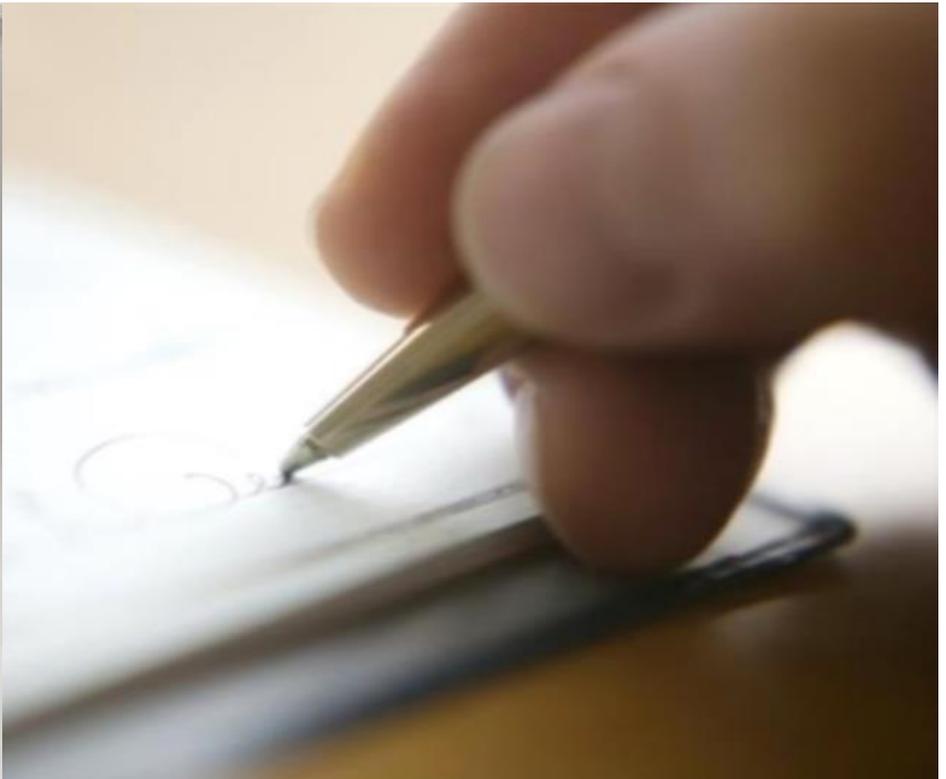


AT.Sign e-Cheque

A Leading Digital Signature Solution for e-Cheque issuance & presentment



Winner of Bronze Award
2016 Internet Finance Competition

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AT.Sign e-Cheque

Extension of a Leading Digital Signature Solution to Support e-Cheques

e-Cheque Opportunities and Benefits

AT.Sign e-Cheque is a revolutionary platform that enables traditional paper cheque issuance and presentment banks to leap-frog straight into a purely digital end-to-end e-Cheque issuance and presentment paradigm and by-pass the more costly Cheque Truncation System (CTS) alternative.

For existing CTS processing banks, AT.Sign e-Cheque provides the final piece in the jig-saw with complete end-to-end issuance and presentment of digitally signed e-Cheques and removes the need for costly hardware and human resource factors of paper cheque acceptance, image capturing, transcription and handwritten signature verification.

AT.Sign e-Cheque leverages off the leading role taken by the Hong Kong Monetary Authority (HKMA) world-wide, in facilitating the ecosystem, standards, specifications and development of an innovative e-Cheque payment instrument which is legally and functionally equivalent to conventional cheques.

The HKMA has worked with banks in Hong Kong on the successful launch of the e-Cheque services and embarked on a territory-wide rollout beginning at the end of 2015. These e-Cheque services are revolutionizing the market.

Why AT.Sign for e-Cheque

AT.Sign is a transformational Digital Signing Solution designed and developed by iASPEC. Many of our customers are already using the standard AT.Sign product to support a variety of application systems to meet digital signature document requirements. The standard features of AT.Sign can be found in the AT.Sign product literature.

AT.Sign e-Cheque is an extended version of the standard AT.Sign product. It is designed and developed to support various e-Cheque requirements in accordance with the HKMA standards and can be easily adapted for other jurisdictions in accordance with their specifications.

Business Benefits

[Support for wide range of e-Cheque scenarios](#)
AT.Sign supports e-Cheque requiring single signature or multiple signatures, the batch issuance and signing of a group of e-Cheques, as well as the issuance of electronic bank-draft and cashier cheques.

[Enhanced user experience](#)

e-Cheques can be digitally signed via server-side (Special Purpose Certificate) and client-side certificates (General Purpose Certificate). Client libraries are provided for implementation on a variety of platforms, such as iOS, Android and Windows to enable full integration into the Bank's internet banking application.

[Source Code protected by Escrow](#)

Through mutually agreed arrangement, AT.Sign source code can be deposited at third-party escrow agent or internally with the customer to ensure your software investment is protected.

Technical Benefits

[Create PDF conforming to HKICL Standards](#)

The sheer complexity of the e-Cheque PDF standard requires in-depth expertise in PDF manipulation and PKI integration. AT.Sign abstracts away the technical details so that you can focus on the user experience in your e-Cheque applications.

[Integrate HSM / TSA](#)

AT.Sign is integrated with HSM (Hardware Security Module) and TSA (Time Stamping Authority). It further expands the storage capacities of current HSMs while still complying with FIPS 140-2 level 3. Your keys will never be exposed outside of the HSM perimeter.

[Seamless integration](#)

A set of Web Services API is provided for the integration of this product with different internet banking applications operated by the banks.

[Highly scalable and reliable](#)

The product can be deployed in a load-sharing (active/active) or backup stand-by mode to meet different scalability and reliability requirements.

Core Features of AT.Sign for e-Cheque

- [e-Cheque \(PDF\) Generation and Signature](#)
Based on user input data, PDF e-Cheque is generated and signed in accordance with the published e-Cheque standard by HKICL.
- [HSM and TSA integration](#)
AT.Sign integrates seamlessly with HSM and TSA manufactured by different vendors. Banks can choose their own HSM by implementing different software adapters for these HSM products. All digital signatures functions are performed inside the HSM without the risk of exposing the digital certificates. In addition, it further expands the digital certificate storage capacity of selected HSM.
- [Different Certificate Types](#)
Users can digitally sign e-Cheques using Special Purpose Cert stored in the servers of the banks, or using the General Purpose Certs that are stored in HKID cards or USB devices belonging to the authorized signers.
- [Signer Certificate Management](#)
Manage digital certificates, including the association of general purpose certs and special purpose certs with the designated Signer records.
- [E-Cheque Signature Verification](#)
At the time of e-Cheque presentment to the Payee bank, digital signatures of the e-Cheque can be verified to establish the authenticity and integrity of the e-Cheque.
- [Integration with Certificate Authority](#)
An abstraction layer is provided for the integration with different Certificate Authorities which the customer choose to use.
- [Signatory Rules Management](#)
It manages signatory rules on a per-bank account basis. Similar to signature cards, it controls the number of signatures and who is required to sign for this account at different cheque amount thresholds.
- [e-Cheque Ledger by account](#)
An e-Cheque ledger is maintained for each e-Cheque account. It contains details of all e-Cheques for this account during the retention period adopted by the bank. Audit trail is available for all auditable actions related to these e-Cheques.

- [Payee Name Matching](#)
A configurable name matching engine supporting probabilistic matching of the Payee Name on the e-Cheque to the Account Name. This engine can be "trained" to accept name variations per account.
- [Cheque Number Management](#)
Cheque numbers allocated to e-cheques are the same as those allocated to paper cheques.
- [Different application scenarios](#)
A variety of e-Cheque issuing scenarios are supported, including e-Cheques with a single signature, multiple signatures and the batch preparation and signing of a group of e-Cheques in accordance to pre-defined rules.

Technical Requirements

AT.Sign Server Requirements

Operating System

Windows (x86/x64) w/JRE 1.6 or above
Unix/Linux (x86/x64) w/JRE 1.6 or above including Redhat 6+ and SUSE 9+
Virtual and Physical machine environment

Application Server

J2EE 5+ Application Server

Database

Relational DB via JDBC
Oracle 9i or above
IBM DB2
Sybase
SQL Server 2008 or above (All editions)



[A sample displayable e-Cheque](#)



The iASPEC Technologies and Services group is a leader in supplying OTP-based (One-time Password) identity authentication solutions and PKI-based digital signature platform products.

Brief history of the Group in the OTP and PKI technology areas:

- 1988 – Founding of the Company in Hong Kong.
- 2005 – Released the AT.Pass, an award winning One-Time-Password authentication solution.
- 2009 – Released the AT.Sign digital signature solution. AT.Sign is currently deployed by government departments, public service organizations and large enterprises in Hong Kong and Mainland China to support various digital signature applications.
- 2011 - Launched SecurDS, a cloud-based digital signature service based on the AT.Sign technology,
- 2012 - Involved in the early discussions on the e-Cheque initiative through the HKPKI Forum.
- 2013 - Received the Most Reliable Offshore Software Development Services from Mediazone Group for its achievement in software services.
- 2014 – Extended the standard AT.Sign product to support e-Cheque.
- 2016 – Winner of the Internet Finance Bronze Award