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Edge Microgateway
Installation and Setup

Agenda

- Install Microgateway locally (v2.3.1)
- Configure Microgateway
- Start Microgateway
- Labs
- Replace default public/private keys

Installation - Prerequisites

- Edge public or private account
- Linux machine is recommended
    - macOS
    - Windows
        - Ubuntu installed in an Oracle Virtual Box VM
        - Cygwin

- Install most current version of Node.js LTS
- Create a Microgateway aware proxy in Edge

Microgateway Installation

Install the latest version of Microgateway with Node.js' NPM package manager. This is the only supported way to install it.

- -g installs Microgateway globally so that it is available from any directory on the command line.

```
npm install edgemicro -g
```

Install a specific version of Microgateway.

```
npm install edgemicro@2.3.1 -g
```

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Microgateway Initialization

Before Microgateway can be started it must be initialized. The init command completes the following:

- creates a new .edgemicro folder in within the current user's home directory
- creates a default.yaml file, which contains the default edgemicro configuration

```
edgemicro init
```

Configure Microgateway

Creates an edgemicro-auth proxy to generate JWTs

Creates a public/private key and the private key is stored in the Apigee Vault; private key is used to sign JWTs
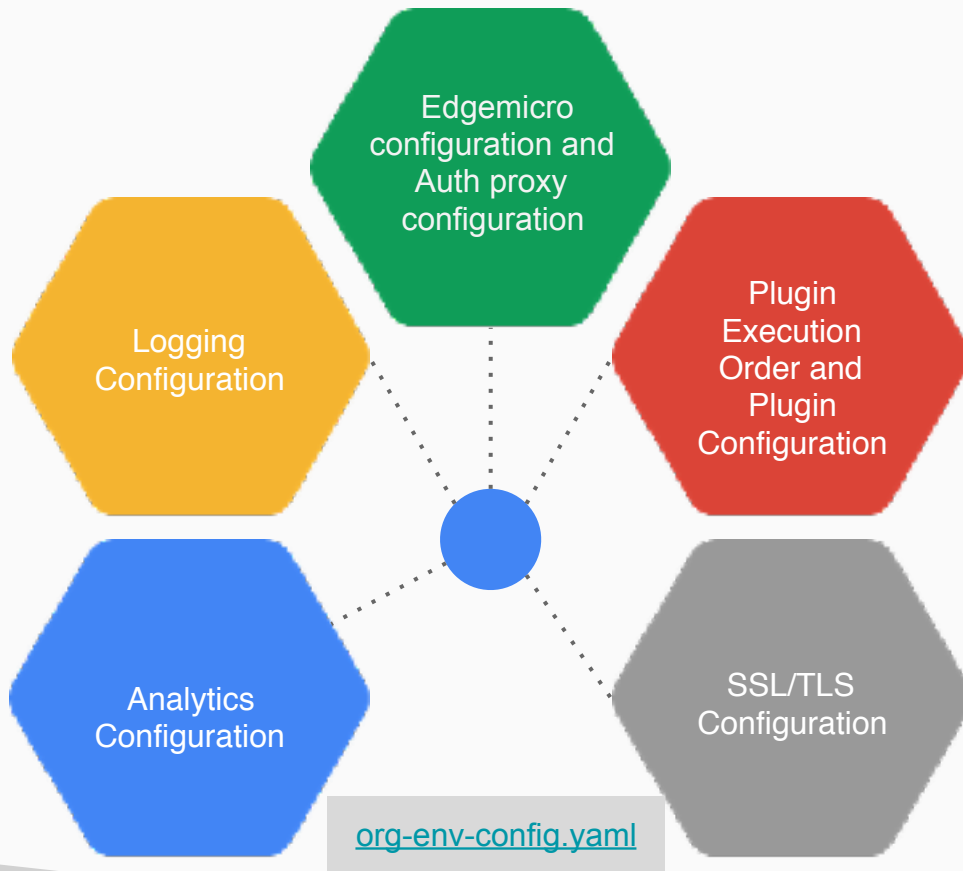
Creates a new Microgateway configuration file named org-env-config.yaml

Downloads Edge configuration such as products, proxies, developers, quotas and stores this data in the org-env-cache-config.yaml file

Creates a key and secret that is required to start Microgateway and it's used to asynchronously send analytics data to Edge

```
edgemicro configure –u org_admin –p org_admin_pass –o org
–e test
```

Microgateway Config file

Edgemicro configuration and Auth proxy configuration

Logging Configuration

Plugin Execution Order and Plugin Configuration

Analytics Configuration

SSL/TLS Configuration

org-env-config.yaml

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Microgateway Start

[Start the Microgateway](#) with the following command.

- Starting with version 2.1.x Microgateway starts in cluster mode by default.

  - Change the cluster size with -p 5 which starts Microgateway with 5 child processes.

- Starting with version 2.3.1 Microgateway will auto-reload configuration from Edge and the config file.

- By default it listens on port 8000

  - Change the default port with the command line argument

    - --port 8080

```
edgemicro start –k key –s secret –o org –e test
```

Microgateway Labs

Complete the following Edge Microgateway Labs.

- Review the prerequisites
- Lab - Setup Edge Microgateway aware proxy and start Node.js target server
- Lab - Install, configure and start Microgateway

Check the public certificate expiry time

Check the certificate expiry time

```
curl http://192.168.56.101:9001/edgemicro-auth/publicKey >> publickey.pem

openssl x509 -enddate -noout -in publickey.pem
```

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Update an existing self-signed public certificate

Create a new certificate

Create a new certificate from the same private key.

```
openssl req –new –x509 –key private.pem –out pubkey.pem –days 1095
```

Upload it to Edge and Restart Microgateway

Use the following curl commands to replace the current public key and private key.

```
curl -u "username:password" https://api.enterprise.apigee.com/v1/
organizations/org/environments/prod/vaults/microgateway/entries/
public_key -d "public key"
```

Restart Microgateway so that it picks up the new certificate.

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Create a public and private key

What if I want to use my own public and private key?

If you don't want to use the default Edge Microgateway public and private key then, you can create your own and upload them to Edge.

Create public/private key pair with OpenSSL

```
#generate the private key
openssl genrsa -out private.pem 2048

#generate the public certificate from the private key
openssl req -new -x509 -key private.pem -out pubkey.pem -days 1095
```

Upload it to Edge

Use the following curl commands to replace the current public key and private key.

```
curl -u "username:password" https://api.enterprise.apigee.com/v1/
organizations/org/environments/prod/vaults/microgateway/entries/
public_key -d "public key"

curl -u "username:password" https://api.enterprise.apigee.com/v1/
organizations/org/environments/prod/vaults/microgateway/entries/
private_key -d "private key"
```

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Restart Microgateway

Restart Microgateway to pick up the new public and private keys.

THANK YOU