# Ward Transport & Logistics Gains a Competitive Edge with MDRest4i

## A Ward Transport Success Story

# In an Industry Where Seconds Matter, Ward Transport & Logistics Utilizes MDRest4i to Gain a Competitive Edge

In the highly competitive shipping and logistics industry, the difference between winning or losing a contract often hinges on the ability to provide up-to-the-minute pricing information. Pricing is extremely fluid in this industry as it can be based on a wide variety of variables, including available capacity, the type of load, market demand, what competitors are charging, and numerous other factors. And many of these factors can literally change on a moment-by-moment basis.

Because of these complexities and the highly competitive nature of the marketplace, dynamic pricing applications can take all of these variables into consideration, and in near-real time allow shipping companies to provide customers with the most competitive pricing possible, while still making a profit. Ward Transport & Logistics Corporation, a Pennsylvania-based trucking company that serves much of the eastern United States, depends on dynamic pricing applications to win business.

"In our region it seems there's a freight company on every corner, so to get new business it's critical that we're able to rapidly calculate and provide pricing to customers and potential customers," says Mike Zupon, Ward Transport's vice president of technology. "We compete in shipping marketplaces where, if we can't provide a pricing quote within seconds, then we won't even get a chance to play for that shipment."

Companies that need their freight moved often use third-party, cloud-based applications that interface via APIs to numerous transport companies. Through these applications, a company is able to quickly determine what each carrier will charge for a particular type of load, see its projected delivery schedule, and then choose the carrier that provides the best rate and delivery time. This makes for a highly competitive marketplace.

The cloud-based applications that companies use to determine the best transport provider to hire for a particular load is in some ways like

Travelocity, Expedia, and other online travel-booking platforms. These travel-pricing platforms provide consumers with real-time information about airfares, but behind the scenes these airfares are rapidly calculated by the airlines based on capacity, demand, and numerous other factors, and are delivered to the travel-booking platform via APIs.

"The economy is soft and, as a result, our profit margins are slim," says Mike. "If we can make a profit while improving our load capacity and volumes through the tweaking of the discounts that we're able to provide to customers, it makes all the difference to our efficiency and thus our bottom line."

## The Challenge of Consuming API Data in RPG-Based ERP Applications

The dynamic pricing application that Ward Transport utilizes takes into account a multitude of variables from the pricing models that the company has defined. However, to be most effective, these dynamic-pricing capabilities need to be integrated through APIs with the ERP applications that run on Ward Transport's IBM i systems.

"We knew that it was going to be a challenge to consume API data directly into our RPG-based ERP applications," says Ray Taylor, a technology manager at Ward Transport. "We're a PHP shop, running the Zend PHP stack directly on the IBM i. Until recently, we were usually able to do the things that we wanted to do with PHP because most of the API work was inbound. We would develop APIs through PHP and deploy them to the world, and the world would send data to us. PHP works well because it can call RPG to access anything on the

IBM i. Well, unfortunately, the other side of this is that RPG doesn't easily call PHP. So, if you're sitting in an RPG program and you want to consume an API from somewhere outside, if you don't have the right tools, it's a very complicated process. That began our search for a well-supported, well-documented tool that could give us a way to simplify the integration of APIs into our native IBM i ERP applications written in RPG."

After exploring the IBM i marketplace for an API solution that could meet the company's needs, Ray found that his options were limited.

"We looked at three vendors who provided solutions in this area," continues Ray. "Only MDRest4i from Midrange Dynamics provided a solution in which our RPG developers could create the needed REST APIs entirely in RPG. For us, that's huge. The other two solutions we looked at required working within a Linux-based PASE environment in order to create the necessary REST APIs. We couldn't afford the time

and expense skilling up our RPG developers on another operating environment."

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—Ray Taylor
  Technology Manager
  Ward Transport & Logistics

### Developers Use Their Existing Knowledge of RPG to Build and Run APIs

MDRest4i eliminates the middleware that would otherwise be required with API tools that depend on running an emulated PASE environment. These non-native API tools are encumbered by multiple layers of middleware and jobs that need to run before developers even get to creating the required RPG program. These intermediary layers not only affect performance, but also make troubleshooting more difficult when things go wrong. Plus, these additional layers can introduce security vulnerabilities. MDRest4i is built from the ground up in RPG, which means it performs many times faster than PASE-dependent solutions, and developers can use their existing knowledge of RPG to build and run the APIs they need. Developers can enforce their business rules without having to rely on middleware, code abstractions, or connectivity drivers.

"Speed of actual execution is crucial given the nature of our business," says Ray. "The performance benefits and the RPG-centric nature of MDRest4i made it clear that this was the best solution for us."

MDRest4i allows programmers with RPG and SQL skills to utilize REST APIs in order to quickly and easily build any kind of integration with their IBM i applications. A rich web user interface (UI) is provided for managing, editing, and generating RPGLE code from Open-API specifications and definitions.

"The MDRest4i SDK is designed to accelerate learning, building, generating, and deploying production-level REST APIs and REST clients," says Stuart Milligan, Midrange Dynamic's chief solution architect for MDRest4i. "This removes the pain and effort from what would otherwise be a labor-intensive, error-prone task of interpreting complicated API requirements into modern, structured, and efficient RPGLE code for REST APIs and clients. With MDRest4i, developers can focus on coding and maintaining business logic, using their existing RPG skills, tools, and knowledge in a very natural way. They can efficiently produce high-quality data integrations that scale for even the most ambitious performance and complexity requirements."

"We're very impressed with the forms-based UI of the MDRest4i SDK Console," says Ray. "It not only imports the API definitions we need, but when those definitions are combined with additional configuration information that we add on our end, the tool automatically produces around 80 percent of the RPG program that's needed to perform all of the rudimentary tasks of creating the request program. This is remarkable.

It includes sending the request, receiving the response, and breaking out the response from the API transmission—whether it be XML or JSON. The generated programs are modular and very well structured, so they make sense to anyone who knows how to program in RPG. No other software vendor we evaluated had functionality that was anything close to what MDRest4i provides."

### Stand-Out Support from Midrange Dynamics

When it comes to the way that Midrange Dynamics provides support and delivers enhancements that benefit Ward Transport, Ray is equally impressed.

"The support I've received from Midrange Dynamics is second to none," says Ray. "I cannot say enough good things about the MDRest4i support team. I've never asked a question where I didn't get a prompt, detailed answer. And Midrange Dynamics has even made enhancements to the tool based on things that I've suggested. They listen to their customers and do what it takes to continually add new features to the product."

With the success that Ward Transport has achieved with MDRest4i by integrating dynamic-pricing applications with its IBM i applications, Mike, Ray, and the team of RPG developers at Ward Transport are embarking on additional integration projects. They've created APIs that bring ERP data from the IBM i into their instance of Salesforce, and they have integrated their ERP data with a third-party application that tracks the location and progress of trucks and drivers.

"We have several other MDRest4i API projects in the pipeline that will replace situations in which FTP is used to send and receive data," says Ray. "The more we use MDRest4i, the more we discover projects we can do that will save us time and money. It has truly opened up for us a world of possibilities to utilize the valuable data that resides in our IBM i applications."

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—Ray Taylor

"Cross-platform functionality is paramount in the ever-growing dynamic nature of our business," adds Mike. "MDRest4i allows us to take our legacy applications and their data and, in a very innovative fashion, powerfully leverage those legacy applications to the benefit of the company." ▌

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