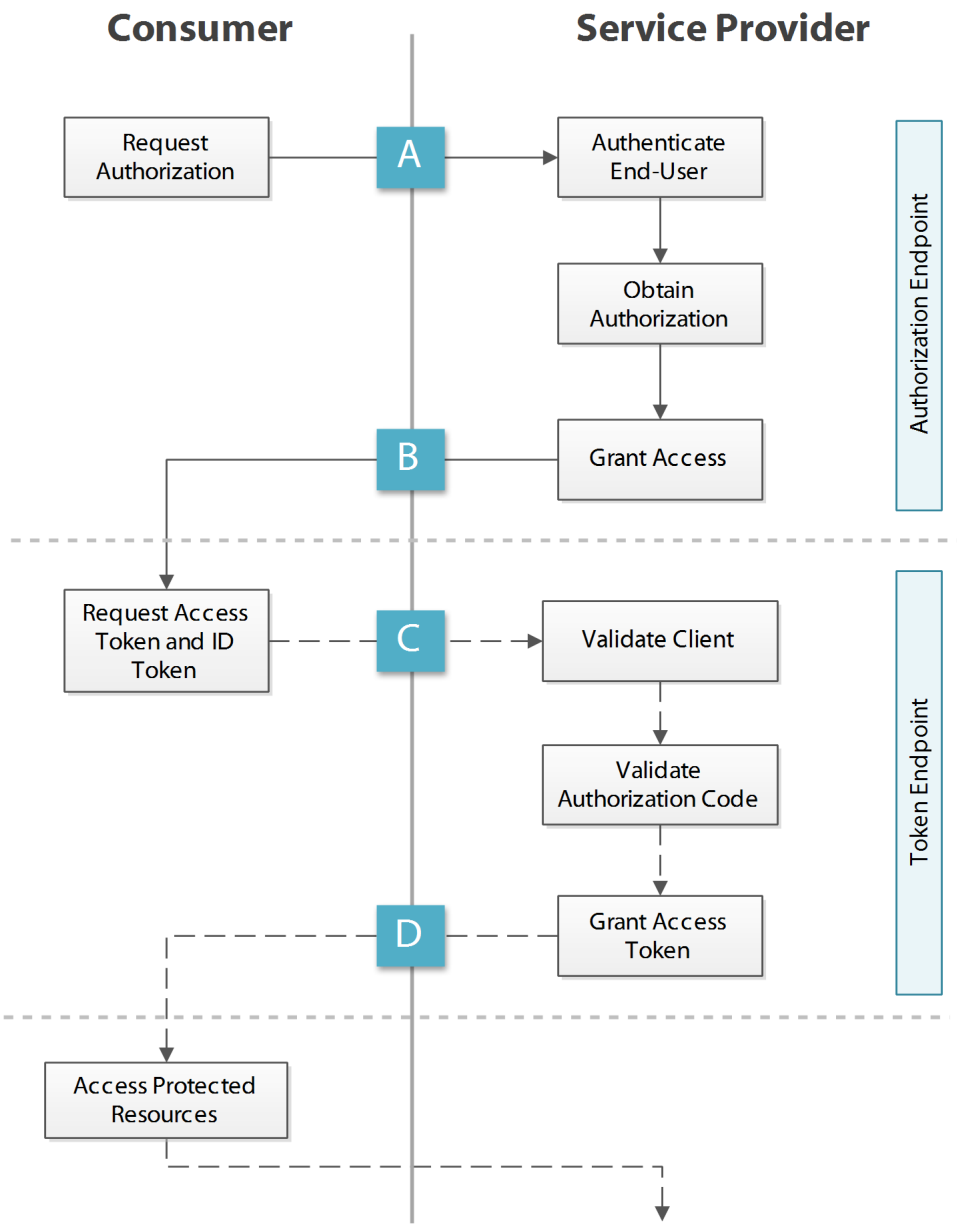
Front Channel / Through User Agent

Back Channel / Direct Communication

# OpenID Connect
## Authorization Code Flow




**A** **Consumer Requests Authorization**

**Request includes**
response_type: `code`
scope: `openid` *(required; may optionally include other scopes)*
client_id
redirect_uri *(optional; may be pre-configured with service provider)*
state *(optional, recommended)*
nonce
display *(optional)*
prompt *(optional)*
request *(optional)*
request_uri *(optional)*

**B** **Service Provider Grants Authorization**

**Response includes**
code
state *(required IFF state was sent in the request; must be equal to what was received)*

**C** **Consumer Requests Access Token and ID Token**

**Request includes**
grant_type: `authorization_code`
code
redirect_uri *(optional; may be pre-configured with service provider)*

**If the client is confidential, it must authenticate with the Authorization Server in this request.**

**D** **Service Provider Grants Access Token and ID Token**

**Response includes**
access_token
id_token
token_type: `Bearer`
expires_in *(optional)*
refresh_token *(optional)*
scope *(optional; SHOULD be included if the scope granted differs from the scope requested)*

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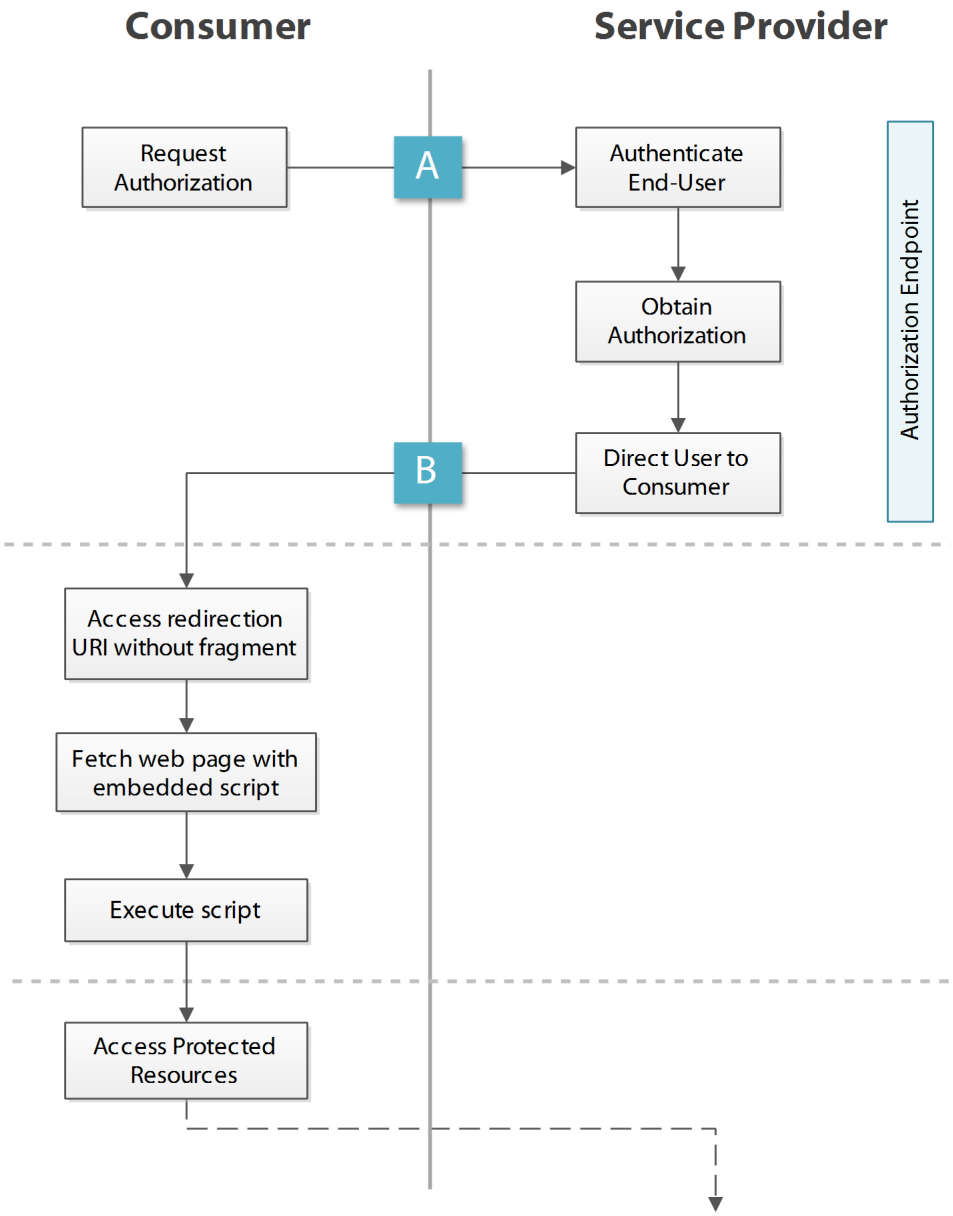
# OpenID Connect
## Implicit Flow




**A** **Consumer Requests Authorization**

**Request includes**
response_type: `id_token token`
scope: `openid` *(required; may optionally include other scopes)*
client_id
redirect_uri *(optional; may be pre-configured with service provider)*
state *(optional, recommended)*
nonce
display *(optional)*
prompt *(optional)*
request *(optional)*
request_uri *(optional)*

**B** **Service Provider Grants Authorization**

**Redirection URI (302 Found) includes (url-encoded in fragment)**
access_token
id_token
token_type: `Bearer`
expires_in *(optional)*
refresh_token *(optional)*
scope *(optional; SHOULD be included if the scope granted differs from the scope requested)*
state *(required IFF state was sent in the request; must be equal to what was received)*

Front Channel / Through User Agent

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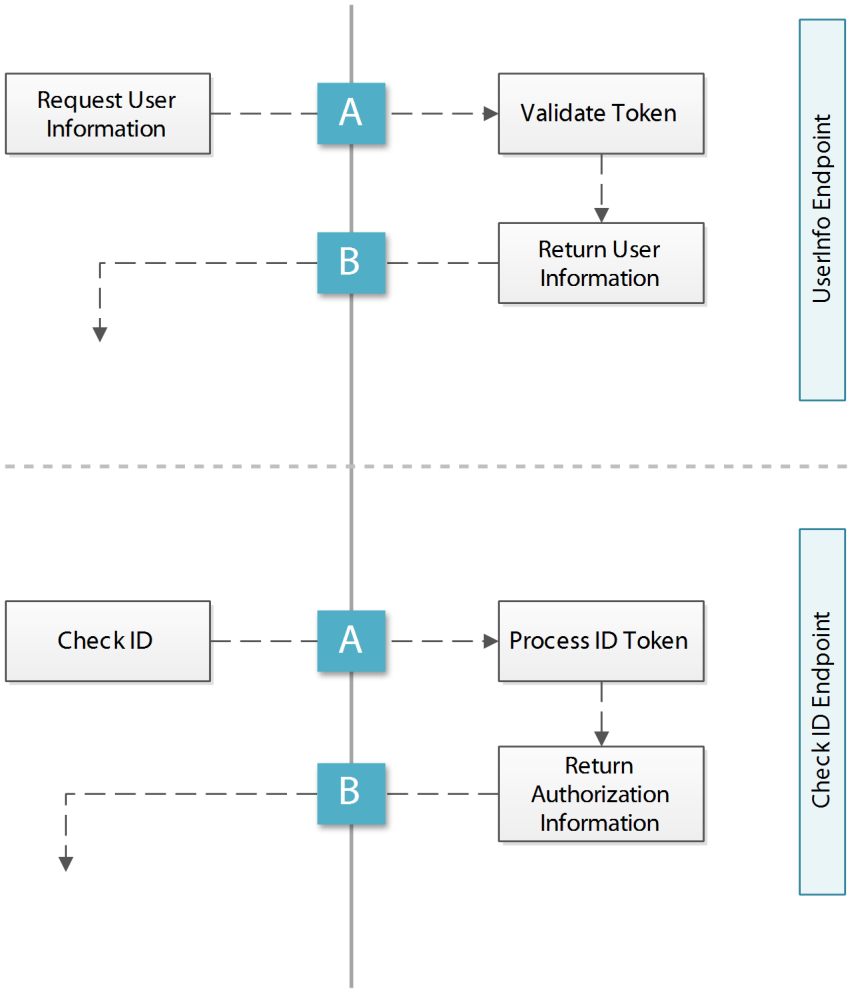
# OpenID Connect
## Additional Steps




**A** **Consumer Sends UserInfo Request**

**Request includes**
access_token
schema

**B** **Service Provider Returns UserInfo Response**

**JSON response includes**
user_id

Optionally: name, given_name, family_name, middle_name, nickname, profile, picture, website, email, verified, gender, birthday, zoneinfo, locale, phone_number, address, updated_time

**A** **Consumer Sends Check ID Request**

**Request includes**
id_token

**B** **Service Provider Returns Check ID Response**

**JSON response includes**
iss
user_id
aud
exp
iso29115 *(optional)*
nonce
auth_time *(optional)*

Approved for Public Release: 11-5232. Distribution Unlimited.

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