Prophet by Baxter™
Demand Source Locator (DSL)

A service parts planning organization works in conjunction with the logistics and service organization to ensure that the required service parts are available, in the correct location, to meet the contractual commitments made to each client.

Key steps in this process include:

- Identify a logistics network capable of meeting the promised service level

- Predict (forecast) the future demand by service level commitment at each location within the network by using historical demand supplemented with product install base and contractual commitments

- Develop a stocking-level plan using the demand forecast calculated above, as well as lead-time variables, part importance and other stockout cost variables

- Place purchase, repair and replenishment orders to maintain an appropriate inventory in each location

The daily process of managing, supplying and servicing thousands of part numbers; across tens, hundreds, or thousands of stocking locations is a complicated process. Add in one-way and two-way part chains along with supplier backorder challenges and you quickly realize the fined tuned environment that was carefully planned is under constant assault from daily execution requirements.

All too often, a series of manual escalation processes are required to resolve the conflict. When we multiply this by hundreds of daily service part requests across multiple geographies, it illustrates the inherent value of linking the service part planning and execution processes.

Prophet by Baxter Demand Source Locator (DSL) is an optional module that enables alignment of the part sourcing process (execution) with the service parts planning process.

DSL's part sourcing process utilizes service level commitment, part number, part chaining, demand location (postal code/city/state) or contract number along with a business rule strategy to identify the best site (or alternate part) to fill the service request.

Multiple strategies can be configured to match varying requirements by region or other criteria. Strategies are typically defined during implementation of the planning system to ensure that they follow corporate service delivery policies.

Business Scenario

Environment
- Two customers have service contracts for the same equipment (Model 100).
- Customer A currently has one Model 100. Recognizing that their Model 100 is crucial to their business operation, Customer A purchased the Gold service package that includes service parts delivery within 2 hours.
- Customer B has three units of the Model 100 equipment. As they have multiple units, Customer B has built in redundancy and chose a less expensive service agreement that guarantees next business day delivery of service parts.

Implementation Options

There are two options available for deploying DSL as part of your service part planning process.

• Prophet User Interface – Users can login to Prophet to access DSL functionality. Users will type in the part number required for service along with the demand location or contract ID of the service request. A list of available parts (including one-way and two-way interchangeable options) and sites, sorted to display the best possible matches on top, will be displayed to the user.

• Web Service Integration – Real-time Web Service (SOAP) integration with your ERP/service management system to automate the part request / part sourcing process. DSL will respond to single or multi-line orders with the best available part and site mix for each order.

Plan

The service parts planning team is utilizing a remote stocking location (referred to as location X) located within 25 miles of Customer A to stock the appropriate service spares for Customer A (and other Gold customers in the area). Customer B spares are planned for and located in the Central distribution facility (500 miles away).

Service Event

At 10:00 AM on Tuesday, Customer B calls with a machine down. The customer service diagnostic process identifies the logical replacement parts and "looks" for those parts. They are found only 25 miles away at remote stocking location X and an order is issued for them to be sent to Customer B.

Problem

Later that day, Customer A calls because their system has also experienced a failure and they are in urgent need of service. This should be no problem, the potential for failure was predicted and the appropriate service parts and service part stocking levels have been planned at remote stocking location X.

At least, that was the plan ... since the execution process did not follow the planning process; those parts are no longer available in stocking location X. Now the service organization must invest additional resources and expenses to find and deliver the parts to Customer A or they must advise Customer A that they cannot meet the service level that they have paid for.

Since the parts could no longer be delivered within 2 hours, the 2 hour "Gold" level service commitment to Customer A was missed ... ironically, Customer A's purchasing department was nearing the end of their internal process of deciding if they were going to purchase a 2nd Model 100 or perhaps a competitor's product.

Solution

Implementing Demand Source Locator as a component of your sourcing process enables intelligent selection of parts and alignment of service execution with part planning.

Benefits	Description
Productivity Improvements	• Field engineer only places one call to request a part. • Service center manages all part orders using intelligent and consistent data to source parts. • Improved first call completion / parts available for same day delivery.
Optimized Inventory Management	• Parts more likely to be available to fill demand for critical service commitments vs. being shipped from other locations. • Expediting team will know what field engineer is closest to the demand and has the part available. • Excess Forward Stocking Location (FSL) inventory will be used first to fill demand, resulting in reduced replenishment and redeployment orders. • Improved part substitution searches / visibility of FSL inventory- today done in multiple systems and spreadsheets.
Reduced Transportation Costs	• Reduction in orders sent via expedited shipping. • Parts will be shipped from the optimal (risk, cost, response time) available location. • Better visibility of field engineer and FSL inventory will reduce field engineer drive time and / or courier deliveries.
Scalability	• As additional regions, sites and products are configured in Prophet; DSL will consider as appropriate and maintain visibility to worldwide inventory.

About Baxter Planning Systems

Since 1993, Baxter has pioneered the development of Web-based solutions to meet the unique demands of aftermarket, service, repair, and spare parts industries. The Prophet by Baxter™ suite of integrated forecasting and planning applications enables Baxter's clients to achieve industry-leading customer service levels while significantly increasing profitability. Headquartered in Austin, Texas, Baxter is privately held, self-funded, and profitable. Global enterprises deploying Baxter solutions include Alcatel-Lucent, Avaya,

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