

# Harris Corporation Cuts Engineering Change Time in Half to Accelerate Time to Market



Harris Corporation  
Melbourne, FL  
www.harris.com

## Industry:

High Technology

## Annual Revenue:

US\$5.3 billion

## Employees:

16,500

## Oracle Products & Services:

Agile Product Collaboration  
Agile Product Quality  
Management  
Agile Product Portfolio  
Management  
Agile Product Cost Management  
Agile Product Governance &  
Compliance  
Agile Engineering Collaboration  
Agile Product Lifecycle  
Management Business  
Intelligence  
Oracle Manufacturing  
PeopleSoft Enterprise Financial  
Management Suite

*"Oracle's Agile Product Lifecycle Management applications give us a 360-degree view, helping us make better decisions in product design and operations management, so we have fewer challenges in the field and can better serve our customers."*

*– Janice Lindsay, Vice President, Strategic Sourcing, Harris Corporation*

Harris Corporation is an international information technology company focused on providing assured communications—anytime and anywhere. The company spends nearly \$1 billion on research and development each year and employs more than 7,000 engineers and scientists who are dedicated to developing solutions that government and commercial organizations leverage to support mission-critical communication needs.

"We are really all about innovation," said Janice Lindsay, vice president, strategic sourcing, Harris Corporation. "But with so many people involved in our product development process, we had some inefficiency. A big part of our mission here is focused on how to eliminate waste in the process and how to make better decisions up front. We started by looking for an opportunity to revolutionize and transform Harris' supply chain."

Harris found that it already learned a lot of lessons about its supply chain downstream—for example, from which vendors it should purchase supplies, which parts it should use, and how its products were performing. Often the engineers obtained this information too late in the product development process, causing much inefficiency.

"Our strategy became 'right item, right supplier the first time.' It was key for us to take that downstream learning and get that information to engineering so we can make better informed decisions upfront, bring our products to market more quickly, improve product quality, enhance customer service, and reduce our costs."

**Key Benefits:**

- Improved visibility into enterprise-wide spend, allowing the company to more effectively negotiate with suppliers
- Allowed engineers to move seamlessly throughout the organization, as all divisions use the same standardized system
- Provided management team with transparency into quality and product data, enabling better decisions
- Consolidated supplier base to collaborate more effectively, minimizing cost and strengthening relationships
- Provided suppliers with visibility into performance, improving performance and overall product quality
- Provided engineers with data they need to make better design decisions early in the product development process
- Allowed the company to reuse components to bring products to market more quickly at a lesser cost
- Cut time needed for engineering changes by half
- Ensured compliance with industry standards and government regulations, reducing product risk
- Built customer confidence by instituting best practices companywide

The company implemented Oracle's Agile Product Lifecycle Management applications—solutions designed to help organizations accelerate product innovation and reduce costs by managing product data, processes, and decisions throughout the lifecycle—to address these challenges.

**Harnessing Company Spend and Purchasing Power**

Harris has multiple business divisions and several business areas with many sites. While each division maintained a customer-intimate business model, the company as a whole was decentralized, using many different enterprise resource planning (ERP), design, and product management systems throughout the enterprise.

Three of the divisions already used Agile PLM applications to manage product data, and because Agile would extend to supply chain and product lifecycle management, Harris knew that the software would meet its needs.

Prior to the Agile implementation, Harris had too many suppliers and found it difficult to manage the large supplier base and work closely with its vendors to align strategy, roadmap, and resources around a common goal.

“It was really hard to understand where we stood at any given time with any of the suppliers with regard to tactical things like on-time deliveries and product quality,” Lindsay said. “It was just too mammoth, and because we were decentralized, it was really difficult for us to effectively leverage our spend across the organization. That was a huge challenge for us, but also a big opportunity.”

Harris wanted to remain decentralized—to give its business divisions the freedom to operate independently and best serve its customers—but it wanted to harvest the benefits of a unified Harris supply base. The Agile PLM applications enabled the company to improve visibility into its spend.

By better managing its spend with suppliers and contract managers enterprise-wide, Harris has realized financial savings in the area of direct material cost reductions.

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### **Enhancing Collaboration and Ensuring Product Quality**

Currently, more than 9,000 employees and 15 contract manufacturers use the Agile PLM applications, which has helped Harris improve collaboration both within its walls and with the outside world.

Internally, Agile PLM helps Harris to more easily move its engineering resources around the organization. Because all engineers are using the same system—with a common language—they can easily jump to a new division or area and immediately add value to the design in progress. The system also provides Harris’ management team with the transparency it needs into quality and product data to make more effective decisions.

In addition, Harris has built a portal to allow it to collaborate securely with its mass suppliers via Agile and share drawings and technical documents, while protecting Harris’ intellectual property. and helping it to manage export control and various terms and conditions.

Specifically, the portal also leverages Agile Product Quality Management to generate a supplier report card—which examines things like on-time delivery and number of non-conforming materials used.

“We look at this data internally, but we also make it available to our suppliers, and we can actually see if they look at their report cards,” said Thomas Smura, IT manager, Harris Corporation. “We have found that there is a strong correlation between suppliers that have made large performance improvements and the number of views of their report cards.”

“In addition, prior to the Agile implementation, someone in the quality organization tracked the problem reports and managed supplier corrective actions, but that feedback never got back to the engineer,” Smura continued. “Now, with Agile Product Quality Management, the engineer can see that information and make better decisions based on it.”

Lindsay added, “Oracle’s Agile Product Lifecycle Management applications give us a 360-degree view, helping us to use suppliers with higher quality ratings, so we have fewer challenges in the field.”

Harris also takes advantage of the integration between Agile and Oracle Manufacturing, as well as between Agile and Oracle's PeopleSoft Enterprise Financial Management to streamline manufacturing efficiency and improve financial visibility, for example, ensuring that personnel have a total view of the process, regardless of application being used.

Harris is also working to integrate the Agile system with its computer-aided design (CAD) tools, in order to push the data the company harvests from Agile and from its other content suppliers back into the CAD system to allow engineers to make the right choices the first time.

### **Accelerating Time to Market**

Harris has also been able to reuse design components, allowing the company to reduce time to market for new products. The Agile system provides Harris with visibility into product data records, allowing the company to conduct a "where used" search or to find out who within the organization has a certain part of a solution.

Harris has also been able to streamline its workflows, reducing the time needed for engineering changes by half. For example, the company's radio frequency division previously took two to three weeks for engineering change-orders. With the new system, the division has been able to cut that time to a week and a half, almost a 50% improvement.

In addition, the system helps Agile to keep on top of various government regulations—and still get its products to market on time. The company uses Agile Product Governance & Compliance to avoid the risk associated with non-compliance with industry standards, like IPC1752, the standard for the exchange of materials declaration data.

"With Agile Product Governance & Compliance, we have been able to standardize our products and streamline the data gathering process for compliant certification, allowing us to avoid costly business interruptions," Smura said.

As the company grows its business, it is working with more contract manufacturers. With Agile, Harris can take a bill of material and transfer it to a new contract manufacturer overnight, rather than rely on manual, error-filled, spreadsheet-based processes.

### Why Oracle?

Three of Harris' divisions were already using Agile, and as the company was deciding to upgrade its product lifecycle management capabilities, it interviewed more than 150 employees to find out what worked and what did not.

“When we asked about current systems for various applications, we noticed a common thread,” Lindsay explained. “The consensus was that Agile was a good system. But most importantly, the Agile PLM vision fit our long-term strategy, so we selected Agile because we saw a strong opportunity for a lasting partnership.”

Oracle's Agile Product Lifecycle Management applications have achieved a four star CMII rating by the Institute of Configuration Management (ICM). Smura feels this recognition confirms Agile's superior capabilities in managing engineering and manufacturing configurations.

“This certification just reemphasizes what we already knew—that Oracle's Agile product line is a great platform on which to implement CMII processes,” Smura said.

Lindsay added, “Going forward, we are going to make better use of the analytics in the Agile portfolio. We are excited about where we are headed, and the key to everything is analytics and interoperability. Oracle is working very hard on its Application Integration Architecture integrations, and that is very important to us. When our customers can know that we have discipline in our process, that we are proactive, and getting things right upfront, they have the confidence that they need to do business with us.”

### Implementation Process

Harris decided to upgrade all of its business divisions to the 9.2 version of Agile Product Lifecycle Management in 2005. It rolled out a staggered implementation over 18 months, deploying the modules out at each business division separately, extending the capabilities to the largest division—which did not previously have Agile in place—last.

*Harris Corporation is dedicated to developing best-in-class assured communications products, systems, and services.*