Control Tower solutions
- development together with customers

Odette & FKG Seminar Jönköping, Nov 23th 2005
DHL global organization

**DHL EXPRESS**
- Same day, Express, Parcel, Shipment
  - Same Day Services
  - European Community Express
  - Time Definite Deliveries
  - Import Express
  - Value Added Services
  - Worldwide Document Express
  - Worldwide Parcel Express
  - Europack
  - Europlus
  - Eurapid

**DHL FREIGHT**
- Europe-wide Transport, Specialties
  - Euroconnect
  - Euroline
  - Euronet
  - Eurorail
  - Customs
  - Special Services

**DHL DANZAS AIR & OCEAN**
- Air Freight and Ocean Freight Services
  - Air Freight
  - Ocean Freight
  - Customer Program Management
  - UAE Logistics
  - Industry-specific Project Cargo

**DHL SOLUTIONS**
- Contract Logistics, Industry-specific Solutions
  - Tailor-made industry solutions
  - Logistics consulting
  - Supply Chain Management
  - Warehousing
  - Value Added Services
  - Distribution
  - Reverse Logistics
  - Logistics Outsourcing
  - Service parts logistics

**UAE LOGISTICS**
1. Who we are – a short introduction
2. The challenge – the customers requirements
3. The solution – Control Tower
4. Continuous Logistics Development
5. Summary
1. Who we are – a short introduction
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100 employees

Offices in Stockholm, Linköping, Helsingborg, Dallas and Dubai

Turnover 2004, MSEK 754 (prog. 2005, MSEK 890)

240,000 transports, 1,200,000 transactions

Logistics Consulting & Control Tower Operation
  - Outsourced logistics functions
  - 4PL Mindset
“A supply chain integrator that assembles and manages the resources, capabilities and technology of its own organisation with those of complimentary service providers to deliver a comprehensive supply chain solution”

Accenture 1996
Organizational Cornerstones

- **Operations**
  Full support before, during, and after transport

- **Purchase and Distribution**
  Evaluation, purchasing, follow up and development of suppliers of logistic services

- **Business and ICT development**
  Analysis, development, and implementation of solutions:
  - Processes
  - Structures
  - IT & Communication

- **Support functions**
  E.g. financials, legal, administration
Basic Values

- **Simplicity**
  One partner

- **Efficiency**
  Suitable IT-platform, processes and personnel

- **Flexibility**
  Pro-activity and adaptation to changing situations

- **Economy**
  Open business model with cost based on actual needs
Examples of Customers

**Control Tower Operation**
- Ericsson
- Saab
- Metso Paper
- Emhart Glass
- FMC FoodTech
- Emerson Energy Systems
- Sony Ericsson

**Logistics Consulting**
- Astra Zeneca
- ICA Meny
- Kronan
- Svensk Etanolkemi
- Metso Minerals
1. Who we are – a short introduction

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5. Summary
The Challenge – Customer A

Customer A
Aim to reduce warehousing and lead-time
to increase customer satisfaction and improve cost situation

Logistics characteristics:
- Complex flows
- Project deliveries to site
- High volumes,
- Repeatable products
- Integrated service demands
- Time definite lead-time

Require:
- Simplicity
- High reliability
- Flexibility
- Continuous improvement
- Development
- Visibility
Customer B

Looks for general improvements to reduce cost and to add competence

- If someone can do it cheaper and better than them self, let them do it.

Outsized products
Project deliveries to site
Single deliveries
Time definite lead-time

Simplicity
High reliability
Flexibility
Cost reduction
Continuous improvement
Visibility

Spare parts
Straight flows
Time sensitive

Simplicity
Cost efficiency
Short lead-times
Supply flows - outbound

- **Centralized inventory and Direct distribution**
  - Direct Distribution

- **Merge in Transit and Direct Distribution**
  - Merge point

- **Direct Distribution**
Direct Shipment – “unbroken” delivery from supplier to customer

- **Supplier** → **Control Tower** → **Customer**

- **Supplier** → **Control Tower** → **Carrier 1** → **Customer 1**
  - **Control Tower** → **Carrier 2** → **Customer 1**
  - **Control Tower** → **Carrier 3** → **Customer 2**

- **Supplier** → **Control Tower** → **Carrier 1** → **Carrier 2** → **Carrier 3** → **Customer**
1. Who we are – a short introduction

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5. Summary
We act as 1st Tier (4PL) Service Provider for all deliveries:

- Mutual re-design of order and distribution processes with clients
- Continuous Supply Chain Engineering for improvement and implementation of new sites and markets
- Contract partner for 2nd Tier (3PL) Service Providers, including continuous performance analysis and negotiations
- Definition and monitoring of transport lanes and benchmarks
- Exception Management, contingency routing and close follow up on KPI:s
What is a Control Tower?

The Control Tower is both a concept and entity, based on four fundamentals:

- 4PL mindset, the Control Tower takes on a holistic perspective, focusing on continuous development of best practice solutions for the client

- Organization for operational management of logistics systems

- Business development function for continuous process and logistics for analysis, optimization, redesign and purchasing

- Efficient and flexible IT tools
  - XM TMS for operational and tactic management of complex logistics systems
  - ISY/EXAM for freight bill auditing
  - PRODISI for goods flow analysis and optimization including warehouse positioning
Contents of a Control Tower?

- **Relationship**
- **Know-how**
  - Knowledge management
    - Industry / supply chain
- **Consulting**
  - Supply chain reengineering
  - Process consulting (3PL)
  - IT analysis / implementation
- **Visibility**
  - Supply chain visibility, communication and IT integration
- **Operational**
  - Accounting / Invoice management
  - Event monitoring / exception management
  - RFP, RFQ management / execution
  - 3PL & carrier management
Service Provider Structure

Vertical integration of information

Horizontal integration of logistics services

Customer

Control Tower

Road transport network
Operator

Terminal services; Storage, MIT
Operator

Local distribution
Operator

Other services
Operator

Operational and functional scope of Control Tower:

- Vertical integration of information across various service levels
- Horizontal integration of logistics services among different operators
Direct Shipment – “unbroken” delivery from supplier to customer
Solution for managing a flow concept using Merge-In-Transit (MIT) – The Control Tower Concept

KPI Information
Analyze for action on tactical level

Exception management for action on operative level

Track and Trace info to the customer and the customers customer
Information flow to/from customer via EDI

Control Tower

Received Customer order
Acknowledged customer order
Production
Packing/Ready for shipment
Invoicing

Transport booking with estimated weight and volume
Actual package information
Exception mgt Track and Trace
Proof of Delivery
Invoice
Pre-booking with estimated weight and volume - to secure available capacity

Actual package information

Events and Proof of Delivery

Invoice

Capacity Planning /Routing

Pick up /Transportation

Delivery
Agreed routines and working processes

Customer <-> Control Tower <-> Supplier of logistics services

Standard Operational Procedures (SOP)
Logistics development with the customers

Direct shipment To Site

Basic flow To customer And warehouses In the region

Outsourcing Of Shipping function

Cross flows Between different Countries In the region

Evaluate all Inbound and cross Flows (Consulting)

All import Into Sweden

Outsourcing of Import function

Evaluate all Inbound and cross Flows (Consulting)

Cross flows Between different Countries In the region

Direct shipment To Site

Basic flow To customer And warehouses In the region

Outsourcing Of Shipping function
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Continuous Improvement

Define
- Define thorough, realistic, and measurable goals for the CT.

Measure
- Continuous measurement of selected parameters that are directly associated with defined goals. Measures are continuously collected and reported to the part of the organization that is responsible to take action.

Analyze
- Analysis of measures tied to systematic deviation handling is done in order to identify improvement potential and action areas. This results in action plans that states responsible team.

Improvement
- Based on analysis, action plans for improvements are executed.

Implement
- In order to secure that improvements are implemented long-term, supporting activities, e.g. education is performed and Standard Operational Procedures are updated.

Follow up
- The result is followed up in order to assure that intended effects are realized. This is followed by possible redefinition of goals and continued measuring.
KPI Reporting

- **Standard KPI-reporting available via Extranet with secure login:**
  - E.g. delivery accuracy, lead-times, costs, and deviation.

- **Reporting structure:**
  - Weekly updates of KPI-reports.
  - Monthly follow-up meetings assures identification and attention to structural errors.
  - Quarterly steering-group meetings assures high quality and evolved partnership. Assessment of quality, efficiency, and improvements.
## KPI - Delivery Precision

**Definition**

Delivery precision is defined as number of shipments delivered on time compared to total number of shipments delivered.

<table>
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<tr>
<th>Count of Transp, Ref</th>
<th>Week</th>
<th>9</th>
<th>10</th>
<th>11</th>
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<th>14</th>
<th>15</th>
<th>16</th>
<th>17</th>
<th>18</th>
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<td></td>
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<td>11</td>
<td>16</td>
<td>8</td>
<td>21</td>
<td>8</td>
<td>6</td>
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<td>15</td>
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<td></td>
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<td>402</td>
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<td>320</td>
<td>354</td>
<td>300</td>
<td>281</td>
<td>402</td>
<td>386</td>
<td>418</td>
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<td>Totalt</td>
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<td>408</td>
<td>402</td>
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</tbody>
</table>

**Graph**

- On-Time
- Early
- Late

### Quality
- Define
- Measure
- Improve
- Analyze

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**Page 30**
## KPI - Delivery Precision, deviations

<table>
<thead>
<tr>
<th>FC</th>
<th>Country of Destination</th>
<th>Precision Code</th>
<th>Deviation Category</th>
<th>Month</th>
<th>Count of XM Order #</th>
<th>Deviation Description (configuration)</th>
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<tbody>
<tr>
<td>3</td>
<td>(Alla)</td>
<td>(Alla)</td>
<td>(Alla)</td>
<td>(Alla)</td>
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<table>
<thead>
<tr>
<th>Deviation Description (configuration)</th>
<th>Week</th>
<th>9</th>
<th>10</th>
<th>11</th>
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<th>16</th>
<th>17</th>
<th>18</th>
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<tr>
<td>Wrong lead time used in Distribution order</td>
<td></td>
<td>2</td>
<td>16</td>
<td>36</td>
<td>12</td>
<td>5</td>
<td>6</td>
<td>12</td>
<td>29</td>
<td>39</td>
<td>22</td>
<td>179</td>
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<tr>
<td>Incorrect handling of docs/booking by transporter</td>
<td></td>
<td>1</td>
<td>5</td>
<td>3</td>
<td>7</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>24</td>
<td></td>
<td></td>
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<tr>
<td>Products not available for delivery</td>
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<td>3</td>
<td>2</td>
<td>3</td>
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<td>1</td>
<td>4</td>
<td>19</td>
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<td>Change of final delivery time/date</td>
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<td></td>
<td>10</td>
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<td>Weather conditions or force majeure</td>
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<td></td>
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<td></td>
<td>11</td>
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<tr>
<td>Wrong delivery adress stated in docs</td>
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<td>1</td>
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<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Late hand-over of delivery data (call-off)</td>
<td></td>
<td>4</td>
<td>1</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<td>7</td>
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<tr>
<td>Held cust. Waiting for permits, inspec., payment</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>3</td>
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<tr>
<td>Heavy workload att arrival terminal/MIT point</td>
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<td></td>
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<td>17</td>
<td>37</td>
<td>52</td>
<td>35</td>
<td>307</td>
</tr>
</tbody>
</table>

![Quality Improvement Diagram](image)
The simulation software enables complex goods flow analysis and reengineering.

It is used to develop and improve customers’ logistics flow.
Structural method and tools to evaluate existing supply chain trading partner performance and potential of new partners

Includes:
- The assessment model, with assessment criteria and mutual weighting.
- The questionnaire that generate input to the model.
- The assessment database, which stores evaluation results per supplier and project.
Cost assessment of suppliers, which is done by simulating freight charges in a software

Enables analysis of distribution cost per supplier by:
- Transport flow
- Transport method
- Terms of shipment
- Weight brackets and/or type of cargo
- Etc.
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5. Summary
So what have we created together with our customers

**Simplicity**
- In ordering through EDI connections
- In integration of different services to the customer, single point of contact
- One invoice

**Visibility**
- Full Track & Trace to all different sub-suppliers available on extranet
- In pricing – full open books
- In freight cost – prices available via extranet, or provided through EDI

**Flexibility**
- No fixed assets, uses sub suppliers for warehousing, freight and other physical services.

**Continuous improvement**
- KPI measurement
- Simulation tools

**Cost efficiency**
- EDI connections with customers and sub suppliers with the majority of orders (booking, event reporting, invoicing)
- Automated invoice control, prepared for self billing
- One-touch in order management for simple flows

**High reliability**
- Structured SOP’s
- Cleaned processes
- Exception management
- Measurement of deviations followed by action activities
- Full follow up in the flow
- Structured Supplier assessment and follow up
Thank you!