OAuth SIG
OID4VC Breakout
20th Session

@Web Conference
29th May 2024

OpenID Connect for Verifiable Credentials (OID4VCs)

■ 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: 16 out of all 19 issues were resolved.

   1 PRs were submitted to resolve issues. 2 issues are open (only 1 issue effectively).

   Holding its breakout sessions weekly (8, 15, 22, 29 May).

■ Discussion: OpenID for Verifiable Credential Issuance

- https://github.com/keycloak/keycloak/discussions/17616

■ Design: OpenID Verifiable for Credential Issuance

- https://github.com/keycloak/keycloak-community/blob/main/design/OID4VCI.md

OpenID Connect for Verifiable Credentials (OID4VCs)

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Open

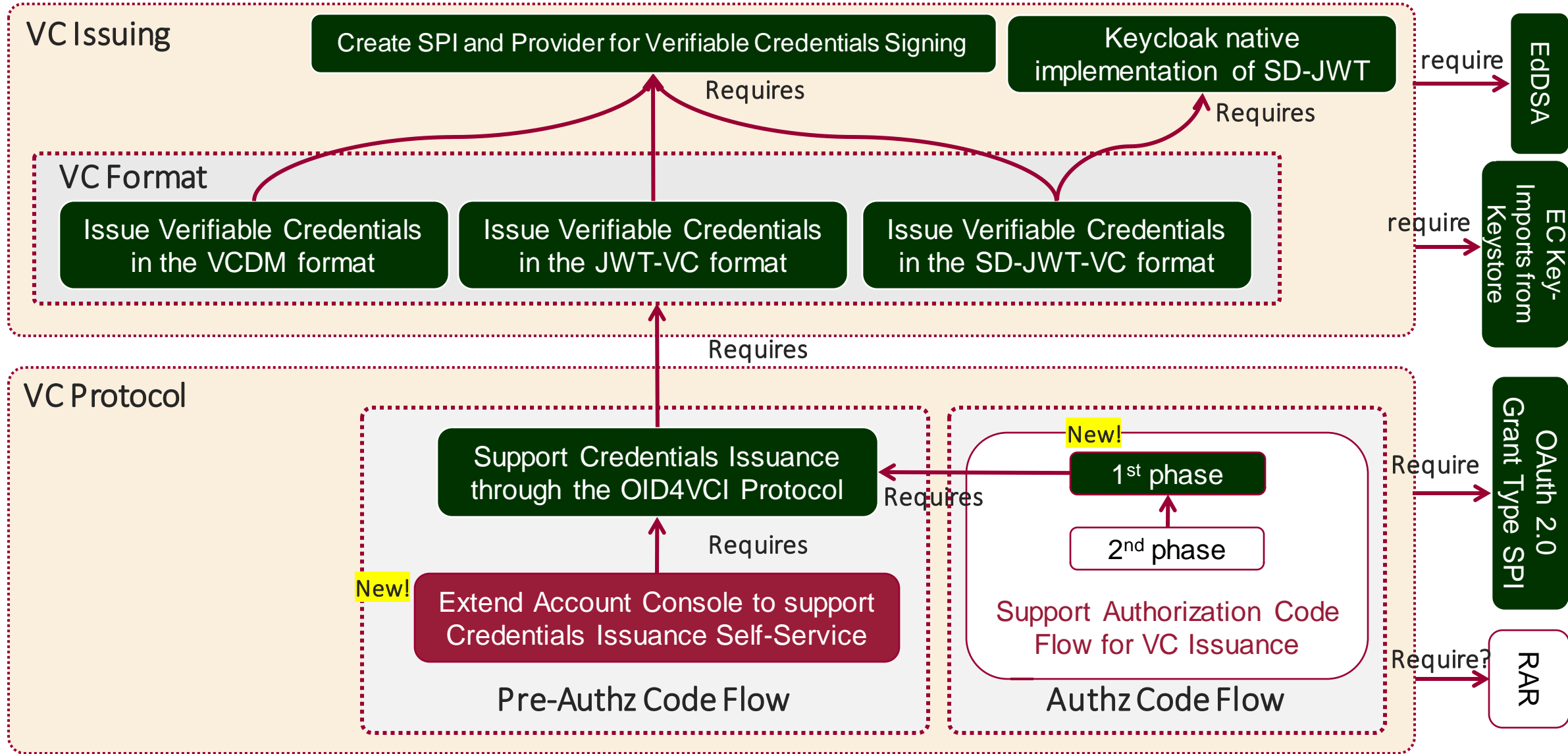[1] #29725 VC issuance in Authz Code flow with considering "scope" parameter

[2] #26328 Support Authorization Code Flow for VC Issuance

Automatically resolved when #29724 and #29725 are resolved.

PR Sent

[1] #25945/PR #29174 : Extend Account Console to support Credentials Issuance Self-Service

OpenID Connect for Verifiable Credentials (OID4VCs)

VC Issuing

Create SPI and Provider for Verifiable Credentials Signing

Keycloak native implementation of SD-JWT → require → EdDSA

Requires

Requires

VC Format

Issue Verifiable Credentials in the VCDM format

Issue Verifiable Credentials in the JWT-VC format

Issue Verifiable Credentials in the SD-JWT-VC format

require → EC Key-Imports from Keystore

Requires

VC Protocol

Support Credentials Issuance through the OID4VCI Protocol

Requires

New! 1st phase

2nd phase

Support Authorization Code Flow for VC Issuance

Require → OAuth 2.0 Grant Type SPI

Requires

New! Extend Account Console to support Credentials Issuance Self-Service

Requires

Pre-Authz Code Flow

Authz Code Flow

Require? → RAR

PR merged   PR sent   Not yet started

Proposals

In Progress

- Default configuration for the issuance of a:
  LoginCredential (Access Token), IdentityCredential (IdToken)

- Keycloak as a consumer and verifier of vp_token
  See Discussion: https://github.com/keycloak/keycloak/discussions/29857

- Keycloak as a cloud wallet