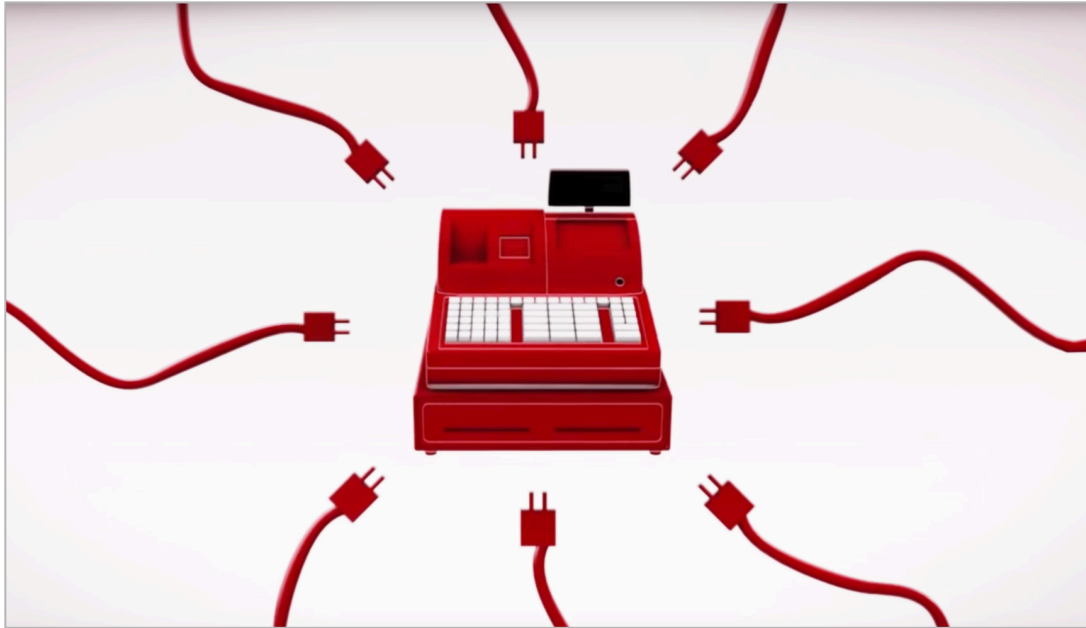


Whitepaper



Plug & play Integration for the retail ecosystem

Introducing RedIron's RI Broker

RED IRON
FORGING RETAIL INNOVATION

Contents

Introduction	2
How RI Broker Works	3
Integration Solutions Using RI Broker:	
Payments Solutions	4
Enterprise Security Solutions	5
Multi-Channel Solutions	5
Customer Experience Solutions	5
Benefits of RI Broker	6
Conclusion	7
RedIron's Retail Center of Excellence	8

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RedIron has created
RI Broker ...

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Introduction

In this omnichannel retail environment, it is becoming more and more challenging for IT executives to keep up with the growing demands from both store operations and marketing to provide a seamless shopping experience for customers.

Retail IT now has to worry about adding on innovations like loyalty programs, rewards, e-receipts, private label credit cards, real-time inventory, mobile sales, clienteling, and e-commerce.

The problem is that legacy systems weren't designed to do all this, which creates integration projects that can often be complex and fraught with risk.

To solve this problem, RedIron has created RI Broker: a POS-platform-agnostic middleware layer that allows disparate systems to talk to each other with plug-and-play ease.

If your customers want the ability to order online and pick up in the store, RI Broker can make that happen.

If you want to implement a save-the-sale solution so customers can pay in-store for out-of-stock items and have them delivered to their home from your warehouse, RI Broker can facilitate that.

You can also use RI Broker to provide your customers with loyalty rewards and coupons seamlessly integrated across your bricks and mortar, e-commerce and mobile systems.

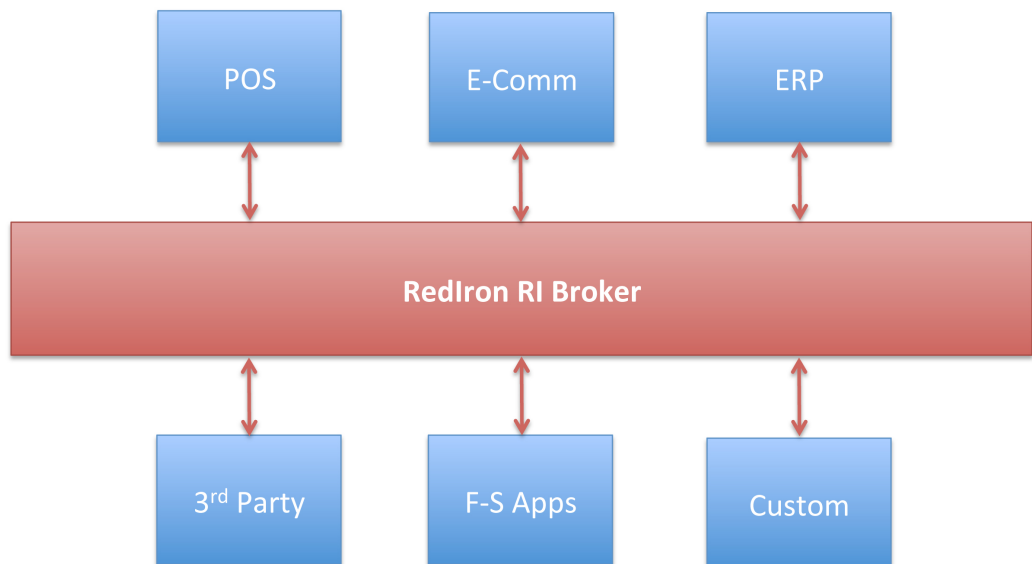
In this white paper, we will discuss how RI Broker works to facilitate omnichannel integrations like these, and the significant benefits in terms of time and cost savings, flexibility, control, and risk reduction that it provides to both large and mid-size retailers.

How RI Broker Works

Whether you call it omnichannel or unified channel, the goal of providing a seamless shopping experience for your customers across your POS, e-commerce and mobile commerce platforms requires the ability to make disparate systems communicate with each other in real time.

If your desire is to create a best of breed IT architecture for your organization, none of these different systems will have native ability to communicate with the others.

RI Broker offers a simple and elegant solution as a Service-Oriented Architecture (SOA). It operates as middleware between all of these disparate systems to facilitate communication between them.



Our RI Broker solution is POS-platform agnostic. It treats each system in your IT architecture like POS, e-commerce or ERP, as a stand-alone module. Any new systems that you add, whether they be 3rd Party, or RedIron Fast-Start Apps, or custom creations, are also treated as stand-alone modules.

A key advantage of the modular approach provided by RI Broker is that any given module can be eliminated or swapped out at any given time without interrupting the rest of your IT architecture.

For example, if you wanted to replace one warehouse management system for another, RI Broker makes this a true plug-and-play possibility because there is no hardcoding that ties the original system to the rest of your IT architecture.

For each stand-alone module that connects to RI Broker, we create a configuration file that can be used to enable or disable the entire module or individual components within it. This control over the functionality provides retailers with complete flexibility to plan, test and execute a phased approach to rolling out any given integration project, either on a store-by-store or region-by-region basis.

Integration Solutions Using RI Broker

RedIron has identified the most common integration solutions that most large and mid-size retailers may face in the near-term and developed a suite of **Fast-Start Apps** for use in conjunction with RI Broker to speed implementation of the solution. Each of our Fast-Start Apps is a stand-alone plug-and-play solution module.

These common solutions fall into four broad categories: payments, enterprise security, multi-channel, and customer experience.

Payments Solutions

RI Broker + Fast-Start App **2authorize** integrates your POS with almost every major payment app/provider and frees retailers to move providers as needed. It enables chip and pin (EMV) technology and it eliminates sensitive data from your POS and downstream. 2authorize is compatible with legacy and new technologies and can support all types of debit, credit, EFT, and gift cards.

RI Broker + Fast-Start App **2credit** allows you to enable and manage co-branded credit cards to generate ROI while managing rewards and loyalty. It integrates POS with central credit providers for credit approval, capture of non-sensitive information via cashier and sensitive information via signature capture.

Enterprise Security Solutions

RI Broker + Fast-Start App **2encrypt** provides retailers with exceptional PCI compliant security, and the peace of mind of protecting all sensitive customer data, including credit card information. It encrypts all sensitive data at rest including data in files, databases and registry, as well as network transmissions between applications.

RI Broker + Fast-Start App **2prevent** gives you complete control (including lockdown capabilities) of your store environment. By including native OS and web, it is able to eliminate employee access to anywhere desired, thereby preventing the use of in-store technology for non-business purposes, while ensuring access to all critical business programs and devices.

Multi-Channel Solutions

RI Broker + Fast-Start **2order** simplifies the management of all orders to be shipped to customers. It enables you to search for or create new orders and then edit, recall, refund, return, or replace orders. You can manage orders across your enterprise including different stores or on the web. 2order integrates with your existing fulfillment system via RI Broker.

RI Broker + Fast-Start **2return** allows for the management of all returns including refunds and replacements across your enterprise, including web. You can capture customer information during the return process, including a driver's license, and create alerts to flag mischievous activity. A variety of search mechanisms ensure returns are found and recorded properly.

Customer Experience Solutions

RI Broker + Fast-Start **2mobile** integrates seamlessly into your back-end POS system. It allows your sales associates to do checkout with customers anywhere, anytime using a mobile, handheld device such as Apple iPhone, iPad or iPod touch. Your sales team can fill a dual role: on the floor and on cash at the same time.

RI Broker + Fast-Start App **2loyal** interacts with 3rd party databases at point of sale to retrieve and capture the information you want. It pulls customer information into the sale – and pushes sale

information back out to your database. Interaction with each customer is customizable through configurable prompts. You can offer special rewards on an individual customer basis, printed right on the receipt. It searches for the customer in the database, collects the data and prints the reward info on the receipt.

RI Broker + Fast-Start App **2reward** makes it easy to offer your customers a reward program without having to manage customer information. Customers don't have to sign up to participate, reducing line-ups at cash. This app, gives you endless ways to build customer loyalty. Any discount or offer can be printed on the receipt, or awarded as a cash card. Issuance and redemption of rewards is tracked in real-time to ensure one-time use and help you better manage your budget.

Benefits of RedIron's RI Broker

RI Broker provides undeniable benefits to large and mid-size retailers in terms of time and cost savings, IT architecture flexibility, store-by-store control and risk reduction.

1. Time and Cost Savings

RI Broker's modular plug-and-play design reduces the time, and therefore the cost, associated with having to custom hardcode individual integrations. Similarly, it also reduces the coding time and cost required for swapping out old systems for new systems when the need to do so inevitably arises.

Further time and cost savings are realized whenever RI Broker is used in conjunction with one of our RedIron Fast-Start Apps. Implementation timetables can be significantly shortened because each stand-alone Fast-Start App is an already proven solution that needs little or no time for custom development.

2. IT Architecture Flexibility

The modular plug-and-play design of RI Broker provides retailers with unparalleled flexibility for creating and upgrading their IT architecture. Stand-Alone modules can be eliminated or swapped out as desired with no risk to enterprise integrity.

Existing modules can be built upon to extend their functionality, and these new features enhancements can remain turned off until full regression testing has been completed to ensure no problems will arise when they go live.

3. Store-By Store Control

The ability to turn individual plug-in modules on or off, and configure individual features within each module to turn on and off on a store-by-store basis, provides retailers with the ability to “dip there toe in the water” with any given integration project as opposed to having to “dive into the deep end of the pool” with a full scale launch.

4. Risk Reduction

The risk to IT architecture integrity typically associated with attaching and removing hardcoded integrations is greatly reduced with the use of RI Broker because only minimal integration invasiveness with any given system is required due to the plug-and-play design.

Further risk reduction is possible whenever RI Broker is used with any of our Fast Start Apps, because these modules have already been tested and proven in retail environments.

Conclusion

RI Broker enables large and mid-size retailers to cost-effectively create and upgrade a best of breed IT architecture for their organization with plug-and-play ease.

We invite you to view an in-depth demonstration of how RI Broker works and how it can significantly speed time to market for many common omnichannel integration challenges.

To arrange a convenient time, please contact our Director of Sales **Craig Bambrick** at 1-519-590-1734.

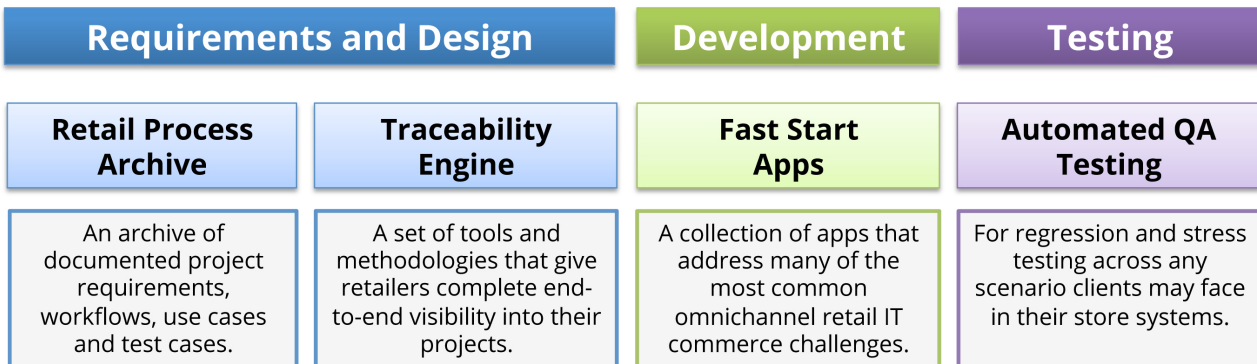
RedIron's Retail Center of Excellence

Since 2000, RedIron has been partnering with CIOs of some of the largest names in retail to enable commerce innovation.

Our solutions are platform agnostic. We can either integrate best of breed systems for a seamless omnichannel customer experience, or extend the functionality of existing POS or ecommerce platforms.

In recognition of the long-standing industry problem of poor IT project quality, we have created the **RedIron Retail Center of Excellence** – a repository of in-depth retail business process knowledge, proven methodologies, and a set of tools forged over more than 15 years and hundreds of projects.

The first key component of our Retail Center of Excellence is our **Retail Process Archive**, consisting of more than 2,500 tried and true use cases, requirements definitions, project plans, test cases and issue logs. The key benefit to our clients is that they are never starting from scratch on any given project. There is already a proven process that we can access in our archive to give them a fast start.



The second key component is our **Retail Traceability Engine** – a set of custom tools and proprietary methodologies that give our retail clients end-to-end visibility into their projects, and traceability to ensure that each requirement is captured and delivered upon.

The third key component is our suite of **Fast Start Apps** that we developed to address many of the common challenges retailers

face for things like payments, security, multi-channel integration and mobile clienteling. These apps save our clients development time and budget by repurposing proven solutions.

The fourth key component is our **Automated QA Testing** suite for regression and stress testing across any scenario our clients may face in their store systems. The key benefit is the ability to ensure success by seeing how a solution will respond before deployment.

For more information, or to review a recent case study that demonstrates how our Retail Center of Excellence is fostering on-time, on-budget and on-spec project delivery for our clients, please call our VP of Sales **Craig Bambrick** at 1-519-590-1734.

www.redirontech.com

Craig.Bambrick@redirontech.com

