

Oracle Value Chain Planning Service Parts Planning



Do you need to manage a complex after sales service supply chain with all its unique challenges? Do you need to improve part availability and customer satisfaction? Do you need to reduce investment in service parts inventory? Do you need to streamline service operations to drive cost reduction? Oracle® Service Parts Planning, a key component of Oracle’s comprehensive Service Management Solution, can transform your after sales service and support operations from a cost center to a key profit center and source of strategic advantage.

KEY FEATURES

- Service Parts Planning Workbench with integrated forecasting and replenishment planning to efficiently support service parts planners
- Unique capabilities to support high volume forecasting and replenishment
- Key forecasting methods that support the complex range of demand patterns inherent in service parts planning
- Support for part condition and part supersession
- Returns forecasts to predict the flow of repairable product back into the supply chain
- Automatically minimize new buys
- Auto-release rules to automatically release planning recommendations to service execution

KEY BENEFITS

- A single solution for spare part forecasting, replenishment and inventory management
- Reduce cost and minimize new buy inventory
- Transform your service organization from a cost center to a profit center

Transform your Service organizations to profit centers

The world’s leading organizations have realized that service organizations are instrumental in achieving top line growth, profitability, and customer loyalty. Oracle Service Parts Planning, a key component of Oracle’s comprehensive Service Management solution, enables you to effectively manage the challenges of a multi-echelon service supply chain. Using a single Service Planner Workbench, you can simultaneously analyze forecast and replenishment decisions, as well as release plan recommendations for execution. Oracle Service Parts Planning provides the important statistics and optimization that service planners need to improve forecast accuracy and calculate optimal replenishment and redistribution for all service parts while considering key constraints such as part criticality, part condition, and part supersession. Making informed and optimal decisions enables you to transform your service operations from a cost center to a profit center at reduced IT complexity and cost.

Item	Description	Category	Org	Planner	Planning Method	Repair Yield	Repair Lead Tl.	Processing LT	Make/Buy	Standard Cost	Carving Cost
IS40150	148 GB SAS HD @ 15K rpm	COMPUTER	TST-B1		MRP planning	8	3	0	Buy	0	35
IS40152	450 GB SAS HD @ 15K rpm	COMPUTER	TST-B1	C. Tolo	MRP planning	8	3	0	Buy	0	35
IS40151	300 GB SAS HD @ 15K rpm	COMPUTER	TST-B1		MRP planning	8	3	0	Buy	0	35
IS40152	450 GB SAS HD @ 15K rpm	COMPUTER	TST-CD	J. Smith	MRP planning	8	2	0	Buy	0	35

ServiceOrgs	IS40152	619	619	619	619	680	688	688	688	687
Net Forecast	223	1,450								
Beginning On-hand										
Planned New Buy Orders		1,429	376	527	534	535	535			
Planned Internal Repair Orders			91	92	91	91	91			
Planned External Repair Orders			61	61	62	60	61			
Total Supply	0	1,490	1,490	3,530	2,432	2,590	2,693	2,697	5,811	649
Projected Available Balance	-223	1,227	807	876	1,018	927	927	927	927	759
Returns		191	191	191	190	190	189	189	189	189
Total Defective Supply	0	0	191	191	191	190	190	189	189	189

Figure 1: Oracle Service Parts Planning – Planner Workbench



Simultaneously forecast, replenish, and redistribute your parts

Oracle Service Parts Planning provides a single Service Planner Workbench to manage forecasting and replenishment decisions and process large numbers of service parts. Multiple planners can work on a single plan and prioritize their work around the most important exceptions, parts, suppliers, and customers. They can analyze replenishment and forecast information; simultaneously view item information like attributes, failure rates, and the supersession chain; and analyze exceptions and enter comments for their decisions. In addition, history of shipments, returns, and field technician usages can be viewed.

Improve service parts planner productivity

Oracle Service Parts Planning provides key capabilities to improve the productivity of service planners. You can define one or more work lists with prioritization so that the most important issues are always presented when entering the workbench to begin the plan analysis. You can also define unlimited item, supply-demand, exception, supplier, and customer queries that automatically show a pre-defined subset of critical information. You can use workflow driven exception messages to notify planners and automatically initiate corrective action. Interactive 'what-if' simulation and fast incremental planning enables rapid response to changing conditions – for example, you can simulate changing forecasts or forecast methods, changes to supply and demand, and changes to item attributes such as repair yield and lead times.

More accurately forecast your service parts

Predicting the demand of service parts presents unique challenges. Service parts demand is typically intermittent, and the service parts necessary to support new products need to be identified before any history of usage exists.

Account for intermittent, seasonal, and fast-moving demand patterns

Oracle Service Parts Planning provides support for key forecasting methods specifically targeted to address the challenges of service parts. It also provides more than 100 advanced parameters for automatic fine tuning. Oracle Service Parts Planning embeds the powerful, patented, and proven Bayesian analytical forecast engine that blends multiple forecast methods instead of selecting one method, resulting in unprecedented forecast accuracy.

Forecast a large number of parts

Scalability to support a large amount of parts can present a challenge when forecasting service parts. Oracle Service Parts Planning supports event-driven forecasting with the capability to forecast groups of items on different cycles. You can define which parts are more frequently forecasted than others by assigning rules that are based on usage patterns and part criticality. Part returns (for defective parts) can also be forecast as an input into the repair planning process.

Leverage composite forecasting

Even with the best methods, many service parts forecasting problems remain difficult to solve. For example, when you release a new product, you need to predict service requirements prior to having any usage data that is required for statistical forecasting



methods. Oracle Service Parts Planning provides powerful composite forecasting that enables you to combine forecasts based on usages or shipments with forecasts based on product population and service failure rates. The history of multiple part revisions across your supersession chain is automatically combined to accurately predict demand for the new revision.

Leverage Oracle Demantra for additional forecasting capabilities

You should strongly consider leveraging Oracle® Demantra Demand Management's powerful forecasting techniques and models to improve forecasting of spare parts for Service Operations. It supports population and failure rate based forecasting, usage based forecasting, composite forecasting, supersession chain and chain history of multiple revisions, forecasting of new service level agreements, both modeled at customer and customer site level, forecasting based on unique parts characteristics, returns forecasting, and forecasting based on causal factors. To improve spare forecast accuracy, you can leverage key forecast methods such as moving average, single exponential smoothing, Holt, integrated causal exponential model (Winters enhanced), regression with seasonal causal, Croston's for intermittent, regression with seasonal causal for intermittent, multiplicative Monte Carlo regression with seasonal causal for intermittent demand, or select 'expert mode' to automatically select the best blended statistical method for every service parts, especially useful when scaling to handle large volumes of parts.

Optimize replenishment of parts across the extended network

Oracle Service Parts Planning enables you to minimize inventory and purchasing costs while maximizing parts availability and service levels. It considers all of the critical service planning constraints and is completely integrated with the field service and depot repair execution systems.

Minimize inventory and purchasing costs and out of stock impacts

Oracle Service Parts Planning automates key planning decisions to provide a high level of customer service at the lowest overall cost. For example, it automatically plans to repair returned defective parts and consumes inventory of older revisions before planning new buy orders to fulfill the shortfall, minimizing the total cost of meeting service demand. In addition, it automatically replenishes to safety stock levels and can dynamically reallocate and reposition parts from locations that have excess inventory to locations that need inventory, before recommending repairs or replenishment orders.

Consider key service planning constraints

Time-phased sourcing rules accurately define your service supply chain, and changes, including circular sourcing relationships and reverse logistics material flows. You can group sourcing rules into unlimited assignment sets for what-if scenarios – for example, you can use different ship methods with different lead times to automatically choose when to use expedited delivery to meet service requirements. Flexible assignment of sourcing rules minimizes setup maintenance and lowers overall cost.

Oracle Service Parts Planning accurately models all of the key constraints that make planning for service unique such as part supersession chains of multiple revisions and part condition to represent both returned defective parts and new or refurbished parts available for demand. It plans for both internal and external repair sources, considers

purchasing, repair, and transportation lead times across your entire service supply chain, and considers yield associated with repairing returns and defectives. It also generates supplier capacity over-utilization exceptions for new buy items.

Plan for parts with different replenishment methods in a single plan

Oracle Service Parts Planning enables you to leverage time-phased replenishment calculations for your more critical parts, and more basic inventory policy-based replenishment for your remaining parts. It automatically calculates inventory policy parameters such as reorder point and economic order quantity. You can manage all service parts, regardless of replenishment method, in a single planner workbench.

Collaborate with suppliers

You can optionally leverage the capabilities of Oracle® Collaborative Planning to enable service parts planners to publish spare parts order forecast for 'new buy' and (external) repair parts to their spare parts suppliers. You can provide repair suppliers with visibility to the projected shipment of defectives to their repair locations. In addition, you can manage spare part components at customer locations via a standard vendor managed inventory process.

Centralize procurement across your Manufacturing and Service Operations

Oracle Service Parts Planning integrates out of the box with Oracle® Advanced Supply Chain Planning. Service parts requirements can be fed from Oracle Service Parts Planning into Oracle Advanced Supply Chain Planning as an additional source of demand, thus providing the production planner with global visibility of part demand across production and service supply chains. This enables the consolidation of procurement spend, increasing purchasing economies of scale.

Plan for maintenance of your enterprise assets

Oracle® Enterprise Asset Management (eAM) is a part of Oracle's E-Business Suite, providing organizations with the tools to create and implement maintenance procedures for both assets and rebuildable inventory items. Oracle Service Parts Planning is integrated with eAM to enable you to holistically plan for all of the components required to maintain your enterprise assets and execute your maintenance work orders.

Out-of-the-box integration with Service Execution

Oracle Service Parts Planning provides you with global parts inventory visibility across all of your service organizations. Out-of-the-box integration with Oracle® Spares Management and Oracle® Depot Repair enables you to effectively balance your parts inventory – release depot repair orders, reschedules, and transfers for internal repairs, and new buy purchase orders, external repair orders, and transfers for external repairs. You can also automatically release planning recommendations that fall within a specified time fence. You can also leverage Oracle® Global Order Promising to promise a material available date for out-of-stock parts based on supply availability and lead times. Oracle Global Order Promising can look at all field stocking locations and warehouses and consider alternate parts in the supersession chain.

RELATED PRODUCTS

- Oracle® Advanced Planning Command Center: key executives can analyze service parts planning operations
- Oracle® Demantra Demand Management and Oracle® Demantra Advanced Forecasting and Demand Modeling: simulate service level agreement changes, and leverage additional forecasting capabilities
- Oracle® Inventory Optimization: leverage Service Parts Planning forecast to calculate service parts postponement; model inventory budget decision to determine postponement and calculate multi-echelon spare part safety stocks
- Oracle® Collaborative Planning: publish order forecast for 'new buy' spare parts to suppliers
- Oracle® Advanced Supply Chain Planning: consolidate procurement across Service and Manufacturing Operations
- Oracle® Global Order Promising: promise a material available date for out-of-stock parts based on supply availability and lead times

RELATED PRODUCTS

- Oracle® Spares Management and Oracle® Depot Repair: release depot repair orders, reschedules, and transfers for internal repairs, and new buy purchase orders, external repair orders, and transfers for external repairs

Design your most profitable service supply chain

Oracle Service Parts Planning's integration with Oracle® Inventory Optimization enables you to design the optimal service supply chain. For example, you can assess the cost of varying service levels and fulfillment lead-times to determine the cost and profitability of your customer service level agreements. You can also determine the optimal stocking strategy, including the effects of postponement and pooling, and required inventory investment to meet your service commitments within your inventory budget.

Make better decisions with integrated analytics

Oracle Service Parts Planning's integration with Oracle® Advanced Planning Command Center gives you rapid insight into the health of your service supply chain. You have global visibility into usable and defective inventory values across your service supply chain. You can quickly determine if new buys are in excess of historical levels, isolate the problem parts, and drill seamlessly into the Oracle Service Parts Planning Workbench to adjust purchasing and repair recommendations.

VALUE CHAIN PLANNING — A COMPLETE SOLUTION

Oracle's Value Chain Planning solution enables companies to efficiently design, plan, and service their value chains from factory to shelf. Its componentized architecture enables you to start with any product and expand to other areas at any point in time. The Oracle Value Chain Planning architecture leverages the scalability and security of Oracle's Database and Fusion Middleware technology and can be deployed as a single instance with Oracle E-Business Suite, or integrated with other systems. Whether you implement one module or the entire product solution, Oracle Value Chain Planning enables you to share unified supply chain planning information across the enterprise so you can make informed decisions faster.

CONTACT US

For more information about Oracle Service Parts Planning, visit oracle.com or call +1.800.ORACLE1 to speak to an Oracle representative.

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