

# Provider Directory Workshop Demonstration

Day 1 of the Provider Directory Workshop included a software demonstration written by Alan Viars that was designed to show how provider data can be accessed and updated by a third-party application using a RESTful API, protected by OAuth2, in a FHIR format. The following is a list of the components included in that demonstration, along with brief descriptions of each component.

## Software Components

### OAuth2 and Write API Gateway Server

This server controls the Authorization Server, the Protected Resources (updated APIs), and the API administration. It is a Django application making use of the Django OAuth Toolkit.

- [Running Demo](#)
- [Source Code](#)

### OAuth2 Example Client

This sample client lets a user log in and subsequently call a series of RESTful APIs to access and update provider data. It is a Django application making use of the python-social-auth social authentication/registration mechanism.

- [Running Demo](#)
- [Source Code](#)

### Public Provider Registry and Read APIs

This application serves up data to humans and machines. The user interface provides simple NPPES search capabilities. NPPES, and other types of provider data, are available via API and there are numerous APIs available from this server.

The public demonstration specifically presented a "PECOS API" that reports if a provider participates in Medicare and, if so, for which provider organizations. The demonstration included an example URL to demonstrate how the API works.

- [Running Demo](#)
- [Source Code](#)

### Provider Data Tools

This is a set of command-line tools and libraries for manipulating provider data. The tools here can break the NPPES data into smaller CSV files and convert it data into FHIR resource documents or ProviderJSON documents. Tools here can also aid in importing data into a MongoDB database. See the README in the source code for more complete documentation on these tools.

- [Source Code](#)

## Selected Data Sources

The following are a set of selected data resources that may be useful to those wishing to explore the demonstration and its code further, or test or demonstrate functionality of your own tools.

- [NPPES Data](#)
- [PECOS Provider Enrollment Data](#)
- [Charlie Ornstein's Tip Sheet on Medicare Datasets](#)