

## **Operation Stimulus- 2009 Student Debate Case Study**

**Operating as part of a first of its kind partnership, you need a supply chain that will exceed your customer's needs while keeping logistics costs low.**

### **Your Company**

AE&S Inc. is a consulting company, specializing in logistics & supply chain consulting. You work with clients to determine the best design and re-engineer their supply chain to obtain the maximum benefit for their business. You have helped clients develop supply chain strategies, gain efficiencies, improve customer service, better utilize assets, implement leading-edge information system and benchmark processes to increase customer satisfaction and lower transportation spend.

Recently a new client of yours named, Orange UK, contacted you to ask for your assistance as they develop a distributor partnership with a large service provider, which will support a high profile product release. Orange UK is partnering with a well know US technology manufacturer to manage the release of their newest internet device and can not take any risk in turning away or having un-happy customers. Orange UK has asked AE&S to help them plan for an upcoming product release by developing a distribution strategy incorporating lessons learned from the last years US product release which left many customers dissatisfied. Your top deliverable are to (in order of importance): identify strategies to exceed customer expectations through the ship to delivery process, increase the speed to market, determine if Orange UK should name a transportation partner or bring the skills in-house, identify methods for Orange UK to keep transportation costs low, and promote green practices in use throughout the supply chain.

### **Background on Orange UK**

Orange UK was formed in 1994, went public in 1997 and is currently listed on the London and NASDAQ stock exchange. In 1999, Orange UK expanded operations to Europe, Africa and Asia, through wholly owned subsidiaries. They service 170 Million customers on 5 continents and have 300 retail stores. Orange UK has subsidiary operations in 166 countries with 220 networks world-wide. In 2007, they had sales of 53 Billion Euros. Orange UK has partnered with a US based multinational corporation, which designs and manufactures consumer electronics and software products, to be the sole distributor of their newest internet device.

Orange UK has grown quickly and shown that they can attract customers; however they have paid the price for quick expansion. Within the telecom industry, they have had one of the lowest customer satisfaction ratings; including being on the bottom of the telecom list for customer service. Recently, the new CEO has made it his goal to increase customer satisfaction.

### **Background on the Manufacturer**

The manufacturer, Tech-R-US, is a well established information technology company that designs, manufactures, and markets personal computers, portable digital music players, and mobile communication devices. They also sell a variety of related software, accessories, services and peripherals. The company sells its products worldwide through its online stores, retail stores, and third-party wholesalers, resellers, and value-added resellers; however as part of this partnership Orange UK will be the only authorized reseller of the newest internet device.

Tech-R-US is publicly traded and their worldwide headquarters is located in Denver, Colorado with manufacturing in China, Taiwan, Brazil and Romania. The company employees 32,000 people worldwide. They are an industry leader that holds a high regard for designing cutting edge products. Given their ability to design products that appeal to artists and youth, they have developed a devoted customer base.

### **Customer Base**

High tech cell phone consumers are between the ages of 18 and 34 and are often looking for a stylish device with advanced functionality. Social networking is part of the customer culture and an important aspect of their marketing. The company has created buzz around new products using untraditional media outlets. The key for a product to survive in this market is to gain buy in from the technologically savvy consumers. These customers are the ones that will communicate their approval or controversially their disapproval of product features. Millions of enthusiasts are awaiting the release of this internet device; the Orange UK management team knows that customer satisfaction is the key to success. After the pitfalls of the US release Orange UK must provide high quality serviceability that exceeds customer demands. The delivery of these products needs to be on-time, cost effective, and efficient.

Customers are increasingly passionate about being the first to receive released product. These early adopters play a role in shaping future demand by writing product reviews, creating social networks. The first release resulted in missed delivery promises as outlined in the customer reviews found online. The manufacturer has a strong desire to keep these early adopters happy by providing excellent customer service.

### **External Environment**

Internet devices are a key technology product of the 21<sup>st</sup> century. 1.4 billion handsets were sold globally in 2008. Sales of internet devices are expected to grow nearly 30% between 2009 and 2010. There has been a shift from voice technology to data service technology. As consumers continue to request entertainment and data options, demand for smart devices will increase. Not only will these devices compete with cell phones in the future, but they will also compete with digital cameras, MP3 players, GPS units, and PDA devices.

The success of new product introductions depend on a number of factors including: planning for volume increase issues, the availability of application software for new products, the effective management of purchase commitments and inventory levels in line with anticipated product demand, and the availability of products in appropriate quantities and costs to meet anticipated demand. Tech-R-US and Orange UK must be able to get the product to market quickly while being able to capitalize on the customer's willingness to pay top dollar for a "trendy" product. The month of the launch is crucial. The manufacturer and Orange UK know that competing manufacturers are in the process of developing similar devices and will market them world-wide.

The wireless service provider market has been extremely competitive, with multiple operators serving users; however, Orange UK is unique in that they are the only company to service Europe, Africa and Asia. The intense competition from local providers has prompted Orange UK to respond to customer demands and to think of ways to service the customer in addition to being just a wireless service provider. Wireless service has become a commodity and Orange UK wants to expand their market presence and get ahead of their competition by showing consumers

they can add value by delivery high demand products on time, while meeting all service expectations.

### **Lessons Learned from 1<sup>st</sup> release:**

In July of 2008, the highly awaited internet device was launched in the US through a partnership with a US service provider. The launch had some major flaws which were quickly posted on social networking sites. The company has pledged to shareholders and customers that this release will be smoother, so the pressure is on to ensure a flawless launch.

One of the largest disasters of the first launch came with 10 days until the launch. The US partner had only serviced 75% of their retail locations leaving 25% of the retail venues screaming for their product. In a rash decision the US partner authorized the immediate mandate to use expedited freight services to get the last of the product staged for the launch. This decision completely blew their transportation budget and really ate into their profitability. Despite the use of expedited freight, product did not show up on time to the retail locations, leaving many stores without the newest internet devices on launch day. Customers who ordered product on-line did not receive their product on-time and received no notification, additionally once received; consumers had to bring it to the stores to be activated, creating a bottleneck at the retail locations. To add to the chaos, there was a lack of linkage between manufacturer and US service provider regarding: education, software downloads, delivery dates and available inventory. Customers were required to wait at the store or bring on-line purchases back to the store to have software downloaded based on the language of the user's country and user service agreements. Customers were frustrated that the US partner knew no more than they did about product arrivals or support, so the US partner was seen in very bad light.

During the US roll out, the use of buzz marketing created more demand than forecasted. The manufacturer and the US partner immediately realized they did not have the supply chain infrastructure to support the demand including the appropriate distribution center structure, a named distribution partner, ability to forecast nor the tight linkage required between the supply chain parties to make this a success. Partnering with the high profile manufacturer was an excellent opportunity to raise their standing in the US market and add value to their company. However, by not meeting customer expectations, the US partner ended up with poor customer satisfaction, loss of customers, and a bad reputation.

### **The Upstream Supply Chain**

The Internet handheld devices are manufactured in China, Taiwan, Brazil and Romania. The device is shipped without software to the partner's distribution center. Software has typically been downloaded by the store so that the partner has the ability to only load the software necessary for the user's service agreement. The manufacturer has left the decision of determining the best business process regarding post manufacture software downloads up to Orange UK. Some assembly is required to be performed in the distribution centers to add country appropriate power cables, user manuals and meet other country requirements.

### **Orange UK's Supply Chain Story**

Orange UK has developed a world-wide supply chain to support their current operations, which they hope to leverage for this roll-out. Currently, the Orange UK supply chain team works with a variety of manufacturers to plan for and purchase new product. Today, the supply chain is primarily focused on supporting the retail stores through fulfillment of replenishment orders from a handful of world-wide distribution centers (Exhibit 2). To date, the Orange UK supply chain has only experienced stable demand in a push environment; they do not have experience with high profile product releases. The Orange UK executives know that there will need to be modifications to the current distribution center structure to support the high volume and customer demands of this product release. The executive team is looking for your analysis to detail the investment needed in the current Orange UK supply chain to make this a success.

### **Characteristics of the Current DC's**

Current DC's are owned and operated by Orange UK subsidiaries in each country. These distribution centers have worked well at fulfilling predictable, repeatable order volumes. They are not designed to support an on-demand distribution environment, Orange UK has speculated that they could fulfill a higher demand if there DC was more efficient and customer oriented. The Orange UK distribution center costs are roughly \$800K USD per month, per DC.

Distribution centers are used as assembly hubs and in-country deconsolidation facilities to support delivery to retail stores. The DC's current delivery model includes replenishing the world-wide network of Orange UK retail stores, delivery to big box retail stores and to partner retail locations, as well as delivery of their own web based orders. The DC's have the ability to pick, pack and collate for the stores, so that they are ready for immediate sale. Packages are picked and shipped out in configurations according to the customer (retail store) requirements. Normally a customer purchases only one product at a time, so it is important to plan to affectively for style, color and configurations based on what the customers wants and desires.

### **Logistics Costs**

In order to assist AE&S with developing a baseline on the logistics costs, Orange UK provided a summary of current logistics costs (see Exhibit 4). Orange UK believes that their total logistics spend is higher than industry average. They would like AE&S to determine a method for creating a transportation budget and the key components. Since total number of sales is unknown, AE&S should determine the driving lever behind each of the costs. All costs from the manufacturing location to the customer should be included.

### **AE&S Deliverables**

In your first strategy session with Orange UK, they have given you the following information regarding expected output for each of your deliverables.

- Exceed customer expectations through the ship to delivery process. How can Orange UK ensure that the importance of the roll-out is communicated to all parties with the supply chain? How can Orange UK create an internal environment that supports this critical product release? Should the product launch be done in a big bang or phased by country?
- Increase the speed to market. Which distribution centers should deliver to which customers? Do new distribution centers need to be added to effectively stock the retail stores for launch date? Would you propose eliminating distribution centers, what would

- be the impact of this? How will you create a closed loop systems to ensure that demand information is fed back through the supply chain?
- Should Orange UK partner with a transportation partner to assist in the roll-out? Identify three reasons why Orange should partner. Identify three reasons why it would be better for Orange to work with a mix of transportation partners.
  - Bring supply chain and logistics skills in-house. What is the benefit to bringing skills in-house? How can Orange utilize those skills in the future once the launch is complete?
  - Identify methods for Orange UK to keep transportation costs low. Create a matrix of the expected logistics costs. How can total costs be minimized? Orange UK is aware that the US release resulted in higher transportation costs than expected. How can Orange UK pre-plan so they are not reliant on air transportation?
  - Promote green practices in use throughout the supply chain. Name two practices that Orange UK can implement and promote as part of the relationship with the manufacturer. How can these practices be further communicated to add value to the Orange UK name?

Remember that this is a partnership, what resources, information or commitments are needed from the manufacturer to make this a success? What assumptions have you used in your analysis?

Orange UK has given you access to their top staff world-wide in order to begin this mission critical work. AE&S will have 9 months between now and then to recommend a supply chain strategy that meets these deliverables. Orange UK is looking for a creative solution with the customer as their first priority. The product release is planning for September 22<sup>nd</sup>, 2009

*Orange UK is the parent company and operates through Orange subsidiaries in Europe, Africa and Asia.*

*For Simplicity, we recommend using USD due to extreme fluctuations in the exchange rate.*

**Note: This case was taken from a real life situation but please use the details in this case as the facts surrounding this logistics situation. Where details are not spelled out in the case you are free to make assumptions or take facts from the real life situation.**

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### **Team Presentation**

Prepare a 45 minute presentation that summarizes your deliverables (listed on page 4-5) to Orange UK. You are presenting to the executive supply chain committee of Orange UK. The supply chain committee will use your recommendations to determine the partnering strategy with the manufacture as well as to develop a product release strategy based on distribution. (45 minutes should include time for questions from the judges)

We recommend at least 1 PowerPoint page for each of the following (this is a recommendation)

- Introduction
- Background & Assumptions
- Strategies to Exceed Customer Expectations
- Distribution Strategy & Speed to Market
- Transportation Partner or In-house
- Transportation Costs
- Green Practices
- Twist on the case

Please ensure that your school name is listed on the presentation.

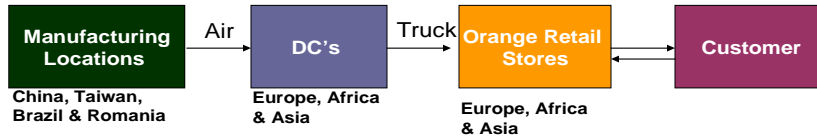
Assume that the judges have a background in supply chain with a focus on logistics & transportation and they have read and understand the facts of the case.

Each person on your team must present, equitable allocation of speaking between team members is expected but not measured.

**EXHIBITS:**

*Exhibit 1: Distribution Channel*

**Distribution Channel**



*Exhibit 2: Map of Current Orange Distribution Centers*

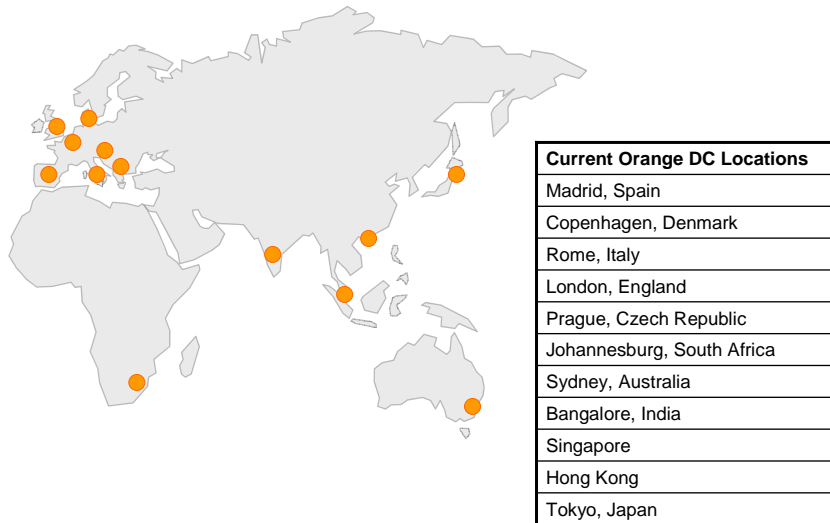


Exhibit 3: US Release, Internet Devices Sold

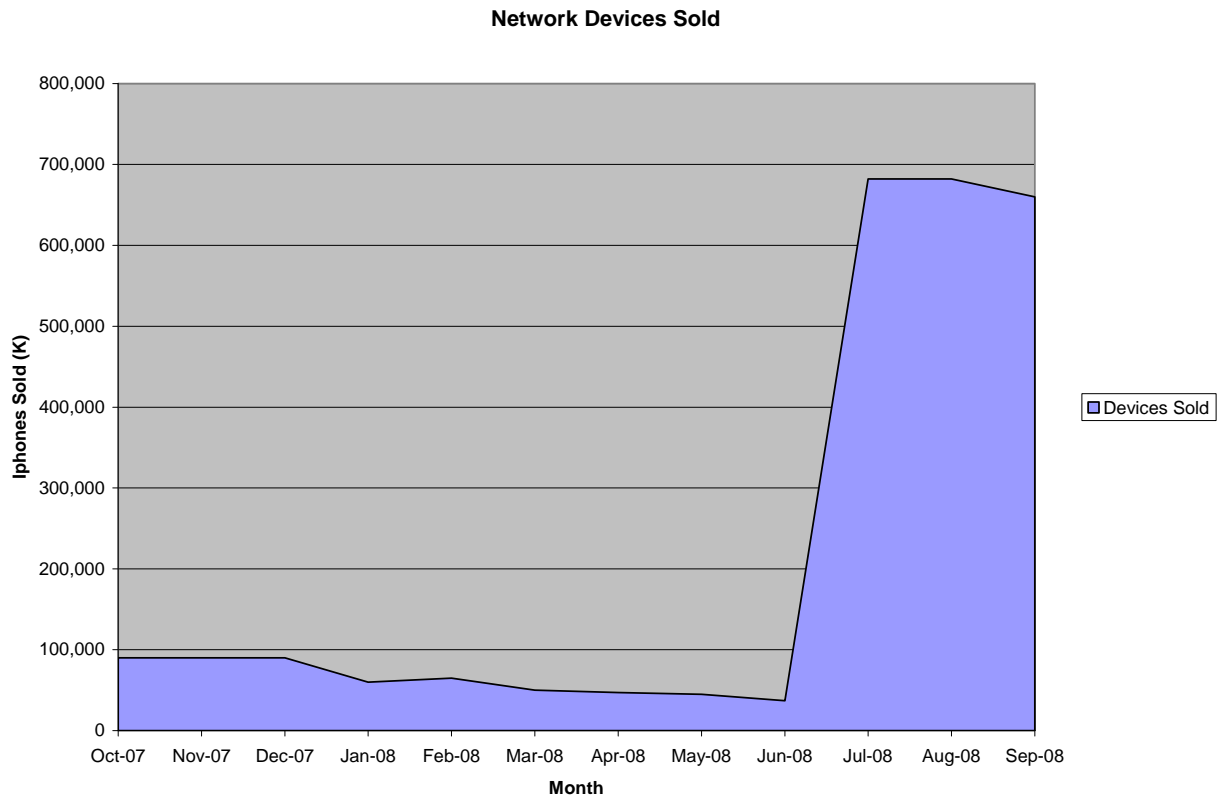


Exhibit 4: Orange Logistics Spend, 2007

<i>millions</i>	<u>Euro's</u>	<u>USD</u>
Revenue	53000	68900
Cost of Goods Sold	21200	27560
Total Inventory	769	1000
Logistics Costs		
Warehousing	457	594
International Freight	400	520
Domestic Transportation	228	297
Import/Export/Security	57	74
Total Logistics Costs	1142	1485



*Exhibit 5: US release, Logistics Costs*

*Through market research AE&S has received some data regarding the US release.*

US release logistics spend	Millions, USD		
Total # of Units Sold in first 3 months	2.024	Million	
	<u>Budget</u>	<u>Actual</u>	
Standard freight	5	2	Million
Expedited freight	5	14	Million
Warehousing	8	8	Million
Total	17	23	Million

**Please note these are the questions we have received with answers. Safe travels and we will see you next week!**

**Schools are to identify themselves in their presentation and on their slides.**

**1) Are there dimensions for the product? Is there any more info on price or price related to other similar devices?**

dimensions are approximately 6x8x2 inches (lxwxh) and weighs approx 2 lb, you ship them on standard pallets, price per device is \$500

**2) Of the 170 million Orange UK customers, do we know how many are in the markets where Orange UK holds exclusive rights? Is there a list available of the countries included in the reseller agreement?** Orange UK holds exclusive rights in all markets. For reseller agreements view the DC map and draw your conclusions off of that, state your assumptions.

**3) In the Background you note that Tech-R-U's sells its products worldwide through its on-line and retail stores among others. Does this mean that though Orange UK is the exclusive reseller or will the product also be distributed via Tech-R-U's retail locations in Europe, Africa and Asia? If so, is the number of Tech-R-U's retail stores known?** Based on initial launch you have decided not to use Tech-R-U's and Orange UK will be the exclusive reseller.

**4) Related to number 2, would the Orange UK distribution include the big box retail locations and partner retail locations they serve? Is the volume of total Orange UK sales through the big box and partner retail locations known?** Yes. Worldwide release volume is estimated to be 20-35 million devices, 30% Asia Pacific, 60% Europe, 10% Africa. Note exhibits are based on 2007 figures, please ensure you are focused on strategy not a full financial analysis.

**5) Exhibit 3 shows network devices sold on the US release. It indicates sales prior to the July release in the US. What does this demand represent?** It represents previous devices pre release. **During the product launch in July, does it include Tech-R-US retail**

**stores as well as the US service partner?** During product launch in July did include Tech-R-Us retail stores

**6) Is there any more detail on the location of Orange UK retail stores, (number per country, etc)?** No base your assumptions off of DC map as well as answers to #4.

**7) Exhibit 2 lists 11 DC's and shows 13 on the map – can this be clarified more?...**The 2 on the map not on the list are Brussels and Bucharest, Romania