Case description – What we were asked to do

About Client
The Client is a major Russian telecom company operating a country-wide transportation network. The company provides B2C (business to customer), B2B (business to business), B2O (business to operator) and B2G (business to government) telecom services.

The Client has a single-tier logistics network with around 150 warehouses, 2,500 points of sale and about 20,000 operational sites holding inventory.

Client’s request
The Client chose Deloitte CIS to develop an optimal logistics network model that would match its future demand forecasts and inventory optimization targets while maintaining a high level of logistics service at operational sites and points of sale.

During the project we answered the following questions:
• What is the optimal hierarchy for Client’s network – 1- or 2-tier?
• What are the costs and effects of implementing various inventory optimization policies jointly with network optimization?
• Warehouses of what capacity and in what locations will the Client need considering future demand and inventory optimization targets?
• What is the optimal network transformation plan, including inventory relocation and timeline of warehouse closings?
Network optimization approach – How we did it

<table>
<thead>
<tr>
<th>Estimate high-level business case based on benchmarks</th>
<th>Develop optimization concept and AS-IS network model</th>
<th>Evaluate development scenarios of TO-BE network</th>
<th>Calculate business case to choose optimal TO-BE scenario</th>
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| Define with stakeholders three key optimization hypotheses:  
  • Reduce the number of small warehouses  
  • Redirect delivery to seven regional DCs  
  • Consolidate inventory in regional DCs | Tune up automated logistics data processing from ERP system  
  Produce current logistics network performance dashboard  
  Assess current logistics network efficiency  
  Build and calibrate a baseline model of current logistics network with about ~99% cost accuracy  
  Approve the baseline model with stakeholders | Design six TO-BE scenarios with three network structures and two inventory policies for each structure  
  Conduct TO-BE scenario modeling (six runs)  
  Define annual logistics costs for six scenarios and estimate costs for transformation periods  
  Create visual dashboard reports for each scenario to validate results with stakeholders | Select optimal scenario for each of the seven regions based on cost, service level and implementation risks  
  Compose the target scenario based on the combination of optimal scenarios for the seven regions  
  Model target scenario to assess transformation costs for current year with input on warehouse closure plan  
  Develop logistics network transition plan |
Optimization scenarios – How we did it

**Baseline scenario**

99% model accuracy vs. budget/forecast

Optimization of existing transportation routes without closure of any warehouses

**Local warehouse optimization**

11% decrease in logistics costs | 17% lower inventory

Optimization of number and capacity of warehouses organized in a single-tier network

**Delivery centralization to regional DCs**

9% decrease in logistics costs | 47% lower inventory

Optimization of number and capacity of storage facilities, creation of a two-tier network of regional DCs and local warehouses. Suppliers deliver to DCs and a few selected local warehouses

**Delivery centralization and closure of local warehouses**

22% decrease in logistics costs | 78% lower inventory

Optimization of number and capacity of DCs and closure of all the local warehouses
Case results

Step-by-step road map of transition from current network to target state taking into account ongoing projects and other network related opportunities

Recommendations on inventory policies considering network optimization scenarios

The project involves a significant increase in the logistics efficiency, including:

- Reduction of integral logistics costs by 9%
- Reduction of the number of warehouses by 28%
- Transportation cost reduction by 5%
- Target Logistics network supports:
  - Total inventory level reduction by 18%
  - Inventory turnover increase by 26%

Automated solution for cleaning and organization of data obtained from ERP

Logistics network performance dashboard
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