Demand for individual customization – personalization - is ushering in a new age of postponement in the tech sector supply chain.

For supply chains, postponement is not a new concept. Manufacture a generic product in one country—ship it in bulk to another region and “finish” the product or its packaging there, closer to the end customer.

What is new in postponement today is the “me” factor - the increased emphasis on personalization. Customers – be they consumers or companies - demand their products be tailored specifically for them. This trend is causing tech companies, and their logistics service providers, to go back to the drawing board, re-think their supply chain operations, and re-write the definition of postponement.

The new reality of “me”
Personalization of technology products takes many forms. It may involve emblazoning mobile devices with the company logo, loading laptops with the latest software and/or firmware, or printing a family photo on an iPhone case. Whatever shape it takes, this kind of customization essentially creates one-of-a-kind products.

Along with personalization, customers also expect to get their products faster than ever. So the time window in which to perform these pre-sales technical activities is getting smaller and smaller. As one technology executive commented, “We are on a collision course with time. This puts tremendous pressure on our supply chains.”
Most tech companies have been practicing postponement for years, typically outsourcing these activities to a third party logistics firm (3PL). “Basic postponement has been around forever, but more from the perspective of mass customization versus individual customization,” explains Jesse Laver, DHL Supply Chain Vice President, Global Sector Development, Technology. “A tech company would say, ‘We’re not sure if our customers will want a blue or a black cover on their flip phone, so we’ll send them all from our factory in China to the U.S. without a cover. The marketing department will decide to take 5,000 and put blue covers on them and take 10,000 and put black covers on them.’ That’s mass customization.

“But now it’s all about what the consumer wants,” Laver continues. “The more the manufacturers can support this personalization, and do so in a rapid deployment manner, the more competitive they can be.”

What does this customization trend mean for the tech sector supply chain? Two words: Greater complexity. This is because the personalization trend changes the traditional supply chain model of pick, pack and ship to a new process model of pick, pack, personalize and ship. But the time window doesn’t change. All of these tasks must be completed within the same or even less time frame as the simpler pick, pack and ship model.

To meet these requirements for personalization plus speed, tech companies cannot perform these tasks at their factories in China and then ship to the customer in the United States, Europe or elsewhere. The customer won’t tolerate that lag time. Instead, says Laver, “This kind of customization has to occur as close to the customer as possible which means re-designing the physical supply chain to support that.”

Additionally, personalization places new demands on the information systems that govern the order fulfillment process. The systems must assure accuracy: Was the right photograph of the customer’s child put on the right product? Was the child’s name spelled correctly? Was the correct security encryption software loaded on this batch of 20 phones going to the local fire department?

Personalization also dramatically increases the volume of data required to be stored. “For example, my systems need to store the profile of all the sports teams and their team logos so I can emblazon the right one on a customer’s laptop cover,” Laver explains. Systems must have more robust communication capability so they can take order information from any source and marry that up with the right product and the right shipping information. And IT systems must be able to communicate with non-traditional entities such as engraving and die-cutting machines, feeding them the correct personalization instructions. Finally, supply chain systems must track and communicate more shipping milestones to the end consumer – e.g., when the order was received, when the credit card was charged, where the shipment is in transit and so on.

“All of these integrations have to occur in order to make personalization work,” Laver says. “You need the warehouse management system (WMS) connected to the tech company’s enterprise resource planning system, and some sort of connectivity to a transportation management system (TMS). All of these elements must interact and feed each other. The WMS doesn’t know how to prioritize activities unless the TMS tells it the order’s transit time requirements.”
The value of getting it right
The ability to execute well on this individual customization pays off handsomely for tech manufacturers. Companies that successfully and rapidly integrate personalization with their core product or service gain a significant competitive advantage, according to a recent study by Accenture. Sixty percent of organizations surveyed for that study indicate they are seeing a positive return on investment (ROI) on their investments in personalization technologies.

More specifically, personalizing products at the last minute, closer to the actual consumer demand, can significantly reduce inventory levels and obsolescence -- critical issues in the tech sector. It also increases a company's flexibility in serving customers, enabling it to provide exactly what the consumer wants -- at a point closest to final consumption or sale. This becomes a key customer satisfaction differentiator, and as such, may tip the purchase decision in favor of the company that provides the superior offering.

However, pre-sales personalization is not easy. It requires much greater integration and collaboration between the tech company and its 3PL partner.

As one senior supply chain executive puts it, “Today, it’s about coordination. Making sure all the different ballerinas on the stage don’t trip over each other and tumble into the orchestra pit. You’ve got to coordinate all of those activities—picking, postponing, packing and shipping—and you can’t stumble.”