

@Web Conference
17th Jul 2024

OAuth SIG OID4VC Breakout 21st Session

OpenID Connect for Verifiable Credentials (OID4VCs)

In Progress

- Immediate goal: Keycloak can work as an issuer of VCs.
- Epic issue : Support OpenID for Verifiable Credentials(OID4VC)
<https://github.com/keycloak/keycloak/issues/25936>
- Status: 20 out of all 24 issues were resolved.
2 PRs were submitted to resolve issues.
<https://github.com/keycloak/keycloak/issues/30525> (review ongoing)
<https://github.com/keycloak/keycloak/issues/30907> (waiting for review)
2 issue to be closed.
<https://github.com/keycloak/keycloak/issues/30458> (solved by in commit d4797e0)
<https://github.com/keycloak/keycloak/issues/30902> (Configuration issue)
will be addressed with the documentation.

OpenID Connect for Verifiable Credentials (OID4VCs)

Epic issue : Several changes based on OpenID4VCI (<https://github.com/keycloak/kc-sig-fapi/issues/593>)

Captain-P-Goldfish commented last week • edited ▾

Description

Hi we need some changes in the Keycloak because we are currently working on a protocol extension based on the FUNKEN challenge for OpenID4VCI: <https://www.sprind.org/de/challenges/eudi-wallet-prototypes/>

The challenge does not completely apply to the current states of the specification

- https://openid.net/specs/openid-4-verifiable-credential-issuance-1_0.html
- https://openid.net/specs/openid-4-verifiable-presentations-1_0.html
and therefore we need to customize some parts that will simply be custom-provider implementations.

For this I have already added a few pull-requests that are directly related to the challenge and that have blocked us in developing the customized providers:

At least one of these is a quick-fix because I am missing the time to make everything nice and clean

The changes that are a MUST for us are marked with `required change`

- 🚧 [Implement DPoP for all grantTypes](#) [keycloak#29967](#) (required change)
- 🐛 [Add getter-methods to OAuth2GrantType.Context](#) [keycloak#31077](#) (required change)
- 🚧 [Manipulate OpenID redirect-response with custom implementation](#) [keycloak#31087](#) (required change - quick-fix)
- 🐛 [Make ProofType a string instead of enum](#) [keycloak#31000](#) (required change)
- 🐛 [Exchange Enum type of Format for String](#) [keycloak#30875](#) (required change)
- 🚧 [Issuer id must be a URL according to specification](#) [keycloak#30961](#) (optional)
- 🐛 [Add required default-context value to VerifiableCredential](#) [keycloak#30959](#) (optional)
- 🚧 [Remove java.util.Date from VerifiableCredential](#) [keycloak#30920](#) (optional but recommended)

there is also an issue on which a colleague of mine is currently working on. We could provide our own custom-implementation for this but I think it is a good idea to support this natively in keycloak:

- ⦿ [Authentication Flow Condition : evaluate ACR before authentication](#) [keycloak#30572](#)
- ⦿ [Authentication Flow Condition : request attributes](#) [keycloak#30573](#)

Review work done by Hitashi

[1] Implement DPoP for all grantTypes

<https://github.com/keycloak/keycloak/pull/29967>

Reviewed. Change requested.

[2] Manipulate OpenID redirect-response with custom implementation

<https://github.com/keycloak/keycloak/pull/31087>

Reviewed, approved.

[3] Make ProofType a string instead of enum

<https://github.com/keycloak/keycloak/pull/31000>

Reviewed, approved, and merged.

[4] Issue 30525

<https://github.com/keycloak/keycloak/pull/30692>

Reviewed. Change requested.

Takashi will continue with additional review of the above and pull#30920

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■ Sample Deployment Configuration

In Progress

<https://github.com/adorsys/keycloak-ssi-deployment>

■ Documentation

Looking forward for a keycloak documentation.

Next Steps

In Progress

- Default configuration for the issuance of:
LoginCredential (Access Token), IdentityCredential (IdToken)
- Keycloak as a consumer and verifier of vp_token
See Discussion: <https://github.com/keycloak/keycloak/discussions/29857>
Initial contribution: <https://github.com/keycloak/keycloak/issues/30907> (advance verification of vp token)
- Keycloak as a cloud wallet