Google Cloud

Edge Security

OAuth - Implicit

OAuth grants

An OAuth Grant is a credential representing the resource owner's authorization. More often than not, we tend to think of grants in terms of the process used to obtain an access token.

Grant Type	Typical Use Case	Complex?
No specific resource owner is involved		
Client Credentials	Business system interactions, where resources being operated on are owned by the partner, not a particular user	No
A specific resource owner is involved		
Resource Owner Password Credentials	Resources are owned by a particular user and the requesting application is trusted	A bit
Authorization Code	Resources are owned by a particular user and the requesting application is untrusted	Very
Implicit	Resources are owned by a particular user, and the requesting application is an untrusted browser-based app written in a scripting language such as JavaScript	Very, and potentially insecure as well

Implicit grant type

A simplified version of authorization code

Resources participating in authorization code grant type

- End user
- Client application
- User agent
- Edge - generating and validating token
- Authentication server - to validate the credentials
- Backend API resource

Used when the app resides on the client

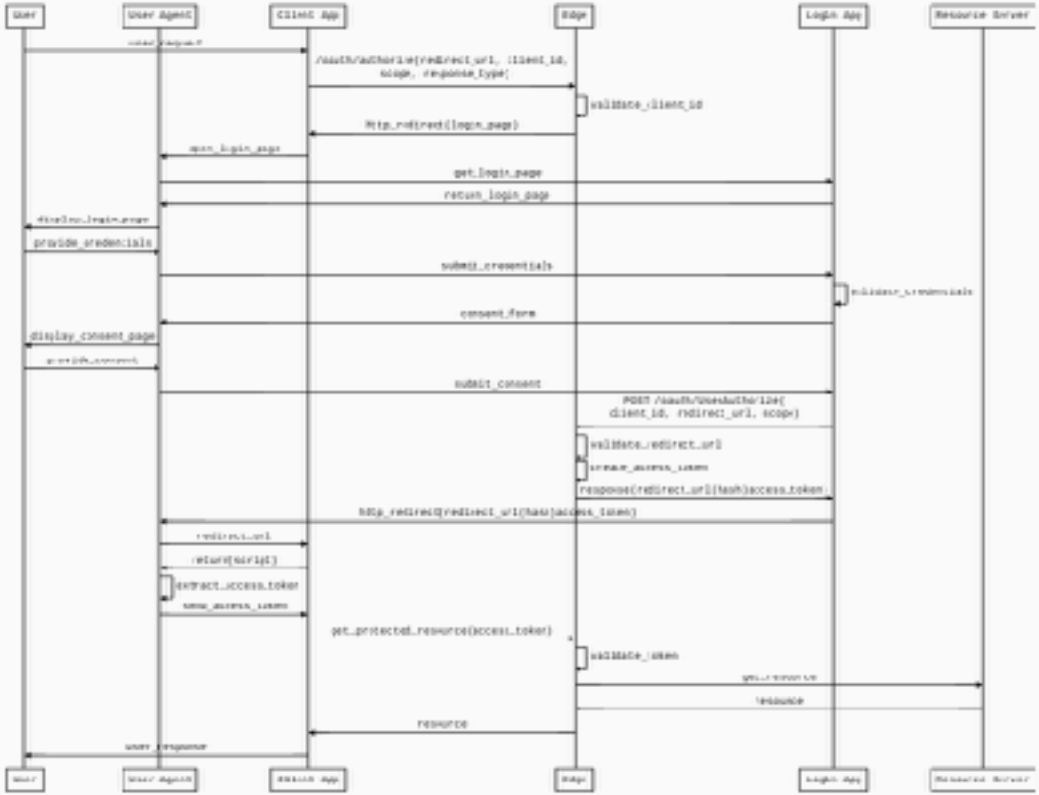
- For example, the app's code is implemented in a browser using JavaScript

Authorization server returns an access token directly when the user is authenticated, rather than issuing an authorization code first

Can improve app responsiveness in some cases

This advantage needs to be weighed against possible security implications as described in the IETF specification

Implicit - Sequence diagram



Generate implicit access token

```
<OAuthV2 async="false" continueOnError="false" enabled="true"
name="GenerateAccessTokenImplicit">
    <DisplayName>GenerateAccessTokenImplicit</DisplayName>
    <Operation>GenerateAccessTokenImplicit</Operation>
    <ExpiresIn>600000</ExpiresIn>
    <GenerateResponse/>
</OAuthV2>
```

Verify OAuth token policy

The OAuthV2 policy's "VerifyAccessToken" operation will validate the access token for subsequent requests for all grant types.

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<OAuthV2 async="false" continueOnError="false" enabled="true" name="VerifyOAuthToken">
    <DisplayName>OAuth Verify Token</DisplayName>
    <Operation>VerifyOAuthToken</Operation>
</OAuthV2>
```

Set the access token as the Bearer token in the Authorization header of the http request.

```
curl -H "Authorization: Bearer {access_token}"
http://myorg-test.apigee.net/v1/cc/oauth_cc_weather/forecastrss?w=12797282
```

THANK YOU