## Introduction

Cookie Monster Inc. is a global producer of branded packaged food products such as baked goods, confectioneries, snacks, soups etc. Cookie Monster has several nationally and internationally recognized brands. It has historically grown both organically (increasing revenue and market share of its brands) and by way of acquisition of smaller and niche brands. For this reason, Cookie Monster’s supply chain network is patch work of warehouses and transportation routes that ware tied to legacy contracts and rate tariffs.

A.T. Kearney has talked to the management of Cookie Monster about the benefit of an optimal supply chain network. A pilot project to optimize the network for baked goods in Europe has been launched and you are part of the case team.

*Welcome to the Cookie Monster Europe (CME) Case Team*

## Current Situation

CME ships its baked goods from its manufacturing locations to 9 warehouses which act as both storage locations and mixing centers. This is referred to as the “in-bound” transportation. CME’s Warehouse Network comprises of owned or 3PL operated warehouses across the country. These warehouses have different capacities and the 3PL operated warehouses are currently under annual fixed lease contracts or on a pay as you go scheme.

The warehouses act as mixing centers and repack the pallets and fulfill retail orders which are shipped to 16 retailer DCs. CME operates this “outbound” transportation to the retailer. CME contracts with transportation carriers, schedules the pick-ups/deliveries and pays for both the “inbound” and the “outbound” transportation.

### Schematic of the Network

Outbound

Inbound

**Manufacturing Retailer Warehousing**

**Warehouses**

## Opportunity

To maximize the benefit of the project, CME case team is embarking on a project to optimize the whole network including both warehousing and transportation using current market rates. For this reason, it has already launched a detailed RFP (request for proposal) process to request quotes from 3PLs for operating its warehouse as well as an RFP from fleet carriers for transportation rates.

The attached spread sheet ISM Case Data includes both the current network information including warehousing and transportation costs and the quotes from all the suppliers.

Given below is a brief description of each one of the tabs in the spreadsheet.

* **Route Information:** This tab contains information on all existing inbound and outbound routes including the origin, destination and annual FTL/LTL volumes in a particular route/lot
* **Route Quotes FTL:** Quotes from various suppliers on FTL volume across all routes are listed in this tab, including baseline (current) spend
* **Route Quotes LTL:** Quotes from various suppliers on LTL volume across all routes are listed in this tab
* **Warehouse Information:** List of current warehouses (names and locations) along with their alternatives – information on their ownership, capacity, baseline (current) spend
* **Warehousing Quotes:** Quotes from suppliers on all warehouse locations along with pricing details and contract terms
* **Bundling and discounts:** List of special offers and bundles provided by some suppliers – these offers are for the ”Additional Challenges” section described later in this document
* **Supplier information:** Qualitative and background information on suppliers
* **Demand Information:** Monthly demand forecast by retailers (in FTLs)

## Constraints

While optimizing the network, please take into consideration the following constraints

### Binding Constraints:

* Out of the overall volume of CME, no single supplier should be awarded more than 20% of the business. Similarly, it is not economically feasible for CME to have a supplier in its portfolio that has less than 1% of CME’s overall business.
  + For inbound transportation volume only, the above range can be expanded to 1%-30%
* Our client, CME, cannot hold more than 60% of a supplier’s total annual business
* At least 10% of the total business, should be awarded to incumbent suppliers

### Non-binding Constraint:

* CME wants the consulting team to consider the qualitative information on suppliers while making the award decisions. Given the intense competition in the baked goods category, the CME management team wants to ensure that the network and supplier choices will enable them to achieve their business objectives. For this reason the case team launched an independent assessment of the suppliers from surveys. The results from the surveys are in “Supplier information” tab in the associated spread sheet.
* Public warehouses are utilized by other companies as well. CME wants the consulting team to keep this in mind while allocating volume to such warehouses.

## Assumptions:

* Assume that you are at the beginning of 2013 (Jan).
* Consider book value equal to the fair market value.
* For the purpose of the case, ignore all depreciation and tax implications.
* Assume that a Less than Truck Load (LTL) is a third Full Truck Load (FTL). This also applies to all matters, including quotes unless specified.
  + An FTL is made up of 30 pallets
* All supplier quotes in the Route Quotes – FTL and Route Quotes – LTL sheets are for 100% of the volume on that route
* The origin and destinations of the routes were aggregated into countries or cities for simplicity. However, in reality they are from various locations within those countries and cities, this is the reason to have duplicate routes with various volumes; hence the need for the quotes of different routes. Moreover, there is no set time frame for the occurrence of shipments as long as monthly demand at the retailer is met in part two of the objectives.
* The monthly demand data provided is meant to test the allocation and capacity of the warehouses, not to set the shipping schedules or other implications
* The information enclosed within is from a real-live project so there might be some discrepancies and “dirty data”. Furthermore, if you need to make an assumption not listed in this file or data set, fell free to do so. However, state your assumptions CLEARLY.

## Objectives

1. **Part one. The base model**
   1. Given the constraints what are the potential savings from optimizing the existing network?
      1. Assume all volumes and warehouse remain
      2. However, it is possible to have several warehouse locations (WH\_LOC) within a warehouse area (WH) i.e. WH30 can consist of a combination of the warehouses (WH\_LOC\_171, WH\_LOC\_172)…etc. All combinations are possible.
      3. Ignore the monthly demand data provided for the time being. Consider demand at an annual level, however the warehouse peak capacities still hold
   2. What would be the case team’s recommendation for the warehouse and logistics suppliers and why?
   3. If you feel that certain constraints are too rigid, which ones would you negotiate with the suppliers or stakeholders to achieve greater cost effectiveness or resilience in the chain. What are the implications and benefits of relaxing them? Why do you believe that they were there in the first place, what is the logic behind them?
   4. Describe how robust is your suggested supply chain to theoretical fluctuations in demand (increase and decrease)?
   5. Any other suggestions you would have to the owners of the supply chain? Remember that this was a real case, so the normal market issues apply for this particular question.
   6. Looking outside the details of the case, what additional challenges would you like to consider to improve the supply chain?
   7. When companies in this industry have grown through acquisition (as CME has done) what have been the key challenges they have faced? Why have some of them failed and what would your advice be to ensure success?
2. Additional challenges (each should be done independently from each other)
   1. Model the supply chain taking into consideration the monthly demand data provided
   2. If all volumes remain the same and closing warehouses (WH) was possible which ones (if any) would you suggest removing?
      1. You can use available quotes and figures to model the resulting supply chain
      2. As before, if data you require is not available make the correct assumptions. Remember to state them clearly and obviously (along with the logic behind them)
   3. Evaluate the bundling and special discounts that have been offered by the different suppliers (go / no-go decisions). They can be taken separately or in conjunction.
3. How does this network compare to the one previously modeled?

In addition to the PowerPoint presentation, please submit the models and result charts. The models should be clearly labeled so that a third person can make sense of all the components within the model. Also, please be sure to state all your assumptions CLEARLY.