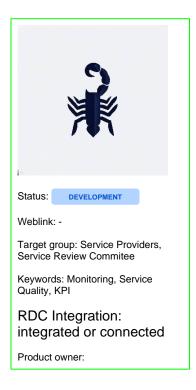
# **Service Monitoring: Scorpion**



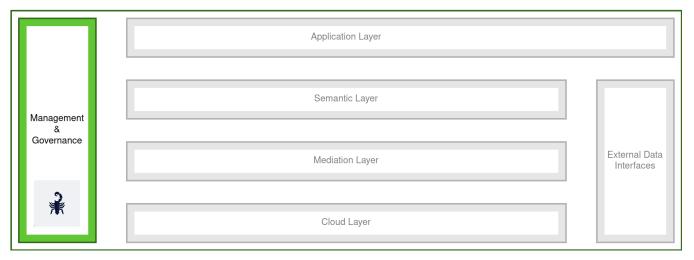
Scorpion is a Dashboard that collects and visualizes Key Performance Indicators (KPI) for services. KPIs are measurements we agreed upon to monitor how well a service is performing. Based on trends over a year this will give insights into what measures to take. Scorpion is the tool that is used to collect the results of all services in the Service Monitoring and generate plots and overviews for the review processs.



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#### **RDC Integration**

Scorpion is part of the RDC management and governance layer. It collects and visualizes KPIs useful for the review process. Scorpion offers a REST API as well as a form in the GUI to submit KPIs for a service on a monthly basis. Additionally, it offers basic visualisations of the measurements to help the NFDI4Biodiversity Service Review Committee to decide what measures need to be taken to ensure the service complies with our definition of quality.

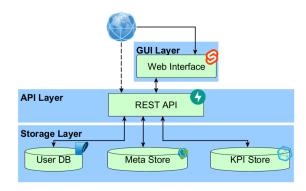


#### Overview

Scorpion is a system developed to monitor KPIs for services of the NFDi4Biodiversity Service Catalog. In our context, KPIs are mostly focussed on usage of a service (e.g. Number of Unique Users). The KPI measurements are submitted in a push approach, so that every service provider is responsible for submitting their KPI measurements on a monthly basis to Scorpion. The system itself is structured in several layers:

 The storage layer contains three databases. The first database is a simple SQLite3 instance used to keep track of registered

- users and their roles. Second, a Neo4j instance is hosted to store the KPI profiles of all services. Lastly, an InfluxDB instance is used to store the KPI measurements.
- The API layer implements a REST API that is partially made available to external users. Besides that, it is used to facilitate the communication between the back- and front-end.
- The Graphical User Interface offers a submission form for monthly KPI measurements of a service, a basic visualization of the stored results and an administration view.



## **Getting started**

Scorpion is currently under development and only available in a closed beta phase. Users of the beta phase can register to get an account. As described in the following sections, users can **contribute** KPI measurements through the Graphical User Interface (GUI), Developers can programatically **access** all available KPI measurements and necessary meta-information.

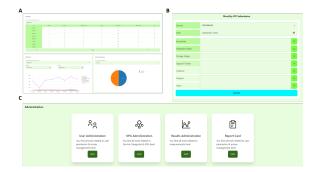
### **User Guide**

Scorpion provides access through its User Interface to all necessary features to submit KPI measurements for a particular service. Upon service registration through the system administration, users can submit measurements on a monthly basis. Features available are:

- KPI Submission Form
- Home View with
  - KPI Plot
  - KPI Measurement Table
  - Overview of all monitored services

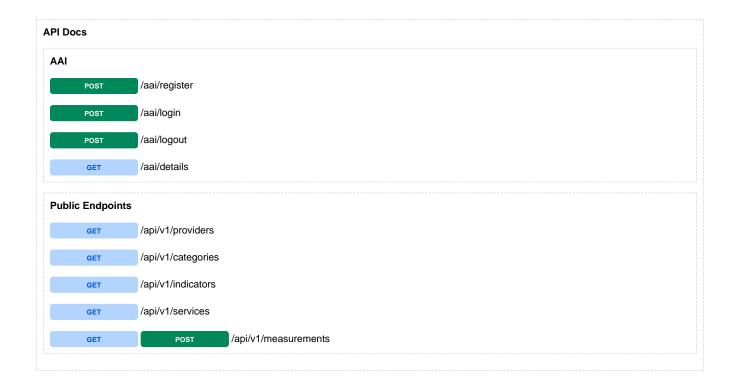
As Scorpion is in a closed beta phase, a comprehensive documentation can only be provided on request in form of a hands-on session.

Scorpion has an administration view, which is only available to administrators. This view can be used to add new entities (e.g. service, KPI, category) to the system.



## **Developer Guide**

All information available through the User Interface is also available through the Web Service REST API under path /api/v1. In the following is an overview of the main available API endpoints:



### References

#### Links:

• Documentation: <a href="https://scorpion4biodiversity.readthedocs.io/">https://scorpion4biodiversity.readthedocs.io/</a>