DR Hub Event Acknowledgement Client
Version 1.0.3
(Last updated on 9/29/2023)

This is a generic Windows standalone polling application that periodically polls PJM's DR Hub system for new events and acknowledges the receipt of these events. This software is provided as-is and is not supported by PJM.

This client will poll for the following Event types:

- Real Time economic energy events
- Synchronized Reserve events
- Load Management (Emergency DR) events
- Emergency Energy Only events
- TEST Load Management events
- TEST Price Responsive Demand events

This is a working sample provided with source code and users are free to modify the source code.

Sources are provided in pjm-drhub-poller.jar

Directory structure:

```
EventsAckClient
|----   docs        -- Documentation
|----   download    -- Downloaded Files
|----   logs        -- Log output from execution
|----   upload      -- Files to be uploaded (if applicable)
Files
      config.properties
      pjm-drhub-poller.jar
      run.bat
```

Installing the client on Windows machine

1. Copy the drhub-poller-(version number).zip file to c:\
2. Open the command window, type cd c:\, press Enter
3. type mkdir EventsAckClient, press Enter
4. type cd EventsAckClient, press Enter
5. Type unzip c:\ drhub-poller-(version number).zip
6. Note: Only one instance of the client may run for each CSP (org)

Configuring the client

- Edit the ../config.properties file as described in the file
- Edit the ../run.bat file as needed to use the correct JDK directory. Open JDK1.8 or later is required. This DR Hub Event Acknowledge Client has been tested with the following Open JDK versions:

  JDK1.8.0_312:
  https://corretto.aws/downloads/resources/8.312.07.1/amazon-corretto-8.312.07.1-windows-x64-jdk.zip

  JDK1.8.0_322:
  https://corretto.aws/downloads/resources/8.322.06.1/amazon-corretto-8.322.06.1-windows-x86-jdk.zip

JDK11.0.12:
https://corretto.aws/downloads/resources/11.0.12.7.1/amazon-corretto-11.0.12.7.1-windows-x64-jdk.zip

Configuration Settings in the config.properties file

- The Web Service URL: Assign the appropriate URL (Sandbox or Product) to the polling agent configuration. An option for each is provided in the configuration file.
- User name and password: the user name and password designated for polling DR Events. We recommend that a unique PJM Tools account configured as a System ID be used for polling. Do not use your personal PJM Tools UI account for polling.
- PKI certificate file path and PKI certificate password: Configure the certificate_file_path and certificate_password properties.
- SUMA: Configure the optional suma_account property
- Logging: Within the config.properties file, logging output may be adjusted between TRACE and ERROR depending on the level of output desired.
- Interval: The interval value sets the time between each polling service call. One minutes is the default and recommended interval for all Event Types
- Retention Day: This number (in days) sets the level of file retention for the polling agent. All event and log files older than the current date – number of retention day will be removed.
- Event Types: The option exists to include or omit event polling by type. The configuration file contains an option for each type. Setting the type to True will include this option when polling for new events. Setting an event to False will omit.

Running the client

Execute the below from the command prompt.

c:\EventsAckClient> run.bat

Terminating the client

Press ctrl-c on the command window and respond with 'y'

Checking events received

The following Event files are created each day by directory: Events are stored by Type Name in the folders reflecting the date downloaded.

- ../download/<date?/Event_Type-<YYYY-MM-DD>.xml

Checking acknowledged events

The log directory maintains a log of events and the dates on which they were acknowledged.

Common issues

* Connection refused connecting to web service
 - Configure the config.properties file , property “end point” to point to correct Web service url.

* Invalid credentials passed
 - Configure the config.properties file , property 'username' and 'password' with correct credentials
- USERID should have Manage All permission level to Execute all Web Service requests. Others will have limited access.