

Good Practice N°06

Information management for international freight trains

DB Schenker Rail Romania SRL, 04/2013

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Introduction (summary)

The CREAM project was one of the initial key factors to focus on the South-Eastern pan-European transport corridors IV and X. Based on the analyses, made within different CREAM work packages, and important input from customers, the DB Schenker Rail Group started to evaluate benefits from a common IT solution.

As a result an IT master plan has been elaborated, containing the following goals and components:

- One European IT production system for all DB Schenker Rail companies;
- Electronic train order management;
- Standardised invoicing;
- Transparency of rail freight operations;
- Standardised processes for all DB Schenker Rail companies.

The first rollout started in November 2012 at DB Schenker Rail Bulgaria, followed by DB Schenker Rail Romania in January 2013. The implementation will be finished until 2015 for all DB Schenker Rail companies.

DB Schenker Rail is the first operator in South-East Europe with a common IT based corridor solution.

During the same time DB Schenker Rail Bulgaria started as the first private operator in Bulgaria international trains to and from Turkey.

The combination of both projects and the implementation of two DB Schenker Rail companies in South-East Europe already started to develop to a success story and to satisfy the customers.

Starting position – main challenges

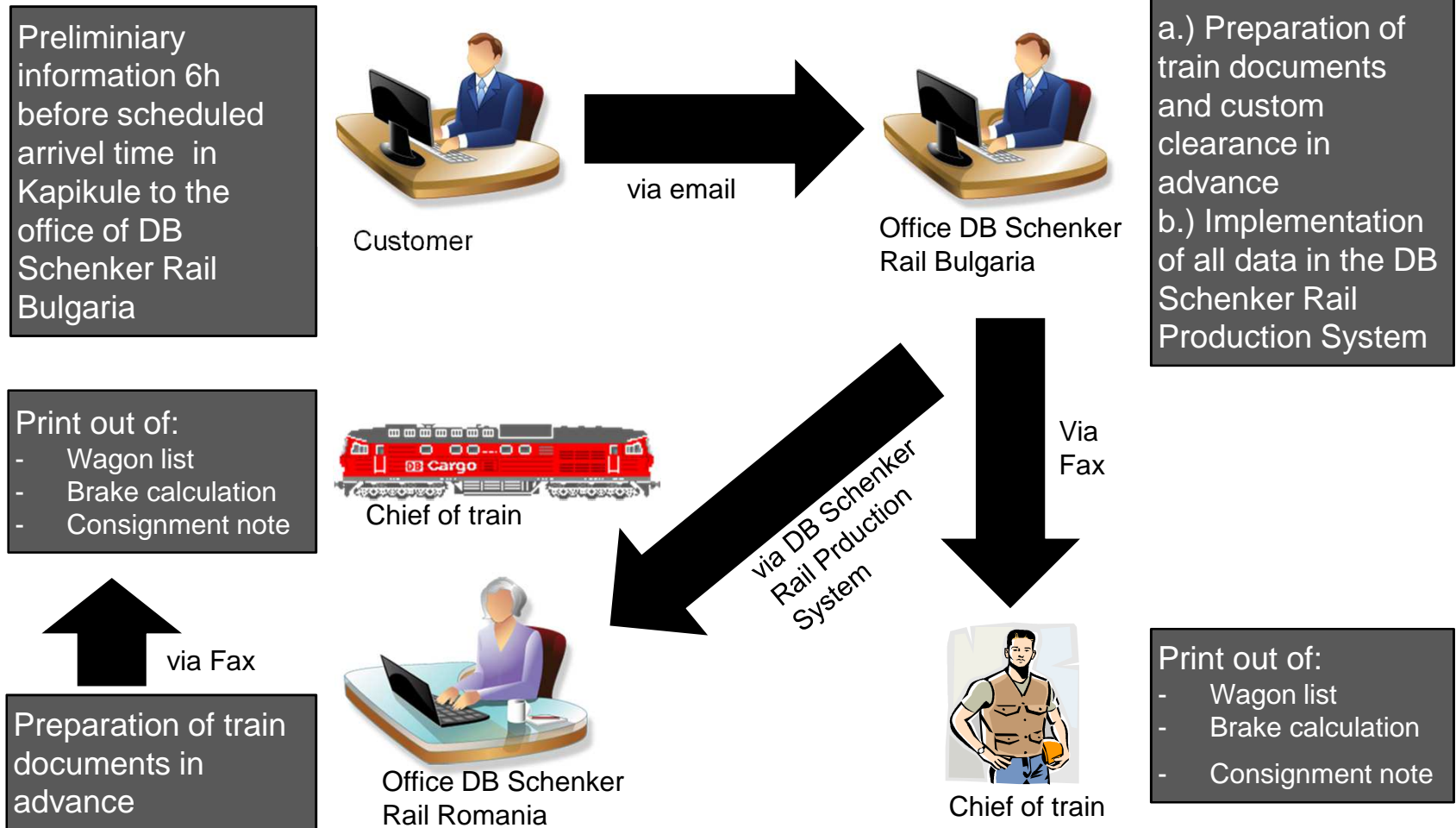
- First rollout of a high complex IT solution in South-East Europe
- Implementation of a completely new IT infrastructure (considering human factor, hardware,...)
- Hand written wagon data is sometimes wrong
- New experience of DB Schenker Rail Bulgaria in the operation of transit trains in Bulgaria
- Handover agreement with Turkey to be finalised (incl. offices for DB Schenker Rail at Kapikule border station)
- Non acceptance of simplified customs procedure Turkey-Bulgaria in the starting phase

Concept and components – overview

- Preliminary information management concept
- One common rail production IT system for all DB Schenker Rail companies
- Shared border station office of two DB Schenker Rail companies (Bulgaria / Romania)
- Mobile offices on locos
- Mobile repair teams (→ Good practice N°07)






Good Practice N°06: Information management for international freight trains

Concept and components – preliminary information system



Source: DB Schenker Rail Europe

Concept and components – rail production IT system

Content of Projects	Benefits
<p>Order Management Rail (EOM)</p> <ul style="list-style-type: none"> ■ European wide localized capturing of commercial orders ■ Printing of freight documents 	<ul style="list-style-type: none"> ■ Improved quality of transportation documentation ■ Automated distribution of transportation documentation ■ No missed billing due to poor order capture ■ Standardised customer experience 
<p>Production Fulfillment (EPS)</p> <ul style="list-style-type: none"> ■ Handling of train consists and train movements ■ Handling of small-scale shunting in yards ■ Check regulations for train-composition ■ Produce documents for the train 	<ul style="list-style-type: none"> ■ Improved control of operations through 'single version of the truth' ■ Improved efficiency of yard operations ■ Improved safety compliance ■ Significantly more efficient handover of trains between entities ■ Reduction of planning errors from 'simple' integrated planning support ■ IT-supported check of the security-regulations for train-composition and brake-calculation 
<p>Billing and Invoice handling (CPI)</p> <ul style="list-style-type: none"> ■ Freight rate calculation and billing ■ Handling of supplier invoices 	<ul style="list-style-type: none"> ■ Automated calculation of freight rates for billing ■ Automated triggering of billing leading to reduction in missed billings ■ More efficient handling of supplier invoices 
<p>Analytical Functions – Financial Governance and data warehouse (CIA)</p> <ul style="list-style-type: none"> ■ Common Interface for commercial and production data ■ KPIs for production 	<ul style="list-style-type: none"> ■ Minimization of effort needed to collect data for cost carrier accounting ■ Improved decision making through accurate KPI's 
<p>Production KPI based on data warehouse</p> <ul style="list-style-type: none"> ■ DB SR wide provision and analysis of production key figures 	<ul style="list-style-type: none"> ■ Confidence in decision making for data quality ■ DB SR standards for reports and measured data ■ Reduction of manual work 

Rollout package

Source: DB Schenker Rail Europe

Concept and components – mobile loco office

- Multifunctional devices on locomotives with following functions:
 - printing
 - scanning
 - fax
 - WIFI access to mobile devices
- Main purposes
 - print wagon list;
 - print brake calculation sheet;
 - print consignment note;
 - Communicate any changes / irregularities during train operation
 - ...

Installed devices:



Source: DB Schenker Rail Europe

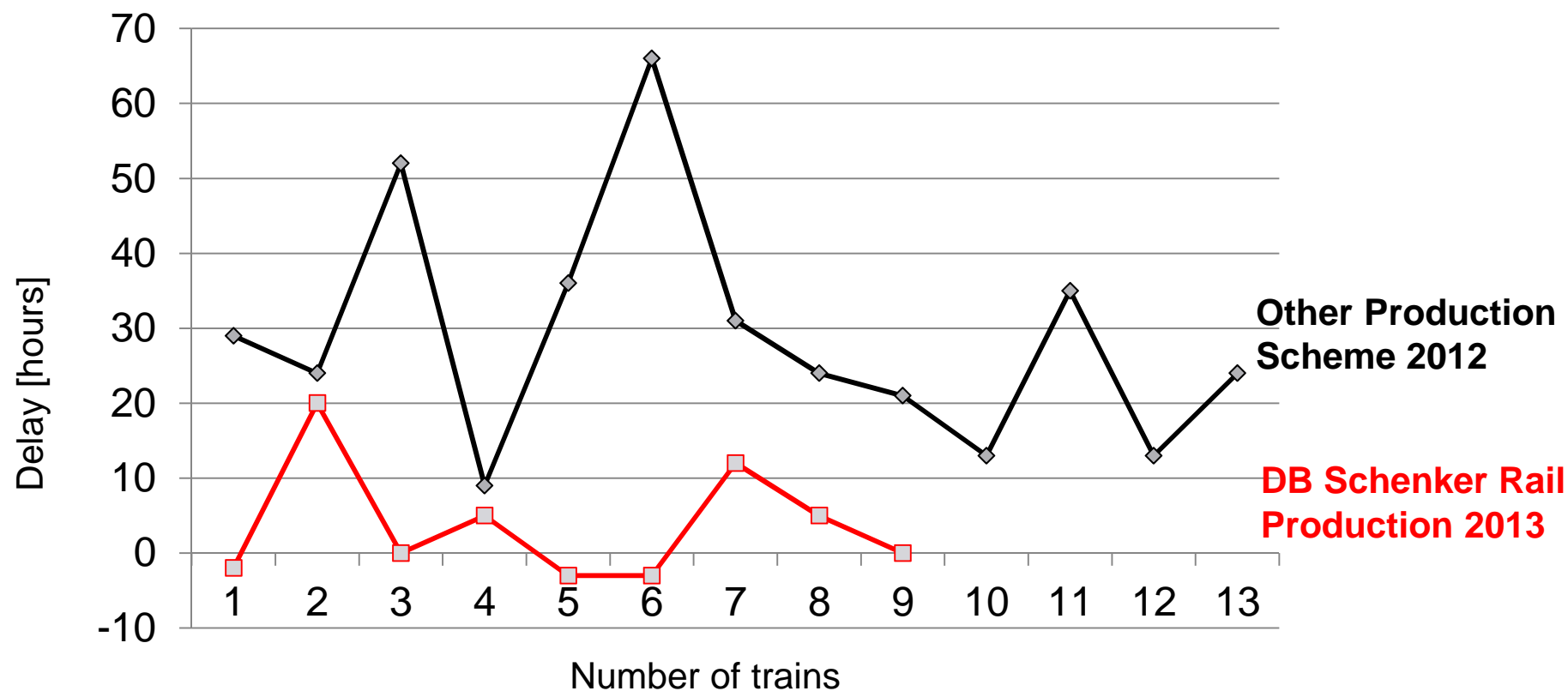
Application cases – implemented solution

Status: January 2013

- Electronic transmission of customers' train orders directly into the system
- Principle „no movement or train without order“; this guarantees full transparency
- Preliminary information flows of international trains about
 - train details;
 - electronic wagon list;
 - electronic brake calculation sheet;
 - electronic consignment note.
- Electronic wagon monitoring for each DB Schenker Rail company

Conclusions and benefits – quality statistics (1)

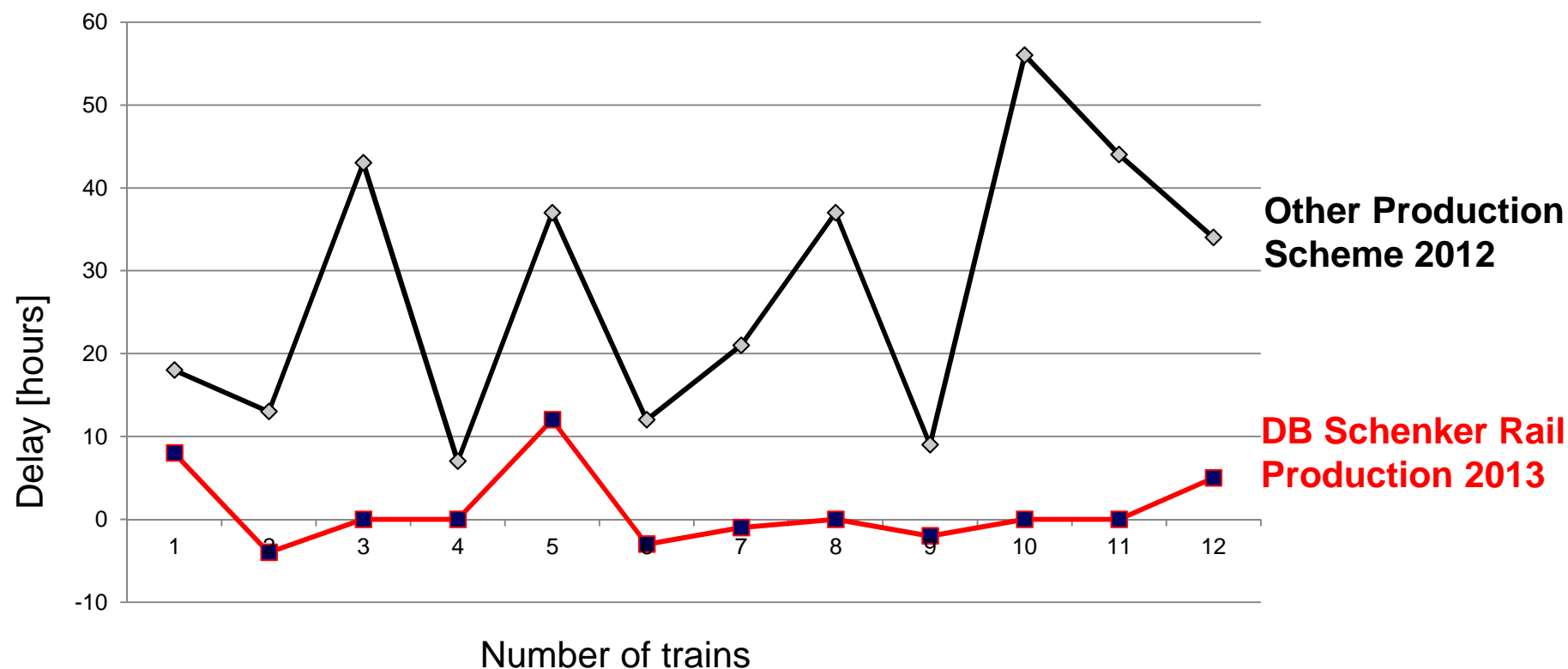
Southbound trains - delays at arrival in Svilengrad (Bulgaria)



Source: DB Schenker Rail Europe; Status: 01/2013

Conclusions and benefits – quality statistics (2)

Northbound trains - delays at arrival in Curtici (Romania)



Source: DB Schenker Rail Europe; Status: 01/2013

Conclusions and benefits - summary

- Information gaps between two DB Schenker Rail countries have been reduced after rollout of IT system
- Standardised wagon monitoring system is facilitated for each country
- Reduced border crossing times because of pre-preparations of the train documents
- Same structure of invoices for all DB Schenker Rail clients
- No order misunderstandings because of customer friendly software

Further exploitation

- One software for all European countries; subsequent system rollout in other countries (besides Bulgaria and Romania)
- Multilingual features of software will be further extended
- DB Schenker Rail Romania locomotives will be used as mobile offices and thereby secure a high flexibility for new destinations
- Multifunctional devices will be installed on each locomotive with the following functions / components:
 - printing
 - scanning
 - fax
 - WIFI access to mobile devices

Contact

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DB Schenker Rail AG, 2013, www.cosmos-project.eu