

Delivering a High-Performance Collaborative Business Portal

Integrate Legacy Business processes & Applications

Business Consulting, Architecture Consulting, Custom E-Commerce Development, Integration, Testing & Deployment Services across multiple business units using EAI methods and connector technologies

BACKGROUND

Today's business world is infinitely more complex than it was a long time ago. Modern companies have a large number of applications that take care of running the business. Such diverse applications weren't a problem initially because they were meant to provide stand-alone, independent, and automated functions. The result of this diversity was a collection of stovepipe applications rather than a unified network of linked systems. But now, the companies are realizing the utmost need to integrate these independent data silos to leverage the information stored in them across the various vertical and horizontal domains as well as surmount the ever-increasing costs of building new applications.

And this is where an EAI solution comes into the picture.

EAI is a collection of processes, software and hardware tools, methodologies, and technologies. When implemented together, they have the aim of consolidating, connecting, and organizing all the businesses computer applications, data, and business processes (both legacy and new) into a seamlessly interfaced framework of system components that allow real-time exchange, management, and easy reformulation of the company's mission-critical information and knowledge. It is an unrestricted sharing of data throughout the networked applications or data sources in an enterprise.

Sierra Proto Express is an **ISO-9001:2000 and MilSpec MIL-P-55110 certified**, Silicon Valley based, high technology printed circuit board manufacturer. Sierra specializes in quick turn prototypes and medium production. We have partnered with Sierra for over three years to define, develop, deploy and maintain an online portal that currently integrates diverse and disparate business systems by leveraging the power of the internet.

Engagement Overview

Agnicient responded to the client with defining the architecture of the overall system. By carefully analyzing the business flow of the customer, and the various input/output points across processes and applications, Agnicient was able to underline the dependent areas, and laid down the architecture of a comprehensive e-commerce application on J2EE and Web Services.

Agnicient's onsite business consulting team worked with the client for over a year to come out with a recommended phase-wise approach, which has resulted into a multi-year engagement for Agnicient and offers the client minimum disruption of work and a parallel implementation of new e-commerce portal.

Using an Agile development strategy, Agnicient deployed the e-commerce application along with a comprehensive website for the client, ensuring an online presence. Custom APIs were developed for data exchange between the new architecture and existing applications.

Technology Used

AJAX, Javascript, XML, XSLT, Oracle, SQL

Business Benefits

- Established an online presence to a brick and mortar company
- Usage of latest technology components ensured scalability – the same code is in use for over 5 years
- Several legacy applications were integrated for data exchange, protecting any existing investments
- Multiple services from a single vendor ensured that the project overheads in terms of management were reduced
- Development of custom integration components reduced the cost of acquiring off-the-shelf products
- Expensive off-the-shelf services were replaced by custom built, scalable and enhanced payment gateway integrations
- Provision of alternative business channels provided attractive buying features for clients, enhancing the business profitability by over 4 times
- BI components were developed and custom built for enhanced reporting and reducing turnaround time for the purchasers and the client.
- Online catalog, e-shopping and auction features were provided apart from automating several business functions at a fraction of cost of acquiring well-known CRM & ERP solutions

The phase-wise approach is illustrated below-

Stage 1 - Brick and Mortar Model



Sierra was using the traditional brick and mortar model to reach out to its customers. Sales was an offline process using means like telemarketing and print media advertising.

Excel, Word, Email and hard copies were the primary data repositories.

Stage 2 - E-Commerce Model



E-Commerce Model

- Order placement & tracking
- Fedex Integration
- UPS Integration
- Multi level access control for administration
- Sophisticated reporting
- Customer Service Request Infrastructure
- Groupware solution - Forums, Document repository
- News & Announcements

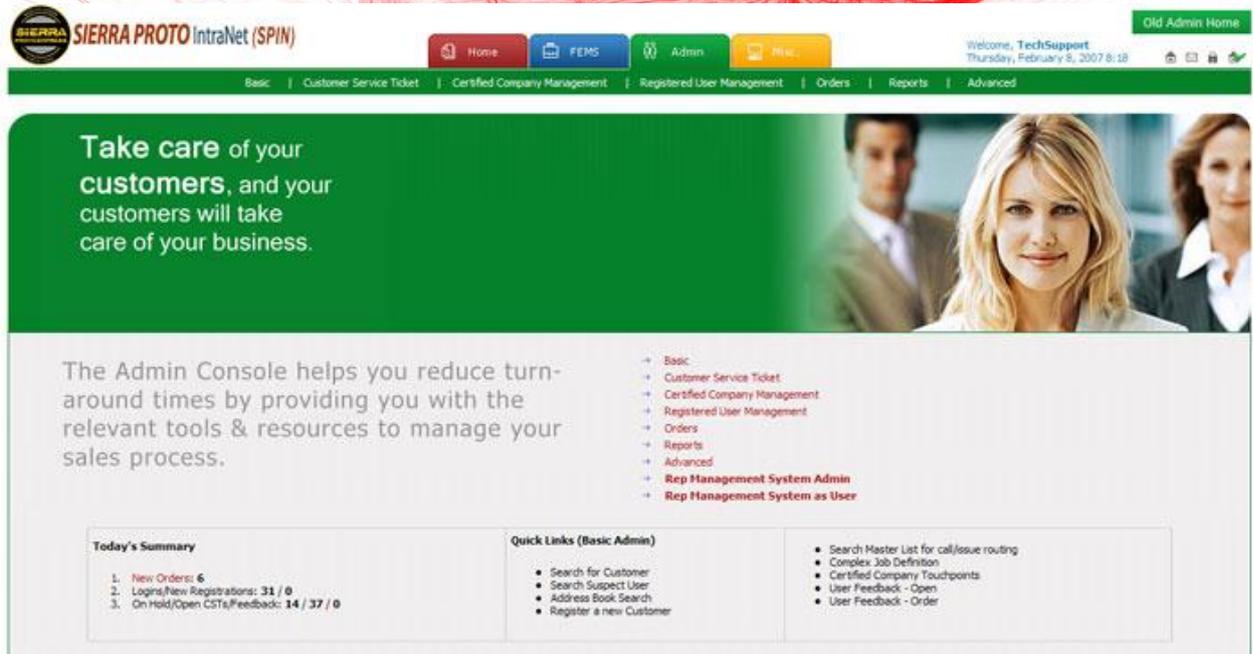
This phase involved developing and deploying a full-fledged ecommerce system where customers could place orders with detailed specifications, upload design files and track their orders at their convenience.

This system also had a comprehensive quoting engine to calculate pricing based of design specifications provided by the online customer.

YOUR ORDER TRACKING SUMMARY								
AWAITING FILES (1)		EVALUATING FILES (0)		DECLINED (0)		ON HOLD (0)		
IN PROCESS (0)		SHIPPED (0)		SHOW ALL MY ORDERS (105)				
ALL MY ORDERS (Order History is shown for last 12 months only)								
Order#	Date	Status	P/N	Rev	Turntime	Shipdate	Quantity	Contact/Feedback
22204:01	02-08-2007	Awaiting file	test		4		3	Click here
File <input type="text"/> <input type="button" value="Browse"/> <input type="button" value="Upload File"/>								
20015:01	02-06-2007	Cancelled	test		4		3	Click here
File <input type="text"/>								
28792:01	02-02-2007	Cancelled	test	test	4		3	Click here
File <input type="text"/>								
49788:05	02-02-2007	Cancelled	test		3 Days		5	Click here

Sierra Full Service Advantage Pricing								
Parameters								
Hints and Explanation of Quoting Parameters								
[Click on unit price as the matrix to proceed]								
Part number	Qty/UT	Same day	1 Day	2 Days	3 Days	4 Days	5 Days	10 Days
3	3	\$120.70	\$105.72	\$102.72	\$111.67	\$99.35	\$99.70	\$81.81
3	Revision	ref						
3	Are your boards in an Array?	<input type="checkbox"/>	\$101.80	\$108.70	\$93.72	\$90.11	\$90.49	\$73.89
3	SR		\$98.60	\$61.00	\$70.20	\$61.81	\$72.00	\$49.10
2	X Dimension	2.5 inches	[Electrical Tap: 30*NumberLayers + 85*Quantity (not to exceed \$140 even for high quantity). Electrical testing is mandatory on same day and 1 Day orders. Click on Unit Price on the matrix to see Exact Electrical Test Charge. Electrical test is optional for 1 or 2 layer boards (excluding same day and 1 Day turn time orders).]					
2	Y Dimension	3.56 inches						
2	Choose any three quantities.							
2	Quantity	3						
2	Quantity	5						
2	Quantity	10						
2	Material	F84	Part Number: pro	Revision: ref	Material: F84			
2	Finished Thickness	0.062	Finished Thickness:	X Dimension: 2.5 inches	Y Dimension: 3.56 inches			
2	Number of layers	2	Number of layers: 2	Max Trace Width: 0.200"	Min Spacing: 0.009"			
2	Smallest Hole Size	2 layers	Smallest Hole Size: 0.125"	Gold Fingers: none	Finish: HASL			
2	Min Trace Width	0.200"	Solder Mask Type: UPI	Solder Mask Color: Green	Silkscreen: Both sides			
2	Min Spacing	0.200"	Silkscreen Color: white	Finished Copper: 1.00	Inner Layer Copper: 0.5 mil			
2	Total number of holes on each individual board	50	CRK Route Pads: 0	Electrical Test: Yes	SMT Pads Present: No			
2	Smallest hole size	0.125 inches	Tab route: No	Scoring: No	Plated Slots: No			
			Counter Sink: No	Counter Bore: No	Plated Edges: No			

Stage 2 - Legacy Integration



This phase involved seamless integration with a third party ERP system by writing XML connectors to fully integrate Sierra's business processes. Ever since this integration was implemented, Sierra's online business has grown many a fold.

Stage 4 - Automatic File Validation and Verification

Layer Assignment

Identify the layers in the gerber files.

Below are all the file in your zip package. Please note that you can click on the magnifying glass icon to view the Gerber's files. (At this time, features like thermals like special aperture will not be displayed). You can also click on the file name to display the file contents.

File Name	File Type	Data Polarity	Layer Number
CMOS TO ALPHA ADAPTER-7.AST	Drawing/Other	Positive	
CMOS TO ALPHA ADAPTER-7.BOT	Bottom Copper Layer	Positive	2
CMOS TO ALPHA ADAPTER-7.DRD	Drawing/Other	Positive	
CMOS TO ALPHA ADAPTER-7.DTS	Not Set	Positive	
CMOS TO ALPHA ADAPTER-7.GTD	Not Set	Positive	
CMOS TO ALPHA ADAPTER-7.SMB	Bottom Soldermask	Positive	
CMOS TO ALPHA ADAPTER-7.SMT	Top Soldermask	Positive	
CMOS TO ALPHA ADAPTER-7.SST	Top Silkscreen	Positive	
CMOS TO ALPHA ADAPTER-7.TOP	Top Copper Layer	Positive	1
throughhole.tap	NC Drill	Positive	

Our software engineering team developed and deployed an interfacing module to shake hands with a third party commercial PCB manufacturing, industry specific, Automatic Design File Validation and Verification System.

Layer Assignment

Assign the file type for each Gerber and drill files. All other files can be left as "Not Set". Set positive or negative polarity for all Gerber files. Incorrect polarity assignment will generate wrong AFV results and possible rejection of your Gerber files. Assign layer sequence for all circuit layers. You can click on the magnifying glass icon to view the Gerber files. You can also click on the file name to view its contents

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