Good Morning Everyone!!

Session will start soon.

We request to have your Cameras turned on & Microphones muted.

Industry Working Group

Skill Credentials Schema Standardization

15th Nov 2023

Agenda:

DICE ID Recap

Fundamentals of Schema & Verification Templates

Proposal for Skill Credential Standard

Using DICE ID Console for Skill Credentials

Next Steps

Q&A

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DICE ID – Technology Platform for Verifiable Credentials

A platform that helps organizations to issue & verify tamper proof digital credentials

Trust Ecosystems

DICE ID enables collaboration networks by establishing trust between the credential issuers and verifiers
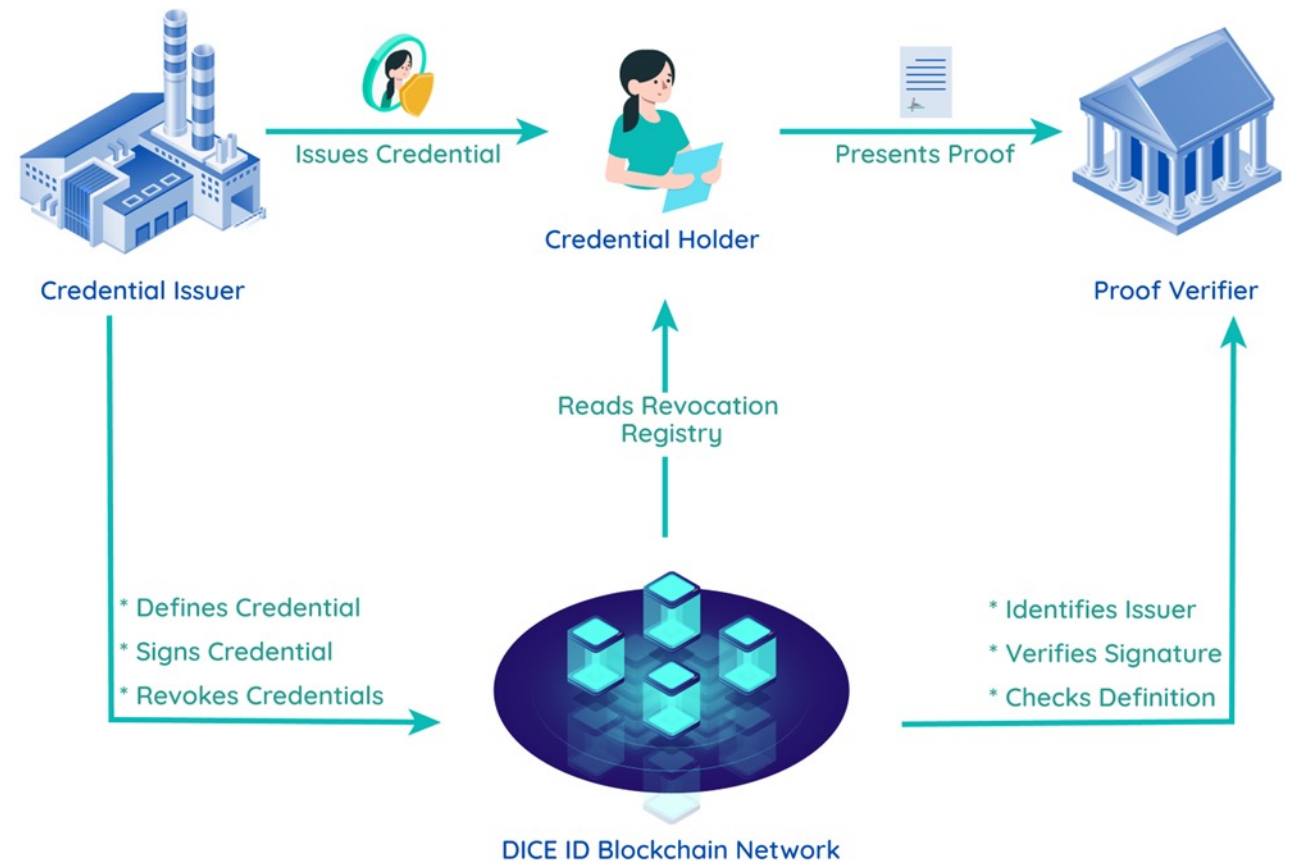
Instant & Cost Effective

Simplified certification, reduce fraud, and enhanced self-verifiable credentials for faster processing and reduced network load.

Built on Industry Standards

Based on W3C Verifiable Credentials v1.0 specification. Creates standardized credentials, provides cross industry interoperability.

Privacy Centric & Portable

DICE ID offers unique data privacy compliance with self-sovereign and selective disclosure

Issues Credential

Credential Holder

Presents Proof

Credential Issuer

Proof Verifier

Reads Revocation Registry

* Defines Credential
* Signs Credential
* Revokes Credentials

* Identifies Issuer
* Verifies Signature
* Checks Definition

DICE ID Blockchain Network

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Understanding Credential Schema

Definition

- A schema is a predefined framework that defines the attributes and structure of a digital credential.

- It ensures that the information is consistent, trustworthy, and can be independently verified**.**

Components of a Schema:

- **Issuer**: Entity that creates and issues the credential.

- **Subject**: Individual or entity the credential is about.

- **Credential Data**: Specific pieces of information, such as skill name, proficiency level, and issuing authority.

- **Proof**: Cryptographic evidence that verifies the integrity and authenticity of the credential.
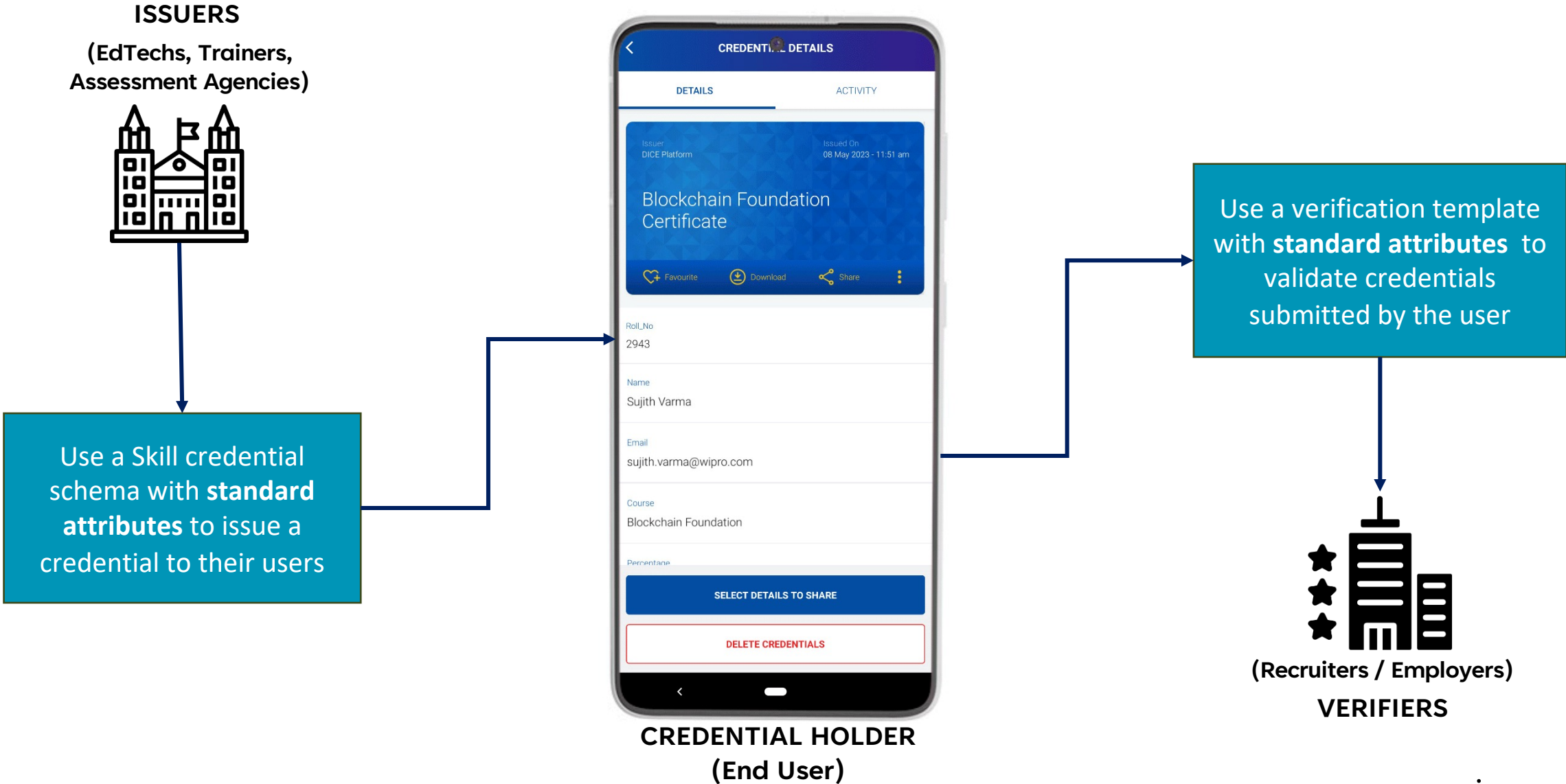
Understanding Verification Template

Definition

- A verification template is a predefined framework used to validate the authenticity and integrity of digital credentials.

- Ensures that credentials presented as proof match the structure, data types, and values as defined by the issuer.
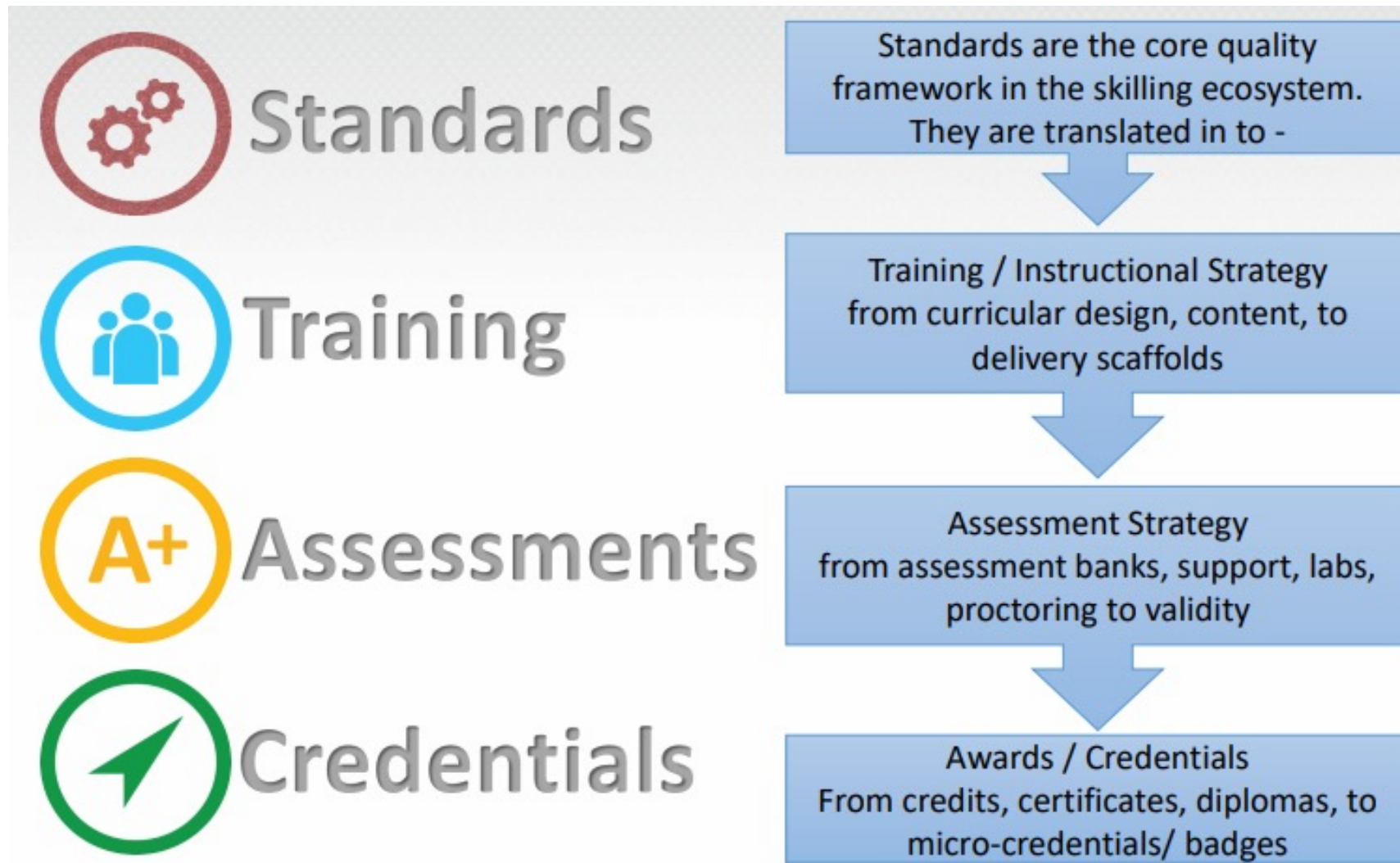
Components of a Verification Template:

- **Context and Type**: Defines the nature of the credential and the standard it adheres to.

- **Issuer Information**: Specifies the entity that issued the credential.

- **Credential Subject**: Details about the individual or entity the credential is about.

- **Issuance and Expiration Dates**: Timeframe of the credential's validity.

- **Proof**: Cryptographic evidence that attests to the authenticity of the credential.

How are Schema and Verification Template linked?

ISSUERS

(EdTechs, Trainers, Assessment Agencies)

Use a Skill credential schema with **standard attributes** to issue a credential to their users

CREDENTIAL HOLDER
(End User)

Use a verification template with **standard attributes** to validate credentials submitted by the user

(Recruiters / Employers)
VERIFIERS

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The Standards Continuum

Standards
Training
Assessments
Credentials

Standards are the core quality framework in the skilling ecosystem. They are translated in to -

Training / Instructional Strategy from curricular design, content, to delivery scaffolds

Assessment Strategy from assessment banks, support, labs, proctoring to validity

Awards / Credentials From credits, certificates, diplomas, to micro-credentials/ badges

Source: https://skillsip.nsdcindia.org/sites/default/files/kps-document/An%20Introduction%20to%20Occupational%20Standards.pdf

Proposed Skill Credential Schema – 1/2

Attribute	Description
Name	Name of the individual to whom the credential is issued.
Email	Email address of the user / learner.
Phone	Phone number of the user / learner.
Skill Name	The name of the specific skill for which the user is certified.
Cred URL	URL where the certificate or details can be viewed/verified.
Certification Level	Level or tier of the certification (e.g., beginner, intermediate, advanced).
Score	Marks or percentage obtained as part of certification
Certificate ID	Unique identifier for the certificate.
Issued By	Name and details of the affiliated or recognized training provider or institution where the user got trained for this skill.
Issued On	The date when the certificate was issued
Valid Till	Validity period of this skill credential (e.g., Expires on 31-Dec-2024).

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Proposed Skill Credential Schema – 2/2

Attribute	Description
Assessment Result	The outcome of the assessment for this skill (e.g., Passed, Failed, Outstanding).
Assessment Body	Name and details of the assessment body that evaluated the individual for this skill.
NSQF Level	The NSQF level to which this specific skill aligns (e.g., Level 1, Level 2 … Level 10).
QP Code	Qualification Pack (QP) code represents the competency standards required for a job.
NOS Reference	The specific National Occupational Standard (NOS) to which this skill aligns.
SSC Endorsement	Endorsement or recognition status by the relevant Sector Skill Council for this skill.
Related Job Role	Potential or associated job roles where this skill can be applied.
Comments	Any additional notes, remarks, or details relevant to this specific skill.

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Demo – Leveraging DICE ID Console for Skill Credentials

1. Sign-up and Sign-in to Platform Console

2. Use NOS standards-based **Skill Credential Schema**

3. Setup Certificate Template

4. Issue Credentials

5. Accept Credentials as Credential Holder

6. Create / Use standards-based **Skill Verification Template**

7. Submit credentials as proof for verification

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Next Steps

1. Provide feedback via email or on https://community.diceid.com – 29th Nov

2. Feedback assimilation and schema refinement

3. Notification of finalized skill credentials schema and verification template – 5th Dec

4. Operationalizing standardized schema and verification template in DICE ID platform console – 12th Dec

5. Ecosystem participants can continue using DICE ID Skill Schema or NOS Standard Skill Schema

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