

## CASE STUDY: SONIC MANUFACTURING

# Purchase Order Automation

Next-Level Efficiencies Achieved through API Integration



*With aspirations of a fully automated and digitally integrated supply chain, Sonic Manufacturing selected Orbweaver for integration with its suppliers, the first partnership of its kind in the electronics industry. Sonic provides contract manufacturing solutions to support its NPI business model, and needed a purchasing solution that was as precise, dynamic and automated as its manufacturing operations.*

Orbweaver Sourcing, LLC  
1 West Broad Street, Suite 1000  
Bethlehem, PA 18018

[www.orbweaver.com](http://www.orbweaver.com)  
[info@orbweaver.com](mailto:info@orbweaver.com)

(888) 806-8807

Sonic Manufacturing, headquartered in Silicon Valley's Fremont, Calif., is widely known for having pushed the electronics industry toward the adoption of digital supply chain solutions. Back in 2016, "Orbweaver and Sonic had a good synergy," explains David Ginsberg, vice president of Supply Chain, with both parties passionate about the feasibility of an integrated supply chain. Sonic, which was averaging a median supplier delivery of 30 days—from when they'd place an order to the time the parts were on the dock—was looking to shorten the lead time of their new product introduction (NPI) and production facility.

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*“Orbweaver has established trust and knows the right people to talk to at various companies. All the way around, from the technical implementation, to networking, to overcoming roadblocks, they've been great to work with.”*



**David Ginsberg**  
Vice President of Supply Chain

*“One of the reasons people come to us is for speed. If you have to do everything manually, that limits your speed,”* Ginsberg says. Sonic was looking for a solution that would receive their material requirements from their MRP, and convert those requirements to orders instantaneously. Stacks of printed paper and week-long lag times for orders just weren't going to be sustainable in the future.

**After connecting with Orbweaver, they reduced their 30-day delivery to a median of three days.**

The velocity demonstrated by Sonic's digitally integrated supply chain, "Supply Chains at the Speed of Light™", facilitated by Orbweaver's solutions, has established a new standard for the industry, and has provided Sonic clear and sustainable market differentiation.

## Early API adoption

While it hadn't been done before in the electronics industry, Sonic felt strongly about using APIs to automate its sourcing activity and the delivery of purchasing orders. Five years ago, electronic data interchange (EDI) solutions were the only tools available, and seemed misaligned with the nature of parts ordering. Designed for a snapshot in time (asynchronous), EDI would not provide the real-time accuracy and relevance of parts information that Sonic required. EDI communication alone would also create dependencies on external solutions that would be in conflict with the immediacy required by Sonic's desired solution.

According to Sonic, their major distributors report that EDI accuracy is about 70%, meaning that 30% of orders marked for automatic processing are rejected, requiring "hand holding" resulting in a fundamentally expensive and inaccurate process. With API architecture, on the other hand, and the "touchless" API solutions provided by Orbweaver, Sonic is reporting about 98% of all automated orders are processed successfully. Just 2% require exception management.

### PO Placement Success

With EDI  
**70%**

With API  
**98%**



## AUTOMATION IS AGILE

Why API results in higher efficiency than the alternatives. There are three key reasons:

01

The biggest problem with EDI is that there is no validation of price, quantity, delivery and attributes at the time of order. Orders are placed against the customer historical record rather than against the supplier live record. It is "assumed" the supplier will ship as requested; and then degenerates into phone calls and emails when the supplier can't. With real-time API integration, on the other hand, the availability is always accurate.

02

There's a discrepancy in price accuracy, potentially between the real price and the price published on the Web site. Because Orbweaver offers peer-to-peer data connectivity, they are able to deliver client-specific, or contract based pricing: the price you pay, not the price published on the Web site. This data specificity allows systems to be automated while maintaining the unique relationship between buyers and sellers of components.

03

No match could be made with respect to availability, price, and/or lead time with the preferred trading partner. Orbweaver provides automated exception management related to the sourcing of components. With API, you query all the data from the supplier and simply convert their data to a purchase order. By definition, their own data must be accurate to them.

## Results realized

By using Orbweaver to enable system data flow, Sonic successfully automated its supplier selection and purchase order (PO) issuance processes. From MRP requirements analysis, to sourcing data, PO issuance, PO document delivery, PO document receipt confirmation, shipment, invoicing, all the way to parts delivery at the loading dock three days later, not a single Sonic employee touched a transaction and not a single piece of paper was printed.

Their prior method—subject to errors and delays—entailed printing out hundreds or thousands of MRP line items and passing them around weekly to their purchasing team. By electronically placing the matching POs using API integration, a majority of the ordering process can be done digitally in a matter of minutes.

By removing the intermediaries in favor of automation, almost instantly Sonic achieved a 40% placement rate, then climbing to 50%, and now, 65% automation straight to their dock.

Automation is bringing in more than 50 million parts a year for Sonic. The numbers continue to climb as

Orbweaver's sourcing intelligence improves, as more distributors are added to Sonic's network, and as distributors are able to offer increasingly rich data.

"We let the computers do repetition because they're great at it and we let the people do problem solving because they're great at it," Ginsberg says, adding that Sonic's buyers enjoy the more compelling responsibilities tied to sourcing the parts the system was unable to match—consisting mostly of obsolete, long lead time, and custom components that often go unidentified for weeks with legacy processes, now discoverable in minutes.

## Cost justification

Sonic, a small to medium-sized business, certainly doesn't have the budget of a Fortune 500 company. But to achieve automation with Orbweaver, they didn't need to. "The cost justification for this type of model is self-evident," Ginsberg explains, noting that while every company approaches purchasing a bit differently, the efficiency achievements are significant regardless.

*"From a business model standpoint, there's simply no reason not to do this," Ginsberg says.*

### PO Line Item Placement Cost

**Manual Industry Standards**  
**\$25.00 to \$200.00**

**w/Orbweaver's Automation**  
**Approximately \$0.25**

The average cost of a PO line item runs typically between \$25-\$100 in the industry, and occasionally up to \$200 a line item. At Sonic's current level of efficiency, they're experiencing a cost of \$0.25 per automated line item, a 100x to 400x improvement. And the benefit isn't just with automated lines: the cost of a PO line item placed manually has also plummeted to just \$5. In fact, just six Sonic employees on the purchasing team now manage the supply chain of 100 OEMs.

This strategy has led to unprecedented efficiencies for Sonic, which orders one million parts for their factory every week. Half of these, 500,000, arrive three days after the order is placed. Annually, Sonic handles about 30,000 parts numbers, 1,000 bills of material, and about 10,000 brand new part number creations, moving in near real time.

***"You can't accomplish these kinds of business goals without automation. And you simply can't find other solutions with this kind of payback," says Ginsberg. "The benefits to the business are not just financial, but are evident in total performance and customer satisfaction as well."***

Sonic has also started using advanced ship notifications (ASNs) and electronic invoices available through Orbweaver, crossing the 50% mark on these to improve its overall communications.

## A "touchless" future

More and more distributors are joining Sonic's integration efforts. In recent weeks, two of their existing distributors pushed API updates and enhancements, while three more inquired about the technology. Remote working conditions due to the COVID-19 pandemic are likely contributing to the industry's expanding drive toward automation. Orbweaver, which has a wide and deep existing integration with the electronics distribution industry, can help guide the transition.

**Together, let's make the electronics industry more agile, more efficient, and more relevant today.**  
***And let's sell more parts.***

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