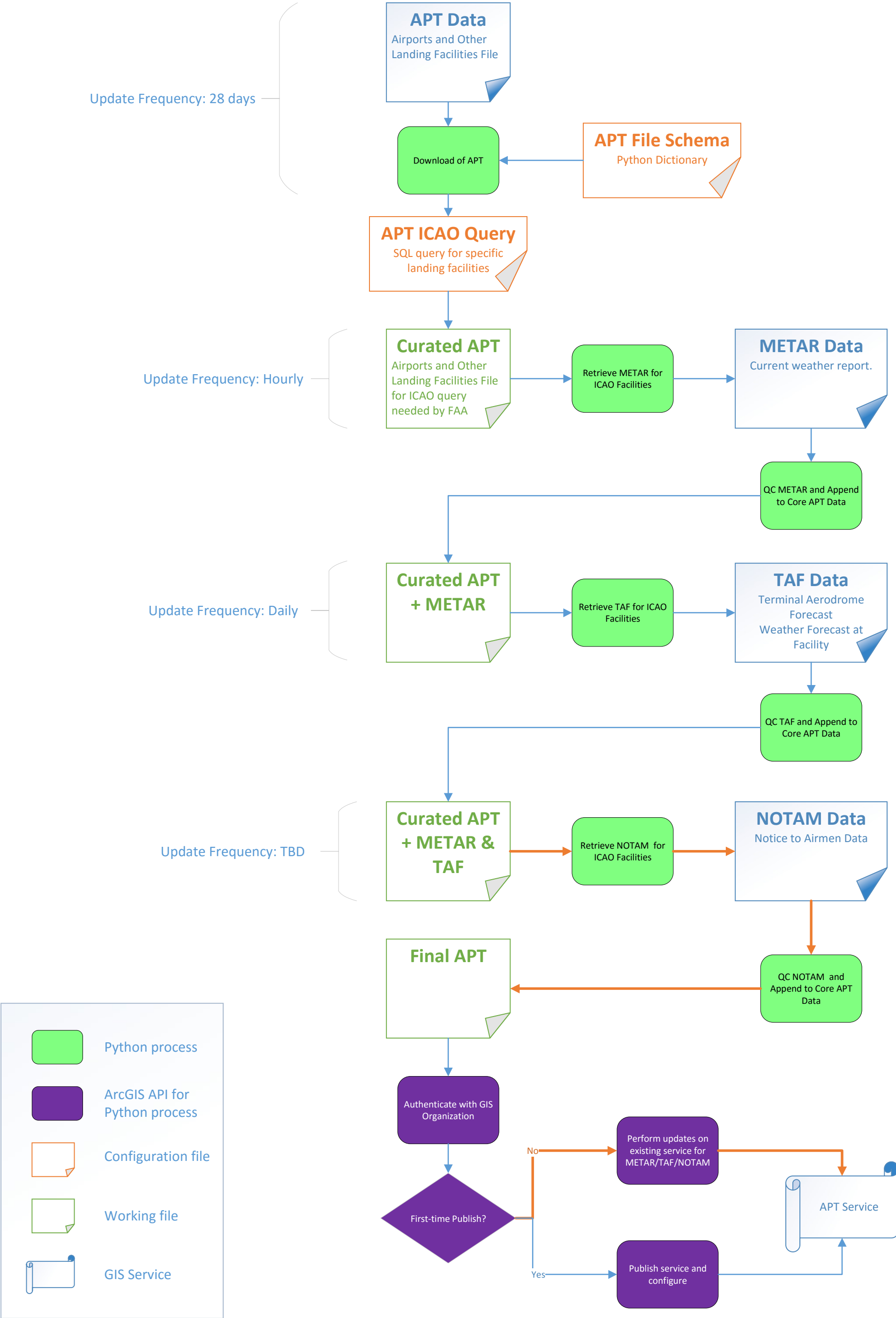# GIS ETL Process: ICAO Airports with METAR/TAF/NOTAM

Federal Aviation Administration / Esri

Version 0.3 – September 14, 2017

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APT Data
Airports and Other Landing Facilities File

Update Frequency: 28 days

Download of APT

APT File Schema
Python Dictionary

APT ICAO Query
SQL query for specific landing facilities

Curated APT
Airports and Other Landing Facilities File for ICAO query needed by FAA

Update Frequency: Hourly

Retrieve METAR for ICAO Facilities

METAR Data
Current weather report.

QC METAR and Append to Core APT Data

Curated APT + METAR

Update Frequency: Daily

Retrieve TAF for ICAO Facilities

TAF Data
Terminal Aerodrome Forecast
Weather Forecast at Facility

QC TAF and Append to Core APT Data

Curated APT + METAR & TAF

Update Frequency: TBD

Retrieve NOTAM for ICAO Facilities

NOTAM Data
Notice to Airmen Data

QC NOTAM and Append to Core APT Data

Final APT

Authenticate with GIS Organization

First-time Publish?

No → Perform updates on existing service for METAR/TAF/NOTAM

Yes → Publish service and configure

APT Service

Legend

- Python process
- ArcGIS API for Python process
- Configuration file
- Working file
- GIS Service

APT
Airports and Other Landing Facilities

APT File Schema

Python Dictionary

Schema documentation for APT fixed-width-file from FAA.

Found at: https://nfdc.faa.gov/webContent/28DaySub/2017-06-22/Layout_Data/apt_rf.

APT ICAO Query
SQL query for specific landing facilities

Needed query:
Select LOCATION IDENTIFIER, ICAO IDENTIFIER, OFFICIAL FACILITY NAME, AIRPORT REFERENCE POINT LATITUDE (FORMATTED), AIRPORT REFERENCE POINT LONGITUDE (FORMATTED)
From NFDC APT File
Where (
LANDING FACILITY TYPE = "Airport" AND
FACILITY USE = "PU" AND
ICAO IDENTIFIER IS NOT NULL)

Curated APT
Airports and Other Landing Facilities File for ICAO query needed by FAA