ATHEX
Χρηματιστήριο Αθηνών

DIGITAL CERTIFICATION SERVICES

CP/ CPS for EU Qualified Certificates for Website Authentication and EV Certificates

Version 1.1 - 01/03/2018

Approved for the following HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. "Certificate Policies":
(Approved for the following 'Certificate Policies' :)

1. Certificate Policy for Website Certificates and EV Certificates
   OID 1.3.6.1.4.1.29402.1.1.5.1.1.1

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Revision History

Issue	Date	Changes in this Revision
1.0	01/06/2017	Initial version and Release
1.1	01/03/2018	Revision and updates for EV SSL Certificates, EV code signing and Certificate Transparency.

INTRODUCTION

This document is the HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A Certificate Policy/Certification Practice Statement" (herein after "CP/CPS"). It states the practices that HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A certification authorities ("CAs") employ in providing certification services that include, but are not limited to, issuing, managing, revoking, and renewing certificates of types as described herein in section 1.4

1.1 Overview

This HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. Certificate Policy/Certification Practice Statement (the "CP/CPS") presents the principles and procedures HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. employs in the issuance and life cycle management of HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. DV,OV,EV SSL Certificates as well as, EV Code Signing Certificates . This CP/CPS and any and all amendments thereto are incorporated by reference into all of the above-listed HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. Certificates.

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. conforms to the current version of the following CA/Browser Forum documents published at http://www.cabforum.org:

- Guidelines for the Issuance and Management of Extended Validation Certificates ("EV SSL Guidelines")
- Guidelines for the Issuance and Management of Extended Validation Code Signing Certificates ("EV Code Signing Guidelines")
- Baseline Requirements for the Issuance and Management of Publicly-Trusted Certificates ("Baseline Requirements")

Note the EV SSL Guidelines and the EV Code Signing Guidelines will be referred to collectively as the EV Guidelines.

The EV Guidelines and the Baseline Requirements describe certain of the minimum requirements that a Certification Authority (CA) must meet in order to issue Extended Validation Certificates ("EV Certificates").

Subject Organization information from valid EV SSL Certificates may be displayed in a special manner by certain relying-party software applications (e.g., browser software) in order to provide users with a trustworthy confirmation of the identity of the entity that controls the website they are accessing.

In the event of any inconsistency between this CP/CPS and the EV Guidelines, the EV Guidelines take precedence over this CP/CPS

1.2 Document Name and Identification

This document is the Hellenic Exchanges – Athens Stock Exchange S.A. Certification Practice Statement for EU Qualified certificates for website authentication and DV,OV,EV SSL Certificates as well as, EV Code Signing Certificates. The object identifier (OID) values corresponding to the Hellenic Exchanges – Athens Stock Exchange S.A. Certificate Policy are as follows:

1.3.6.1.4.1.29402.1.1.5.1.1 .1	Hellenic Exchanges – Athens Stock Exchange S.A. Certificate Policy certificates

1.3.6.1.4.1.29402	Object Identifier (OID) of Hellenic Exchanges – Athens Stock Exchange S.A., registered in IANA
1	Independent department "Public Services Certification" of Hellenic Exchanges – Athens Stock Exchange S.A.
1	*Certification Policy for Server Certificates*

5	*Certification Policy for Qualified certificates for Website Authentication and EV Certificates*
1.1	*First and second digit of the version of the Certification Practice Statement*

1.3 PKI Participants

1.3.1 Certification Authorities

The term Certification Authority (CA) is a trusted third-party entity that issues Certificates and performs all of the functions associated with issuing such Certificates under this CP/CPS. All such subordinate CAs are required to operate in conformance with this CP/CPS.

1.3.2 Registration Authorities

A Registration Authority is an entity that performs identification and authentication of certificate applicants for EU Qualified certificates for website authentication and for end-user certificates, initiates or passes along revocation requests for EU Qualified certificates for website authentication, and end-user certificates and approves applications for renewal or re-keying of certificates on behalf of a HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A may act as an RA for certificates it issues and does not delegate domain or IP address validation to external RAs or third parties.

In the EV public-key infrastructure, RAs under the EV CAs may accept EV Certificate Applications from Applicants and perform a verification of the information contained in such EV Certificate Applications. The information provided is verified according to the procedures established by HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. Policy Authority, which conform to the EV Guidelines published by the CA/Browser Forum. Upon successful verification a RA operating under an EV CA may send a request to such EV CA to issue an EV Certificate to the Applicant.

Only RAs authorized by HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. are permitted to submit requests to an EV CA for the issuance of EV Certificates.

1.3.3. Subscribers – End Entities

Subscribers include all end users (including entities) of Qualified certificates for website authentication issued by HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. A subscriber is the entity named as the end-user Subscriber of a certificate. End-user Subscribers may be individuals, organizations or, infrastructure components such as firewalls, routers, trusted servers or other devices used to secure communications within an Organization.

End entities for the HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A consists of :
Applicants -An Applicant is a Private Organization, Government Entity, Business Entity, or Non-Commercial Entity that has applied for, but has not yet been issued, an EV Certificate. Eligible Private Organizations, Government Entities, Business Entities and Non-Commercial Entities are stipulated in the EV Guidelines.
Subscribers - A Subscriber is a Private Organization, Government Entity, Business Entity, or Non-Commercial Entity that has been issued an EV Certificate.
CAs are technically also subscribers of HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A certificates either as a CA issuing a self signed Certificate to itself, or as a CA issued a Certificate by a superior CA. References to “end entities” and “subscribers” in this CP/CPS, however, apply only to end-user Subscribers.

1.3.4 Relying Parties

A Relying Party is an individual or entity that acts in reliance of a certificate and/or a digital signature issued by a HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. A Relying Party may, or may not also be a Subscriber of HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A certificates.

1.3.5 Applicability

This CP/CPS is applicable to EV Certificates issued by EV CAs.

EV SSL Certificates

EV SSL Certificates are intended for use in establishing Web-based data communication conduits via TLS/SSL protocols. EV SSL Certificates conform to the requirements of the EV SSL Guidelines, which are based on the ITU-T X.509 v3 standard with SSL extensions.

EV Code Signing Certificates

EV Code Signing Certificates are used by content and software developers and publishers to digitally sign executables and other content. EV Code Signing Certificates conform to the requirements of the ITU-T X.509 v3 standard. The primary purpose of an EV Code Signing Certificate is to provide a method of ensuring that an executable object has come from an identifiable software publisher and has not been altered since signing.

1.4 Certificate Usage

1.4.1 Appropriate Certificate Usages

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A Server Certificates are X.509 Certificates with EU Qualified certificates for website authentication, that chain to a HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. Trusted Root.

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. Server Certificates facilitate secure communication by providing limited authentication of a Subscriber's server and permitting SSL encrypted transactions between a Relying Party's browser and the Subscriber's server. HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. will not issue Wildcard Certificates,

Note that the use of Certificates with a subjectAlternativeName extension or Subject commonName field containing a Reserved IP Address or Internal Name has been deprecated by the CA / Browser Forum and will be eliminated by October 2016. Any such certificate issued prior to October 2016 must have an expiry date of 1 November 2015 or earlier. Previously issued certificates with expiry dates after 1 November 2015 will be revoked effective 1 October 2016.

Furthermore HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A specifies as primary and secondary purposes of EV SSL Certificates and EV Code Signining Certificates as follows:

Primary Purposes

EV SSL Certificates

The primary purposes of an EV SSL Certificate are to:

1. Identify the legal entity that controls a website: Provide a reasonable assurance to the user of an Internet browser that the website the user is accessing is controlled by a specific legal entity identified in the EV SSL Certificate by name, address of Place of Business, Jurisdiction of Incorporation or Registration and Registration Number or other disambiguating information; and

2. Enable encrypted communications with a website: Facilitate the exchange of encryption keys in order to enable the encrypted communication of information over the Internet between the user of an Internet browser and a website.

EV Code Signing Certificates

EV Code Signing Certificates and signatures are intended to be used to verify the identity of the certificate holder (Subscriber) and the integrity of its code. They provide assurance to a user or platform provider that code verified with the certificate has not been modified from its original form and is distributed by the legal entity identified in the EV Code Signing Certificate by name, Place of Business address, Jurisdiction of Incorporation or Registration, and other information. EV Code Signing Certificates may help to establish the legitimacy of signed code, help to maintain the trustworthiness of software platforms, help users to make informed software choices, and limit the spread of malware. No particular software object is identified by an EV Code Signing Certificate, only its distributor is identified.

Secondary Purposes

The secondary purposes of an EV Certificate are to help establish the legitimacy of a business claiming to operate a website or distribute executable code, and to provide a vehicle that can be used to assist in addressing problems related to phishing, malware and other forms of online identity fraud. By providing more reliable third-party verified identity and address information regarding the owner of the business, EV Certificates may help to:

1. Make it more difficult to mount phishing and other online identity fraud attacks using certificates;
2. Assist companies that may be the target of phishing attacks or online identity fraud by providing them with a tool to better identify themselves to users; and
3. Assist law enforcement organizations in investigations of phishing and other online identity fraud, including where appropriate, contacting, investigating, or taking legal action against the Subject.

> **Attention:** HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. Server Certificates **do not** certify specific "material» (hardware), **nor** specific 'IP addresses'! It is therefore possible, a web server certificate issued for a specific Domain Name in a «web server» for export by the administrator of course -if he is in control and the related "private key'- and introduced (import) to another server (server) that will serve the publication of the contents of this domain name! Also, HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. server certificates never certify specific content (which can be permanently changed by the administrator of the site), but only the authenticity of origin by the legal owner of the Domain Name!

1.4.2 Prohibited Certificate Uses

The HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A CA shall not issue any certificate that can be used for man-in-the-middle (MITM) or traffic management of domain names or IPs that the certificate holder does not legitimately own or control. Such certificate usage is expressly prohibited.
Certificates shall be used only to the extent the use is consistent with applicable law, and in particular shall be used only to the extent permitted by applicable export or import laws.
HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A Server Certificates are not designed, intended, or authorized for use or resale as control equipment in hazardous circumstances or for uses requiring fail-safe performance such as the operation of nuclear facilities, aircraft navigation or communication systems, air traffic control systems, or weapons control systems, where failure could lead directly to death, personal injury, or severe environmental damage.
Furthermore HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A identifies and specifies as excluded purposes for:

EV SSL Certificates

EV SSL Certificates focus only on the identity of the Subject named in the Certificate, and not on the behavior of the Subject. As such, an EV SSL Certificate is not intended to provide any assurances, or otherwise represent or warrant:

- That the Subject named in the EV SSL Certificate is actively engaged in doing business;
- That the Subject named in the EV SSL Certificate complies with applicable laws;
- That the Subject named in the EV SSL Certificate is trustworthy, honest, or reputable in its business dealings; or
- That it is “safe” to do business with the Subject named in the EV SSL Certificate.

EV Code Signing Certificates
EV Code Signing Certificates focus only on assuring the identity of the Subscriber and that the signed code has not been modified from its original form. EV Code Signing Certificates are not intended to provide any other assurances, representations, or warranties. Specifically, EV Code Signing Certificates do not warrant that code is free from vulnerabilities, malware, bugs, or other problems. EV Code Signing Certificates do not warrant or represent that:

- The Subject named in the EV Code Signing Certificate is actively engaged in doing business;
- The Subject named in the EV Code Signing Certificate complies with applicable laws;
- The Subject named in the EV Code Signing Certificate is trustworthy, honest, or reputable in its business dealings; or
- It is “safe” to install code distributed by the Subject named in the EV Code Signing Certificate.

1.5 Policy Administration

1.5. 1 Organization Administering the Document

The organization administering this CP/CPS is HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. Inquiries should be addressed as follows:

Digital Certificates Services (PKI-CA)
110, Athinon Ave. GR104 42 Athens GREECE
Tel +30 210 336 6300
Fax +30 210 336 6301
e-mail: PKICA-Services@athexgroup.gr

1.5. 2 Contact Person

Address inquiries about the CP/CPS to pkica-services@athexgroup.gr or to the following address:

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A.
Digital Certificates Services (PKI-CA)
110, Athinon Ave. GR104 42 Athens GREECE
Tel +30 210 336 6300
Fax +30 210 336 6301
PKICA-Services@athexgroup.gr

1.5.3 CP/CPS Approval Procedure

The PMC is composed of HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A.’S senior executives with the participation of experienced /specialized technical and legal advisers and constitutes the body that is responsible for policy making and designing the digital certification services offered by HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A..
Once the PMC takes into consideration the technological developments, the regulatory framework, the trade and transactional requirements of HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. and/or subscribers and HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A.’S business plans and approves HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A.’S current ‘Certificate Practice Statement of Qualified Certificates for website authentication and EV Certificates or their revisions, ascertaining its appropriateness in support and execution of the above Policies.
The PMC meets regularly once a month to examine the current conditions and the need to revise or issue new Certificate Policies, to adopt new or amended Certification Practice Statements, and to genuinely interpret the provisions of its Policies where a relevant query is raised.

1.5.4 Conventions

The current CP/CPS is based on, and complies with, the ISO/IEC X.509: Information Technology - Open Systems Interconnection - The Directory: Public-Key and Attribute Certificate Frameworks specification and IETF RFC 3647 PKI Certificate Policy and Certification Practice Framework. The IETF Framework is used worldwide to ensure interoperability and conformance to a recognized standard that defines a uniform certificate policy content and construction.

Terms not otherwise defined in this CP/CPS shall be as defined in applicable agreements, user manuals, certification practice statements, and certificate policies (CP) of HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A.

In the event that there is a discrepancy between the following procedures and the CAB Forum Guidelines, the CAB Forum Guidelines will supersede the procedures detailed below.

1.6 Definitions & Acronyms

For the Definitions & Acronyms contained herein please refer and follow the link: http://www.helex.gr/web/guest/digital-certificates-acronyms-abbreviations

2. Publication and Repository Responsibilities

2.1 Repositories

Hellenic Exchanges – Athens Stock Exchange S.A shall operate CRLs that will be available to both Subscribers and Relying Parties of Hellenic Exchanges – Athens Stock Exchange S.A Certificates. Each CRL is signed by the issuing CA. The procedures for revocation are as stated elsewhere in this CP/CPS.

2.2 Publication of Certificate Information

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A.retains copies of all Certificates for the life of the CA, but does not archive or retain expired or superseded CRLs.

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. shall host test Web sites that allow Application Software Suppliers to test their software with Subscriber Certificates that chain up to ATHEX Root CA G2. These sites are accessible at the following URLs:

ATHEX Root CA G2 Valid: https://certdemo-valid.athexgroup.gr/

ATHEX Root CA G2 Expired: https://certdemo-expired.athexgroup.gr/

ATHEX Root CA G2 Revoked: https://certdemo-revoked.athexgroup.gr/

2.3 Time or Frequency of Publication

Updates to this CP/CPS are published in http://www.athexgroup.gr/digital-certificates-pki-regulations . HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. may change this CP/CPS at any time without prior notice. Amendments to this CP/CPS will be evidenced by a new version number and date, except where the amendments are purely clerical.

Updates to Subscriber Agreements and Relying Party Agreements are published as necessary. Certificates are published after issuance. Certificate status information is published in accordance with the provisions of this CP/CPS.

2.4 Access Controls on Repository

Information published in the repository portion of the Hellenic Exchanges – Athens Stock Exchange S.A web site is publicly-accessible information. Read only access to such information is unrestricted.

3. Identification and Authentication

3.1 Naming

3.1.1 Types of Names

Certificates contain an X.501 distinguished name in the Subject name field and consist of the components specified in the table below

Attribute	Value
Country (C) =	2 letter ISO country code or not used.
Organization (O) =	The Organization attribute is used as follows: ▪ Subscriber organizational name for web server Certificates and individual Certificates that have an organization affiliation
Organizational Unit (OU) =	Hellenic Exchanges – Athens Stock Exchange S.A Certificates may contain multiple OU attributes. Such attributes may contain one or more of the following: ▪ Subscriber organizational unit (for organizational Certificates that have an organization affiliation) ▪ Text to describe the type of Certificate. ▪ Text to describe the entity that performed the verification ▪ Business registration number, if available
State or Province (S) =	When used, indicates the Subscriber's State or Province
Locality (L) =	Indicates the Subscriber's Locality
Common Name (CN) =	This attribute may include: ▪ Domain name (for web server Certificates)

Description of QC Statements Extension

QCStatements	id-etsi-qcs-Qccompliance Id-etsi-qcs-QcPDS id-etsi-qct-web

The Subject names in an EV Certificate comply with the X.500 Distinguished Name (DN) form. EV CAs shall use a single naming convention as set forth in the EV Guidelines and the Baseline Requirements published by the CA/Browser Forum.

3.1.2 Need for Names to be Meaningful

The certificates issued pursuant to this CPS are meaningful only if the names that appear in the certificates can be understood and used by Relying Parties. Names used in the certificates must identify the person or object to which they are assigned in a meaningful way. CAs shall not issue certificates to the subscribers that contain domain names, IP addresses, DN, and/or URL that the subscribers do not legitimately own or control. Examples of fields and extensions where these names appear include subject DN and subject alternative names.

EV SSL Certificates

The value of the Common Name to be used in an EV SSL Certificate shall be the Applicant's fully qualified hostname or path that is used in the DNS of the secure server on which the Applicant is intending to install the EV SSL Certificate.

EV Code Signing Certificates

The value of the Common Name to be used in an EV Code Signing Certificate shall be the Applicant's Organization Name.

3.1.3 Anonymity or Pseudonymity of Subscribers

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. does not issue pseudonymous Certificates for server authentication.

3.1.4 Rules for Interpreting Various Name Forms

The name forms used in Certificate subjectDNs and issuerDNs conform to a subset of those defined and documented in RFC 2253 and ITU-T X.520.

Subject names for EV Certificates shall be interpreted as set above in sections 3.1.1 and 3.1.2.

3.1.5 Uniqueness of Names

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A does not in general enforce uniqueness of subject names. However, Hellenic Exchanges – Athens Stock Exchange S.A. assigns Certificate serial numbers that appear in Hellenic Exchanges – Athens Stock Exchange S.A. Certificates. Assigned serial numbers are unique.

Each EV Certificate shall be issued a unique serial number within the name space of the issuing EV CA.

3.1.6 Recognition, Authentication, and Role of Trademarks

Certificate Applicants are prohibited from using names in their Certificate Applications that infringe upon the Intellectual Property Rights of others. HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A., however, does not verify whether a Certificate Applicant has Intellectual Property Rights in the name appearing in a Certificate Application or arbitrate, mediate, or otherwise resolve any dispute concerning the ownership of any domain name, trade name, trademark, or service mark. HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. is entitled, without liability to any Certificate Applicant, to reject or suspend any Certificate Application because of such dispute.

3.2 Initial Identity Validation

3.2.1 Method to Prove Possession of Private Key

The certificate applicant must demonstrate that it rightfully holds the private key corresponding to the public key to be listed in the Certificate. The method to prove possession of a private key shall be PKCS #10, another cryptographically equivalent demonstration, or another HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. -approved method.

3.2.2 Authentication of Organization Identity

The RA will take reasonable steps to establish that a Certificate request made on behalf of the Organization is legitimate and properly authorized. HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. will ensure the following:

(a) the Organizational Name appears in conjunction with a country or other locality to sufficiently identify its place of registration or a place where it is currently doing business; and

(b) in the case of an Organization that could reasonably be expected to be registered with a local, state or national authority, in certain circumstances HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. will obtain, view and verify copies of the registration documents. For instance, HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. may ask for:

- Verifying the possession of the domain, CA may ask for confirmation of the domain name registrar, confirmation from EETT (for .gr domains) or one of the following accounts active:
  a) Admin@yourdomain.gr
  b) Hostmaster@yourdomain.gr
  c) Webmaster@yourdomain.gr

d) Postmaster@yourdomain.gr

- Legalizing documents certifying the existence and operation of the legal entity and country of registration (e.g. certification issued by GENERAL COMMERCIAL REGISTRY)
- Verification by phone to the contact person in a telephone number found from an online directory (i.e. Yellow pages)
- Verification by email address using various tools and other technical means e.g.:

  https://email-checker.net/

  https://verify-email.org/

  https://mxtoolbox.com/

  HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. has set up SPF and DKIM

RAs operating under the EV CAs shall perform a verification of any organizational identities that are submitted by an Applicant or Subscriber. RAs operating under the EV CAs shall determine whether the organizational identity, legal existence, physical existence, operational existence, and domain name provided with an EV Certificate Application are consistent with the requirements set forth in the EV Guidelines published by the CA/Browser Forum. The information and sources used for the verification of EV Certificate Applications may vary depending on the jurisdiction of the Applicant or Subscriber.

More specifically, HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. may only issue EV Certificates to Applicants that meet the Private Organization, Government Entity, Business Entity and Non-Commercial Entity requirements as specifically specified in “Guidelines for the Issuance and Management of Extended Validation Certificates”.

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. may, in its discretion, update verification practices to improve the organization identity verification process. Any changes to verification practices shall be published pursuant to the standard procedures for updating the CPS.
Nevertheless, in the event of any inconsistency between this document and the above Guidelines, those Guidelines take precedence over this document.

3.2.2.1 Identity

EV Certificates require extensive identity verification as defined in the CAB Forum EV Guidelines located in: https://cabforum.org/extended-validation/ and HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A maintains controls to provide reasonable assurance that verifies information sources prior to placing reliance on them using verification procedures set out in section 4.13 in the WebTrust Principles and Criteria for Certification Authorities –Extended Validation SSL.

OV SSL and OV Code Signing Certificates include the name and location fields of the organization. These are verified using documentation or communication with one or more of the following:

a. A governmental agency in the jurisdiction of the Applicant’s legal creation, existence, or recognition. Communication may include look-up on a database or documents such as Articles of Incorporation, Certificate of Incorporation, L.L.C., L.L.P., L.P., L.T.D., Fictitious Name, or any other standard documentation issued by or filed with the proper governmental authority.

b. A third party data source meeting the requirements in 3.2.2.7

c. An Attestation letter.

d. For location only, a utility bill, bank statement, credit card statement, or government issued tax document.

3.2.2.2 “Doing Business as” (DBA)/Tradename

EV Certificates require extensive identity verification as defined in the CAB Forum EV Guidelines section 11.3.

OV SSL and OV Code Signing Certificates include the name and location fields of the organization. These are verified using documentation or communication with one or more of the following:

a. A governmental agency in the jurisdiction of the Applicant’s legal creation, existence, or recognition. Communication may include look-up on a database or documents such as Articles of Incorporation, Certificate of Incorporation, L.L.C., L.L.P., L.P., L.T.D., Fictitious Name, or any other standard documentation issued by or filed with the proper governmental authority.

b. A third party data source meeting the requirements in 3.2.2.6

c. An Attestation letter accompanied by documentary support.

d. A utility bill, bank statement, credit card statement, or government issued tax document. (Note that in 3.2.2.1 these can only be used for location, but here they can also be used for DBA/Tradename.)

3.2.2.3 Verification of Country

Any method in 3.2.2.1 shall be used to verify country.

3.2.2.4 Authorization by Domain Name Registrant

All the following methods apply to all DV, OV SSL, and EV SSL certificates unless otherwise stated.
As of the date the Certificate issues, HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A.shall validate each Fully-Qualified Domain Name (FQDN) listed in the Certificate using at least one of the methods listed below.
Completed confirmations of Applicant authority may be valid for the issuance of multiple certificates over time. In all cases, the confirmation must have been initiated no more than 825 days (DV/OV SSL) or 13 months (EV) prior to certificate issuance. For purposes of domain validation, the term Applicant includes the Applicant’s Parent Company, Subsidiary Company, or Affiliate.

3.2.2.5 Authentication for an IP Address

For each IP Address listed in a Certificate, HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. SHALL confirm that, as of the date the Certificate was issued, the Applicant has control over the IP Address by:
1. Having the Applicant demonstrate practical control over the IP Address by making an agreed-upon change to information found on an online Web page identified by a uniform resource identifier containing the IP Address;
2. Obtaining documentation of IP address assignment from the Internet Assigned Numbers Authority (IANA) or a Regional Internet Registry (RIPE, APNIC, ARIN, AfriNIC, LACNIC);
3. Performing a reverse-IP address lookup and then verifying control over the resulting Domain Name under Section 3.2.2.4; or
4. Using any other method of confirmation, provided that HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. maintains documented evidence that the method of confirmation establishes that the Applicant has control over the IP Address to at least the same level of assurance as the methods previously described. Note: IPAddresses may be listed in Subscriber Certificates using IPAddress in the subjectAltName extension or in Subordinate CA Certificates via IPAddress in permittedSubtrees within the Name Constraints extension.

3.2.2.6 Data Source Accuracy

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. maintains a list of accepted data sources that consider the following:

- The age of the information provided,
- The frequency of updates to the information source,
- The data provider and purpose of the data collection,
- The public accessibility of the data availability, and
- The relative difficulty in falsifying or altering the data.

3.2.3 Authentication of Individual Identity

RAs operating under the EV CAs shall perform a verification of the identity and authority of the Contract Signer, the Certificate Approver, and the Certificate Requestor associated with EV Certificate Applications that are submitted by an Applicant or Subscriber. In order to establish the accuracy of an individual identity, the RA operating under an EV CA shall perform identity and authority verification consistent with the requirements set forth in the EV Guidelines published by the CA/Browser Forum.

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. may, in its discretion, update verification practices to improve the individual identity verification process. Any changes to verification practices shall be published pursuant to the standard procedures for updating the CPS.

Nevertheless, in the event of any inconsistency between this document and the above Guidelines, those Guidelines take precedence over this document.

3.2.4 Authentication of Domain Name

For each domain name to be included in the Server certificate Subject, Hellenic Exchanges – Athens Stock Exchange S.A. verifies the Applicants control of the domain name in accordance with the CA/B Forum *Baseline Requirements for the Issuance and Management of Publicly-Trusted Certificates* as follows;

1. Confirming the Applicant as the Domain Name Registrant directly with the Domain Name Registrar;

2. Communicating directly with the Domain Name Registrant using an address, email, or telephone number provided by the Domain Name Registrar;

3. Communicating directly with the Domain Name Registrant using an email address created by pre-pending 'admin', 'administrator', 'webmaster', 'hostmaster', or 'postmaster' in the local part, followed by the at-sign ("@"), followed by the Domain Name, which may be formed by pruning zero or more components from the requested FQDN.

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. shall confirm that, as of the date the EV SSL Certificate issues, either the CA or the RA validated each Fully-Qualified Domain Name (FQDN) listed in the EV SSL Certificate using at least one of the methods listed above.

Completed validations of Applicant authority may be used for the issuance of multiple EV SSL Certificates over time. For purposes of domain validation, the term Applicant includes the Applicant's Parent Company, Subsidiary Company, or Affiliate.

3.2.5 Validation of Authority

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. will take reasonable steps to establish that a Certificate request made on behalf of that Organization is legitimate and properly authorized. To prove that a Certificate is duly authorized by the Organization, HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. will typically request the name of a contact person who is employed by or is an officer of the Organization. HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A.will also typically require a form of authorization from the Organization confirming its intent to obtain a Certificate and will usually document the Organization's contact person. HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. normally confirms the contents of this authorization with the listed contact person. Physical identity of the subscriber is verified by the Registration authority upon application submission.

3.3 Identification and Authentication for Re-key Requests

New certificate information submitted for renewal Certificates are subject to the same authentication steps outlined in this CP/CPS as apply to initial issuance of a Certificate.

Certificate renewal is not offered and so the Subscriber is required to generate a new Public Key and complete a new Certificate request (rekey) before the Subscriber will be able to obtain a renewal Certificate. The process and cost for obtaining the new Certificate upon expiration of a previous Certificate will be the same as if the Subscriber is simply buying a Certificate for the first time.

Each EV Certificate shall contain a Certificate expiration date. The reason for having an expiration date for a Certificate is to minimize the exposure of the Key Pair associated with the Certificate. For this reason, when processing a new EV Certificate Application, HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. recommends that a new Key Pair be generated and that the new Public Key of this Key Pair be submitted with the Applicant's EV Certificate Application. If a Subscriber wishes to continue to use an EV Certificate beyond the expiry date for the current EV Certificate, the Subscriber must obtain a new EV Certificate and replace the EV Certificate that is about to expire. Subscribers submitting a new EV Certificate Application will be required to complete the initial application process, as described in section 4.1. The RA will perform verification of the information submitted with the EV Certificate Application as described in section 3.2.2 and section 3.2.3 only if verification has not been performed for that Subscriber within the previous 1-year period. The Subscriber may request a replacement certificate using an existing key pair.

The RA that processed the Subscriber's EV Certificate Application shall make a commercially reasonable effort to notify Subscribers of the pending expiration of their EV Certificate by sending an email to the technical contact listed in the corresponding EV Certificate Application. Upon expiration of an EV Certificate, the Subscriber shall immediately cease using such EV Certificate and shall remove such EV Certificate from any devices and/or software in which it has been installed.

3.4 Identification and Authentication for Revocation Request

The only persons permitted to request revocation of a Certificate issued by HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A are the Subscriber (including designated representatives), the administrative contact or the technical contact, or an enterprise Administrator.

To request revocation, a Subscriber or Authorized requester must contact HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A, either by e-mail message, a national/regional postal service, facsimile, or overnight courier, and specifically request "revocation" (using that term) of a particular Certificate identified by the Subscriber.

Upon receipt of a revocation request, HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. will seek confirmation of the request by e-mail message to the administrative and technical contacts provided by the Subscriber at the time the Certificate was issued. The message will state that upon confirmation of the revocation request HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. will revoke the Certificate. There is no grace period available to the Subscriber prior to revocation, and HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A shall respond to the revocation request within the next business day and post the revocation to the next published CRL. The posting of the revocation to the appropriate CRL will constitute notice to the Subscriber that the Certificate has been revoked.

Subscribers, Relying Parties, Application Software Suppliers, Anti-Malware Organizations and other third parties may report Certificate misuse or other types of fraud, compromise misuse or inappropriate conduct related to Certificates by contacting the RA by email PKICA-Services@athexgroup.gr or by calling the emergency telephone number +30 695 100 7878 and the revocation process shall be initiated.

3.5 Change of PKI Infrastructure Keys and Certificates

The used keys and certificates of ATHEX'S PKI infrastructure (both of the Sub-CAs and the basic certificate by the Root CAs) are also subject to change (renewal) for security reasons.

For the smooth change of the Certificate Authorities' certificates and the Maintainace of the end entities' certificate authentication verification ability via a valid 'Trusted Path' certificate the ongoing coexistence of two different certificates and corresponding cryptographic keys shall be provided for each certificate authority of the ATHEX network (with the exception of the initial operating period), in accordance with the following procedures:

3.5.1 Change of 'Subordinate Certification Authorities 'Certificates'

The cryptographic keys and certificates of a Subordinate Certificate Authority of the ATHEX network have a validity of ten (10) years (see paragraph 4.1.1.3) and are used exclusively for the signing of end entity certificates (that have a maximum duration of two (2) years) and for signing the "Certificate Revocation List" CRLs for these certificates.

Two (2) years prior to the expiry of the certificates issued by the Sub-CAs (i.e. the maximum duration of the certificates that they issue to end entities), a new pair of encryption keys is created and a new certificate is issued for these CAs (by ATHEX'S Root CA), which is used exclusively -from that moment onwards- for signing new certificates that are issued for end entities and respective 'Certificate Revocation Lists' (CRL), while the previous certificate of the Sub-CA that remains in force, is used only -in the remaining term until its expiry- for signing CRLs that are stated in the certificates of end entities which had been issued under this certificate and which, are likely to still be in force.

3.5.2 Change of Certificate Issued by ATHEX'S ROOT CA

Similarly, the cryptographic keys and self-signed certificate by ATHEX'S Root Certification Authority (X.A. Root CA) are valid for twenty (20) years (see paragraph 4.1.1.3) and are exclusively used to sign certificates by Sub CAs and for signing a "Certificate Revocation List" CRL that may arise for these certificates.

Therefore, ten (10) years prior to the expiry of the certificates issued by the Root CA (i.e. the maximum duration of the certificates that they issue for the Sub CAs), a new self-signed certificate is issued at the same time by the Root CA, which is used exclusively -from that moment onwards- for signing new certificates and the respective 'Certificate Revocation Lists' (CRLs) that are issued by the Root CA for its Sub CAs, while the previous certificate by the Root CA that remains in force, is used only -in the remaining term until its expiry- for signing one - not possible under normal circumstances - CRL that shall be stated in the certificates of Sub CAs which had been issued under this certificate and which are still in force.

4. Certificate Life-Cycle Operations

4.1 Certificate Application

4.1.1 Who Can Submit A Certificate Application?

Below is a list of people who may submit certificate applications:
Any individual who is the subject of the certificate,
Any authorized representative of an Organization or entity,
Any authorized representative of a CA,
Any authorized representative of an RA.

Applications for EV Certificates shall be requested by employees of an organization such that they meet the requirements of section 3.2.5 Validation of Authority and of below section 4.1.1.1 EV Certificate Applicant Requirements.

4.1.1.1 EV Certificate Applicant Requirements

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A.MAY issue EV Certificates to Private Organization, Government Entity, Business Entity and Non-Commercial Entity subjects that satisfy the requirements specified below.

A. Private Organization Subjects

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. MAY issue EV Certificates to Private Organizations that satisfy the following requirements:

1. The Private Organization MUST be a legally recognized entity whose existence was created by a filing with (or an act of) the Incorporating or Registration Agency in its Jurisdiction of Incorporation or Registration (e.g., by issuance of a certificate of incorporation) or is an entity that is chartered by a state or federal regulatory agency;
2. The Private Organization MUST have designated with the Incorporating or Registration Agency either a Registered Agent, or a Registered Office (as required under the laws of the Jurisdiction of Incorporation or Registration) or an equivalent facility;
3. The Private Organization MUST NOT be designated on the records of the Incorporating or Registration Agency by labels such as “inactive,” “invalid,” “not current,” or the equivalent;
4. The Private organization MUST have a verifiable physical existence and business presence;
5. The Private Organization’s Jurisdiction of Incorporation, Registration, Charter, or License, and/or its Place of Business MUST NOT be in any country where HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A is prohibited from doing business or issuing a certificate by the laws of HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A jurisdiction; and
6. The Private Organization MUST NOT be listed on any government denial list or prohibited list (e.g., trade embargo) under the laws of HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. Jurisdiction.

B. Government Entity Subjects

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A.MAY issue EV Certificates to Government Entities that satisfy the following requirements:
1. The legal existence of the Government Entity MUST be established by the political subdivision in which such Government Entity operates;

2. The Government Entity MUST NOT be in any country where HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A is prohibited from doing business or issuing a certificate by the laws of HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A jurisdiction; and
3. The Government Entity MUST NOT be listed on any government denial list or prohibited list (e.g., trade embargo) under the laws of HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A jurisdiction.

C. Business Entity Subjects

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A MAY issue EV Certificates to Business Entities who do not qualify under Section A but that do satisfy the following requirements:

1. The Business Entity MUST be a legally recognized entity whose formation included the filing of certain forms with the Registration Agency in its jurisdiction, the issuance or approval by such Registration Agency of a charter, certificate, or license, and whose existence can be verified with that Registration Agency;
2. The Business Entity MUST have a verifiable physical existence and business presence;
3. At least one Principal Individual associated with the Business Entity MUST be identified and validated;
4. The identified Principal Individual MUST attest to the representations made in the Subscriber Agreement;
5. Where the Business Entity represents itself under an assumed name, HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A MUST verify the Business Entity's use of the assumed name pursuant to the requirements herein;
6. The Business Entity and the identified Principal Individual associated with the Business Entity MUST NOT be located or residing in any country where HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A is prohibited from doing business or issuing a certificate by the laws of HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A jurisdiction; and
7. The Business Entity and the identified Principal Individual associated with the Business Entity MUST NOT be listed on any government denial list or prohibited list (e.g., trade embargo) under the laws of ATHENS STOCK EXCHANGE S.A jurisdiction.

D. Non-Commercial Entity Subjects

ATHENS STOCK EXCHANGE S.A MAY issue EV Certificates to Non-Commercial Entities who do not qualify under Sections A, B or C, but satisfy the following requirements:

1. International Organization Entities

i. The Applicant is an International Organization Entity, created under a charter, treaty, convention or equivalent instrument that was signed by, or on behalf of, more than one country's government.
ii. CAB Forum may publish a listing of International Organizations that have been approved for EV eligibility; and
ii. The International Organization Entity MUST NOT be headquartered in any country where HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A is prohibited from doing business or issuing a certificate by the laws of HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A jurisdiction; and
iii. The International Organization Entity MUST NOT be listed on any government denial list or prohibited list (e.g., trade embargo) under the laws of HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A jurisdiction.

4.1.2 Enrollment Process and Responsibilities

All end-user Certificate Subscribers shall manifest assent to the relevant Subscriber Agreement and undergo an enrollment process consisting of:

- completing a Certificate Application and providing true and correct information,
- generating, or arranging to have generated, a key pair,

- Delivering his, her, or its public key, directly or through an RA, to Hellenic Exchanges – Athens Stock Exchange S.A.
- Demonstrating possession of the private key corresponding to the public key delivered to Hellenic Exchanges – Athens Stock Exchange S.A.

For all certificate types, the applicant shall submit a PKCS #10 Certificate Signing Request (“CSR”) for initial application processing.

For the issuance of an EV Certificate the following Applicant roles are required:

a.) Certificate Requester – The Certificate Request shall be submitted by an authorized Certificate Requester. A Certificate Requester is a natural person who is either the Applicant, employed by the Applicant, an authorized agent who has express authority to represent the Applicant, or a third party (such as an ISP or hosting company) that completes and submits a Certificate Request on behalf of the Applicant.

b.) Certificate Approver – The Certificate Request shall be approved by an authorized Certificate Approver. A Certificate Approver is a natural person who is either Applicant, employed by Applicant, or an authorized agent who has express authority to represent Applicant to (i) act as a Certificate Requester and to authorize other employees or third parties to act as a Certificate Requester, and (ii) to approve EV Certificate Requests submitted by other Certificate Requesters.

c.) Contract Signer – A Subscriber Agreement applicable to the requested Certificate shall be signed by an authorized Contract Signer. A Contract Signer is a natural person who is either Applicant, employed by Applicant, or an authorized agent who has express authority to represent Applicant, and who has authority on behalf of Applicant to sign Subscriber Agreements.

d.) Applicant Representative: Terms of Use applicable to the requested EV Certificate must be acknowledged and agreed to by an authorized Applicant Representative.

One person may be authorized by Applicant to fill one, two, or all three of these roles, provided that the Certificate Approver and Contract Signer are employees of Applicant. An Applicant may also authorize more than one person to fill each of these roles.
Following completion of contract arrangements as per section 3.2.5, the applicant shall submit the PKCS #10 Certificate Signing Request (“CSR”) for initial application processing.

For the issuance of DV, OV, OV Code Signing Applicants shall follow the registration procedures as defined by Hellenic Exchanges – Athens Stock Exchange S.A., where the summarized steps for a certificate registration are:

1. Valid identification documentation is provided and complete registration forms have been signed;
2. The CP/CPS and End-User Agreement have been accepted by the Subscriber; and
3. All documents and information provided by Applicant are approved by Hellenic Exchanges – Athens Stock Exchange S.A.

4.2 Certificate Application Processing

4.2.1 Performing Identification and Authentication Functions

Hellenic Exchanges – Athens Stock Exchange S.A. shall perform identification and authentication of all required Subscriber information in terms of Section 3.2.
At certain times during the enrolment process in which Hellenic Exchanges – Athens Stock Exchange S.A. is not able to verify information in an enrolment form, a customer service representative may be assigned to the Applicant to facilitate the completion of the application process. Otherwise, the Applicant may be required to correct its associated information with third parties and re-submit its enrolment form for a Certificate.

Before issuing any EV Certificate, Athens Stock Exchange S.A. shall ensure that all Subject Identity Information in the Certificate conforms to the requirements of, and has been verified in accordance with, the CAB Forum Guidelines and matches the information confirmed and documented by Athens Stock Exchange S.A. pursuant to the verification processes. The verification process shall accomplish:

1. Verification of Applicant's existence and identity, including:
    - Verify Applicant's legal existence and identity
    - Verify Applicant's physical existence
    - Verify Applicant's operational existence
2. Verify Applicant is a registered holder or has exclusive control of the domain name
3. Verify Applicant's authorization for requesting the Certificate including:
    - Verify the name, title, and authority of the contract signer, Certificate Approver, and Certificate Requester.
    - Verify that Contract Signer signed the Subscriber Agreement, and
    - Verify that a Certificate Approver has signed or otherwise approved the Certificate request

Maximum Validity Period for Validated Data

The age of validated data used to support issuance of a Certificate (before revalidation is required) shall not exceed the following limits:

A. Legal existence and identity – 13 months;
B. Assumed name – 13 months;
C. Address of Place of Business – 13 months, but thereafter data MAY be refreshed by checking a Qualified Independent Information Source
D. Telephone number for Place of Business – 13 months;
E. Bank account verification – 13 months;
F. Domain name – 13 months;

G. Identity and authority of Certificate Approver – 13 months, unless a contract is in place between Athens Stock Exchange S.A. and Applicant that specifies a different term, in which case, the term specified in such contract will control. For example, the contract MAY use terms that allow the assignment of roles that are perpetual until revoked, or until the contract expires or is terminated.

High Risk Status (applicable to EV, DV and OV SSL certificates only)

I. Verification Requirements.

Hellenic Exchanges – Athens Stock Exchange S.A. takes reasonable measures to identify high risk certificate requests likely to be targeted for fraudulent attacks ("High Risk Certificate Request"). Hellenic Exchanges – Athens Stock Exchange S.A. conducts additional verification and takes reasonable precautions necessary to ensure that such certificate requests are properly verified in accordance with the CAB Forum Guidelines.

II. Acceptable Methods of Verification.

Hellenic Exchanges – Athens Stock Exchange S.A. may identify High Risk Certificate Requests by checking appropriate lists of organization names that are most commonly targeted in phishing and other fraudulent schemes, and automatically flagging EV Certificate Requests from Applicants named on these listed for further scrutiny before issuance. Examples of such lists include: Anti-Phishing Work Group list of phishing targets and internal HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A databases that include previously revoked EV Certificates and previously rejected EV Certificate Requests due to suspected phishing or other fraudulent usage. This information is then used to flag suspicious new EV Certificate Requests. If a certificate request is flagged as a High Risk Certificate Request, HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A performs reasonably appropriate additional authentication and verification to be certain beyond reasonable doubt that Applicant and the target in question are the same organization.

III. Verification Requirements

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A must verify whether the Applicant, the Contract Signer, the Certificate Approver, Applicant's Jurisdiction of Incorporation, Registration, or Place of Business:

i. Is identified on any government denied list, list of prohibited persons, or other list that prohibits doing business with such organization or person under all applicable laws; or

ii. Has its Jurisdiction of Incorporation, Registration, or Place of Business in any country with which any applicable law prohibits doing business.

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A does not issue any EV Certificates to Applicants if either Applicant, the Contract Signer, or Certificate Approver, or if Applicant's Jurisdiction of Incorporation or Registration or Place of Business is on any such list.

IV. Acceptable Methods of Verification

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A takes reasonable steps to verify with the following lists and regulations:

- https://www.businessregistry.gr/publicity/index
- http://www.eurochambres.eu/Content/Default.asp
- http://eucham.eu
- http://www.bis.doc.gov/dpl/thedeniallist.asp
- http://www.bis.doc.gov/entities/default.htm
- https://www.interpol.int/notice/search/wanted

4.2.2 Approval or Rejection of Certificate Applications

Hellenic Exchanges – Athens Stock Exchange S.A. or an RA will approve an application for a certificate if the following criteria are met:

- Successful identification and authentication of all required Subscriber information in terms of Section 3.2
- Payment has been received
- Hellenic Exchanges – Athens Stock Exchange S.A. or an RA will reject a certificate application if:
- identification and authentication of all required Subscriber information in terms of Section 3.2 cannot be completed, or
- The Subscriber fails to furnish supporting documentation upon request, or
- The Subscriber fails to respond to notices within a specified time, or

  Payment has not been received, or they believe that issuing a certificate to the Subscriber may bring the Hellenic Exchanges – Athens Stock Exchange S.A. PKI into disrepute.

4.2.3 Time to Process Certificate Applications

Hellenic Exchanges – Athens Stock Exchange S.A. makes reasonable efforts to confirm Certificate application information and issue a digital Certificate within a reasonable time frame. The time frame is greatly dependent on the Subscriber providing the necessary details and / or documentation in a timely manner. Upon the receipt of the necessary details and / or documentation, Hellenic Exchanges – Athens Stock Exchange S.A. aims to confirm submitted application data and to complete the validation process and issue / reject a Certificate application within 5 working days for all other certificate types, except EV Certificates that may require up to 10 working days.

From time to time, events outside of the control of Hellenic Exchanges – Athens Stock Exchange S.A. may delay the issuance process, however Hellenic Exchanges – Athens Stock Exchange S.A. will make every reasonable effort to meet issuance times and to make Applicants aware of any factors that may affect issuance times in a timely manner.

4.3 Certificate Issuance

4.3.1 CA Actions during Certificate Issuance

A Certificate is created and issued following the approval of a Certificate Application by HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. or following receipt of an RA's request to issue the Certificate. HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. creates and issues to a Certificate Applicant a Certificate based on the information in a Certificate Application following approval of such Certificate Application.

4.3.2 Notifications to Subscriber by the CA of Issuance of Certificates

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. shall, either directly or through an RA, notify Subscribers that they have created such Certificates, and provide Subscribers with access to the Certificates by notifying them that their Certificates are available. Certificates shall be made available to end-user Subscribers, either by allowing them to download them from a web site, an application programming interface (API) or via a message sent to the Subscriber containing the Certificate.

4.4 Certificate Acceptance

4.4.1 Conduct Constituting Certificate Acceptance

The applicant must accept (retrieve through a signed e-mail message and install) their certificate, the terms of use and the applicable CP/CPS.

4.4.2 Publication of the Certificate by the CA

To support Certificate Transparency, HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A, publishes SSL End Entity Certificates it issues in public Certificate Transparency log servers as mandated by Google's Certificate Transparency. Information on Certificate Transparency can be found at http://www.certificate-transparency.org/. Issued certificates not included in Google's Certificate Transparency mandate may not be published in global directories.

4.4.3 Notification of Certificate Issuance by the CA to Other Entities

RAs may receive notification of the issuance of certificates they approve.

4.5 Key Pair and Certificate Usage

4.5.1 Subscriber Private Key and Usage

Use of the Private Key corresponding to the public key in the certificate shall only be permitted once the Subscriber has agreed to the Subscriber Agreement and accepted the certificate. The certificate shall be used lawfully in accordance with HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A.'s Subscriber Agreement and the terms of this CP/CPS. Certificate use must be consistent with the KeyUsage field extensions included in the certificate (e.g., if Digital Signature is not enabled then the certificate must not be used for signing).

Subscribers shall protect their private keys from unauthorized use and shall discontinue use of the private key following expiration or revocation of the certificate

The Certificate shall not be installed on more than a single server at a time unless the Subscriber enrollment and corresponding fees have stipulated installation on multiple servers.

The Subscriber to the *Digital Certificates Services of HELLENIC EXCHANGES - ATHENS STOCK EXCHANGE SA,* as holder of a certified object , must:

I. have read, understood and agreed to all terms and conditions contained in this Certificate Practice Statement of *HELLENIC EXCHANGES - ATHENS STOCK EXCHANGE SA,* provide accurate information in respect of the data requested for both the issue and the renewal or revocation of a Certificate and verify the correctness of such data in the Certificate issued before using the Certificate or the signature-creation data corresponding to such Certificate;

II. provide accurate information in respect of the data requested for both the issue and the renewal or revocation of a Certificate and verify the correctness of such data in the Certificate issued before using the Certificate or the signature-creation data corresponding to such Certificate;

III. immediately inform the *"Revocation Management Service"* or the respective *"Local Submission Service"* of any change in the data he has stated in the application for Certificate issuance and immediately request that a Certificate be suspended or revoked where he suspects or knows that there has been a compromise of the private key, or a third party has gained access to data included in the Certificate or that such data have been otherwise exposed;

IV. refrain, under penalty of paying damages to HELLENIC EXCHANGES - ATHENS STOCK EXCHANGE SA or any other injured third party, from acts of altering, modifying, making illegal copies and/or malicious usage of the Certificate made available to him by the services network of HELLENIC EXCHANGES - ATHENS STOCK EXCHANGE SA and of the information (catalogs, revocation lists, texts of regulations and policies, etc.) published by HELLENIC EXCHANGES - ATHENS STOCK EXCHANGE SA in the repository*,* which constitute fraud and/or threaten the integrity and reliability of the certification services of HELLENIC EXCHANGES - ATHENS STOCK EXCHANGE SA;

4.5.2 Relying Party Public Key and Certificate Usage

With regard to HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. Qualified Web Server Certificates, Relying Parties must verify that the Certificate is valid by examining the Certificate Revocation List before initiating a transaction involving such Certificate. HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. does not accept responsibility for reliance on a fraudulently obtained Certificate or a Certificate that is on the CRL.

In addition, get informed about the limits of liability, the disclaimers, the limitation of guarantees and the limitation of usage of the certificate that the certificate issuer has stated, as well as about the time period of record keeping of the evidence listed herein and any other precautions prescribed in the HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. Subscriber Agreement published by HELLENIC EXCHANGES - ATHENS STOCK EXCHANGE SA and which the Relying Party must accept before making use of the services.

ATTENTION! HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. and its authorized partners involved in the provision of the Certification services assume no liability to any user of its Certificates in the event that such user has failed to perform the above obligations and such failure has caused damages to the user in any way whatsoever.

4.6 Certificate Renewal

4.6.1 Circumstances for Certificate Renewal

Prior to the expiration of an existing Subscriber's Certificate, it is necessary for the Subscriber to obtain a new certificate to maintain continuity of Certificate usage.

Certificate renewal is not offered and so the Subscriber is required to generate a new Public Key and complete a new Certificate request (rekey) before the Subscriber will be able to obtain a renewal Certificate. The process and cost for obtaining the new Certificate upon expiration of a previous Certificate will be the same as if the Subscriber is simply buying a Certificate for the first time.

4.6.2 Who May Request Renewal

Only the subscriber for an individual certificate or an authorized representative for an Organizational certificate may request certificate renewal.

4.6.3 Processing Certificate Renewal Requests

See section 4.2.

4.6.4 Notification of New Certificate Issuance to Subscriber

Notification of issuance of certificate renewal to the Subscriber is in accordance with Section 4.3.2.

4.6.5 Conduct Constituting Acceptance of a Renewal Certificate

Conduct constituting Acceptance of renewed certificate is in accordance with Section 4.4.1.

4.6.6 Publication of the Renewal Certificate by the CA

As in 4.4.2

4.6.7 Notification of Certificate Issuance by the CA to Other Entities

RAs may receive notification of the issuance of certificates they approve.

4.7 Certificate Re-Key

See Section 3.3.

4.7.1 Circumstances for Re-Key

See Section 3.3.

4.7.2 Who May Request Certification of a New Public Key

Only the subscriber for an individual certificate or an authorized representative for an Organizational certificate may request certificate rekey.

4.7.3 Processing Certificate Re-Keying Requests

Depending on the circumstances, the procedure to process a Certificate rekey may be the same as issuing a new Certificate. Under other circumstances, HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. may process a rekey request by having the Subscriber authenticate its identity.

4.7.4 Notification of New Certificate Issuance to Subscriber

Notification of issuance of a re-keyed certificate to the Subscriber is in accordance with Section 4.3.2.

4.7.5 Conduct Constituting Acceptance of a Re-Keyed Certificate

Conduct constituting Acceptance of a re-keyed certificate is in accordance with Section 4.4.1

4.7.6 Publication of the Re-Keyed Certificate by the CA

Publication a rekeyed Certificate is performed by delivering it to the Subscriber.

4.7.7 Notification of Certificate Issuance by the CA to Other Entities

RAs may receive notification of the issuance of certificates they approve.

4.8 Certificate Modification

Hellenic Exchanges – Athens Stock Exchange S.A. does not offer Certificate modification. Instead, Hellenic Exchanges – Athens Stock Exchange S.A. will revoke the old Certificate and issue a new Certificate as a replacement.

4.8.1 Circumstances for Certificate Modification

Not applicable.

4.8.2 Who May Request Certificate Modification

Not applicable.

4.8.3 Processing Certificate Modification Requests

Not applicable.

4.8.4 Notification of New Certificate Issuance to Subscriber

Not applicable.

4.8.5 Conduct Constituting Acceptance of Modified Certificate

Not applicable.

4.8.6 Publication of the Modified Certificate by the CA

Not applicable.

4.8.7 Notification of Certificate Issuance by the CA to Other Entities

Not applicable.

4.9 Certificate Revocation and Suspension

4.9.1 Circumstances for Revocation

Certificate revocation is the process by which HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. prematurely ends the Operational Period of a Certificate.

a. Permissive Revocation

A Subscriber may request revocation of its Certificate at any time for any reason.

b. Required Revocation

A Subscriber shall inform HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. and promptly request revocation of a Certificate:

- whenever any of the information on the Certificate changes or becomes obsolete; or
- whenever the Private Key, or the media holding the Private Key, associated with the
- Certificate is compromised; or
- Upon a change in the ownership of a Subscriber's web server.

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. shall revoke a Certificate:

- upon request of a Subscriber;
- in the event of Compromise of HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A.'s Private Key used to sign a Certificate;
- upon the Subscriber's breach of either this CP/CPS or Subscriber Agreement;
- if HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. determines that the Certificate was not properly issued; or
- in the event the Certificate is installed on more than a single server at a time without permission of HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A..

If HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. initiates revocation of a Certificate, HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. shall notify the administrative and technical contact provided by Subscriber by e-mail message of the revocation and the reasons why. In the event that HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. ceases operations, all Certificates issued by HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. shall be revoked prior to the date that HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. ceases operations, and HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. shall notify the administrative and technical contact provided by Subscriber by e-mail message of the revocation and the reasons why. Moreover, the "Baseline Requirements for the issuance and Management of Publicly-Trusted Certificates", clause 4.9 is applicable.

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. will revoke a Subordinate CA Certificate within seven (7) days if one or more of the following occurs:

1. The Subordinate CA requests revocation in writing;
2. The Subordinate CA notifies the Issuer CA that the original certificate request was not authorized and does not retroactively grant authorization;
3. The Issuer CA obtains evidence that the Subordinate CA's Private Key corresponding to the Public Key in the Certificate suffered a Key Compromise or no longer complies with the requirements of Sections 6.1.5 and 6.1.6,
4. The Issuer CA obtains evidence that the CA Certificate was misused;

5. The Issuer CA is made aware that the CA Certificate was not issued in accordance with or that Subordinate CA has not complied with this document or the applicable Certificate Policy or Certification Practice Statement;
6. The Issuer CA determines that any of the information appearing in the CA Certificate is inaccurate or misleading;
7. The Issuer CA or the Subordinate CA ceases operations for any reason and has not made arrangements for another CA to provide revocation support for the CA Certificate;
8. The Issuer CA's or the Subordinate CA's right to issue Certificates under the Baseline Requirements expires or is revoked or terminated, unless the Issuer CA has made arrangements to continue maintaining the CRL/OCSP Repository;
9. Revocation is required by the Issuer CA's Certificate Policy and/or Certification Practice Statement; or
10. The technical content or format of the CA Certificate presents an unacceptable risk to Application Software Suppliers or Relying Parties.

4.9.1.1 Circumstances for Revocation of EV Certificates

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. shall be entitled to revoke and may revoke, and a RA operating under an EV CA shall be entitled to request revocation of and shall request revocation of, a Subscriber's EV Certificate if such EV CA or RA has knowledge of or a reasonable basis for believing that of any of the following events have occurred:

(i) Compromise of such EV CA's Private Key or Compromise of a superior CA's Private Key;

(ii) breach by the Subscriber of any of the terms of the CPS or the Subscriber's Subscription Agreement;

(iii) any change in the information contained in an EV Certificate issued to a Subscriber;

(iv) non-payment of any EV Certificate fees or service fees;

(v) a determination that an EV Certificate was not issued in accordance with the requirements of the CPS or the Subscriber's Subscription Agreement;

(vi) the EV CA receives notice or otherwise becomes aware that a court or arbitrator has revoked a Subscriber's right to use the domain name listed in the EV Certificate, or that the Subscriber has failed to renew its domain name;

(vii) the EV CA receives notice or otherwise becomes aware that a Subscriber has been added as a denied party or prohibited person to a blacklist, or is operating from a prohibited destination under the laws of the EV CA's jurisdiction of operation;

(viii) the EV CA ceases operations for any reason or the EV CA's right to issue EV Certificates expires or is revoked or terminated and the EV CA has not arranged for another EV CA to provide revocation support for the EV Certificates;

(ix) an EV Code Signing Certificate is used to digitally sign hostile code, including spyware or other malicious software (malware); or

(x) any other reason that may be reasonably expected to affect the integrity, security, or trustworthiness of an EV Certificate or an EV CA.

A Subscriber shall request revocation of their EV Certificate if the Subscriber has a suspicion or knowledge of or a reasonable basis for believing that of any of the following events have occurred:

(i) Compromise of the Subscriber's Private Key;

(ii) knowledge that the original EV Certificate request was not authorized and such authorization will not be retroactively granted;

(iii) change in the information contained in the Subscriber's EV Certificate;

(iv) change in circumstances that cause the information contained in Subscriber's EV Certificate to become inaccurate, incomplete, or misleading.

Such revocation request shall be submitted by the Subscriber to the RA that processed the Subscriber's EV Certificate Application. If a Subscriber's EV Certificate is revoked for any reason, the RA that processed the Subscriber's EV Certificate Application shall make a commercially reasonable effort to notify such Subscriber by sending an email to the technical and security contacts listed in the EV Certificate Application. Revocation of an EV Certificate shall not affect any of the Subscriber's contractual obligations under this CP/CPS, the Subscriber's Subscription Agreement, or any Relying Party Agreements.

4.9.2 Who Can Request Revocation

The only persons permitted to request revocation of or revoke a Certificate issued by HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. is the Subscriber (including designated representatives) and HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A.

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. shall be entitled to revoke and shall revoke, and a RA operating under HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. shall be entitled to request revocation of and shall request revocation of, a Subscriber's EV Certificate at any time for any of the reasons set forth in section 4.9.1.1

4.9.3 Procedure for Revocation Request

Subscriber must contact HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A., either by e-mail message, a national/regional postal service, facsimile, or overnight courier, and request revocation of a Certificate. Upon receipt of a revocation request, HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. will seek confirmation of the request by e-mail message to the administrative and technical contacts provided by the Subscriber at the time the Certificate was issued. The message will state that upon confirmation of the revocation request HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. will revoke the Certificate and that posting the revocation to the appropriate CRL will constitute notice to the Subscriber that the Certificate has been revoked. HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. will require a confirming e-mail message back from either the administrative or technical contact authorizing revocation (or by other means acceptable to HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A.). Upon receipt of the confirming e-mail message, the Certificate will be revoked and the revocation will be posted to the appropriate CRL. Notification will not be sent to others than the subject of the Certificate and the subject's designated contacts. There is no grace period available to the Subscriber prior to revocation, and HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. shall revoke such Certificate within the next business day and post the revocation to the next published CRL. In the event of Compromise of HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A.'s Private Key used to sign a Certificate; HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. will send an e-mail message as soon as practicable to all Subscribers with Certificates issued off the Private Key stating that the Certificates will be revoked by the next business day and that posting the revocation to the appropriate CRL will constitute notice to the Subscriber that the Certificate has been revoked.

Prior to the revocation of a Certificate, HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. will verify that the revocation request has been:

- Made by the organization or individual entity that has made the Certificate application.
- Made by the RA on behalf of the organization or individual entity that used the RA to make the Certificate application, and
- Has been authenticated by the procedures in section 3.4 of this CP/CPS
- Where appropriate, forwards such complaints to law enforcement

A RA operating under HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. shall authenticate a request by a Subscriber for revocation of their EV Certificate by verifying (i) Subscriber authentication credentials, or (ii) authorization of the Subscriber through a reliable method of communication. Upon receipt and confirmation of such information, the RA shall send a revocation request to HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. that issued such EV Certificate. HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. shall make all reasonable efforts to post the serial number of the revoked EV Certificate to a CRL in an HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. Repository within one (1) business days of receiving such revocation request.

4.9.4 Revocation Request Grace Period

Subscribers are required to request revocation within 24 hours after detecting the loss or compromise of the Private Key

4.9.5 Time within Which CA Must Process the Revocation Request

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. takes commercially reasonable steps to process revocation requests within 24hours.

4.9.6 Revocation Checking Requirements for Relying Parties

Relying Parties shall check the status of Certificates on which they wish to rely. One method by which Relying Parties may check Certificate status is by consulting the most recent CRL from the CA that issued the Certificate on which the Relying Party wishes to rely.

4.9.7 CRL Issuance Frequency

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. shall post the CRL online daily and immediately after revocation of a Certificate. If a Certificate listed in a CRL expires, it will remain in later-issued CRLs after the Certificate's expiration.

4.9.8 Maximum Latency for CRLs

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. shall issue CRLs as follows:

(i) CRLs for HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. Certificates issued to subordinate CAs shall be issued at least once every twelve months or with 24 hours after revoking a subordinate CA. The next CRL update shall not be more than twelve months from the last update.

(ii) CRLs for EV Certificates shall be issued at least once every seven days.

4.9.9 On-Line Revocation/Status Checking Availability

The CRLs are available at: http://www.athexgroup.gr/el/web/guest/digital-certificates-pki-regulations

On-line revocation/status checking of certificates is available on a continuous basis by CRL or On-line Certificate Status Protocol (OCSP).

4.9.10 On-Line Revocation Checking Requirements

A Relying Party must check the status of a certificate on which he/she/it wishes to rely.

4.9.11 Other Forms of Revocation Advertisements Available

No stipulation.

4.9.12 Special Requirements Regarding Key Compromise

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. CA key pairs are maintained in a trusted and highly secured environment with backup and key recovery procedures. In the event of the Compromise of one or more of the HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. Root Key(s) (Applications CA), HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. shall promptly notify all Subscribers via e-mail and notify Relying Parties and others via the CRL and additional notice posted at http://www.athexgroup.gr/el/digital-certificates-repository and shall revoke all Certificates issued with such HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. Root Key(s).

4.9.13 Circumstances for Suspension

Not applicable.

4.9.14 Who can Request Suspension

Not applicable.

4.9.15 Procedure for Suspension Request

Not applicable.

4.9.16 Limits on Suspension Period

Not applicable.

4.10 Certificate Status Services

4.10.1 Operational Characteristics

The status of certificates is available via CRL at HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. website.

4.10.2 Service Availability

Certificate status services are available 24X7.

4.10.3 Optional Features

Not applicable.

4.11 End of Subscription

A subscriber may end a subscription for a HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A certificate by:

- Allowing his/her/its certificate to expire without renewing or re-keying that certificate
- Revoking of his/her/its certificate before certificate expiration without replacing the certificates.

4.12 Key Escrow and Recovery

The Root Keys for each CA Certificate were generated and are stored in hardware and are backed up but not escrowed.

4.12.1 Key Escrow and Recovery Policy and Practices

Not applicable.

4.12.2 Session Key Encapsulation and Recovery Policy and Practices

Not applicable.

5. Facility, Management, and Operational Controls

5.1 Physical Controls

5.1.1 Site Location and Construction

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A CA and RA operations are conducted within a physically protected environment that deters, prevents, and detects unauthorized use of, access to, or disclosure of sensitive information and systems whether covert or overt.

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A CAs are physically located in a highly secure facility which includes the following:

- Electronic control access systems
- Alarmed doors and video monitoring
- Security logging and audits
- Card key access for specially approved employees with defined levels of management approval required

5.1.2 Physical Access

Entry to the PKI infrastructure areas is protected with security doors bearing a locking mechanism. Every access to these areas is supervised and controlled by the control mechanisms that operate on an ongoing basis. The security areas are monitored even during non-working hours with sensor detection and alarm systems. Unauthorized personnel and any visitors that must enter the secure areas must be accompanied by authorized personnel throughout the duration of their stay therein. Access to all security areas requires the use of control techniques such as passwords, magnetic cards and/or a reception desk. All access rights in specific areas, security lockers and sensitive documents, and distributed access tools, such as keys, magnetic cards and tabs-badges are recorded in special ‘access control lists'.

Every visit to the secure areas by visitors, external system maintenance and supply crews as well as authorized personnel outside of working hours is entered in an 'Access Control Log'. These entries include the following details:

- ✓ Identity and status (personnel or partner) of the incoming individual,
- ✓ Specific areas that may be visited,
- ✓ Exact time of entry and exit,
- ✓ Identity of entry supervisor

5.1.3 Power and Air Conditioning

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A secure facilities have a primary and secondary power supply and ensure continuous, uninterrupted access to electric power. Heating/air ventilation systems are used to prevent overheating and to maintain a suitable humidity level.

5.1.4 Water Exposures

The HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. CA facility is not susceptible to flooding or other forms of water damage. HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. has taken reasonable precautions to minimize the impact of water exposure to HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. systems.

5.1.5 Fire Prevention and Protection

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A has taken reasonable precautions to prevent and extinguish fires or other damaging exposure to flame or smoke. HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A fire prevention and protection measures have been designed to comply with local fire safety regulations.

Fire prevention for HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A.’s CA facility is by strict building fire prevention protocol. Detection is
by centralized and 24 hour a day/7 day a week monitored smoke, heat, and ionization detection. Fire suppression is by FM 200 in all computing areas and by dry pipe water in all office areas.

5.1.6 Media Storage

Data media and their copies, which are used to operate the system, are stored in secure cabinets that protect them from environmental threats such as temperature, humidity and magnetic fields.
Backups do not include the users' qualified certificates.

5.1.7 Waste Disposal

Sensitive documents and materials are shredded before disposal. Media used to collect or transmit sensitive information are rendered unreadable before disposal. Cryptographic devices are physically destroyed or zeroized in accordance the manufacturers' guidance prior to disposal. Other waste is disposed of in accordance with HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A normal waste disposal requirements.

5.1.8 Off-Site Backup

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A performs routine backups of critical system data, audit log data, and other sensitive information. Critical CA facility backup media are stored in a physically secure manner at an offsite facility.

5.2 Procedural Controls

5.2.1 Trusted Roles

It is designated for the purposes of this text that all employees, contractual partners and consultants of HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A.'S 'Digital Certification Services' that have access to or control cryptographic operations related to the generation, use, suspension or revocation of certificates, and the management of published directories, and the 'repository', serve 'trusted roles'. Included in the personnel of 'trusted roles' are the system's administrators, technician and other operators as well as those persons that are assigned to supervise the operations of HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A.'S 'PKI' infrastructure.

5.2.2 Number of Persons Required per Task

To ensure that the security regulations are not circumvented by a person acting alone, the administration and operations of HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A.'S Digital Certification Services are distributed to multiple 'trusted roles' and corresponding individuals. Every access account to the HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. system will have limited capabilities taking into consideration the 'role' of the individual holding that account. For this reason, every HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. Digital Certification Services personnel will be subject to verification of their identity and powers, before:

- being included in the lists of individuals with access to secure areas,
- gaining an access account to the system and equipment,
- receiving the necessary certificate to perform their role

All the system Administrators' rights are controlled and certified with the issuance of special 'administrator certificates' which are required for access to the administrative operations of HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A.'S Digital Certification Services.
Such a certificate (and related access account) has the following features:

- it is directly associated with a specific natural person,
- use by anyone else is prohibited,
- its use is restricted to acts permitted by the specific roles of the holder, the operating system and the procedural controls with the use of special software.

These administrator certificates are installed in special tokens (e.g. smart cards) that require an 'activation code', thus ensuring the utmost security of HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A.'S Digital Certification Services operations.
HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A requires that at least two CA Administrators take action to activate our CA private keys for signing and to generate new CA key-pairs.
No single person has the capability to issue a EU Qualified (EV) website for authentication certificate.

5.2.4 Identification and Authentication for Each Role

All personnel are required to authenticate themselves to CA and RA systems before they may perform the duties of their role involving those systems.

5.2.4 Roles Requiring Separation of Duties

No Trusted Roles can assume any other role.

5.3 Personnel Controls

Access to the secure parts of HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A facilities is limited using physical and logical access controls and is only accessible to appropriately authorized individuals filling trusted roles for which they are properly qualified and to which they have been appointed by management.

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A requires that all personnel filling trusted roles are properly trained and have suitable experience before being permitted to adopt those roles.

5.3.1 Qualifications, Experience, and Clearance Requirements

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A requires that personnel seeking to become Trusted Persons present proof of the requisite background, qualifications, and experience needed to perform their prospective job responsibilities competently and satisfactorily.

5.3.2 Background Check Procedures

All trusted personnel have background checks before access is granted to HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. systems. These checks may include, but are not limited to, verification of the individual's identity using a government issued photo ID, credit history, employment history, education, character references

5.3.3 Training Requirements

Training of personnel is undertaken via a mentoring process involving senior members of the team to which they are attached.CA Administrators are trained in the operation and installation of CA software. Operators are trained in the maintenance, configuration, and use of the specific software, operating systems, and hardware systems used by HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. Internal Auditors are trained to proficiency in the general principles of systems and process audit as well as familiarity with HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A policies and procedures. CA Officers are trained in HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A validation and verification policies and procedures.

5.3.4 Retraining Frequency and Requirements

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A provides refresher training and updates to their personnel to the extent and frequency required to ensure that such personnel maintain the required level of proficiency to perform their job responsibilities competently and satisfactorily.

5.3.5 Job Rotation Frequency and Sequence

Not applicable.

5.3.6 Sanctions for Unauthorized Actions

Any personnel who, knowingly or negligently, violate HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A's security policies, exceed the use of their authority, use their authority outside the scope of their employment, or allow personnel under their supervision to do so may be liable to disciplinary action up to and including termination of employment. Should the unauthorized actions of any person reveal a failure or deficiency of training, sufficient training or retraining will be employed to rectify the shortcoming.

5.3.7 Independent Contractor Requirements

In limited circumstances, independent contractors or consultants may be used to fill Trusted Positions. Any such contractor or consultant is held to the same functional and security criteria that apply to a HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A employees in a comparable position. Independent contractors and consultants who have not completed or passed the background check procedures specified in CP/CPS Section 5.3.2 are permitted access to HELLENIC EXCHANGES – ATHENS

STOCK EXCHANGE S.A’s secure facilities only to the extent they are escorted and directly supervised by Trusted Persons at all times .Once the independent contractor completes the work for which it was hired, or the independent contractor’s employment is terminated, physical access rights assigned to that contractor are removed at once.

5.3.8 Documentation Supplied to Personnel

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A provides its employees the requisite training and other documentation needed to perform their job responsibilities competently and satisfactorily.

5.4 Audit Logging Procedures

For audit purposes, HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A maintains electronic or manual logs of the following events for core functions.

5.4.1 Types of Events Recorded

CA & Certificate Lifecycle Management Events:

- CA Root signing key functions, including key generation, backup, recovery and destruction
- Subscriber Certificate lifecycle management, including successful and unsuccessful Certificate applications, Certificate issuances, Certificate re-issuances and Certificate renewals
- Subscriber Certificate revocation requests, including revocation reason
- CRL updates, generations and issuances
- Custody of keys and of devices and media holding keys
- Compromise of a private key

Security Related Events:

- System downtime, software crashes and hardware failures
- CA system actions performed by HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A personnel, including software updates, hardware replacements and upgrades
- Cryptographic hardware security module events, such as usage, de-installation, service or repair and retirement
- Successful and unsuccessful HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A PKI access attempts
- Secure CA facility visitor entry and exit

Certificate Application Information:

- The documentation and other related information presented by the Applicant as part of the application validation process
- Storage locations, whether physical or electronic, of presented documents

All logs include the following elements:

- Date and time of entry
- Serial or sequence number of entry
- Method of entry
- Source of entry
- Identity of entity making log entry

5.4.2 Frequency of Processing Log

Logs are archived by the system administrator on a monthly basis and reviewed by CA management.

5.4.3 Retention Period for Audit Log

When the removable media reaches the end of its life it is wiped by a third party secure data destruction facility and the Certificates of destruction are archived.

5.4.4 Protection of Audit Log

Audit logs are protected in accordance with Section 5.1.6

5.4.5 Audit Log Backup Procedures

All logs are backed up on removable media and the media held at a secure off-site location on a daily basis.

5.4.6 Audit Collection System (Internal vs. External)

No stipulation.

5.4.7 Notification to Event-Causing Subject

No stipulation.

5.4.8 Vulnerability Assessments

A vulnerability is a weakness in the organization or in an information system that might be exploited by a threat, with the possibility of causing harm to assets. In order to mitigate the risk or possibility of causing harm to assets, HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A performs regular vulnerability assessment by taking a two-pronged approach. HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A assesses vulnerabilities by (1) making an assessment of the threats to, impacts on, and the vulnerabilities of assets and the likelihood of their occurrence, and (2) by developing a process of selecting and implementing security controls in order to reduce the risks identified in the risk assessment to an acceptable level. HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A routinely performs vulnerability assessments by identifying the vulnerability categories that face an asset. Some of the vulnerability categories that HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A evaluates are technical, logical, human, physical, environmental, and operational.

5.5 Records Archival

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A implements a backup standard for all business critical systems located at its data centers. HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A retains records in electronic or in paper-based format in conformance with this subsection of this CP/CPS.

5.5.1 Types of Records Archived

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A archives the following type of records:

- Certificate application information
- Documentation supporting certificate applications
- Certificate lifecycle information e.g., revocation, rekey and renewal application information

5.5.2 Retention Period for Archive

The retention period for archived information depends on the type of information, the information's level of confidentiality, and the type of system the information is stored on. HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A retains the records of HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A digital Certificates and the associated documentation for a term of not less than 30 years, or as necessary to comply with applicable laws. The retention term begins on the date of expiration or revocation. Copies of Certificates are held, regardless of their status (such as expired or revoked). Such records may be retained in electronic, in paper-based format or any other format that HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A may see fit.

5.5.3 Protection of Archive

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A protects the archive so that only authorized Trusted Persons are able to obtain access to the archive. The archive is protected against unauthorized viewing, modification, deletion, or other tampering by storage within a Trustworthy System. The media holding the archive data and the applications required to process the archive data shall be maintained to ensure that the archive data can be accessed for the time period set forth in this CP/CPS.

5.5.4 Archive Backup Procedures

Administrators at each HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A location are responsible for carrying out and maintaining backup activities. HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A employs both scheduled and unscheduled backups. Scheduled backups are automated using approved backup tools. Scheduled backups are monitored using automated tools. Unscheduled backups occur before carrying out major changes to critical systems and are part of any change request that has a possible impact on data integrity or security. All backup media is labeled according to the information classification, which is based on the backup information stored on the media.

5.5.5 Requirements for Time-Stamping of Records

Certificates, CRLs, and other revocation database entries shall contain time and date information. Such time information need not be cryptographic-based.

5.5.6 Archive Collection System (Internal or External)

No stipulation.

5.5.7 Procedures to Obtain and Verify Archive Information

Only authorized Trusted Personnel are able to obtain access to the archive. The integrity of the information is verified when it is restored.

5.6 Key Changeover

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A CA key pairs are retired from service at the end of their respective maximum lifetimes and so there is no key changeover. Certificates may be renewed as long as the cumulative certified lifetime of the Certificate key pair does not exceed the maximum CA key pair lifetime. New CA key pairs will be generated as necessary, for example to replace CA key pairs that are being retired, to supplement existing, active key pairs and to support new services in accordance with this CP/CPS.

5.7 Compromise and Disaster Recovery

Organizations are regularly faced with events that may disrupt their normal business activities or may lead to loss of information and assets. These events may be the result of natural disasters, accidents, equipment failures, or deliberate actions. This section details the procedures HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A employs in the event of a compromise or disaster.

5.7.1 Incident and Compromise Handling Procedures

Backup copies of essential business and CA information are made routinely. In general, back-ups are performed daily on-site but may be performed less frequently in HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A discretion according to production schedule requirements.

5.7.2 Computing Resources, Software, and/or Data are Corrupted

In the event of the corruption of computing resources, software, and/or data, such an occurrence is reported to HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A Security. Appropriate escalation, incident investigation, and incident response will ensue.

5.7.3 Entity Private Key Compromise Procedures

In the event of the Compromise of one or more of the HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A Root Key(s) (including the CA Certificates), HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A shall promptly notify all Subscribers via e-mail and notify Relying Parties and others via the CRL and additional notice posted at www.athexgroup.gr and shall revoke all Certificates issued with such HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A Root Key(s).

5.7.4 Business Continuity Capabilities after a Disaster

Hellenic Exchanges – Athens Stock Exchange has successfully completed the certification according to the international standard ISO 22301:2012 of the Business Continuity Management System,that has already implemented and put into operation.

The Business Continuity Management System, refers to the mechanism and the organization of all the need procedures ensuring the continuity of critical business functions and operations in case of a catastrophic event, of events that could cause prolonged interruption of normal business operation. Athens Exchange Group of companies obtained the Certification ISO22301:2012 for Business Continuity activities related to all business operation and provided products & services (www.athexgroup.gr/athexgroup-business-continuity)

5.7.5 CA or RA Termination

In the event that HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. decides on the termination of CA or RA activities as a (Q)TSP the following steps will take place:
In the context of a scheduled termination:

- Cessation of the issuance of any new certificate
- Termination notification to the Greek Supervisory Body and Relying Parties within 3 months before the effective termination.
- Dissemination of relevant information (Communication Management Team upon written formal request from the Policy Management Committee)
- Preservation and transfer of auditing and archival records to the arranged custodian for the required period of time
- Revocation of unexpired and unrevoked Subjects' Qualified Certificates (performed by Security officers when officially informed by the Policy Management Committee)
- Creation of a last CRL (performed by Security officers when officially informed by the Policy Management Committee)
- When applicable, decommissioning of the CA keys

In the context of an unscheduled termination:

- As far as it is possible, the plan for expected termination as described in section above will be followed with the following potential significant differences:
- Shorter or even no delay for the notification of the interested parties
- Shorter or no delay for the revocation of Certificates

The conditions and effect resulting from termination HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. Services will be communicated via the ATHEX web site (http://www.athexgroup.gr/digital-certificates-pki-regulations) upon termination. That communication will outline the provisions that may survive termination and remain in force. The responsibilities for protecting business confidential and private personal information shall survive termination, and the terms and conditions for all existing Certificates shall remain valid for the remainder of the validity periods of such Certificates.

6 Technical Security Controls

6.1 Key Pair Generation and Installation

6.1.1 Key Pair Generation

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. generally provides the full certificate chain (including the issuing CA and any CAs in the chain) to the end-user Subscriber upon Certificate issuance. HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. CA Certificates may also be downloaded from the Resource Web site at http://www.athexgroup.gr/web/guest/digital-certificates-pki-regulations

The initial creation and storage of keys by HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A.'S 'Root CAs' and 'Sub CAs' falls under a Special 'Root Key Generation Ceremony for Certification Authority' with the presence of independent third party auditing bodies confirming compliance of all of HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A.'S procedures and related security measures. All actions that are conducted during the ceremony are recorded and retained for any future auditing of the procedures.

The creation and storage of cryptographic keys by HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A.'S 'Root Certification Authority' (Root CA) and every 'Subordinate Certification Authority' (Sub CA) is only prepared through a special 'hardware security module' whose operation is certified by the standard [FIPS 140-2 level 3]. The use of "secure hardware unit" for the creation and storage of the cryptographic key pair for every HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. Certification Authority requires the involvement of at least two (2) different individuals acting in accredited 'trusted roles'.

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. CA key pairs are retired from service at the end of their respective maximum lifetimes as defined above, and so there is no key changeover. Certificates may be renewed as long as the cumulative certified lifetime of the Certificate key pair does not exceed the maximum CA key pair lifetime. New CA key pairs will be generated as necessary, for example to replace CA key pairs that are being retired, to supplement existing, active key pairs and to support new services in accordance with this CP/CPS.

The size of the CA's keys are 4096 Bits and the size of those of the Subordinate CAs are not less than 2048 Bits. The Livest - Smartphone - Telematics Algorithm (RSA) is used for their creation and the Secure Hashing Algorithm – 1 (SHA 386 for the Root CA, SHA-256 for the Sub CAs) is used for their hashing at the time of signing.

Use of the keys of the Sub-CAs of a CSP who complies with this policy are limited solely and exclusively to the signing of Certificates and CRLs and OCSP. Their use for any other purpose or usage will be prohibited.

6.1.2 Private Key Delivery to Subscriber

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. mandates that end-user Subscribers select the 2048-bit encryption strength option when generating their certificate requests

6.1.3 Public Key Delivery to Certificate Issuer

For server Certificates, the Subscriber typically uses the key generation utility provided with the web server software. HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. does not require any particular standard for the module used to generate the keys. Key pairs generated by the Subscriber for HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. Web Server Certificates may be used for server authentication.

The Public Key to be included in an EV Certificate is delivered to EV CAs in a Certificate Signing Request (CSR) as part of the EV Certificate Application process. The signature on the CSR will be verified by the EV CA prior to issuing the EV Certificate.

6.1.4 CA Public Key Delivery to Relying Parties

Public keys of HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A Root CAs are made available to Subscribers and Relying parties through inclusion in third party software as distributed by the applicable software manufacturers. Also they are available from the following repository http://www.athexgroup.gr/el/web/guest/digital-certificates-pki-regulations. The Public Key Certificate for cross certified issuing CAs is not stipulated since HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. does not permit cross signing Certificate Authorities.

6.1.5 Key Sizes

Key pairs shall be of sufficient length to prevent others from determining the key pair's private key using cryptanalysis during the period of expected utilization of such key pairs. The current HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A Standard for minimum key sizes for its Roots and CAs is the use of key pairs equivalent in strength to 2048 bit RSA or higher. Root CA key is equal to 4096 bits and subordinate CAs equal to 2048 bits.

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A mandates that Registration Authorities and end-user Subscribers generate 2048 bit RSA key pairs.

6.1.6 Public Key Parameters Generation and Quality Checking

Not Applicable

6.1.7 Key Usage Purposes

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A Certificates include key usage extension fields to specify the purposes for which the Certificate may be used and to technically limit the functionality of the Certificate when used with X.509v3 compliant software.

For X.509 Version 3 Certificates, HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. generally populates the KeyUsage extension of Certificates in accordance with RFC 2459: Internet X.509 Public Key Infrastructure Certificate and CRL Profile, January 1999.

EV Certificates issued by HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. contain the keyUsage and the extendkeyUsage Certificate extensions restricting the purpose for which an EV Certificate can be used. Subscribers and Relying Parties shall only use EV Certificates in compliance with this CP/CPS and applicable laws.

6.1.8 Private Key Protection and Cryptographic Module Engineering Controls

The HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A CA Infrastructure uses trustworthy systems to provide Certificate services. A trustworthy system is computer hardware, software and procedures that provide an acceptable resilience against security risks, provide a reasonable level of availability, reliability and correct operation, and enforce a security policy.

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A strongly urges Subscribers to use a password or equivalent authentication method to prevent unauthorized access and usage of the Subscriber private key.

6.1.9 Cryptographic Module Standards and Controls

For issuing Root CA key pair generation and CA private key storage, The HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A uses hardware cryptographic modules that, at a minimum, are certified at or meet the requirements of FIPS 140-1 Level 3.

6.1.10 Private Key (m of n) Multi-Person Control

CA Key Pair generation is performed by multiple trained and trusted individuals using secure systems and processes that provide for the security and required cryptographic strength for the keys that are generated. All CA Key Pairs are generated in pre-planned key generation ceremonies. The activities performed in each key generation ceremony are recorded, dated and signed by all individuals involved. These records are kept for audit and tracking purposes for a length of time deemed appropriate by HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A management.

The CA Private Key shall be backed up, stored, and recovered only by personnel in trusted roles using, at least, dual control in a physically secured environment.

6.1.11 Private Key Escrow

The Root Keys for each CA Certificate are backed up but not escrowed.

6.1.12 Private Key Backup

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A CA Key Pairs are maintained in a trusted and highly secured environment with backup procedures.

6.1.13 Private Key Archival

No stipulation.

6.1.14 Private Key Transfer Into or From Cryptographic Module

Private key transfer into or from a cryptographic module is performed in secure fashion in accordance to manufacturing guidelines of module.

6.1.15 Private Key Storage on Cryptographic Module

Private key storage on cryptographic modules is secure in accordance to manufacturing guidelines of module.

6.1.16 Method of Activating Private Key

All HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A PKI Participants shall protect the activation data for their private keys against loss, theft, modification, unauthorized disclosure, or unauthorized use.

6.1.17 Method of Deactivating Private Key

Depending on the circumstances and the type of Certificate, a private key can be deactivated by HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A, Subscriber, or other authorized personnel.

6.1.18 Method of Destroying Private Key

Procedural controls will prevent expired CA Key Pairs from being returned to production use. Cryptographic devices are physically destroyed or zeroized in accordance the manufacturers' guidance prior to disposal.

6.1.19 Cryptographic Module Rating

See Section 6.2.1.

6.2 Other Aspects of Key Pair Management

This section considers other areas of key management. Particular subsections may be applicable to issuing CAs, repositories, subject CAs, RAs, Subscribers, and other participants.

EV SSL Certificates

EV SSL Certificates contain a validity period of up to, but no more than, 27 months.

EV Code Signing Certificates

EV Code Signing Certificates contain a validity period of up to, but no more than, 39 months.

6.2.1 Public Key Archival

When public keys are archived, they are archived according to procedures outlined in section 5.5 of this CP/CPS.

6.2.2 Certificate Operational Periods and Key Pair Usage Periods

Certificates are valid upon issuance by HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A and acceptance by the Subscriber. Generally, the Certificate validity period will be one year

6.2.3 Activation Data

Activation data refers to data values other than whole private keys that are required to operate private keys or cryptographic modules containing private keys. Examples of activation data include, but are not limited to, PINs, passphrases, and portions of private keys used in a key-splitting regime.

6.2.4 Activation Data Generation and Installation

Activation data is generated in accordance with the specifications of the HSM. This hardware is certified by FIPS 140-3.

6.2.5 Activation Data Protection

The procedures used to protect activation data is dependent on whether the data is for smartcards or passwords. Smartcards are held by highly trusted personnel. Passwords and smartcards are subject to HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A Cryptographic Policy.

6.2.6 Other Aspects of Activation Data

No stipulation.

6.3 Computer Security Controls

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A performs all CA and RA functions using Trustworthy Systems.

6.3.1 Specific Computer Security Technical Requirements

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A ensures the integrity of its computer systems by implementing controls, such as

- Applying the same security controls to all systems co-located in the same zone with a Certificate System;
- Maintaining Root CA Systems in a high security zone and in an offline state or air-gapped from other networks;
- Maintaining and protecting Issuing Systems, Certificate Management Systems, and Security Support systems;
- Configuring Issuing Systems, Certificate Management Systems, Security Support Systems, and Front-End/Internal-Support Systems by removing or disabling all accounts, applications, services, protocols, and ports that are not used in HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A operations and allowing only those that are approved by HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A;
- Reviewing configurations of Issuing Systems, Certificate Management Systems, Security Support Systems, and Front-End/Internal-Support Systems on a regular basis;
- Undergoing penetration tests on a periodic basis and after significant infrastructure or application upgrades;
- Granting administration access to Certificate Systems only to persons acting in trusted roles and requiring their accountability for the Certificate System's security; and
- Changing authentication keys and passwords for any privileged account or service account on a Certificate System whenever a person's authorization to administratively access that account on the Certificate System is changed or revoked.

6.3.2 Computer Security Rating

No stipulation.

6.4 Life Cycle Technical Controls

6.4.1 System Development Controls

No Stipulation

6.4.2 Security Management Controls

No Stipulation

6.4.3 Life Cycle Security Controls

No Stipulation

6.4.4 Network Security Controls

PKI infrastructure reside in highly segmented networks constrained from both the Internet and the Athexgroup corporate network via multiple levels of firewalls. Interaction with outside entities shall only be performed with servers located on a demilitarized zone (DMZ). All systems associated with certification authority activities shall be hardened with services restricted to only those necessary for certification authority operations strictly. Root CA and Sub CAs private keys are kept in an offline (not network-connected) state. In addition, the HSM Networking Private Server holding these keys requires two trusted and qualified employees (Security Officers) to provide smart cards in order to perform signing operations using the keys.

6.5 Time Stamping

Certificates, CRLs, and other revocation database entries shall contain time and date information. Such time information need not be cryptographic-based.

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A provides a Time-Stamp Authority (TSA) service for use with specific HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A products such as EV Code Signing Certificates. As a best practice, Subscribers of EV Code Signing Certificates should time-stamp the digital signature after signing of the code.

7. Certificate, CRL, and OCSP Profiles

7.1 Certificate Profile

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. Certificates conform to (a) ITU-T Recommendation X.509 Version 3 (1997): Information Technology - Open Systems Interconnection - The Directory: Authentication Framework, June 1997, and (b) RFC 2459: Internet X.509 Public Key Infrastructure Certificate and CRL Profile, January 1999 ("RFC 2459"). Certificate extensions and their criticality, as well as cryptographic algorithm object identifiers, are populated according to the IETF RFC 2459 standards and recommendations. The name forms for Subscribers are enforced through HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A.'s internal policies and the authentication steps described elsewhere in this CP/CPS. Name constraint enforcement is not through the name constraint extension, but through the authentication steps followed and contractual limitations with each Subscriber.

The profile for the EV Certificates and Certificate Revocation List (CRL) issued by HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. conform to the specifications contained in the EV Guidelines published by the CAB Forum, which themselves conform to IETF RFC 5280 Internet X.509 PKI Certificate and Certificate Revocation List (CRL) Profile.

7.1.1 Version Number(s)

CA certificates shall be X.509 Version 1 or Version 3 CA Certificates. End-user Subscriber Certificates shall be X.509 Version 3.

7.1.2 Certificate Extensions

Certificate extensions are as stipulated in EV Guidelines

7.1.3 Algorithm Object Identifiers

Algorithm object identifiers are as specified in IETF RFC 3279 Algorithms and Identifiers for the Internet X.509 PKI Certificate and Certificate Revocation List (CRL) Profile.

7.1.4 Name forms

Name forms are as stipulated in section 3.1.1.

7.1.5 Name Constraints

No stipulation.

7.1.6 Certificate Policy Object Identifier

Certificate policy object identifiers (OIDs) are listed in section 1.2

7.2 CRL Profile

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. issued CRLs conform to all RFC 2459 standards and recommendations.

7.2.1 Version Number(s)

No stipulation

7.2.2 CRL and CRL Entry Extensions

No stipulation

7.3 OCSP Profile

OCSP (Online Certificate Status Protocol) is a way to obtain timely information about the revocation status of a particular certificate.

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. publishes Certificate status information using Online Certificate Status Protocol (OCSP). HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. OCSP responders are capable of providing a ‘good’ or ‘revoked’ status for all Certificates issued under the terms of this CP/CPS. In the case of other Certificate types the OCSP responders will give an ‘unknown’ response for expired Certificates.

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. operates an OCSP service at http://ocsp.athexgroup.gr Revocation information is made immediately available through the OCSP services. The OCSP responder and responses are available 24x7.

The profile for the EV Online Certificate Status Protocol (OCSP) messages issued by HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. conform to the specifications contained in the IETF RFC 2560 Internet X.509 PKI Online Certificate Status Protocol (OCSP) Profile.

7.3.1 Version Number(s)

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A.’s OCSP responder conforms to RFC 6960.

7.3.2 OCSP Extensions

No stipulation.

8 Compliance Audit and Other Assessments

8.1 Frequency and Circumstances of Assessment

Pursuant to the provisions of the National Telecommunications and Post Commission (EETT), which is responsible for the supervision on all Certification authorities, in respect of the Certification services, HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. is subject to regular internal and external audits to verify its compliance with this Certificate Practice Statement.

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. also performs periodic internal security audits performed by trained and qualified security personnel according to HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A.’s security policies and procedures. The internal compliance audits will be conducted by authorized teams of internal auditors whose members shall not be directly related to/involved in the certification services provided by HELLENIC EXCHANGES - ATHENS STOCK EXCHANGE SA. Results of the Periodic audits are presented to HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A.’s PKI Policy Authority with a description of any deficiencies noted and corrective actions taken.

Compliance Audits are conducted at least annually. Audits are conducted over unbroken sequences of audit periods with each period no longer than one year duration.

8.2 Identity/Qualifications of Assessor

The external compliance audits are conducted by accredited certification bodies for eIDAS QTSP/QTS certification schemes and by a a public accounting firm that:

Demonstrates proficiency in conducting the WebTrust for Certification Authorities v2.1 or later

Demonstrates proficiency in public key infrastructure technology, information security tools and techniques, security auditing, and the third-party attestation function

8.3 Assessor's Relationship to Assessed Entity

The auditor is independent of HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A, and does not have a financial interest, business relationship, or course of dealing that would create a conflict of interest or create a significant bias (for or against) HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A.

8.4 Topics Covered by Assessment

The scope of HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A annual audit for eIDAS based on ETSI Standards includes CA environmental controls, key management operations and Infrastructure/

Administrative CA controls, certificate life cycle management and CA business practices disclosure. In addition, the annual WebTrust audits shall include but are not limited to: CA business practices disclosure, Detailed validation process, Service integrity, CA environmental controls.

8.5 Actions Taken as a Result of Deficiency

With respect to eIDAS based on ETSI standards audits and WebTrust audits of HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A.'s operations, significant exceptions or deficiencies identified during the audit will result in a determination of actions to be taken. This determination is made by HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. management with input from the auditor. HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. management is responsible for developing and implementing a corrective action plan. If HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. determines that such exceptions or deficiencies pose an immediate threat to the security or integrity of the Certificates issued under this CP/CPS, a corrective action plan will be developed within 30 days and implemented within a commercial y reasonable period of time. For less serious exceptions or deficiencies, HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. management will evaluate the significance of such issues and determine the appropriate course of action.

8.6 Communications of Results

Results of the eIDAS audits and WebTrust audits of HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A.'s operations may be released at the discretion of HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. management.

9. Other Business and Legal Matters

This part describes the legal representations, warranties and limitations associated with HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. digital Certificates.

9.1 Fees

9.1.1 Certificate Issuance or Renewal Fees

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. is entitled to charge Subscribers for the issuance, management, and renewal of Certificates. The fees charged will be as stated on HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A.'s Web site or in any applicable contract at the time the Certificate is issued or renewed, and may change from time to time without prior notice.

9.1.2 Certificate Access Fees

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. does not charge a fee as a condition of making a Certificate available in a repository or otherwise making Certificates available to Relying Parties

9.1.3 Revocation or Status Information Access Fees

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. does not charge a fee as a condition of making the CRL required by this CP/CPS available in a repository or otherwise available to Relying Parties. HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. may, however, charge a fee for providing customized CRLs, OCSP services, or other value-added revocation and status information services. HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. does not permit access to revocation information, Certificate status information, or time stamping in its repository by third parties that provide products or services that utilize such Certificate status information without HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A.'s prior express written consent.

9.1.4 Fees for Other Services

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. does not charge a fee for access to this CP/CPS.

9.1.5 Refund Policy

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. will refund fees and will revoke a Certificate upon request by the Subscriber within Seven days of issuance or renewal of the Certificate. To request a refund, please call HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A.'s appropriate PKI department (PKI-CA), +30 210 336 6300.

9.2 Financial Responsibility

9.2.1 Insurance Coverage

HELLENIC EXCHANGES - ATHENS STOCK EXCHANGE SA.encourages customers, Subscribers, End-Entities, Relying Parties, and all other entities to maintain adequate insurance to protect against errors and omissions, professional liability, and general liability. HELLENIC EXCHANGES - ATHENS STOCK EXCHANGE SA. currently maintains commercially reasonable insurance.

9.2.2 Other Assets

Customers shall maintain adequate financial resources for their operations and duties, and shall be able to bear the risk of liability to Subscribers and Relying Parties.

9.2.3 Insurance or Warranty Coverage for End-Entities

No stipulation.

9.3 Confidentiality of Business Information

9.3.1 Scope of Confidential Information

Personal data collected and further processed, as defined in the relevant legislation (Law 2472/1997), are data which are necessary for the provision of certification services to Subscribers and for the commercial dealings of Subscribers with HELLENIC EXCHANGES - ATHENS STOCK EXCHANGE SA. Such personal data are collected exclusively from Subscribers at the time of their registration or the renewal of their subscription and kept even after the expiry or revocation of their certificates for use in particular to provide evidence in "dispute resolution proceedings" pertaining to their certification.

The collection by HELLENIC EXCHANGES - ATHENS STOCK EXCHANGE SA of personal data is compliant with the provisions of Law 2472/1997 and Law 2774/1999 on the protection of individuals with regard to processing of personal data and such data are not be used for any other purpose without the express consent of the data subject.

The subscriber may, at its absolute discretion, which is expressed by his declaration in the certification application (which may also be amended later by means of a new written declaration to HELLENIC EXCHANGES - ATHENS STOCK EXCHANGE SA), allow or not the publication of a copy of the his personal certificate (and, therefore, of his personal data listed on it as well) in the shared Directory for ease of verification of his Certificate by others.

In any case the Subscriber is entitled to contact the "Registration Service" of HELLENIC EXCHANGES - ATHENS STOCK EXCHANGE S.A. network (which is, in this case, the "Data Controller") to make use of his rights of information and access, as stipulated in Articles 11 and 12, respectively, of Law 2472/1997.

HELLENIC EXCHANGES - ATHENS STOCK EXCHANGE SA reserves the right, and Subscribers explicitly consent, to transfer, in the event of closure, all records kept to a third party of its choice with a view to transferring to such third party its relevant activities.

9.3.2 Information Not Within the Scope of Confidential Information

Subscribers acknowledge that revocation data of all Certificates issued by the HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. CA is public information is published every 24 hours.

9.3.3 Responsibility to Protect Confidential Information

All personnel in trusted positions handle all information in strict confidence. Personnel of RA/LRAs especially must comply with the requirements of the Greek law on the protection of personal data.

9.4 Privacy of Personal Information

9.4.1 Privacy Plan

The collection by HELLENIC EXCHANGES - ATHENS STOCK EXCHANGE S.A. of personal data is compliant with the provisions of Law 2472/1997 and Law 2774/1999 on the protection of individuals with regard to processing of personal data and such data are not be used for any other purpose without the express consent of the data subject.

9.4.2 Information Treated as Private

Personal information obtained from an Applicant during the application or identity verification process is considered private information if the information is not included in the Certificate and if the information is not public information.

9.4.3 Information Not Deemed Private

Subject to local laws, all information made public in a certificate is deemed not private.

9.4.4 Responsibility to Protect Private Information

HELLENIC EXCHANGES - ATHENS STOCK EXCHANGE S.A. PKI participants are expected to handle private information with care, and in compliance with local privacy laws in the relevant jurisdiction.

9.4.5 Notice and Consent to Use Private Information

HELLENIC EXCHANGES - ATHENS STOCK EXCHANGE S.A. will only use private information after obtaining consent or as required by applicable laws or regulations.

9.4.6 Disclosure Pursuant to Judicial or Administrative Process

HELLENIC EXCHANGES - ATHENS STOCK EXCHANGE S.A. Reserves the right to disclose personal information if reasonably believes that :

- disclosure is required by law or regulation, or

- disclosure is necessary in response to judicial, administrative, or other legal process.

9.4.7 Other Information Disclosure Circumstances

No Stipulation

9.5 Intellectual Property Rights

HELLENIC EXCHANGES - ATHENS STOCK EXCHANGE S.A. own all intellectual property rights associated with its databases, web sites, HELLENIC EXCHANGES - ATHENS STOCK EXCHANGE S.A. digital Certificates and any other publication originating from HELLENIC EXCHANGES - ATHENS STOCK EXCHANGE S.A. including this CP/CPS.

9.6 Representations and Warranties

9.6.1 CA Representations and Warranties

HELLENIC EXCHANGES - ATHENS STOCK EXCHANGE SA, being the provider of the certification services, guarantees to any party reasonably relying on its Certificates the accuracy and validity of such Certificates (in line with the conditions set forth in this Certificate Practice Statement and in the policy of the respective certificate).
In particular, regardless of the structure of its services, HELLENIC EXCHANGES - ATHENS STOCK EXCHANGE SA guarantees:

• at the time of initial activation of the Certificate, the accuracy of all information contained in the Certificate, and the existence of all data required for its issuance, pursuant to this HELLENIC EXCHANGES - ATHENS STOCK EXCHANGE SA Certificate Practice Statement and to the respective Certificate Policy;

• that it makes every reasonable endeavor to publish the revocations of Certificates pursuant to the terms and following the procedure laid down in this Certificate Practice Statement and the respective Policy of each Certificate.

9.6.2 RA Representations and Warranties

RAs warrant that:

- There are no material misrepresentations of fact in the Certificate known or originating from the entities approving the Certificate Application or issuing the Certificate,

- There are no errors in the information in the Certificate that were introduced by entities approving the Certificate Application as a result of a failure to reasonable care in managing the Certificate Application,

- Their Certificates meet all material requirements of this CP/CPS, and

- Revocation services and use of a repository comply with the applicable CP/CPS in all material aspects.

Subscriber Agreements may include additional representations and warranties.

9.6.3 Subscriber Representations and Warranties

Subscribers warrant that:

- Each digital signature created using the private key corresponding to the public key listed in the Certificate is the digital signature of the Subscriber and the Certificate has been accepted and is operational (not expired or revoked) at the time the digital signature is created,
- Their private key is protected and that no unauthorized person has ever had access to the Subscriber's private key; further, the Subscriber shall immediately request revocation of a certificate if the related private key is compromised,
- All representations made by the Subscriber in the Certificate Application the Subscriber submitted are true,
- All information supplied by the Subscriber and contained in the Certificate is true,
- The Certificate is being used exclusively for authorized and legal purposes, consistent with this CP/CPS, and
- The Subscriber is an end-user Subscriber and not a CA, and is not using the private key corresponding to any public key listed in the Certificate for purposes of digitally signing any Certificate (or any other format of certified public key) or CRL, as a CA or otherwise.

Subscriber Agreements may include additional representations and warranties.

9.6.4 Relying Party Representations and Warranties

Relying Parties acknowledge that they have sufficient information to make an informed decision as to the extent to which they choose to rely on the information in a Certificate, that they are solely responsible for deciding whether or not to rely on such information, and that they shall bear the legal consequences of their failure to perform the Relying Party obligations in terms of this CP/CPS and any other precautions prescribed in the HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. Subscriber Agreement.

9.6.5 Representations and Warranties of other Participants

No stipulation

9.7 Disclaimers of Warranties

Where despite the above disclaimers and the limitations to the guarantees it offers, HELLENIC EXCHANGES - ATHENS STOCK EXCHANGE SA becomes liable to any third party or Subscriber for a genuine error or inaction, condition violation, malfunction or inaccuracy in the services it offers, the maximum limit of liability assumed by HELLENIC EXCHANGES - ATHENS STOCK EXCHANGE SA and the entire network of its services for each Certificate and throughout the entire period of Certificate validity may not be cumulatively less than 2000$.

9.8 Limitation of Liability

As regards the above, HELLENIC EXCHANGES - ATHENS STOCK EXCHANGE SA shall not be liable to any injured third party where there has been no fault on the part of HELLENIC EXCHANGES - ATHENS STOCK EXCHANGE SA with regards to the malfunction or failure that caused the damage to the third party or where HELLENIC EXCHANGES - ATHENS STOCK EXCHANGE SA has acted in compliance with the provisions of the Certificate Practice Statement and the Policy of its Certificate or where the injured party themselves or such other party —outside the HELLENIC EXCHANGES - ATHENS STOCK EXCHANGE SA services provision network— has caused the damage by violating the terms and conditions of the respective Certificate Policy or has caused the damage through an incorrect, inappropriate or illegal act.

HELLENIC EXCHANGES - ATHENS STOCK EXCHANGE SA shall also not be liable (and thus neither shall be the third parties working with it in providing certification services) for any malfunctioning of its services in cases of force majeure, including but not limited to earthquakes, floods, fires, etc., including cases of black-out, problems in network communication and in general in cases of all outside obstacles that may prevent the smooth delivery of services and are not attributed to it.

Unless otherwise provided for in this Certificate Practice Statement or in the respective Policy of the Certificate, HELLENIC EXCHANGES - ATHENS STOCK EXCHANGE SA shall not guarantee nor be liable for the appropriateness, quality, lack of error or fitness for a particular purpose, of all related services, products and documentation provided or offered by it. The services and products offered to its Subscribers and third parties are provided by HELLENIC EXCHANGES - ATHENS STOCK EXCHANGE SA and its network on an "as-is" basis and responsibility about whether they are suitable for the desired purpose or whether the subscriber should or should not rely on them shall lie exclusively with the HELLENIC EXCHANGES - ATHENS STOCK EXCHANGE SA Subscriber or the third party who decides to rely on them.

Lastly, HELLENIC EXCHANGES - ATHENS STOCK EXCHANGE SA shall not be liable for any indirect or consequential damages, criminal or disciplinary action or punishment, foregone profits or any other indirect consequences suffered by any party on the occasion of the use of or his reliance on a certain Certificate.

9.9 Indemnities

9.9.1 Indemnification by Subscribers

Unless otherwise set forth in this CP/CPS and/or Subscriber Agreement, Subscriber, as applicable, hereby agrees to indemnify and hold, HELLENIC EXCHANGES - ATHENS STOCK EXCHANGE SA (including, but not limited to, its officers, directors, employees, agents, successors and assigns) harmless from any claims, actions, or demands that are caused by the use or publication of a Certificate and that arises from:

(a) any false or misleading statement of fact by the Subscriber (or any person acting on the behalf of the Subscriber

(b) any failure by the Subscriber to disclose a material fact, if such omission was made negligibly or with the intent to deceive;

(c) any failure on the part of the Subscriber to protect its Certificate or to take the precautions necessary to prevent the Compromise, disclosure, loss, modification or unauthorized use of Certificate; or

(d) any failure on the part of the Subscriber to promptly notify HELLENIC EXCHANGES - ATHENS STOCK EXCHANGE S.A., as the case may be, of the Compromise, disclosure, loss, modification or unauthorized use of the Certificate once the Subscriber has constructive or actual notice of such event.

9.10 Term and Termination

9.10.1 Term

The CP/CPS becomes effective upon publication in the HELLENIC EXCHANGES - ATHENS STOCK EXCHANGE S.A. repository. Amendments to this CP/CPS become effective upon publication in the HELLENIC EXCHANGES - ATHENS STOCK EXCHANGE S.A. repository.

9.10.2 Termination

This CP/CPS, including all amendments remain in force until it is replaced by a newer version.

9.10.3 Effect of Termination and Survival

Upon termination of this CP/CPS, HELLENIC EXCHANGES - ATHENS STOCK EXCHANGE S.A. Participants are nevertheless bound by its terms for all certificates issued for the remainder of the validity periods of such certificates.

9.11 Individual Notices and Communications with Participants

Address notices about the CP/CPS to pkica-services@athexgroup.gr or to the following address:

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A.

Digital Certificates Services (PKI-CA)

110, Athinon Ave. GR104 42 Athens GREECE

Tel +30 210 336 6300

Fax +30 210 336 6301

Email: PKICA-Services@athexgroup.gr

9.12 Amendments

9.12.1 Procedure for Amendment

The CP/CPS and any amendments thereto are available through http://www.athexgroup.gr/el/web/guest/digital-certificates-pki-regulations . Amendments to this CP/CPS will be evidenced by a new version number and date, except where the amendments are purely clerical.

9.12.1.1 'Policy Management Committee' (PMC)

The PMC is composed of HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A.'S senior executives with the participation of experienced / specialized technical and legal advisers and constitutes the body that is responsible for policy making and designing the digital certification services offered by HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A.

Once the PMC takes into consideration the technological developments, the regulatory framework, the trade and transactional requirements (of HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. and/or subscribers and HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A.'S business plans, it issues and/or amends the 'Certificate Policies' (which define the terms of issue, management and use for all types of electronic certificates issued by HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A.), and approves HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A.'S current 'Certificate Practice Statement' (and possibly other Certificate Service Providers) or their revisions, ascertaining its appropriateness in support and execution of the above Policies.

The PMC meets every three months if there is a matter for discussion and a decision, or extraordinary where appropriate, to examine the current circumstances and the need for revision or adoption of new policies and regulations.
The Committee may take a decision even if it has not been preceded by a meeting if a report has been drawn up and signed by all its members with the content of the relevant decision (peer-to-peer meeting)

9.12.2 Notification Mechanism and Period

Subscribers will be notified via e-mail for any changes in this CP/CPS.

9.12.2.1 Comment Period

Not applicable

9.12.2.2 Mechanism to Handle Comments

Not applicable

9.12.2.3 Circumstances under Which OID must be changed

This Practice is characterized by a 'version date' and a 'version number' consisting of two figures separated by a dot (.) the first of which indicates the number of revisions made to the Practice, while the second, the secondary and/or minor changes to individual documentation areas. The first approved version is numbered with the code '1.0'
Revisions to part or all of this Practice Statement may be made periodically, or whenever deemed necessary by HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. These revisions are published and enforced in accordance with the provisions of paragraph 2.3.4.
Every new or amended version of the Practice Statement receives a new 'version number' by increasing the first or the second digit, depending on the criticality of the change.

9.13 Dispute Resolution Provisions

Through the Complaint Handling and Dispute Resolution Committee (CHDRC), HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. offers its subscribers and third parties that rely on its certificates reliable (both legally and technically) information and clarifications on the data of the relevant certificates and tips for interpreting and resolving potential disputes related to certification and use of its electronic certificates.
It consists of HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A.'S executives and specialized technical and legal advisers and forwards queries to HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A.'S PMC when in doubt.
The CHDRC meets regularly once a month and extraordinarily whenever deemed necessary by circumstances, with the competency of checking compliance of the Certification Practice Statement and the handling of any complaints and/or the resolution of any differences related to HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A.'S Digital Certification Services.
The CHDRC has full access to the records and logs of HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A.'S Digital Certification Services and prepares an annual report addressed to the PMC with its activities and conclusions on an annual basis.
Should interested parties wish to use the mediation service of the CHDSC, they must submit their dispute to the Committee in writing, and the Committee must respond in writing within 30 days at the latest from the time it received the written request for mediation.
Where the dispute is turned against HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. or a third party member of HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A.'S network in the provision of certification services (complaint), the Committee shall not be obligated to reply to the request of the interested party where the latter has initiated court or any other proceedings against them before the end of the aforementioned 30-day period and where appropriate, forwards such complaints to law enforcement.
These services must be provided free of charge to the interested party, at least where that party does not bring the case before the courts during that period of time.

9.14 Governing Law

Greek law shall be the applicable law and it is agreed that disputes related to the provision of the digital certificates services described herein shall be subject to the exclusive jurisdiction of the Courts of Athens.

9.15 Compliance with Applicable Law

Subscribers and Relying Parties acknowledge and agree to use Certificates in compliance with all applicable laws and regulations, HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. may refuse to issue or may revoke Certificates if in the reasonable opinion of HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. such issuance or the continued use of such Certificates would violate applicable laws and regulations.

9.16 Miscellaneous Provisions

9.16.1 Entire Agreement

Not Applicable

9.16.2 Assignment

9.16.3 Severability

If any provision of this CP/CPS shall be held to be invalid, illegal, or unenforceable, the validity, legality, or enforceability of the remainder of this CP/CPS shall not in any way be affected or impaired hereby.

9.16.4 Enforcement (Attorney's Fees and Waiver of Rights)

Not Applicable

9.16.5 Force Majeure

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A. shall not be liable for any default or delay in the performance of its obligations hereunder to the extent and while such default or delay is caused, directly or indirectly, by fire, flood, earthquake, elements of nature or acts of God, acts of war, terrorism, riots, civil disorders, rebellions, lockouts, or labor difficulties or any other similar cause beyond the reasonable control of HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A..

9.17 Other Provisions

Not Applicable.