

endesa

GRUPO ENDESA

SAP APPROACH TO SERVICE-ORIENTED ARCHITECTURE TO POWER TOP ENERGY PROVIDER

QUICK FACTS

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David Ruiz, Project Manager, Endesa Servicios SL

Company

- Name: Grupo Endesa
- Location: Madrid, Spain
- Industry: Utilities
- Products and services: Generation, transmission, and marketing of electricity
- Revenue: €272 million
- Employees: 27,000
- Web site: www.endesa.es
- Implementation partners: Endesa Servicios SL and Unisys Consulting

Challenges and Opportunities

- Streamline global operations to support growth and expansion
- Integrate processes across the extended business network for greater flexibility and efficiency
- Prepare to retrofit all processes into a service-oriented architecture (SOA)

Objectives

- Fine-tune business process monitoring across business lines
- Help IT build and maintain an easily scalable platform for growth
- Optimize valuable development resources by providing prebuilt and reusable standard services
- Use the latest business process composition technology to create and integrate customized services

SAP® Solutions and Services

- SAP NetWeaver® technology platform
- SAP NetWeaver Process Integration technology
- Business Transformation Consulting group of SAP® Consulting
- SAP Ramp-Up organization

Implementation Highlights

- Deployment road map on target
- Coach from SAP Ramp-Up organization helpful throughout
- Proof of concept for process integration successful in 5 months
- Ongoing development of governance model and methodology for SOA

Why SAP

- Deep expertise in best practices for project management and SOA
- Visible success with other key energy players worldwide
- Flexibility to integrate diverse processes

Benefits

- Standardized business processes
- Ability to design even customized services for reusability
- Easier application development through the use of design wizards
- Lower application response times

Existing Environment

- SAP ERP application
- SAP Supplier Relationship Management application
- SAP Customer Relationship Management and Billing for Utilities package
- Assorted legacy applications



Grupo Endesa is one of the largest utilities in the Spanish electrical grid and the largest private electrical utility in Latin America. The business process monitoring software at its information technology arm, Endesa Servicios SL, was tasked with supporting the utility's growing operations and upholding the high levels of performance demanded by corporate standards. Having successfully used SAP® software for finance, planning, and procurement for over a decade, the company looked to SAP for help in meeting these strategic IT goals as well. As Endesa Servicios SL project manager David Ruiz explains, "We were attracted by the features offered with the SAP NetWeaver technology platform to support process integration, inter-enterprise communication, and service-oriented architecture."

Asking Technical Staff to Do More with Less

Endesa Servicios SL was incorporated in 1999 to pool the various support services provided by eight Endesa subsidiaries. Its mission is to provide assistance to its sister companies and customers in the areas of information technology, telecommunications and control systems, supplies and facilities services, asset management, and environmental and sustainable development management.

As the primary business unit supporting Endesa's IT requirements, Endesa Servicios SL is all too familiar with the pinch of shrinking budgets and tight schedules, even as business processes diversify through merger and acquisition. Key technology staff members, as at most global companies today, are also expected to take a strategic role in

saving costs and delivering innovation to contribute to competitive advantage. "We needed to guarantee scalable support that could manage growth and encourage creativity while protecting the bottom line," confirms David Ruiz.

Transforming IT into a Strategic Function

The Business Transformation Consulting group of SAP Consulting first helped Endesa Servicios SL develop a strategic road map toward service-oriented architecture (SOA). The goal of this project was to help ensure that SOA implementation activities used a common structure and approach to accommodate all relevant strategic business requirements. The exercise revealed extensive implications for the whole enterprise and helped outline requirements for governance and organizational change management.

The SOA road map has been an essential framework for realizing the overall concept step by step. Functional and technical follow-up plans for the SAP software landscape serve as blueprints for current and future project definition.

Empowering Developers with Reusable Services

The SAP NetWeaver® technology platform is a core part of the Endesa Servicios SL solution to relieve the twin pressures of rising expectations and shrinking resources. As a technical foundation enabling SOA, SAP NetWeaver supports business applications that standardize processes on prebuilt and reusable enterprise services and also offers business process composition to help developers construct customized enterprise services. SAP NetWeaver integrates both standardized and customized services on a single powerful technology platform.

Proving the Concept

The opening salvo in the SOA project at Endesa Servicios SL was a proof of concept for the SAP NetWeaver Process Integration (SAP NetWeaver PI) technology. The joint undertaking with SAP Consulting and the local organization of Unisys Consulting, an SAP partner, was designed to first provide a road map for installing and configuring SAP NetWeaver PI. Once those plans were in place, the joint project team analyzed and evaluated the functions of the technology and verified its performance in various integration scenarios in a test group at Endesa.



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The project team worked initially with three sequential sample services: those for creating a project, creating a project network, and creating an activity. Then it constructed two scenarios using these services. The second scenario included a decision point that set a duration time for creating the project network and checked for user approval of the proposed schedule. The team also set key performance indicators (KPIs) for these scenarios, including limits, for example, of five days elapsed time to install the solution and eight error messages during sequence implementation. The team delivered uniformly satisfactory results against all the KPIs proposed. In about five months, team members had validated all crucial new functionality, including Web-based

Physical measurements also showed remarkable performance improvements using SAP NetWeaver PI. Most application response times dropped dramatically – from 15 to 3 seconds for the create equipment task, 14 to 4 seconds for the search equipment task, and 6 to 2 seconds for the query equipment task.

The SAP Ramp-Up organization, whose mission is to help customers gain immediate business benefit from innovative new solutions, provided a raft of training and coaching services during this early phase of the project. David Ruiz understood the value of becoming a first mover in the industry, and he calls the coach who came on site once a week an invaluable assistant in

mentation give the ingenious design wizards supplied with SAP NetWeaver PI a lot of credit for making their daily development work much faster and easier. And the lessons learned in the pilot project were valuable input to training documentation for colleagues in distant locations and graphic presentations for leaders in other functions as well. “As with all projects that bring far-reaching change across multiple disciplines, we needed to be able to demonstrate to various audiences that an overhaul to SOA was worth the effort,” explains David Ruiz.

Looking Forward to Continued Collaboration

The Business Transformation Consulting group of SAP Consulting had begun investigating possible governance models for SOA concurrently with the proof of concept for SAP NetWeaver PI. The group’s objective is to provide Endesa Servicios SL with the optimal process integration paradigm to simplify operations, increase efficiency, and manage business information for actionable insight. That work is expected to finish shortly, so that the transformation to SOA can extend to collaboration processes supported by the SAP solutions at Endesa. Then the joint project team will retrofit the governance solution to the company’s SAP applications.

David Ruiz is confident of continued success. “We can be sure our SAP solutions will get the benefit of our ongoing investment in SOA, and we count on SAP as our long-term technology partner,” he affirms.

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service registration and runtime monitoring, for the entire pilot project. They also tested compliance with multiple communications and security standards and achieved reliable and consistent data integration across departments, providing a single real-time view of operations to project managers.

achieving that goal. “Our coach from the SAP Ramp-Up organization was an enthusiastic partner from beginning to end,” he says. “With his SAP NetWeaver expertise, we streamlined process integration and prepared to implement a leading-edge service-oriented architecture.”

Counting the Benefits

The pilot implementation went a long way toward relieving the squeeze on Endesa Servicios SL technology staff to do more with less. The staff members working on the SOA pilot imple-



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