IDenCert

Secure solution for instant authentication and verification of certificates

- *Streamline Business Processes*
- *Paperless office*
- *Compliance*
- *Non Repudiation*
- *High assurance*
- *Scalability*
- *Instant check*
- *Additional Protection*
- *Smart Tracking*

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Introduction

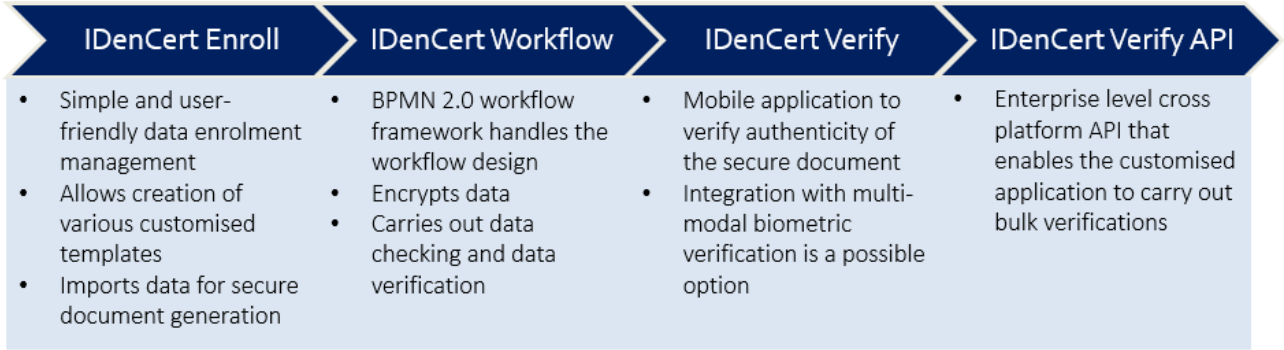
Paper based certificates of achievements are important physical symbols of triumph and success much like medals and trophies – all of which are integral to and form part of everyone's unique identity in society.

However, the production of counterfeit certificates have also become rampant and pose serious problems with severe repercussions. Not only the process for verifying the authenticity of any certificate is extremely tedious, but it is also time and resource consuming requiring manual searches by various parties and issuing bodies, each with different document handling systems.

Finding the right path: IDenCert

As a formidable means of overcoming counterfeit academic, professional and achievement certificates, IRIS has crafted the IDenCert solution - a multi-channel, secure document verification system that provides a platform for creating physical certificates into electronic versions which are digitally signed and then integrated into a web-based management application. Instant authentication and verification of certificates is made possible, from anywhere in the world.

By combining multiple channels of certificate verification, IDenCert is capable of handling both offline and online verification processes to provide maximum flexibility and availability. To carry out the tasks of certificate generation and verification, IDenCert solution works on four main modules:



IDenCert main modules

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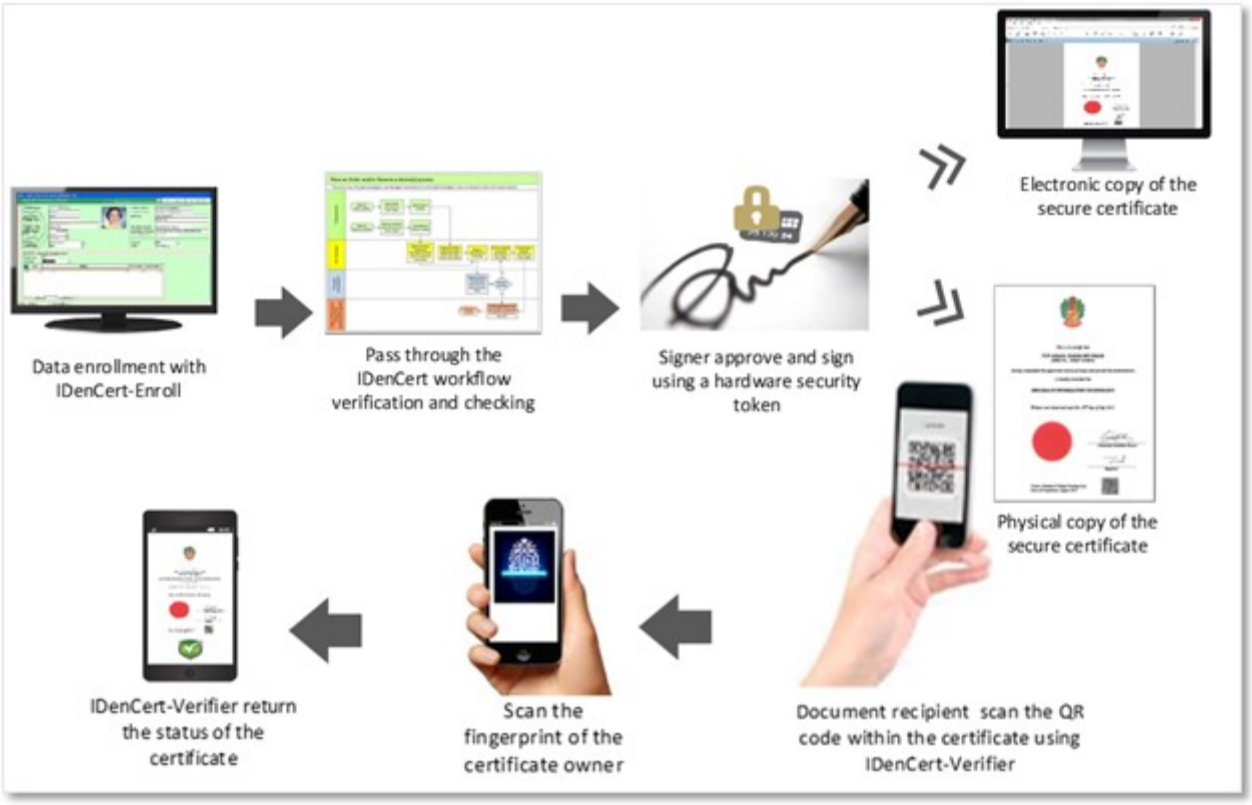
The various processes within the IDenCert ecosystem are illustrated below:



IDenCert Solution

There are three key technologies used in the development of the IDenCert solution:

- QR Code: To produce physical secure certificates, IDenCert offers a template based document printing technique where issuing authorities can easily create and maintain multiple templates. IDenCert then embeds a secure QR code within the physical secure document, to provide enhanced security while ensuring that crucial information within the original document cannot be tampered with, safeguarding integrity and authorship. QR (Quick Response) code is the trademark name for the two dimensional barcode system which can store up to a hundred times more information than on a conventional horizontal barcode. In addition, QR codes can be scanned from any direction and thus makes them easier for the user's device to read and lessens the possibility of background interference.

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- **Digital Signature**: As an added layer of protection for the physical secure certificate generated by IDenCert, the electronic secure document is armed with a digital signing mechanism, offering far more inherent security and helps to solve the problem of tampering and impersonation in digital communications. Digital signatures can provide the added assurances of evidence to origin, identity and status of an electronic document, transaction or message, as well as acknowledging informed consent by the signer. IDenCert uses an industry standard X.509 digital certificate which is implemented using Hardware Secure Module (HSM) in adherence to PKCS11 and several other high security standards. The certificates are trusted by Adobe (via freeware Adobe Reader) which allows automatic validation of authenticity of the secure document issuer. No additional client software or configuration is required.

- **Web Services API:** With web services API, 3rd parties or recruitment agencies are able to develop and integrate the document check and authentication into their existing recruitment platform. Web services allows applications to be integrated more rapidly, easily and less expensively than ever before. Moreover, Web Services compliment Java 2 Platform, Enterprise Edition (J2EE), Common Object Request Broker Architecture (CORBA) and other standards for integration with more tightly coupled distributed and non-distributed applications.

IDenCert web service API integration with 3rd party platform

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Why IDenCert?

There are many digital signature certificate providers that provide paperless digital signature solution but with our IDenCert solution, we provide more than just a digital signature solution – a comprehensive ecosystem for instant authentication and verification of certificates, from enrolment to verification of the documents, converting traditional paper to electronic document to allow instant authentication and verification.

IDenCert's vast potential can benefit across many sectors and industries in both private and public settings where academic and professional certifications can be authenticated and verified instantly using an easy-to-deploy, reliable mobile application that is always available.

We currently know of no other solution which provide the end-to-end certificate generation with template based document creation that offers the flexibility of multi-channel certificate verification processing in both offline and online modes.

The whole IDenCert ecosystem enables the strongest utilisation of digital signatures and provides the advantages of:

Streamline Business Processes: Replace handwritten signatures and paperwork, and reduce approval process timelines for multiple authorising signatures.

Paperless office: Reduce costs associated with traditional paper-based processes (i.e., paper, printing, ink, faxing, postage, and processing time).

Compliance: Using standards-based digital signatures and X.509 certificates in accordance with regulatory guidelines enables the integrity of documents to be maintained.

Non Repudiation: Digitally signed documents and transactions are sealed electronically, providing evidence of signer and document authenticity and guaranteeing document integrity and thus are resistant to fraud and tampering.

High assurance: With PKI-based trusted credentials, the level of assurance is typically higher than that of electronic signatures protected only by a password.

Scalability: Flexible and scalable module to accommodate high volumes of documents.

Instant check: Instant authentication and verification of certificates is made possible through mobile application, from anywhere in the world.

Additional Protection: Multi-modal biometric (fingerprint or facial image) information for easy verification of ownership.

Smart Tracking: Time-stamp feature to support time-sensitive document transactions and audit trails.

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