

Amphenol APC

Cimnet Systems™ ERP

Amphenol APC Masters Change with Help of Paradigm



Changes and Challenges

It seems like change is a way of life at Amphenol APC (APC) of Nashua, N.H. Founded in 1968 as Teradyne Connection Systems, this circuit board manufacturer was acquired by Amphenol in 2005. Initial implementation of Cimnet Systems' Paradigm solution occurred in 1997 and the upgrade/reimplementation coincided with the acquisition by Amphenol.

In the three years since, APC has consolidated system operations with an existing Amphenol facility across the street and a plant in Nogales, Mexico. This was not a simple task because the plants have very different product lines and processes. The company has also upgraded to Paradigm version 3.6, assembled the three product groups into the same production control system and incorporated the financial systems that were formerly hosted on another platform.

Rigid, Flex, Rigid-Flex and Assembly

APC is the leader in high-speed, high-density connection systems, designing and manufacturing the industry's leading high-speed, high-density connectors and backplane systems for application in the networking, communications, storage and computer markets.

The consolidation brought in flexible circuits and rigid-flex circuits to complement the traditional rigid boards that were an APC staple. The combined companies also do assembly work, integrating the circuit boards into customer applications.

"These are very different products and processes," says APC Business System Analyst Emily Eastman. "So it wasn't simply a matter of merging the databases. Most people don't run things three or four different ways in one system."

Amphenol Printed Circuits

ROI at a Glance:

The implementation of Cimnet Systems' Paradigm solution allowed Nashua, N.H.-based Amphenol APC to better manage its business, please its customers and support product and process improvement efforts. Specifically, APC has:

- Improved its ability to complete jobs on time and deliver customer requests.
- Greatly enhanced visibility to work in the plant.
- Gained full traceability back to suppliers and lot numbers.
- Increased flexibility and lowered inventory levels.
- Better track employee deployment and productivity.
- Improved equipment uptime and performance.
- Saved \$2 million in scrap reduction.

“We have made huge gains. (The system) gives us more flexibility and lets us provide good service with lower inventory.”

— **Emily Eastman**, Business System Analyst, Amphenol APC

The acquired companies were using different information systems, so designs and process definitions had to be incorporated within Paradigm. The bigger challenge, though, was bringing the production processes in and setting up the systems to work with all these variations.

Nevertheless, the dedicated team at APC has succeeded in creating a single control system that works with the newly-expanded scope of operations. “The implementation team included people from every area of the business,” says Eastman. “We had a steering committee, user testing groups and a call center to answer user questions. We didn’t want to miss anything.”

No data was system-converted. APC wanted to clean it up and, at the same time, implement some new rules and conventions to reflect the way business would be conducted after the transition.

Positioned for Growth

“We have made huge gains,” Eastman says. “One of the most significant changes is that we now use plan-by-schedule—a new feature in Paradigm that loads the shop based on customer commitments. This is a very useful and necessary tool for us. It gives us more flexibility and lets us provide good service with lower inventory.”

Another feature that is paying off handsomely is the shop floor monitor. “We know where every product is,” Eastman explains. “We have a visible workplace that lets us keep track of everything out in the plant.” The ability to have multiple definitions of a part is handy. Now, some of the company’s sellable items can be made in Nashua, in Mexico or purchased from a vendor.

“The traceability in the Paradigm system is simply unmatched,” says Christine Marvell, APC’s Director of Operations. “This is a key capability for our business as a producer of high-reliability niche products. We can trace from a customer’s assembly back through to the batch of raw material we used, the drilling machine that made the holes and the imaging machine and image that were used to make the pattern on the board. One key customer described our traceability as ‘world class.’”

APC continues to expand their use of the system, especially in the area of reporting. The company recently started tracking labor productivity and deployment by gathering and consolidating information that is in the system. “We look at labor usage by plant, by product, and by product type, as well as available hours compared to hours used,” says Marvell. “I can now forecast the labor needed and make sure we have the right people in the right place to meet our customer commitments. This has been a huge help.”

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Director of Operations,
Amphenol APC

Another recent addition to APC's use of Paradigm is the activation of the maintenance module. "Our old maintenance system was difficult to use, so people just didn't enter the maintenance requisitions," says Marvell. "With the Paradigm module, it's easy and they now enter them so they can be scheduled and tracked." The system automatically schedules the work and also schedules the preventive maintenance. "It's all in one central system," explains Marvell. "The maintenance supervisor prints reports every week and distributes them to all of the maintenance staff, who uses these reports to manage the department. In a capital-intensive business like this, it's really important to make sure all of the equipment is kept in top condition."

APC continues to strive toward continuous improvement. Major efforts are underway to reduce cycle time, for example. "It's easy to track cycle time on the plant floor, but much harder to see overall cycle time from receipt of the order through shipping," says Marvell. "Maybe the order came in and didn't make it out into the plant for three weeks." Paradigm's cycle-time module now provides the needed visibility. Another project greatly improved the scrap reporting process and resulted in process improvements that generated a scrap reduction savings of over \$2 million in 2010. Upcoming projects will provide control and visibility of consigned product inventory and reinvigorate the forecasting process.

About Consona ERP

Consona products support the needs of a wide range of manufacturing companies. **AXIS** is the premiere solution for manufacturers of metals, wire and cable, as well as metals service centers. **Cimnet Systems** offers comprehensive support for printed circuit board engineering and fabrication, including design, fabrication, and certification. **Configuration Solutions'** rules-based configurator integrates with the aforementioned Consona offerings and others. **Encompix** goes beyond simple ERP to offer project scheduling and management for engineer-to-order projects that involve multitudinous manufacturing activities and close tracking of projects, costs and schedules. **Intuitive** offers rich functionality for a broad range of manufacturing environments and makes implementation easy for small to midsized companies. **Made2Manage** provides full ERP capabilities for custom manufacturers centered on a "casual" bill-of-material for making complex products, while continuing with design and engineering activity.

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