



# Enhancing DFS Security through improved identity vetting and strong authentication

**Abbie Barbir, PhD, CISSP**

FIGI SIT WG - Authentication Work stream Chair

Co-rapporteur ITU-T SG17 Q10

Organized by

Committee on Payments  
and Market Infrastructures



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# Security, Infrastructure, Trust WG

## Security, Infrastructure, Trust Working Group

- To enhance confidence in using Digital Financial Services (DFS)
- To address DFS security issues and mass digital fraud in developing countries
- To assess new technology impact on security & consumer protection

## Authentication Workstream

- To provide use cases, requirements, definitions and examples of strong authentication solutions
- To offer guidance for regulators, authentication providers and Digital Financial Services (DFS) providers

# Authentication WG Scope and Focus

- Strong interoperable authentication to support DFS
  - Use cases (Web/Mobile)
  - Means of evaluating authentication assurance (ITU-T X.1254)
- Authentication Lab setup
- Report Implementation of Secure Authentication Technologies for DFS
- Contributed to [FATF Digital Identity Report](#)
- Produced a report on e-KYC uses cases
- Pain points
  - E-KYC is hard to do online
    - Harder with no Universal Global ID
  - COVID-19 proved that a flexible approach is needed to bootstrap digital identity online
    - Need a trusted digital identity echo system for every citizen

# Working Group Output

- Contributions from working group members
- From industry consortia and standards development bodies
- Report [Implementation of Secure Authentication Technologies for DFS](#)
- Contributed to [FATF Digital Identity Report](#)
- Report on e-KYC uses cases

# Authentication Systems

## Used in two ways:

- Establish that the person is who they claim to be when enrolling for an account
- Verify that a returning customer is the same one that previously opened an account

## For Account Creation

- Ask for and verify identification information
  - For DFS – ‘Know Your Customer’ (KYC) procedures
  - Obtain from previously-established accounts based on regulatory obligations

# On-Line Identity Vetting

## Pain points

- E-KYC is hard to do online
  - Harder with no Universal Global ID
- COVID-19 proved that a flexible approach is needed to bootstrap digital identity online
  - Need a trusted digital identity echo system for every citizen

# Technical Specifications

Core Standard work is already available to enable digital identity

- FIDO Alliance specifications
  - ITU-T Recommendations x.1277, x.1278
- ITU-T Distributed ledger recommendations
- OpenID Connect + Mobile Connect



# W3C Decentralized Identifiers

- New type of identifier for verifiable, "self-sovereign" digital identity
- Under the control of the DID subject, enabling independence from any specific:
  - centralized registry
  - identity provider
  - certificate authority
- URL enabling trustable interactions with DID subject
- DIDs resolve to DID Documents:
  - Verification methods
  - Service endpoints for interacting with the DID subject
- Examples:
  - Authentication
  - Requesting a digital signature on a document

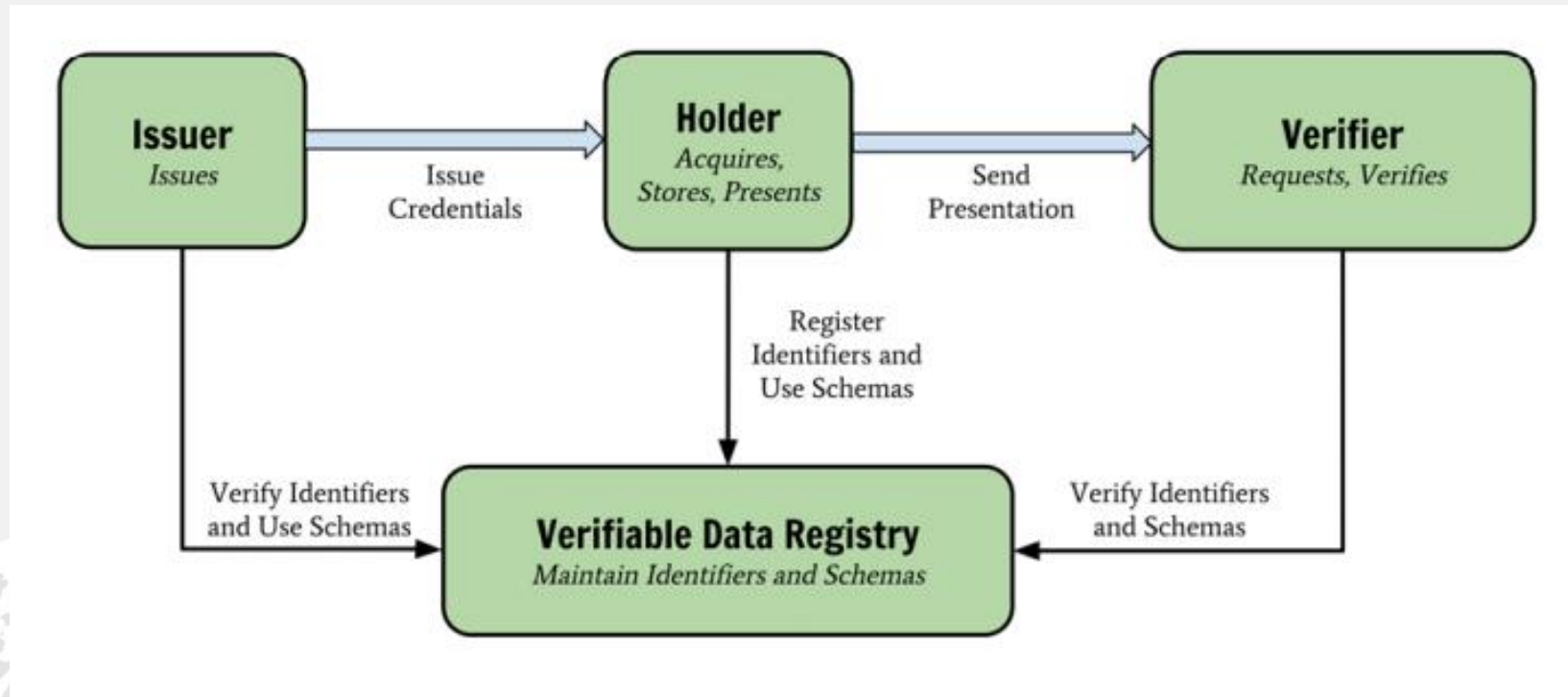


Scheme  
did:example:123456789abcdefghijklmnopqrst  
DID Method DID Method Specific String



# W3C Verifiable Credentials

- W3C Verifiable Credentials WG
- The format for interoperable, cryptographically-verifiable digital credentials





(ADIA) See ( <https://adiassociation.org/>)

- The ADIA association is an open industry association created to drive the development of a standardized, interoperable framework for decentralized identity services to ensure the authenticity of and establish trust in digital identities.
- The group will contribute to the creation of a global ecosystem, the formation and operation of a collaborative network, the diffusion of standardized technologies and the development of the decentralized identity industry.

# (ADIA) Bootstrapping Digital Identity

- Trust sourcing
- Cross-ledger transaction support
- Inclusiveness
- Interoperability