Hitachi Vantara securely maximizes asset availability and utilization with Servigistics on PTC Cloud

PTC Cloud delivers security and value

When your top priority is providing service parts to customers around the globe, accuracy, speed, and price are essential considerations. When Hitachi Vantara needed to optimize their service parts management to unlock record service times and deeper savings, they turned to PTC for a Servigistics upgrade and secure cloud storage. By running Servigistics in the PTC Cloud, Hitachi Vantara's IT team received 24/7 system monitoring support, allowing them to reduce internal burden, save on personnel costs, and allocate their resources to other business needs. And with rapid availability whenever needed, Hitachi Vantara could securely access their data on demand—a necessity for managing quickly changing inventories and maintaining the highest levels of service.

Preparation is key for delivering high service levels

Around the world, service organizations provide the vital goods and services that keep a global market thriving. To do this, they must be nimble, knowledgeable, and prepared to service the equipment that keeps their customers up and running. This means having the right parts inventory in the right place, at the right time.

One company that leveraged the latest service parts management technology to reduce costs and increase service levels is Hitachi Vantara. Headquartered in Santa Clara, California, Hitachi Vantara delivers data management solutions, network storage equipment, customer support services, and more. With 25,000 clients and 6,300 employees across 100 countries, they are experts in the art of customer service. Their extensive service division includes a service parts planning organization that supports 45,000 site IDs, covering 14 million assets in the field.

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FASTEST PART DELIVERY	**1.5 hrs.**
GLOBAL STOCKING LOCATIONS	**150**
ASSETS COVERED IN THE FIELD	**14M**
CLIENTS SERVED	**25K**

Maintaining global inventory levels takes precision planning

Among its competitors, Hitachi Vantara stands out for a significant reason—its steadfast commitment to providing the highest levels of service, wherever and whenever their customers need it. Hitachi Vantara maintains some of the most competitive SLAs in the business, ranging from next business day down to an incredible 1.5 hours for delivery of parts.

Achieving this level of service agility doesn't come without challenges. With 25,000 customers, Hitachi Vantara needs to manage more than 150 stocking locations in every corner of the globe, as well as multiple distribution centers, equating to an inventory of millions of parts for repairing complex server equipment.

For many years, every stocking decision was based on historical data collected through manual processes and entered in spreadsheets. Even customers' geographic locations, including latitude and longitude, were tracked and entered by hand—a painstaking and time-consuming process. Eventually, the consequences became clear: competition was growing, and so were the customer demands for speed and convenience. Without a faster, more accurate way to manage their inventory data, maintaining competitive SLAs would become increasingly difficult, and business would be lost.

Hitachi Vantara turned to Servigistics for service parts optimization

Recognizing the need to transform their service parts management, Hitachi Vantara's Senior Manager of Global Spares Planning, Carmen Kubo, launched an initiative to invest in PTC's Servigistics in 2013. Servigistics is a service parts optimization and decision support tool that helps manufacturers find the right balance between cost and availability—in other words, to make sure they have the right service parts in the right place, at the right time, for the right price.

Using algorithms and machine learning, Servigistics provides a detailed framework for manufacturers to manage the complex data pertaining to their service parts inventory. Specifically, Servigistics pulls data on each of three primary drivers of parts demand: independent and random demand forecasted by blending demand history with causal factors and

Success comes one step at a time

While Hitachi Vantara's implementation of Servigistics led to significant progress, they recognized that service parts optimization is an ongoing process—and there were still opportunities for growth. One area for improvement was streamlining the needs of every location in their network. After receiving parts from their supplier, they had to maintain 150 stocking locations around the world, plus three distribution centers in the United States, Europe, and Singapore—optimizing the entire network in one pass still wasn't possible, and additional value was left on the table.

Complicating things, some of their inventory included life-limited parts such as batteries, which must be disposed of once their shelf life expires. Without knowing when a customer might need a battery, it was increasingly difficult to track expiration dates and keep the right balance in stock without it being extremely costly.

With these challenges in mind, Hitachi Vantara saw an opportunity to upgrade to Servigistics 12.0.1, the newest version available at the time. With a successful upgrade, they could take advantage

failure rates; IoT data taken directly from assets; and scheduled demand calculated by using maintenance schedules and associated bills of materials. Once data is collected from these three drivers, Servigistics applies sophisticated, proprietary algorithms to produce a comprehensive view of which parts are needed along with quantity and location.

For Hitachi Vantara, investing in this new system resulted in immediate gains, including a 20% reduction in service parts supply chain overhead. They also replaced the old spreadsheets and automated the entire customer geo-coding process via Google Maps. With Servigistics in place, they were able to review exactly when and where spikes in customer demand occurred during the previous three to four years and use that knowledge to generate new forecasts, allowing them to maintain high SLAs with customers at minimal costs—an impressive feat for Kubo and her small team of just five others.

of two useful features they couldn't access with their current version: Multi-Echelon Optimization (MEO), which uses an all-encompassing view of the supply chain to suggest the right levels of inventory at each stage and location of the process; and Causal Forecasting, which uses advanced data science to improve forecasting accuracy by tying the forecast to a given variable. With these upgraded features in place, Hitachi Vantara knew they could unlock a fully optimized inventory network and keep the highest levels of customer satisfaction.

Servigistics is helping Hitachi Vantara reach full optimization

To make the upgrade possible within Hitachi Vantara's budget, PTC structured a new SaaS pricing package that offered access to their infrastructure, software, and support. "SaaS meant not having to buy separate licenses for every key functionality we needed. We get all of the functionality that Servigistics has to offer, and it's all under once license," says Kubo.

Multi-Echelon Optimization (MEO) snapshot

A busy subway system carries millions of passengers daily. Each station operates on its own schedule but is part of a larger connected system. Now imagine if each station optimized its own traffic flow: few passengers would arrive on time, if at all. In service supply chain management, manufacturers use MEO similarly to how a city planner might view the subway system—by zooming out to view the entire chain. MEO simultaneously optimizes inventories across all echelons and locations of the supply chain, resulting in a data-backed distribution of parts.

With the upgrade in place beginning March 2020, Hitachi Vantara is now taking full advantage of Servigistics' state-of-the-art features. MEO is helping them establish new stocking strategies by optimizing their entire network, from supplier to warehouse to forward stocking locations, as well as regional hubs of the forward stocking locations. It's a true differentiator that no other competitor offers, setting Servigistics' precision apart from the rest. "Before MEO we could only operate from historical demand, so if our install base in a specific location went away, we wouldn't know because we were just driving all requirements based on what we shipped in the past. What we can do with the new version is incorporate install base as a significant portion of our demand generator, so we can look at a product in various lifecycle phases," says Kubo. "It helps us better position our inventory and make better decisions."

Similarly, Causal Forecasting is enabling them to capture and factor in data on battery shelf life so they can move or retire batteries before going bad and then replenish the stock accordingly. "Causal forecasting will allow us to bring all the critical data together inside Servigistics. There's no other tool out there that integrates everything we need to reduce waste, support customers, and maximize cash flow," says Kubo. "Our partnership with PTC has been a driving force in the ability to achieve this."

Being a part of Hitachi Vantara's transformation has been equally rewarding for PTC. "Hitachi Vantara exemplifies service innovation success," says Leslie Paulson, General Manager, Servigistics Business Unit. "Through resolute and inspiring leadership, they've made a positive impact on the broader organization's ability to delight customers with best-in-class service. We look forward to deepening our partnership with Carmen and her team."

The future is bright for Hitachi Vantara's service line

With continued growth on the horizon, Hitachi Vantara has set their sights toward complete service parts optimization, and Servigistics will set them apart from the rest. "We saw other vendors touting optimization, but after investigating their claims a little deeper we discovered they did not optimize," says Kubo. "Only Servigistics offered the sophisticated optimization that maximized our value. Combining the strength of Servigistics and ease of use—this was a no-brainer."

With the upgrade now in place, they expect to see a triple-digit return on investment in five years, with millions of dollars in cumulative cashflow and inventory savings in that same time period.

With Servigistics performing the heavy lifting, Kubo's small-but-mighty team can focus on refining their business operations and meeting customer needs. "We're rediscovering functionality that we didn't have before," says Kubo. "Every day we're finding more and more, and getting better and better." With new discoveries on the horizon, Hitachi Vantara is already looking forward to what's next.

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