

SUPPLY CHAIN-AS-A-SERVICE



Operationalizing resilience

Volatility has always been an inherent characteristic of high-tech supply chains, but in recent years the intensity of this volatility and the widespread economic implications of a severe disruption have grown exponentially. Driven by factors including global geopolitical instability,

increasing cost and complexity of IC production and the sheer number of applications and markets in which semiconductors and other high-tech components are now mission critical, it feels like the margin for error in today's supply chains is shrinking faster than modern chip cells.

Global Context

While technical innovation and miniaturization have brought the cost of many components down significantly, the concentration of wafer production among a handful of players can challenge the tenuous supply and demand balance in technology supply chains when unexpected surges in demand occur.

To put the enormity of the component market into perspective, consider these data points: the global electronics equipment market comprises a multitude

of industry sectors and amounts to over \$2T in annual sales. Of this \$2T, electronic components, including semiconductors and IP&E, represent 25-30%, or more than \$500B and some estimates forecast the component market alone to grow to over \$1T by 2030. Within the market, tens of millions of variants of these components are designed into systems by engineers who seek best performance and differentiation for their ideas; 100s of thousands of customers around the globe compete for these components, demanding top quality and premier service to support their production – anywhere, any time.

Embracing Strategic Supply Chain

It's no wonder then that technology manufacturers across industry segments and around the world are so eager to elevate their supply chain strategies, moving beyond traditional services to include more sophisticated supply chain as a service (SCaaS) solutions architected and executed by supply chain experts.

PRODUCT VISIBILITY

Designing a product with maximum lifecycle visibility of the components used in bills of materials helps **avoid disruption of your supply chain.**

TOOLS TO MEET DEMAND

Effectively forecasting to meet demand efficiently requires robust planning and analytics tools that provide the insights for **an optimized supply chain.**

INFRASTRUCTURE AND EXPERTISE

The right partnership and infrastructure can empower not only global scale and efficiencies, but **financial benefits for your business** as well.

FLEXIBILITY

RELIABILITY

AGILITY

While customer requirements generally fall into a number of universal categories, including risk reduction, assurance of supply, flexibility and agility and stable support of their production flow, meeting these needs often requires a combination of foundational supply chain services, and innovative, digitally-enabled solutions built to solve a particular customer pain point.

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This is where things get more complicated. These solutions must take into account, and assimilate, a variety of factors, including:

- Shrinking end product and component-level life cycles
- Growing customer expectations for speed and personalization
- The need to collaborate between trading partners and across ecosystems

- Agility to respond to changing demand signals
- Analytics-driven intelligence providing visibility into supply flow and demand indicators
- Balancing global and local priorities
- Harmonizing data across trading partners
- Omnichannel sourcing and fulfillment



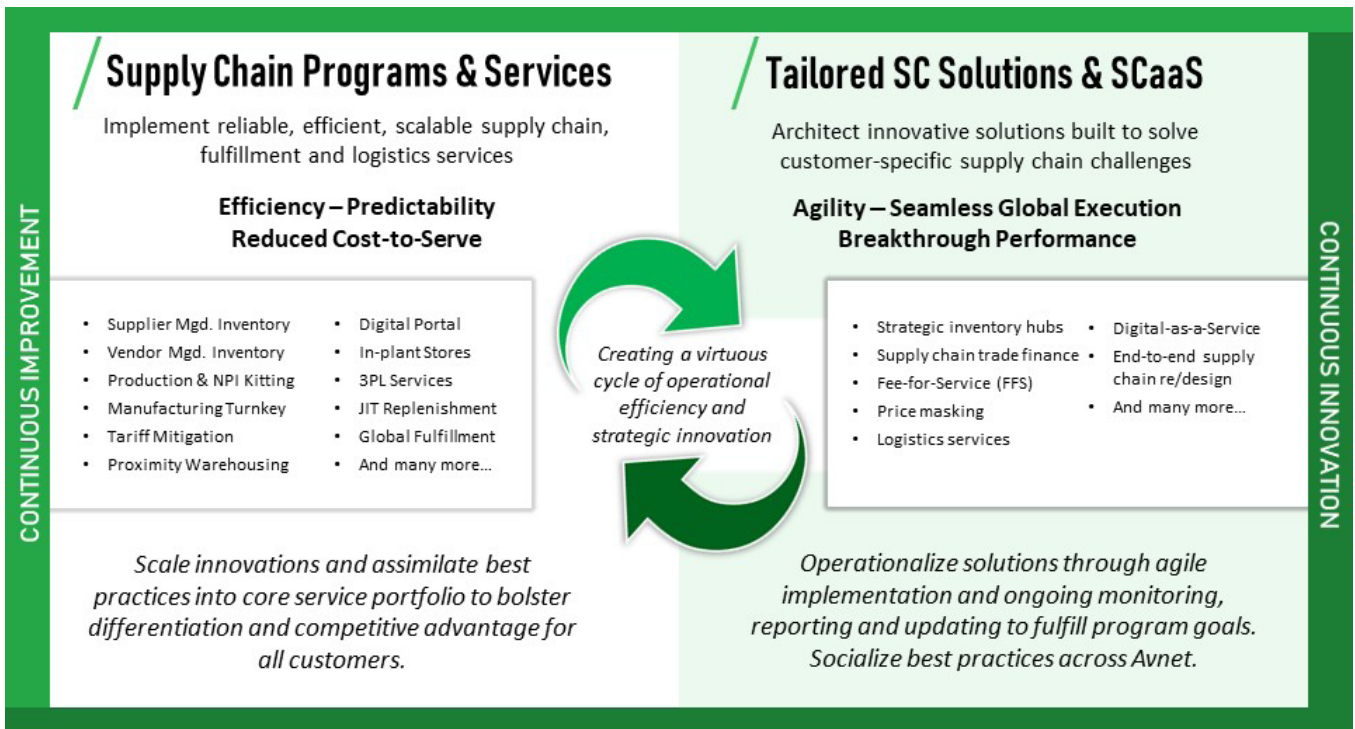
The Avnet Advantage

This is where Avnet's experience and expertise in designing and managing supply chains with and for customers from start-ups to Fortune 50 has proven unparalleled.

Avnet understands that an effective, and differentiating, supply chain model must optimize the flow of not just product, but data and finances between trading partners. In every engagement, stakeholders have varying priorities and goals. To ensure all stakeholders get what they need and want from their supply chains, Avnet segments our portfolio of supply chain services and solutions to maximize the value we represent to every customer. From standard fulfillment and inventory management programs to sophisticated supply chain-as-a-service models, Avnet works with customers to identify their needs and priorities and then applies the model that will best satisfy those needs.

How does that work? To assess which services, solutions or mix of both your design & production flow actually need is clearly dependent on size, complexity of design, complexity of production process, global/regional footprint, cost and time pressure and potentially other aspects, which altogether will lead to a very unique and individual approach, as Avnet has learned over literally thousands of supply chain service assessments. Our experts can perform with you a deep dive to find out your current state and help you shape the path to a desired state, whether driven by improvement (efficiency), innovation (problem solving) or both. And go with you into service selection or solution design whenever the time is right.

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A brief overview of Avnet’s comprehensive supply chain offerings illustrates our commitment to both optimizing operations to achieve the reliability and cost efficiency customers want, as well as continually innovating and raising the bar for supply chain excellence and customer focused solutions development. Pricing structures for supply chain-as-a-service solutions generally incorporate an a la carte approach in which the cost of services is distinct from the cost of goods. Among the factors that

may drive the service rates are program complexity (driven by the number of parts, sold to, ship to locations and service level expectations), working capital usage (driven by inventory and extended payment terms) and logistical considerations (warehousing, transport and device programming, kitting, etc.). With full, upfront transparency into these costs, Avnet customers can assess the options that best suit their program needs and budget parameters.

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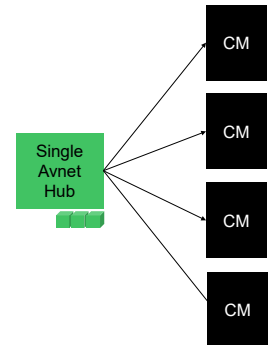
Putting Theory into Practice

The management of physical inventory is clearly a fundamental aspect of all product-driven supply chains. Depending on the production footprint or network, the strategic importance of certain components and the degree to which a customer's manufacturing strategy may require a JIT approach, Avnet can offer a range of options.

For example, in the central hub model inventory is held in one hub only. This is employed most often when demand balance between different manufacturing sites is needed and buffers need to be optimized for flexibility and agility.

Central Hub Model

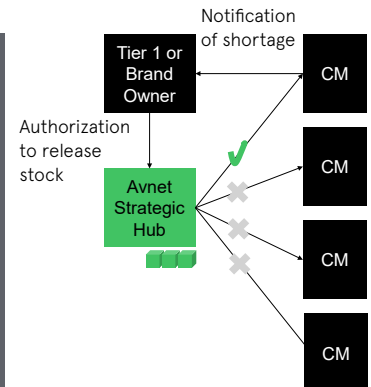
- Inventory held further upstream to allow for **greater agility** in responding to demand signals, coming from multiple consumption points.
- **Reduces risk**, provides greater flexibility and the opportunity for inventory postponement and delayed customization.
- Avnet utilizes Customer demand to scale and flex buffers accordingly to agreed materials and parameters to provide the required level of **flexibility**.



Alternatively, a strategic hub may be required for special inventory detached from normal supply chains, such as EOL components or other critical products the customer does not want to run out at any time, either through sudden demand spikes or severe constraints on supply of such components. The OEM customer has full control and visibility of the flow into manufacturing sites or contract manufacturing facilities.

Strategic Hub Model

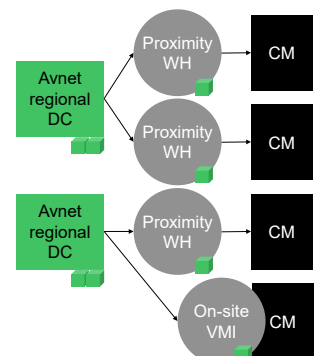
- **Strategically important inventory** is purchased and positioned in a hub (or multiple hubs) and held for an agreed maximum length of time.
- The Tier 1 or Brand Owner have **control** over who is able to access the inventory and **visibility** into stock levels.
- The inventory pipeline is detached from supply chain demand signals. Instead it is directed by the Tier 1 or Brand owner as a discrete purchase 'just in case' to support sudden **demand upsid**es or sudden **constrained supply**.



When manufacturing efficiency is the top priority – in just-in-time production, for example – proximity warehouses, managed by Avnet and replenished from regional hubs, may be the best approach to achieve the assurance of supply needed for uninterrupted production. With repeatable and reliable parameters of usage, stock levels and future production forecast, the supply pipeline can be designed to maximum flexibility and manufacturing efficiency.

Local or On-site VMI

- Inventory channeled into proximity warehouse locations **close to the consumption point** in all regions.
- This is based on the priority of having material readily available to **increase manufacturing efficiency** and with a pipeline driven by customer's demand.
- Customer provides regular repeatable information on forecast, usage and stock levels.
- The inventory pipeline is driven based on agreed buffer parameters to provide the required level of **flexibility**.



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The Bottomline

With time to market pressures, budget constraints and customer expectations on the rise, no one has time for trial and error. If supply chain strategy and execution are not a core competency of your organization, you need a partner you can trust that can help you manage today's highly dispersed network of product and service providers as seamlessly and cost-effectively as possible.

Business benefits

Driving **supply chain and financial efficiencies** for your business.

Lower inventory on hand to:

- Strengthen balance sheet
- Improve P&L
- Minimize risk

Lower operating expenses to:

- Decrease total cost of ownership (TCO)
- Increase investment options



Experience built on 100 years

Leveraging vast experience and market expertise to drive optimal outcomes for all stakeholders



Segmented support

Supply chain models to address each customer's priorities from start ups to members of the Fortune 50



Command & control

Digital tools and processes for maximum visibility and responsiveness



Extensive line card

Semiconductors, IP&E, embedded systems, software and more



Seamless execution

Global, regional, local coordination and collaboration



Global infrastructure

Design anywhere, build anywhere



Lean manufacturing

expertise and processes

Avnet has the experience – 100 years, in fact – global footprint, infrastructure and both technical and operational resources needed to help our customers navigate the complexity of today's global supply chains. Our substantial investments in state-of-the-art digital tools and processes, ensure our people have the insights and expertise needed to tackle the most complicated supply chain challenges. So, let's connect today to see how you can tap into Avnet's distinct SCaaS solutions portfolio to manage the many touch points and dependencies can help ensure your supply chain is as leading edge as the technologies you source and produce.