api-catalog: A well-known URI to help discovery of APIs

Proposal for httpapi WG adoption
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Making APIs easier to find and use

• Problem: what APIs does a host offer – and how to access them?

• Simple solution: a reserved URI, ‘example.com/.well-known/api-catalog’

• Only prior knowledge is hostname

• NB this I-D does not mandate paths for API endpoints
Provides Machine-readable links to find & use APIs

- Media type: application/linkset+json (RFC 9264)

- Machine-readable link relations from RFC 8631
  - service-desc – a link to API machine-readable description
  - service-meta – a link to additional API metadata (optional)
  - service-doc – a link to human-readable docs (optional)
  - status – a link to API status (optional)

- One new link relation for IANA registration:
  - api-catalog – for other resources to refer to this catalog
GET example.com/.well-known/api-catalog

{"linkset": [
  {
    "anchor": "https://developer.example.com/apis/foo_api",
    "status": [{"href": "https://developer.example.com/apis/foo_api/status", "type": "application/json"}],
    "service-desc": [{"href": "https://developer.example.com/apis/foo_api/spec", "type": "text/n3"}],
    "service-doc": [{"href": "https://developer.example.com/apis/foo_api/doc","type": "text/html"}],
    "service-meta": [{"href": "https://developer.example.com/apis/cantona_api/policies","type": "text/xml"}]
  },
  {
    "anchor": "https://developer.example.com/apis/bar_api",
    "status": [{"href": "https://developer.example.com/apis/bar_api/status", "type": "application/json"}],
    "service-desc": [{"href": "https://developer.example.com/apis/bar_api/spec", "type": "application/json"}],
    "service-doc": [{"href": "https://developer.example.com/apis/bar_api/doc","type": "text/plain"}],
    "service-meta": [{"href": "https://developer.example.com/apis/cantona_api/policies","type": "text/xml"}]
  },
  {
    "anchor": "https://developer.example.com/apis/cantona_api",
    "status": [{"href": "https://developer.example.com/apis/cantona_api/status", "type": "application/json"}],
    "service-desc": [{"href": "https://developer.example.com/apis/cantona_api/spec", "type": "text/n3"}],
    "service-doc": [{"href": "https://developer.example.com/apis/cantona_api/doc","type": "text/html"}],
    "service-meta": [{"href": "https://developer.example.com/apis/cantona_api/policies","type": "text/xml"}]
  }
]}

Slide 3
To develop/agree:

• Binding to RFC 9264 HTTP Link header

• Security considerations