

***WORLD - LINK***  
***COMMUNICATIONS***

***Onboard Information Security Threat  
Management***

**Digital Ship Posidonia  
Conference  
June,2006**



# **The Company**

- **Maritime communication service provider since 1989.**
- **Deliver unified messaging solutions.**
- **Software ShipMail, E-Time, ShipForms, and more.**
- **Billing , Cost allocation, & vessel communication monitoring.**
- **Ship – Shore – Ship messaging (email, fax, telex).**
- **Offices in Boston USA, Limassol Cyprus, & St. Petersburg Russia.**
- **Winners of the 2006 Seatrade award for "New IT application for the Shipping Industry "**



# Our Customers

*Serving more than 600 vessels world-wide.*

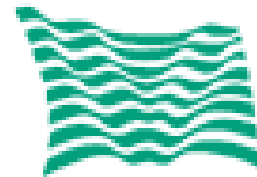
*Catering to ShipOwners & ShipManagers*



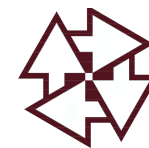
RAIS HASSAN SAADI GROUP



МУРМАНСКОЕ МОРСКОЕ ПАРОВОДСТВО



V. Ships



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# ***Onboard Information Security Threat Management***

**Bringing ships closer to the shore.**

- ***Current operating environment onboard.***
- ***The threat to information security - Statistics***
- ***The growing scale of the threat.***
- ***Defense (options and evaluation)***



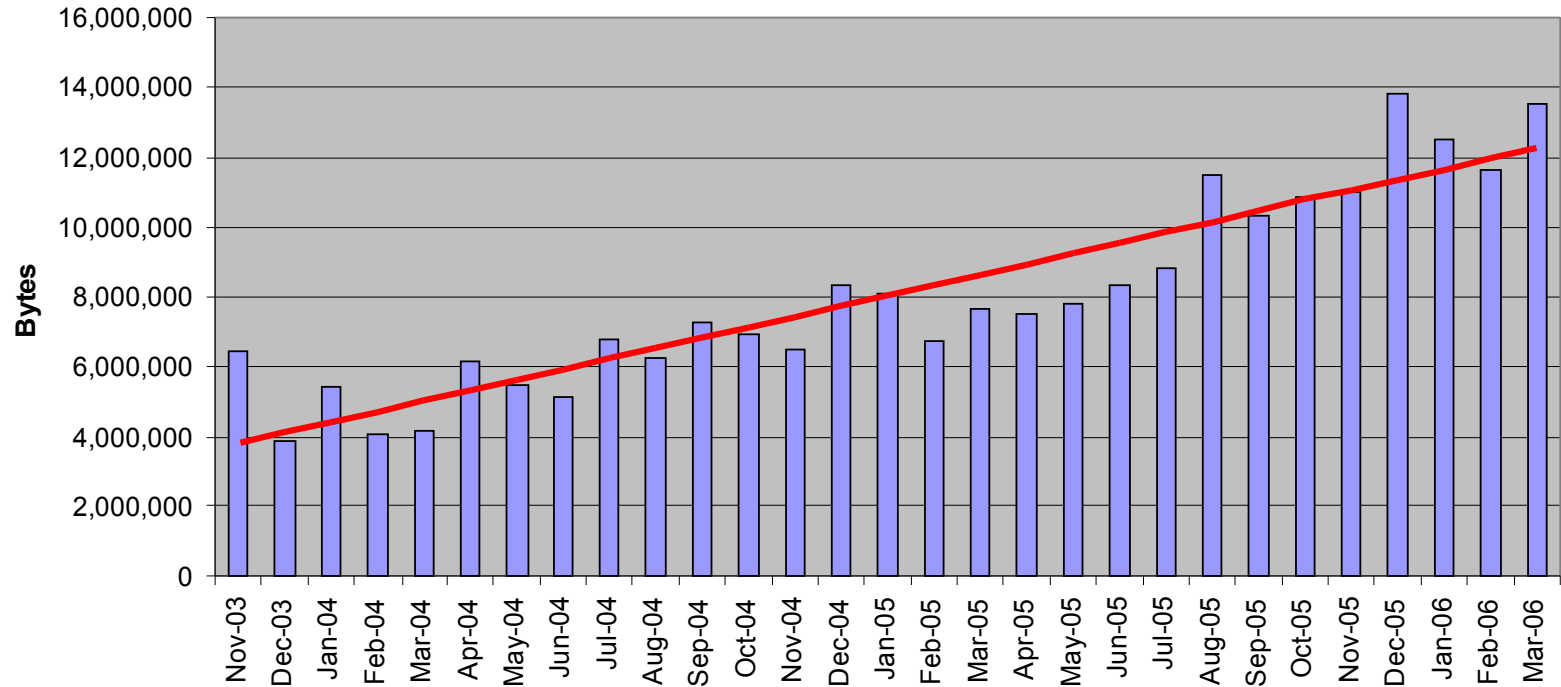
# ***State of Operating Environment***

- ***Technical knowledge***
- ***Increased shore IT demands***
- ***Networked vessel***
- ***Increased communication costs***



# Data Volume Increase

*Ave Data Volume per Vessel per Month  
Nov. 2003 - Mar. 2006*

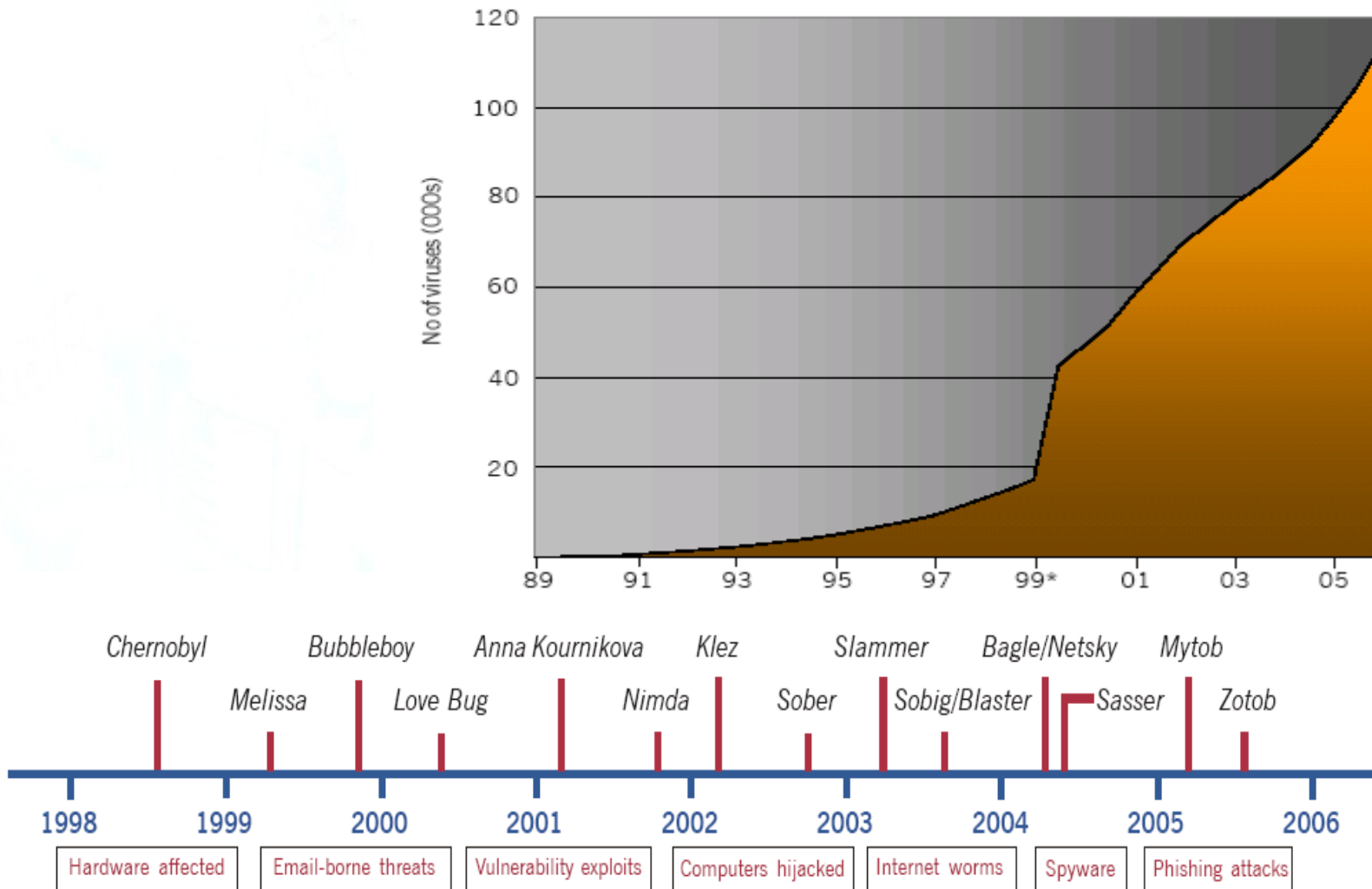


# **Identifying the threat**

- **Transmission of malicious S/W (Malware) via email.**
- **Motive – Making money !**
  - **Industrial espionage to bank information.**
- **How:**
  - **Trojans; zombies; worms, spyware.**
  - **Dialers!!**



# Identifying the Threat



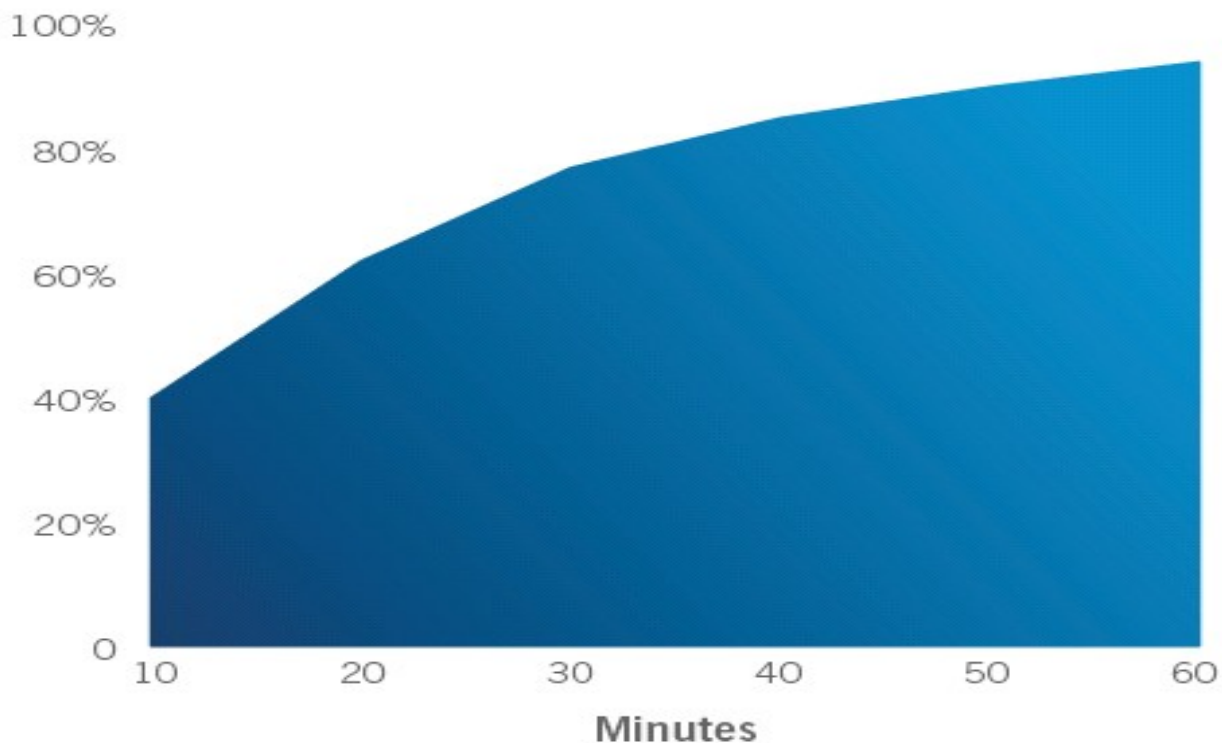
Sophos Labs - USA

Athens - June 2006



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# **Identifying the threat**



Sophos Labs - USA

***How fast can a machine be infected?***



# ***The Nature of the Threat***

## ***Spam in e-mail***



Message Labs – UK May 2006 report.

**More than one of every two messages is spam**



# ***The Nature of the Threat***

## ***Virus in e-mail***

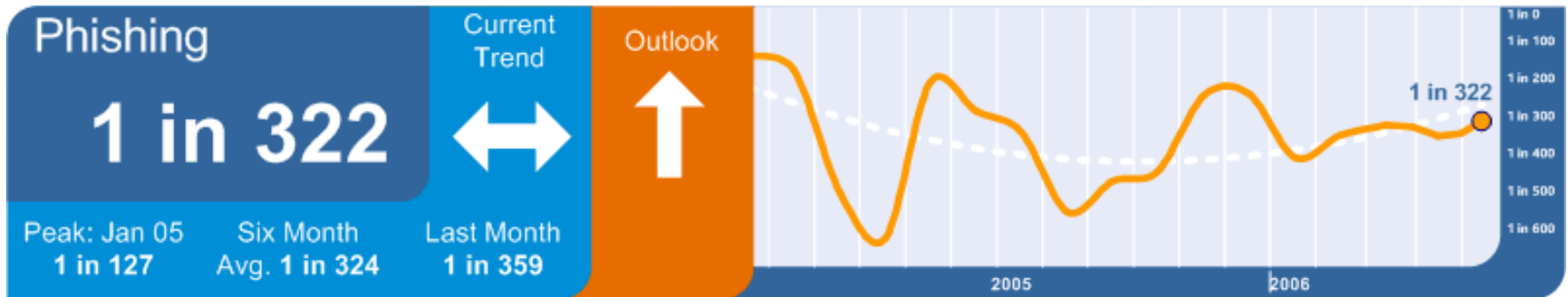


Message Labs – UK May 2006 report.



# ***The Nature of the Threat***

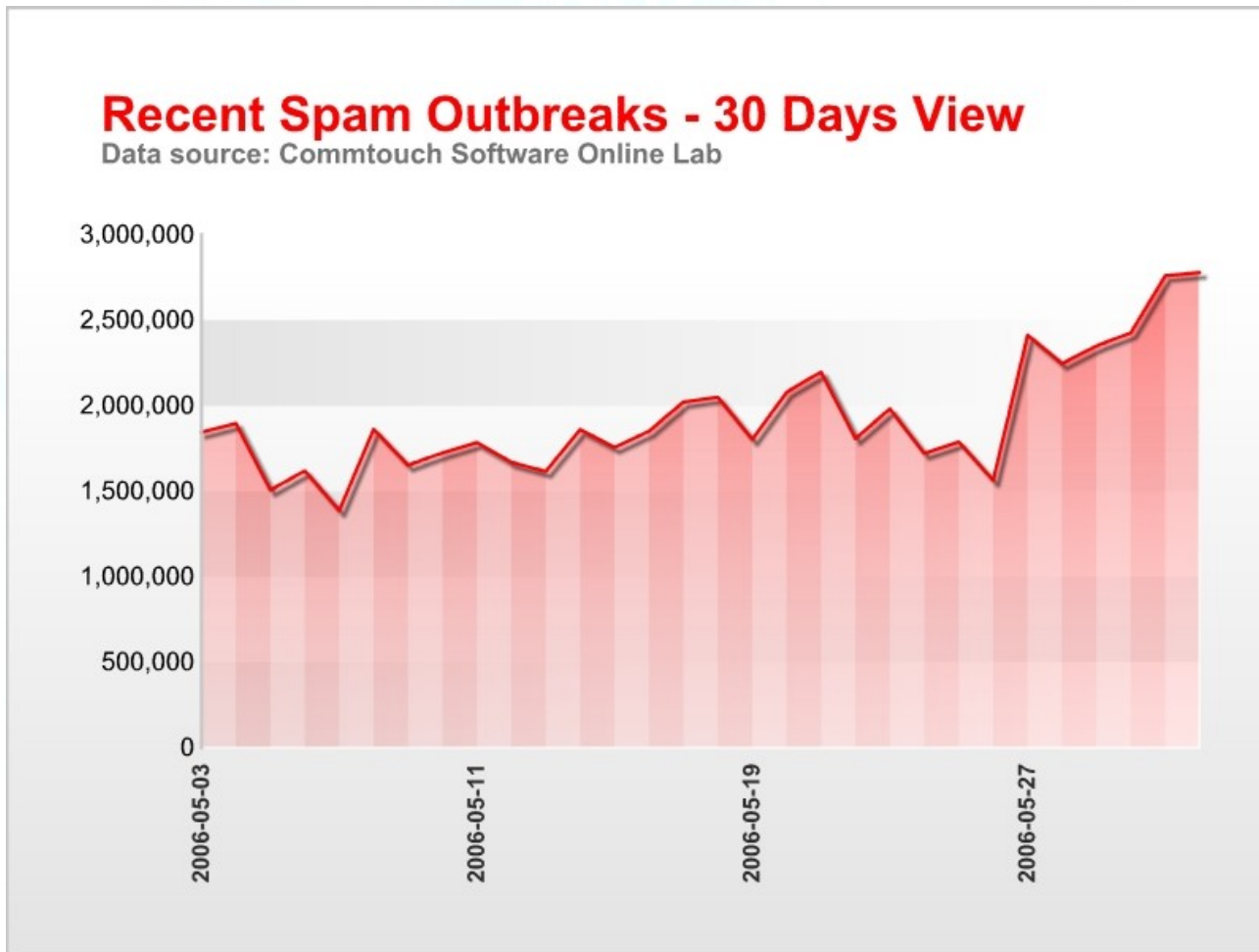
## ***Phishing in e-mail***



Message Labs – UK May 2006 report.



# ***The Nature of the Threat***



# **The Nature of the Threat**

- **Spam is close to 1 in 2 messages**
- **Virus by email is 1 in 65**
- **Phishing is 1 in 322**
- **In the Transport sector:**
  - **Virus by email is 1 in 65**
  - **Spam is at 48.9%**
- **Fleet average @ WLINK**
  - **1 in 5 is spam or @ 20%**



# **Defense Options**

- ***A gateway appliance.***
- ***Software @ desktop.***
- ***Managed service.***



# **Defense Options**

- ***When to re-consider current policy:***
  - ***Increase in spam messages.***
  - ***Increased exposure to threats.***
  - ***Insufficient time & resources to protect.***
  - ***Poor results from current solutions.***



# **Spam onboard**

- **Spam message size: 9.2 KB**
- **Spam per vessel per month 2,700 KB**
  - **Transmission Cost:**
    - **Mini-M**                      **\$230**
    - **Sat-B (LS)**                      **\$67**
    - **Fleet (64K)**                      **\$37**
- **Real costs:**
  - **Time to restore machines onboard;**
  - **Time to recover data;**
  - **Technician onboard.**
  - **Operational delays.**



# **Protecting against onboard threats**

- **ShipMail offers a fully managed protection service at 2 levels:**
  - **1) At the e-mail gateway:**
    - **E-mail Spam & Virus protection. (free service)**
  - **2) Onboard:**
    - **Anti-Virus daily updates. (subscription based)**



# **Protecting against onboard threats**

## **1) At the e-mail gateway: E-mail Spam & Virus protection.**

- **Reputation - DNS black lists.**
- **Fingerprinting & Signatures (Hourly updates)**
- **Heuristic Analysis.**
- **Bayesian Probability.**
- **Domain Keys.**
- **Customer defined rules.**
- **White lists.**



# **Protecting against onboard threats**

**All it takes is for one infected message to get onboard.**

## **ShipAnti-Virus (SAV)**

- ***NOW ShipMail offer a fully managed vessel update service.***
- ***Delivering daily updates to vessels.***
- ***ShipMail compression.***
- ***Small update packages of 60 to 100 KB***



# Protecting against onboard threats

## ShipAnti-Virus (SAV)

Estimated Transmission cost per month:

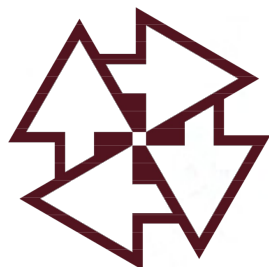
Mini-M	\$250
Sat-B	\$80
Fleet (ISDN)	\$55



# ***Onboard Information Security Threat Management***

- ***The threat is real.***
- ***Requirement for multi-layered  
defense strategy.***
- ***Frequent review of policies &  
Systems.***
- ***Proactive role in provider services.***





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**Seatrade**  
**AWARDS**

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2006

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***Thank You***

***Partners in Global Communication***

***Athens – June 2006***



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