OpenID Connect Working Group

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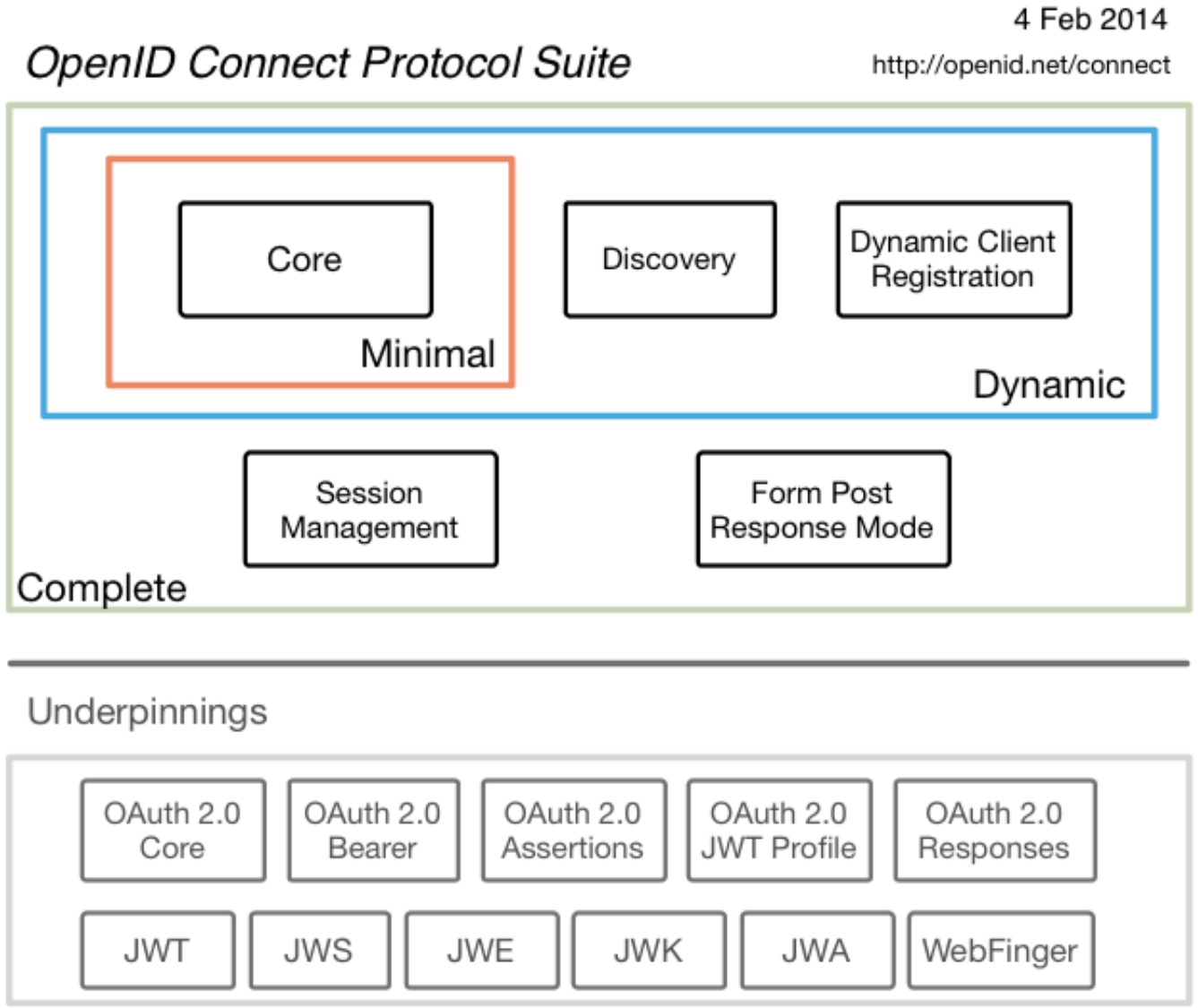
You're Almost Certainly Using OpenID Connect!

- Android, Apple, AOL, Deutsche Telekom, Google, GSMA Mobile Connect, KDDI, Microsoft, NEC, NTT, Salesforce, Softbank, Symantec, Verizon, Yahoo! Japan all use OpenID Connect
  - Many other sites and apps large and small use OpenID Connect
- Infrastructure – not a consumer brand

Original Overview of Specifications



Session Management / Logout (work in progress)

- Three approaches specified by the working group:
  - Session Management
    - https://openid.net/specs/openid-connect-session-1_0.html
    - Uses HTML5 postMessage to communicate state change messages between OP and RP iframes
  - Front-Channel Logout
    - https://openid.net/specs/openid-connect-frontchannel-1_0.html
    - Uses HTTP GET to load image or iframe, triggering logout (similar to SAML, WS-Federation)
  - Back-Channel Logout
    - https://openid.net/specs/openid-connect-backchannel-1_0.html
    - Server-to-communication not using the browser
    - Can be used by native applications, which have no active browser
- All support multiple logged in sessions from OP at RP
- All three can be used with RP-Initiated Logout
  - https://openid.net/specs/openid-connect-rpinitiated-1_0.html
- Updates pending to RP-Initiated Logout for `client_id` parameter, etc.
- Session Management, Front-Channel Logout affected by browser privacy changes

Federation Specification (work in progress)

- OpenID Connect Federation specification
  - https://openid.net/specs/openid-connect-federation-1_0.html
- Enables establishment and maintenance of multi-party federations using OpenID Connect
- Defines hierarchical JSON-based metadata structures for federation participants
- Three interop events were held in 2020
  - Specification updated based on implementation feedback
- About to advance to third Implementer's Draft status

Native SSO Specification (work in progress)

- OpenID Connect Native SSO for Mobile Apps specification
  - https://openid.net/specs/openid-connect-native-sso-1_0.html
- Enables Single Sign-On across apps by the same vendor
- Assigns a device secret issued by the AS
- New specification written by George Fletcher
  - *Please review!*

`unmet_authentication_requirements` Specification (work in progress)

- Defines new error code `unmet_authentication_requirements`
  - https://openid.net/specs/openid-connect-unmet-authentication-requirements-1_0.html
- Enables OP to signal that it failed to authenticate the End-User per the RP's requirements
- New specification written by Torsten Lodderstedt
  - *Please review!*

`prompt=create` Specification (work in progress)

- Initiating User Registration via OpenID Connect specification
  - https://openid.net/specs/openid-connect-prompt-create-1_0.html
- Requests enabling account creation during authentication
- Active discussion of relationships between account creation and use of existing accounts
- New specification written by George Fletcher
  - *Please review!*

Claims Aggregation Specification (work in progress)

- Enables RPs to request and Claims Providers to return aggregated claims through OPs
  - https://openid.net/specs/openid-connect-claims-aggregation-1_0.html
- New specification written by Nat Sakimura and Edmund Jay
- Plans to update to also enable requesting and returning W3C Verifiable Credential objects

Second Errata Set

- Errata process corrects typos, etc. discovered
  - Makes no normative changes
- Edits under way for second errata set
- https://openid.net/specs/openid-connect-core-1_0-27.html is current Core errata draft

Self-Issued OpenID Provider

- OpenID Connect defines Self-Issued OpenID Provider
  - https://openid.net/specs/openid-connect-core-1_0.html#SelfIssued
- Lets you be your own identity provider
  - Rather than a third party
- Identity represented as asymmetric key pair controlled by you
- Being used with Mobile Driver's Licenses (mDL)
  - Enables use without "calling home" to the issuer when used
- Self-Issued OpenID Provider being used to achieve DID auth
  - Described at https://self-issued.info/?p=2013
- WG defining extensions to SIOP using URI as subject
  - https://bitbucket.org/openid/connect/src/master/openid-connect-self-issued-v2-1_0.md

Other Extensions Being Discussed

- Using W3C Verifiable Credentials objects with OpenID Connect
  - Another representation of verified claims
  - Parallel to OpenID Connect for Identity Assurance
  - Both representation as claims and as new protocol artifacts under consideration
- Portable Identifiers
  - Current subject identifiers are OP-specific
  - WG discussing identifiers that you can move between OPs
  - Potentially both for self-issued OPs and third-party OPs

OpenID Certification

- Enables OpenID Connect and FAPI implementations to be certified as meeting the requirements of defined conformance profiles
  - Goal is to make high-quality, secure, interoperable OpenID Connect implementations the norm
- An OpenID Certification has two components:
  - Technical evidence of conformance resulting from testing
  - Legal statement of conformance
- Certified implementations can use the “OpenID Certified” logo

Related Working Groups

- eKYC and Identity Assurance WG
  - JWT format for verified claims with identity assurance information
- **M**obile **O**perator **D**iscovery, **R**egistration & authe**N**tic**A**tion (MODRNA) WG
  - Mobile operator profiles for OpenID Connect
- Financial-grade API (FAPI) WG
  - Enables secure API access to high-value services
  - Used for Open Banking APIs in many jurisdictions, including the UK and Brazil
- Research and Education (R&E) WG
  - Profiles OpenID Connect to ease adoption in the Research and Education (R&E) sector
- International Government Profile (iGov) WG
  - OpenID Connect profile for government & high-value commercial applications
- Enhanced Authentication Profile (EAP) WG
  - Enables integration with FIDO and other phishing-resistant authentication solutions

OpenID Connect Resources

- OpenID Connect Description
  - https://openid.net/connect/
- Frequently Asked Questions
  - https://openid.net/connect/faq/
- OpenID Connect Working Group
  - https://openid.net/wg/connect/
- OpenID Certification Program
  - https://openid.net/certification/
- Certified OpenID Connect Implementations Featured for Developers
  - https://openid.net/developers/certified/
- Mike Jones' Blog
  - https://self-issued.info/
- Nat Sakimura's Blog
  - https://nat.sakimura.org/
- John Bradley's Blog
  - http://www.thread-safe.com/