What SAP SNP Solver Engine Should We Use & Why?

SNP Solver selection can be a very complicated decision ... But it does not need to be...

Companies continue to drive complexity out of their Supply Planning processes. In a recent Gartner report they stated, “Many companies tell us that they have easily exhausted gaining efficiencies within their existing Supply Networks. Supply chain leaders are adopting complex optimization strategies to eliminate processes that have not added sufficient value to customers.” SAP users can accelerate this improvement through leveraging all the SNP Solvers and overcome this critical issue.

SAP’s SNP has three solver engines to choose from: Heuristics, Capable-to-Match (CTM) and Optimizer. Each solver engine has its unique strength, end-user and setup efforts. Additionally, each engine excels when solving a set of specific supply chain challenges. The problem we all run into is that, similar to demand planning’s statistical modeling process, there is no one-size fits all “solve.” To successfully leverage the SAP Solver Engines it is not about using a single solve for your entire planning process, but rather to use a combination of solvers most appropriate for the supply chain challenge. Most importantly, is the ability to begin to truly leverage functionality of each of the engines… pragmatically.

Climbing the SAP Solver Maturity Curve

Your maturity process often begins with the base Heuristic solve. This solve utilizes a macro approach in its algorithm, walking through the plan, one supply chain node at a time, with quantitative measures cumulated into a single value prior to calculation. The next logical step on the maturity curve would be to blend in the CTM solve for selected items. This engine takes a more holistic approach within its calculation, by taking constraints into consideration while looking at all of the nodes within the network, and dealing with quantitative measures individually. Subsequent to CTM or Heuristics, would be to leverage the strongest available SAP solver engine, which is Optimizer. Optimizer’s functionality is a cost based solve, and consequently, the hardest to understand and manage. It requires a lot of effort to define and maintain essential data elements and to interpret this engine’s output. That being said, it can drive the best bottom-line value when implemented properly.

Executing on the Maturity Curve

The critical success factor for SAP Solver engine selection is segmentation. Supply chain segmentation has emerged to be a critical enabler in supply chain simplification. One-size-fits-all supply chain planning requirements drive unnecessary complexity and inefficiency into the planning processes. Fully understanding your supply chain’s constraints and your engine’s capabilities will allow you to segment your products and migrate them into the most appropriate engine in a logical and sustainable rate.

Bottom Line: Segmenting Supply Network Planning requirements & applying the best-fit Solver engine - Heuristics, CTM or Optimizer - has proven to boost Supply Chain performance AND profitability...
About Spinnaker:

Spinnaker is a supply chain services company that helps clients grow, manage risk, reduce costs, and improve customer service by developing world-class supply chain capabilities. Our services help clients develop the right supply chain strategy for their business challenges and implement the process and technology solutions to improve Demand/Supply Planning, Procurement and Sourcing, Logistics and Warehousing, and Reverse Logistics business performance. Spinnaker offers a unique service delivery model that combines the strength of deeply experienced management and technology consultants with a seasoned team of business process outsourcing (BPO) and 3rd-party logistics (3PL) professionals. Founded in 2002, Spinnaker has offices in Boston, Columbus, Denver, Houston, Memphis, Pittsburgh, London, and Singapore.

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