



**Overview**

QXchange is a powerful data integration tool to access, integrate and manage large volumes of data from various systems. Extraction, transformation and loading of data are powered by QXchange with source and target database support.

QXchange helps organizations to bond together all enterprise data and ensures accuracy of data in a timely manner. QXchange is a simple stand-alone application that can be used by novice users at ease.

QXchange is flexible, easy to use, data integration software. It can quickly and easily transfer data between many standard data formats and applications, including MS Access, Excel, Comma delimited flat file, MS SQL Server, QuickBooks, Salesforce.com and others. It allows simple and clear setup of extraction, transformation and loading instructions to exchange data between different formats. The instructions are stored and managed as profiles.

Wisenet is the leading vendor of integrated Cloud learning management solutions serving hundreds of vocational education providers in Australia, New Zealand and Singapore. Wisenet offers a student management system that suits all training applications and registered training organisations. Wisenet is fully compliant with standards in Australia, New Zealand, and Singapore, regardless of state or territory.

**Technology**

The Wisenet DAP is developed using the RESTful web service provided by the Wisenet.

With the Wisenet API below are the some of the operations we can do:

- Obtain data from Wisenet.
- Send new data to Wisenet
- Update existing data in Wisenet

QXchange uses the API key which is created inside the Wisenet application to communicate with the wisenet API. This information is encrypted and stored locally on the user machines for further executions of QXchange profiles.

**Authentication and Authorization**

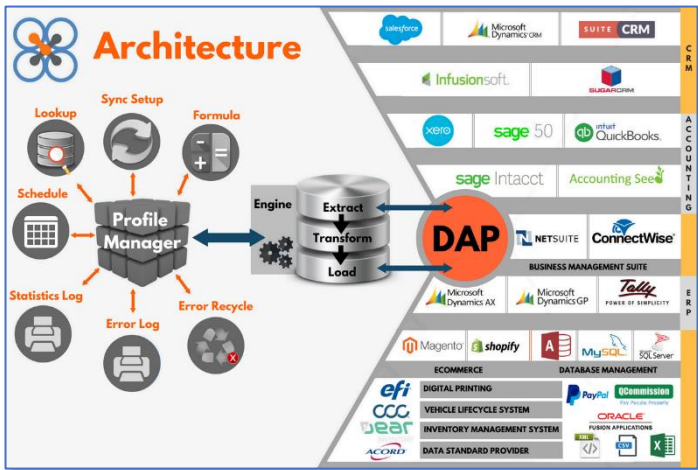
An API key is required to make an authorised request with the Wisenet API. QXchange uses API Key provided by the individual customer while communicating through the Wisenet secure API. API keys can be generated from within Wisenet LRM Settings by a Portal Admin user that has the API license enabled.

Use of the API key login information allows Wisenet to enforce access to various data objects based on the same security profile used within the application for direct access.

**Data Access Plug-in**

QXchange integration engine uses Data Access Plug-ins (DAPs) for individual application and data format integration. All the DAPs are called using a standard Application Program Interface (API). The Wisenet API is wrapped inside one of these DAPs. This allows for a smooth and standard operation across all the various DAPs.

QXchange is installed locally at the customer site so that customer data is directly loaded between customer machines and the Wisenet site without any other intervening web sites. QXchange sends a message request to Wisenet and Wisenet sends back a response message; the communication is managed synchronously.



**Supported objects in QXchange.**

Lists	Objects
Entity	Agents, Course Enrollments, Learner AU, Course offer, Enrolment Statuses, Sales Contact, Salesperson, Trainer, Workplace, Agent Classifications, Agent Statuses, Coordinator.
Transactions	Opportunity, Case, Solution, Contract, Lead.
Descriptive	Task, Note, Document, Approval, Email message, Event.



## Using QXchange

The QXchange engine works the same for all different DAPs. Every data transfer is set up as a profile, with a source and target data file, which can be of different data formats. Data transfer between specific objects and the mapping of source to target fields are also set up in the profile. The profile can be executed directly or can be scheduled to be executed later. The process can be run on a local desktop or on a server.

## Source Data

Wisenet can be defined as source data and the various objects can be accessed. Field level data from the objects can be extracted and mapped to destination objects and fields in different data formats. Data from multiple objects can be extracted. Multiple profiles can be set up to extract data from various objects. Source data can also be filtered using various expressions. Prior to executing extract, the source data can be viewed to make sure the right records are getting selected.

## Target Data

Wisenet can be defined as target data and the various objects can be updated. Data can be updated to multiple objects. In some cases, update may have to affect multiple data objects at the same time, for example: Invoice Header and Line.

Data can be updated in various modes: Insert, Update and Upsert. Insert expects the record being updated to be new and unique. Update expects the record to already exist. Upsert, tries to insert first and if that fails tries to update.

## Scenarios

The QXchange ability to integrate Wisenet allows many uses. Certain limitations in Wisenet reporting can be exceeded with this tool.

## Conclusion

QXchange does a tremendous job, understanding the intricacies of the Wisenet data structure as well as the complications inherent in the data integration process. With this ability and its ease of use, it allows users to make more effective use of their Wisenet Data.