



The Dynamic O/R Mapping Company

CocoBase® Enterprise O/R

“

We found CocoBase® to be an excellent choice for managing the data in our Open/2 enterprise payment solution. CocoBase made it easy to create database-independent advanced queries. This is a clear competitive edge as we can easily support any leading relational database.

”

[Russell Alexander, Senior Software Engineer, S2 Systems Inc.](#)

Customer Story

Open/2 Enterprise Payment Solutions
S2 Systems Inc.

S2 Systems-Uses CocoBase® Enterprise O/R To Drive Open/2® Support For Any Leading Relational Database

Open/2® Enterprise Payment Solutions

Open/2® provides the robust and scalable online transaction processing (OLTP) capabilities that are integral to real-time e-business. The Open/2® core transaction engine is built for high volume throughput and peak performance - with applications for EFT, card activity and check management. The Open/2® solution suite is premised upon component-based open architecture that allows interoperability with a wide-range of contact points, including ATMs, POS devices, PDAs, wireless and other emerging technologies. In addition, interfaces are available for common enterprise applications, with support for industry-standard relational database drivers such as SQL AND Oracle on platforms such as NT®/Windows® 2000 or UNIX.

INDUSTRY

Banking/Finance, Retail, Telecommunications, Travel

CHALLENGE

The purpose of our project is to do the Web Interface for Open/2. Open/2 is a robust online transaction processing engine. It contains the core application for electronic funds transfer, card activity and check management. The web interface allows for users to manage these functions without any client software installed.

The main technical requirement of the Web Interface is that it runs on any system Open/2 runs. This means we needed to support Windows and UNIX machines as well as a variety of databases. We also faced the requirement of running on multiple servlet containers due to what clients already had in house.

DESCRIBE HOW THE APPLICATION WAS BUILT

The Open/2 engine is a c++ application that can be used for a variety of operating systems. The Web Interface runs from a servlet container. The Open/2 Web Interface is a Java Server Page (JSP) based system running directly on Java. CocoBase is the mapping layer or translation layer that manages the data between the JSPs and the database.

WHY WAS COCOBASE USED?

CocoBase was chosen for two main reasons;

1) The first and most important is the number of databases OpenN/2 needs to support. Using the CocoBase dynamic query builder and the CocoBase maps, we can abstract ourselves from direct SQL. Since SQL can vary slightly from database to database this makes our job a little easier. CocoBase completely minimizes the differences for the developer of each database.

2) The second reason is because of our data model. Our data model changes on a fairly regular basis. Using an O/R tool we can limit the rippling of these changes to the application thus there is no need to rewrite / edit / add new queries, etc. for every change that happens in the database.

When evaluating Cocobase we also looked at TopLink and developing our own system. We found that given our budget, technical requirements and timeframe the only choice that made sense was CocoBase. TopLink did not have the capabilities to handle our requirements and the cost of their system was unacceptable. We considered building our own data layer and quickly backed off once the complexity of such a job became clear and the cost of building and managing it just did not make sense. It was just easier and cheaper to use CocoBase and not to mention that by using the tool we were able get our job completed quickly.

WHAT TOOLS / TECHNOLOGY WERE USED ON THIS PROJECT?

There were a number of tools used in the development of the Web Interfaces. Most were used in testing compatibility with what our existing customers already have in use. Currently we support the databases of Oracle, UDB, MS SQL 2000, Informix and Sybase. The servlet containers are Tomcat 4.0.X and 4.1.X as well as Websphere 4.0.X. Websphere 5.1 is currently in the test phase. The IDE of choice when in this environment is IntelliJ's Idea.

Languages and protocols used:

Java 2 Enterprise Edition (J2EE)
CocoBase Dynamic Querying System
CocoBase Dynamic Transparent Persistence™

Tools Used:

O/R Mapping Tool:
CocoBase® Enterprise O/R, THOUGHT Inc.®

Servlet Container:
Tomcat 4.0.x / 4.1.x, WebSphere 4.0.x / 5.1.

Database:

Oracle, UDB, MS SQL 2000, Informix, Sybase.

Java Development Environment:

Idea from IntelliJ.

EXPERIENCE OF USING COCOBASE

“Thought Inc.’s support is excellent! Thought’s support has always been quick to respond, knowledgeable and willing to work through an issue until it is resolved.”

CocoBase for us has been pretty easy to use. One aspect of Thought Inc. that I would like to point out is their support. Thought’s support has always been quick to respond, knowledgeable and willing to work through an issue until it is resolved. When dealing with a middleware application good support can make all the difference.

Key Benefits:

- Excellent technical support
- Easily edit and change the maps
- Quick Time to Market
- Substantial Labor and Cost Savings
- Database independence in the application

COMPANY INFORMATION

About S2 Systems:

S2 Systems, Inc. is a leading global provider of mission-critical enterprise payment and transaction management solutions for the banking, financial services, retail, telecommunications, utilities and travel & hospitality industries. Today, S2 Systems technology is the best of its class in price and performance, delivering improved reliability and availability to businesses worldwide, with the industry’s best ROI. For over 20 years, some of the world’s largest organizations have relied on S2 products to drive their high-volume transaction processing systems.

About CocoBase® Enterprise O/R -

CocoBase® Enterprise O/R, Optimized for J2EE, J2SE and J2ME Customer Success, solves the Object to Relational impedance mismatch. The mature technological leader, available since early 1997 and in its’ fourth major release, virtually eliminates the need to hand-code database access for EJB and Java Applications. This can directly decrease up to 85% of the cost of database access development for enterprise customers faced with deploying fine-grained / coarse grained relationships in company applications.

About THOUGHT Inc.®

THOUGHT Inc.®, the Dynamic O/R Mapping™ Company, architects of CocoBase® Enterprise O/R, was formed in 1993, and subsequently revolutionized object to relational mapping technology with landmark solutions and industry leadership. THOUGHT Inc.® leads the industry with key resellers such as Sybase and Embarcadero, technology partners such as IBM, Sun, Borland and Oracle, key customers such as

More information on THOUGHT Inc. ® can be obtained online at WWW.THUGHTINC.COM or by calling, (415) 836-9199.

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