Introduction and High Leven Steps to Use MRED's RESO WEB API

Overview

Midwest Real Estate Data (MRED) provides access to an API that allows a user to query, real-time, its listing and roster database. MRED's Web API implements OpenID Connect, the protocol chosen by Real Estate Standards Organization (RESO www.reso.org).

The **Web API is NOT intended to be a bulk download tool**. Rather, it is intended to be used to query, on demand, data that a website or application displays in a given context. Currently, RETS 1.X is the platform of choice for bulk downloading data to be stored on a server.

Based upon the OAuth 2.0 specifications, OpenID Connect uses REST/JSON message exchanges, which typically makes it easier for developers to implement. This document provides the necessary steps, including OpenID Connect and OData references, for third-party vendors to implement an OpenID Connect Client to MRED's WEB API server.

Step 1: Familiarize yourself with OpenID Connect Fundamentals

If you have never used OpenID Connect or need a refresher, there are numerous sources available. One useful starting point is the OpenID Foundation site and, in particular, it's FAQ page at: http://openid.net/connect/faq/. From there you can navigate around the site and/or use the additional references provided below.

Step 2: Implement an OpenID Connect Client

An OpenID Connect client facilitates a user's authentication into a secured application through an OpenID Connect Server. If you do not already have or use an OpenID Connect client, then based on your application and the flexibility you require, you may prefer to develop one. The OpenID Foundation site provides in-depth guidance for development at: http://openid.net/specs/openid-connect-core-1_0.html

Alternatively, there are many open source client libraries available, some of which are listed at:

http://openid.net/developers/libraries/

Note: *MRED's Web API supports authorization code and/or implicit flow.*

Step 3: Send us your Redirect URLs

When you are ready to test, your OpenID Connect Client, email your preferred Redirect URIs to MRED at retssupport@mredllc.com. MRED will enable your account and send you access and API information (credentials, endpoints, etc.) within 3 business days.

The API information that will be returned to you includes the following:

Client Credentials

These are the credentials you will use to get authorization through the OpenID Connect Security portion of the Web API.
Client ID:
<….>
Client Secret:
<You will need this Information to complete setup and it will be sent in a separate email with appropriate subject>

Authorize end point:
https://connectmls-api.mredllc.com/oid/authorize

Token end point:
https://connectmls-api.mredllc.com/oid/token

Userinfo end point:
https://connectmls-api.mredllc.com/oid/userinfo

Step 4: Familiarize yourself with OData

MRED's Web API supports Open Data Protocol (OData) for querying data. OData is an application-level protocol for interacting with data via RESTful web services. A good intro to OData concepts can be found at http://www.odata.org/getting-started/basic-tutorial/

Browser Query samples:
While the Web API is intended to be used programmatically from a client application, the following examples exhibit how you can use OData to query from a browser.

Example 1: Retrieve metadata:
https://connectmls-api.mredllc.com/reso/odata$metadata

Example 2: Search by MLS Number:
https://connectmls-api.mredllc.com/reso/odata/Property?$filter=ListingId eq '06946186'

Example 3: Search by List Price:
https://connectmls-api.mredllc.com/reso/odata/Property?$filter=ListPrice gt 999999

For further information on OData and its use in RESO Web API, download the latest specification from: https://www.reso.org/downloads/.

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