

Kendraio Adapter API Registry

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Aims

- List the meta lists
- Invite community to help list in [this Google Sheet](#).
- Engage with API technology developers/services
- Discover API analysis, consumption and mapping tools
- Specify requirements for tools if they don't exist
-
- Get a list of service providers with APIs and document APIs and what they do.
 - Directory service
 - Register / Discovery (Kendraio users & APIs / Datasets / Services)
- Automated tools?
 - What if APIs change?
 - How can the API description build itself?
 - Can we generalise? How?
 - Can we plug into API directories?
 - Can we build an API munching machine?

API gateway providers

These [iPaaS and iSaaS](#) services provide a gateway to many APIs via one API interface. We could give Kendraio a leg up by integrating with many of them. And then slowly make the integrations native as necessary.

- [RapidAPI](#)
- [Zapier](#)
- [OneGraph](#) - GraphQL provider

- [Oneio Cloud](#)
- [Standard Library](#)
- [Phantombuster](#)
- [Retool: Build internal tools fast](#)
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Music

- <https://www.programmableweb.com/category/music/api>
 - good comprehensive information. Not great categorisation.
- <https://www.programmableweb.com/category/music/apis?category=19990>
- <https://www.programmableweb.com/news/top-10-music-apis-spotify-last.fm-rdio-soundcloud/analysis/2015/02/02>
- <https://www.acrccloud.com/blog/music-apis-the-list-of-2016>
 - good categorisation
- <https://musicbiz.org/music-api-directory/>
- <https://any-api.com>
 - Great resource for accessing API documentation
- <https://musicmachinery.com/music-apis/>
- <https://www.ranker.com/list/all-music-apis/api-list>
 - have not gone over yet.
- <https://github.com/collections/music>
 - Open source music projects not necessarily APIs
- <https://apilist.fun/category/music>
 - can we programmatically add in our Apps and Libraries?
- <https://rapidapi.com>
 - API marketplace

Picture

RESTful API Description Languages

DLs (description languages) are formal languages designed to provide a structured description of a RESTful web API that is useful both to a human and for automated machine processing. API Description Languages are sometimes called interface description languages (IDLs)

	Sponsor	Initial commit	Latest stable release	Stable release date	Software license ^[7]	Format	Open Source	Code generation (client)	Code generation (server)
RAML	MuleSoft	September, 2013	1.0	May 16, 2016	Apache 2.0	YAML	Yes	Yes	Yes
API Blueprint	Apiary	April, 2013			MIT	Markdown	Yes	limited	Yes
OpenAPI	Open API Initiative (OAI)	July, 2011	3.0	July 26, 2017	Apache 2.0	JSON or YAML	Yes	Yes	Yes
SERIN	UNIFOR	2011	2.0	December 2014	Creative Commons	RDF	yes	no	yes

Source: https://en.wikipedia.org/wiki/Overview_of_RESTful_API_Description_Languages

<https://apibuild.org>

- API Blueprint is a high-level open source API design language for web APIs
- Format: Markdown
- [List of tools](#) that use it.

<https://www.openapis.org>

- Open source JSON or YAML based RESTful API Description Languages
- Specification for machine-readable interface files for describing, producing, consuming, and visualizing RESTful Web services
- An open governance structure under the Linux Foundation
- Was originally Swagger that was chosen over “API Blueprint” and “SERIN”. SERIN is now also a part of the project.

<https://raml.org>

- An open source YAML-based RESTful API Modeling Language (RAML)
- MuleSoft who originally started Swagger that became Open API are now behind RAML as well as AngularJS (Misko Hevery, Project Founder) and many others

Open API and RAML

Looks like RAML has emerged as the leading way to model API specifications, OAS (formerly Swagger) has emerged as the most common format for describing APIs

For more details read the full mulesoft [article](#)

API tools and services

Overview

Looks like most of the tools around are designed for enterprise, where organisations have large number of APIs that need to collaborate. 3rd party providers are encouraged to add Descriptive Language (DL) support as this will allow these tools to integrate those APIs and increase their value to organisations.

The tools tend to belong into one or more of the following categories:

- API Modelling - Design APIs and their integration, primarily in a visual way - the tools use API DLs
- Server Mockup - Provide a server with mockup APIs - can be used to develop a front end before a single API line is written.
- Auto-generated code - DLs can be used to generate code snippets/skeletons in many programming languages
- Debugging and testing - Tools to help interrogate an API
- Automated testing & Load testing
- Documentation - Using DLs
- Enterprise Service Bus & API Gateway - Complete solutions for integration of API's
- Monitoring & Analytics

Unfortunately the API's we are interested in are very few and do not target the Enterprise market so are unlikely to have DLs that would make integration easier. We should however consider supporting DLs if we develop our own API's.

Many of the tools use and contribute to open source projects so are worth investigating.

A few tools that worth attention:

- Mulesoft: As they are a strong voice in driving DLs
- Postman - a popular tool. Can be used to interrogate APIs
- Kong - open-source API Gateway and Microservices Management Layer built on top of NGINX

Many of the others may be of interest and relevance, however we need to identify API providers and their offering and plan the integration in order for us to determine what tools/code we need.

Tools

In no particular order

Complex tools

<https://app.datafire.io/>

- Open-source framework
- Uses Actions triggered by time or url events, Cost for hosted production solutions.

- Git and GitHub integration
- Can be run locally using the open source framework.
- Actions created using NodeJS
- Integrations include: Freesound, YouTube Data (including uploading), YouTube Reporting, Channel 4

<https://apiary.io/>

Looks like an Enterprise solution built on top of “API Blueprint” from designing APIs to Server Mock for testing them.

<https://www.mulesoft.com/>

- Java-based enterprise service bus (ESB) - A runtime and a SaaS (hosted) that enables developers to bridge together applications and API.
- Price on quote only!

<https://www.3scale.net/>

- Starts at \$750/month

<https://mulesoft-labs.github.io/amf-playground/>

- API Modeling Framework (AMF)
- MuleSoft provides a playground website - alpha version
- Uses both RAML and Open API
- Can also output **JSON-LD**
- Vision: The API Modeling Framework (AMF) allows users to formally describe different kind of APIs, parse and generate instances of those APIs as sets of modular documents and to store those connected descriptions into a single unified data graph.
- [Read about it](#)
- Example of a “world music api” visualisation at bottom of doc

[Talend](#)

- Now owns Restlet
- Has a number of open source tools

Restlet (Part of Talend)

- [Restlet Studio](#) - Forget about manually writing OpenAPI Specification (OAS, fka Swagger) or RAML code. Visually and collaboratively edit your API contracts, automatically mock and document them, push them to GitHub, generate server skeletons and client SDKs. - supports: **Creating Node.js skeletons**, also supports both Open API and RAML
- [Restlet client](#) - Visually create and execute single API requests as well as complex scenarios. Automate the execution of your API tests and scenarios with our CI/CD plugin. Restlet Client is the most popular REST client available as a Chrome extension. It automatically updates itself, can be opened in one or several browser tabs and comes with a convenient browser toolbar icon.
- [Restlet cloud](#) - Create & Host your Data APIs

KONG

- Open source API management
- API Gateway and Microservices Management Layer, delivering high performance and reliability.
- Built on top of NGINX
- With KONG I can modularly add functionalities to my APIs without having to write a single line of code.
- Features: Oauth, SSL termination, Rate Limiting, Analytics, CORS headers injection

Api embed

- Auto-generated code snippets in many programming languages for your website including Node.js & PHP
- Open source repo: <https://github.com/Kong/apiembed>

API Transformer

- Transform one IDL format (interface description languages) to another. E.g. “OpenAPI Spec 3.0 (YAML)” to RAML 1.0

Galileo

- Analytics Platform for APIs
- free tier is loaded with feature

API Studio

- Create auto-generated APIs designing using Swagger specs.
- Generates a Node server infrastructure package ready to run straight out of the box.

Postman

- API Development Environment based on google chrome.
- Popular: 5 million developers and more than 100,000 companies to access 130 million APIs
- Design & mockups
- Debug
- Automated testing
- Document
- Monitor
- Publish

API Garage

- Increase developer productivity by building a tool that integrates with developers' workflows
- Built on top of Electron and Angular.js

Endpoint mockup tools

- <http://jsonstub.com> Web app for creating API endpoint mockups
- <https://www.mockable.io> Create mockups for REST and Soap endpoints.

- <http://httpbin.org> A Runscope project for developing front ends based on APIs - allows you to specify behavior of endpoints based on parameters pathed in. e.g. return 25 links

Other tools

- [Runscope](#) - API Testing tools (supports Swagger)
- [API Metrics](#) - Active API Monitoring
- <https://loader.io> - Load testing
- <https://www.blazemeter.com> - Load testing
- <https://gelato.io> - Technical docs / portal development
- <http://stoplight.io> - complete API studio with a capable proxy at the core of it all.
- [API-Security-Checklist](#) no github.

Cloud services used for API development

Storage

- [Amazon Simple Storage Service \(S3\)](#)
- [Cloud Data Management Interface](#)
- [OpenStack Swift](#)

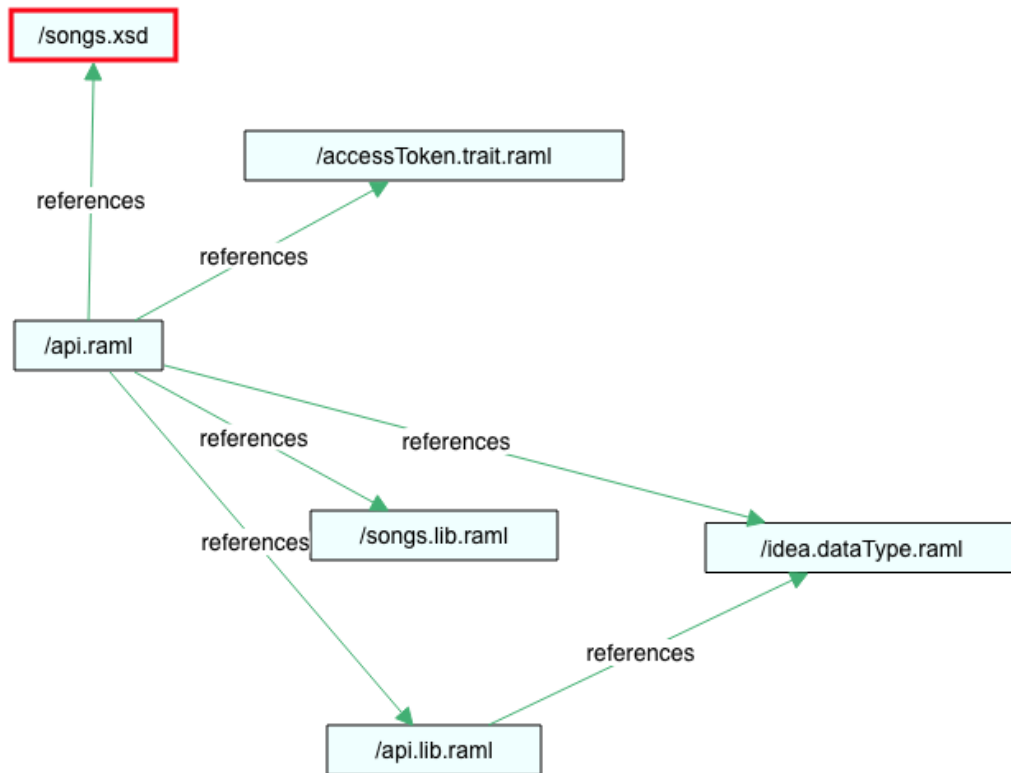
Other

- [Amazon API Gateway](#) - one click a complete API management solution in the cloud

Lightweight tools

<https://resttesttest.com/> - easy online tool for making API calls. Code available on [github](#)

“world music api” visualisation



Other reading

What is a REST API? <https://www.mulesoft.com/resources/api/what-is-rest-api-design>
[A good 2015 post](#)