





















Hapag-Lloyd Overview
CA GEN @ HL in Figures
Current Architecture
The Idea

# **Hapag-Lloyd Overview**



Status: March 2012



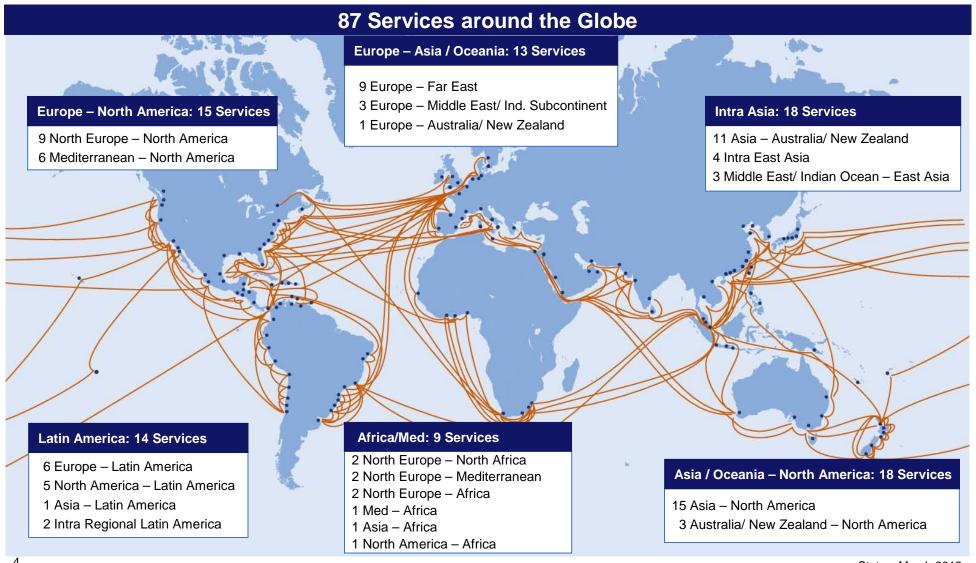


#### Hapag-Lloyd at a Glance

- One of the leading global container shipping companies
- Extensive service network with 87 services around the globe
- 138\* modern container vessels with a capacity of about ~621,000 TEU and more than 1.0 million containers (TEU) of various types
- Global presence with about 300 sales offices in
   114 countries
- Employees: ~6,900

#### **Worldwide Service Network**





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### **IT-Competence**

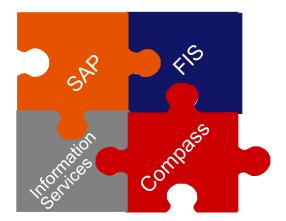


#### **IT Infrastructure**



- Global IT managed centrally in Hamburg
- Development and maintenance is mainly handled in-house
- System and network operations provided by IBM and SITA/Orange
- 24 hours / 7 days service
- Service quality ensured by service level agreements with providers

#### **Four Key IT Systems**

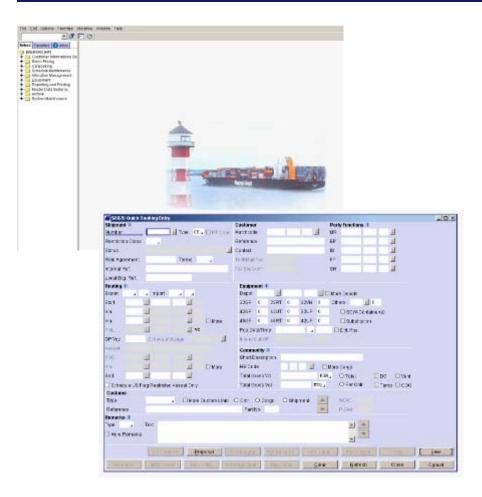


- SAP: Used for Finance, Controlling, Treasury and Purchasing
- Freight Information System (FIS): Supports all operations & business processes
- COMPASS: The central data warehouse and the steering tool for our processes
- Information Services: For internal and external information exchange

# Hapag-Lloyd Freight Information System (FIS)



#### **One Global Operational IT System**



- Integrated ocean carrier transport and logistics system
- Covering the entire transport chain and interfaces with all other IT systems
- Using one transport file worldwide for each transport in a central database
- Real-time access to all data for every order, irrespective of the location
- Highest reliability and availability

The Key to the Organisation's Success

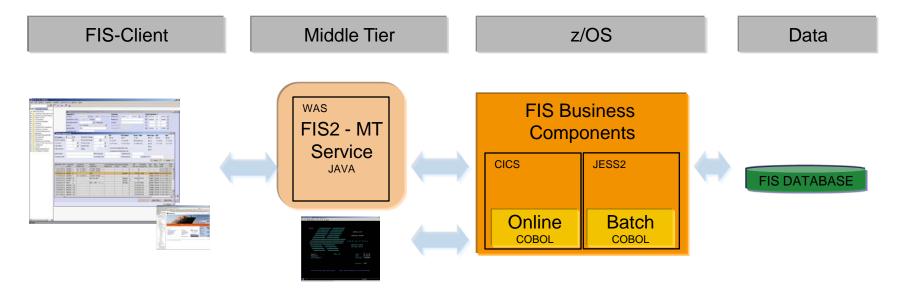
# **CA GEN @ HL in Figures**



- = 1 all-embracing Enterprise Data Model
- > 1000 GEN based Entities
- > 90.000.000 Objects within mainframe CE
- > 70 Models in use
- > 14.000.000 Objects within our largest operative model
- > 25.000 GEN generated modules
- > 18 Years of production of GEN (alias IEF) based application

#### **Current Architecture**





Mainframe and COBOL: Are you serious?

Mainframe and COBOL: Where to get the Experts?

Mainframe and COBOL: What about 3<sup>rd</sup> party libraries?

Mainframe and COBOL: Expensive!

CA GEN: Are you serious?

CA GEN: a bit old-fashioned!

CA GEN: no integration capability!

# The Idea: Migrate FIS from COBOL to Java



### Why FIS COBOL -> Java

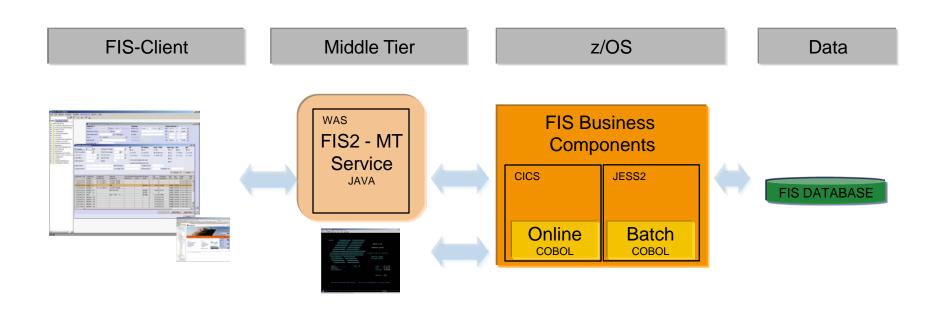
- ✓ Increase Integration / Interfacing capabilities
- ✓ Enable utilization of 3rd party libraries
- ✓ Boost perception of FIS as state of the art technology
- ✓ Provide modern GUI based Debugger for GEN Pseudocode
- ✓ Move workload from general purpose processor to special purpose processor.
- √ To gain theoretical platform independence
- ✓ Enable true local / offline development
- √"FIS to GO" as training system.
- √ Availability of expert Skills

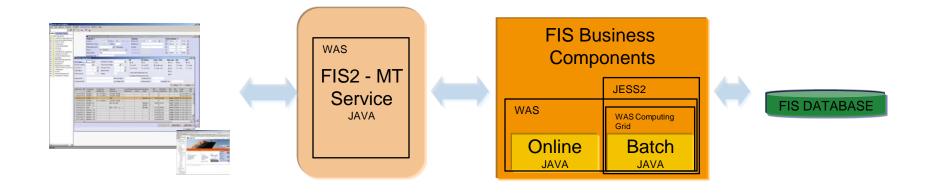
#### Can we? - Yes we can!

- √ > 98% independence between business code and low level implementation language
- ✓ JAVA is a proven target platform for CA GEN
- ✓ No change in architecture necessary
- √ 'just' exchange TP monitor and implementation language
- ✓ smooth migration possible but avoid redundant bilingual components!

# What does really Change?

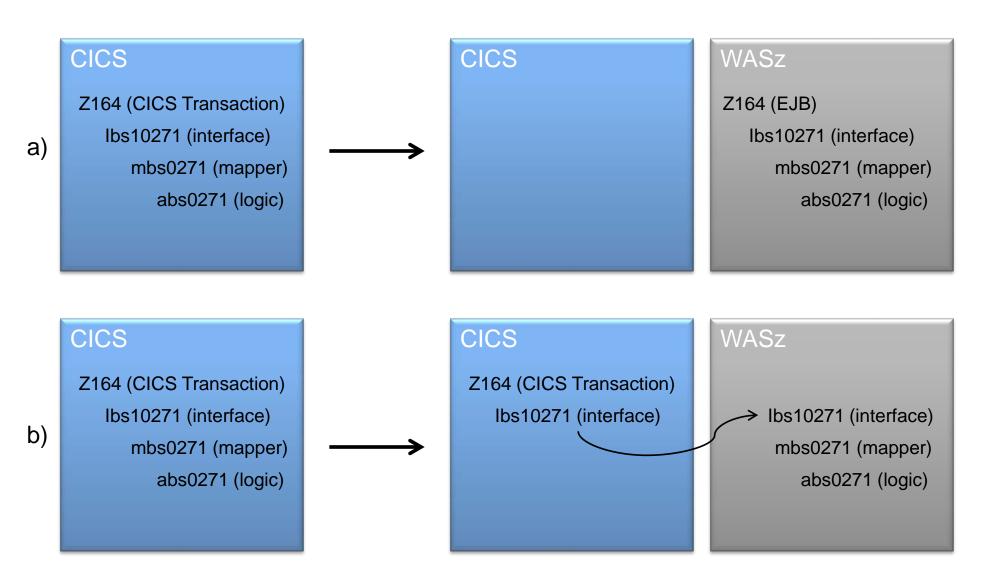






## To GEN or not to GEN – is this a question?





### **Performance Test**



