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## **BusinessConnect and SolutionsConnect**

It's time to make bold moves.

### **Blue Skies Ahead!**

RightShip to transform the maritime industry with Big Data, Analytics and Cloud

3 June, 2014

**Capt. Bryan Guenther,**  
System & Project Manager  
RightShip

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## Global Maritime Sector

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- Over 90% of world trade is carried by sea
  - Dry bulk (iron ore, wheat, coal etc)
  - Tankers (oil, products, chemicals)
  - Gas Tankers (LNG, LPG)
  - Container ships (consumer goods)
  - RoRo (car carriers)
  - Tugs & Barges
- Just under 10 billion tonnes of cargo shipped in 2013
  - Australia shipped 9% of total world trade



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## Agenda



- Who is RightShip
- What we do
- How we review it **today** and predict it **tomorrow**
- New analysis engines **IBM SPSS** and **Cognos**
- Our journey into the cloud with **SoftLayer** – lessons learned

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# Who is RightShip?

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## About RightShip

IBM

- Independent company formed in Oct 2001
  - Houston, Melbourne, & London
  - 240+ Customers globally
- Ship Vetting & Risk Management
  - Petroleum & Dry Cargo Vetting Service
  - Removed over 950 ships from customer supply chains in 2013
  - Environmental Rating & CO<sub>2</sub> Benchmarking
- Award winning proven system
  - ISO9001 & ISO27001 Certified
  - Prime Minister's 2013 Australian Exporter of the Year



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# Current Maritime Risk Management

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## What is Vetting?

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*“to subject somebody or something to a careful examination or scrutiny, especially when this involves determining suitability for something”*



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# Ship Vetting Information



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## Calculated Risk Profile – Expert Opinion

For each risk parameter a vessel is assigned (independently) into one of the following risk categories:

- Low Risk (LR – 10 points)
- Low Medium Risk (LMR - 8 points)
- Medium Risk (MR – 6 points)
- Medium High Risk (MHR – 4 points)
- High Risk (HR – 2 points).

Once matrixes (instantaneous) the columns are totalled and a base score is generated.

Section 1: Calculated Risk Profile						
Code: LR = Low Risk; LMR = Low Medium Risk; MR = Medium Risk; MHR = Medium High Risk; HR = High Risk						
Parameter	HR	MHR	MR	LMR	LR	ACTUAL
Yard Risk					■	0.43
Flag Risk			■			0.40
Flags Registered			■			3.00
Class Changes					■	1.00
Class Risk				■		0.50
Owner Risk	■					4.00
Manager Risk	■					4.00
Parent Risk	■					5.00
Owner Fleet Risk				■		0.71
Ownership Risk					■	0.00 / 13
Casualties Risk					■	0.00
Casualties by Age Risk					■	0.00 / 24
Casualty Timing Risk					■	0.00
Column Counts	3	0	2	3	5	
Multiplier	2	4	6	8	10	
Points Scored	6	0	12	24	50	92
Total Calculated Score						92

**Note:**

- RightShip Inspection – up to **+15 points**
- Green Award – bonus **+15 points**
- Intercargo Vessel – bonus **+5 points**

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# Improving Maritime Risk Management

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New sources



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Transforming silos of raw data into useful information



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## New tools - Enablers



### SPSS

**Modeler:** Enhanced Risk Modelling

**Decision Management:** Rules Management

**Data Collections:** Forms to gather data

### Cognos

Enhanced Business Intelligence

Dashboards

Event driven reports

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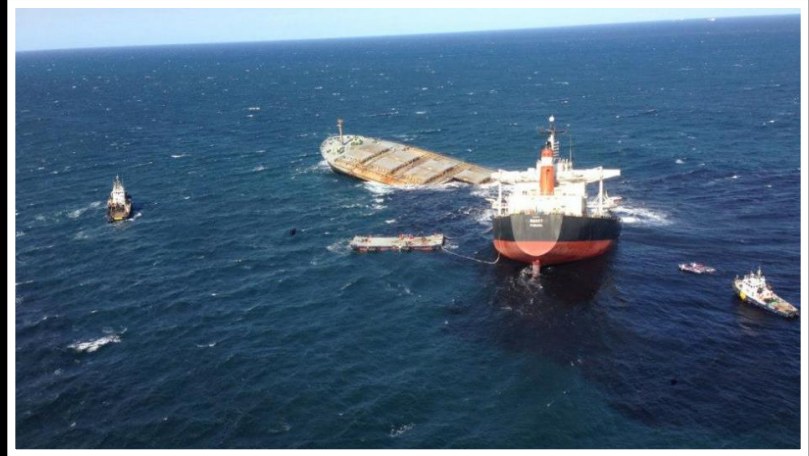
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## Refine prediction

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- Predict the likelihood of a vessel having a Casualty



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Data to analyse

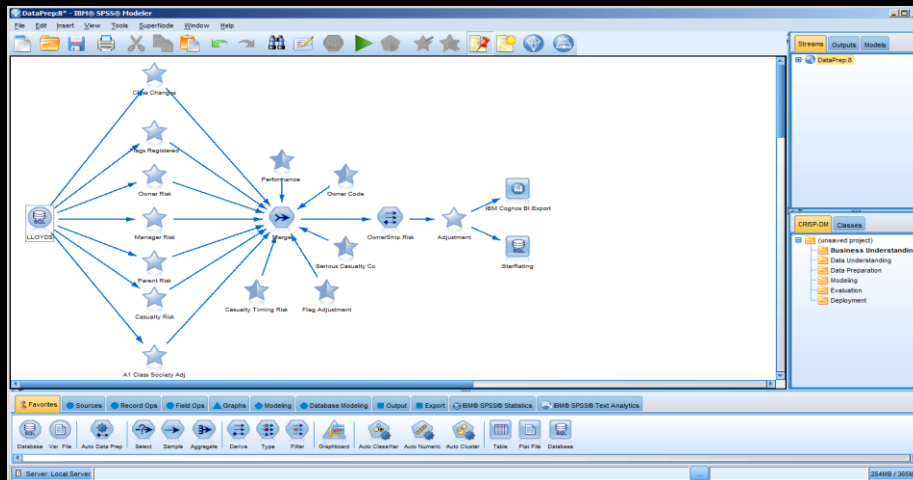


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## SPSS - Predictive Modeling Application



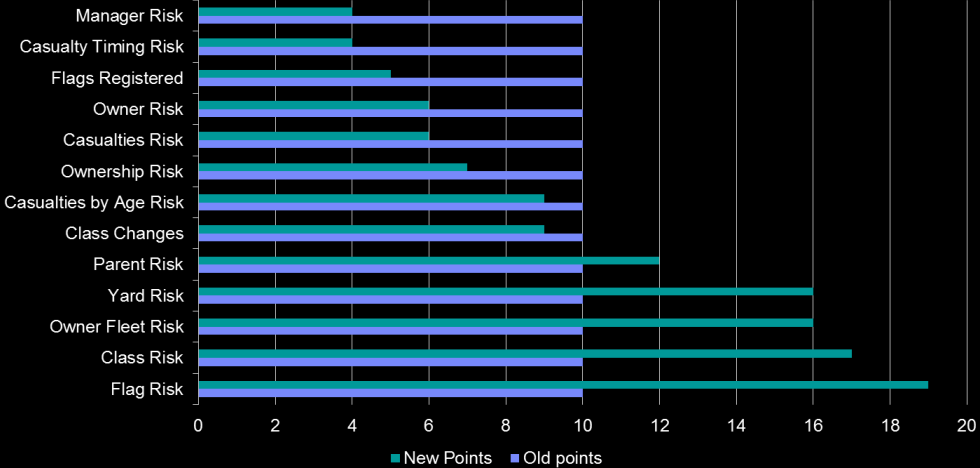
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# Weighting of Old vs New model

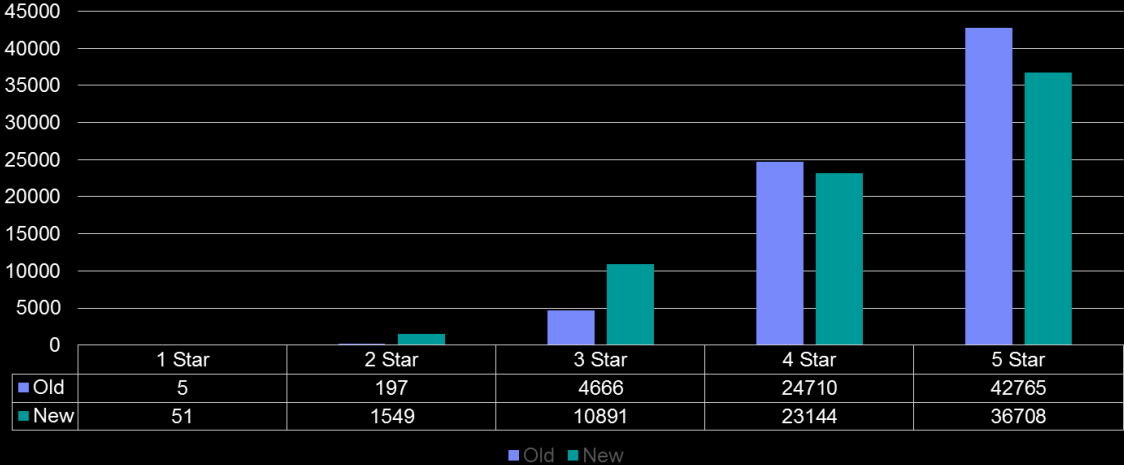


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# Impact of new risk model



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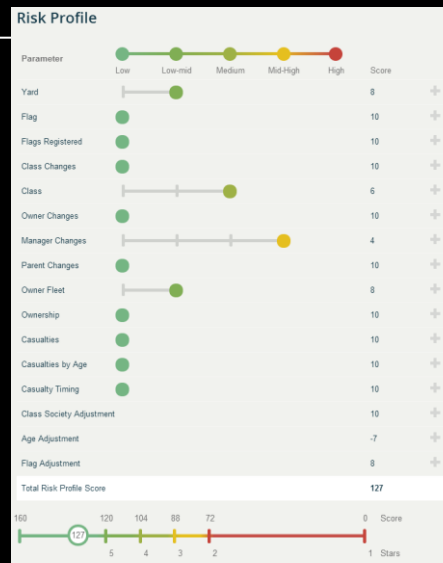
## Risk Profile



**Section 1: Calculated Risk Profile**

Code: LR = Low Risk; LMR = Low Medium Risk; MR = Medium Risk; MHR = Medium High Risk; HR = High Risk

Parameter	HR	MHR	MR	LMR	LR	ACTUAL
Yard Risk				■		0.43
Flag Risk			■			0.40
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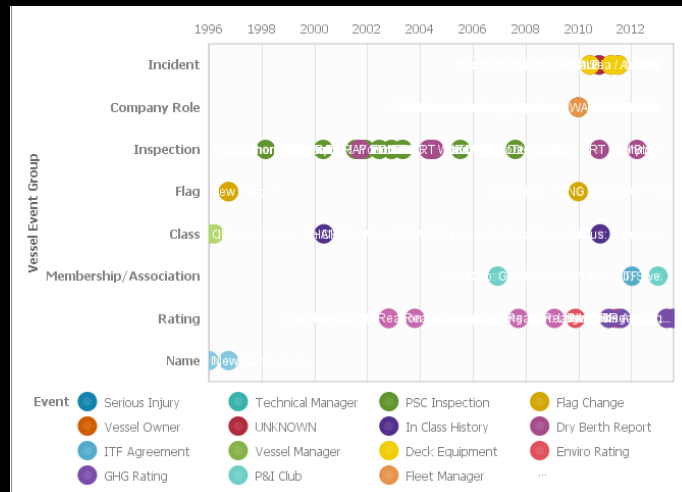
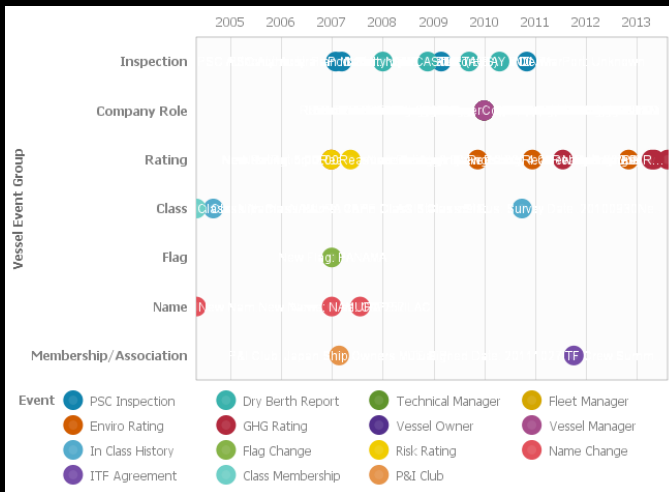


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# Cognos – vessel timeline

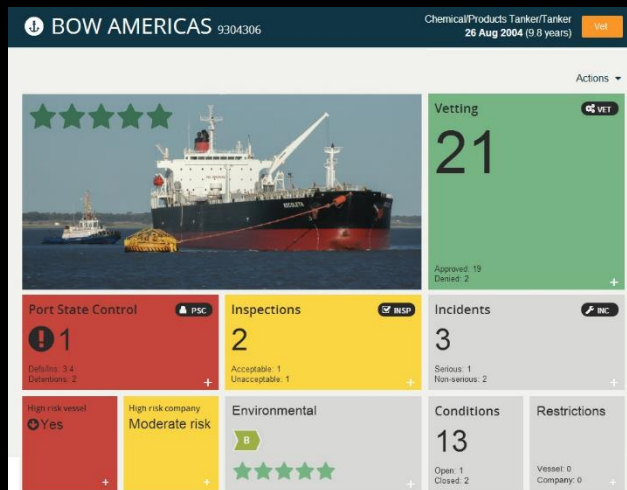


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## New User Interface – vessel data snapshot



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# Our journey into the cloud with SoftLayer – lessons learned

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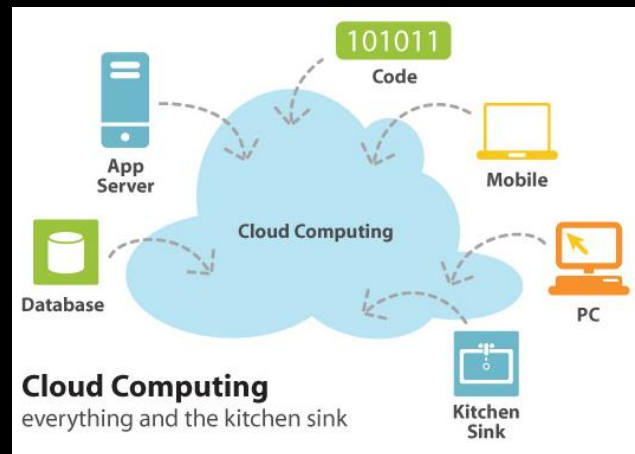
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## Transition into the Cloud

*RightShip manages marine risk, **NOT** IT hardware*

- Embrace new cloud technologies
  - IaaS / Cloud
  - Scale hardware as required
  - Easy to manage
  - Fast time to market
  - Place application with customer
- Remain a nimble company
  - New business opportunities
  - Flexibility & Scalability
- Control cost
- Others...



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## Cloud challenges and solutions

- PVU Licensing
  - Very restrictive
  - Known hardware
- Concerns over 'Sharing' resources
- Loss of dedicated resources in a cloud environment
- Public / Private cloud options
- Security - Firewall
- Management of environment
- Data domicile
- IBM Company

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Thank you – Questions?



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