API gateway

Cerebrum-seminar 2016

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- ... also known as *sgs* (http://folk.uio.no/sgs/)

- Cerebrum developer since February 2015

API gateway vs. API proxy

The integration project at UiO (*INT*) defines the role *API Manager*.
Why use API gateway instead of API proxy?

- Unified access for all our APIs

- Unified documentation and catalogue

- Unified caching for all APIs

- Unified logging / statistics generation for all APIs

- Access control / rate limiting for all our APIs

- (Re)mapping and (re)writing
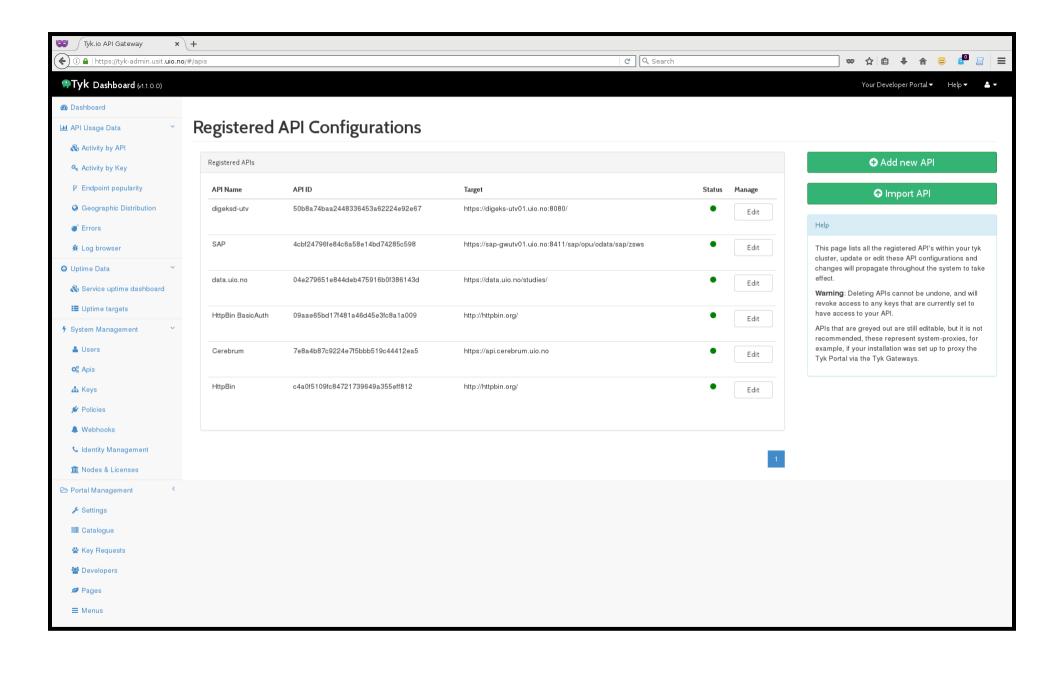
API gateway & Cerebrum

For the time being we have settled on *Tyk API gateway.*

It uses an internal user-database and consists of the following logical components:

- Dashboard
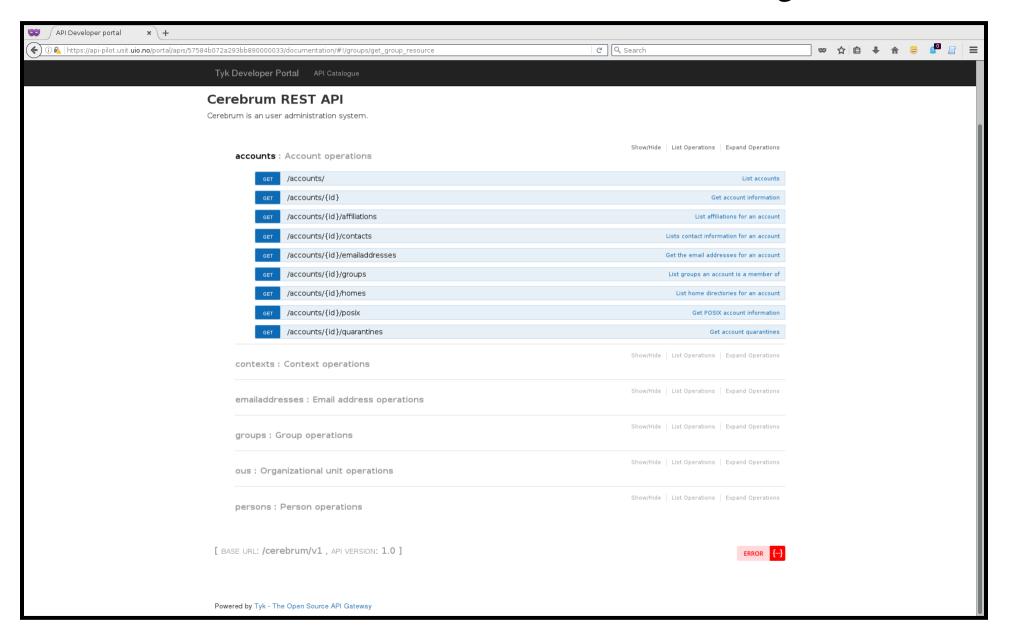
- Developer portal

- Gateway

Dashboard

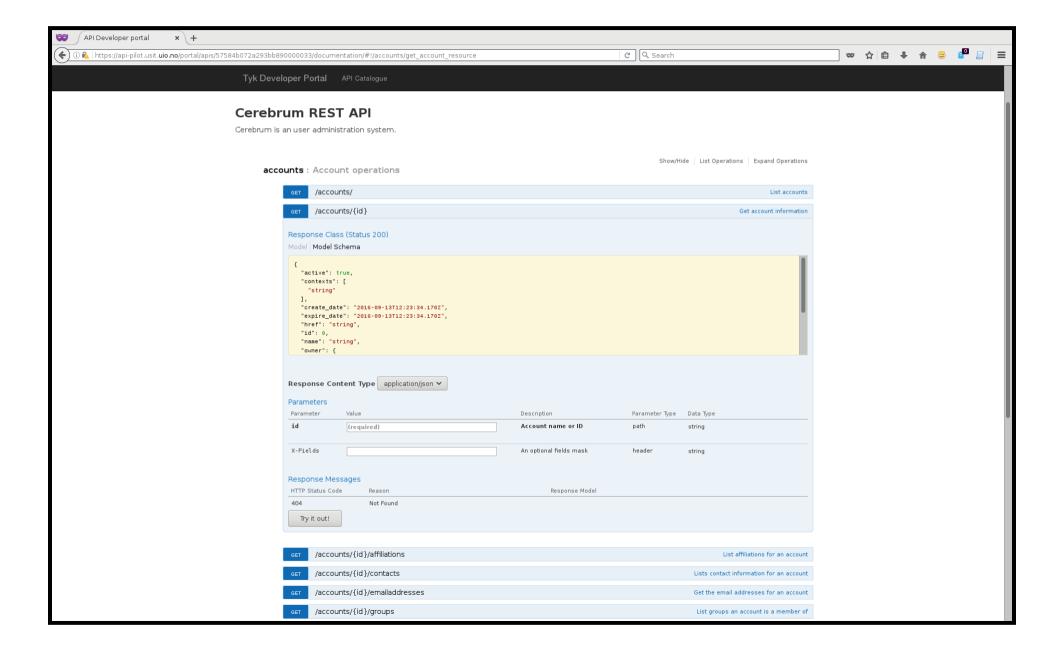Provides a convenient web-interface for configuration and manipulation of the gateway and the different APIs.

Tyk Dashboard (v1.1.0.0)

Your Developer Portal ▾   Help ▾   👤 ▾

- 🎛 Dashboard
- 📊 API Usage Data ⌄
  - 🔀 Activity by API
  - 🔍 Activity by Key
  - 🝆 Endpoint popularity
  - 🌐 Geographic Distribution
  - 💣 Errors
  - 🐛 Log browser
- ⏱ Uptime Data ⌄
  - 🖥 Service uptime dashboard
  - ☰ Uptime targets
- ⚡ System Management ⌄
  - 👤 Users
  - ⚙ Apis
  - 🔗 Keys
  - 🖊 Policies
  - 🔔 Webhooks
  - 📞 Identity Management
  - 🏛 Nodes & Licenses
- 🗁 Portal Management ‹
  - 🔧 Settings
  - ☰ Catalogue
  - 🐾 Key Requests
  - 👥 Developers
  - 🍃 Pages
  - ☰ Menus

Registered API Configurations

Registered APIs

API Name	API ID	Target	Status	Manage
digeksd-utv	50b8a74baa2448336453a62224e92e67	https://digeks-utv01.uio.no:8080/	🟢	Edit
SAP	4cbf24796fe84c6a58e14bd74285c598	https://sap-gwutv01.uio.no:8411/sap/opu/odata/sap/zsws	🟢	Edit
data.uio.no	04e279651e844deb475916b0f386143d	https://data.uio.no/studies/	🟢	Edit
HttpBin BasicAuth	09aae65bd17f481a46d45e3fc8a1a009	http://httpbin.org/	🟢	Edit
Cerebrum	7e8a4b87c9224e7f5bbb519c44412ea5	https://api.cerebrum.uio.no	🟢	Edit
HttpBin	c4a0f5109fc84721739649a355eff812	http://httpbin.org/	🟢	Edit

1

● Add new API

● Import API

Help

This page lists all the registered API's within your tyk cluster, update or edit these API configurations and changes will propagate throughout the system to take effect.

Warning: Deleting APIs cannot be undone, and will revoke access to any keys that are currently set to have access to your API.

APIs that are greyed out are still editable, but it is not recommended, these represent system-proxies, for example, if your installation was set up to proxy the Tyk Portal via the Tyk Gateways.

Portal

Provides the API documentation and catalogue.

Portal

Gataway

- Still in experimental / pilot phase

- Several APIs are already configured in Tyk (Cerebrum WS, SAP WS...)

- Support for many *authentication modes* (Auth Token, JWT, OAuth 2, Basic Auth, Open ID Connect, ...)

Official site: https://tyk.io/

Q&A