



e-SHIPPING

the digital transformation of shipping

By Mr. Dimitris Theodosiou



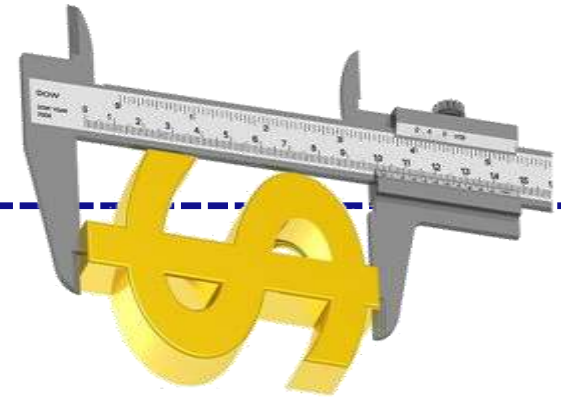
INFORMATION TECHNOLOGY NOWADAYS

automated processes

linked vessels with the office

enabled e-communication (e-mails)

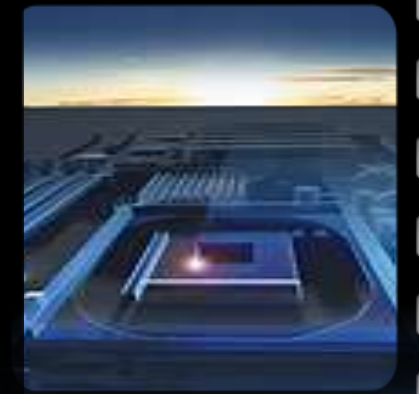
THE SHIPPING INDUSTRY



1. Cut down costs
2. Improve Team Competence
3. Establish corporate infrastructure

Fact :
IT is considered the
key tool to achieve the
above

Result :
Replacement of not
performing IT
systems



WHAT IS NEW?

1. mobile devices
2. better ship to shore communication
3. internet of things & fog computing
4. big data analytics
5. a groundbreaking new circuit: memristor

Danaos Strategy

Integration

Collaboration




MARITIME SINGLE WINDOW

Integration

Collaboration

Analytics

Share Corporate Information

Exchange data

Under your full control

Without storing information on the cloud



1. Authorities,
2. Suppliers,
3. Auditors,
4. Brokers,
5. Consultants,
6. Charterers,
7. Partners etc.

**Any System
They use**

Integration

Collaboration

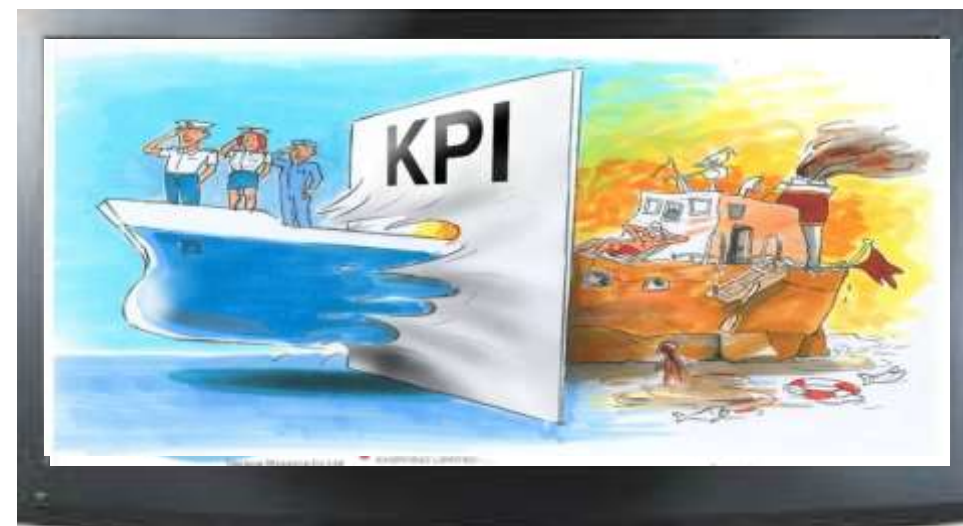
Analytics



DANAOS WAVES
fleet performance
streaming big data analytics



DANAOS
Business Analytics

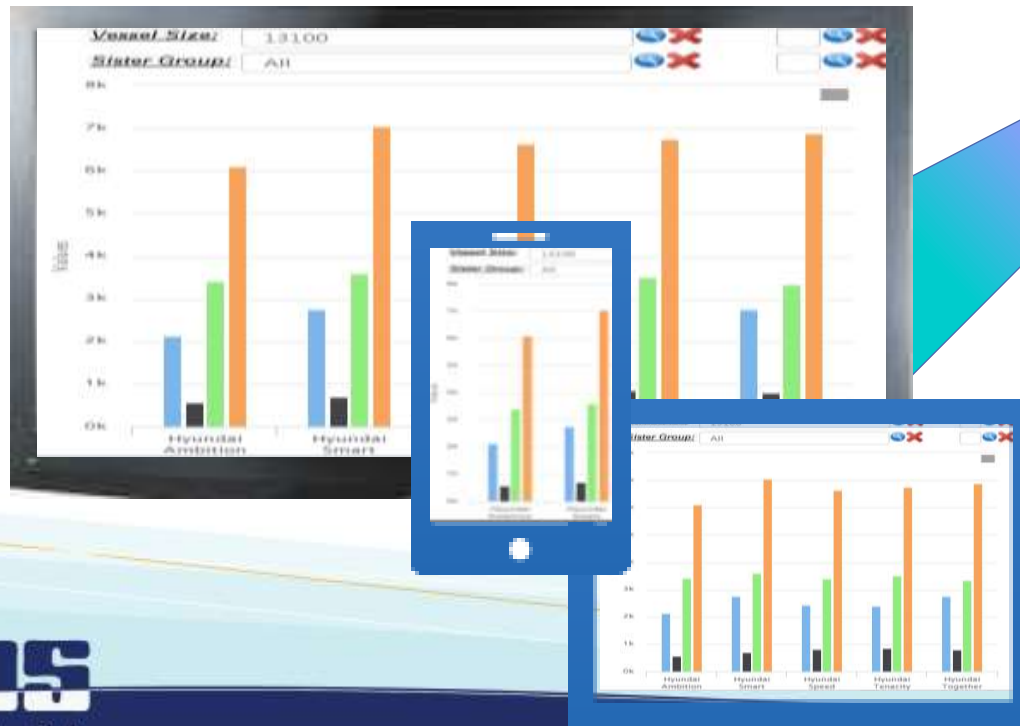


**Mobility
devices**

Cloud

**Global Xpress
Inmarsat**

- DanaosONE™ native drivers for any mobile device
- Make any process rendered on danaosONE mobile
- Fully User defined



**danaos
one**



Mobility
devices

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The smartphone screen displays the 'Inspection List' application. At the top, it shows 'Vessel : EDINBURGH' and 'Inspection : 2'. Below this is a table with columns 'REF CODE', 'DESCRIPTION', and 'STATUS'. The table lists four inspection items: 877 (Emergency fire pump test), 878 (Test M/E emergency operation), 882 (Test Oily Bilge Water Separator), and 884 (Test operation of the incinerator). Item 884 has a green checkmark in the status column. Below the table, there is a 'Test operation of the incinerator and relevant alarms' section with a 'Done Status' toggle switch. At the bottom, there are buttons for 'Condition' (YES, NO, N/A), 'Supporting Docs' (Comments, Photographs, Voice Memo), and a 'Job List' section with tabs for 'Defects', 'Recommendations', and 'Nonconformities'. The bottom status bar shows 'Inspect the alarm monitor for proper...' and the date '23-05-2016 15:19'.

REF CODE	DESCRIPTION	STATUS
877	Emergency fire pump to be tested; proper pressure to be verified by the manometer and also by fire hoses on upper deck fwd and aft	
878	Test M/E emergency operation from local stand and report proper functioning of the system, if at anchorage	
882	Test Oily Bilge Water Separator and verify that the crew is familiar with the operation and maintenance of the equipment. Check battery, memory card and verify th...	
884	Test operation of the incinerator and relevant alarms	✓

The tablet screen displays the 'Maintenance of ALS DANAOS90(04) as of date 27/08/2016' application. The top bar shows 'Work Locally', 'Filter', 'All Jobs', 'Departments', and 'As of Date: Saturday 27 August 2016'. Below this is a table with columns 'Status', 'Related Documents', 'Job/Equipment', 'Periodicity', and 'Due Since'. The table lists four maintenance jobs: 'Cleaning of filter of flow alarm system', 'MAIN ENGINE / CYLINDER LINER & LUBRICATION [4]', 'CLEANING OF SCAVENGING TRUNK MAIN ENGINE / SCAVENGING SPACES [1]', and 'Functional check of butterfly valves MAIN ENGINE / SCAVENGING SPACES [2]'. Each job has a 'Job Done' checkbox and a 'View' button. The bottom status bar shows 'CLEANING OF SCAVENGING TRUNK MAIN ENGINE / SCAVENGING SPACES [2]' and the date '23-05-2016 15:19'.

Status	Related Documents	Job/Equipment	Periodicity	Due Since
✓		Cleaning of filter of flow alarm system	1000H	08/01/1984
✓		MAIN ENGINE / CYLINDER LINER & LUBRICATION [4]		
✓		CLEANING OF SCAVENGING TRUNK MAIN ENGINE / SCAVENGING SPACES [1]	1000H	08/01/1984
✓		Functional check of butterfly valves MAIN ENGINE / SCAVENGING SPACES [2]	1000H	08/01/1984
✓		CLEANING OF SCAVENGING TRUNK MAIN ENGINE / SCAVENGING SPACES [2]	1000H	08/01/1984

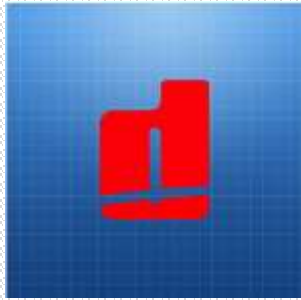
Mobility
devices

Cloud

Global Xpress
Inmarsat

SaaS model in place

The PRIVATE cloud experience by Vodafone and DANAOS



➤ Security

➤ Certifications



➤ Global presence

➤ Total service SLA

**Mobility
devices**

Cloud

**Global Xpress
Inmarsat**

Make the vessel part of the corporate network

Replacing synchronization with web services

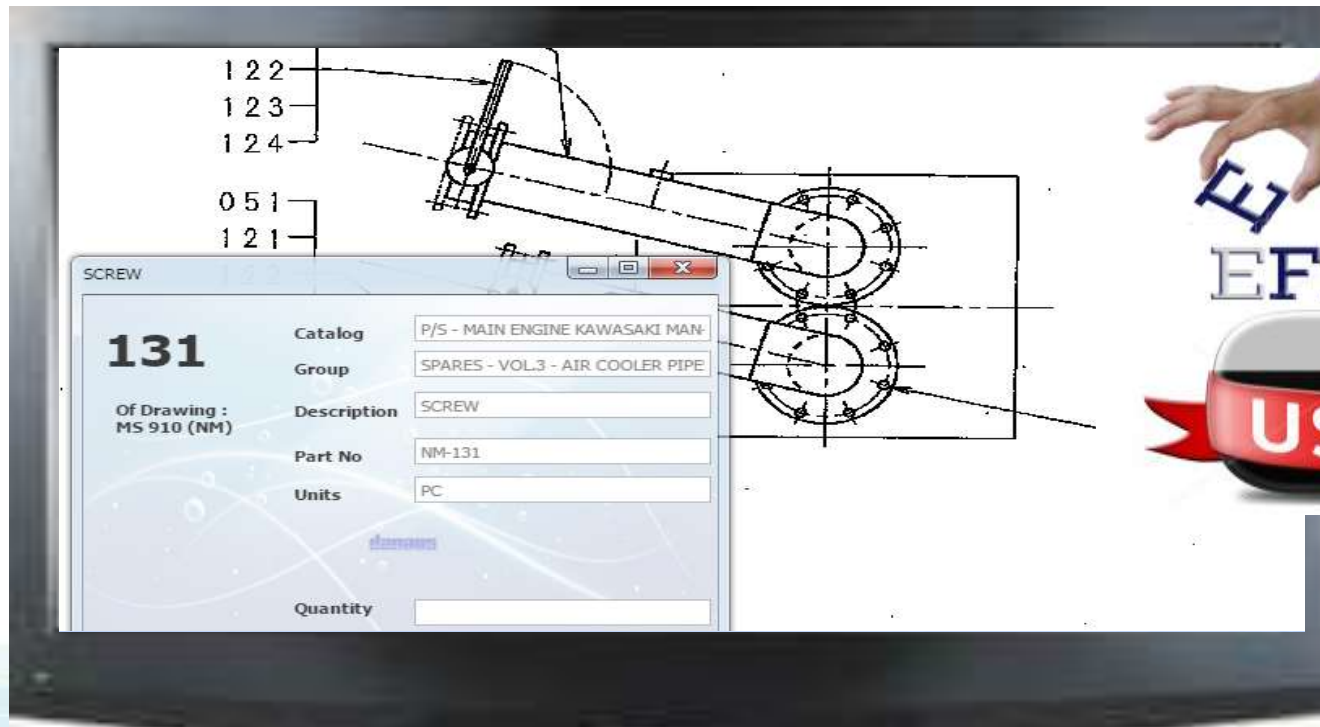
Empower 'smart ship' solutions



Usability

Content & Services

Design your own menus
User defined dashboards
Electronic drawings

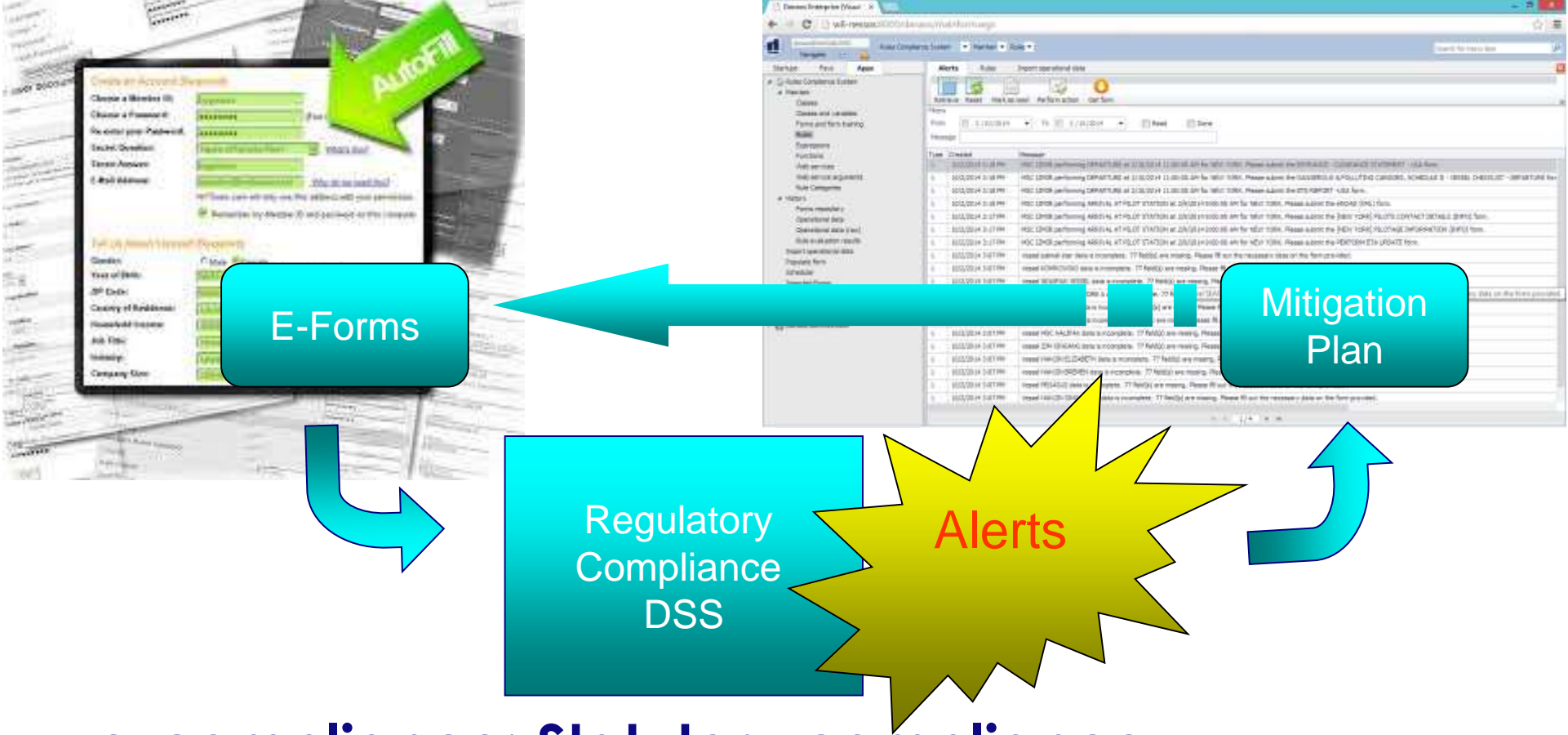


Usability

Content & Services

Professional shipping services are now available on DanaosONE
Shipping content and data bases are ready for you to capitalize





e-compliance: Statutory compliance

Alerts the officer for pending actions. User reacts on Alerts in one single screen

Produces the forms to be submitted (Submitted forms are filled).



The key challenges have been always the same!

When to buy or sell - The people - The System

Technology will definitely improve

Performance, Efficiency, Quality, Safety, Environment, etc.

Support lean and sustainable shipping operations

integrated in modern supply chains

e-shipping

the digital transformation of shipping



Thank you for your attention....!



THE FRANZ EDELMAN AWARD
Achievement in Operations Research

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Advantages of big data

(AS CITED BY RESPONDENTS)

- Overall efficiency....**59%**
- Improving speed/
accuracy of
decisions....**51%**
- Ability to
forecast....**30%**

Shipping is all about decision making....

Big data analytics will definitely improve

Performance, Efficiency, Quality, Safety, Environment, etc.

Support lean and sustainable shipping operations

integrated in modern supply chains

Reasons preventing companies capitalizing on 'Big Data'!

