OAuth 2.0 Device Flow

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https://tools.ietf.org/html/draft-ietf-oauth-device-flow-08

OAuth 2.0 Device Flow – Recap

Authorization flow designed for devices that have an internet connection, but no browser and/or only limited input options.

The user will review the authorization request on a secondary device, like a mobile phone, or laptop.

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OAuth 2.0 Device Flow – Recap

Using the browser on your device, visit:

example.com/device

Enter the code:

WDJB–MJHT

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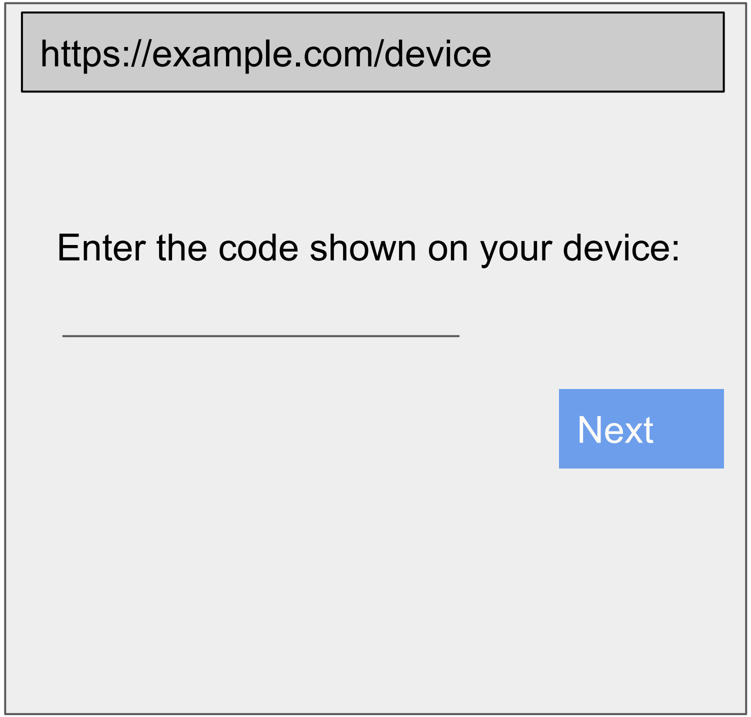
OAuth 2.0 Device Flow – Recap



https://example.com/device

Enter the code shown on your device:

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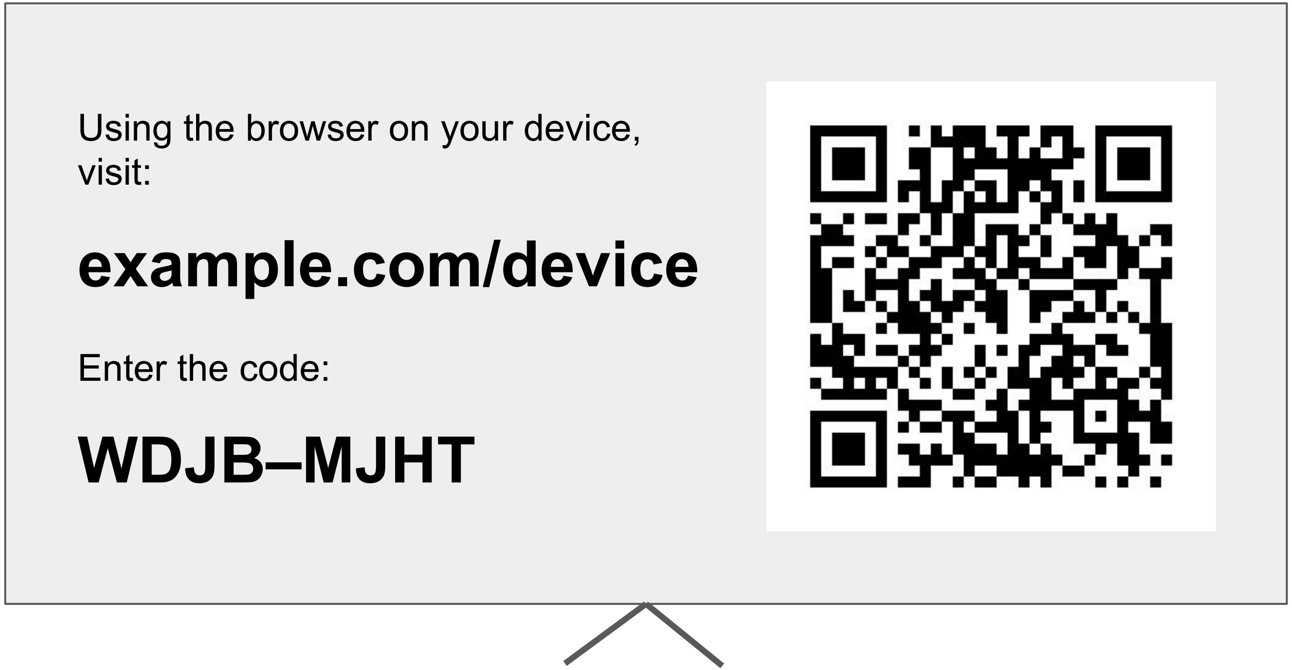
Example with QR Code (using verification_uri_complete)



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Changes in -07

Following IETF 99 consensus, updated the non-textual transmission option to be a separate URI `verification_uri_complete`.

Added security consideration about spying.

Explicitly Required that `device_code` not be shown.

Added text regarding a minimum polling interval.

Changes in -08

Clarified entropy guidance for the user code (it’s still at the authorization server’s discretion, but added some detail).

Documented the user-code brute force attack (a “reverse takeover” where the attacker’s credential is given to the victim’s device).

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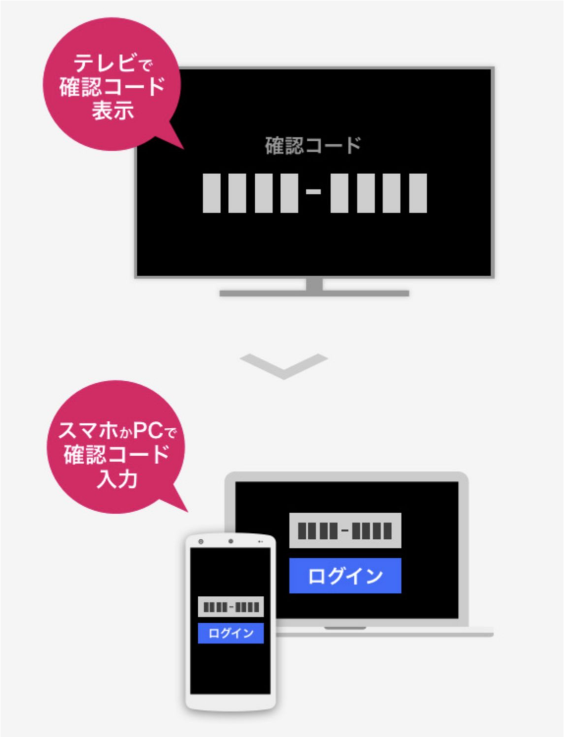
Running Code

Yahoo Japan implemented it:
https://goo.gl/NczxW8

Used by the Air Stick 4K
https://www.cccair.co.jp/airstick/



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Running Code (Server)

Open source server implementation:

MITREid 1.3

https://github.com/mitreid-connect/OpenID-Connect-Java-Spring-Server

Running Code (Client)

Open source, but Google-specific client example:

https://github.com/google/GTMAppAuth/tree/master/Example-tvOS

Code will be moved to the AppAuth for iOS, macOS (and tvOS!) project once the spec is stable.

Tested on Google and MITREid's server implementations.

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Thank You

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