



## Cloud-based Integration Speeds Data Flow for Microfinance Industry Information Provider

### Company Profile

Founded in 2002, the Microfinance Information Exchange, Inc. (MIX) is a nonprofit organization that provides business information dedicated to strengthening the microfinance sector. The organization's core focus is to provide objective data and analysis on microfinance providers. In doing so, MIX promotes financial transparency in the industry and helps build the information infrastructure in developing countries. This addresses a key challenge for the microfinance industry: the lack of reliable, comparable and publicly available information on the financial strength and performance of microfinance institutions as well as their social impact.

<http://www.themix.org>

### EXECUTIVE SUMMARY

MIX wanted to avoid the expenditure and time lag resulting from manually entering Salesforce data and XE.com feeds into their hosted MySQL databases. It also sought to improve data quality by automating data updates rather than relying on manual data entry. MIX turned to Pervasive Software to provide cost-effective, quick, scalable integration of its Salesforce and XE.com data to its hosted MySQL databases.

### MIX PROJECT REQUIREMENTS

- 1- Cloud-based integration solution
- 2- Integration between salesforce.com's on-demand CRM software with its hosted MySQL database to allow the bidirectional transfer of data
- 3- The ability to pull currency exchange rates from XE.com and route to hosted MySQL database

### SOLUTION

MIX subscribes to XE.com, a Web service that pulls currency exchange rates. Once a day XE.com foreign exchange data and Salesforce account data are pushed into Pervasive DataCloud®. MIX can leverage the Pervasive Data Integrator™ engine running on Pervasive DataCloud eliminating the need to deploy integration software locally. The engine performs transformations on the feeds, then sends it through the VPN (Virtual Private Network) to the hosted databases, which reside at Blackmesh Managed Technology Solutions. Because the MySQL database is not a static database, a point-to-point encrypted VPN tunnel was a critical key to the success of the project. Microfinance required a light footprint which the OpenVPN client provides. The OpenVPN client is hosted on MySQL at Blackmesh and sends data into the Drupal CMS and MFDB MySQL databases located behind a firewall at a third-party-hosted data center. This allows the Pervasive Data Integrator engine and Map Designers to securely access the MySQL database resources remotely – as soon as it pulls data out of MySQL it pushes it to the target, Salesforce.

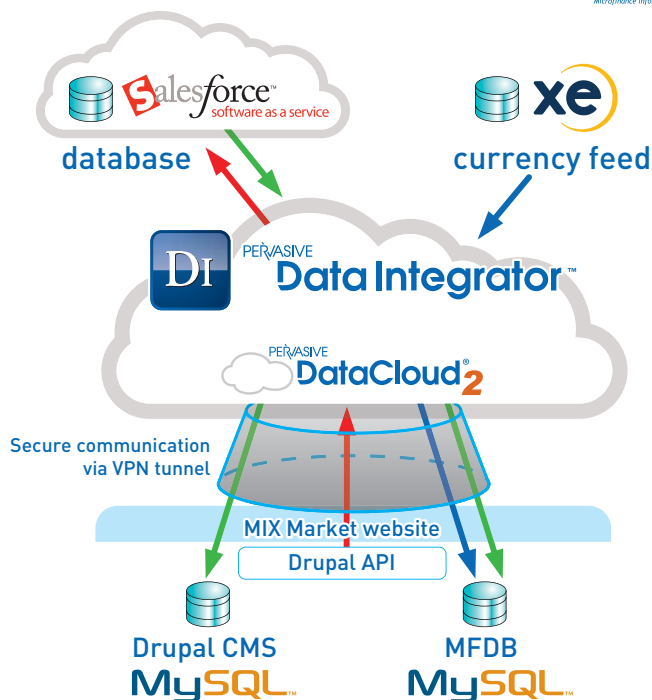
### THREE PROCESSES OF THE INTEGRATION

- 1- **Exchange rates:** Spot exchange rates for all currencies are obtained from XE.com (using an HTTP GET). The XML file is parsed and data is loaded into a DB table.
- 2- **Salesforce to the MySQL database:** All organization, contact and relationship data are copied from the Salesforce data repository to both the Drupal open source content management application CMS and MFDB databases.
- 3- **MySQL database to Salesforce:** All activities and events required for business activity monitoring are captured from the Drupal CMS and the Microfinance databases and recorded to the Salesforce database.

## BENEFITS

- 1- Pervasive DataCloud's multi-tenancy allows for peak-load capacity management – the dynamic infrastructure quickly scales up or down depending on business requirements.
- 2- The implementation was executed within a very short lead time – deployment was completed in only a few business days.
- 3- The architecture design enables re-use. Pervasive built the connectivity; however, MIX can implement changes on their own as needed to deliver similar applications more quickly and reliably.
- 4- MIX is billed only for what it uses, avoiding high capital costs. It benefits from decreased operating costs in the cloud structure – no hardware to maintain and no staff, space, or power needed to run it.
- 5- MIX can access all of the Web services APIs that it needs for integration updates.
- 6- This model maintains a direct connection to MySQL via the VPN. It has a very small footprint, is extremely fast and runs constantly, without dropping an engine. The client software runs on virtually any OS and allows Pervasive direct access to data without any local transformation in order to deliver integrations to MIX.

## Pervasive DataCloud 2 Integration Architecture for



### More About Pervasive DataCloud 2

Pervasive Software now offers Pervasive DataCloud 2 to meet the needs of organizations large and small who want to include cloud computing and data services as a part of their IT infrastructure. Pervasive integration running on Pervasive DataCloud 2 can enable organizations to migrate or integrate even large amounts of data between on-premises and cloud endpoints within very tight timeframes.

Built on Amazon Web Services (AWS), Pervasive DataCloud 2 is geared to deliver rapid customer solutions. Not only rapid, Pervasive DataCloud 2 solutions are reliable, scalable and secure. With Pervasive DataCloud 2 on AWS, IT departments and developers now have the convenience of enabling on-demand data services without having to worry about hardware maintenance, software updates, etc.

### What Pervasive DataCloud 2 offers

**Raw Engines and Workflow** – Developers can use Pervasive Data Integration, Profiling and Pervasive DataRush™ engines, as well as our Workflow Designer.

**Core Data Services** – Developers can access Pervasive connectivity (adapters) to on-premise endpoints using Pervasive DataCloud agent technology. Also available are a Data Sort Service and Database, among other emerging services.

**Rich Composite Data Services** – Developers can provide data services that incorporate data loading, data matching, profiling, transformation data mining and analytics, including k-means, Levenshtein Edit Distance and Jaro.

## PROCESSES

- ↑ All organization, contact and relationship data are copied from the Salesforce data repository to both the Drupal CMS and MFDB databases.
- ↑ Spot exchange rates for all currencies are obtained from XE.com (using and HTTP GET). The XML file is parsed and data is loaded into a DB table.
- ↑ All activities and events required for business activity monitoring are captured from the Drupal CMS and the MFDB databases and recorded to the Salesforce database:
  1. New change request
  2. New file uploaded
  3. New data ready for review and publishing

## About Pervasive Software

Pervasive Software provides agile data integration software that speeds the flow of data between applications and between organizations. Our robust technology addresses SaaS, SOA and traditional integration modes and allows customers to re-use the same software for integration scenarios that span data warehouses, real-time application integration and data exchange with trading partners.

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[http://www.pervasiveintegration.com/company/Pages/contact\\_pervasive\\_software.aspx](http://www.pervasiveintegration.com/company/Pages/contact_pervasive_software.aspx)