

SMC

Maximizing ERP Investment by Modernizing with Rocket® MultiValue Integration Server (MVIS)

SMC is a global leader in pneumatic technology, with subsidiaries in 53 countries providing industrial environments with technology and products to support automation. Over the past 50+ years, SMC has delivered first-class business solutions to customers through superior products and customer service. SMC is developing high quality, highly reliable products to contribute to automation in industrial environments, as well as in familiar areas of everyday life, to achieve its goal of advancing automation.

Challenge

The Australian subsidiary of SMC relies on a highly customized ERP solution called Masterpack. Based on Rocket® UniVerse and Rocket® System Builder, it has seen decades of development, but lacked the user interfaces and cross-platform integrations that are the hallmark of today's modern systems. As a result, productivity, accuracy, and user satisfaction suffered.

For instance, every night an intermediary tool synced data input during the day back to Masterpack, a time-consuming and infrastructure-demanding process. Rather than having information available in real time, employees had to wait for the overnight process to run before being able to access it. These delays and bottlenecks slowed operations, and had the potential to create downstream issues for customers since information like inventory counts were unavailable to sales teams.

Other challenges included the incompatibility of Masterpack with contemporary mobile devices, forcing warehouse staff to rely upon outdated and unreliable hand-held scanners. Maintenance and repair costs for the scanners were skyrocketing, and IT staff spent too much time on the warehouse floor resolving issues. Overall, SMC

needed to improve user experiences by adding new tools and functionalities without undertaking a long, risky, and expensive replatforming project.

Further complicating this challenge was a problem familiar to many organizations that have invested in MultiValue (MV): their experienced administrators were retiring, and skilled developers were difficult to find.

Solution

Once the experienced MV developers collaborated with the teams familiar with web-based tools and scripting languages, SMC developed their vision for automation. To enable it, SMC searched for ways to interface with Masterpack, building on top of its proven infrastructure. Initially leveraging Rocket® U2 REST web services to connect Masterpack with Microsoft 365 PowerApps, SMC created a gateway that sends and receives requests from applications to Masterpack, and vice versa. With Rocket U2 REST, SMC could link any object to Masterpack with customized apps tailored to their needs. This enabled SMC to replace their outdated scanners and eliminate the associated maintenance expense. SMC deployed

Android-based scanners in warehouses, streamlining critical warehouse processes such as scanning, picking, and dispatching.

Success with improving warehouse operations was just the beginning for SMC. In 2021, it implemented the Rocket® MultiValue Integration Server (MVIS) to enable future API projects and add Python scripting capability to its modernization toolset. With this upgrade SMC was ready to scale its efforts and take on additional operational challenges.

Order entry automation is one use case where SMC has deployed an API-based integration enabled by MVIS. MVIS accepts REST-based requests from third-party applications and sends the information to Masterpack. Data is then processed and either a success or error message is sent via MVIS to the end user. This streamlines critical functions and sets the stage for future innovation.

Results

Modernizing its ERP application with MVIS provided significant savings as compared to re-platforming. "Replacing an ERP is very difficult," says Amarendra Rakesh, Business Systems Manager at SMC. "Now, our ERP can continue to facilitate data storage and handling, saving us that time and money so we can still fulfill our vision for the future of the business with modern capabilities."

With MVIS, SMC has given new life to Masterpack by web enabling it with APIs. Masterpack continues to serve as the backbone of the IT infrastructure, while SMC's users have the modern experiences that enable them to be more productive and efficient in their work. As an example, automating sales order entry has reduced process time by 95%, from 20 minutes to less than one minute.

Information is now being sent back and forth in real time, replacing the overnight process used before MVIS. When a user completes a task via a browser, it is communicated to Masterpack in real time. Since data is now sent directly, without intermediary processes and systems, overall performance has significantly improved. Not only that, this real-time process means teams in finance, sales and customer service have the information they need at their fingertips, including via mobile devices in the field. "It was

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Amarendra Rakesh
Business System Manager,
SMC Corporation

a revelation for our business because no one imagined you could have Masterpack on your phone” notes Rakesh. “The success we had with MVIS-enabled API integrations freed up IT resources, saved money, improved efficiency and boosted productivity.”

MVIS has allowed SMC to address its human resource challenges as well. Since finding new talent with web-based skills is much easier than those with MV experience, SMC has a solution that allows it to accelerate transformation efforts and the related return on investment.

SMC also decommissioned two servers that were dedicated to completing that overnight transfer, which has reduced costs and resolved bottlenecks.

With MVIS, it is possible to build a highly secure environment with similar opportunities for automation across the entire business. SMC’s Australian subsidiary is setting global benchmarks for innovation and optimization as other SMC offices learn from its advancements. The company can now deliver the best possible user experiences and maintain competitiveness, all while maximizing their return-on-investment in their existing ERP.

Impact

1

Created real-time interfaces with the ERP system to drive productivity and user experience improvements via REST APIs.

2

Reduced order entry process from 20 mins to less than a minute leveraging Python scripting.

3

Introduced a mobile application giving field teams real-time inventory visibility.

4

Created a development platform to support scaling the business, setting the global pace for SMC.



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