



eSignTrust Certification Services

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- Remote Signing Service – eSignCloud Signature Service
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1. CTT eSignTrust Certification Services

- Provided by Macao Post and Telecommunications Bureau (CTT)
- Operates the Certification Authority in accordance with the Electronic Documents and Signatures Law of MSAR (Law no. 5/2005)
- Is the only CA accredited by Government of MSAR at present
- Provides certificate lifecycle management to individuals, organizations and government bureaus and focuses on PKI-related services.
- Is a member of Microsoft® Root Certificate Update Program
- Has WebTrust Seal of assurance for Certification Authorities (CA)



2. Legal Framework

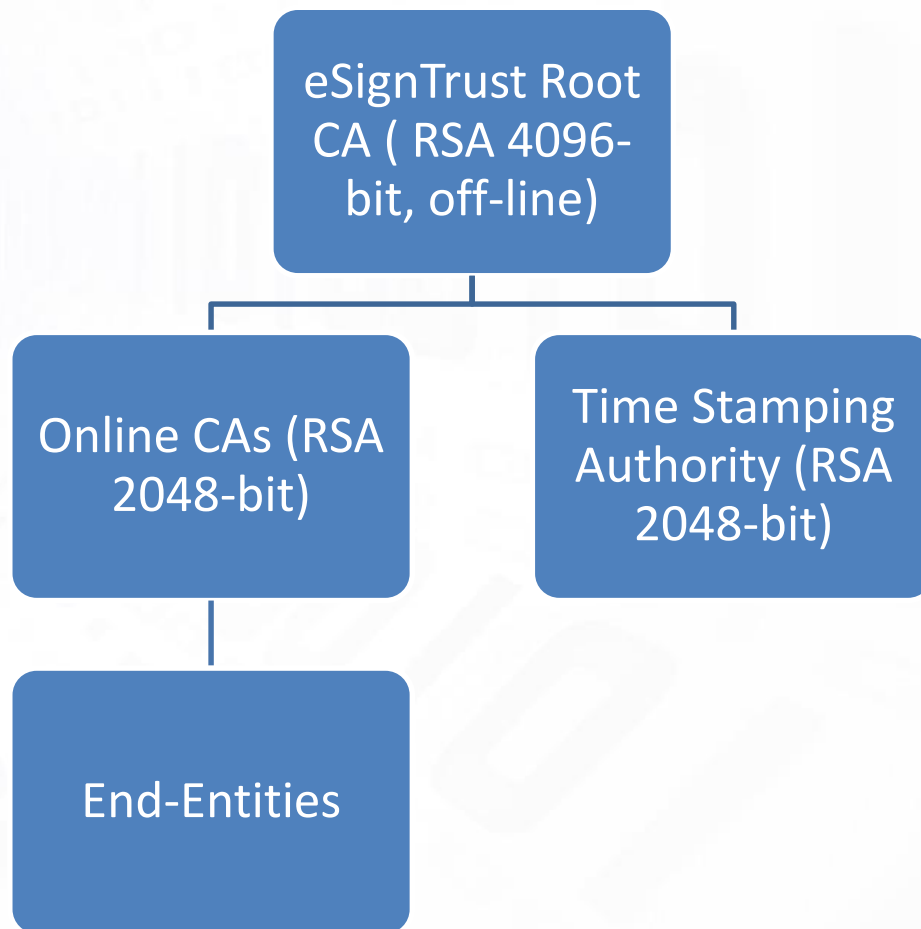
- **Law no. 5/2005** - Electronic Documents and Signatures. Establishes the legal regime of electronic documents and signatures.
- **Administrative Regulation no. 14/2005** - Establishes penalties for administrative offenses relating to the certification activities of electronic signatures.
- **Dispatch of the Chief Executive no. 375/2005** - Designates a accreditation authority responsible for the accreditation and supervision of certification entities.
- **Dispatch of the Chief Executive no. 376/2005** - Creates the Accreditation Technical Committee.
- **Dispatch of the Chief Executive no. 381/2005** – Exempts the approval for Post Office Department to have accreditation for certification business.
- **Order of the Secretary for Administration and Justice no. 7/2007** - Establishes measures to be taken by all departments or public entities of the MSAR Administration for electronic official letters.
- **Administrative Regulation no. 11/2008** - Establishes the general terms and conditions for the use of electronic declaration services of the Financial Services Department.

Legal effectiveness of Electronic Signatures

- According to Macao SAR Law no. 5/2005 Electronic Documents and Signatures:

Qualified Electronic Signature (QES)	Advanced Electronic Signature (AES)	Electronic Signature (ES)
A type of AES based on a Qualified Certificate and generated using a Secure Signature-Creation Device (SSCD) that, according to current internationally recognised standards, is capable of assuring effective protection of the signature against forgery.	A kind of ES, which has proven connection between the signer and the signature. Any alternations after electronic signature made on the document is detectable.	ES means data in electronic form which are attached to or logically associated with other electronic data and which serve as a method of authentication.
An electronic document that can be presented as a written statement, signed with a QES, has full evidentiary value of the declarations attributed to its signatory.	An electronic document signed with an AES has legal effectiveness, which is evaluated to the general legal rules and is based on the agreement of the involved parties.	An electronic document signed with an ES has legal effectiveness.
Equivalent to hand-written signature.		

3. CA Hierarchy



4. Certificate Service

- Qualified Certificates (for Qualified Electronic Signatures)
 - ITU-T Recommendation X.509 (1997): Information Technology - Open Systems Interconnection - The Directory: Authentication Framework, June 1997
 - RFC 3739: Internet X.509 Public Key Infrastructure : Qualified Certificate Profile, March 2004
- Normalised Certificates (for Advanced Electronic Signatures)
- Encipherment Certificates (for data encryption)
- Secure Email Certificates (for S/MIME messages)
- Secure Signature-Creation Device (SSCD) :
 - Common Criteria EAL4+

電子認證 雲簽 服務 SERVIÇO E SIGNCLOUD



隨時

隨地



- Launched in September 2017 by CTT
- An online tool for real-name authentication and e-signature
- Users' Normalised Certificates stored in the Signing Server
- With Users' personal eSignCloud accounts to login the System/Application and sign electronic documents online



■ Compliance with the Law

- No. 5/2005 Electronic Documents and Electronic Signature Law



■ Safe and Reliable

- Authenticate users with the eSignTrust Mobile One-Time Password (eMOTP) as a two-factor authentication while carrying out electronic signing



■ Easy to Use

- No need to carry any extra hardware and install any hardware and software drivers
- Can also use mobile devices to sign an electronic document anywhere and anytime






■ Affordable Price

- No additional hardware for signature activation storage



 <p>澳門保安部隊事務局 Direcção dos Serviços das Forças de Segurança de Macau Public Security Forces Affairs Bureau of Macau</p>	<p>Public Security Forces Affairs Bureau integrates with “eSignCloud Service” for its Electronic Application System for Non-Resident Workers (外地僱員電子申辦系統) and Non-resident Domestic Worker (家務工作外地僱員申請服務)</p>
 <p>澳門特別行政區政府勞工事務局 Governo da Região Administrativa Especial de Macau Direcção dos Serviços para os Assuntos Laborais</p>	<p>Labour Affairs Bureau integrates with “eSignCloud Service” for its Electronic Application System for Non-resident Domestic Worker (家務工作外地僱員申請服務)</p>

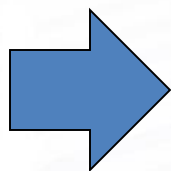
 <p>澳門特別行政區政府 Governo da Região Administrativa Especial de Macau</p>  <p>SAP 行政公職局 Direcção dos Serviços de Administração e Função Pública</p>	<p>Public Administration and Civil Service Bureau binds its Unified Account Access Service to “eSignCloud Service” and integrates its Civil Servant Management and Service Platform (“G2E”) with “eSignCloud Service”</p>
 <p>市政署 INSTITUTO PARA OS ASSUNTOS MUNICIPAIS</p>	<p>Municipal Affairs Bureau integrates the “eSignCloud Service” to its Online Service of Licenses of Food and Beverage Establishments and Beverage Establishments</p>

- Time Stamping
 - RFC 3161: Internet X.509 Public Key Infrastructure Time-Stamp Protocol (TSP)
- Electronic Postal Services of CTT using TSA:
 - SEPBox – Secure Electronic Postal Box
 - PReM – Postal Registered electronic Mail
 - eDM – electronic Direct Mail
 - EPCM – Electronic Postal Certification Mark



7. Roadmap for eSignCloud – Today for Tomorrow

- Comprehensive model for signature rules and policies
- Enhancement on authentication mechanism
- Support full range of signature profiles
- eSignCloud for QES
- Cross-border legal recognition



**Trust Services Infrastructure for e-
Identification, e-Authentication, e-
Signature & related**



Thank you

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