

Digital Identity

For Organizations and Governments

Agenda

- 10 : 00 – 10:05 am – Welcome
- 10: 05 – 10:35 am – Digital Transformation with Microsoft Azure Cloud Services
- 10: 35 – 11:00 am – Digital Identity and W3C Verifiable Credentials
- 11:00 – 11:30 am – Demonstration
- 11:30 – 12:00 pm – Q&A

Presenters

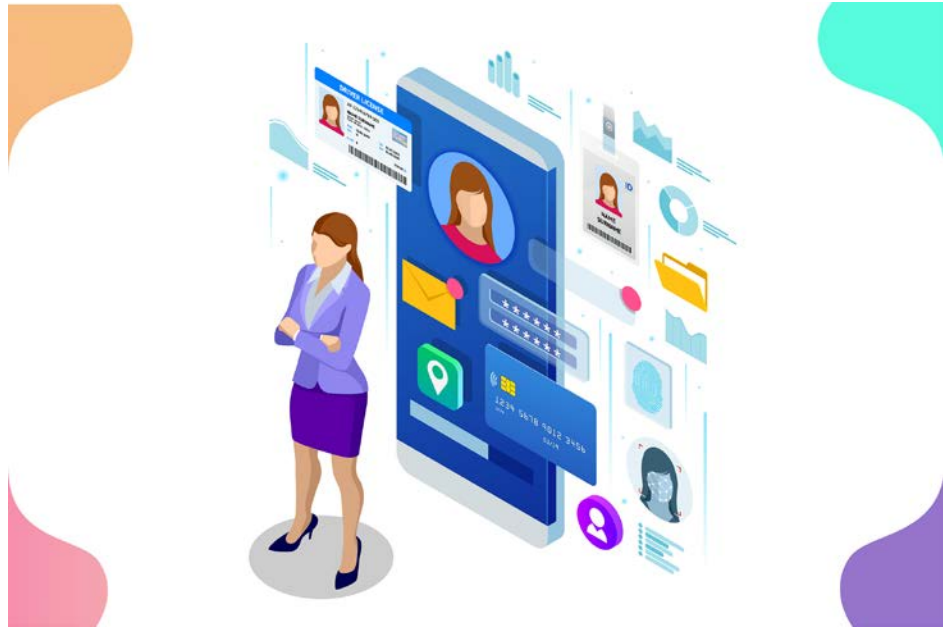
Ray Consulting Limited (RCL)

- Anil Ripla
- Software Developer
- <https://rclapp.com>
- <https://rclapp.com/DigitalIdentity>
- support@rclapp.com

Welcome : Digital Identity

- Welcome
- You can use the 'Meeting chat' section to ask questions anytime
- Questions will be answered after each section
- In case of power or internet failure, we should be back up in 30mins
- If it takes longer, we will re-schedule the session
- Speakers and cameras for participants will be turned on during the live discussion session

Why Digital Identity



- Ensure the user is who they say they are in real-life
- Prevent fraud
- Banking, government services, business services, retail services, education services, employee id, customer id, student id, national id, worker id, etc.

Uses Cases: Digital Identity and W3C Verifiable Credentials

Government and Public Service

- National Digital ID
- Worker ID
- Driver's License
- Passport
- Citizen Authentication to Government Online Services

Education and Training

- Degrees, Diplomas, Certificates
- Transcripts, Competence Records
- Micro-Credentials, Digital Backpacks
- Digital Badges, Digital Credentials
- Digital Learner ID

Business

- Employee ID
- Employee Badge
- Gate/Entrance Pass
- Employee Authentication to Corporate Applications
- Customer Verification
- Customer Authentication to Business Online Services

Finance

- Know Your Customer
- Online Payments and Transactions
- Bank Account and Online Banking
- Money Transfer

Retail

- Online Purchasing and e-Commerce
- Fraud Detection
- Loyalty/Discount Card
- Customer Authentication to Online Services

Health and Safety

- Digital Patient ID
- Health/Vaccination Pass
- Travel Pass
- Insurance Claims
- Health and Safety Pass
- Factory/Plant/Off-Shore Health and Safety Training/Entry Pass

Uses Cases: Digital Identity and W3C Verifiable Credentials



PRIVATE SCHOOL

Learner ID

School of Learning

A white rectangular card with a logo in the top left corner that says "PRIVATE SCHOOL". The text "Learner ID" is centered in red, and "School of Learning" is at the bottom left.



CORPORATE

Employee ID

ACME Limited

An orange rectangular card with a logo in the top left corner that says "CORPORATE". The text "Employee ID" is centered in white, and "ACME Limited" is at the bottom left.



CONTRACTOR

Contractor

Infrastructure Development Agency

A purple rectangular card with a logo in the top left corner that says "CONTRACTOR". The text "Contractor" is centered in white, and "Infrastructure Development Agency" is at the bottom left.



National ID

Government of Contosoland

A blue rectangular card with a red shield logo in the top left corner. The text "National ID" is centered in white, and "Government of Contosoland" is at the bottom left.



Patient ID

Contoso Health Clinic

A pink rectangular card with a blue caduceus logo in the top left corner. The text "Patient ID" is centered in white, and "Contoso Health Clinic" is at the bottom left.

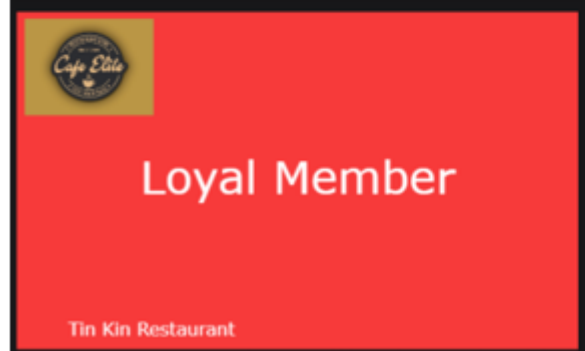


COMPANY

Customer Card

Infrastructure Development Agency

A light blue rectangular card with a logo in the top left corner that says "COMPANY". The text "Customer Card" is centered in white, and "Infrastructure Development Agency" is at the bottom left.



Cafe Elite

Loyal Member

Tin Kin Restaurant

A red rectangular card with a logo in the top left corner that says "Cafe Elite". The text "Loyal Member" is centered in white, and "Tin Kin Restaurant" is at the bottom left.



Safe Worker

Oil and Gas Platform

A blue rectangular card with an oil rig logo in the top left corner. The text "Safe Worker" is centered in white, and "Oil and Gas Platform" is at the bottom left.



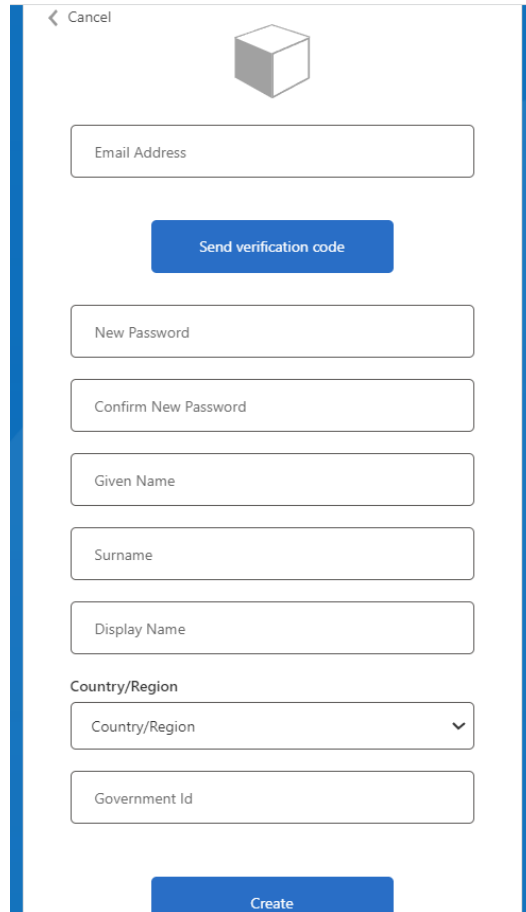
LIBRARY

Library Card

National Library

A green rectangular card with a logo in the top left corner that says "LIBRARY". The text "Library Card" is centered in white, and "National Library" is at the bottom left.

Digital Identity Process - Enrollment



The screenshot shows a mobile application interface for digital identity enrollment. At the top left, there is a back arrow and the text "Cancel". In the top center, there is a 3D cube icon. Below the icon is an "Email Address" input field. Underneath is a blue button labeled "Send verification code". This is followed by "New Password" and "Confirm New Password" input fields. Below these are "Given Name", "Surname", and "Display Name" input fields. A "Country/Region" dropdown menu is shown with "Country/Region" selected. At the bottom is a "Government Id" input field and a blue "Create" button.

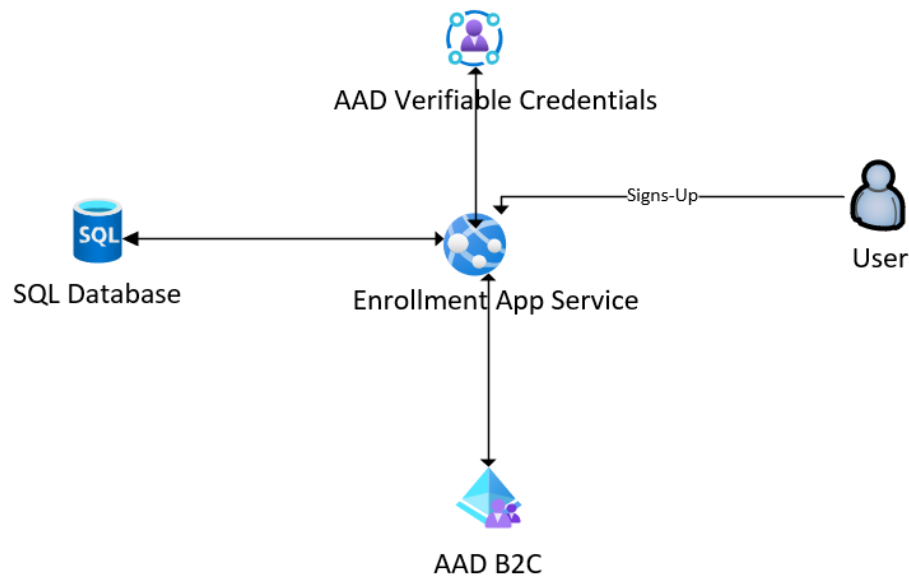
- Allow users to sign-up for a digital identity
- Capture a government id (any id issued by a government to identify a user)
- Government id label can be customized
- Government id is primary method for identity verification

Digital Identity Process – Identity Proofing



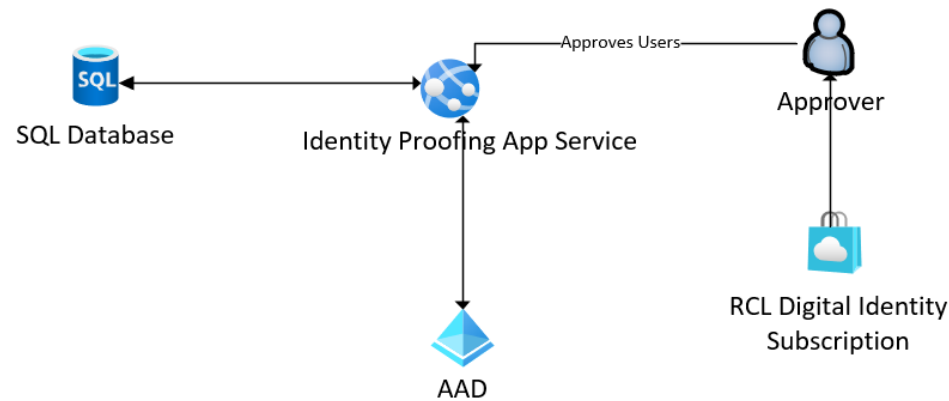
- Verify a user is who they say they are in real-life
- Match a user's 'selfie' with photo IDs (government id, driver's permit, passport, etc.)

Digital Identity Architecture – Enrollment



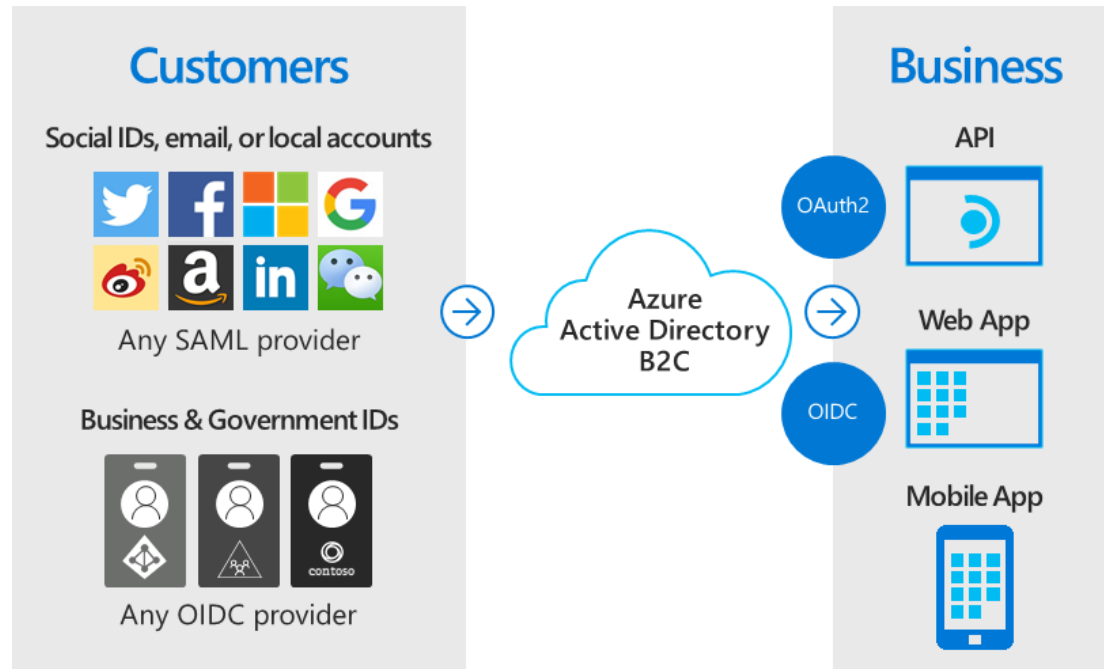
- Install and host an App Service in your Microsoft Azure account for Enrollment
- Enrollment Web App is available on GitHub
- Set up an Azure SQL Database
- Setup an Azure AD B2C tenant for sign-in/sign-up
- Set up AAD Verifiable Credentials
- Customize your front page
- Customize or link the instructions page

Digital Identity Architecture – Identity Proofing



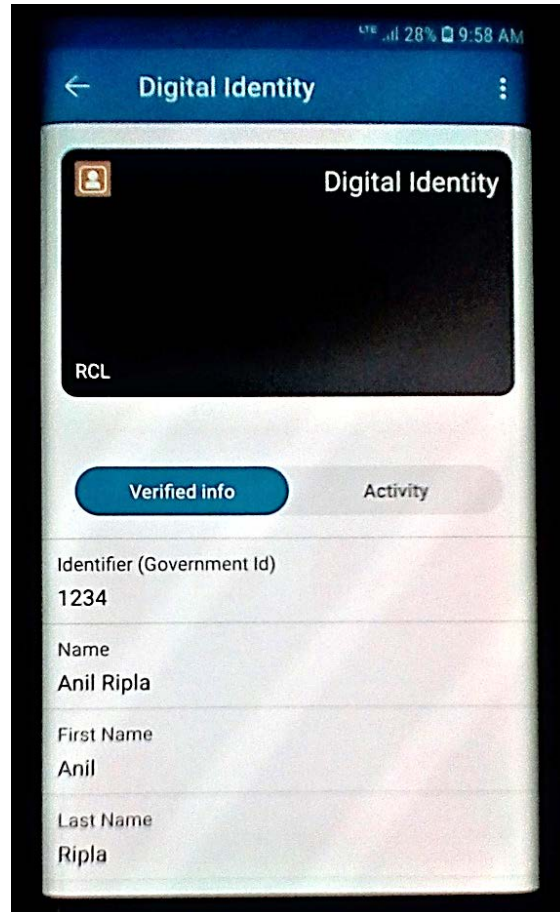
- Install and host an App Service in your Microsoft Azure account for Identity Proofing
- Identity Proofing Web App is available on GitHub
- Uses the same Azure SQL Database
- Setup an Azure AD tenant for your approvers to sign-in
- Create a subscription for each approver in the Azure Market place

Digital Identity with Azure AD B2C



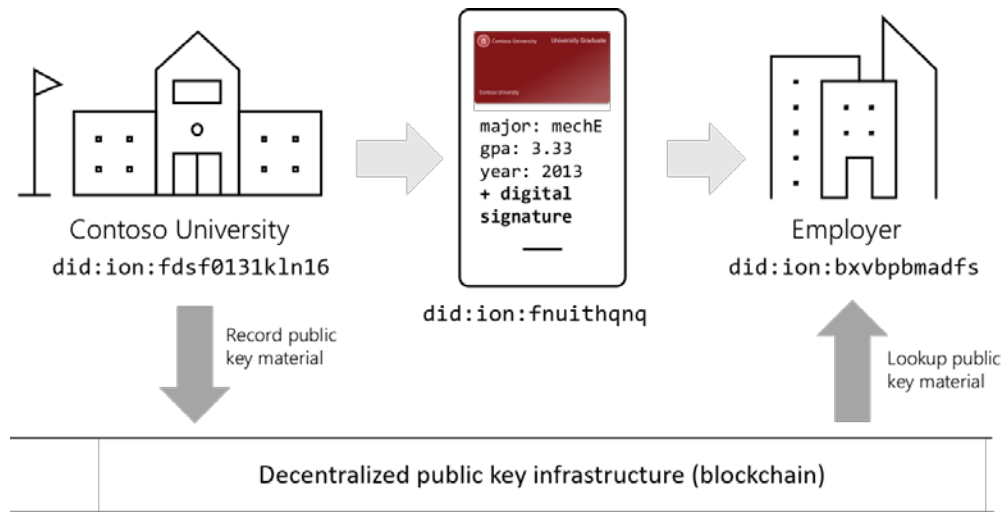
- Azure AD B2C Identity Provider
- Federated IdP
- Single Sign On (SSO)
- OAuth 2 / Open ID Connect Compliant
- Microsoft Identity MSAL (Android, Angular, iOS, Go, Java, JS, .NET, Node, Python, React)
- Microsoft Identity Web (.NET Core/ .NET 6)

Digital Identity as a W3C Verifiable Credential



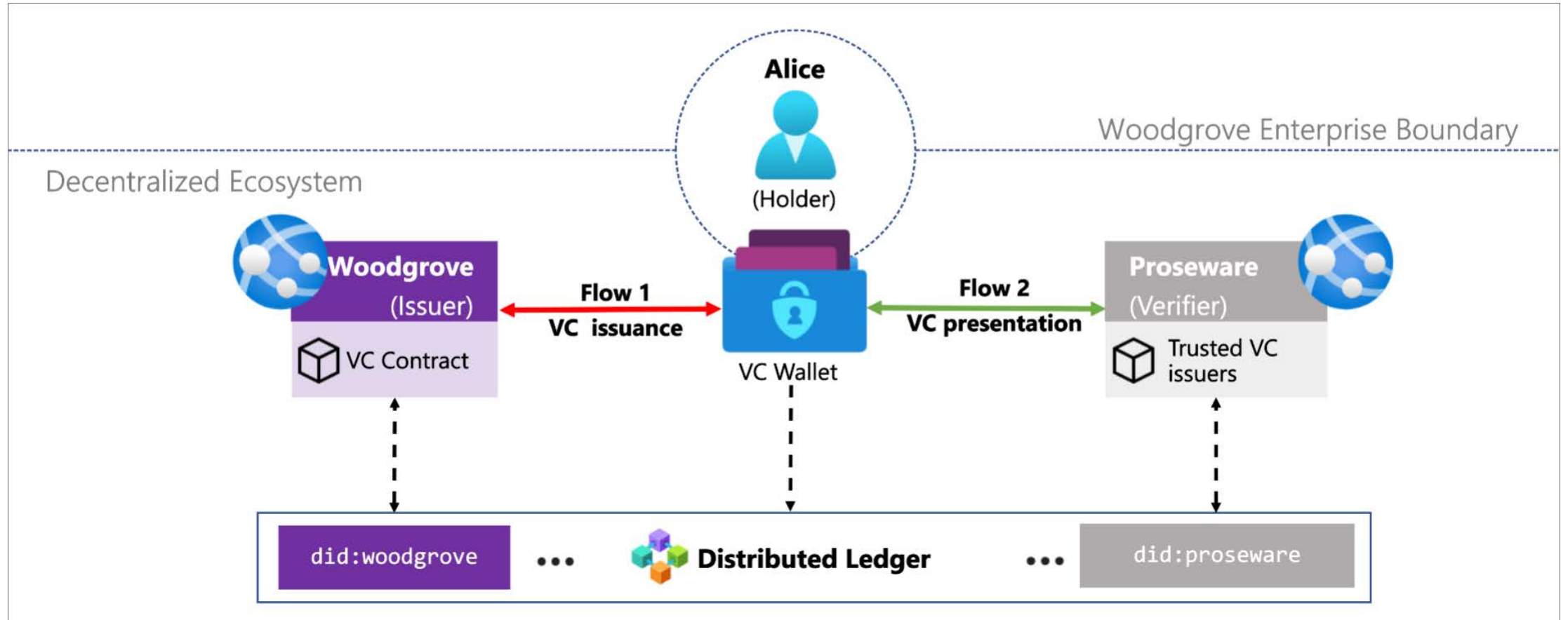
- Digital Identity is issued as a W3C Verifiable Credential
- Users will claim for the Digital ID in a wallet mobile application
- Microsoft Authenticator is the wallet app
- ID can be displayed offline no need for internet or complex hardware (RFIDs, etc.)
- It is machine-readable and can communicate electronically with web applications

W3C DID and Verifiable Credentials

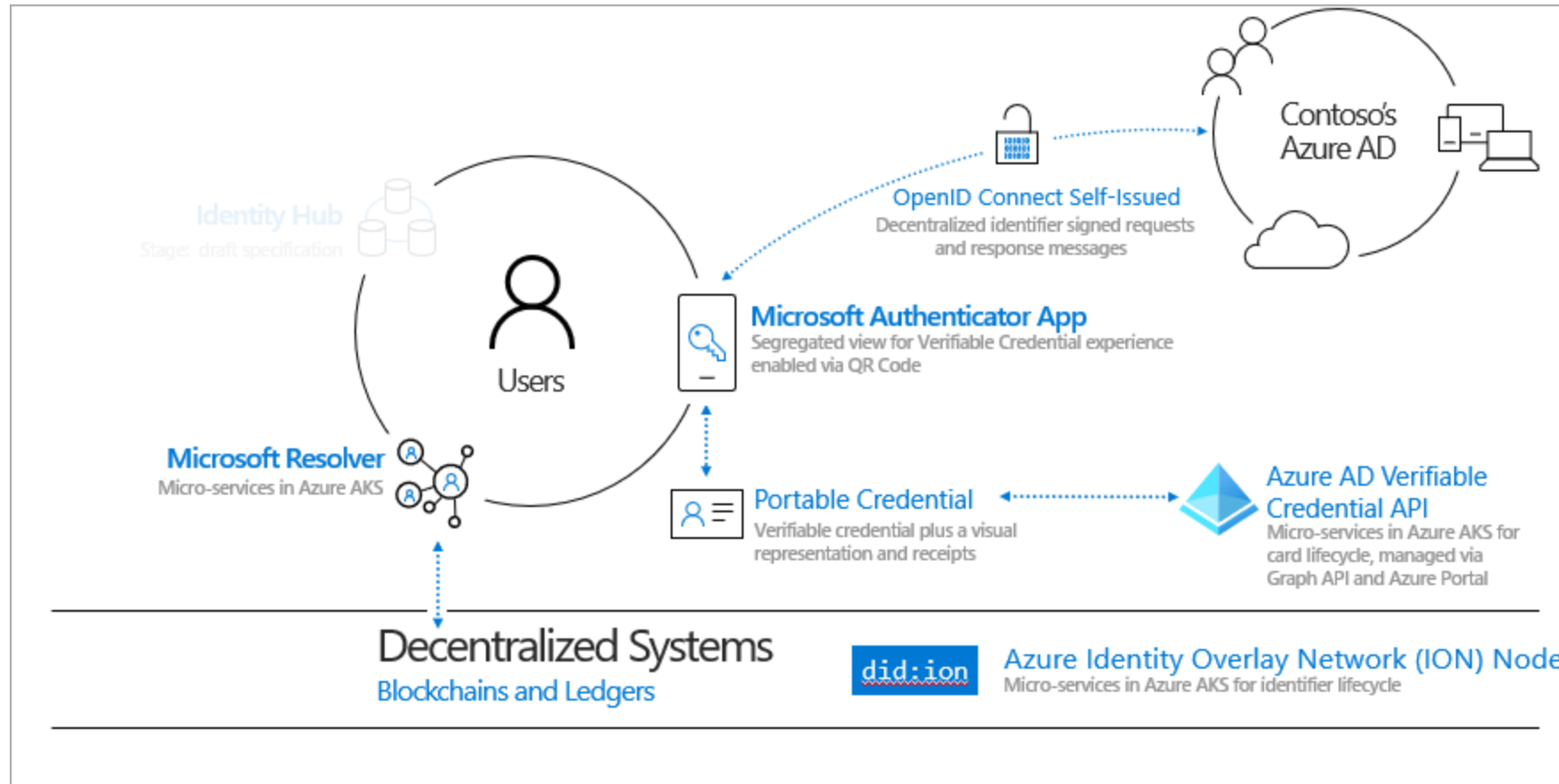


- DID (decentralized id) uses the ION method and is rooted in the Bitcoin Blockchain
- Self-sovereign DID is controlled by the user
- User decides what information to share and is not tracked
- Open W3C standard that ensures interconnectivity with various systems and issuers, verifiers , holders

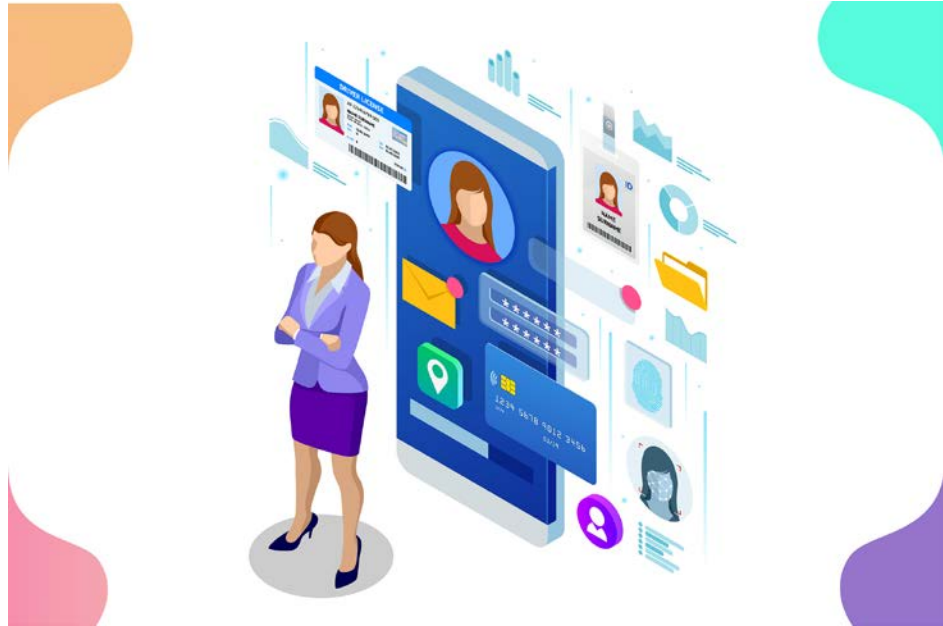
Azure AAD W3C Verifiable Credential



Azure AAD W3C Verifiable Credential



System Key Features



- Your organization is in full control of the Digital Identity applications and databases
- Your organization will issue the Digital Identity using your Organization's name, logo, DID and verified DNS name
- RCL has absolutely **NO** access to your applications or databases in your Azure Account
- The system is fully self-service, your staff can install and use the system for themselves once they are sufficiently experienced in Azure Cloud Services

DEMO

- Enrollment Application
- Identity Proofing Application
- W3C Verifiable Credential
- Microsoft Authenticator App
- Digital Identity Usage (Access a Secured Service)

Consultancy / Training / Support (Optional)



- We help in installation and setup of the system in your organization's Azure Cloud Account
- We train your staff on installing and using the system
- We provide support throughout the lifecycle of your system
- We help your staff to customize the system and customize the code if necessary
- Contact support@rclapp.com to get a quote

Early Adopters Programme

- RCL Digital Identity and Azure AD Verifiable Credentials are in Preview
- Not recommended for Production use at this time
- Early Adopters must agree to Preview Terms before use
- First 10 early adopters will get substantially reduced fees (in some cases no fees) for consultancy/training in installation and running the system
- Contact us at support@rclapp.com to join the early adopters programme

Resources and Documents

- Website (<https://rclapp.com/DigitalIdentity>)
- Documentation (<https://docs.identity.rclapp.com/>)
- AAD Verifiable Credentials (<https://www.microsoft.com/en-ww/security/business/identity-access-management/verifiable-credentials>)
- AAD Verifiable Credentials Documentation (<https://docs.microsoft.com/en-us/azure/active-directory/verifiable-credentials/>)
- GitHub Enrollment Application (<https://github.com/verifiable-credentials/RCL.Identity.Enrollment>)
- GitHub Identity Proofing Application (<https://github.com/verifiable-credentials/RCL.Identity.Proofing>)
- RCL Digital Identity in the Azure Marketplace (<https://azuremarketplace.microsoft.com/en-us/marketplace/apps/rayconsulting.003?tab=Overview>)
- W3C Verifiable Credentials (<https://www.w3.org/TR/vc-data-model/>)
- W3C Verifiable Credentials Use Cases (<https://www.w3.org/TR/vc-use-cases/>)

Q&A

- Open Discussion
- Microsoft Team Messages

End

- Thank you