skupina elektro gorenjska — Elektro Gorenjska

Empowering Digital Transformation: Peregrine Connect Eliminates Over 30% of Point-to-Point Integrations and reduces development time by 90%

The Challenge

- Elektro Gorenjska needed to integrate all CIM European Electrical Smart Grid data to enable seamless communication between data and multiple systems
- Elektro Gorenjska wanted an integration platform compatible with Microsoft .NET to leverage its existing resources without switching to a JAVA-based technology platform
- Their current point-of-failure approach with the master database system reached a breaking point. Integrating at the database level hindered productivity and made it difficult to add new workflows and systems to integrate

The Solution

- Replace existing integration architecture with a scalable solution that complies with European green regulations, supports the growth of existing operations, and develop custom workflows to improve operational efficiency
- Implement a platform with Microsoft expertise and a user-friendly .NET developer experience to align with Elektro Gorenjska's existing .NET resources
- Modernize the organization and resolve complexities within operations, partners, and existing architecture
- Provide a flexible platform with a .NET environment that enables easy leveraging of APIs to connect with other systems
- Save significant development time and capital by avoiding the need to create custom APIs
- Extend integration capabilities at the service level to enable better workflows
- Integrate Elektro Gorenjska's in-house project management system with their Jira system to create plans, update financial planning, costs, and investments

The Benefits

- Reduced the time to integrate new systems by 90%. Integration work that normally took two weeks to complete is now completed in less than one day using Peregrine Connect
- Peregrine Connect's extensibility on the .NET Platform enabled Elektro Gorenjska to develop customizations in .NET and C# without the need to compile and deploy assemblies
- Elektro Gorenjska's COTS evaluation concluded that Peregrine Connect surpassed leading vendors, including Mulesoft, Apache Kafka, Microsoft BizTalk, and Talend, by being both the easiest to use and the most cost-effective integration platform

The Client

Elektro Gorenjska, d. d., is a Slovenian electricity distribution company in the Gorenjska region. Elektro Gorenjska, has spent the last 60 years perfecting its method of properly upgrading and maintaining the electricity network for its customers. With a customer base of over 92,000 end-users, Elektro Gorenjska d.d. plays a critical role in providing reliable and efficient electric power services in Slovenia.

The Challenge

Elektro Gorenjska faced significant integration challenges while supporting many customers who dealt with electricity-related issues and repairs. The company's existing integrations platform needed to scale in order to handle the complexity of its growing operations. Elektro Gorenjska needed the flexibility to continuously adjust and implement various government policies, which could impact customers, operations, and internal processes.

To resolve these challenges, Elektro Gorenjska needed to integrate all CIM European Electrical Smart Grid data to enable frictionless communication between data and multiple systems. The company had to integrate various systems, including Esri GIS, Microsoft Dynamics ERP, Jira, project management, billing/contract management, and field management System, to meet European Green regulations and collaborate with industry partners. Additionally, it aimed to improve operational integration by linking its in-house application system and Jira for real-time updates on project status, planning, finances, and investment.

Elektro Gorenjska faced the challenge of having a multi-tenant ERP and customer billing system that five Slovenian utility companies shared and needed to integrate with several critical operational systems and departments. To modernize and future-proof the organization's systems, Elektro Gorenjska required a transition from database-level connections to modern APIs.

To comply with CIM European Electrical Smart Grid and European Green regulations, Elektro Gorenjska needed to track utility blocks of electricity consumption and transmit the data back to its data collection systems. The company joined forces with partners in a multi-tenant system that is managed by the daughter company of all electric distribution companies in Slovenia, Informatika d.o.o. This initiative required digitizing the business to comply with regulations and integrate the company's key systems.

Elektro Gorenjska aimed to optimize its operations by empowering its field workers to leverage mobile devices and apps to generate task orders in the field instantly. To achieve this, they needed to enable their field workers to update customer information on the go which included changes in addresses, meter readings, smart meter installation or calibration, and meter location or status. The mobile field application would delegate, track, record, and update task orders performed by field workers on site. This new process would ensure that the data is available to the GIS and other systems.

As part of its goals, the company aimed to integrate its internal project planning system and Jira to gain real-time project updates, improve project management, and obtain insights on investments and costs.

The Solution

Elektro Gorenjska realized that they needed to modernize their organization and address the complexities within their operations, partners, and existing architecture. Elektro Gorenjska evaluated other integration vendors, including Mulesoft, Apache, Microsoft BizTalk, and Talend, for their organization. Blaz Hafnar, the Head of Services for Information Solutions at Elektro Gorenjska, was initially skeptical when reading the Peregrine Connect website, claiming it would take only three days to acquire the necessary skills to learn Neuron ESB, a product under the Peregrine Connect integration platform. Nevertheless, upon personal experience, he discovered that it was possible to learn Neuron ESB independently within a very short period of time. Blaz was pleased with the abundant informative resources available, which played a pivotal role in his rapid adoption of Neuron ESB.

With Peregrine Connect's Neuron ESB they developed stateful workflows to manage the automation, communication, and application of business logic against all their existing systems. It was highly effective in keeping their other endpoints in sync. By developing multiple Neuron ESB workflows to connect and communicate to systems, they could eliminate more than 30% of their point-to-point integrations. They could also use Neuron ESB's publish & subscribe messaging feature for some of their systems that were outdated and couldn't be integrated through APIs.

Neuron ESB's Database connectors and ODBC Connector also helped fill out their integration layer gap on systems that didn't fully expose REST or SOAP APIs. They managed a multitude of CIM scenarios on the Esri GIS Asset management domain, extended field management use cases, and integrated Jira with their in-house project management system. By implementing real-time cross-system updates on endpoints, they were able to transform their organizational ecosystem in a very short period of time.

Another technology aspect that Elektro Gorenjska was looking for was finding an integration platform compatible with Microsoft .NET. They wanted to leverage their existing resources without switching to a JAVA-based technology platform. Because Peregrine Connect was built on the .NET-based platform, they could utilize its flexibility and extensibility to develop customizations in the comfort of the native programming language C#. Elektro Gorenjska's field management software is a .NET core application. Using Neuron ESB, they could easily expose APIs to connect to their other systems. When integrating their Dynamics ERP system with their Field Management and GIS system, they could leverage the SOAP capabilities from Neuron ESB.

The integration work using Peregrine Connect's platform helped improve the accuracy of data and minimize errors, further improving the company's operations. Neuron ESB's flexibility empowered Elektro Gorenjska to implement new requirements by the government and leadership quickly. By following their step-by-step approach (introducing new integration, introducing a new system, replacing the old system), they could implement new systems and applications rapidly without struggling to develop a new architecture model.

Elektro Gorenjska successfully implemented their CIM integration with Neuron ESB workflows, connectors, and messaging, allowing them to comply with European Green regulations easily. By using Neuron ESB as the heart of their integration, they effectively connected their Esri GIS, ERP, project management, field management, and billing/contracting management systems. This approach decreased their development time by 90% and reduced their capital expense substantially by avoiding the need to create custom APIs, processes, or connections specifically for their back-end applications.

Elektro Gorenjska extended its capabilities on the service level integration with Peregrine Connect, smoothly integrating its billing/contract management system, call center, field management, mobile field platform, smart meter system, and publishing data information to other systems. Initially, the team was skeptical about using the new Peregrine Connect Neuron ESB integration technology. However, when they started using Neuron ESB, they were impressed with its intuitive data mapper functionality, which resolved many of their everyday technical integration issues. By making the connections between their systems faster, they had more time to be productive and do much more for their organization.

Elektro Gorenjska implemented a workflow with Neuron ESB to manage field service calls related to meter issues. This workflow ensures that no data is missing, and each system can assign the next task accordingly. The field service workers have different responsibilities, such as recording customer addresses, installing or recalibrating smart meters, and updating tasks performed using a mobile platform application. The data collected is shared with multiple connected systems. With Neuron ESB, all tasks are routed to the appropriate system, and internal stakeholders can assign tasks to workers dynamically and send them to their tablet devices in the field. Any past errors have been resolved instantly. By extending their utilities enterprise endpoint reach, they have modernized into a more robust hybrid/cloud/API environment.

Driven by their successes, Elektro Gorenjska proceeded to implement another integration workflow to streamline their project management business processes. They aimed to integrate their in-house project management system with Jira project management so that they could create plans in Jira, trigger events to Neuron, and update their project management system with financial planning, costs, and investments. By using their scrum board features and leveraging the Jira connectivity with Neuron ESB, they could utilize all their actual project/task cost data for financial forecasting and budgeting. As an infrastructure company, their priority is to handle the distribution of billing, yearly plans, and to regulate their investments. Previously, the investments department was using Microsoft Excel spreadsheets to manage everything. However, now they have a streamlined workflow where every in-house project and task has a corresponding financial record that considers all the updates and expenses associated with each project. At the end of the year, this workflow creates a cumulative data report that helps the Department of Investments make informed decisions.

The Benefits

Elektro Gorenjska accomplished a successful digital transformation of its systems and application integration without requiring architecture restructuring. Thanks to Peregrine Connect's Neuron ESB, Elektro Gorenjska was empowered to avoid a hefty development projection of two weeks per system integration, leading to a remarkable 90% reduction in development time by getting a system integrated in just one day. Neuron ESB facilitates the integration and complex data workflows for Elektro Gorenjska's many business processes, providing real-time system access.

Furthermore, the company could leverage its existing Microsoft .NET resources without switching to a JAVA-based technology platform. By utilizing Peregrine Connect's extensibility and the comfort of their native programming language C#, Elektro Gorenjska could develop customizations with ease.

Elektro Gorenjska was highly impressed with the flexibility of the Peregrine Connect platform. The data mapper functionality exceeded their expectations and enabled them to create more sophisticated business processes and workflows within their organization. They could seamlessly ingest their metering point data and transform it into three integration workflows - CIM, service layer, and project management - that fed into their GIS, field management, ERP, billing, call center, Jira & internal project management system. Thanks to Neuron ESB's publish and subscribe messaging, dozens of internal processes and workflows could execute and update endpoints in real-time, further streamlining their operations.

Elektro Gorenjska experienced significant improvements in its operations and customer service with the implementation of Neuron ESB. The integration enabled the company to dynamically pinpoint and generate work and task orders in the field, greatly enhancing the efficiency of its teams out in the field. In addition, it played a crucial role in improving financial project planning and forecasting, which positively impacted the company's overall operations. As a result, Smart-Grid data and financial planning and forecasting has been substantially enhanced, paving the way for improved company health and future growth. By leveraging Peregrine Connect, Elektro Gorenjska optimized its operations, delivered better customer service, and heightened efficiency.

Elektro Gorenjska intends to expand the integration of several other systems through Neuron ESB, including their ADMS and document system. Thanks to Peregrine Connect, the company can confidently support current and projected business growth, rapidly integrate its systems, and reduce the total cost of ownership. With Peregrine Connect, Elektro Gorenjska has found a dependable partner to attain its future objectives and accomplishments and to continue providing outstanding service to its partners.