Express Gateway: Tips

Configuration: Order of Policies Matter

When working on Auth0, make sure that the order in which you set the pipelines' policies matches the order in which the policies are listed:
(gateway.config.yaml)

Metrics: Use epimetheus or prom-client Package

You can use either prom-client or epimetheus.
Personally, I found easier to use the epimetheus package in Gateway Express:

```
'use strict';

const epimetheus = require('epimetheus');

module.exports = function (gatewayExpressApp) {
  epimetheus.instrument(gatewayExpressApp, {url: '/metrics'});
};
```

Something to considered is that some of the metrics display by epimetheus and prom-client differ.
For example, with epimetheus the http request duration are in milliseconds:

```
http_request_duration_milliseconds{quantile="0.01",method="get",path="/api/",cardinality="one",status="200"}
1
```

while in prom-client, the http request duration are in seconds:

```
http_request_duration_seconds_bucket{service="api",instance="api-3432dc43c4-
h3eeg",le="0.005",path="/metrics",method="GET",apiVersion="1.0.0",status="200"} 466081
```

Swagger

Express Gateway use express. I tried different swagger packages; however, the closest results was to display all the endpoints from the admin side of Express Gateway.
Then, I decided to check the code implemented in the restify-swagger-jsdoc and it did the trick. Here is the modified code:

```javascript
'use strict';

const swaggerJSDoc = require("swagger-jsdoc");
const path = require("path");
const fs = require("fs");
const mime = require("mime-types");
const swaggerUiPath = path.dirname(require.resolve('swagger-ui'));
const publicPath = '/api'.replace(/\/+$/, '');

const swaggerSpec = swaggerJSDoc({
 swaggerDefinition: {
  info: {
   title: 'API documentation',
   version: '0.0.1',
   description: 'API documentation'
  },
  host: undefined,
  basePath: '/',
  schemes: undefined,
  tags: []
 },
 apis: [
  '../**/routes/*.js'
 ]
});

module.exports = function (gatewayExpressApp) {

 gatewayExpressApp.get(`${publicPath}/swagger.json`, (req, res) =&gt; {
  res.setHeader('Content-type', 'application/json');
  res.send(swaggerSpec);
 });

 gatewayExpressApp.get(new RegExp(publicPath + '\/?$'), (req, res) =&gt; {
  res.setHeader('Location', `${publicPath}/index.html`);
  res.sendStatus(302);
 });

 gatewayExpressApp.get(new RegExp(publicPath + '\/(.*)$'), (req, res) =&gt; {
  fs.readFile(path.resolve(swaggerUiPath, req.params[0]), (err, content) =&gt; {
   if (err) {
    res.sendStatus(500);
    res.send(`File ${req.params[0]} does not exist`);
    res.end;
    return;
   }
   if (req.params[0] === 'index.html') {
    let jsonFileUrl =  `${req.secure ? 'https' :
'http'}`.concat('://').concat(`${req.headers.host}${publicPath}/swagger.json`);
    content = new Buffer(content.toString().replace('url =
"http://petstore.swagger.io/v2/swagger.json"', `url = "${jsonFileUrl}"`));
   }
   const contentType = mime.lookup(req.params[0]);
   if (contentType !== false) {
    res.setHeader('Content-Type', contentType);
   }
   res.write(content);
   res.end();
  });
 });
```

```
};
```