

# Corporate Brief

## Cryptologic and Cyber Systems Division

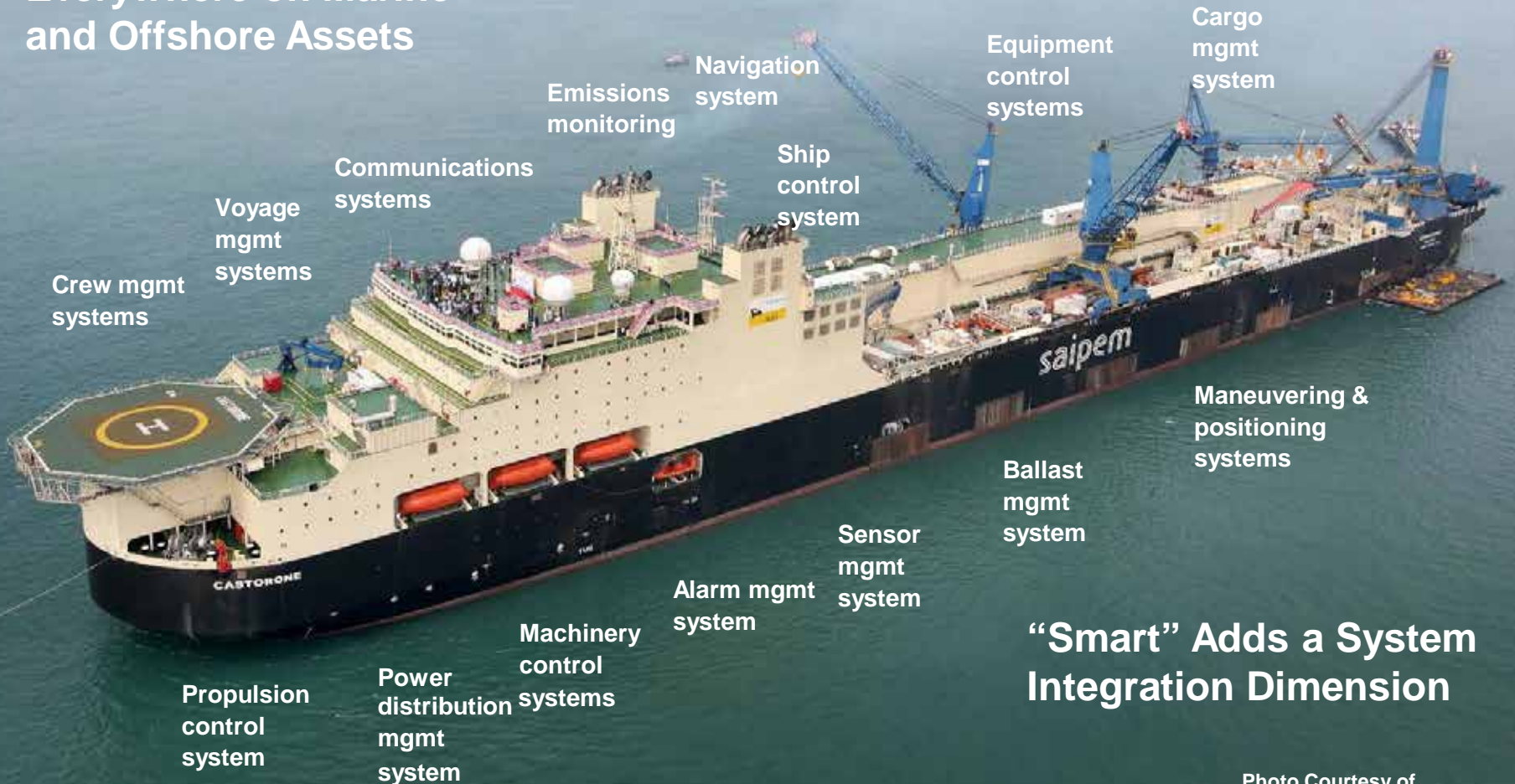
# Notable Cyber Attack Incidents

- USS Freedom-NSA red team took control of Navigation other key systems
- Sony Hack-Stole data PII, email and implanted malware
- German Steel Mill- caused massive physical damage by hacking into control systems
- Deloitte – hacked into Confidential Client Data
- WannaCry- hit thousands of Public Utilities, Hospitals and corporations with Rasomware.

- Internet of Things (IoT) and Industrial Internet of Things (IIoT) provide devices and appliances that connect to systems platforms, facilities or asset networks (and home and vehicle networks, too)
- Risk conditions increase with software functions that extend across systems
  - IoT and IIoT: unknown, unknowable, unpatchable devices
  - Third-party access for maintenance, data access, management
  - Complexity increases dramatically without guidance and guidelines for software, configurations, device installations
  - Software cross-system interfaces and data exchanges expand vulnerabilities – and exposures to services, communications paths, other systems turn vulnerabilities into weaknesses
  - Backup capabilities required for critical systems

# A “Virtual Vessel” Attack Platforms

Automation is Everywhere on Marine and Offshore Assets



“Smart” Adds a System Integration Dimension

Photo Courtesy of Saipem

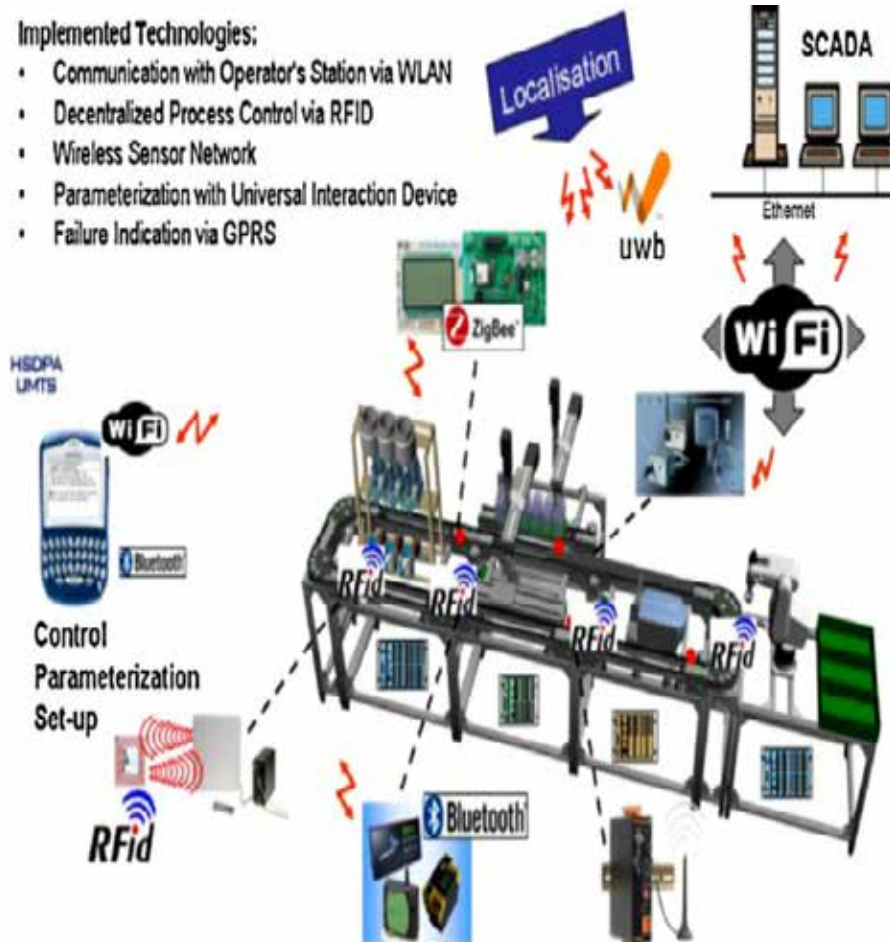
# With Cyber It's The Little Things



# Manufacturing is Becoming a Bigger Target

## Implemented Technologies:

- Communication with Operator's Station via WLAN
- Decentralized Process Control via RFID
- Wireless Sensor Network
- Parameterization with Universal Interaction Device
- Failure Indication via GPRS



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