



# Internet Parts Ordering Industry Case Study

*Case Study Featuring a Collaborative IPO Implementation  
The Affinia Group and RockAuto*

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## Objectives

The Internet Parts Ordering (IPO) Early Adopter program was established by the Automotive Aftermarket Industry Association (AAIA) to encourage the widespread adoption of the IPO standard. This initiative provides case studies of two pairs of Aftermarket trading partners as they plan and execute their IPO integration strategy.

Prescient Technologies was retained to document their process through the adoption process, providing a roadmap for other companies to follow as they plan their own IPO implementation strategies. The Affinia Group and RockAuto were among the first companies to accept the AAIA invitation, and their experiences are the subject of this case study.

## Context

The term “special order” is a common phrase in the Automotive Aftermarket, used to describe ad-hoc orders for out-of-stock products. Special order fulfillment can be complicated and labor intensive, relying on manual processes and a paper audit trail that requires exception handling by both the buyer and the seller. Most of these transactions are completed over the phone, requiring both parties to accurately record the details of their conversation.

Yet special orders are a fact of doing business in the Automotive Aftermarket. Given the pressures on inventory control, and the breadth and depth of assortments, no company can stock every part and accessory that their customers might need. Even the best integrated retailer/installers may need to special order 25% of the parts they install from an outside source.

Recognizing the opportunity afforded in improving the efficiency of the special order process, the Technology Solutions and Standards Committee of the Automotive Aftermarket Industry Association (AAIA) has delivered a cost effective solution to automating special orders throughout the Aftermarket; the Internet Purchase Order (IPO) standard.

## Case Study Participants

The Affinia Group  
Andrew Machen



RockAuto  
Jim Taylor



## **Anticipated Benefits**

The main objective in adopting IPO at Affinia was to eliminate manual entry of special orders at customer service. This goal is usually accomplished within a few weeks after IPO is implemented with a trading partner.

The primary incentive for IPO adoption at RockAuto was the elimination of duplicate keying of their special order purchases into the Affinia website. A secondary benefit was the ability to base future stocking decisions using the special order sales history from IPO.

## **Following the Implementation Process**

The next few pages track the joint team through each phase of their implementation, recording their progress and observations throughout the adoption lifecycle.

## **Initiation and Planning**

Everyone on the business side at Affinia supports IPO, so there's never any push back from them on adoption. Integrating IPO with their legacy infrastructure took about nine months, and was managed quite formally. Adding support for RockAuto was very straight forward and just an extension of their existing capability with no additional technology considerations. They believe two other factors led to the ease of adoption:

- RockAuto was just getting started with IPO and willing to adopt Affinia's approach to implementation
- The RockAuto IT shop is very agile with a solid skills base

Affinia's IPO design focuses on reusing the same process and code with each trading partner, and they have been successful in accomplishing that goal with RockAuto.

## **Analysis and Design**

Affina used their internal product categorization with RockAuto, and there were no unique business rules or workflows necessary in this implementation. Affina has implemented the IPO specification as it's written, and stayed within those guidelines with every trading partner including RockAuto.

There were no major data alignment issues at RockAuto as they already had Affinia part numbers in their systems. There were brief discussions on how they should map some of the other IPO data elements, but that was the extent of the analysis.

## **Technologies Used in Adoption**

The following technologies and standards were used in this implementation:

- ACES
- PIES
- SOAP over HTTP web services
- OAGIS

## **Internal Development**

No development was required at Affinia to support the RockAuto implementation. RockAuto added a new document key to match the supplier's document ID as an order reference. Both companies found it unnecessary to modify any existing applications or create any new API's to support their implementation. Both companies had exposure with web services prior to this implementation.

Affinia & RockAuto use log files to monitor IPO transactions and resolve any processing errors. RockAuto emails log errors to the appropriate resource for problem resolution and error management.

RockAuto feels the IPO specification may be more complicated than necessary and more of the data elements should be optional. An example of unneeded complexity is the echoing of a warehouse location address from the quote BOD when you order a product.

## **Integrated Testing**

Affinia provides a test server and formal IPO test plan for their partners. Once the development phase is complete, the partner must successfully complete a set of test scenarios before they can access the Affinia production server. RockAuto said the entire testing process took only a few hours over a couple of days. Affinia provides their new IPO trading partners with an implementation guide that explains the adoption process.

## **Deployment**

Affinia experienced very few implementation issues with RockAuto, so problem management & resolution were a minor issue. Raybestos and Spicer product lines were available immediately with very few production errors.

Special orders are automatically queued in the RockAuto system and transmitted periodically throughout the day. The queue is flushed before the nightly order cut-off, so nearly every customer's order is placed during the day it's received.

## **Results**

Affinia and RockAuto are both very pleased with this implementation. RockAuto was placing special orders with Affinia just three weeks after starting the adoption process! They have been placing about 100 special orders per week since the second week of adoption, with IPO providing access to thousands of additional non-stocking SKUs.

RockAuto users are delighted the redundant data entry was eliminated. They estimate that eliminating re-keying of their special orders into the Affinia website has saved them about 1/2 of an FTE.

## **Lessons Learned**

Affinia is very proactive in soliciting other IPO trading partners, including large national accounts and more customers the size of RockAuto. RockAuto also wants to expand their use of IPO, and has requested IPO support for special orders from other suppliers.

Affinia has always been a big proponent of IPO because it dramatically reduces the turnaround time for special orders compared to manual order entry. But they believe the future of this standard is more than automating special orders, and see it enabling other forms of collaboration simply because “it’s a process that works!”

Affinia believes RockAuto has been a great implementation experience because they were prepared to implement IPO without a lot of internal constraints. Starting with a big partner may be a bit of a struggle at first, but they learned a lot in the process and each successive implementation has been easier. So the possibility exists for the same type of rapid implementation with a national account trading partner given:

- the use of well established test procedures
- building from a basic set of data types and collaborations
- a willingness to quickly resolve data constraints & unique requirements

Affinia advises potential new adopters to “keep it simple”, starting your adoption with some basic functionality and building on that success. As long as the business can support the special order process, IPO can handle the exchange of that information. Both companies feel data quality is another important consideration; if you can’t understand the data that’s sent, there’s no way to respond.

RockAuto found IPO easy to implement, amounting to just 2-3 days of work effort over a three week period. They advise potential IPO adopters to get up to speed with web services and then get started - it’s just not that hard to do!

