

BabyBox's Background

BabyBox, Inc. is a provider of a subscription service that assembles, sells, and distributes an assortment of baby goods to their customers every month. Each month, a box of baby products is specifically curated for each customer to ensure that customers never receive duplicate products and that each box is age-appropriate for the customer's child. For the first year of the company's growth, a combination of small business e-commerce and spreadsheets were used to manage the ordering and inventory management process. However, the company has seen tremendous growth and the current systems can no longer meet BabyBox's requirements. The CEO has recently acquired venture capital funding to support the continued growth, and therefore has hired a technology consulting firm to perform a complete redesign of the company's infrastructure. The CEO has provided the following requirements that should be considered in the design:

User Requirements

1. Prospective Customers will browse BabyBox.com to review subscription options and to sign up as a customer.
2. Subscribed Customers will log in to the website to manage their account info, their children's profile, and their subscription information (including personal financial information).
3. Subscribed Customers will be given access to an iOS or Android app to manage their account information and receive information from BabyBox.
4. Technically sophisticated Vendor Business Partners will integrate directly into the system in order to manage which of their product offerings should be made available to BabyBox on a monthly basis.
5. Other Vendor Business Partners that cannot integrate into the system will log in to a website to manage what product offerings should be made available to BabyBox on a monthly basis.
6. BabyBox's operations team will require access to a customer management administrative website to review customer accounts, approve baby products that should be considered in the curating process, and review orders. They would also like a dashboard of Key Performance Indicators.
7. BabyBox's customer support team will require a system to manage customer support issues.
8. BabyBox's data management team will require a sophisticated data analysis platform to trend customer and baby products data over time.
9. BabyBox's accounting team will require a financial management system to manage their accounting requirements, including general ledger, accounts payables (to the Business Partner products manufacturers) and accounts receivables (from the customers).
10. An external warehouse and fulfillment center will manage the receipt of incoming products and the fulfillment of outgoing orders. They will not use BabyBox's system, but rather will require a data feed to be fed into their inventory management system.

Customer Acquisition Process

1. BabyBox will make heavy use of Digital Marketing including purchasing lead lists for Mass Email. Each day 100,000 emails will be sent to a various leads in order to drive traffic to the BabyBox.com website.

2. Once a prospective customer signs up for a subscription, they must create a profile account, including credit card information for recurring billing. When this occurs, an account should also be created in the accounting system.
3. The prospective customers can choose to log in to the website using their Facebook credentials.
4. The customer will be charged once a month for their subscription. Their billing information should be available in the web page as well as the mobile app.

Vendor Business Partner Process

1. External Business partners will use the new system to submit products that can be used in the curating process. They can submit their products either through a system integration or by logging in directly to BabyBox's system.
2. The vendors can manage their available inventory and prices that are available to BabyBox's curation process.
3. If their products are chosen during the curation process, a purchase order will be sent to the vendor for an immediate shipment of the selected goods to the warehouse and fulfillment center. This should have an immediate entry into the accounting system to account for the financial liability.

Product Master Requirements

1. Due to the number of potential baby products and the requirement to ensure no duplicates are ever received by their customers, a product master solution is required. When a business partner submits a product for consideration to the curating process, the product should be matched against the product master or a new product entry should be created.
2. BabyBox's operations team will review and manage the data in the product master. They would prefer to be able to manage the product master from the same "pane of glass" as the customer and order management system. If that is not possible, they would like a Single Sign-on solution to ensure the ops team does not need to log in to the product master application.

Curation Requirements

1. Once a month, the system will automatically curate the boxes for shipment.
2. The system will consider the attributes of the curation process, such as gender, age, and weight of child.
3. The system must ensure that each customer never receives a duplicate product, even if it is the same product coming from a different vendor.
4. Once the system has curated the boxes, it will generate a detailed fulfillment and shipping data file for the warehouse.

Customer Support Requirements

1. A call center has been set up to manage any customer support issues.
2. A customer service representative should be able to see all order history for a customer, but none of the customer's financial information.

Scalability Requirements

1. BabyBox expects to grow to 5M customers over the next 3 years.
2. Each month, a unique box is created for a customer that contains between 4-5 products.
3. At any one time, there are 50-60 vendors of baby products.

4. Each vendor typically offers 10-15 products per month to BabyBox, of which 2-3 would be considered for curation.
5. All customer history for the life of the customer should be kept for data analysis, as well as to ensure no duplicates in the curation process.

Product Development Methodology and Governance Requirements

1. Due to high demand, the project should be run in as many parallel tracks as possible. The CEO would like to know how many workstreams are recommended.
2. For each workstream, the CEO would like to understand what project methodology will be used and why.
3. The CEO would like a comprehensive testing strategy to inform her when the system is ready to go live.
4. The CEO would also like to establish a governance structure to manage the decisions and changes that will be occurring during the projects. The CEO would like to know what governance structures are recommended.
5. The CEO is also requesting an environment management plan that describes the number of unique environments, as well as a migration strategy for moving from one environment to the other.

System Landscape

1. Digital Marketing (Marketing Cloud, Marketo Etc.)
2. Customer Management System (Salesforce.com)
3. Accounting System (ERP or FinancialForce)
4. Curating System (Steelbrick or Custom Development)
5. Ticketing System (Desk.com or Service Cloud)
6. Data Warehouse and Analytical Tool (AWS or Heroku)
7. Enterprise Service Bus (MuleSoft or OnPremise solution)
8. Product Master (Informatica or OnPremise solution)
 - a. Possible Canvas Integration to Force.com or SSO
9. Customer Community or Website for Customers
10. Partner Community or Website for Business Partners
11. API for Business Partners
12. Mobile App for Customers

Assumptions:

- Real-time integration between CMS, Product Master, and Accounting system requires the use of an Enterprise Service Bus.
- Ticketing system will be assumed to be Service cloud, or should also be included on the landscape requiring ESB integration.
- All customer history for the life of the customer should be kept for data analysis, as well as to ensure no duplicates in the curation process.
- BabyBox's data management team will require a sophisticated data analysis platform to trend customer and baby products data over time.