Google Cloud

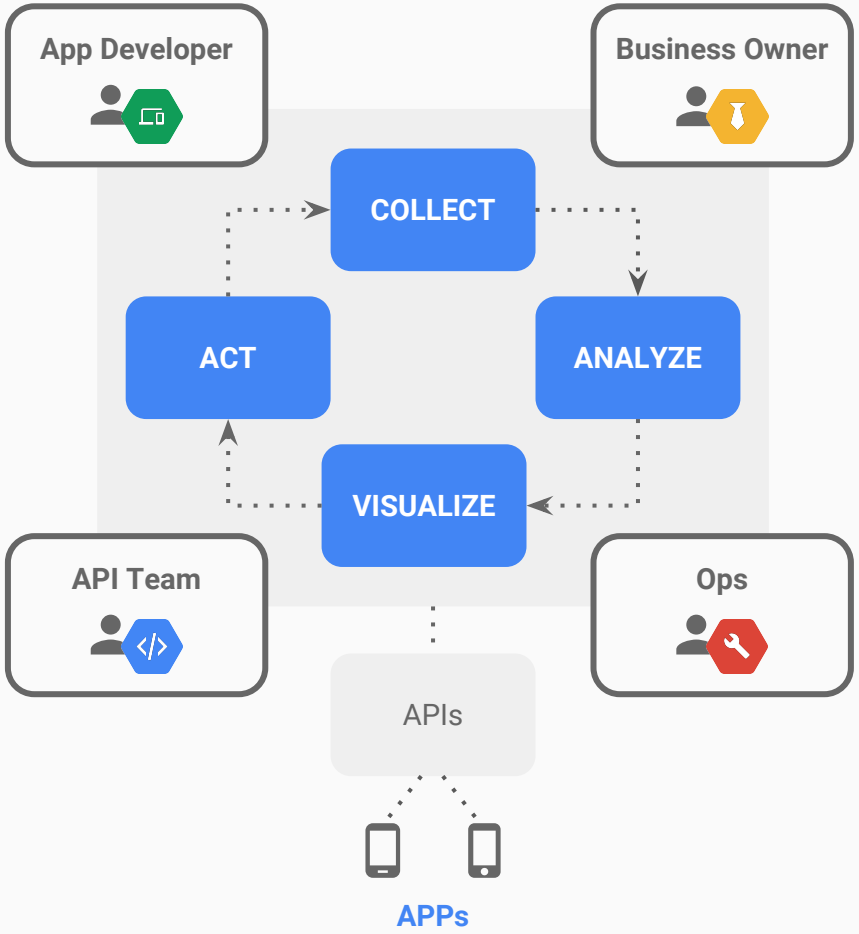
Edge
Analytics

Requirements Discovery

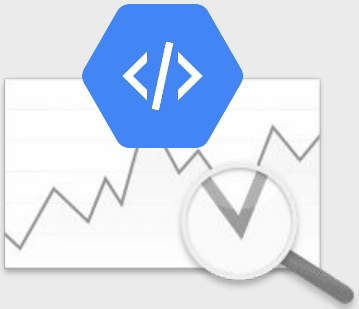
- How long does data analytics need to be retained?
  - Edge keeps data for 12 months - ?
- Are old analytics required to be archived?
  - ?
- Are there any requirements to purge old or unwanted analytics data?
  - ?
- Is there anything *in* your API messages that you would like to analyze?
  - ?

Insights that Lead to Action

From the app developer to the business owner, API analytics help everyone improve.



Analytics for API Teams



The analytics platform can provide insights into best practices on the most common policies implemented across a cross-section of APIs.

The API team can check things like:

- The impact of introducing a ResponseCache policy in the response time.
- The drop in traffic after setting API key authentication in an endpoint.
- ...

Analytics for Ops

The following metrics serve as first-level indicators for the overall health of the published APIs:

- Response times for both the API proxy as well as the back-end systems at multiple call distribution levels (median, TP95, and TP99, for example).
- Availability measurements based on error rates at each of the various tiers (client tier, API proxy, and the back-end systems).
- Cache performance for measuring response times and hit rates for each API enabled with local cache.

Identifying and blocking malicious users (automated bots) hitting APIs is also possible analyzing incoming traffic for patterns associated with API call frequency, location, ...

Analytics for Business Owners

The following metrics and indicators help product managers analyze the success of an API program:

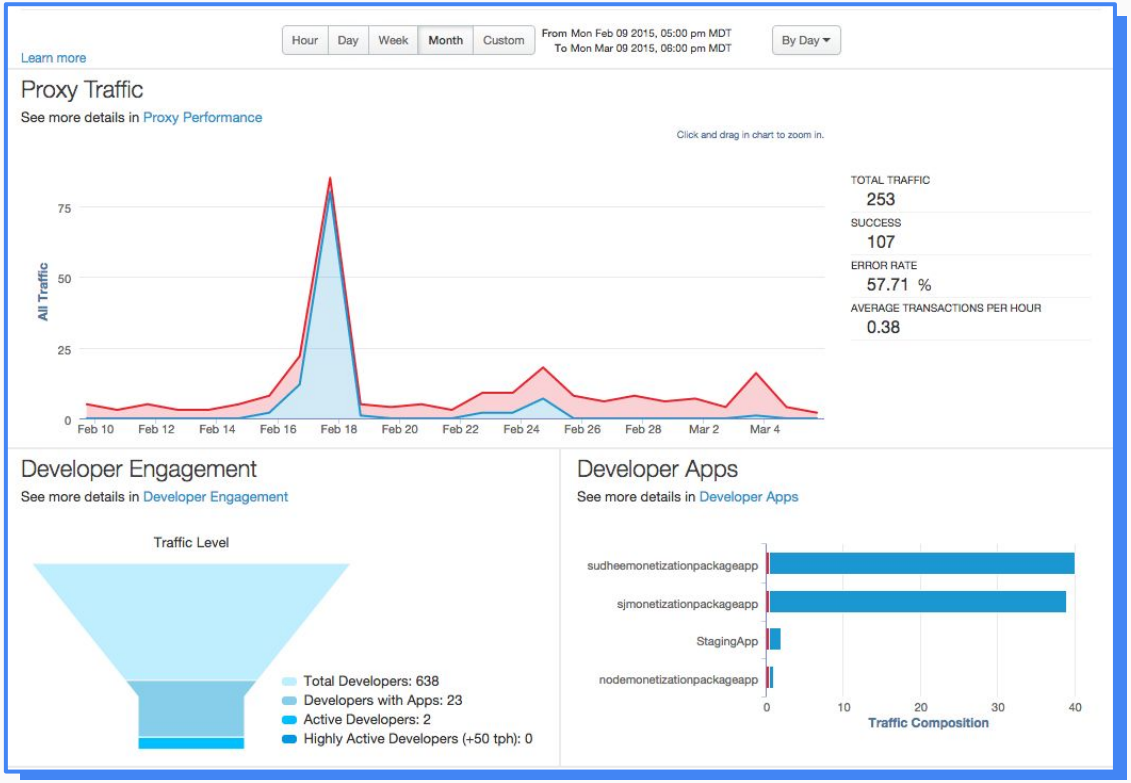
- API traffic trends broken down by products, app developers, and apps
- Trends in signups of new app developers and apps registered for each product
- Revenue or business value delivered for each published API
- Revenue generated from app developers for subscribing to published APIs
- Most prolific or highest-value developers
- Developers who consistently exceeding their quotas
- Developers who use APIs for free and are candidates for paid offerings

Analytics for App Developers

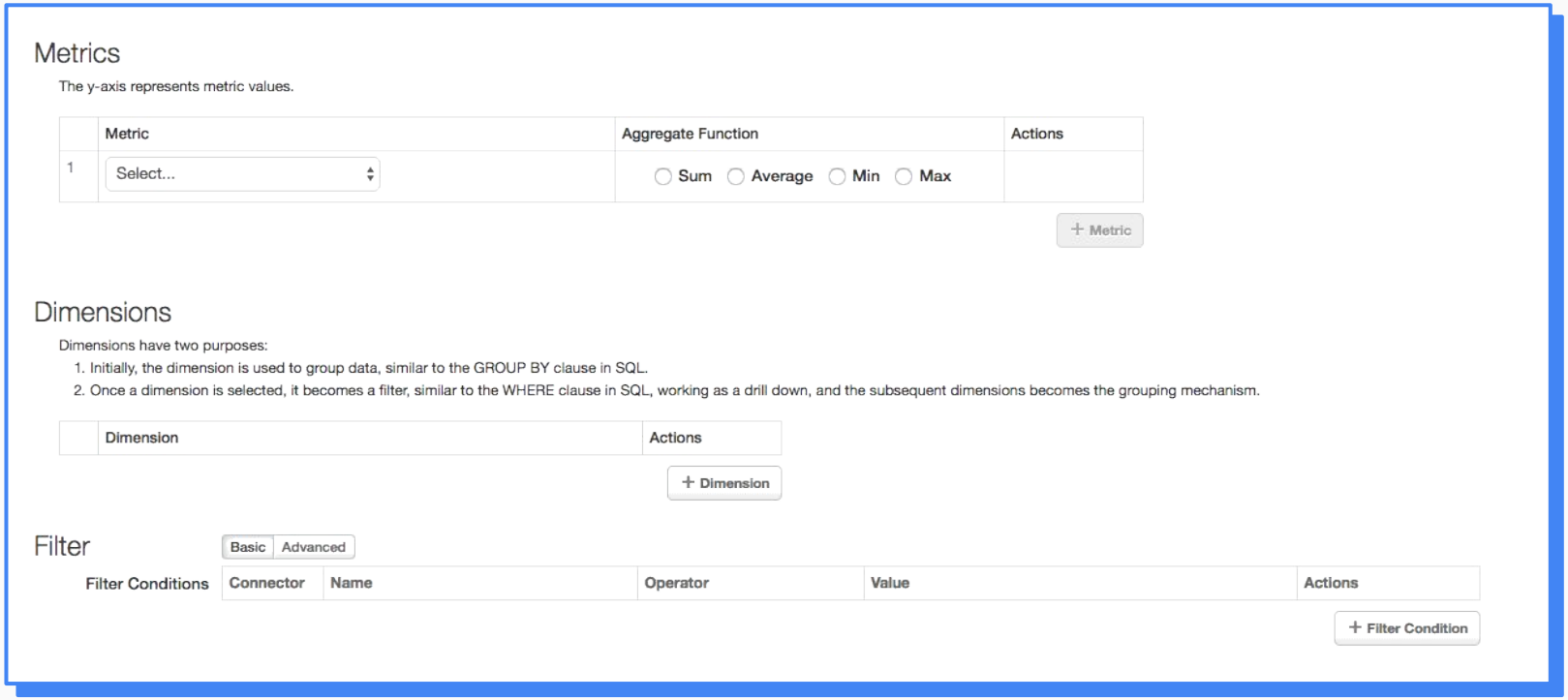
Some of the metrics that app developers care about include:

- Traffic volume, response times, and errors for each of the APIs called over time.
- Breakdown of API calls by the various registered apps.
- Distribution of clients (location, device type, OS platform) making those API calls.
- Overall availability for each of the APIs for valid calls that don't contain client-side errors.
- Traffic volume applicable to each of the pricing tiers.
- Monthly payment breakdown and overage charges (if applicable) per pricing tier.
- Revenue shared (if applicable) by the API publisher for calls made by the API subscriber's apps.

Dashboards



Custom Reports

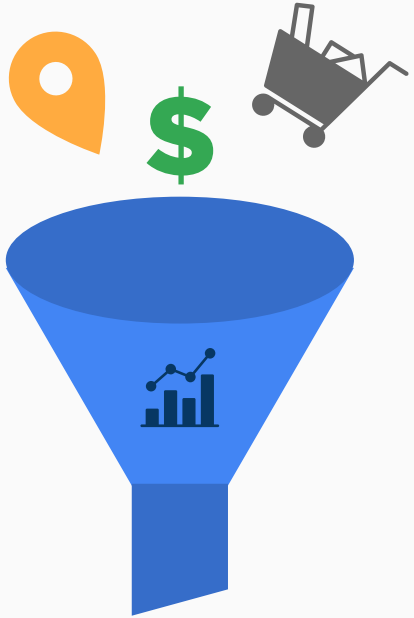


Custom Data Collection

Use Extract Variables and Statistics Collector Policies to collect metrics that are relevant to your business.

```
<ExtractVariables name="extractPurchaseDetails">
    <JSONPayload>
        <Variable name="product.id">
            <JSONPath>$.order.product.id</JSONPath>
        </Variable>
        <Variable name="product.price">
            <JSONPath>$.order.product.price</JSONPath>
        </Variable>
    </JSONPayload>
    <Source>response</Source>
</ExtractVariables>
```

```
<StatisticsCollector name="publishPurchaseDetails">
  <Statistics>
    <Statistic name="ProductID" ref="product.id" type="string"/>
    <Statistic name="Price" ref="product.price" type="string" />
  </Statistics>
</StatisticsCollector>
```



Analytics API

```
$ curl -v -u {email}:{password} "https://api.enterprise.apigee.com/v1/o/{org}/e/{env}/stats/apis?
select=sum(message_count)&timeRange=03/01/2016%2000:00~04/01/2016%2000:00"
```


```
{
  "environments" : [ {
    "dimensions" : [ {
      "metrics" : [ {
        "name" : "sum(message_count)",
        "values" : [ {
          "timestamp" : 1379548800000,
          "value" : "1100.0"
        } ]
      } ],
      "name" : "target-reroute"
    } ],
    "name" : "test"
  } ],
  "metaData" : {
    "errors" : [ ],
    "failedEnvs" : "[]",
    "notices" : [ ],
    "samplingRate" : "100"
  }
}
```