

Building API SDKs, Terraform Providers, and Automation Tools for Infrastructure Visibility Platform

NDA Case Study

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The client is an internet-based enterprise that was established in the 2010s. The company's inception stemmed from the recognition that the networking landscape was in need of a scalable, robust, user-friendly, and cost-effective **infrastructure visibility solution**. Leveraging this insight, the company has created a comprehensive set of utilities that enable efficient monitoring, tracking, and alerting of network health, data volumes, expenses, and incidents.



Challenge



The challenge for this project was to **construct a suite of auxiliary utilities** that would facilitate and empower seamless onboarding of infrastructure onto the client's observability platform, integration with the furnished API, and instituting proprietary metric visibility tools.

The most critical aspect of the project entailed the development of **API SDKs for Python and Go**, which would furnish developers with a consistent and concise interface while also shielding them from any changes that might impact the evolving REST and gRPC APIs.

Drawing upon the Go SDK, custom Terraform providers were created to enable the infrastructure as code approach to configuring services on the client's end.

Using these Terraform providers, along with a certain amount of Python code, automated onboarding tools were established to facilitate **the effortless configuration and automatic onboarding** of hundreds of public cloud accounts into the platform for the benefit of the client's customers.

Furthermore, leveraging Python SDK, a reference web application was developed to visualize the SLA adherence based on the client's synthetic mesh test data. The objective of this application is to offer the client's customers a starting point for creating their visualization tools.



Services we provided

To meet our partner's business and project needs, we provided them with the **following services**:

Frontend development

1

Backend development

2

DevOps

3



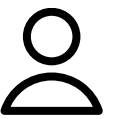
Results & benefits

During our cooperation, we have delivered solutions that strongly benefited our client, including:

Easy and consistent access to the **API** using the preferred programming language



Effortless onboarding of hundreds of customer cloud accounts onto client's platform



Scaffolding for **in-house development** of metrics data visualization application



The scope of the project



The client's platform

This client introduced a revolutionary network traffic intelligence platform that seamlessly integrates network operations, performance, security, and business intelligence. Their platform is built with a powerful big data engine and is available as a public or private SaaS. By leveraging the platform, the user can gain access to **high-resolution views of their network traffic data** enriched with vital application and business insights. With the platform, every network event and analysis can be directly linked to the metrics that truly matter, such as revenue, costs, customer experience, user experience, performance, and risk.



The scope of the project



CodiLime contribution

At CodiLime, we prioritize meeting the unique needs of our customers and strive to provide them with a seamless and enjoyable software experience. To achieve this, we developed a suite of peripheral libraries, plugins, and scripts for the client's platform. Our efforts have yielded the following results:

- **Improved accessibility** and **smooth operation** of the REST and gRPC APIs while minimizing errors.
- Streamlined onboarding of customer infrastructure, significantly **reducing the time and effort** required for this task.
- Expedited the development of visualization tools for the client's platform metrics, allowing for **swift and efficient creation** in a matter of hours.



Technologies and tools

Languages



Technologies and tools

Technologies



REST



About CodiLime

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Since 2011, CodiLime has been the engineering partner of choice for semiconductor companies, networking services, telecom services, and software solution providers.

We have come a long way – from a startup to a company that hires more than 350 top-notch software developers, network engineers, DevOps experts, and solution architects. **We focus on five N.E.E.D.S. - Networks, Equipment, Environment, Data and Security.**

We aim to link engineering talent with business domain expertise. Everything to provide our clients with delivery excellence and custom-tailored solutions.

Check out what our partners have said about us and how they evaluated our cooperation.

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