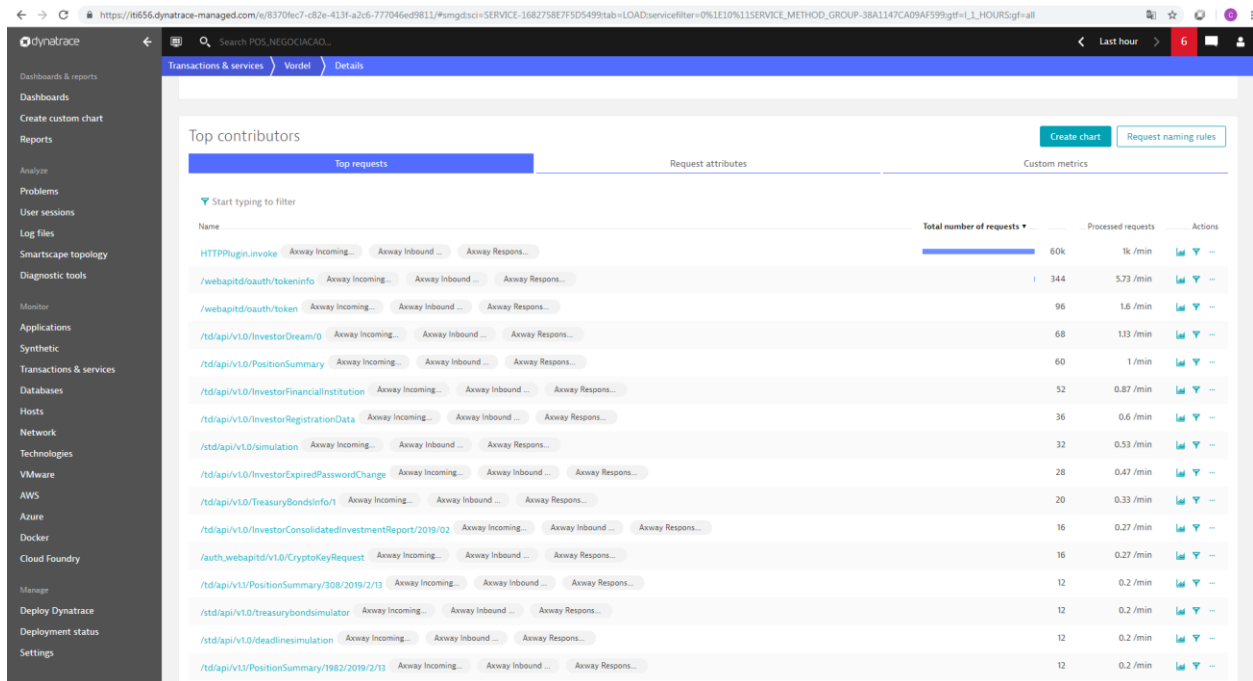


Instrumenting an API Gateway with Dynatrace

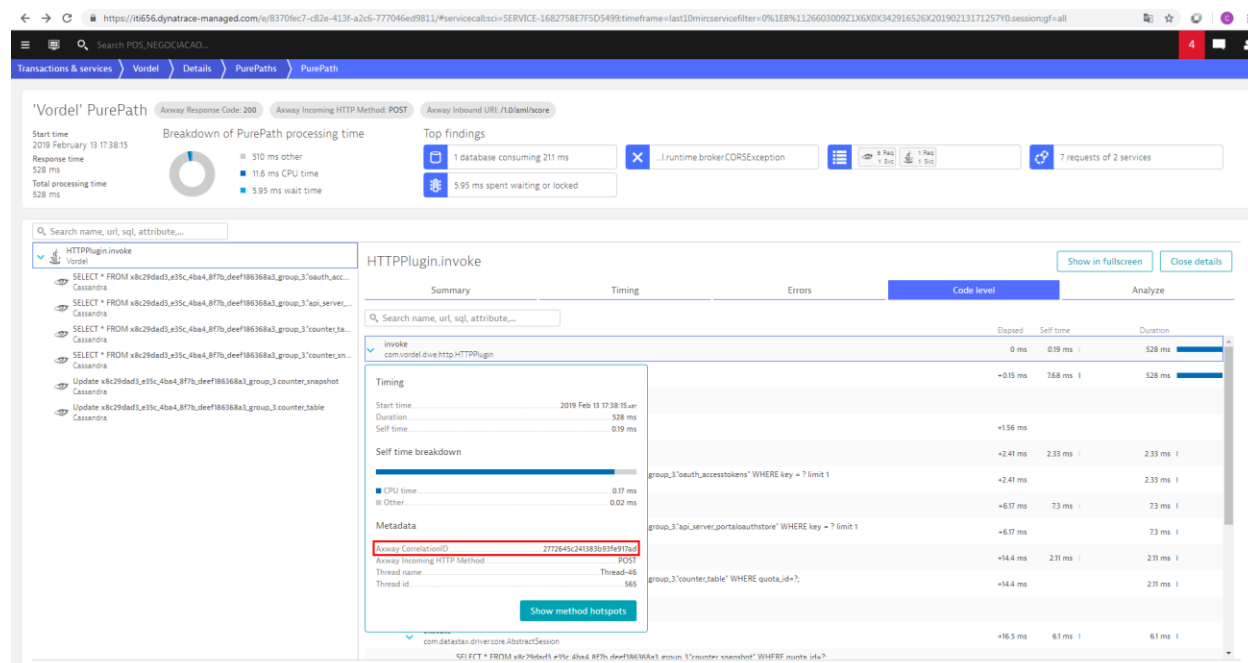
This document shows a sample setup of Dynatrace for monitoring the API Gateway. The classes monitored to capture the attributes are all shown in the final section of the document.

We can configure Dynatrace so that the URIs calling API Gateway are displayed and create unique baselines in Dynatrace Mark the most important URLs as “key requests” (click the desired request and mark the top 3 as the key requests)

<https://www.dynatrace.com/support/help/monitor/transactions-and-services/service-monitoring/what-are-key-requests/>



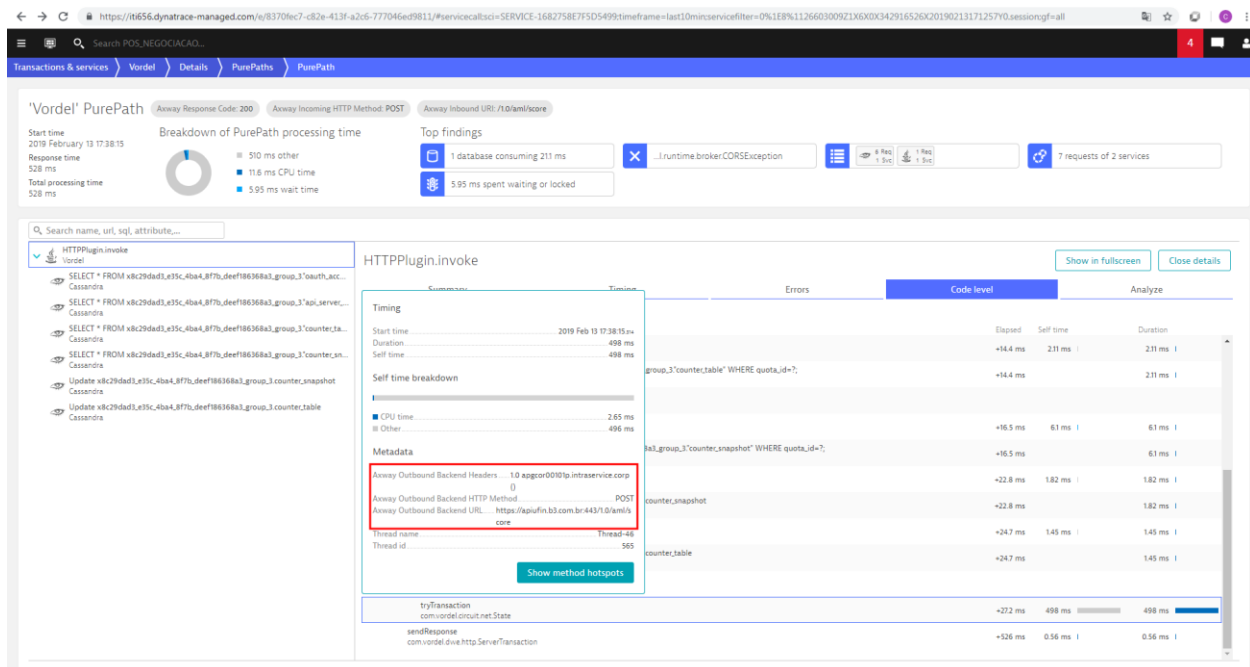
This shows us capturing the CorrelationID that API Gateway inserts to match with API Gateway logs:



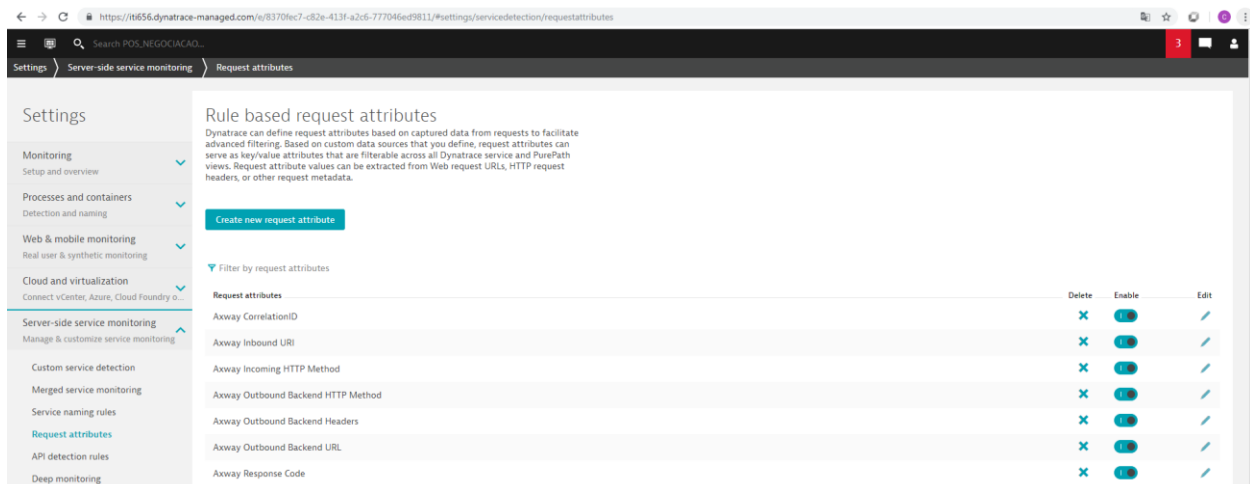
This is useful for matching requests from Dynatrace to the corresponding parts of the API Gateway trace file. A sample trace with the CorrelationID highlighted is shown below:

```
ERROR 13/Feb/2019:17:38:15.497 [215c:277645c241383b93fe917ad] Filter
'JSON Path' Status: ABORTED
```

We can also later create a new Request Attribute by capturing the X-Correlation-ID header from the servers that are API Gateway backends. The header's value will be something like "Id-277645c241383b93fe917ad 0"



- o We can choose a specific header to capture on the Axway call to the backend
- o We capture the exit URL in which Axway calls the backend
- o We capture the HTTP method Axway performs for the backend



Finally, this shows the names of all the attributes we captured, the classes from which these are captured are shown below.

Custom Service

Process: `vshell`

Entry Point: `com.vordel.dwe.http.HTTPPlugin`

Methods: `public void Invoke(com.vordel.dwe.http.HTTPProtocol, ...)`

Request Attribute

Response Code

Process: `vshell`

Class: `com.vordel.dwe.http.ServerTransaction`

Method: `public void sendResponse`

Argument: `1: int`

URI

Process: `vshell`

Class: `com.vordel.dwe.http.HTTPPlugin`

only if it begins with `/peal/api`

Method: `public void invokeDispose`

Argument: `3: ServerTransaction` `.getRequestURI()`

Backend Connection

Class: `ConnectionProcessor`

Method: `protected boolean invoke (the one with most arguments)`

Package: `com.vordel.circuit.net`

Argument: 2: `Message` `.get("http.request.uri")`

Axway CorrelationID (found in Axway logs)

Package/Class: `com.vordel.dwe.http.HTTPPlugin`

Method: `public void invoke`

Argument: 4: `CorrelationID` `.toString()`

Axway Incoming HTTP Method

Package/Class: `com.vordel.dwe.http.HTTPPlugin`

Method: `public void invoke`

Argument: 3: `ServerTransaction` `.getMethod()`

Axway Outbound Backend HTTP Method

Package/Class: `com.vordel.circuit.net.State`

Method: `public void tryTransaction`

Argument: this: `.verb`

Axway Outbound Backend Headers

Package/Class: `com.vordel.circuit.net.State`

Method: `public void tryTransaction`

Argument: this: `.headers.toString()`

Process Captured Message: Between:

`<Header-Name>=[` and `]`

Axway Outbound Backend URL

Package/Class: `com.vordel.circuit.net.State`

Method: `public void tryTransaction`

Argument: this: `.uri.toString()`