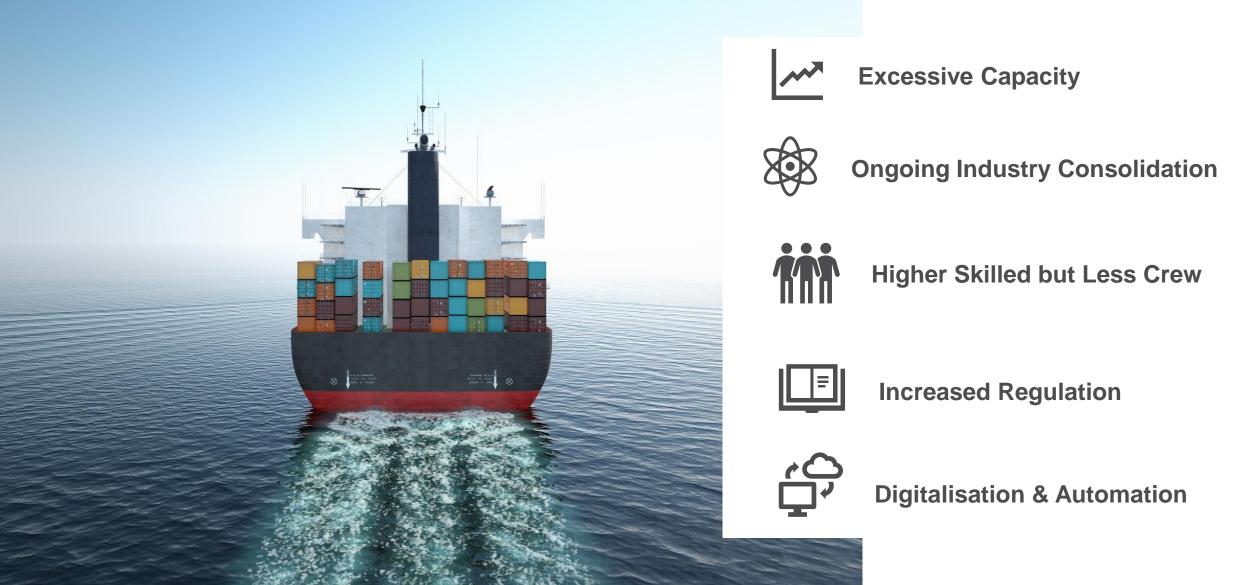


Elias Divris, Key Account Manager

# The Future of Shipping: 5 Key Trends





# Digitalisation@Sea: Today, tomorrow and in the future



Yesterday

**ANALOG SHIPS** 

Today
CONNECTED SHIPS

Tomorrow DIGITISED SHIPS

After Tomorrow SMART SHIPS

Future AUTONOMOUS SHIPS

Tools and associated processes did not allow further operational improvement

Crew operated vessels

Crew operated vessels

Remote assistance

Remote operated vessels

Crew assistance

Unmanned vessels?

Technology enables and empowers frontline (ship & shore) to optimise performance and benchmark Shore-based optimisation of assets and vessel performance through fleet wide real time & cloud connectivity

Assets and vessel performance optimisation through real time analytics ashore

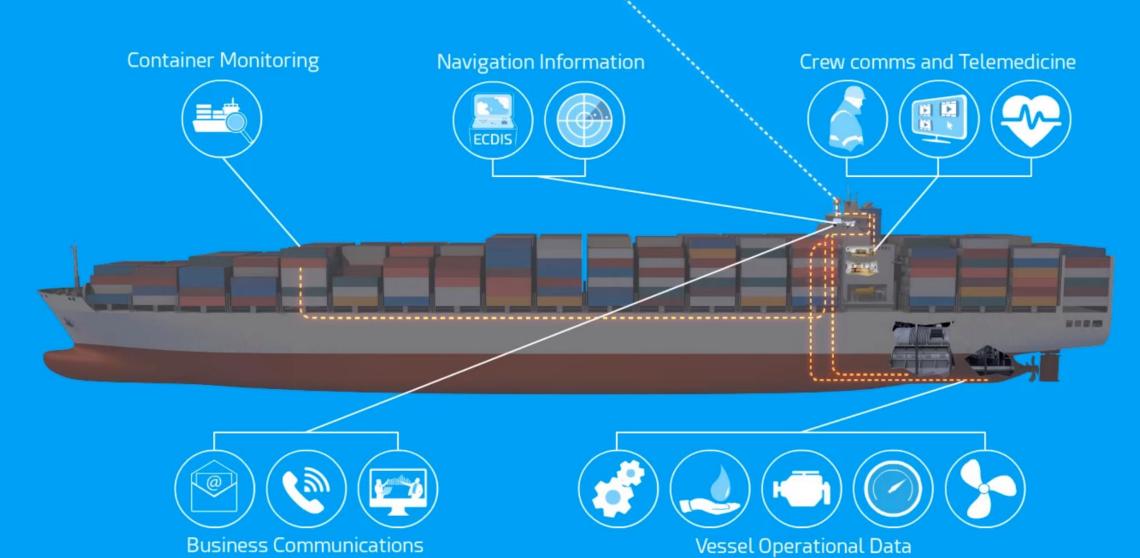
Autonomous vessel navigation and performance optimisation through real time analytics

How to achieve your digital transformation?

# Digitalisation everywhere







## **Benefits of Digitalisation**



#### COMPLIANCE

Increasing regulation relies upon digitalisation for accurate and timely reporting

#### **MANAGEMENT & MONITORING**

Operations increasingly managed centrally / from shore. Remote diagnostics & monitoring reduces burden of onboard IT

#### **INTEGRATION**

Data integration empowers shipping companies. Legacy systems need to be updated and integrated to improve processes

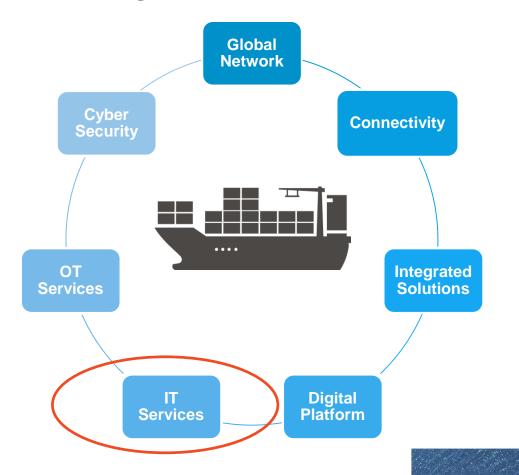
#### **OPTIMISATION**

Vessels are only as efficient as its staff onboard. Staff needs to be able to use technology to optimise the entire voyage

Implementation of technology and digitising processes is an obvious way to maximise efficiency, run vessels at optimum levels and reduce costs!

# **Integrated Portfolio**

# Integrated business-critical connectivity IT and digital solutions







# Standardisation of IT – facilitator for digitalisation



#### Compliance

Enforce rules and processes for your IT environment to ensure compliance visibility

#### Cost efficiency

Take control of your IT environment and save time and money

#### Productivity

Utilise technology to maximise business efficiency and empower your workforce

#### Automation & Remote Management

Adopt more automated and remote managed processes to reduce the manual burden on your IT team and crew

#### Security

Mitigate cyber threats by replacing outdated software and updating applications across the fleet in minutes





# Competitive Advantages through Digital Transformation

#### **CASE I: Global bulk carrier operator**

#### **Key Challenges:**

- Minimise number of suppliers for Connectivity & IT needs
- Lack of standard processes & onboard infrastructure
- Data collection from OT network as key business enabler
- Global coverage, higher trough put to run new IP applications (video surveillance, data transfer, remote monitoring, etc.)
- Flexibility to increase bandwidth for shorter periods

#### **Marlink Solutions**

- KeepUp@Sea IT operational platform
- VSAT Sealink Premium with 1m Global Ku-Band VSAT
- Iridium Open Port
- XChange Power integrated communication management platform

### **Customer Benefits**



Single point of contact with one capable vendor for connectivity & IT



Fleetwide standardised, flexible and manageable ICT platform



State of the art security across their entire fleet



Flexibility to increase bandwidth as needed



# Competitive Advantages through Digital Transformation

#### **CASE II: Top 3 Container Vessel Operator Worldwide**

#### **Key Challenges:**

- Managing a huge number of vessels
- Digitalisation of their ships:
  - Connectivity: have a seamless satcom connection on entire fleet
  - IT infrastructure: operate vessels as efficiently as possible
  - Securely run and operate a worldwide fleet

#### **Marlink Solutions**

- Sealink VSAT with FB/IOP as backup
- XChange to facilitate and simplify crew communication management and to manage IT equipment remotely
- Data Manager to manage data solutions and services through a secure and simple online portal
- SkyFile Mail and Anti Virus for safe and reliable email and SMS
- KeepUp@Sea to standardise IT environment on entire fleet, to avoid cyber-risks and facilitate fleet roll-out of new ERP system

### **Customer Benefits**



High performance & stable connection



Less admin workload



More control of onboard equipment



Flexible user management



Quality of service for both corporate and crew



# Competitive Advantages through Digital Transformation

**CASE III:** one of the world's largest marine energy transportation, storage and production companies.

#### **Key Challenges:**

- Improved communication for crew
- Submit higher number of data to shore for remote monitoring and diagnostics
- Need for reliable global broadband connectivity with permanent bandwidth
- Operation become increasingly sophisticated and so are its IT requirements
- Reduce burden to manage onboard IT

#### **Marlink Solutions**

- VSAT Sealink with back-up included
- 4G Smart connect
- Virtual Xchange platform, including WiFi
- Full ICT Managed service based on the KeepUp@Sea platform

#### **Customer Benefits**



Improved facilities for crew welfare



More control of bandwidth in use and onboard equipment



High performance & stable connection



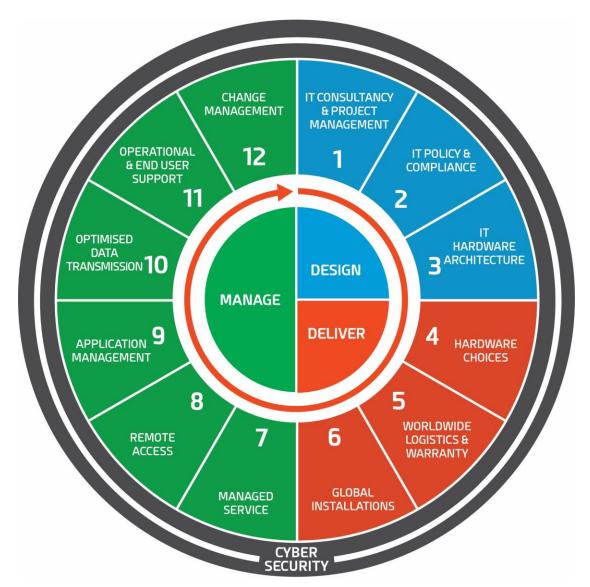
Enables 3<sup>rd</sup> party remote diagnostics on equipment



Single point of contact for connectivity, IT and enhanced cyber security







Full IT consultancy, implementation and management service enabling maritime customers to standardise, simplify and automate IT operations at sea

The portfolio is structured around three phases:

**DESIGN – DELIVER – MANAGE** 





Connect smarter. Anywhere.