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**COMPANY:** NCR Corporation

**VERTICAL:** Computers,  
Office Equipment

**PRODUCT LINE:** Systems and  
Services for Point-of-Sale, Self-  
Service and Payment

**HEADQUARTERS:** Duluth, GA

**REVENUE:** \$4.6 Billion

**EMPLOYEES:** 21,500

## NCR Accelerates Global Value Engineering Savings with aPriori

**Detailed cost visibility enables real-time decision-making and big cost savings for NCR engineering and sourcing.**

### THE CHALLENGE

NCR is a global technology company leading how the world connects, interacts and transacts with business. Its assisted- and self-service solutions for point of sale (POS), payment and imaging address the needs of retail, financial, travel, healthcare, hospitality, entertainment, gaming and public sector organizations in more than 100 countries around the world.

NCR relies heavily on its supply chain to manufacture commodity product parts. NCR's ability to manage its suppliers effectively is critical to maintaining the high quality of its products and the appropriate margins.

Historically, NCR has competed successfully in the market by aggressively bringing innovative, new products to market faster than its competitors. It focused on reducing costs as needed after a product was in production. Engineers did not have the ability to see the true cost implications of their product design decisions until the products were released to manufacturing. At that point, the company would deploy "cost attack" teams to a product to try to identify opportunities in material, design and assembly to reduce cost. In many cases, the product cycle time from design through manufacturing and inventory can delay the benefit of post-production changes for many months or more.



## THE RESULTS

With aPriori, NCR has accelerated its global value engineering effort in four primary areas in the company:

- **Cost Avoidance:** aPriori enables NCR's design engineers to run cost estimates at each major milestone of a product design cycle to ensure it does not exceed the target cost as the design evolves. It also prevents unwanted feature creep. Engineers can immediately quantify the costs associated with adding new hardware requirements mid-project. This informs design decisions along the way and eliminates costly rework and reengineering when products don't meet target cost goals. In addition, engineering teams are freed up to move on to the next design project rather than spending time on ongoing cost reduction efforts.
- **Supplier Collaboration and Fact-Based Negotiation:** With aPriori's highly detailed cost analysis in its hands, NCR is now having fact-based negotiation and collaboration discussions with its suppliers. This enables both parties to identify and discuss opportunities for product improvements and savings in parts, materials and assembly.
- **Evaluation of Alternative Designs:** NCR's engineering team in Duluth, Georgia is also using aPriori to compare the cost to manufacture different designs of new POS terminals based on Industrial Design CAD models. aPriori's dynamic cost analysis and real-time decision-making provides very accurate cost figures before releasing a new design to manufacturing. This data is also invaluable in guiding NCR's product decision making process.

## APRIORI IN ACTION AT NCR

### Cost Reduction Value Engineering (CRVE) Analysis

aPriori enables NCR to analyze cost at the lowest level of product detail. Leveraging this capability, NCR has evaluated nearly 1000 production parts in aPriori as part of its value engineering campaign. ***The total potential savings identified in product design changes, cost avoidance and fact-based supplier negotiation and collaboration exceeds \$2.4 million.*** Equipped with the detailed product cost information made available through aPriori, NCR is now working through the process of realizing these savings through negotiations with their suppliers. To date, it has already secured more than ***\$250,000 of hard savings.***



NCR Self-Service Kiosk

**About aPriori**

aPriori software and services generate hard-dollar product cost savings for discrete manufacturing and product innovation companies. Using aPriori's real-time product cost assessments, employees in engineering, sourcing and manufacturing make more-informed decisions that drive costs out of products pre- and post-production. With aPriori, manufacturers launch products at cost targets, maximize savings in re-work projects and never overpay for sourced parts. To learn more about aPriori and its product cost management solutions and services, visit <http://www.apriori.com/> or call 1.978.371.2006. To see an overview demonstration of aPriori, [click here](#).



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**Supplier Negotiation and Collaboration**

aPriori arms NCR's sourcing teams with the detailed information they need to more effectively negotiate and collaborate with outsourced suppliers anywhere in the world. Here's one example of how NCR is using that capability to reduce the cost of one of its POS products.

**Product:** NCR POS Device Back Cover Cabinet Design – Sub-Assembly of 8 Parts

**Initial Outsourced Supplier Quote:** Per unit including painting and supplier margin aPriori enabled NCR and its supplier to analyze every aspect of the manufacturing process from a 3D CAD model including:

- material utilization
- stage tooling overhead and routing
- painting
- packing
- logistics
- sub-contracted operations
- supplier profit

**Current Work in Progress Estimate from Outsourced Supplier with aPriori analysis:** Per unit (71.6% of original estimate) with the opportunity for additional savings via deeper analysis.

**To Date Reduction/ROI:** \$77,028 savings.

**Real-Time Cost Analysis in Design Stage**

With aPriori, NCR engineers are using detailed product cost data to compare the cost to manufacture different designs of new or revamped products very early in the design process based on early stage 3D CAD models. aPriori effectively quantifies the cost vs. feature/function relationship early in the design cycle and identifies the trade offs. The ability of aPriori to provide visibility and comparison at this level is saving NCR significant money while accelerating its time to market with more competitive products. Here is one recent example:

New NCR RealPOS™ Terminal.

**Option A:** Traditional box design

**Option B:** Radical new design with new features and better styling that leveraged different fabrication processes — casting and sheet metal with less injection molding.

**Using aPriori, NCR was able to quickly compare the cost of the two designs at the lowest level of product detail and confirm the exact incremental cost needed to deliver the new innovative design.** The ability to communicate this to the senior leadership and solution management teams at NCR early in the product development cycle was key to gaining their support for it and getting the improved product to market more quickly.

