

**Bugzilla ID:** 1040072

**Bugzilla Summary:** Add MULTICERT Root Certificate

CAs wishing to have their certificates included in Mozilla products must

- 1) Comply with the requirements of the Mozilla CA certificate policy (<http://www.mozilla.org/projects/security/certs/policy/>)
- 2) Supply all of the information listed in [http://wiki.mozilla.org/CA:Information\\_checklist](http://wiki.mozilla.org/CA:Information_checklist).
  - a. Review the Recommended Practices at [https://wiki.mozilla.org/CA:Recommended\\_Practices](https://wiki.mozilla.org/CA:Recommended_Practices)
  - b. Review the Potentially Problematic Practices at [https://wiki.mozilla.org/CA:Problematic\\_Practices](https://wiki.mozilla.org/CA:Problematic_Practices)

**General information about the CA's associated organization**

CA Company Name	MULTICERT S.A., Serviços de Certificação Eletrónica S.A.
Website URL	<a href="https://www.multicert.com/pt/">https://www.multicert.com/pt/</a>
Organizational type	Private Organization
Primark Market / Customer Base	Which types of customers does the CA serve? Are there particular vertical market segments in which it operates? Does the CA focus its activities on a particular country or other geographic region?
Impact to Mozilla Users	MULTICERT is one of the biggest Portuguese CAs issuing digital qualified certificates for general public. The root CA will issue certificates for subordinate CAs under MULTICERT PKI. MULTICERT will also issue certificates for managed subordinate CAs of large organizations and governmental bodies. These subordinate CAs, in turn, issue the following end entity certificate types: Qualified Signature, Authentication, Advanced Signature, SSL Certificates for web server (CAs issuing SSL certificates are separated from CAs issuing Timestamping or Code Signing certificates), Application Certificates (e.g., e-Invoice, WS-Security), OCSP online validation, Code Signing, Timestamping.
Inclusion in other major browsers	Does this CA have root certificates included in any other major browsers? If yes, which? If no, why not?
CA Primary Point of Contact (POC)	CA Email Alias: sara.nunes@multicert.com CA Phone Number: +351961959273 Title: Chief Information Security Officer

**Technical information about each root certificate**

Certificate Name	MULTICERT Root Certification Authority 01
Certificate Issuer Field	CN = MULTICERT Root Certification Authority 01 O = MULTICERT - Serviços de Certificação Electrónica S.A. C = PT
Certificate Summary	
Mozilla Applied Constraints	Mozilla has the ability to apply Domain Name Constraints at the root level, such that Mozilla products would only recognize SSL certificates in the CA's hierarchy with domains in the listed constraints. Constraints may be at the country level such as *.us; and can include a list such as (*.gov.us, *.gov, *.mil). Please consider the types of SSL certificates that need to be issued within this CA hierarchy, and if applicable provide a list of names to constrain the CA hierarchy to.
Root Cert URL	<a href="http://pkiroot.multicert.com/cert/">http://pkiroot.multicert.com/cert/</a>

SHA1 Fingerprint	46:AF:7A:31:B5:99:46:0D:46:9D:60:41:14:5B:13:65:1D:F9:17:0A
Valid From	2014-04-04
Valid To	2039-04-04
Certificate Version	3
Certificate Signature Algorithm	SHA-256
Signing key parameters	4096
Test Website URL (SSL)	<a href="https://promotor.teste.multicert.com/">https://promotor.teste.multicert.com/</a> An error occurred during a connection to promotor.teste.multicert.com. The OCSP server experienced an internal error. (Error code: sec_error_ocsp_server_error) Please test with OCSP enforced in Firefox: <a href="https://wiki.mozilla.org/CA:Recommended_Practices#OCSP">https://wiki.mozilla.org/CA:Recommended_Practices#OCSP</a>
CRL URL	<a href="http://pkiroot.multicert.com/crl/root_mc_crl.crl">http://pkiroot.multicert.com/crl/root_mc_crl.crl</a> NextUpdate for CRLs of end-entity certs, both actual value and what's documented in CP/CPS.
OCSP URL	<a href="http://ocsp.multicert.com/ocsp">http://ocsp.multicert.com/ocsp</a> Maximum expiration time of OCSP responses
Requested Trust Bits	One or more of: Websites (SSL/TLS) Email (S/MIME) Code Signing
SSL Validation Type	OV, DV. For each of these policies exists a correspondent CA.
EV Policy OID(s)	Not Applicable. Not requesting EV treatment at this time.
Non-sequential serial numbers and entropy in cert	<a href="http://www.mozilla.org/projects/security/certs/policy/MaintenancePolicy.html">http://www.mozilla.org/projects/security/certs/policy/MaintenancePolicy.html</a> "9. We expect CAs to maintain current best practices to prevent algorithm attacks against certificates. As such, the following steps will be taken: ... - all new end-entity certificates must contain at least 20 bits of unpredictable random data (preferably in the serial number)."  The purpose of adding entropy is to help defeat a prefix-chosen collision for non collision resistant hash functions. Using SHA256 without entropy isn't a problem in a near future. However, the Mozilla Policy doesn't say that; the entropy is mandatory for all new certificates, the used hash function isn't taken into consideration. This isn't a blocker for an inclusion request if SHA1 is forbidden in the CA hierarchy. However, the CP/CPS must clearly state that SHA1 isn't an acceptable hash algorithm for certificates in this hierarchy.
Response to Recent CA Communication(s)	<a href="https://wiki.mozilla.org/CA:Communications">https://wiki.mozilla.org/CA:Communications</a>

### CA Hierarchy information for each root certificate

CA Hierarchy	<p>MULTICERT Root CA is the top of the hierarchy working as an offline CA.</p> <p>There are, for now, 2 Certificate Authorities subordinate to MULTICERT Root CA:</p> <ol style="list-style-type: none"> <li>1) MULTICERT CA is responsible for qualified certificate issuance.</li> <li>2) MULTICERT TS CA is responsible for services certificate issuance as TSL service, TSA service, etc.</li> </ol> <p>All these CA's are accredited by GNS (Gabinete Nacional de Segurança - <a href="http://www.gns.gov.pt/">http://www.gns.gov.pt/</a>) or <a href="http://www.gns.gov.pt/media/1891/TSLPTR.pdf">http://www.gns.gov.pt/media/1891/TSLPTR.pdf</a>.</p> <p>The OID's for each policy:</p> <p>MULTICERT CA:</p> <p>QC - 1.3.6.1.4.1.25070.1.1.1.0.1.2</p> <p>SSL (OV) - 1.3.6.1.4.1.25070.1.1.1.0.1.5</p> <p>MULTICERT TS CA:</p> <p>Timestamping - 1.3.6.1.4.1.25070.1.1.1.2.0.1.1</p> <p>CodeSigning - 1.3.6.1.4.1.25070.1.1.1.2.0.1.2</p> <p>MULTICERT Root CA CPS - 1.3.6.1.4.1.25070.1.1.1.0.7</p> <p>MULTICERT CA CPS - 1.3.6.1.4.1.25070.1.1.1.0.7</p> <p>MULTICERT TS CA CPS - 1.3.6.1.4.1.25070.1.1.1.2.0.7</p>
Externally Operated SubCAs	<p>MULTICERT doesn't currently have external subordinate CA's.</p> <p>The root CA will issue certificates for subordinate CAs under MULTICERT PKI. MULTICERT will also issue certificates for managed subordinate CAs of large organizations and governmental bodies. These subordinate CAs, in turn, issue the following end entity certificate types: Qualified Signature, Authentication, Advanced Signature, SSL Certificates for web server (CAs issuing SSL certificates are separated from CAs issuing Timestamping or Code Signing certificates), Application Certificates (e.g., e-Invoice, WS-Security), OCSP online validation, Code Signing, Timestamping.</p> <p>Please provide the information listed in this checklist:  <a href="https://wiki.mozilla.org/CA:SubordinateCA_checklist#CA_Policies_about_Third-Party_Subordinate_CAs">https://wiki.mozilla.org/CA:SubordinateCA_checklist#CA_Policies_about_Third-Party_Subordinate_CAs</a></p> <p>Does MULTICERT operate as a Super-CA according to the description here?  <a href="https://wiki.mozilla.org/CA:SubordinateCA_checklist#Super-CAs">https://wiki.mozilla.org/CA:SubordinateCA_checklist#Super-CAs</a>          If yes, please explain.</p>
Cross-Signing	<p>None. Any planned?</p>
Technical Constraints on Third-party Issuers	<p>Please translate into English the sections of the CP/CPS documents that explain the requirements placed on anyone external to MULTICERT who can cause a certificate to be issued within this CA hierarchy.</p> <p>External RAs count as third-party issuers. What technical constraints are place on them?</p> <p>Root CPS section 2.3.2: MULTICERT may ... establish agreements with other entities ... to perform this role.</p>

	The subordinate CAs who are not part of the MULTICERT organization, and the managed subordinate CAs are all third-party issuers. Are there any technical constraints on them?
--	---

### Verification Policies and Practices

Policy Documentation	<p>Document Repository: <a href="https://pki.multicert.com">https://pki.multicert.com</a>  <a href="https://pki.multicert.com/pol/cps/MULTICERT_CA.html">https://pki.multicert.com/pol/cps/MULTICERT_CA.html</a></p> <p>Root CPS (English): <a href="http://pkiroot.multicert.com/pol/index_en.html">http://pkiroot.multicert.com/pol/index_en.html</a>  Which of the documents in Portuguese corresponds to this document?</p> <p>SSL CP (Portuguese): <a href="https://pki.multicert.com/pol/cp/webserver.html">https://pki.multicert.com/pol/cp/webserver.html</a>  The document link on this page doesn't work for me. I click on it, and nothing happens.</p> <p>Root CP (Portuguese): <a href="https://pki.multicert.com/pol/cp/root.html">https://pki.multicert.com/pol/cp/root.html</a>  The document link on this page doesn't work for me. I click on it, and nothing happens.  I try to browse directly to <a href="https://pki.multicert.com/pol/cp/MULTICERT_PJ.CA3_24.1.2_0001_pt.pdf">https://pki.multicert.com/pol/cp/MULTICERT_PJ.CA3_24.1.2_0001_pt.pdf</a> and just get redirected back to the html page.</p> <p>Qualified Digital Signature CP (Portuguese): <a href="https://pki.multicert.com/pol/cp/adq.html">https://pki.multicert.com/pol/cp/adq.html</a>  Authentication CP (Portuguese): <a href="https://pki.multicert.com/pol/cp/auth.html">https://pki.multicert.com/pol/cp/auth.html</a></p>
Audits	<p>Audit Type: ETSI TS 102 042 – Where in the audit statements or the auditor's website does it state which audit criteria and version was used and if the audit included PTC-BR?</p> <p>Auditor: Gabinete Nacional de Segurança (GNS) -- <a href="http://www.gns.gov.pt/gns">http://www.gns.gov.pt/gns</a>  The National Security Office, abbreviated as GNS, is a core service of the state administration, endowed with administrative autonomy, authority of the Prime Minister or the Cabinet member whom he delegates</p> <p>Auditor Website: <a href="http://www.gns.gov.pt/media/1891/TSLPTHR.pdf">http://www.gns.gov.pt/media/1891/TSLPTHR.pdf</a>  Audit Statement: <a href="https://bug1040072.bugzilla.mozilla.org/attachment.cgi?id=8457996">https://bug1040072.bugzilla.mozilla.org/attachment.cgi?id=8457996</a> (2014.06.20)</p> <p>The Root CPS (English) says: "International hierarchy of trust with WebTrust accreditation (<a href="http://www.webtrust.org/">http://www.webtrust.org/</a>) and is present in the majority of the operating systems and Web browsers."  Please point me to the WebTrust audit statement(s).</p>
Baseline Requirements (SSL)	<p>Please carefully review: <a href="https://wiki.mozilla.org/CA:BaselineRequirements">https://wiki.mozilla.org/CA:BaselineRequirements</a>  (also have your auditor carefully review this wiki page)</p> <p>Need the ETSI TS 102 042 PTC-BR audit statement/certificate, as per section 17 of the Baseline Requirements</p>

	<p>The Subordinate CA responsible for SSL certificate issuance, for now we only issue OV, is compliant with the ETSI TS 102 042 and follows CA/Browser Forum Baseline Requirements for the Issuance and Management of Publicly-Trusted Certificates.</p> <p>Each Subordinate CA has to be audited according to section 17 of the Baseline Requirements, or Technically Constrained as per section 9.7 of the Baseline Requirements.</p> <p>Root CP (English) section 2.1: MULTICERT Root CA conforms to the current version of the Baseline Requirements for the Issuance and Management of Publicly-Trusted Certificates published at <a href="http://www.cabforum.org">http://www.cabforum.org</a>. In the event of any inconsistency between this document and those Requirements, those Requirements take precedence over this document.</p> <p>Need to compare with corresponding document in Portuguese.</p> <p>SSL CP section 3.1: The profile of the Web Server is certified according to:</p> <ul style="list-style-type: none"> <li>- Recommendation X.5093 ITU.T;</li> <li>- RFC 5280 and</li> <li>- Baseline Requirements for the Issuance and Management of Publicly-Trusted Certificates, CA / Browser Forum</li> </ul>
SSL Verification Procedures	<p>SSL CP section 4.1:</p> <p>For each Fully-Qualified Domain Name listed in a Certificate, MULTICERT confirms that, as of the issuante date the</p> <ul style="list-style-type: none"> <li>- Confirmation that the certificate applicant has the domain name registration directly over the FQDN by: <ul style="list-style-type: none"> <li>o Direct communication with the responsible domain name using the address, email or number of service provided by the domains registration Entity;</li> <li>o Direct communication with the responsible domain name using the contact information listed in the "registrant" field, "technical" or "administrative" records the WHOIS</li> <li>o Communication with the domain administrator using the email address created with the prefix "Admin", "administrator", "webmaster", "hostmaster" and "postmaster", followed by "@" sign, and terminated by Domain Name;</li> <li>o An Authorization Document trusted domain Statement by the Applicant that has practical control over the Fully Qualified Domain Name, through the pre-agreement on an amendment to certain information contained in a Online Web page identified by a URI that contains the Fully Qualified Domain Name followed by the Domain Name;</li> <li>o Use of any other confirmation method (since that provides the same level of confidence that the test methods referred to above), and the EC will preserve record that will serve as evidence confirming that the Applicant is responsible for the Domain Name or has control over the Fully Qualified Domain Name`</li> </ul> </li> </ul> <p>4.2 Authorization for an IP Address (Used Google Translate)</p> <p>For each IP address listed in the certificate, the EC confirms that the date of issue of the certificate, the</p>

	<p>Applicant has control over the IP address through:</p> <ul style="list-style-type: none"> <li>• Statement by the Applicant that has control over the IP address through préacordo on an amendment to certain information contained in a Web page online identified by a URI9 that contains the IP address;</li> <li>• Obtaining documentation on the assignment of the IP address from the Internet Assigned Numbers Authority (IANA) or Regional Internet Registry (RIPE, APNIC, ARIN, AfriNIC, LACNIC).</li> <li>• Conducting research on the IP address and then check the control over the Domain Name resultant;</li> <li>• Using any other method of confirmation (since that provides the same level of confidence that the verification methods mentioned above), and the EC will preserve record that will serve as evidence confirming that the Applicant is responsible for the IP address or have control over the IP address.</li> </ul>
Organization Verification Procedures	<p>Root CPS (English) section 4.2: The procedures for the identification and authentication of subscriber previously unknown shall follow the following rules:</p> <ol style="list-style-type: none"> <li>1. The subscriber or its legal representative (in case of a collective person) shall present themselves physically to MULTICERT;</li> <li>2. The physical identification shall be authenticated against identifying proofs that must be compliant with the following provisions: <ol style="list-style-type: none"> <li>a. To be officially recognized in the jurisdiction where the subscriber is registered;</li> <li>b. To indicate the full name of the subscriber and its official address;</li> <li>c. To have at least one identity proof with a photograph of the subscriber (always applicable);</li> <li>d. To indicate a unique registration number inside of the jurisdiction where it was issued.</li> </ol> </li> <li>3. In case of certificates for non-human subscribers, the mentioned authentication processes shall apply to the people who are authorized to request certifications for the specified subscribers.</li> <li>3. MULTICERT shall verify that each candidate for obtaining a certificate has the right to obtain that certificate and, in case obtaining that certificate also implies obtaining attributes or privileges of any kind, the candidate really has the right to those privileges and attributes;</li> <li>4. When necessary, MULTICERT shall require the requesting entity of a certificate prepares and submits an appropriate logical request of certificate to the CA;</li> <li>5. Also when necessary, MULTICERT shall verify the correctness of the information included in the logical request of certificate from the requesting entity.</li> </ol>
Email Address Verification Procedures	<p>The MULTICERT clients have an account which is created only after email confirmation. – where (in the CP/CPS) is this explained? See <a href="https://wiki.mozilla.org/CA:Recommended_Practices#Verifying_Email_Address_Control">https://wiki.mozilla.org/CA:Recommended_Practices#Verifying_Email_Address_Control</a></p>
Code Signing Subscriber Verification Procedures	<p>Same text provided as above for Organization Verification Procedures Which CP/CPS sections actually talk about Code Signing certificates?</p>
Multi-factor Authentication	<p>For certificate issuance directly on the CA two-factor authentication is required. Username+password and digital certificate authentication. – Which document and sections describe this requirement?</p>
Network Security	<p>We are compliant and comfortable with this items and regarding the Network and Certificate System Security Requirements from CA/BForum. CPS on the sections 6 and 7 describes Physical Safety, Management, and Operating Measures and TECHNICAL SAFETY MEASURES</p>

	<a href="http://pkiroot.multicert.com/pol/CPS_MULTICERT_PJ%20ECRAIZ_24%20.1%20.1_0001_en.pdf">http://pkiroot.multicert.com/pol/CPS_MULTICERT_PJ%20ECRAIZ_24%20.1%20.1_0001_en.pdf</a> However the MULTICERT Root CA is an offline CA.
--	--

**Response to Mozilla's CA Recommended Practices** ([https://wiki.mozilla.org/CA:Recommended\\_Practices](https://wiki.mozilla.org/CA:Recommended_Practices))

<a href="#">Publicly Available CP and CPS</a>	See above
<a href="#">CA Hierarchy</a>	See above
<a href="#">Audit Criteria</a>	See above
<a href="#">Document Handling of IDNs in CP/CPS</a>	Does MULTICERT allow this? Where is it documented?
<a href="#">Revocation of Compromised Certificates</a>	Root CPS section 5.7.5 Please see Baseline Requirements section 13.1.5.
<a href="#">Verifying Domain Name Ownership</a>	See above
<a href="#">Verifying Email Address Control</a>	See above
<a href="#">Verifying Identity of Code Signing Certificate Subscriber</a>	See above
<a href="#">DNS names go in SAN</a>	SSL CP section 3.1.2: DNS = <full qualified domain name of the Web server>, Maximum 7 Domains  SAN: This extension contain at least one entry. Each entry is either a dNSName containing the Fully-Qualified Domain Name or an iPAddress containing the IP address of a server.
<a href="#">Domain owned by a Natural Person</a>	Not Applicable
<a href="#">OCSP</a>	See above

**Response to Mozilla's list of Potentially Problematic Practices** ([https://wiki.mozilla.org/CA:Problematic\\_Practices](https://wiki.mozilla.org/CA:Problematic_Practices))

<a href="#">Long-lived DV certificates</a>	SSL CP section 3.1.2: Validity of approximately three years and one month. Refurbished (with the generation of new key pair) one month before the expiry date.
<a href="#">Wildcard DV SSL certificates</a>	What sections of the CP/CPS document whether wildcard SSL certs are allowed or not?
<a href="#">Email Address Prefixes for DV Certs</a>	SSL CP section 4.1: Direct communication with the responsible domain name using the contact information listed in the "registrant" field, "technical" or "administrative" records the WHOIS o Communication with the domain administrator using the email address created with the prefix "Admin", "administrator", "webmaster", "hostmaster" and "postmaster", followed by "@" sign, and terminated by Domain Name;
<a href="#">Delegation of Domain / Email validation to third parties</a>	See above.
<a href="#">Issuing end entity certificates directly from roots</a>	No. See above.
<a href="#">Allowing external entities to operate subordinate CAs</a>	See above.
<a href="#">Distributing generated private keys in PKCS#12 files</a>	No

<u>Certificates referencing hostnames or private IP addresses</u>	SSL CP section 3.1.2: CN - <full qualified domain name of the Web server or IPAddress> Please see <a href="https://wiki.mozilla.org/CA:Problematic_Practices#Certificates_referencing_hostnames_or_private_IP_addresses">https://wiki.mozilla.org/CA:Problematic_Practices#Certificates_referencing_hostnames_or_private_IP_addresses</a>
<u>Issuing SSL Certificates for Internal Domains</u>	Please see <a href="https://wiki.mozilla.org/CA:Problematic_Practices#Issuing_SSL_Certificates_for_Internal_Domains">https://wiki.mozilla.org/CA:Problematic_Practices#Issuing_SSL_Certificates_for_Internal_Domains</a>
<u>OCSP Responses signed by a certificate under a different root</u>	No. See above.
<u>SHA-1 Certificates</u>	Please see <a href="https://wiki.mozilla.org/CA:Problematic_Practices#SHA-1_Certificates">https://wiki.mozilla.org/CA:Problematic_Practices#SHA-1_Certificates</a>
<u>Generic names for CAs</u>	No. See above.
<u>Lack of Communication With End Users</u>	No
<u>Backdating the notBefore date</u>	No