

A serene landscape featuring a calm pond in the foreground, reflecting the surrounding trees and foliage. The background is filled with a dense forest of various trees, including some with autumn-colored leaves. The overall scene is peaceful and natural.

ATTAINS Web Services

An Introduction

What is a Web Service?

- Provides the ability for one computer to communicate data to another computer in a standard way.
- Allows for data from one system to be easily incorporated into another application, without the second application needing to locally host the data.
- Very prevalent in almost all of our mobile device applications that we use
- Software like Excel and R and starting to come pre-packaged with the ability to interact services



What Web Services Are Available in ATTAINS

Both SOAP and REST endpoints (described later) for the following services:

GetAssessmentUnits – Provides access to Assessment Unit Information

GetAssessments – Provides access to most recent cycle IR data or a cycle of your choice

GetActions – Provides access to Action data (TMDLs, etc.)

GetDomains – Provides access to the suite of allowed values in ATTAINS

See Handout 1 for more details on these services

SOAP vs. REST: What's the Difference?

- SOAP services are contained entirely within the Exchange Network
 - Query Services – synchronous download of data (meant for smaller downloads)
 - Solicit Services – asynchronous download of data (meant for larger downloads, i.e. syncs of the entire dataset)
 - Provide access to public and non-public data – requires user authentication
 - Returns XML in ATTAINS Schema
- REST services are open and based on a generated URL
 - Provide access to ONLY public data (i.e. Assessment Unit information and Assessments that have been promoted to at least 'Organization – public comment')
 - Returns JSON in ATTAINS Schema

Where can I find out more?

- The Flow Configuration Document: Section 8 provides documentation for these services.
 - It defines the input parameters for each of these services
 - The REST Services and the SOAP services are identical in how the input parameters are implemented
 - The Flow Configuration Document is available here:
<http://www.exchangenetwork.net/data-exchange/assessment-tmdl-tracking-and-implementation-system/>



ATTAINS

Flow Configuration Document

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1200 Pennsylvania Avenue, NW
Washington, DC 20460

Developed by:

Gold Systems, Inc.
2121 McClelland Street
Salt Lake City, Utah 84106

So What? What can I do with these things?

- There are numerous possible use cases for how you can use these services:
 - Syncing data: Just to find out what is currently loaded in ATTAINS
 - Answering the question: What Actions are currently in the system so that I can pick the right Action ID in my system.
 - Getting attribute data to join with GIS data (i.e. categories, uses, or parameters for a given cycle)
 - Incorporating ATTAINS data in other applications (How's My Waterway is an example of this)

Other Services Coming Soon

- Documents Service (provide access to the documents that have been uploaded into ATTAINS)
- Summary services – provides summary counts and statistics based on ATTAINS data (some of this is already in place for How's My Waterway)