Identiproof

CROSSWORD CYBERSECURITY

Privacy-compliant, Secure and Verifiable Credentials

How do you know it's not fake?

We all rely on credentials - whether they are qualifications, tickets, or IDs - to establish aspects of personal or organisational identity. But how do you prove they are real? How do you know for sure that they apply to the person or organisation who claims them? Especially in the online world?

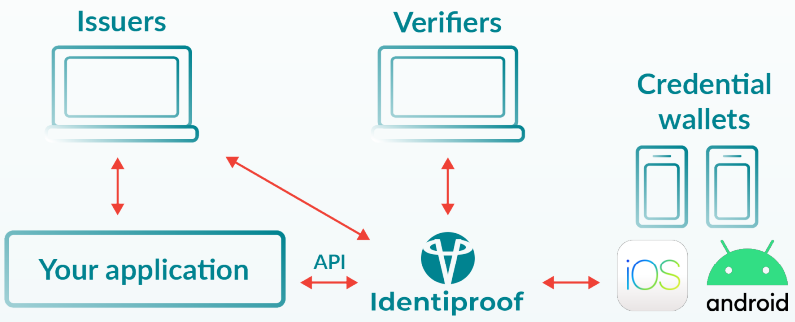
Some documents such as passports or season tickets have embedded pictures and other anti-forgery, anti--misrepresentation features. However, verifying credentials in the digital world is harder.

And what about Privacy? How do you deliver "SelfSovereign Identity?" An individual's digital identity should be controlled by them, not by a giant corporation or Government.

Identiproof & Crossword

Identiproof is a standards-based system that allows you to issue secure digital credentials that can be verified by anyone that the holder chooses to present them to, all without compromising privacy. Identiproof uses established cryptographic protocols and the new web standard in verifiable credentials from the World Wide Web Consortium - making it easy and secure to implement.

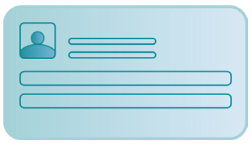
Identiproof provides the applications, cryptographic infrastructure, mobile phone apps and APIs needed for any organisation to build their own verifiable credentials application - linked in to their existing business applications. If you issue certificates, tickets, memberships, accreditations or controlled documents, Identiproof could save you money and keep your credentials and your customers secure.



Crossword Cybersecurity PLC can work with your team to design your verifiable credentials solution and rapidly integrate Identiproof into your systems - taking full advantage of the new W3C standard.

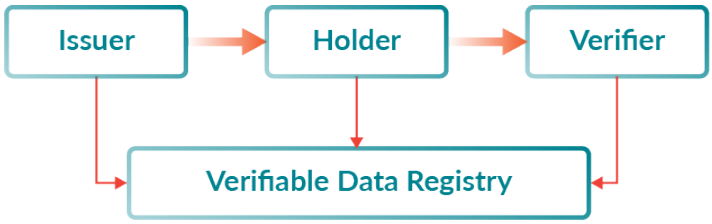
What are verifiable credentials?

Everyone possesses credentials that establish claims about their identity, or give the holder privileges. For example, a passport, a driving license, or an event ticket. Organisations hold these too. For example a certification, or proof of insurance cover. These are generally physical or digital documents. Some may have anti-fraud elements embedded, or identifying elements such as a photo or an organisation identifier. Most, however, are not difficult to copy, misrepresent or forge.



Verifiable credentials can be verified by any verifier, when presented to them by the holder. For example, when you go through a border, it is standard that your passport is verified electronically as valid. However, until recently there has been no accepted standard for how digital credentials can be verified online, maintaining security and privacy.

In November 2019, the World Wide Web consortium or W3C issued a new standard about how verifiable credentials can be expressed digitally on the web, maintaining cryptographic security and preserving privacy. w3.org/TR/vc-data-model/



About W3C's new standard

- Holders can control which aspects of a credential are disclosed to a verifier (provided the credential supports selective disclosure)
- Holders can assemble collections of verifiable credentials from different Issuers into a single "presentation"
- Verification should not reveal the identity of the verifier to the issuer
- Verifiable credentials can be revocable and refreshable
- Acting as issuer, holder, or verifier requires neither registration nor approval by any authority, as the trust involved is bilateral between parties
- Verifiable presentations allow any verifier to verify the authenticity of verifiable credentials from any issuer

Identiproof and Covid-19 Certificates

Crossword Cybersecurity, VCL and the East Kent NHS Hospital Trust are now actively trialling a system for issuing verifiable Covid-19 vaccination certificates based on Identiproof. These encrypted certificates, which will sit on the holder's mobile phones, will allow the holders to prove that they received their Covid-19 vaccinations and will not be copyable or transferable. When presented to any verifier, Identiproof will establish their validity and verify the certificate and the holder.

Verifiable Credentials

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NHS East Kent Hospitals University NHS Foundation Trust

Professor David Chadwick

The W3C VC standard was co-Authored by Professor David Chadwick, now CEO of VCL, a partner of Crossword Cybersecurity PLC. David has 20 years of experience in digital identity, X509, cryptography and verifiable credentials, and has incorporated that knowledge into Identiproof and the Crossword Team.

To find out more contact Crossword Cybersecurity via info@crosswordcybersecurity.com or call +44 20 3953 8460