



# Customized Data Migration between Two Different Database Vendors

## Executive Summary:

For any system upgrade, implementation or consolidation, data migration from legacy systems to newer technologies assumes paramount significance. There could be a gamut of reasons for data migration such as including replacements in server or storage equipment, maintenance or upgrades in the existing schema, application migration from one database to another, website consolidation or relocation of data center. Mindfire got an opportunity to work on a legacy data migration project, wherein the old site was built using ColdFusion and the client was interested to migrate to a new site which would be developed in PHP.

The project had the following two main requirements:

1. Migration of legacy data from the old sites database to the new sites database.
2. Forward the live data coming in to the old site to the new sites database.

At the same time it posed the following two hurdles as well:

1. The database schema of the sites were different
2. The old site had MSSQL server as the database vendor while the new site had MySQL as the vendor



Mindfire Solutions ingeniously overcame the hurdles to make the migration process both schema and database vendor independent. A seamless migration translates into an increase in effectiveness and ease of use of the new system. The client has been able to significantly bridge its databases and every live data is immediately forwarded to the new site after storing it in the older one.

## About the Client:

**Client:** Media Corporation

**Location:** USA

**Industry:** Media

## Technologies Used:

**ColdFusion, MySQL**



## Business Situation:

Our client is a profitable Media corporation based in the USA. They were working for their client who is a leader in the sprayfoam business. They had two compelling reasons to migrate from one database vendor to another. The first being the cost factor, which was very high with the old system. And secondly, they wanted a more user friendly system which was not possible with the functionalities available with the older system. And thus they wanted to build a new system with a different schema altogether. They hoped the new system built using PHP would help in reducing the overall cost and make the site more user-friendly.

## The Mindfire Solution:

Mindfire Solutions had to address the following two tasks:

- ✓ Migrate legacy data from the old sites database to the new sites database
- ✓ Forward the live data coming in to the old site to the new sites database

Of course, the project wasn't without hurdles. Mindfire also had to take care of the following bottlenecks while designing the solution:

- ✓ The database schema of the sites were different
- ✓ The old site had MSSQL server as the database vendor while the new site had MySQL as the vendor

In order to overcome the difficulties posed, Mindfire created an API which accepted a JSON input from the old database and formatted the data as per the schema in the new database and did the inserts there. This API was designed in PHP (Used in creating the new site). The JSON input was created by parsing the data in ColdFusion (used in creating the old site) components and then forwarding via http calls to the API. This made the migration process both schema and database vendor independent.

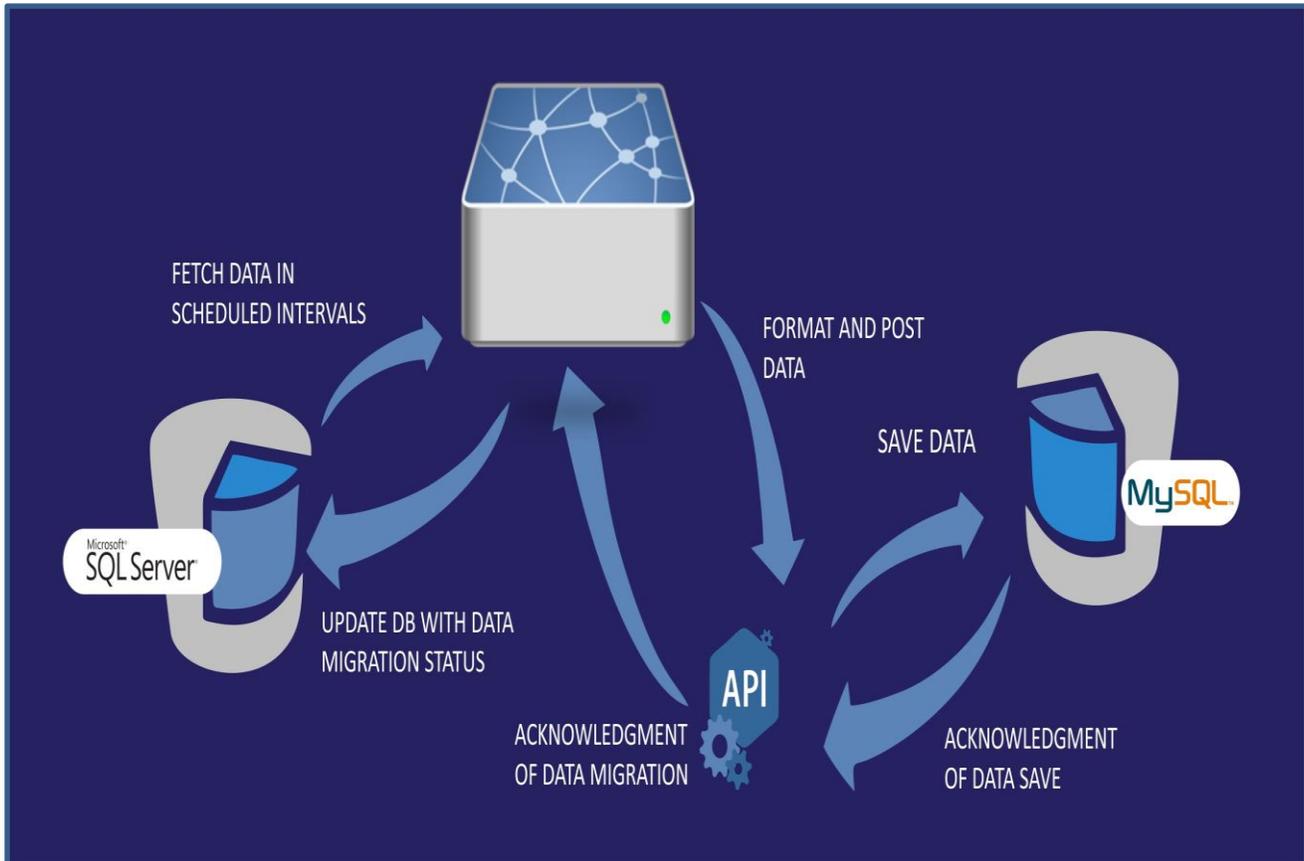
Thus there were two major parts in the project which was skillfully handled by the talented development team at Mindfire Solutions. The following parts were successfully achieved during the project:

- **Creation of a new API:** A new API was created in the new site to receive data from the old site and insert it into the new sites database.
- **Creation of Schedulers:** Schedulers were created in the old site, which run at an interval of 30 minutes and pick up 200 records from the old database and forward it to the API. The data coming in live was forwarded to the new site as soon as it was stored in the old site using the same API.



## Architecture Diagram:

The following architecture diagram is a pictorial representation of the entire migration process.



### How the system works?

- First a fixed number of records are fetched from the old site db which contains legacy as well as live data.
- Then the data is structured in a particular format as acceptable by the API.
- The data is posted to the API in two ways.
  - In case of legacy data, data post to API takes place through schedulers which post on certain time intervals
  - In case of live data inserted to db, once the data is inserted in old site db it is posted to API
- The API verifies the data and saves it to the new site db.
- Depending upon the data saved status i.e. whether saved or failed to save or in case of duplicate data it sends the response back to the old site.
- Based on the response, different flags are set in the old site db
- This process continues until all the data is sent from the old system to the new one



## Future Relationship:

Mindfire Solutions successfully migrated the system from ColdFusion to PHP and changed the database vendor from MSSQL to MySQL well within the time frame. While migration part was impeccably addressed by the ColdFusion team, Mindfire's skilled PHP team has now taken over the new system and provides customization services for the new website as well as maintains and improves the system as and when the need arises. The client has achieved its target of minimizing cost and maximizing revenue from a more interactive and user-friendly site.

It was a learning experience for Mindfire Solutions to work on this migration project that has helped the client and brought in repeat business for Mindfire as well. We ensured that the client and the development team were on the same page by frequent collaboration and regularly making use of project reporting tools. Agile methodologies were used to discuss, improve and implement a solution for the final delivery of the application.



Founded in 1999, Mindfire Solutions is an award-winning provider of software development and testing services to the global market with 650+ talented software engineers at 3 centers in India. For its people and its work, Mindfire has won coveted international awards such as Deloitte Technology Fast50 India Award 2013 and 2014, Dun & Bradstreet Fastest Growing SME 2013 Award, Red Herring Top 100 Asia Award and Zinnov GSPR 2014. Mindfire has been recognized with ISO 9001:2008 and ISO 27001:2005 certification, is a continuous member of NASSCOM, and has established a strong track record of 2000+ projects successfully delivered for 500+ technology clients.

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**Feel the need to migrate Legacy data from one system to another?  
Reach out to us here**

**Phone: 1-248-686-1424**

**Web: [www.mindfiresolutions.com](http://www.mindfiresolutions.com)**

**Email: [sales@mindfiresolutions.com](mailto:sales@mindfiresolutions.com)**