

**QUARTZ**



# Quartz for Digital Identity



## Challenge

In the age of rampant and sophisticated cyber-attacks, sharing identity documents (in physical or electronic form) for verification exposes personal data and poses risk of identity thefts and phishing scams. The consequences of these risks are far-reaching, irreversibly impacting not only the financial and emotional well-being of the identity holder along with reputational risk for organizations.

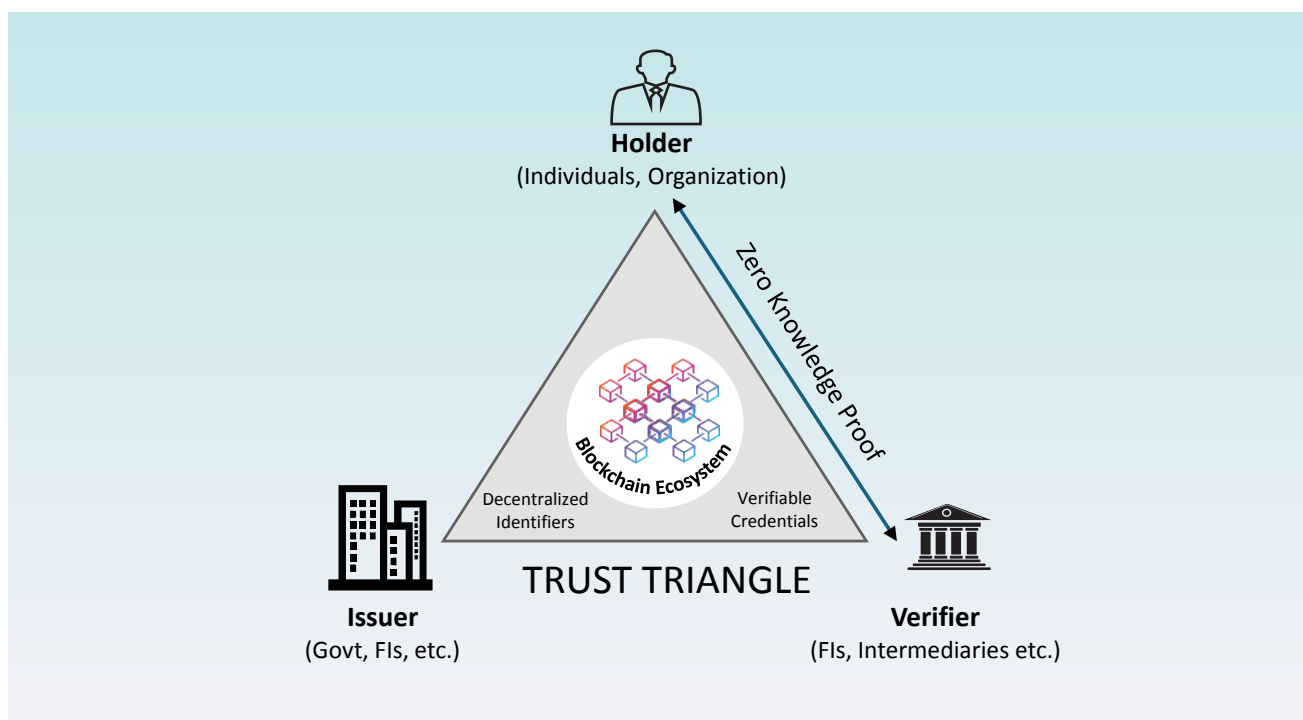
Traditional identity management systems involve identity credentials being managed in a centralized database, with verification being done manually against credentials issued by issuing organizations. This is not only resource-intensive and time consuming but also prone to single point of failure and risks due to fraud or forgery. In addition, it results in delays for the customer in availing services.

## Solution

Quartz for Digital Identity streamlines identity management by bringing together various stakeholders including identity issuers, verifiers and identity holders in a decentralized blockchain network. Users can own, manage, and share their identity information securely based on explicit consent, and on a need-to-know basis, without relying on third-party intermediaries.

The solution enables the creation and management of unique Decentralized Identifiers (DIDs) on blockchain, which can be used for identity issuance, proof request and verification. Identity credentials are validated cryptographically via a digital wallet linked to the Decentralized Identifier (DID), in line with World Wide Web Consortium (W3C) standards.

The Digital Identity solution supports Zero Knowledge Proof (ZKP) protocol, a method of establishing proof over blockchain without disclosing identity information. The solution also supports Selective Disclosure, a mechanism using which the holder can disclose only specific information to the verifier based on the business need.





## Benefits

- Enables user-controlled identity verification, thereby empowering identity holders with trust, security and data privacy
- Supports decentralized identity verification, and selective disclosure of identity information based on the need Simplifies identity issuance using customizable templates for Verifiable Credentials
- Reduces operational costs through reusable KYC, elimination of paper-based KYC

## Quartz Advantage

- Aligns to W3C standards for issuance of Verifiable Credentials
- Designed using a hybrid, co-existent architecture with a combination of on-chain and off-chain services to ensure scalability
- Seamlessly integrates existing systems of Issuers and Verifiers with blockchain using Quartz Gateway

## Awards & Accolades



## About Quartz

Quartz offers innovation-led solutions that combine the benefits of DLT and AI. Built on the premise of 'trusted intelligence', the solution addresses business challenges across the entire value chain including development, integration, and governance of ecosystems for various industries including Financial Services, Banking, Supply Chain, Energy & Utilities and eGovernance. Backed by awards from Financial Technology Forum (Best Fraud Prevention Solution), Asia Pacific Stevie Awards (Best Machine First Sanctions Screening), Juniper Research (Gold Winner for Digital Identity Innovation), the Asian Banker (Best Fraud Prevention Technology Implementation), Financial Technology Forum (Best New Post Trade Solution of the Year), Asset Servicing Times (Outstanding Innovation Award) and recognition from Analysts (ranked #1 Best Performing Fraud Management Solution by IBS Intelligence) Quartz can help organizations operate at the forefront of technology innovation.

To know more about Quartz, please write to us at [tcs.quartz@tcs.com](mailto:tcs.quartz@tcs.com), or visit our website <https://www.tcs.com/what-we-do/products-platforms/quartz>

## About Tata Consultancy Services Ltd (TCS)

Tata Consultancy Services (TCS) (BSE: 532540, NSE: TCS) is a digital transformation and technology partner of choice for industry-leading organizations worldwide. Since its inception in 1968, TCS has upheld the highest standards of innovation, engineering excellence and customer service.

Rooted in the heritage of the Tata Group, TCS is focused on creating long term value for its clients, its investors, its employees, and the community at large. With a highly skilled workforce of over 607,000 consultants in 55 countries and 180 service delivery centres across the world, the company has been recognized as a top employer in six continents. With the ability to rapidly apply and scale new technologies, the company has built long term partnerships with its clients – helping them emerge as perpetually adaptive enterprises. Many of these relationships have endured into decades and navigated every technology cycle, from mainframes in the 1970s to Artificial Intelligence today.

TCS sponsors 15 of the world's most prestigious marathons and endurance events, including TCS New York City Marathon, TCS London Marathon and TCS Sydney Marathon with a focus on promoting health, sustainability, and community empowerment. TCS generated consolidated revenues of US \$29 billion in the fiscal year ended March 31, 2024. For more information, visit [www.tcs.com](http://www.tcs.com)

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