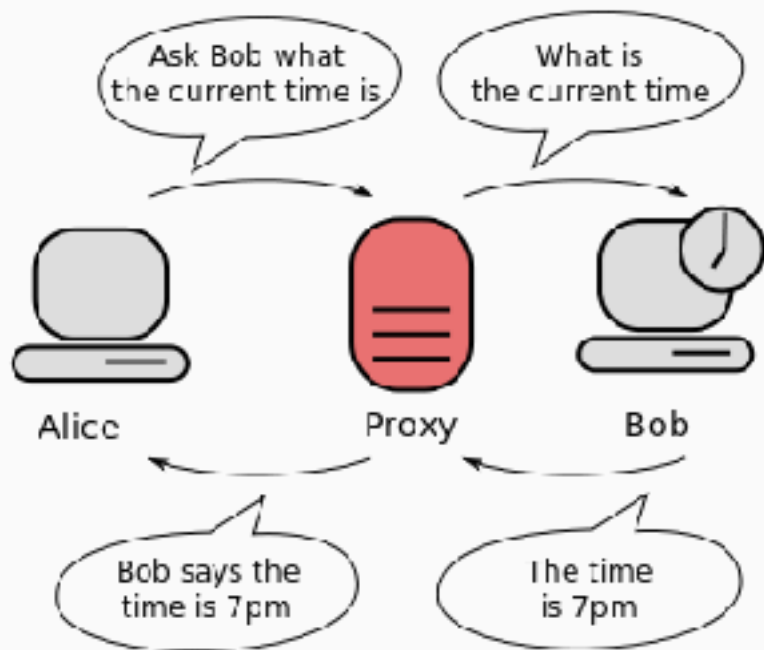Google Cloud

Edge Fundamentals
What is a Proxy ?

What is a Proxy ?

"a proxy is a computer system or an application that acts as an [intermediary](#) for requests from [clients](#) seeking resources from other servers"

For more info, see https://en.wikipedia.org/wiki/Proxy_server
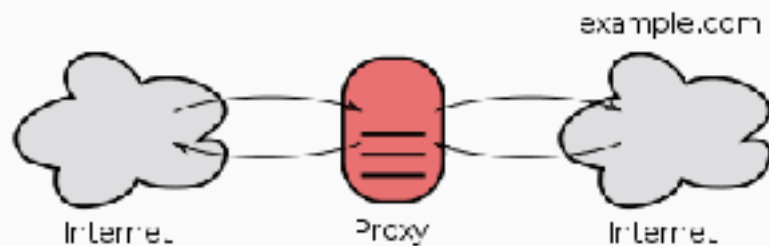
Proxy

Communication between two computers (shown in grey) connected through a third computer (shown in red) acting as a proxy. Bob does not know to whom the information is going, which is why proxies can be used to protect privacy.
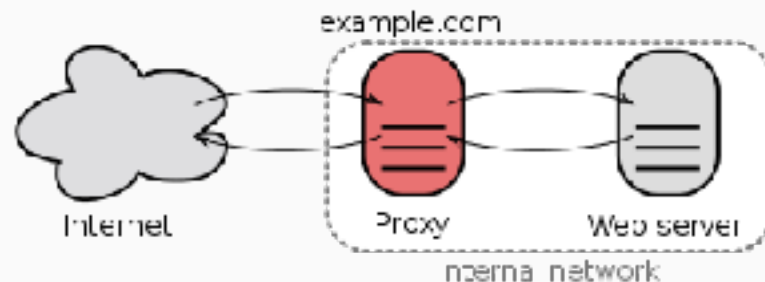
Common Proxy Types

Open Proxy

An open proxy forwarding requests from and to anywhere on the Internet.
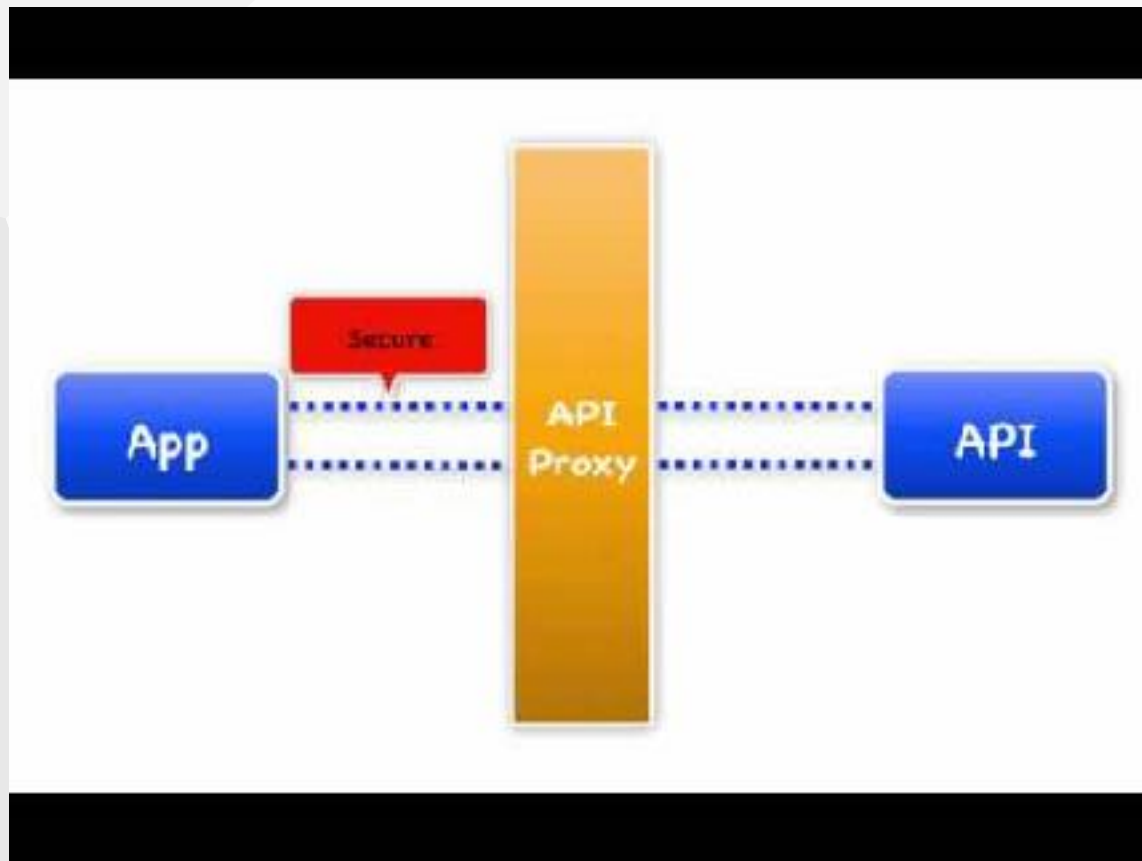
Reverse Proxy

A reverse proxy taking requests from the Internet and forwarding them to servers in an internal network. Those making requests connect to the proxy and may not be aware of the internal network.

API Proxy in Edge

API Proxy in Edge

Why Proxy? The proxy obviously adds an extra layer, an extra network hop! Then why do it?

By adding this layer,

you gain a **level of control and insight** into the inbound API requests.

verify security tokens

collect analytics information

serve requests from cache

perform traffic management

you gain insight into the **API usage**.

you **decouple** the developer-facing API from the API exposed by backend services.

it **shields** "consumer developers"

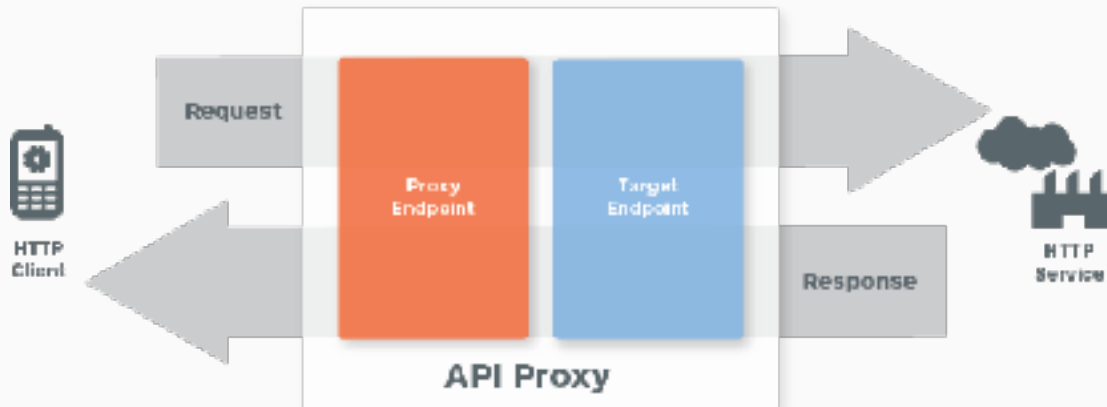it enables the API Provider, to **innovate** at the edge without impacting internal applications

it acts as a **service virtualization layer**

introduce new services that compose multiple backend services.

In short….

API Proxy translates to <u>API Management</u>

How an API Proxy works in Edge?

Proxy Endpoint

- This is the inbound request
- Configured to define the URL of your API proxy.
- Policies attached are to enforce security, quota checks, and other types of access control and rate-limiting

Target Endpoint

- This is the outbound request
- Configured to forward requests to the proper backend service, including defining any security settings, protocol, and other connection information
- Policies attached are to ensure that response messages are properly formatted for the app that made the initial request.

THANK YOU