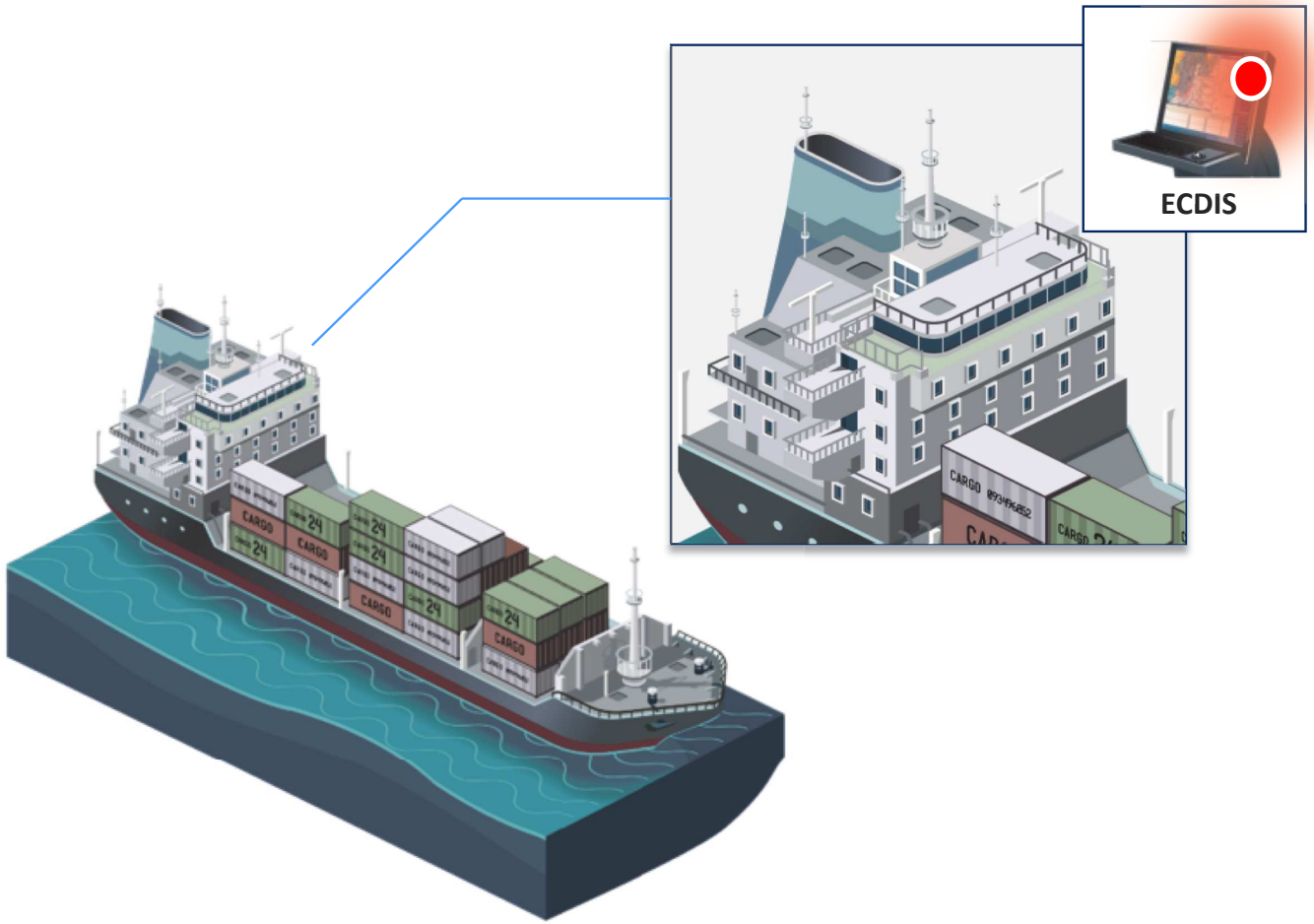


Ship went aground
Investigation said it was human error

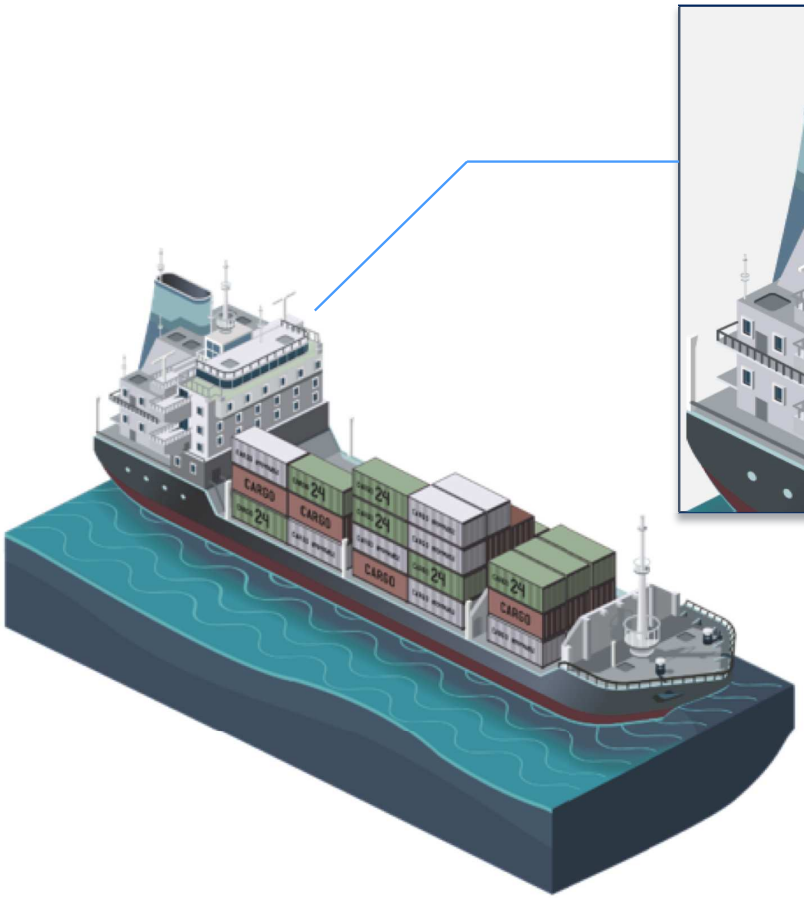
Critical PC-based systems onboard the vessel

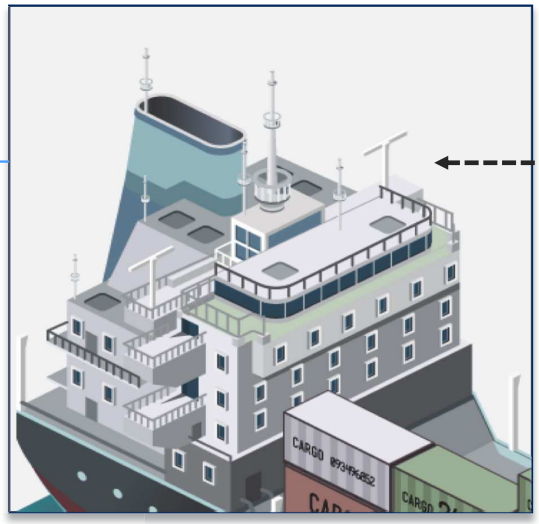


ECDIS Update



RADAR Service

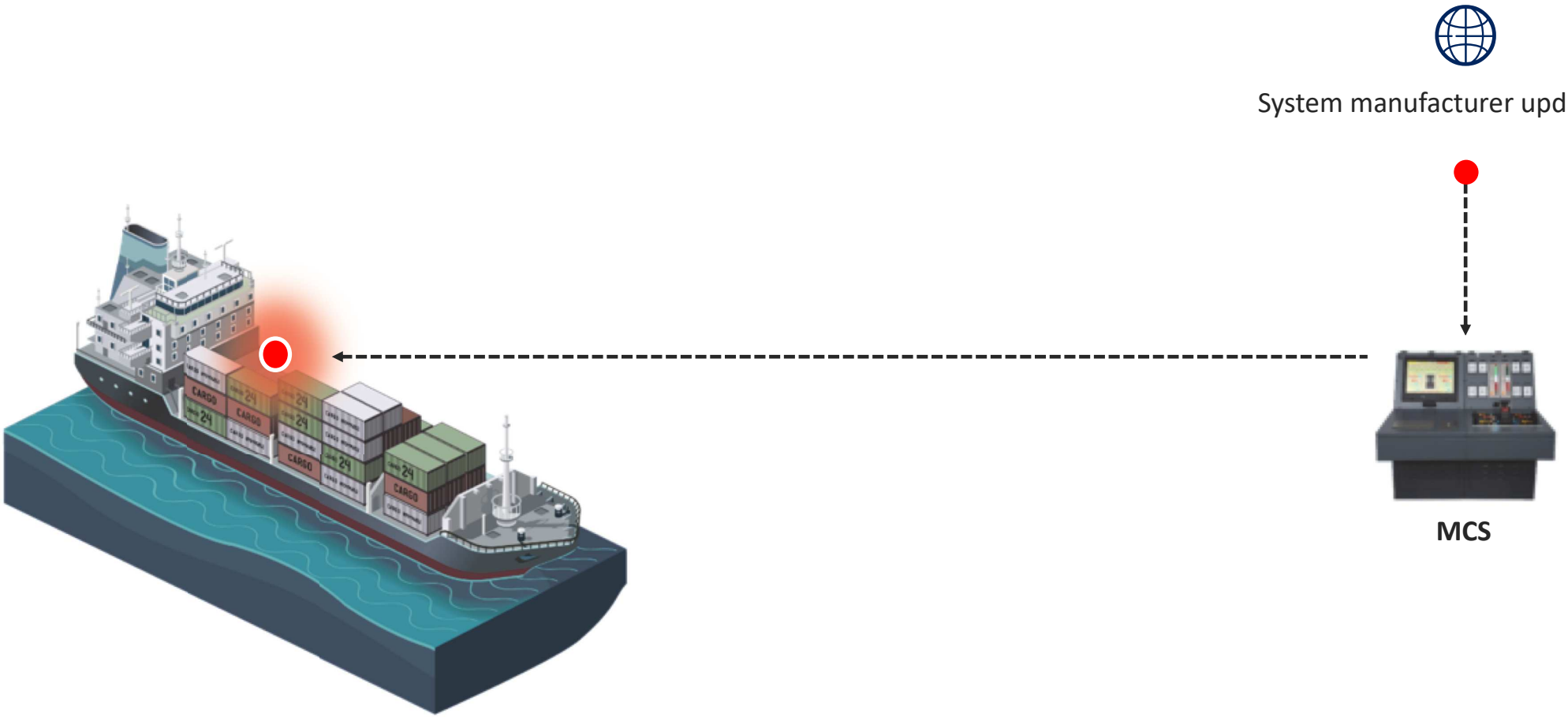




Service Technicians

RADAR

Machinery Control Systems update/ fix a problem

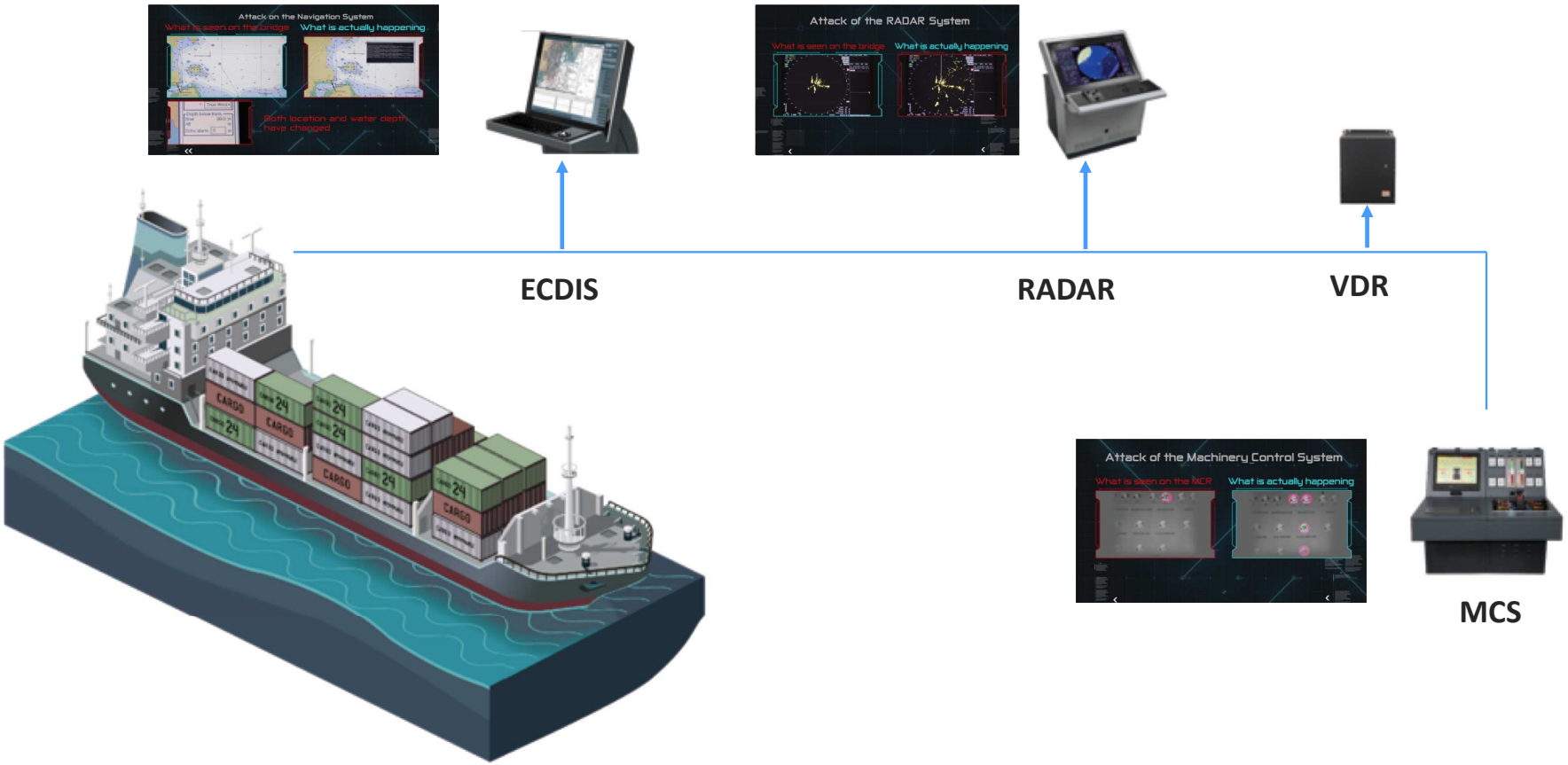


NO vessel is an island

The Crew

- private laptops
- private mobiles
- private USB sticks

All the systems are connected



Human factor

Current situation

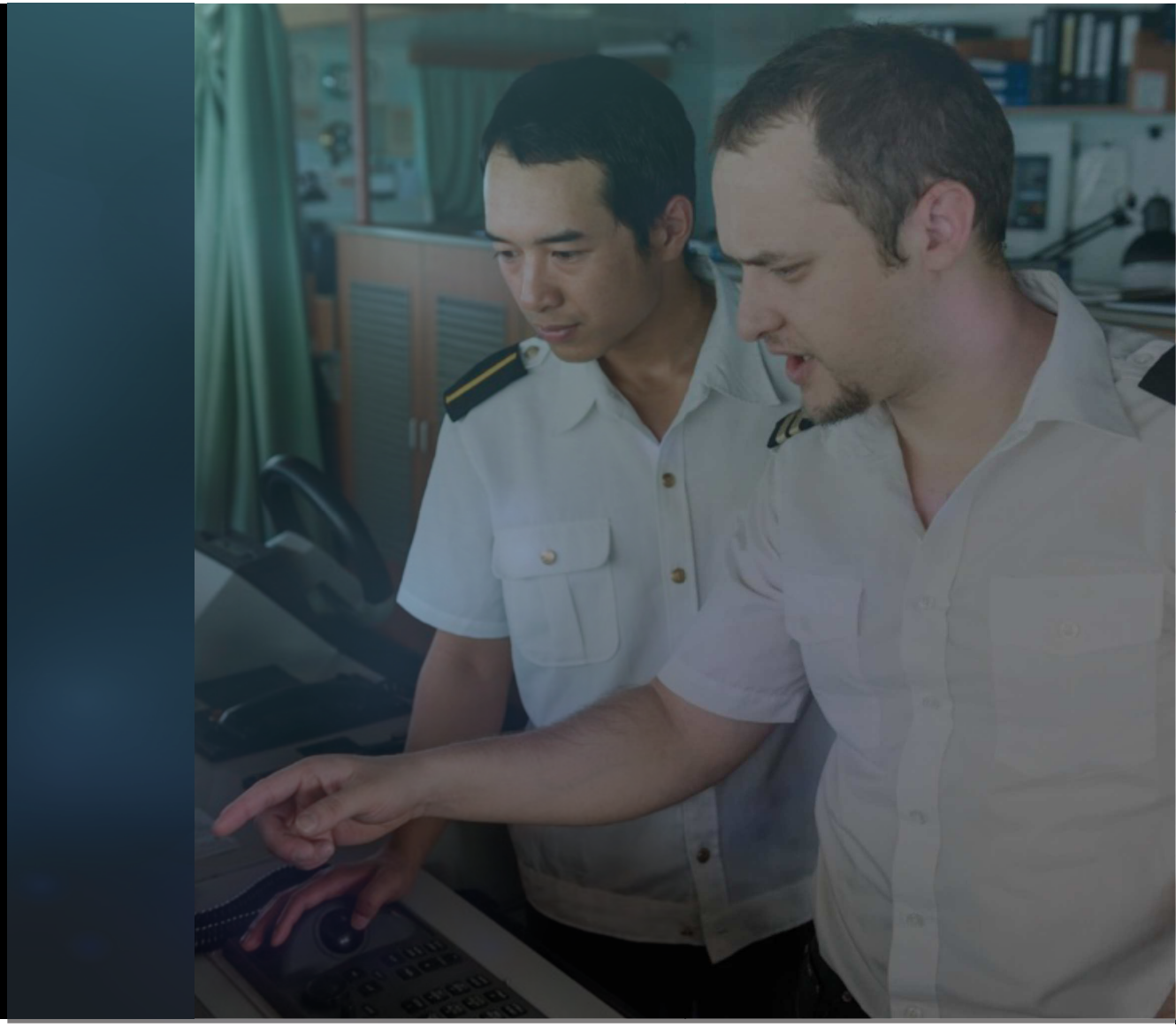
Train the crew to defend against cyber attacks

Problem

People make mistakes

Lesson Learnt

The human factor is part of the problem, not the solution



Decision making

Current situation

Most of the decision making onboard a vessel is based on data from the PC'S display

Problem

The PC display can be manipulated.

Lesson Learnt

The solution needs to directly protect the PC system

Protection layers

Current situation

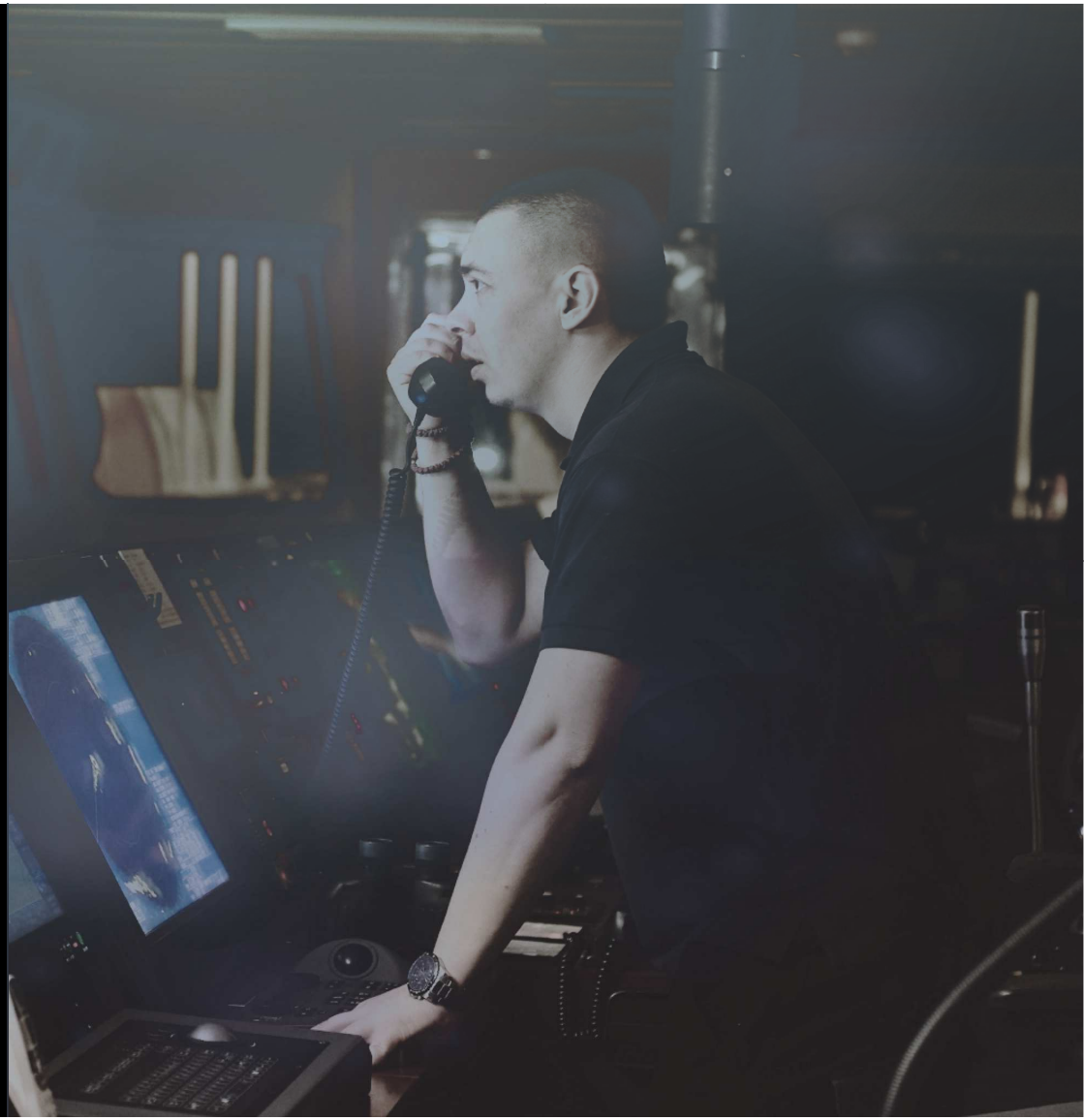
People believe that it is enough to have one firewall or one antivirus to protect their systems

Problem

It is not enough

Lesson Learnt

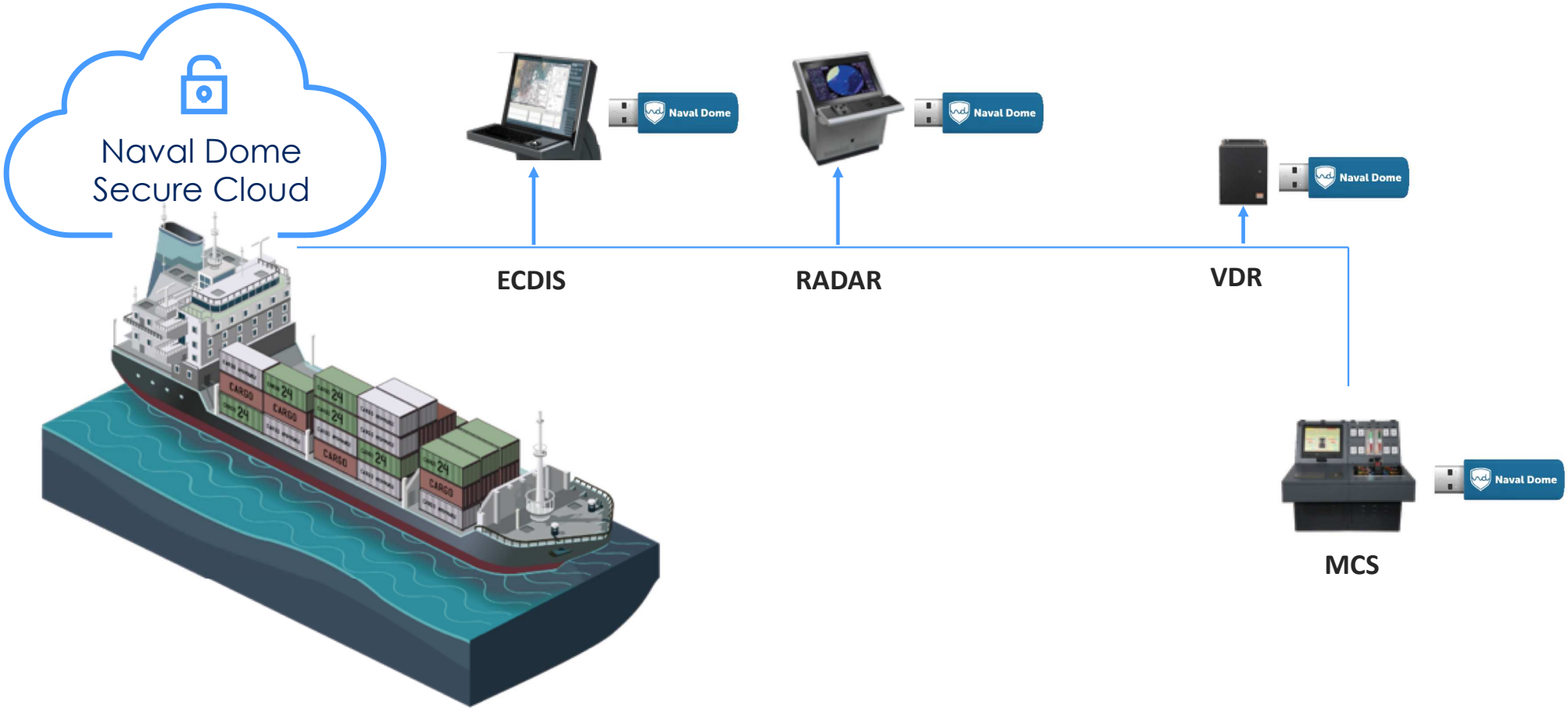
The solution needs to function as a multilayer protection system



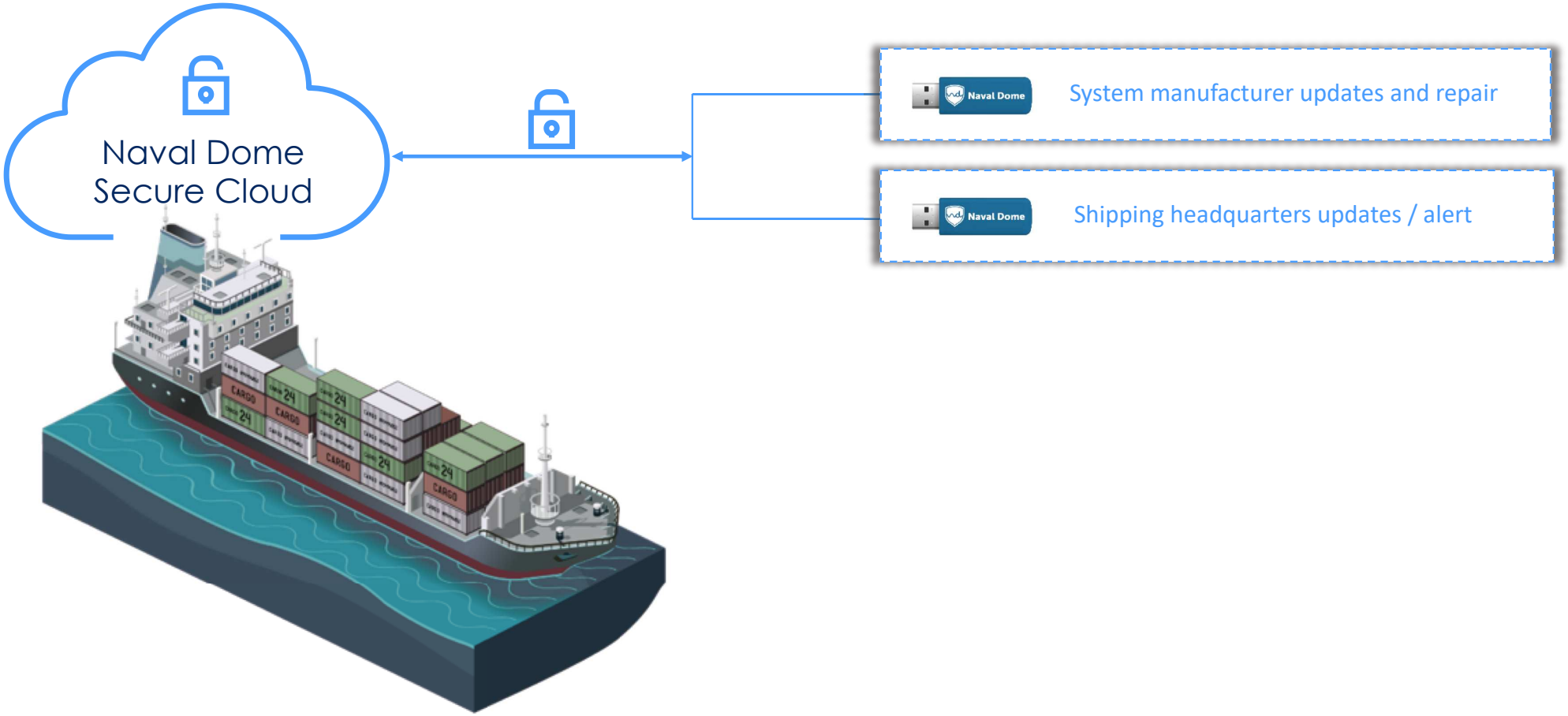
Major Conclusions

1. Remove the human factor
2. Directly protect the PC-based critical system on board
3. Build more layers of protection.
4. Protect against both vectors (external and internal)

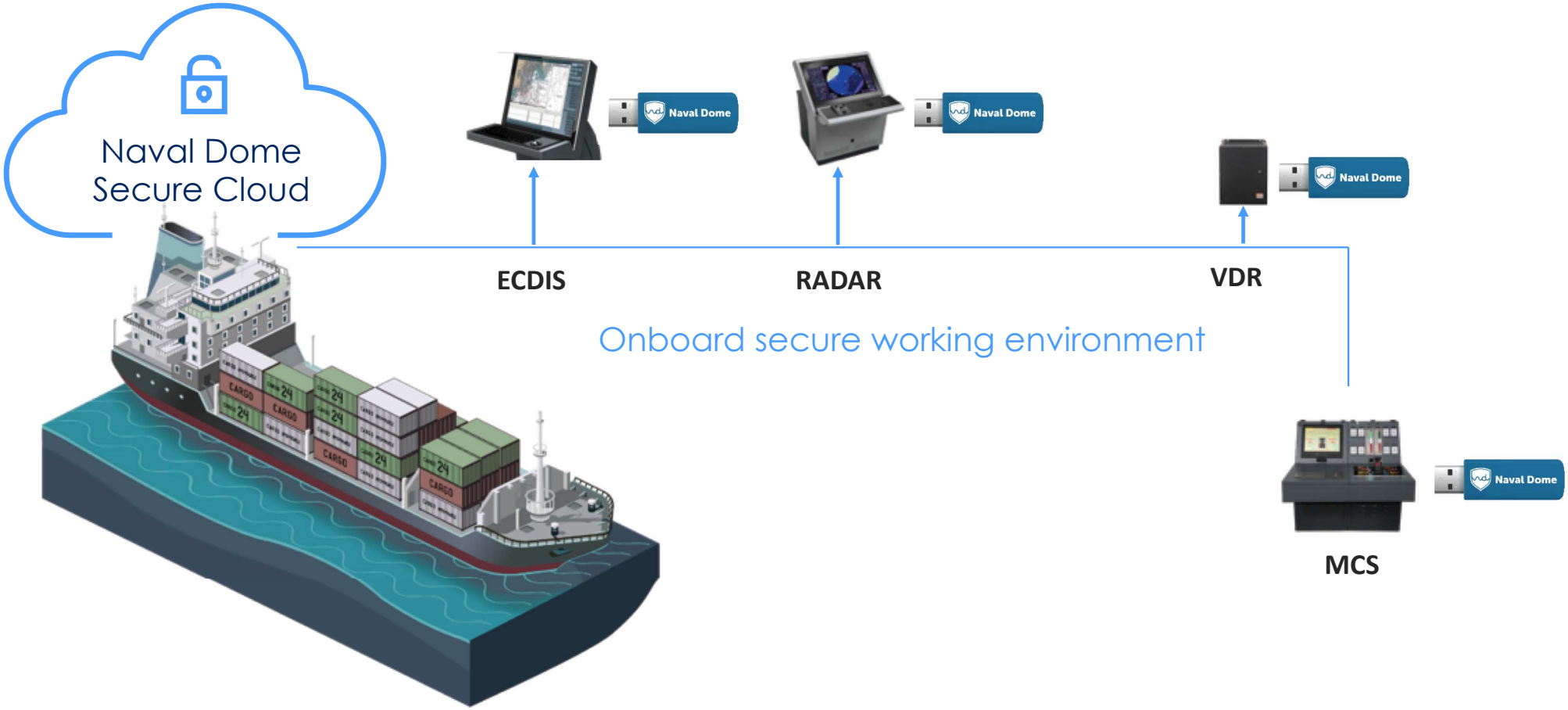
Naval Dome – two step solution

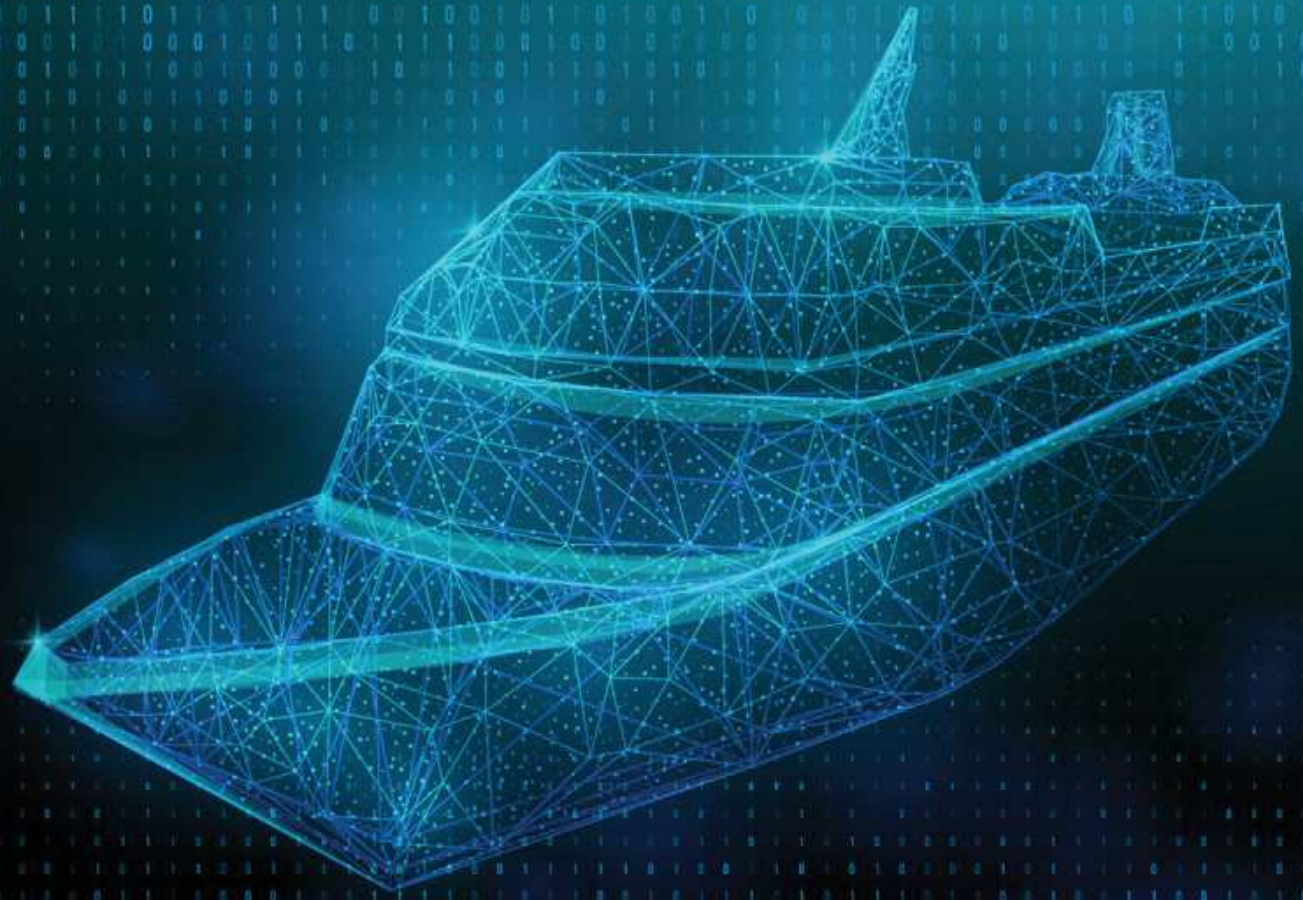


Naval Dome Secure cloud



Cloud and Endpoint protect your vessel





Thank You!

Itai Sela
Naval Dome's CEO