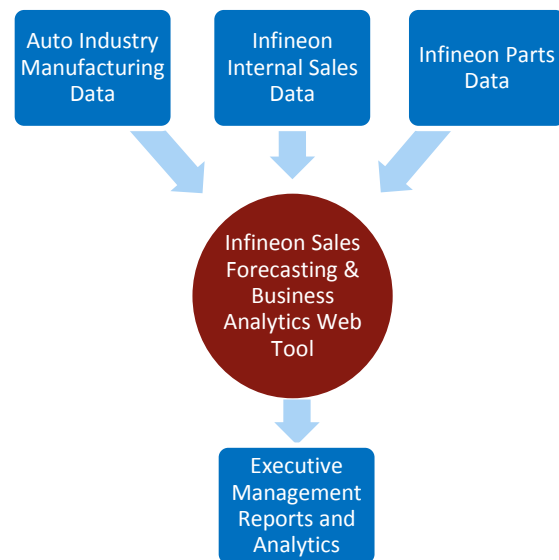


CASE STUDY: INFINEON TECHNOLOGIES SALES FORECASTING TOOL

WEB ENABLING A CRITICAL SALES FORECASTING TOOL

Aprosoft develops a cost effective flexible web based sales forecasting tool that is easy to use for the sales and marketing teams and linked to internal data, replacing an outdated system.



THE COMPANIES

Aprosoft

Aprosoft is a global business technology services provider, delivering customized software solutions in the areas of application development and maintenance, mobility, cloud computing, business intelligence, integration and testing. Founded in Boston, Massachusetts in 1999, Aprosoft's main offshore development center is in Dhaka Bangladesh, with additional offices in India, Malaysia and the Czech Republic. Aprosoft provides services to enterprise customers on the Global 500 list as well as small-to-mid size enterprises. Aprosoft has a strong client-centric and quality-conscious culture, where the services it offers are optimized to create value and productivity gains for each customer using the *Aprosoft RightSourcing Solution*.

Infineon Technologies

Infineon Technologies, AG, headquartered in Neubiberg, Germany, develops a broad range of semiconductors and complete systems solutions for a wide range of application areas, such as automotive, industrial automation and controls, wireless and chip card solutions. Infineon is the No. 1 chip supplier to the automotive industry, with customers in North America, Europe and Asia.

THE PROJECT

Background

Infineon Technologies wanted an IT solution provider to develop a Sales Forecasting Tool for its North America based operations. Due to budget constraints, Infineon's North America sales office was looking for an offshore based IT services provider and was introduced to Aprosoft via Infineon's employees who knew about Aprosoft. After several weeks of discussions related to the management and technical capabilities of Aprosoft the company was chosen to design and develop the required system for Infineon. This was after evaluating the long term successful history of Aprosoft in providing high quality software development services to global enterprise level companies such as John Hancock and Manulife.

The challenge was for the Aprosoft development team to work directly with the business analyst and sales manager in North America without the interaction of Infineon's IT team. This challenge was overcome by using a technical systems analyst from Aprosoft based in North America to form an on-shore and off-shore hybrid development team at Aprosoft.

Project Objectives

Infineon had previously built an in-house sales forecasting tool to support its North America sales and marketing team. This tool extracted automotive industry data related to estimated future production volumes of vehicles from different manufacturers and combined it with proprietary internal sales data to produce a forecast of Infineon semiconductor parts and subsystems. This forecast would then be used in the demand planning process at Infineon.

The legacy sales forecasting tool was developed by Infineon using Microsoft Access and had issues with data accuracy, scalability, performance and ease of use. Infineon contracted with Aprosoft to build a web-based solution for its North America sales and marketing employees so that the legacy based issues would be resolved. In addition, the new system would need to allow for some data cross referencing with Infineon's global SAP based system, and be able to produce data reports (graphs and charts) as well as data exports to Microsoft Excel. The new system needed to be developed and tested within a 3 month period to be launched at the beginning of a new sales quarter and had to stay within the tight budgetary constraints. Finally, the data from the legacy Access database had to be transferred to the new system without any loss of fidelity.

Technologies Applied

Aprosoft developed the new solution using Microsoft .NET architecture, with ASP.NET, C#, Ajax, SQL Server 2008, T-SQL Stored procedures, SQL Server Reporting Services and XML. The access database schema was redesigned and implemented in SQL Server 2008 to produce a more efficient database design, and the user interface was tweaked to make it more user-friendly. Ajax programming was implemented to allow the validation and UI data related logic to be much faster than the previous version.

The new system allowed automotive industry related future vehicle production data to be imported from a web based commercial source. This data was in XML format and had to be parsed and imported into the newly developed database on a periodic basis. Consequently, this import process was developed to be intuitive, user-friendly, efficient and accurate.

The reporting for the system was developed using SQL Server Reporting Services, with charts, graphs and tabular data. In addition, data from the system was made to be exportable in Microsoft Excel format so as to allow pivot table operations to be performed.

The technical skills required for the project was well within the experience base of Arosoft. The technical challenge faced was to redesign the legacy database so as to allow faster and more accurate data manipulation. In addition, some existing data had to be scrubbed before entered into the new system. The user interface had to be improved to allow for more efficient operations, without changing it drastically so as to minimize the user training effort for the new system.

Customer Relations

Arosoft used its RightSourcing methodology to provide onshore (US) and offshore (Bangladesh) based consultants. The onshore staff included a client management consultant who would be in charge of the overall engagement with Infineon, ensuring Arosoft understood the project requirements, objectives, client management style and risk management objectives. In addition, an onshore business analyst was associated with the project to enhance the communication between the Infineon business analyst and manager and the Arosoft offshore Project Manager and technical development team.

An agile project methodology was chosen by Arosoft to accomplish fast, on-time and iterative development of the new web based system. The project manager and technical developers at Arosoft had direct contact with the Infineon business team, facilitated by the Arosoft onshore business analyst. Since, Arosoft has adopted operational hours to allow several hours real-time overlap with North America (and full business day overlap with Europe), one or more conference call meetings per week were scheduled between Infineon and the Arosoft offshore team during the regular business hours in North America.

Weekly reports were submitted from Arosoft to Infineon, outlining the accomplishments to date, problem areas/issues to be resolved, pending tasks, hours worked, etc.

Time frame

There was a strict time frame of five months allocated for the project from start to end. This end date was chosen to correspond with the beginning of the following sales quarter so that data could be transitioned over to the new system easily and cleanly. Due to Arosoft's due diligence in keeping up with the project schedule, the time constraint was met. This was also partly due to the successful implementation of the agile development methodology and the hybrid use of Arosoft onshore/offshore consultants for this project.

Why Arosoft?

Arosoft was chosen as a result of evaluation by Infineon from several standpoints: 1) Long-term successful experience working with global enterprise level corporations; 2) Strong management methodology for developing IT solutions (Arosoft RightSourcing strategy with a successful history of using Agile methodology); 3) US Based company with Western educated and experienced executive management with strong offshore based capabilities; 4) History of providing high quality and on-time delivery of IT solutions at globally competitive rates; and 5) Arosoft's experience in providing well architected solutions using Microsoft web and database technologies.

Key Outcomes

As a result of this project, Aprosoft successfully delivered a newly developed internal web application to allow Infineon to forecast sales volume of the automotive industry components they supply in the North America market. The new system was built to reduce the data inaccuracies found in the legacy system, increase performance and scalability of the new system while adding new features and functionality for the sales team to use. The system was developed within the fixed budget and on time to be launched at the start of the new sales quarter. Compared to developing the system internally with their existing IT staff, Infineon was able to complete the project at less than 33% cost, and also received a finished product sooner than what their internal IT team had estimated.

For Aprosoft, the benefit of this project was the development of a new system for a global leader in the semiconductor market. In addition, domain level knowledge was acquired in the automotive industry. The technology was well understood by Aprosoft from prior experience.

FOR FURTHER INFORMATION, PLEASE CONTACT



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