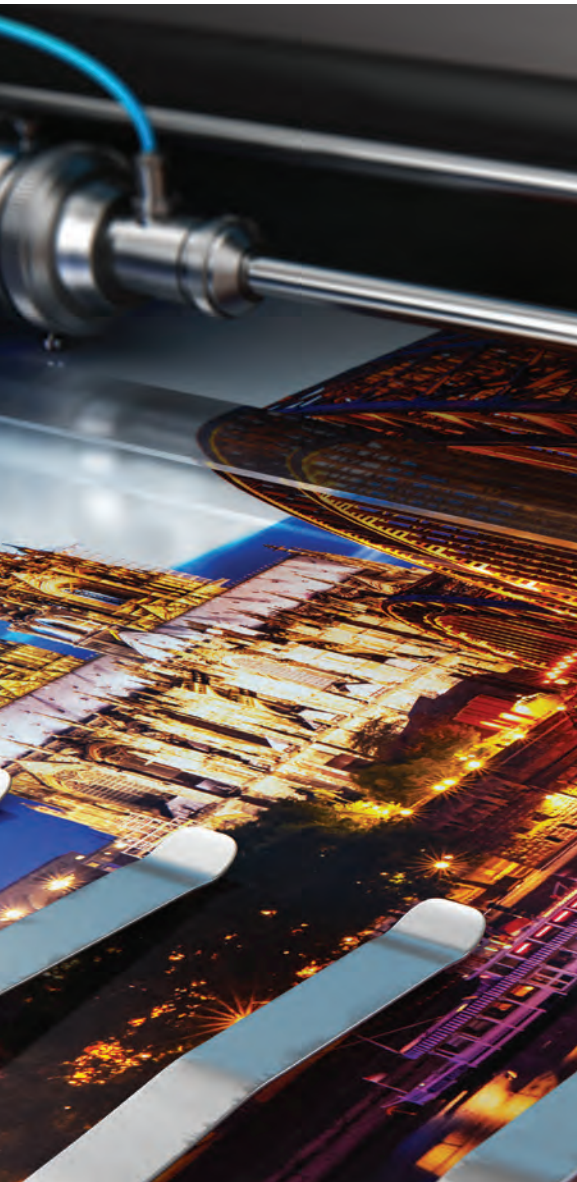


 **Roland**

Service Order Management System



The Challenge

Rapid growth led to challenges in tracking end users and their products, managing warranties and replacement parts, and supporting a diverse network of distributors and dealers.



The Solution

A fully-automated solution based on the Microsoft Technology Platform that provides a “one-stop shop” for managing all aspects of warranty claims, service requests, and service repairs.



The Benefits

- Reduced labor costs
- Greater operational efficiency
- Increased capacity to handle new customer volume
- Increased customer satisfaction

“Neuron-ESB's flexibility provides us the means to accomplish the asynchronous integration of multiple systems required by our business processes. Enhancing the feature set of Neuron-ESB also makes our investment in the technology a sound decision.”

– Bob Castle, Roland DGA

The Challenge

As a nationwide leader in real estate information services, Roland DGA Corporation is the U.S.-based marketing, distribution and sales arm of the Roland DG Corporation of Japan, a worldwide leader in the sign, graphic arts, fine art, photography, engraving and 3D modeling industries. Founded in 1981 and listed on the Tokyo Stock Exchange, Roland DG is the world's number one provider of wide-format inkjet printers for the durable graphics market. Roland DG is also affiliated with Roland Corporation, renowned in the music world for developing MIDI technology and for producing sophisticated digital music equipment including keyboard synthesizers, recording equipment and other related technologies.

In 1990, the company established the Roland DGA Corporation in Irvine, California, to provide complete sales, marketing and customer support services throughout the Americas. Today, Roland DGA markets its products through an extensive dealer and distributor network serving the United States, Canada, Mexico, the Caribbean and all countries of Central and South America except Brazil.

Roland DGA's rapid growth resulted in challenges tracking end users and their products, managing warranties and replacement parts, and supporting their diverse network of distributors and dealers. As a result, further challenges were encountered in proactively addressing product problems and supporting Roland DGA's end users and dealers. Roland DGA was in need of a better way to provide support, facilitate repairs and returns, and track their replacement part inventory.

Roland DGA needed to define a solution whereby vast amounts of information previously managed manually and in disparate and disjointed systems across the organization and its dealer network could be integrated into a common platform and solution. The goal of the solution was to effectively manage not only internal information and processes, but also dealer network processes and reimbursements from their parent company in Japan.

The Solution

To help Roland DGA reach its goals, Neuron-ESB, a .NET based enterprise service bus, was used to integrate SharePoint Forms services with Microsoft Dynamics CRM 3.0 and Dynamics Great Plains 9.0. By our design, Roland's dealers would enter Service Order Requests in forms services on a public facing MOSS portal. The service orders would then be sent to Neuron-ESB and be processed in CRM and GP. Neuron-ESB served as the messaging architecture that kept all of the systems synchronized.

By capitalizing on previous software investments, Roland DGA was able to minimize additional capital expenditures throughout the creation of their new Service Order Management system. The solution design included the

“ I can't believe how fast the new system is. I submitted a claim and the parts arrived in just 4 days. My payment arrived in only 10 days. Now, that's what I call turnaround! ”

– Steve Miller, Imagers Supply

development of R-Net Pro; a Dealer Portal built on Microsoft Office Server 2007. This portal uses InfoPath along with Forms Server and Forms-based authentication to provide the dealers and distributors with the ability to manage their service and warranty requests themselves, as well as the ability to verify inventory and status information.

The R-Net Pro dealer portal uses Neuron-ESB to integrate with Microsoft CRM which houses most of the dealer/distributor master data, as well as warranty information. This integration provides the dealers and distributors real time visibility via the portal into all service related activity housed and managed within CRM. Warranty reimbursements and other financial aspects of the warranty claims and service call processes that are managed within Microsoft Dynamics GP are also visible in real time. The master dealer/distributor information contained within CRM also pre-populates into claim forms, providing the dealers and distributors with a greatly improved portal user experience.

The new Service Order Management System has allowed Roland DGA to move from multiple paper-based processes to a single, completely automated process. Microsoft Dynamics CRM serves as the front end for the entire service order management process for all non-accounting internal users, and Neuron-ESB provides the system's integration. External users, including dealers and distributors, log into the R-Net Pro portal. Combined, these two components provide a 'one-stop shop' for managing all aspects of warranty claims, service requests, and service repairs.

The warranty and service process, which previously was managed via a faxed request or a telephone call, required several service, accounting, support, and administrative team members to physically touch each claim and request. Most service call activity required data entry into a minimum of three distinct systems and all historical data was paper based. As a result of these manual processes, Roland DGA had no mechanism for electronically reporting on any aspects of these processes or managing and measuring performance. Any reports that were generated required hundreds of labor hours to gather information from paper documents and several systems to be compiled into spreadsheets. As a result, reporting was rarely completed, and by the time it was completed, the information was often antiquated.

The Benefits

The new Neuron-ESB-based system also provides dealers and internal personnel with online access to all historical service requests and warranty claims, real time warranty verification, warranty challenging functionality, automated pre-repair and replenishment parts ordering, on-line shipment information, integration with the FASCOR Warehouse Management System, and OLAP performance and trend reporting.

Thanks to the seamless integration provided by Neuron-ESB, the user acceptance of this automated solution has been positive both internally and externally, and Roland DGA's future plans include the roll out of the R-Net Pro portal to additional dealers and distributors, as well as upgrades of Microsoft GP to 10.0 and of CRM to 4.0. Roland DGA continues to evangelize Microsoft technology and use that technology as a way of reaching their dealer satisfaction goals. As an early adopter of Microsoft technology, Roland DGA has repeatedly placed itself ahead of the competition in exceeding the expectations and demands of their customers.

Despite the use of GP's inventory management system, Roland DGA's replacement part inventory quantities were inaccurate due to the fact that they were completely dependent upon human data entry. Each service order required numerous manual steps both in verification and in processing and dealers had to telephone requests for updates on the status of warranty claims and service orders. Each service and/or warranty request was touched by up to 8 individuals throughout its processing. Reconciliation of these processes was difficult at best and often impossible. There were no means for accurately tracking performance metrics. As a result of the implementation of this solution, both internal controls and reporting have greatly improved and their accuracy is much more reliable.

The processing of warranty claims and tying these claims to service orders previously involved manually generating reports of parts ordered, manually matching them with a paper-based claim report, researching warranty and dealer information from an informational database managed in Japan for prior service history and to ensure no duplicate claims, and manually constructing a report for accounting for warranty payouts. Double and triple data entry was required in order to ship replacement parts for a service request, risking human data entry error, and warranty payments to distributors were manually tracked in an Excel spreadsheet. All of this data was then compiled and sent to Japan for reimbursement processing. Dealers and internal users now have access to real time information about products, end users, warranties, service repairs, parts orders and shipments, and reimbursement payments.

In addition, a sizable and measurable benefit has been made in the area of claims processing. The Neuron-ESB-based solution has saved an average of 8 minutes per claim. At over 400 claims per month, over 50 hours of labor per month are saved in the claims process alone. Intangible benefits are even greater and more important to Roland's customer satisfaction goals.

These intangible benefits include:

- Quick payment to dealers
- Valuable time savings for dealers
- All claims are entered into one system
- All historical claim information is available in real-time on the same system
- Data no longer has to be entered in multiple systems to request service reimbursement
- Valuable time savings for Roland DGA
- Service parts history now resides in one location for both internal and external repairs and is managed electronically allowing for the easy analysis of repair rates and costs
- Dealer activity is now tracked to monitor repeat repair visits
- Faulty parts are tracked and Roland DGA can now anticipate, plan for, and accrue for failure rates on equipment
- Parts shipments are now tracked, avoiding the previous problem of part shortages, which has a dramatic impact on end users in terms of time to repair their product.
- Roland can now calculate repair costs accurately and further analyze the costs of extended maintenance contracts

Overall, by implementing Neuron-ESB, Roland DGA has drastically improved their distribution process and is able to provide a much higher level of service to their dealer and distributor network. They have made it easier for their customers to do business with them and made it easier for the dealers to service end users. The time line for receiving replacement parts has been shortened, thereby shortening the time to complete repairs. Reimbursements to dealers are not only made more quickly, but also more accurately. By further reducing the number of incoming and outgoing phone calls and providing this information via the web, resources previously dedicated to pushing paper and managing phone calls can now focus their time and energy on the core aspects of Roland's business model.