Agent Discovery Protocol

A simple solution for providing basic information about a domain or subdomain and its owner or purpose in RDF

```
curl -H "Accept: text/n3" <[domain].[tld]/.wellknown/adp_source_uri>
```

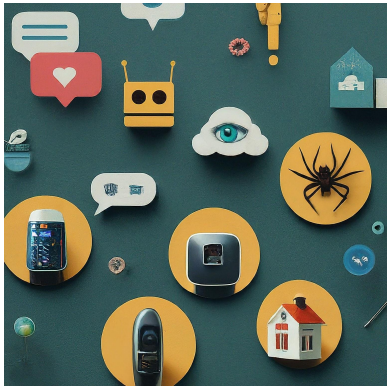
What is the ADP Concept?

The notion of ADP Protocol is to define a method where domains and subdomains are able to provide a basic, secured (RDF) file that provides basic information about the domain ‘principal agent’ and/or purpose.

- Information in an ADP file is public.
- ADP is intended to have Many Applications
- Design sought to be useful for firewall devices, etc.
- Domainnames are memorable and File can be changed to update related information.
- Method sought to be employable by Registrars.

Applications:

- Personal: ability to provide resource links
- Policy Support: Age Appropriateness, Validation (ie: mygov.gov.au NOT mygov.scamsite.scamcentral.tld.cc), humanitariansite.tld (do not turn off), etc.
- AgentInfo (ie: isGenAi, hasAPI, has TOS, hasAddress, hasSocialMediaAccount, etc).

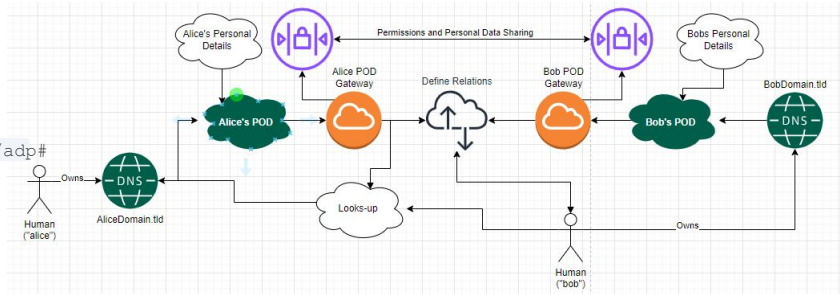


```
## Image Credit ## ~  curl -H "Accept: application/ld+json" <file_metadata_source_uri>
@prefix schema: <http://schema.org/> .
@prefix rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#> .
@prefix rdfs: <http://www.w3.org/2000/01/rdf-schema#> .
@prefix owl: <http://www.w3.org/2002/07/owl#> .
@prefix dc: <http://purl.org/dc/elements/1.1/> .
@prefix adp: <https://ont.[domain].[tld]/adp/0.1/> .
<https://gemini.google.com/gemini>
    a schema:SoftwareApplication;
    schema:name "Gemini";
    schema:description "An AI generative agent by Google" ;
    schema:provider <https://google.com> ;
    dc:creator "Google";
    adp:body "Gemini is an artificial intelligence capable of generating various creative text formats,
images, and more." .
```

Personal Domains

(ADP Serialisation Methods)

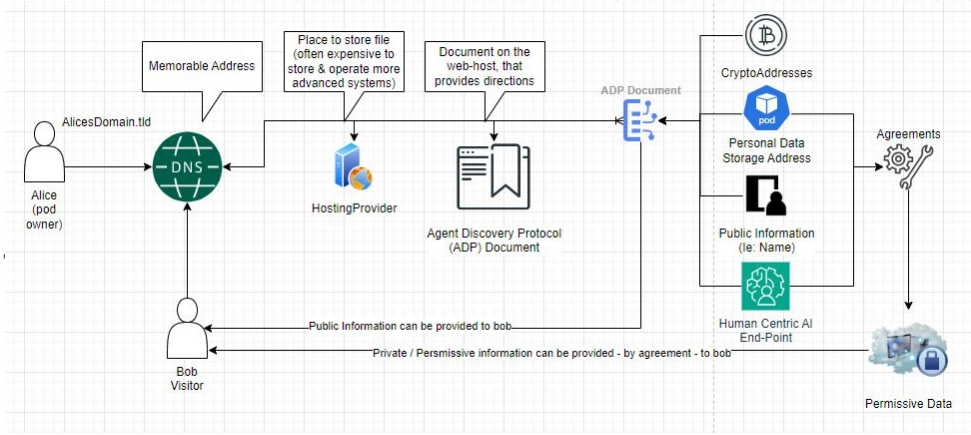
```
DNS TXT record _adp.sailingdigital.com  TXT
"adp:signer <https://sailingdigital.com/#adp> ."

Subject Alternative Name:
  otherName: 1.3.6.1.4.1.15256
<hex representation of SHA256CheckSum>
  URI: https://sailingdigital.com/.wellknown/adp#
```



sailingdigital.com/.wellknown/adp#

{JSON-LD}

```
{
  "@context": {
    "adp": "http://webcivics.github.io/adp/ontdev/adp#",
    "schema": "http://schema.org/",
    "foaf": "http://xmlns.com/foaf/0.1/",
    "ogp": "http://ogp.me/ns#"
  },
  "@type": "adp:Agent",
  "foaf:name": "Timothy C. Holborn",
  "adp:agentType": "naturalPerson",
  "adp:hasLinkedinAccount": "ubiquitous",
  "adp:hasTwitterAccount": "sailingdigital",
  "adp:hasEcashAccount": "ecash:qrhrfvpm9x3tsq0uj09pzrfcc495h55clswp7tjp9c",
  "adp:hasDomain": "sailingdigital.com",
  "schema:domain": "sailingdigital.com",
  "adp:hasWebID": "https://id.inrupt.com/ubiquitous",
  "adp:hasPodStorage": "https://storage.ap.inrupt.com/b436b6a9-9c4c-45bc-9d22-d1b068e84992/"
}
```



[Turtle]

```
@prefix schema: <http://schema.org/> .
@prefix xsd: <http://www.w3.org/2001/XMLSchema#> .
@prefix ns0: <http://webcivics.github.io/adp/ontdev/adp#> .
@prefix foaf: <http://xmlns.com/foaf/0.1/> .

[]
  a <http://webcivics.github.io/adp/ontdev/adp#Agent> ;
  schema:domain "sailingdigital.com"^^xsd:string ;
  ns0:agentType "naturalPerson"^^xsd:string ;
  ns0:hasDomain "sailingdigital.com"^^xsd:string ;
  ns0:hasEcashAccount "ecash:qrhrfvpm9x3tsq0uj09pzrfcc495h55clswp7tjp9c"^^xsd:string ;
  ns0:hasLinkedinAccount "ubiquitous"^^xsd:string ;
  ns0:hasPodStorage "https://storage.ap.inrupt.com/b436b6a9-9c4c-45bc-9d22-d1b068e84992/"^^xsd:string ;
  ns0:hasTwitterAccount "sailingdigital"^^xsd:string ;
  ns0:hasWebID "https://id.inrupt.com/ubiquitous"^^xsd:string ;
  foaf:name "Timothy C. Holborn"^^xsd:string .
```


```
{"_:genid1":{"http:\/\/www.w3.org\/1999\/02\/22-rdf-syntax-ns#type":[{"type":"uri","value":"http:\/\/webcivics.github.io\/adp\/ontdev\/adp#Agent"}],"http:\/\/schema.org\/domain":[{"type":"literal","value":"sailingdigital.com","datatype":"http:\/\/www.w3.org\/2001\/XMLSchema#string"}],"http:\/\/webcivics.github.io\/adp\/ontdev\/adp#agentType":[{"type":"literal","value":"naturalPerson","datatype":"http:\/\/www.w3.org\/2001\/XMLSchema#string"}],"http:\/\/webcivics.github.io\/adp\/ontdev\/adp#hasDomain":[{"type":"literal","value":"sailingdigital.com","datatype":"http:\/\/www.w3.org\/2001\/XMLSchema#string"}],"http:\/\/webcivics.github.io\/adp\/ontdev\/adp#hasEcashAccount":[{"type":"literal","value":"ecash:qrhrfvpm9x3tsq0uj09pzrfcc495h55clswp7tjp9c","datatype":"http:\/\/www.w3.org\/2001\/XMLSchema#string"}],"http:\/\/webcivics.github.io\/adp\/ontdev\/adp#hasLinkedinAccount":[{"type":"literal","value":"ubiquitous","datatype":"http:\/\/www.w3.org\/2001\/XMLSchema#string"}],"http:\/\/webcivics.github.io\/adp\/ontdev\/adp#hasPodStorage":[{"type":"literal","value":"https:\/\/storage.ap.inrupt.com\/b436b6a9-9c4c-45bc-9d22-d1b068e84992\/","datatype":"http:\/\/www.w3.org\/2001\/XMLSchema#string"}],"http:\/\/webcivics.github.io\/adp\/ontdev\/adp#hasTwitterAccount":[{"type":"literal","value":"sailingdigital","datatype":"http:\/\/www.w3.org\/2001\/XMLSchema#string"}],"http:\/\/webcivics.github.io\/adp\/ontdev\/adp#hasWebID":[{"type":"literal","value":"https:\/\/id.inrupt.com\/ubiquitous","datatype":"http:\/\/www.w3.org\/2001\/XMLSchema#string"}],"http:\/\/xmlns.com\/foaf\/0.1\/name":[{"type":"literal","value":"Timothy C. Holborn","datatype":"http:\/\/www.w3.org\/2001\/XMLSchema#string"}]}}
```


{RDF/JSON Resource-Centric}

ADP:Agent[Semantics]

The ADP file could also be used to support various other use-cases. In-effect, it brings ontology to the domain-space & related services.

Some examples include;

- Humanitarian Services
- AI Services
- WebOfData (sparql endpoint example)
- AgeAppropriateness.
- Validation of Official Sites (gov, Bank, etc.)

```
##  Essential Service (Humanitarian)

@prefix adp: <http://www.example.org/adp#> .
@prefix hrt: <http://www.example.org/humanitarian#>
.

<#this>
    a adp:Agent, hrt:EssentialService ;
    adp:dnsDomain "humanitarian-aid.org" ;
    hrt:serviceType hrt:EmergencyResponse .

@prefix adp: <http://www.example.org/adp#> .
@prefix un: <http://www.un.org/ontology#> .
@prefix vc: <https://www.w3.org/2018/credentials#> .

<#this>
    a adp:Agent, un:EssentialService ;
    adp:verifiableCredentials [
    a vc:VerifiableCredential ;
      vc:type "UNHumanitarianDesignation" ;
      vc:issuer <https://un.org/aid-registry>
    ] .
```

```
##### AI Service
@prefix adp: <http://www.example.org/adp#> .
@prefix ai: <http://www.example.org/ai-ontology#> .

<#this>
    a adp:Agent, ai:TextSummarizer ;
    adp:dnsDomain "ai-service.com" ;
    ai:capability ai:Summarization ;
    ai:inputFormat <https://schema.org/Text> ;
    adp:serviceEndpoint <https://ai-service.com/api>.
```

```
##### SparqlEndpoint

<http://example.com/sparql-service> a schema:WebAPI ;
    schema:description "SPARQL service for humanitarian
data" ;
    schema:url <http://example.com/sparql> .
```

```
<https://mediaservice.tld> a schema:WebSite ;
    adp:hasEndpoint adp:childEndpoint,
adp:teenEndpoint, adp:adultEndpoint .

# Child Endpoint
adp:childEndpoint a schema:EntryPoint ;
    content:suitableForAgeGroup "Under13" .

# Teen Endpoint
adp:teenEndpoint a schema:EntryPoint ;
    content:suitableForAgeGroup "13to18" .

# Adult Endpoint
adp:adultEndpoint a schema:EntryPoint ;
    content:suitableForAgeGroup "Over18" .
```

```
## Website Verification

@prefix adp: <http://www.example.org/adp#> .
@prefix vc: <https://www.w3.org/2018/credentials#>
.

<#this>
    a adp:Agent, adp:FinancialInstitution ;
    adp:dnsDomain "mybank.com" ;
    adp:verifiableCredentials [
      a vc:VerifiableCredential ;
        vc:type "BankingLicense" ;
        vc:issuer <https://finance.gov/licensing>
    ] .
```

```
#### Reliable Age-Appropriate Content

@prefix schema: <https://schema.org/> .
<https://example-adult-website.com> a schema:WebSite ;
     schema:isAdultOriented "True" .

# or

@prefix acme: <http://acme.org/ratings#> .
<https://example-adult-website.com> a schema:WebSite ;
     acme:contentRating "ACME-18+" .
```

The basic construct, is intended to be extensible via RDF.

Notes, Action Items & More Info

NOTES:

Extensible via Credentials.

Not FOAF, WebID or Web Finger

Extension to these works may then in-turn consider issues such as CORS, et.al.

Action Items:

1. Looking for Collaborators to define / refine Draft RFC.

2. Ontology work is required which could be done via W3C Human Centric AI CG.

Related WIP: https://github.com/webcivics/ADP/

Human Centric AI CG: https://www.w3.org/community/humancentricai/