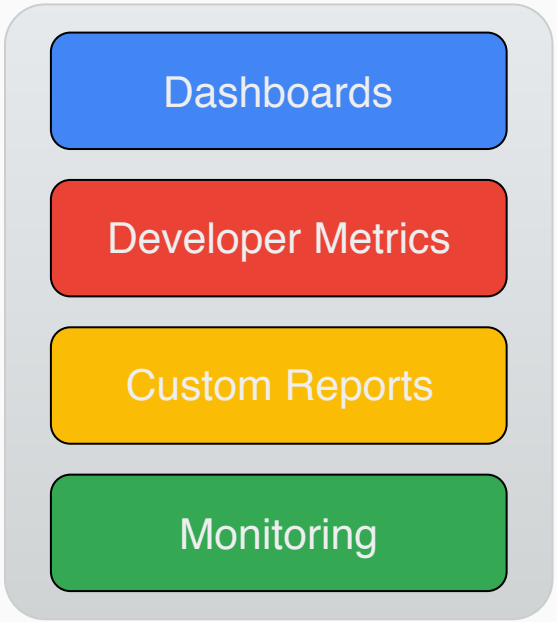
Google Cloud

Edge Analytics & Logging

Analytics

Edge Analytics Services

Purpose: *Understand API usage, see long-term API usage trends, and segment audiences.*



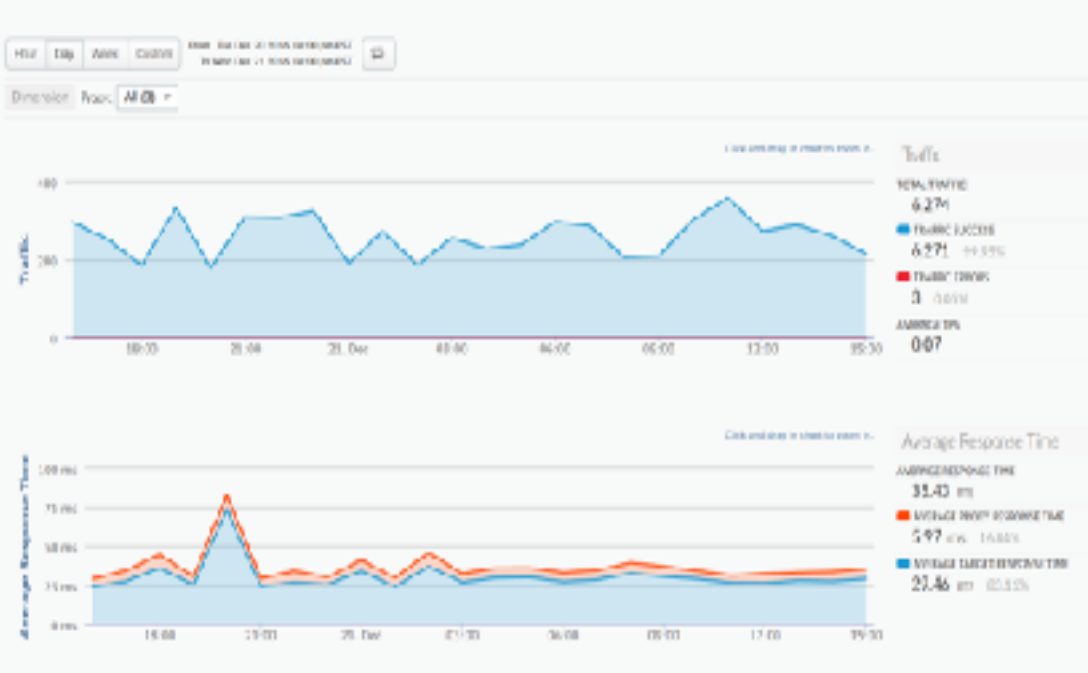
Check API adoption rates

Evaluate performance of APIs used by apps; verify to conformance

Evaluate bottom-line impact and ROI

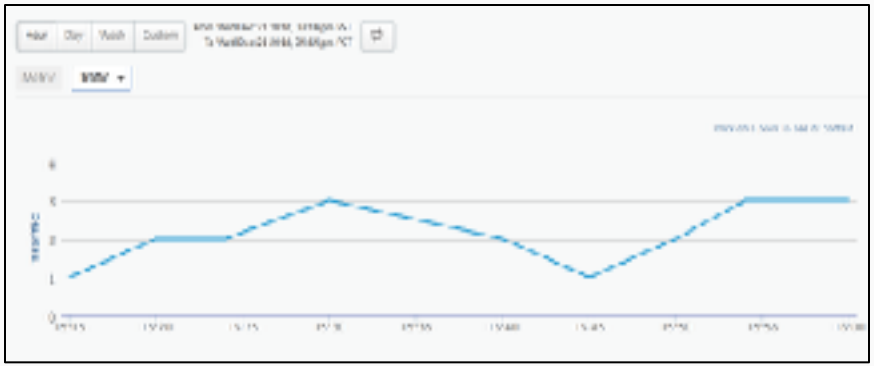
Verify SLA conformance; plan capacity expansion

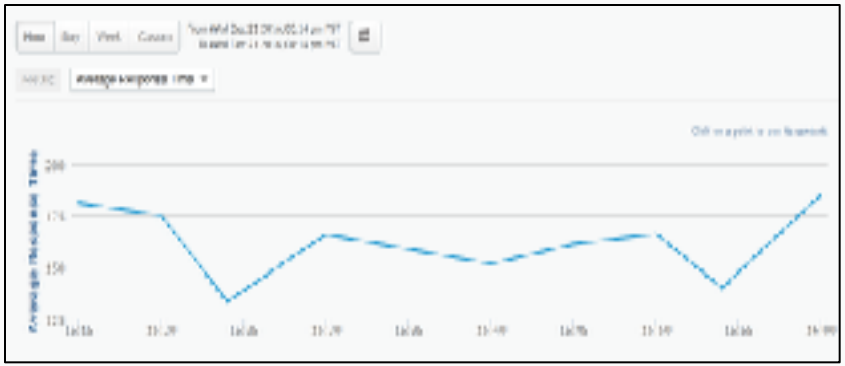
Edge Analytics Services

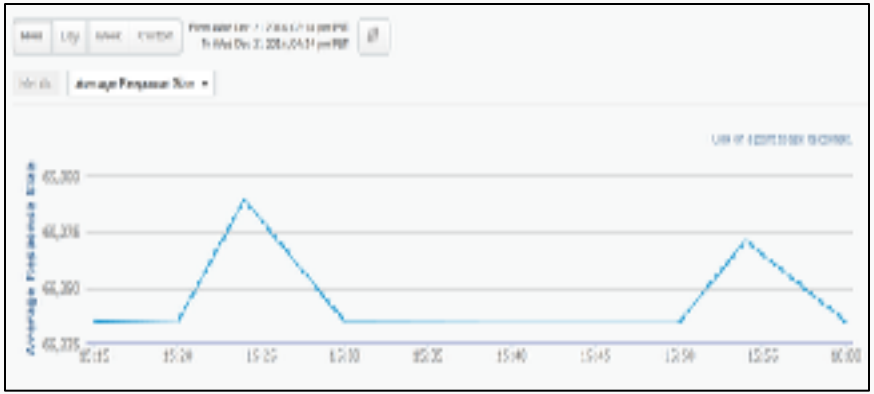


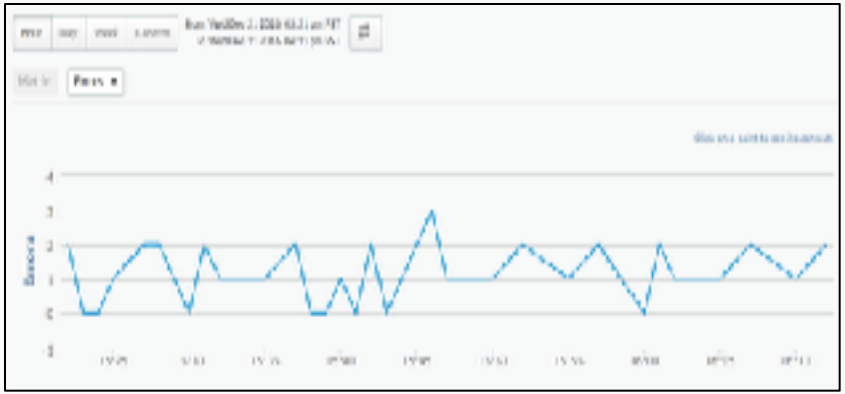
- Serves as the repository for analytics data
- Dashboards give information about all APIs or only specific APIs, and support drill-down to allow deeper analysis
- Provides statistical graphs that can be customized to meet specific requirements
- Allows statistics to be extracted using APIs and imported into other systems for further analysis

Edge Analytics Services









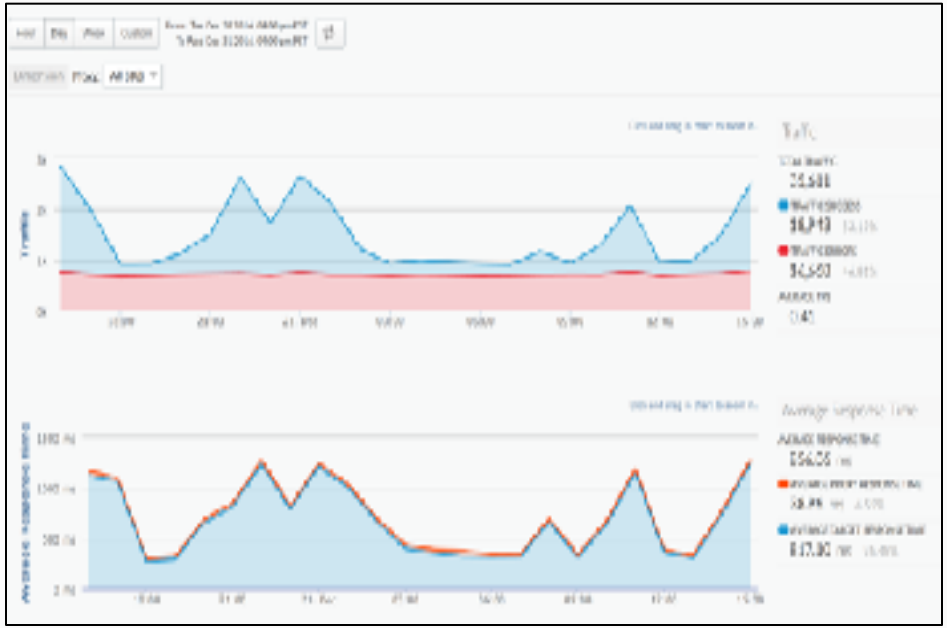
Edge Analytics Services

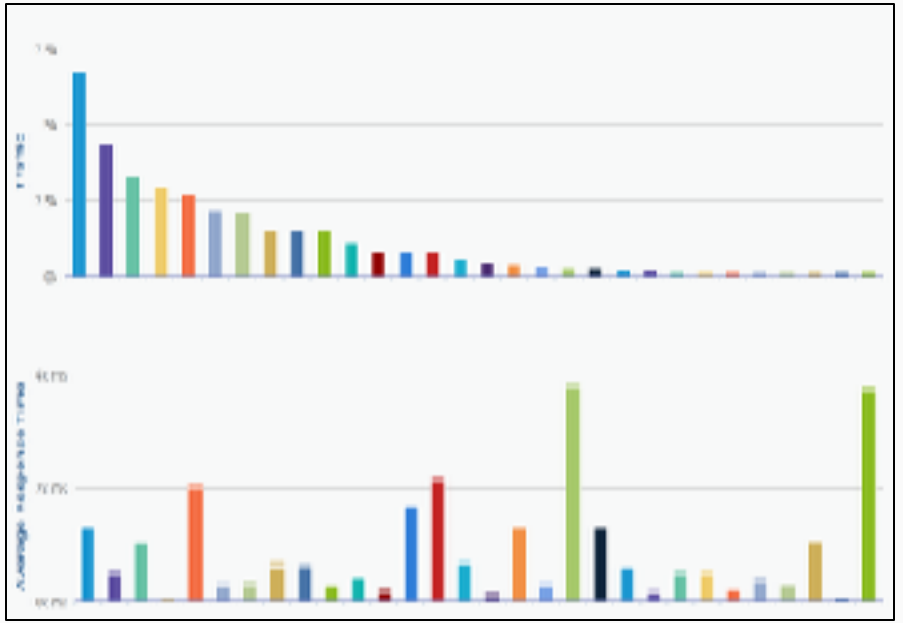
Analyze trends for your API program, inspect and diagnose problems, and generate reports.

Out of the box reports include:

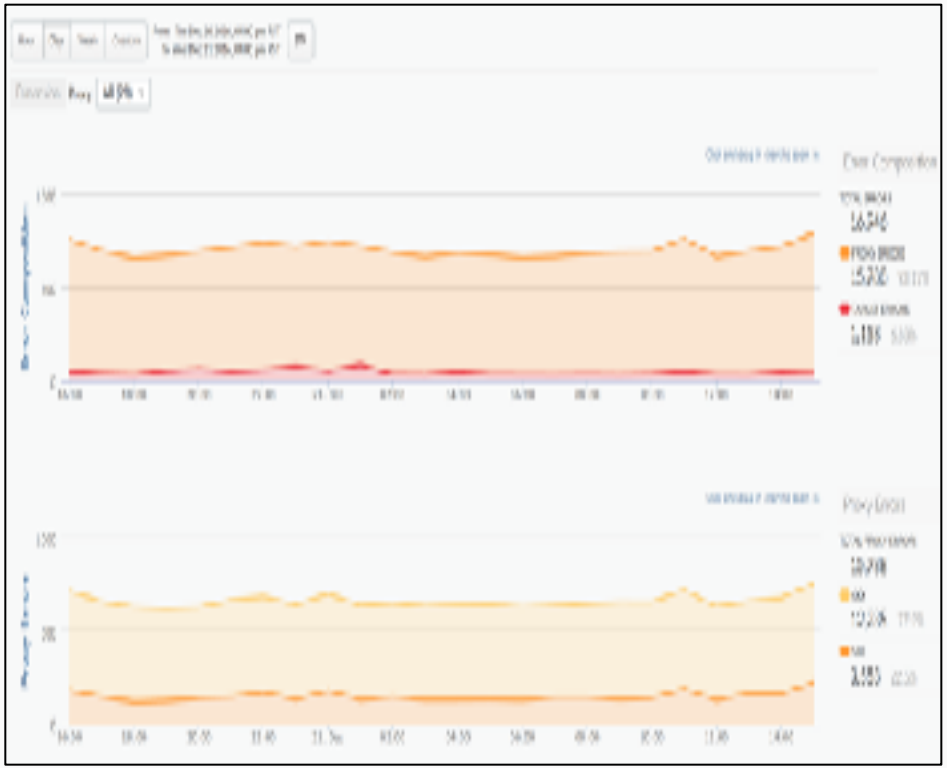
- **API Proxy Performance** - visualize how much traffic your APIs generate and how long it takes for API calls to be processed
- **Business Transactions** - helps you understand changes in API traffic that might be caused by specific business, marketing, or partner events
- **Cache Performance** - visualize the benefit of the cache in terms of lower latency and reduced load backend servers
- **Developer Engagement** - tells you which of your registered app developers are generating the most API traffic
- **Devices** - tells you about the devices and servers that are being used to access your APIs
- **Error Code Analysis** - tells you about error rates for API proxies and targets.
- **Geomap** - tracks traffic patterns, error patterns, and quality of service across geographical locations
- **Latency Analysis** - can alert you to any latency issues your API proxies may be experiencing
- **Target Performance** - helps you visualize traffic patterns and performance metrics for API proxy backend targets
- **Traffic Composition** - measures the relative contribution of your top APIs, apps, developers, and products to your overall API program
- **Custom Reports** - way to specify precisely what you want to measure across your API program

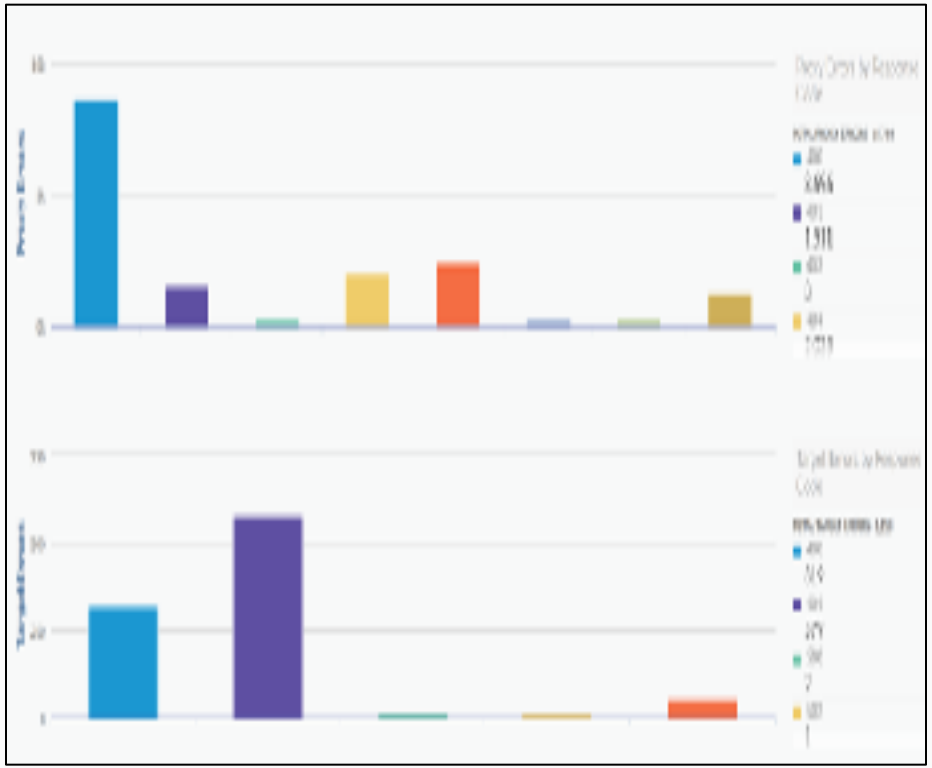
API Proxy Performance



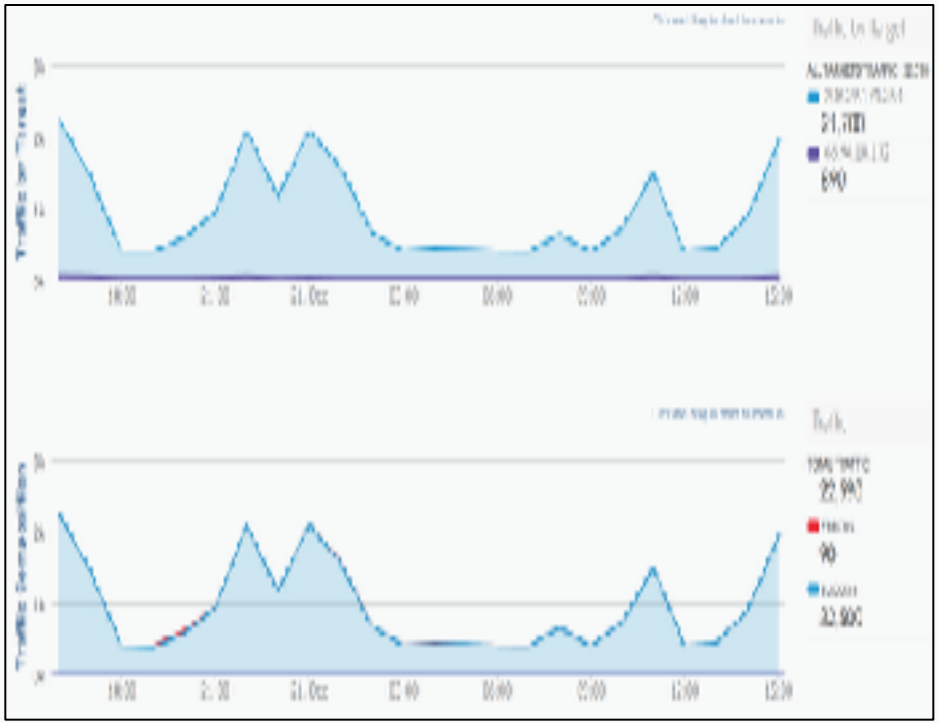


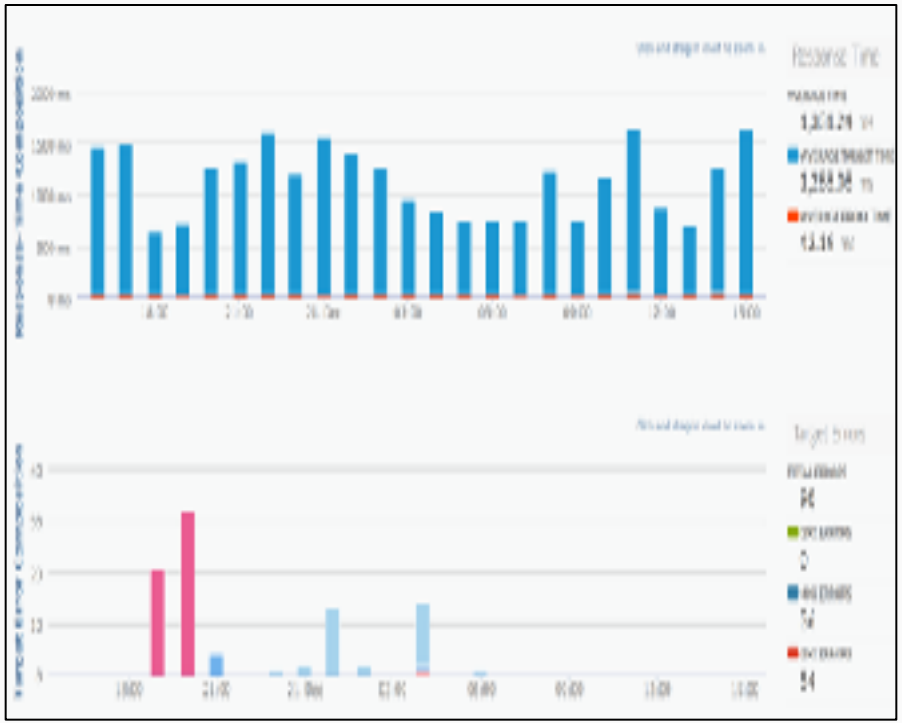
Error Code Analysis



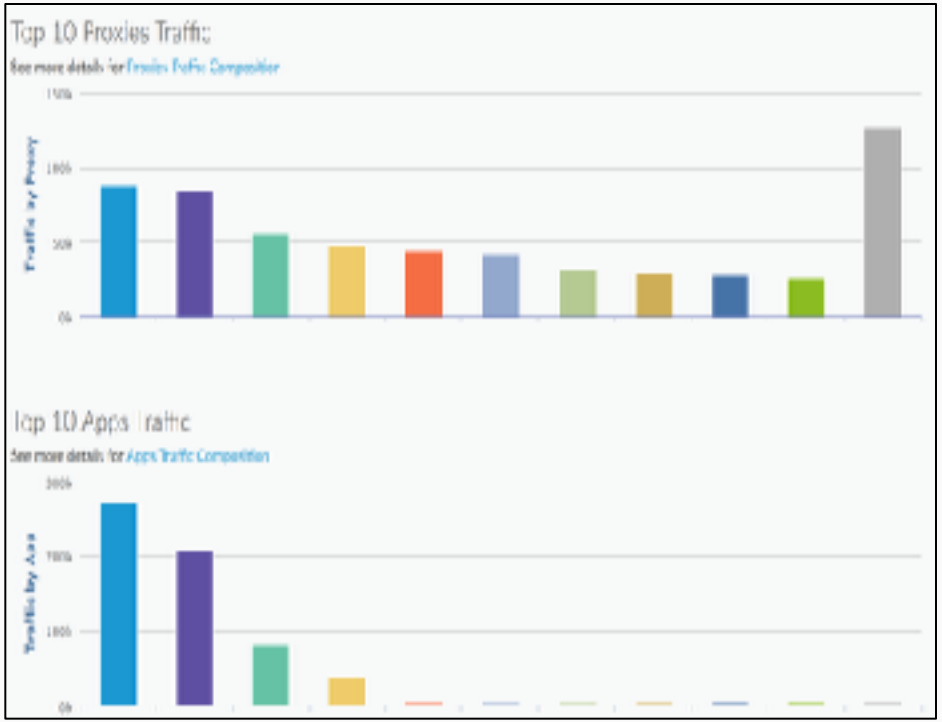


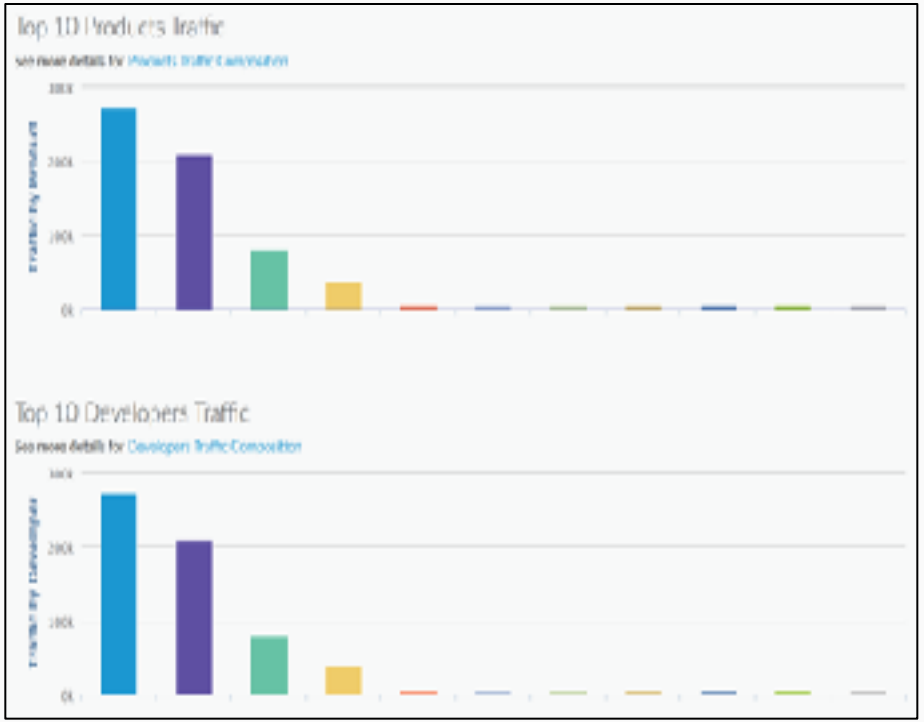
Target Performance



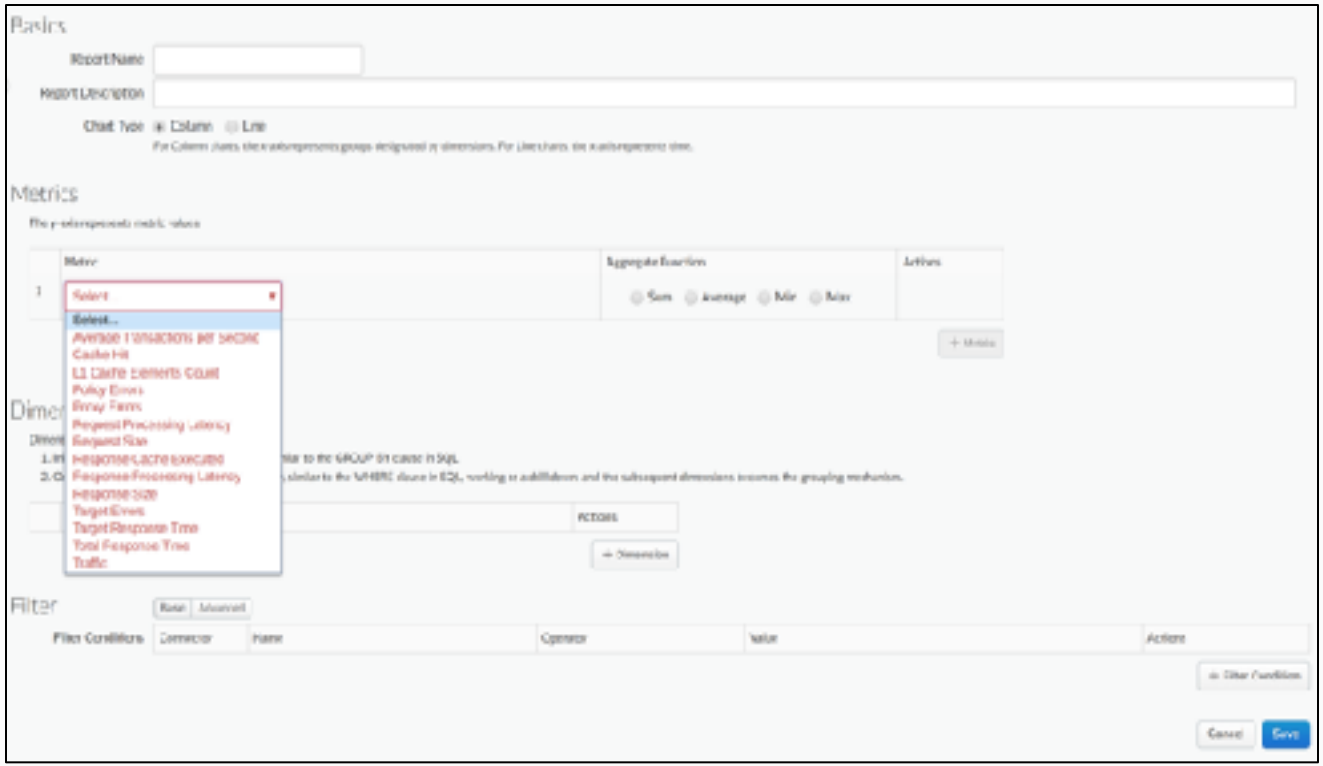


Traffic Composition





Custom Reports



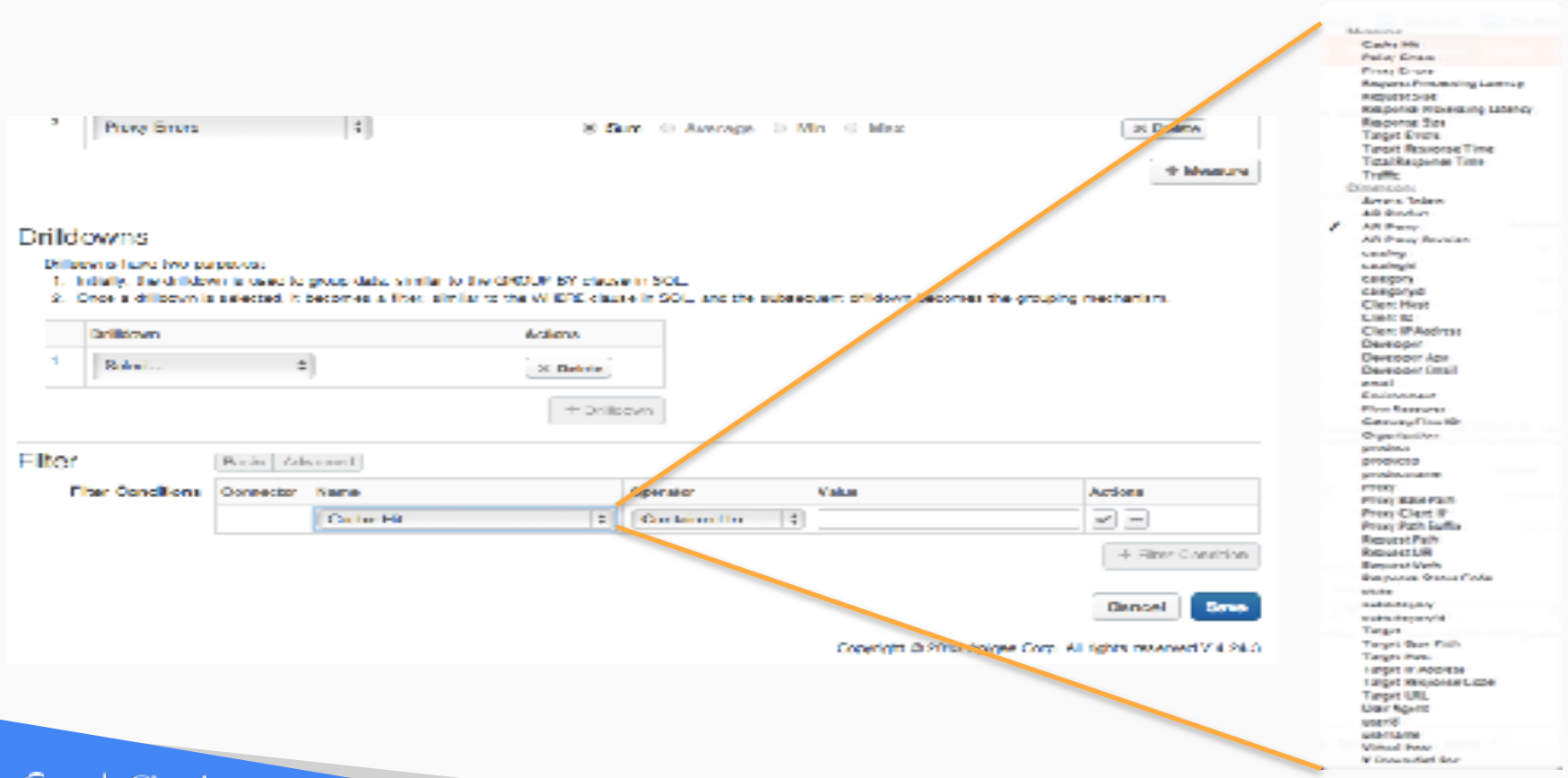
A custom report is a way to specify precisely what you want to measure across your API program. For instance, you can measure all API traffic generated from a specific client IP address.

Custom reports provide both chart and table views

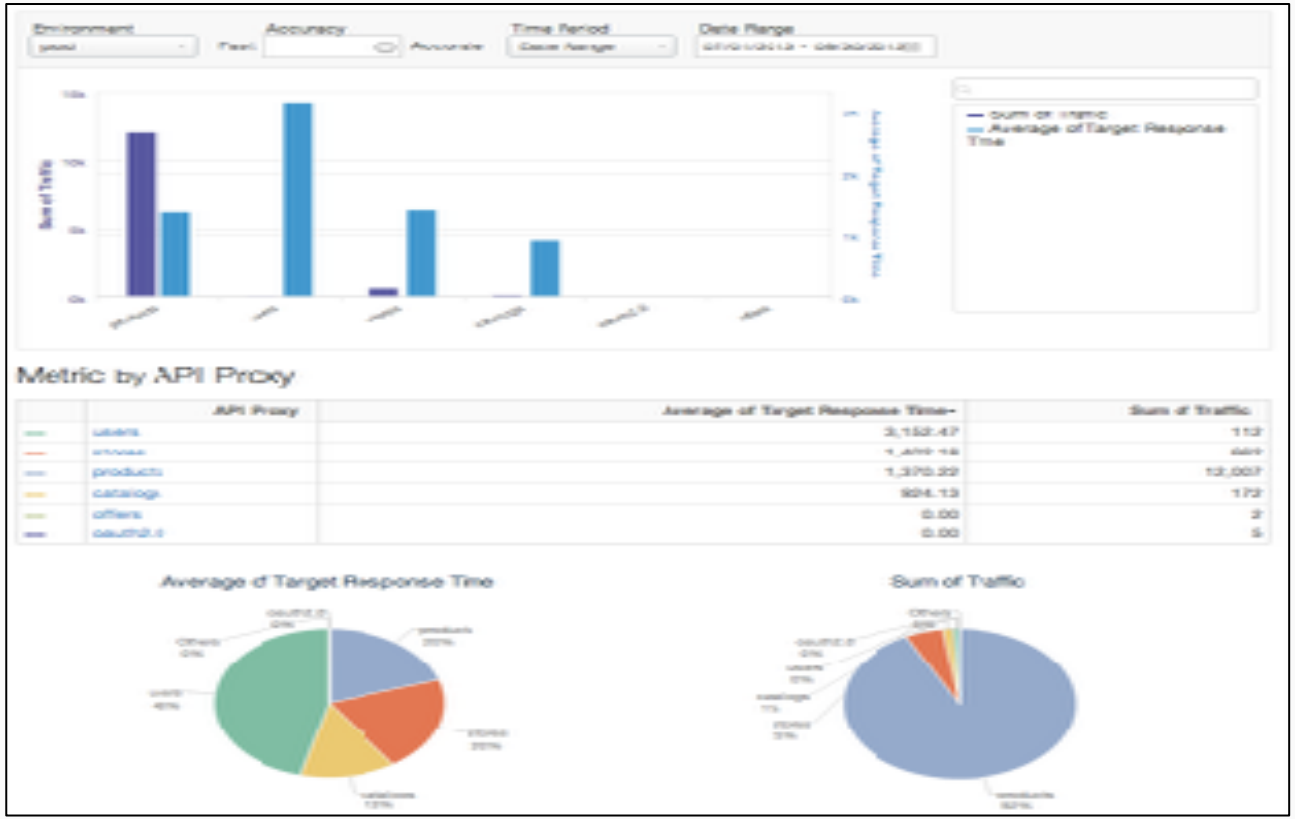
NOTE: After API calls are made to proxies, it takes about **12 minutes** for the data to appear in dashboards, custom reports, and management API calls.

Custom Reports

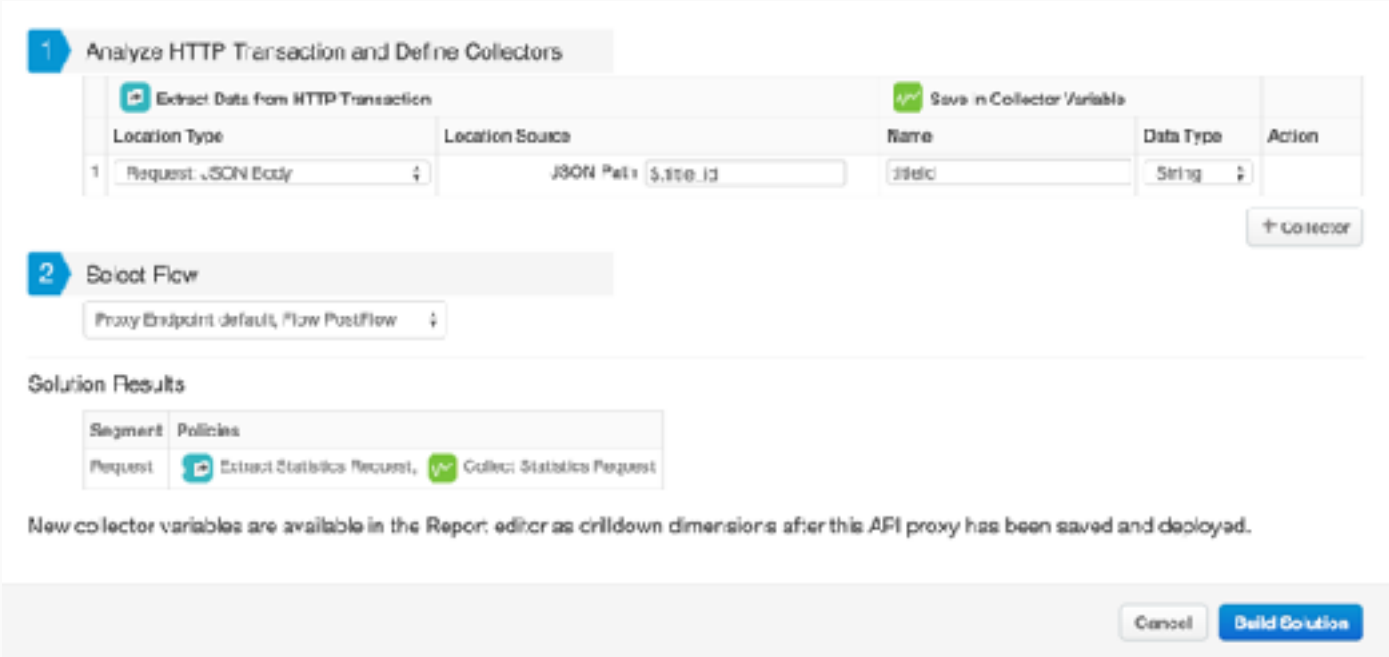
Custom Reports



Custom Reports



Custom Statistics Collector Policy



Edge allows developers to send any custom data in its out-of-box Analytics engine. This is available through a policy, and even a wizard to set up for you.

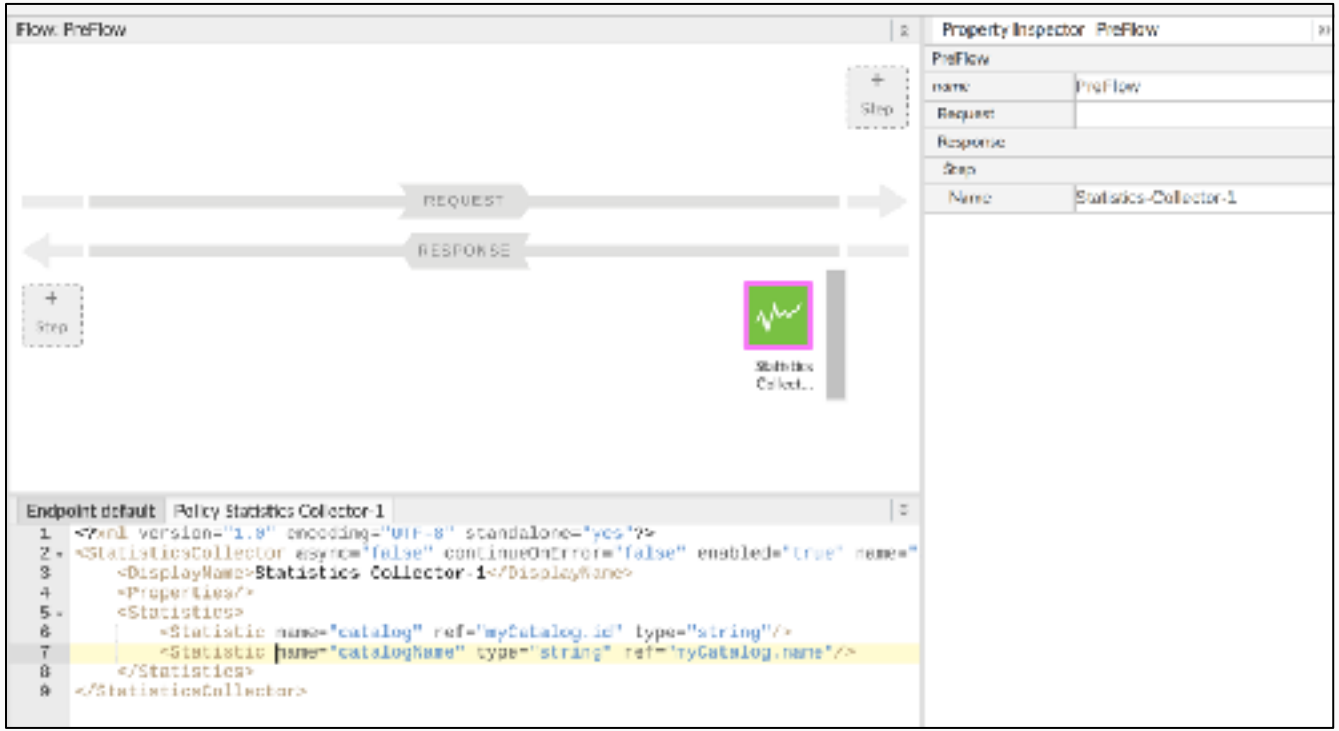
Custom Statistics Collector Policy

- Policies are auto-generated by the wizard
- Can be manually customized to extract any part of the HTTP message for used in the StatisticsCollector policy

```xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<ExtractVariables async="false" continueOnError="true" enabled="true" name="__extract-statistics-request__">
    <!-- Created by the Custom Analytics Collection tool on: Thu Aug 07 2014 10:17:10 GMT-0700 (PDT) -->
    <DisplayName>Extract Statistics Request</DisplayName>
    <JSONPayload>
        <Variable name="_jsonPayload" type="string">
            <JSONPath>$.title_id</JSONPath>
        </Variable>
    </JSONPayload>
</ExtractVariables>
```

```xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<StatisticsCollector async="false" continueOnError="false" enabled="true" name="__collect-statistics-request__">
    <!-- Created by the Custom Analytics Collection tool on: Thu Aug 07 2014 10:17:10 GMT-0700 (PDT) -->
    <DisplayName>Collect Statistics Request</DisplayName>
    <Statistics>
        <Statistic name="titleid" ref="_jsonPayload" type="String"></Statistic>
    </Statistics>
</StatisticsCollector>
```

Custom Analytics Data



- Add custom analytics data during API execution, then report on it using custom reports
- Custom analytics data can come from any portion of the inbound request or outbound response

Analytics API

- Edge Analytics Services exposes a RESTful API.
- Can be used to automate certain Analytics functions, such as retrieving metrics periodically using an automation client or script.
- Can also be used to build your own visualizations in the form of custom widgets that you can embed in portals or custom apps.

The base URL that you invoke to retrieve statistics for dimensions is the following:

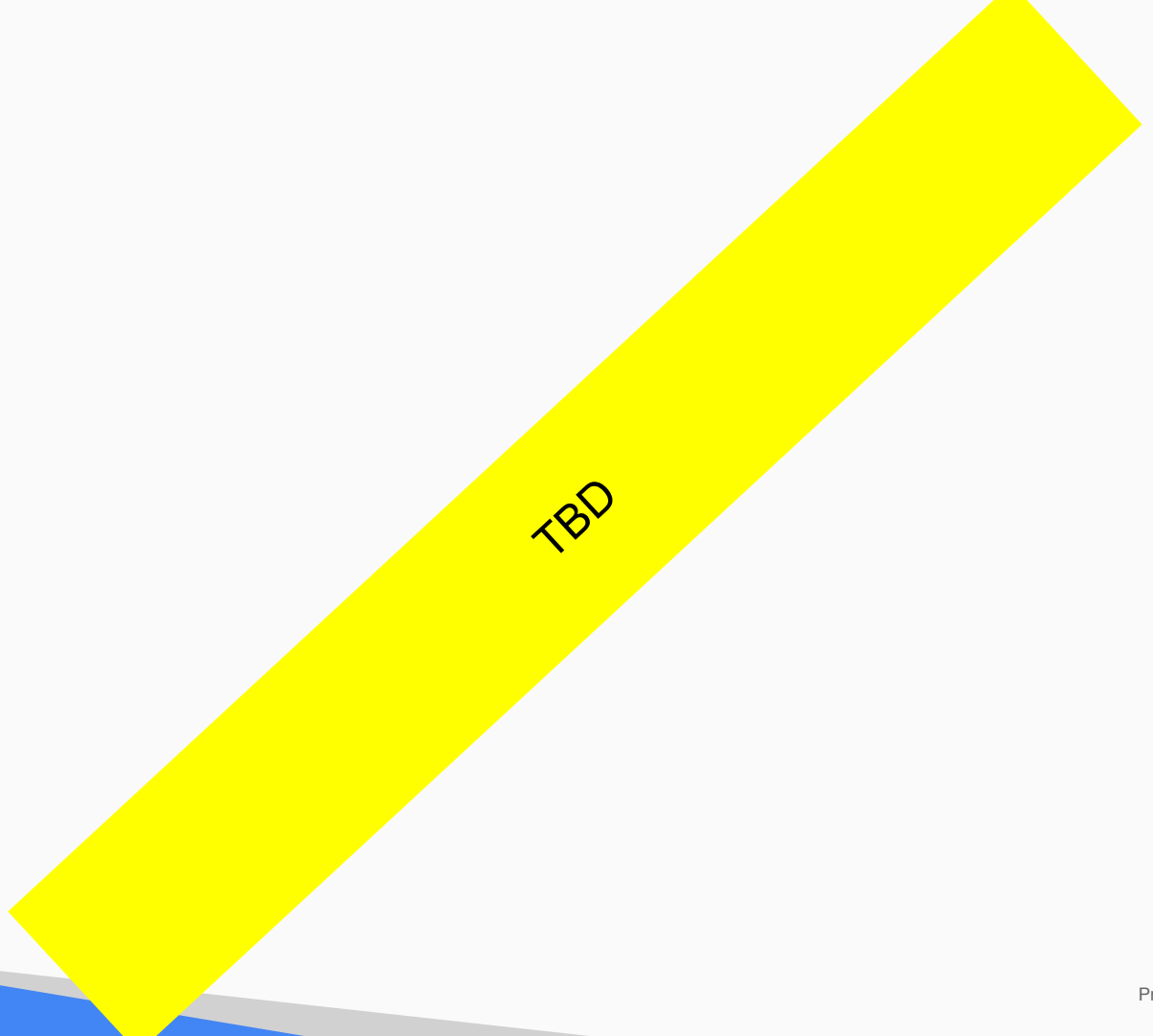
```
https://api.enterprise.apigee.com/v1/o/{org_name}/e/{env_name}/stats
```

The following dimensions are supported :

```
/apis

/apiproducts

/apps

/devs
```

For more info on the API, refer the following links:
https://docs.apigee.com/api/stats
https://docs.apigee.com/management/apis/get/organizations/%7Borg_name%7D/stats
https://docs.apigee.com/analytics-services/reference/analytics-command-reference

Lab



THANK YOU