

NETVIBES HELPS TO BUILD A RESILIENT SUPPLY CHAIN



Challenge:

The company provides intelligent power management solutions for organizations across the world in many industries. Having grown through multiple acquisitions, the it needed to identify synergies, eliminate duplication and ensure the reuse of standard product parts across the organization, empowering engineering and supply chain teams to make better informed decisions about whether to reuse, buy or make parts.

Solution:

It adopted the **3DEXPERIENCE®** platform with the NETVIBES OnePart solution from its Sourcing & Standardization Intelligence portfolio to help the company achieve a 360-degree perspective on parts and enable continuous supply chain improvement.

Results:

OnePart's powerful artificial intelligence-driven and 3D Similarity technologies enable the company to quickly achieve ROI on the newly acquired business units. Users can access supply chain management data from across the organization to quickly identify and realize cost savings by reusing standard parts, resolving parts shortages and gaining insights into additive manufacturing and materials sustainability.

WHAT LED YOU TO NETVIBES?

Keeping critical infrastructure and technology running smoothly brings huge power management challenges. We are making the components from circuit breakers and fuses to airplane landing gear and electric vehicle transmissions. Our energy-efficient products and services help our customers effectively manage electrical, hydraulic and mechanical power more reliably, efficiently, safely and sustainably.

We need to provide a 360-degree view of supply chain data across disciplines, departments and geographies. But growth through multiple acquisitions to span many industries around the world caused siloed data to become a significant obstacle. We faced a diverse IT landscape, with enterprise resource planning (ERP), product lifecycle management (PLM) and computer-aided design (CAD) systems in various divisions across the organization.

As we integrated the companies we acquired, we needed to find synergies, identify standard product parts in our growing catalog and eliminate any duplicate or similar parts. In addition, staff had to be able to easily find the right existing part to avoid needlessly purchasing or creating new ones.

We had worked with Dassault Systèmes for many years and had already deployed the **3DEXPERIENCE** platform, covering 80% of our technical data. We adopted the NETVIBES OnePart solution from its Sourcing & Standardization Intelligence portfolio to help us achieve a 360-degree perspective on parts and enable continuous supply chain improvement.

HOW DID YOU LEVERAGE INFORMATION INTELLIGENCE?

Among our key goals were the ability to maximize part reuse, reduce inventory and enable targeted cost comparisons and savings on parts. To reach those goals, we needed to consolidate growing volumes of multisource technical and spend data in multiple formats and make it accessible to different roles across the organization.

By providing a bridge between legacy CAD, PLM and ERP systems, OnePart enables users to do just that: access and make sense of existing data without intrusive migration projects.

Our OnePart journey began in 2019, using NETVIBES data from our company's electrical sector supply chain to connect over 7,000 models with parts spend data. This is a major part of our overall business, and OnePart immediately identified part duplicates that enabled the team to save money.

By 2022, our OnePart deployment included engineering and cost data for hundred of thousands of parts, with automated connections to meet data modeling needs. Our team worked closely with the company's IT and engineering teams to make sure the data meets the demands of a growing number of users.

We take the parts, 3D models and associated technical data from the PLM and connect it to spend data so people can see the cost associated with the parts they're creating. As we've gone through various deployments, we've gradually pulled in more and more supply chain related data so that people can make decisions faster in the platform itself.

Today, OnePart provides the capabilities to classify company parts, identify master parts for reuse and ensure that engineers select the preferred part, while monitoring the execution of company policy over time. This ensures supply chain and engineering efficiency because it means that standard parts from our inventory are used automatically, with no need to spend time looking for them elsewhere.

If a new part is required, the data can be leveraged to purchase or create it through the appropriate channel. Sourcing and procurement teams can optimize ordering by grouping orders or selecting the right price for technically viable alternative solutions.

"Very early on we were able to resolve a shortage between our electricals sector and our aerospace business – two businesses whose buyers have never talked in the past."

— Senior Manager
Supply Chain Digitalization

HOW DID YOU CROSS THE ADOPTION CHASM?

My focus on change management and the needs of different users reflects a keen awareness of the pitfalls that can hamper technology adoption.

Any technology has its adoption curve and there are different types of people along the way. Innovators, technology enthusiasts and our early adopters in engineering are excited to try out the latest tools, but the real challenge comes when we reach the pragmatists. They require that the tool immediately deliver the insights they need to help them do their work faster and better.

We have now crossed this “chasm” of adoption between early enthusiasts and pragmatists. So far, it has rolled out OnePart to almost 3,000 people and its goal of around 15,000 users is firmly in sight.

We’ve been strategic about how we engage different audiences over the adoption curve. We adapt our messaging and OnePart development for each group along the curve. For instance, many of our pragmatists are also engineers and they want to know that when they use this tool for their job, it’s going to work. So when we communicate with them, we highlight things like the ability to see how much their parts cost – which is something that historically people developing new parts tend not to know. We’re now seeing huge interest from engineering and our user base continues to grow.

WHAT POSSIBILITIES DOES ONEPART OFFER YOU?

OnePart’s ability to connect people with supply chain management data across the organization has helped resolve parts shortage issues that could previously have halted production, delaying time-to-market.

We built the business case for OnePart around part reuse and engineering prior to production, and then supply chain continuous improvement. We didn’t think it would be used for shortages, but very early on, we were able to resolve a shortage between our electricals sector and our aerospace business – two businesses whose buyers have never talked in the past.

In addition, just recently one of our electronics engineers – who had been skeptical about how useful OnePart would be – couldn’t get a part he needed, the shortage threatened to stop production and the engineer was being quoted \$150 for a part that would normally cost 90 cents. However, a search on OnePart revealed that a similar part was available at another of our facility, which had been purchasing it for the past three years. By contacting the buyer directly, the engineer was quickly able to resolve the part shortage and keep the production line moving.

HOW DOES IT MAXIMIZE PART REUSE?

Even when engineers need to adjust their designs, OnePart’s ability to identify parts with similar geometry makes it much easier to reuse existing parts instead of buying or creating new ones.

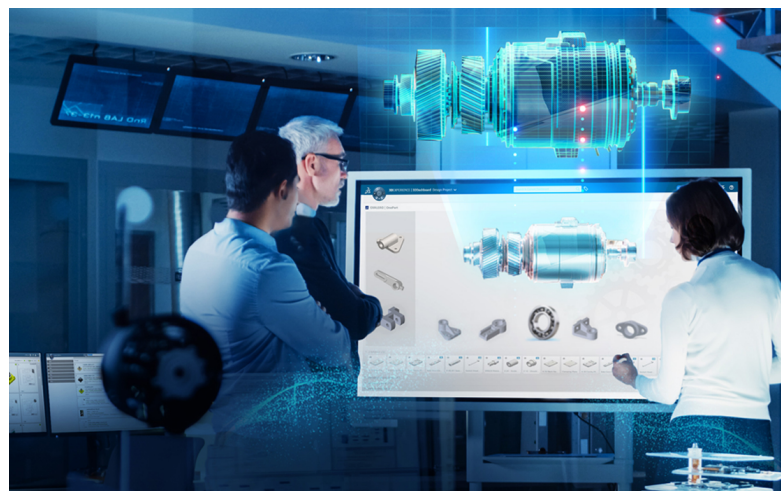
This AI-driven capability helped one of our production engineers who was working on an assembly that required a tighter fit. In the past, he would have designed or sourced a new part. But with OnePart, he was able to run a 3D Similarity search based on the part they were already using and identify a similar part that would give them the fit he needed.

Even better, that new part was already in inventory at the manufacturing facility where the new product would be made. Instead of holding up production and increasing cost to source a new part, the engineer was able to accelerate the new product introduction timeline.

All we needed to do was change the requirements in OnePart and we saved weeks of work over one single part.

“These tools are paramount to our digital transformation journey and have a profound impact on our operations, supply chain and engineering functions.”

**— Senior Manager
Supply Chain Digitalization**



WHAT ABOUT MATERIAL INTELLIGENCE?

To empower additive manufacturing, OnePart takes metadata from 3D models, pulls up information on volume, surface area and material from drawings, and joins that information with our company's spend data to see how much it should cost to 3D-print the part. Users can analyze 3D printing feasibility and cost estimates for more than 5,000 parts with a single click.

Now we can have a cost estimate of how we 3D-print parts and we can even see our average price for the last 12 months or more. We believe additive manufacturing is the future of supply chain manufacturing, so it's very valuable to be able to look at the metadata and configure the results in this way.

OnePart's material intelligence capability is also helping to reinforce our sustainability goals. Customers are increasingly asking the company's engineers about which products could contain "conflict materials" that are mined in places where there is a risk of slave labor being used. But with 18 million parts across hundreds of thousands of suppliers, that was extremely difficult to answer – until we worked with Dassault Systèmes to enable indexing of 2D drawings.

Now, engineers can use a 2D drawing text search in OnePart to ask how many drawings reference the materials they need to know about. We can quickly produce a shortlist of suitable suppliers, helping to minimize risk in our supply chains and those of our customers.

HOW DOES ONEPART HELP BUILD A 360-DEGREE SUPPLY CHAIN?

By connecting data from multiple systems in a searchable, relevant way, OnePart is helping us to quickly achieve ROI on our newly acquired business units, instead of waiting years for full PLM re-engineering and integration.

Perhaps the most potent testimony to the value OnePart delivers is the way the implementation is winning over cautious and even skeptical employees, who are discovering benefits beyond those originally planned. The capability to search any component or part and see a 360-degree view of all related data is enabling users to make better decisions and reduce part numbers, lowering costs in the process. Meanwhile, the ability to quickly find alternative components and parts is bringing opportunities to better manage inventory levels and reduce costs by making group bids.

That value will grow further as we continue to roll out OnePart across more departments to reach our target of 15,000 users.

We believe the value generated by these tools will soon reach an inflection point caused by step change increases in both data quality, quantity and network effects, drawing in our users and potentially stakeholders from outside the company to virally adopt these solutions and integrate them into their day-to-day standard work. These tools are paramount to our digital transformation journey and have a profound impact on our operations, supply chain and engineering functions. We're thrilled to continue to work with Dassault Systèmes in this evolution.

Our 3DEXPERIENCE® platform powers our brand applications, serving 11 industries, and provides a rich portfolio of industry solution experiences.

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