



# Certificate Authority Trust List

**First Published:** January 31, 2020

**Last Updated:** September 25, 2025

## Certificate Authority Trust List

The following is the list of trusted Certificate Authorities embedded in the following devices:

- Cisco IP Phone 7800 Series, as of release 14.4
- Cisco IP Phone 8800 Series, as of release 14.4
- Cisco IP Conference Phone 7832, as of release 14.4
- Cisco IP Conference Phone 8832, as of release 14.4

For Mobile and Remote Access through Expressway, the Expressway server must be signed against one of these Certificate Authorities.

Fingerprint	Subject
ebd41040e4bb3ec742c9e381d31ef2a41a48b6685c96e7cef3c1df6cd4331c99	CN=GlobalSign Root CA,OU=Root CA,O=GlobalSign nv-sa,C=BE
eb04cf5eb1f39afa762f2bb120f296cba520c1b97db1589565b81cb9a17b7244	CN=VeriSign Class 3 Public Primary Certification Authority - G3,OU=(c) 1999 VeriSign\, Inc. - For authorized use only,OU=VeriSign Trust Network,O=VeriSign\, Inc.,C=US
6dc47172e01cbcb0bf62580d895fe2b8ac9ad4f873801e0c10b9c837d21eb177	CN=Entrust.net Certification Authority (2048),OU=(c) 1999 Entrust.net Limited,OU=www.entrust.net/CPS_2048 incorp. by ref. (limits liab.),O=Entrust.net
73c176434f1bc6d5adf45b0e76e727287c8de57616c1e6e6141a2b2cb c7d8e4c	CN=Entrust Root Certification Authority,OU=(c) 2006 Entrust\, Inc.,OU=www.entrust.net/CPS is incorporated by reference,O=Entrust\, Inc.,C=US
a0459b9f63b22559f5fa5d4c6db3f9f72ff19342033578f073bf1d1b46cb b912	CN=GeoTrust Universal CA,O=GeoTrust Inc.,C=US
a0234f3bc8527ca5628eec81ad5d69895da5680dc91d1cb8477f33f878b95b0b	CN=GeoTrust Universal CA 2,O=GeoTrust Inc.,C=US
d7a7a0fb5d7e2731d771e9484ebcdef71d5f0c3e0a2948782bc83ee0ea699ef4	CN=AAA Certificate Services,O=Comodo CA Limited,L=Salford,ST=Greater Manchester,C=GB
85a0dd7dd720adb7ff05f83d542b209dc7ff4528f7d677b18389fea5e5c49e86	CN=QuoVadis Root CA 2,O=QuoVadis Limited,C=BM
18f1fc7f205df8adddeb7fe007dd57e3af375a9c4d8d73546bf4f1fed1e18d35	CN=QuoVadis Root CA 3,O=QuoVadis Limited,C=BM

Fingerprint	Subject
ebd41040e4bb3ec742c9e381d31ef2a41a48b6685c96e7cef3c1df6cd4331c99	CN=GlobalSign Root CA,OU=Root CA,O=GlobalSign nv-sa,C=BE
cecddc905099d8dadfc5b1d209b737cbe2c18cfb2c10c0ff0bcf0d3286fc1aa2	CN=XRamp Global Certification Authority,O=XRamp Security Services Inc,OU=www.xrampsecurity.com,C=US
c3846bf24b9e93ca64274c0ec67c1ecc5e024ffcacd2d74019350e81fe546ae4	OU=Go Daddy Class 2 Certification Authority,O=The Go Daddy Group\, Inc.,C=US
1465fa205397b876faa6f0a9958e5590e40fcc7faa4fb7c2c8677521fb5fb658	OU=Starfield Class 2 Certification Authority,O=Starfield Technologies\, Inc.,C=US
7600295eefe85b9e1fd624db76062aaaae59818a54d2774cd4c0b2c01131e1b3	O=Government Root Certification Authority,C=TW
3e9099b5015e8f486c00bcea9d111ee721faba355a89bcf1df69561e3dc6325c	CN=DigiCert Assured ID Root CA,OU=www.digicert.com,O=DigiCert Inc,C=US
4348a0e9444c78cb265e058d5e8944b4d84f9662bd26db257f8934a443c70161	CN=DigiCert Global Root CA,OU=www.digicert.com,O=DigiCert Inc,C=US
7431e5f4c3c1ce4690774f0b61e05440883ba9a01ed00ba6abd7806ed3b118cf	CN=DigiCert High Assurance EV Root CA,OU=www.digicert.com,O=DigiCert Inc,C=US
62dd0be9b9f50a163ea0f8e75c053b1eca57ea55c8688f647c6881f2c8357b95	CN=SwissSign Gold CA - G2,O=SwissSign AG,C=CH
be6c4da2bbb9ba59b6f3939768374246c3c005993fa98f020d1dedbed48a81d5	CN=SwissSign Silver CA - G2,O=SwissSign AG,C=CH
37d51006c512eaab626421f1ec8c92013fc5f82ae98ee533eb4619b8deb4d06c	CN=GeoTrust Primary Certification Authority,O=GeoTrust Inc.,C=US
8d722f81a9c113c0791df136a2966db26c950a971db46b4199f4ea54b78bfb9f	CN=thawte Primary Root CA,OU=(c) 2006 thawte\, Inc. - For authorized use only,OU=Certification Services Division,O=thawte\, Inc.,C=US
9acfab7e43c8d880d06b262a94deeee4b4659989c3d0caf19baf6405e41ab7df	CN=VeriSign Class 3 Public Primary Certification Authority - G5,OU=(c) 2006 VeriSign\, Inc. - For authorized use only,OU=VeriSign Trust Network,O=VeriSign\, Inc.,C=US
f1c1b50ae5a20dd8030ec9f6bc24823dd367b5255759b4e71b61fce9f7375d73	CN=SecureTrust CA,O=SecureTrust Corporation,C=US
4200f5043ac8590ebb527d209ed1503029fbcdb41ca1b506ec27f15ade7dac69	CN=Secure Global CA,O=SecureTrust Corporation,C=US
0c2cd63df7806fa399ede809116b575bf87989f06518f9808c860503178baf66	CN=COMODO Certification Authority,O=COMODO CA Limited,L=Salford,ST=Greater Manchester,C=GB
15f0ba00a3ac7af3ac884c072b1011a077bd77c097f40164b2f8598abd83860c	CN=Network Solutions Certificate Authority,O=Network Solutions L.L.C.,C=US
1793927a0614549789adce2f8f34f7f0b66d0f3ae3a3b84d21ec15dbba4fad7	CN=COMODO ECC Certification Authority,O=COMODO CA Limited,L=Salford,ST=Greater Manchester,C=GB

Fingerprint	Subject
41c923866ab4cad6b7ad578081582e020797a6cbdf4fff78ce8396b38937d7f5	CN=OISTE WISeKey Global Root GA CA,OU=OISTE Foundation Endorsed,OU=Copyright (c) 2005,O=WISeKey,C=CH
e3b6a2db2ed7ce48842f7ac53241c7b71d54144bfb40c11f3f1d0b42f5eea12d	CN=Certigna,O=Dhimyotis,C=FR
c0a6f4dc63a24bdfcf54ef2a6a082a0a72de35803e2ff5ff527ae5d87206dfd5	OU=ePKI Root Certification Authority,O=Chunghwa Telecom Co.,Ltd.,C=TW
eea962c4fa4a6bafbe415196d351ccd888d4f53f3fa8ae6d7c466a94e6042bb	OU=certSIGN ROOT CA,O=certSIGN,C=RO
b478b812250df878635c2aa7ec7d155eaa625ee82916e2cd294361886cd1fbd4	CN=GeoTrust Primary Certification Authority - G3,OU=(c) 2008 GeoTrust Inc. - For authorized use only,O=GeoTrust Inc.,C=US
a4310d50af18a6447190372a86afaf8b951ffb431d837f1e5688b45971ed1557	CN=thawte Primary Root CA - G2,OU=(c) 2007 thawte\, Inc. - For authorized use only,O=thawte\, Inc.,C=US
4b03f45807ad70f21bfc2cae71c9fde4604c064cf5ffb686bae5dbaada7fd34c	CN=thawte Primary Root CA - G3,OU=(c) 2008 thawte\, Inc. - For authorized use only,OU=Certification Services Division,O=thawte\, Inc.,C=US
5edb7ac43b82a06a8761e8d7be4979ebf2611f7dd79bf91c1c6b566a219ed766	CN=GeoTrust Primary Certification Authority - G2,OU=(c) 2007 GeoTrust Inc. - For authorized use only,O=GeoTrust Inc.,C=US
2399561127a57125de8cefea610ddf2fa078b5c8067f4e828290bfb860e84b3c	CN=VeriSign Universal Root Certification Authority,OU=(c) 2008 VeriSign\, Inc. - For authorized use only,OU=VeriSign Trust Network,O=VeriSign\, Inc.,C=US
69ddd7ea90bb57c93e135dc85ea6fcd5480b603239bdc454fc758b2a26cf7f79	CN=VeriSign Class 3 Public Primary Certification Authority - G4,OU=(c) 2007 VeriSign\, Inc. - For authorized use only,OU=VeriSign Trust Network,O=VeriSign\, Inc.,C=US
6c61dac3a2def031506be036d2a6fe401994fbd13df9c8d466599274c446ec98	CN=NetLock Arany (Class Gold) F??tan??s??tv??ny,OU=Tan??s??tv??nykiad??k (Certification Services),O=NetLock Kft.,L=Budapest,C=HU
bf0feefb9e3a581ad5f9e9db7589985743d261085c4d314f6f5d7259aa421612	CN=SecureSign RootCA11,O=Japan Certification Services\, Inc.,C=JP
3c5f81fea5fab82c64bfa2eaeacafcd8e077fc8620a7cae537163df36edb3f78	1.2.840.1.13549.1.9.1=info@e-szigno.hu,CN=Microsec e-Szigno Root CA 2009,O=Microsec Ltd.,L=Budapest,C=HU
cbb522d7b7f127ad6a0113865bdf1cd4102e7d0759af635a7cf4720dc963c53b	CN=GlobalSign,O=GlobalSign,OU=GlobalSign Root CA - R3
04048028bf1f2864d48f9ad4d83294366a828856553f3b14303f90147f5d40ef	CN=Autoridad de Certificacion Firmaprofesional CIF A62634068,C=ES
2530cc8e98321502bad96f9b1fba1b099e2d299e0f4548bb914f363bc0d4531f	CN=izenpe.com,O=IZENPE S.A.,C=ES
063e4afac491dfd332f3089b8542e94617d893d7fe944e10a7937ee29d9693c0	CN=Chambers of Commerce Root - 2008,O=AC Camerfirma S.A.,2.5.4.5=A82743287,L=Madrid (see current address at www.camerfirma.com/address),C=EU

Fingerprint	Subject
136335439334a7698016a0d324de72284e079d7b5220bb8fbd747816eebeba	CN=Global Chambersign Root - 2008,O=AC Camerfirma S.A.,2.5.4.5=A82743287,L=Madrid (see current address at www.camerfirma.com/address),C=EU
45140b3247eb9cc8c5b4f0d7b53091f73292089e6e5a63e2749dd3aca9198eda	CN=Go Daddy Root Certificate Authority - G2,O= <a href="http://GoDaddy.com">GoDaddy.com</a> , Inc.,L=Scottsdale,ST=Arizona,C=US
2ce1cb0bf9d2f9e102993fbe215152c3b2d0cabde1c68e5319b839154dbb7f5	CN=Starfield Root Certificate Authority - G2,O=Starfield Technologies\, Inc.,L=Scottsdale,ST=Arizona,C=US
568d6905a2c88708a4b3025190edcfedb1974a606a13c6e5290fcb2ae63edab5	CN=Starfield Services Root Certificate Authority - G2,O=Starfield Technologies\, Inc.,L=Scottsdale,ST=Arizona,C=US
0376ab1d54c5f9803ce4b2e201a0ee7eef7b57b636e8a93c9b8d4860c96f5fa7	CN=AffirmTrust Commercial,O=AffirmTrust,C=US
0a81ec5a929777f145904af38d5d509f66b5e2c58fcd531058b0e17f3f0b41b	CN=AffirmTrust Networking,O=AffirmTrust,C=US
70a73f7f376b60074248904534b11482d5bf0e698ecc498df52577ebf2e93b9a	CN=AffirmTrust Premium,O=AffirmTrust,C=US
bd71fdf6da97e4cf62d1647add2581b07d79adf8397eb4ecba9c5e8488821423	CN=AffirmTrust Premium ECC,O=AffirmTrust,C=US
5c58468d55f58e497e743982d2b50010b6d165374acf83a7d4a32db768c4408e	CN=Certum Trusted Network CA,OU=Certum Certification Authority,O=Unizeto Technologies S.A.,C=PL
bfd88fe1101c41ae3e801bf8be56350ee9bad1a6b9bd515edc5c6d5b8711ac44	CN=TWCA Root Certification Authority,OU=Root CA,O=TAIWAN-CA,C=TW
513b2cecb810d4cde5dd85391adfc6c2dd60d87bb736d2b521484aa47a0ebef6	OU=Security Communication RootCA2,O=SECOM Trust Systems CO.,LTD.,C=JP
88497f01602f3154246ae28c4d5aef10f1d87ebb76626f4ae0b7f95ba7968799	CN=EC-ACC,OU=Jerarquia Entitats de Certificacio Catalanes,OU=Vegeu <a href="https://www.catcert.net/verarrel">https://www.catcert.net/verarrel</a> (c)03,OU=Serveis Publics de Certificacio,O=Agencia Catalana de Certificacio (NIF Q-0801176-I),C=ES
bc104f15a48be709dca542a7e1d4b9df6f054527e802eaa92d595444258afe71	CN=Hellenic Academic and Research Institutions RootCA 2011,O=Hellenic Academic and Research Institutions Cert. Authority,C=GR
55926084ec963a64b96e2abe01ce0ba86a64fbfbc7aab5afc155b37fd76066	CN=Actalis Authentication Root CA,O=Actalis S.p.A./03358520967,L=Milan,C=IT
9a114025197c5bb95d94e63d55cd43790847b646b23cdf11ada4a00ef1f15fb48	CN=Buypass Class 2 Root CA,O=Buypass AS-983163327,C=NO
edf7ebbc27a2a384d387b7d4010c666e2edb4843e4c29b4ae1d5b9332e6b24d	CN=Buypass Class 3 Root CA,O=Buypass AS-983163327,C=NO
fd73dad31c644ff1b43bef0ccdda96710b9cd9875eca7e31707af3e96d522bbd	CN=T-TeleSec GlobalRoot Class 3,OU=T-Systems Trust Center,O=T-Systems Enterprise Services GmbH,C=DE
3e84ba4342908516e77573c0992f0979ca084e4685681ff195ccba8a229b8a76	1.2.840.1.13549.1.9.1=pki@sk.ee,CN=EE Certification Centre Root CA,O=AS Sertifitseerimiskeskus,C=EE

Fingerprint	Subject
49e7a442acf0ea6287050054b52564b650e4f49e42e348d6aa38e039e957b1c1	CN=D-TRUST Root Class 3 CA 2 2009,O=D-Trust GmbH,C=DE
eec5496b988ce98625b934092eec2908bed0b0f316c2d4730c84eaf1f3d34881	CN=D-TRUST Root Class 3 CA 2 EV 2009,O=D-Trust GmbH,C=DE
e23d4a036d7b70e9f595b1422079d2b91edfbb1fb651a0633eaa8a9dc5f80703	CN=CA Disig Root R2,O=Disig a.s.,L=Bratislava,C=SK
9a6ec012e1a7da9dbe34194d478ad7c0db1822fb071df12981496ed104384113	C=ES,O=ACCV,OU=PKIACCV,CN=ACCVRAIZ1
59769007f7685d0fcd50872f9f95d5755a5b2b457d81f3692b610a98672f0e1b	CN=TWCA Global Root CA,OU=Root CA,O=TAIWAN-CA,C=TW
dd6936fe21f8f077c123a1a521c12224f72255b73e03a7260693e8a24b0fa389	CN=TeliaSonera Root CA v1,O=TeliaSonera
91e2f5788d5810eba7ba58737de1548a8ecacd014598bc0b143e041b17052552	CN=T-TeleSec GlobalRoot Class 2,OU=T-Systems Trust Center,O=T-Systems Enterprise Services GmbH,C=DE
f356bea244b7a91eb35d53ca9ad7864ace018e2d35d5f8f96ddf68a6f41aa474	C=DE,O=Atos,CN=Atos TrustedRoot 2011
8a866fd1b276b57e578e921c65828a2bed58e9f2f288054134b7f1f4bfc9cc74	CN=QuoVadis Root CA 1 G3,O=QuoVadis Limited,C=BM
8fe4fb0af93a4d0d67db0bebb23e37c71bf325dcbccd240ea04daf58b47e1840	CN=QuoVadis Root CA 2 G3,O=QuoVadis Limited,C=BM
88ef81de202eb018452e43f864725cea5fbd1fc2d9d205730709c5d8b8690f46	CN=QuoVadis Root CA 3 G3,O=QuoVadis Limited,C=BM
7d05ebb682339f8c9451ee094eebfefa7953a114edb2f44949452fab7d2fc185	CN=DigiCert Assured ID Root G2,OU=www.digicert.com,O=DigiCert Inc,C=US
7e37cb8b4c47090cab36551ba6f45db840680fba166a952db100717f43053fc2	CN=DigiCert Assured ID Root G3,OU=www.digicert.com,O=DigiCert Inc,C=US
cb3ccbb76031e5e0138f8dd39a23f9de47ffc35e43c1144cea27d46a5ab1cb5f	CN=DigiCert Global Root G2,OU=www.digicert.com,O=DigiCert Inc,C=US
31ad6648f8104138c738f39ea4320133393e3a18cc02296ef97c2ac9ef6731d0	CN=DigiCert Global Root G3,OU=www.digicert.com,O=DigiCert Inc,C=US
552f7bdcf1a7af9e6ce672017f4f12abf77240c78e761ac203d1d9d20ac89988	CN=DigiCert Trusted Root G4,OU=www.digicert.com,O=DigiCert Inc,C=US
52f0e1c4e58ec629291b60317f074671b85d7ea80d5b07273463534b32b40234	CN=COMODO RSA Certification Authority,O=COMODO CA Limited,L=Salford,ST=Greater Manchester,C=GB
e793c9b02fd8aa13e21c31228accb08119643b749c898964b1746d46c3d4cbd2	CN=USERTrust RSA Certification Authority,O=The USERTRUST Network,L=Jersey City,ST=New Jersey,C=US
4ff460d54b9c86dabfbcfc5712e0400d2bed3fbc4d4fbd4aa86e06adcd2a9ad7a	CN=USERTrust ECC Certification Authority,O=The USERTRUST Network,L=Jersey City,ST=New Jersey,C=US

Fingerprint	Subject
bec94911c2955676db6c0a550986d76e3ba005667c442c9762b4fbb773de228c	CN=GlobalSign,O=GlobalSign,OU=GlobalSign ECC Root CA - R4
179fbc148a3dd00fd24ea13458cc43bfa7f59c8182d783a513f6ebec100c8924	CN=GlobalSign,O=GlobalSign,OU=GlobalSign ECC Root CA - R5
3c4fb0b95ab8b30032f432b86f535fe172c185d0fd39865837cf36187fa6f428	CN=Staat der Nederlanden Root CA - G3,O=Staat der Nederlanden,C=NL
5d56499be4d2e08bcfad08a3e38723d50503bde706948e42f55603019e528ae	CN=IdenTrust Commercial Root CA 1,O=IdenTrust,C=US
30d0895a9a448a262091635522d1f52010b5867acae12c78ef958fd4f4389f2f	CN=IdenTrust Public Sector Root CA 1,O=IdenTrust,C=US
43df5774b03e7fef5fe40d931a7bedf1bb2e6b42738c4e6d3841103d3aa7f339	CN=Entrust Root Certification Authority - G2,OU=(c) 2009 Entrust\, Inc. - for authorized use only,OU=See www.entrust.net/legal-terms,O=Entrust\, Inc.,C=US
02ed0eb28c14da45165c566791700d6451d7fb56f0b2ab1d3b8eb070e56edff5	CN=Entrust Root Certification Authority - EC1,OU=(c) 2012 Entrust\, Inc. - for authorized use only,OU=See www.entrust.net/legal-terms,O=Entrust\, Inc.,C=US
5cc3d78e4e1d5e45547a04e6873e64f90cf9536d1ccc2ef800f355c4c5fd70fd	CN=CFCA EV ROOT,O=China Financial Certification Authority,C=CN
6b9c08e86eb0f767cfad65cd98b62149e5494a67f5845e7bd1ed019f27b86bd6	CN=OISTE WISEKey Global Root GB CA,OU=OISTE Foundation Endorsed,O=WISEKey,C=CH
a1339d33281a0b56e557d3d32b1ce7f9367eb094bd5fa72a7e5004c8ded7cafe	CN=SZAFIR ROOT CA2,O=Krajowa Izba Rozliczeniowa S.A.,C=PL
b676f2eddae8775cd36cb0f63cd1d4603961f49e6265ba013a2f0307b6d0b804	CN=Certum Trusted Network CA 2,OU=Certum Certification Authority,O=Unizeto Technologies S.A.,C=PL
a040929a02ce53b4acf4f2ffc6981ce4496f755e6d45fe0b2a692bcd52523f36	CN=Hellenic Academic and Research Institutions RootCA 2015,O=Hellenic Academic and Research Institutions Cert. Authority,L=Athens,C=GR
44b545aa8a25e65a73ca15dc27fc36d24c1cb9953a066539b11582dc487b4833	CN=Hellenic Academic and Research Institutions ECC RootCA 2015,O=Hellenic Academic and Research Institutions Cert. Authority,L=Athens,C=GR
96bcec06264976f37460779acf28c5a7cfe8a3c0aae11a8ffcee05c0bddf08c6	CN=ISRG Root X1,O=Internet Security Research Group,C=US
ebc5570c29018c4d67b1aa127baf12f703b4611ebc17b7dab5573894179b93fa	OU=AC RAIZ FNMT-RCM,O=FNMT-RCM,C=ES
8ecde6884f3d87b1125ba31ac3fcb13d7016de7f57cc904fe1cb97c6ae98196e	CN=Amazon Root CA 1,O=Amazon,C=US
1ba5b2aa8c65401a82960118f80bec4f62304d83cec4713a19c39c011ea46db4	CN=Amazon Root CA 2,O=Amazon,C=US
18ce6cfe7bf14e60b2e347b8dfe868cb31d02ebb3ada271569f50343b46db3a4	CN=Amazon Root CA 3,O=Amazon,C=US

Fingerprint	Subject
e35d28419ed02025cfa69038cd623962458da5c695fbdea3c22b0bfb25897092	CN=Amazon Root CA 4,O=Amazon,C=US
54455f7129c20b1447c418f997168f24c58fc5023bf5da5be2eb6e1dd8902ed5	CN=LuxTrust Global Root 2,O=LuxTrust S.A.,C=LU
46edc3689046d53a453fb3104ab80dcaec658b2660ea1629dd7e867990648716	CN=TUBITAK Kamu SM SSL Kok Sertifikasi - Surum 1,OU=Kamu Sertifikasyon Merkezi - Kamu SM,O=Turkiye Bilimsel ve Teknolojik Arastirma Kurumu - TUBITAK,L=Gebze - Kocaeli,C=TR
bfff8fd04433487d6a8aa60c1a29767a9fc2bbb05e420f713a13b992891d3893	CN=GDCA TrustAUTH R5 ROOT,O=GUANG DONG CERTIFICATE AUTHORITY CO.,LTD.,C=CN
d40e9c86cd8fe468c1776959f49ea774fa548684b6c406f3909261f4dce2575c	CN=TrustCor RootCert CA-1,OU=TrustCor Certificate Authority,O=TrustCor Systems S. de R.L.,L=Panama City,ST=Panama,C=PA
0753e940378c1bd5e3836e395daea5cb839e5046f1bd0eae1951cf10fec7c965	CN=TrustCor RootCert CA-2,OU=TrustCor Certificate Authority,O=TrustCor Systems S. de R.L.,L=Panama City,ST=Panama,C=PA
5a885db19c01d912c5759388938cafbdbf031ab2d48e91ee15589b42971d039c	CN=TrustCor ECA-1,OU=TrustCor Certificate Authority,O=TrustCor Systems S. de R.L.,L=Panama City,ST=Panama,C=PA
85666a562ee0be5ce925c1d8890a6f76a87ec16d4d7d5f29ea7419cf20123b69	CN=SSL.com Root Certification Authority RSA,O=SSL Corporation,L=Houston,ST=Texas,C=US
3417bb06cc6007da1b961c920b8ab4ce3fad820e4aa30b9acbc4a74ebdcebc65	CN=SSL.com Root Certification Authority ECC,O=SSL Corporation,L=Houston,ST=Texas,C=US
2e7bf16cc22485a7bbe2aa8696750761b0ae39be3b2fe9d0cc6d4ef73491425c	CN=SSL.com EV Root Certification Authority RSA R2,O=SSL Corporation,L=Houston,ST=Texas,C=US
22a2c1f7bded704cc1e701b5f408c310880fe956b5de2a4a44f99c873a25a7c8	CN=SSL.com EV Root Certification Authority ECC,O=SSL Corporation,L=Houston,ST=Texas,C=US
2cabeafe37d06ca22aba7391c0033d25982952c453647349763a3ab5ad6ccf69	CN=GlobalSign,O=GlobalSign,OU=GlobalSign Root CA - R6
8560f91c3624daba9570b5fea0dbe36ff11a8323be9486854fb3f34a5571198d	CN=OISTE WISEKey Global Root GC CA,OU=OISTE Foundation Endorsed,O=WISEKey,C=CH
2a575471e31340bc21581cbd2cf13e158463203ece94bcf9d3cc196bf09a5472	CN=GTS Root R1,O=Google Trust Services LLC,C=US
c45d7bb08e6d67e62e4235110b564e5f78fd92ef058c840aea4e6455d7585c60	CN=GTS Root R2,O=Google Trust Services LLC,C=US
15d5b8774619ea7d54ce1ca6d0b0c403e037a917f131e8a04e1e6b7a71babce5	CN=GTS Root R3,O=Google Trust Services LLC,C=US
71cca5391f9e794b04802530b363e121da8a3043bb26662fea4dca7fc951a4bd	CN=GTS Root R4,O=Google Trust Services LLC,C=US
9bea11c976fe014764c1be56a6f914b5a560317abd9988393382e5161aa0493c	CN=UCA Global G2 Root,O=UniTrust,C=CN

Fingerprint	Subject
d43af9b35473755c9684fc06d7d8cb70ee5c28e773fb294eb41ee71722924d24	CN=UCA Extended Validation Root,O=UniTrust,C=CN
d48d3d23eedb50a459e55197601c27774b9d7b18c94d5a059511a10250b93168	CN=Certigna Root CA,OU=000248146308100036,O=Dhimyotis,C=FR
40f6af0346a99aa1cd1d555a4e9cce62c7f9634603ee406615833dc8c8d00367	CN=emSign Root CA - G1,O=eMudhra Technologies Limited,OU=emSign PKI,C=IN
86a1ecba089c4a8d3bbe2734c612ba341d813e043cf9e8a862cd5c57a36bbe6b	CN=emSign ECC Root CA - G3,O=eMudhra Technologies Limited,OU=emSign PKI,C=IN
125609aa301da0a249b97a8239cb6a34216f44dcac9f3954b14292f2e8c8608f	CN=emSign Root CA - C1,O=eMudhra Inc,OU=emSign PKI,C=US
bc4d809b15189d78db3e1d8cf4f9726a795da1643ca5f1358e1ddb0edc0d7eb3	CN=emSign ECC Root CA - C3,O=eMudhra Inc,OU=emSign PKI,C=US
5a2fc03f0c83b090bbfa40604b0988446c7636183df9846e17101a447fb8efd6	CN=Hongkong Post Root CA 3,O=Hongkong Post,L=Hong Kong,ST=Hong Kong,C=HK
a3cc68595dfe7e86d8ad1772a8b5284add54ace3b8a798df47bccafb1fdb84df	CN=Hotspot 2.0 Trust Root CA - 03,O=WFA Hotspot 2.0,C=US
83ce3c1229688a593d485f81973c0f9195431eda37cc5e36430e79c7a888638b	OU=VeriSign Trust Network,OU=(c) 1998 VeriSign\, Inc. - For authorized use only,OU=Class 3 Public Primary Certification Authority - G2,O=VeriSign\, Inc.,C=US
1501f89c5c4dcf36cf588a17c9fd7cfceb9ee01e8729be355e25de80eb6284b4	C=ES,O=EDICOM,CN=CAEDICOM Root
8f9adb6d895dab5adf5c3d3fab83927be0fb64ef82485c62280d584e8bd55d22	CN=Swedish Government Root Authority v3,O=Swedish Social Insurance Agency,C=SE
e28097721a8cab8880af80fdef8902b1f15bc7473ad68ec22991257a910d9ea2	C=NL,O=Digidentity B.V.,CN=Digidentity Services Root CA
945bbc825ea554f489d1fd51a73ddf2ea624ac7019a05205225c22a78cfa8b4	CN=Trustwave Global ECC P256 Certification Authority,O=Trustwave Holdings\, Inc.,L=Chicago,ST=Illinois,C=US
34ff2a4409dc1383e9f8966e8adfe5719eba373fd0ad5e2f49f90ee07cf5d4c1	CN=VRK Gov. Root CA - G2,OU=Varmennepalvelut,OU=Certification Authority Services,O=Vaestorekisterikeskus CA,C=FI
88f438dcf8ffd1fa8f429115ffe5f82ae1e06e0c70c375faad717b34a49e7265	CN=NAVER Global Root Certification Authority,O=NAVER BUSINESS PLATFORM Corp.,C=KR
ecdd47b5acbf328211e1bff54adeac95e6991e3c1d50e27b527e903208040a1	CN=Microsoft RSA Root Certificate Authority 2017,O=Microsoft Corporation,L=Redmond,ST=Washington,C=US
6aea30bc02ca85afcfec2f65f60881893c926925fd0704bd8ada3f0f6eddb699	CN=Microsoft EV ECC Root Certificate Authority 2017,O=Microsoft Corporation,L=Redmond,ST=Washington,C=US
ac7f7862e685c7a7d9826a58ea32d183d4893fcc8f8fd6d900c9769a987e77f0	CN=PostSignum Root QCA 4,O=??esk?? po??ta\, s.p.,2.5.4.97=NTRCZ-47114983,C=CZ
5ab4fcd180b5b6af0d262a2375a2c77d25602015d96648756611e2e78c53ad3	CN=Fina Root CA,O=Financijska agencija,C=HR

Fingerprint	Subject
db3517d1f6732a2d5ab97c533ec70779ee3270a62fb4ac4238372460e6f01e88	CN=Entrust Root Certification Authority - G4,OU=(c) 2015 Entrust\, Inc. - for authorized use only,OU=See www.entrust.net/legal-terms,O=Entrust\, Inc.,C=US
54b4fc43d44aa4ca9fc03ca7e9949fbae267a064d02da21852412a381b5d1537	CN=Application CA G3 Root,O=LGPKI,C=JP
c1727f3b673e6ae7f12f23d789a7be38b918223ef6911c592da1f583444a547e	CN=ATHEX Root CA G2,O=ATHENS STOCK EXCHANGE,C=GR
65353833cf234c79562164f90849c0d104dbabf8ee41064d83e8cbe03ba1c5a5	CN=Netrust Root CA 2,OU=Netrust Certificate Authority,O=Netrust Pte Ltd,C=SG
d1a0319098034e3aec729a0b5c3111229d9d26e3e623e8c5e6843fa06ee8e2e4	CN=Application CA G4 Root,O=LGPKI,C=JP
fad540811afae0dc767cdf6572a088fa3ce8493dd82b3b869a67d10aab4e8124	CN=SI-TRUST Root,2.5.4.97=VATSI-17659957,O=Republika Slovenija,C=SI
2193cfea381211a1aeaa2de984e630643a87160b1208118145eafb8e1bc69958	CN=Network Solutions ECC Certificate Authority,O=Network Solutions L.L.C.,L=Jacksonville,ST=FL,C=US
c1d80ce474a51128b77e794a98aa2d62a0225da3f419e5c7ed73dfbf660e7109	CN=GLOBAL CHAMBERSIGN ROOT - 2016,O=AC CAMERFIRMA S.A.,2.5.4.97=VATES-A82743287,2.5.4.5=A82743287,OU=GLOBAL CHAMBERSIGN ROOT - 2016,OU=see current address at www.camerfirma.com/address,L=MADRID,ST=MADRID,C=ES
24a55c2ab051442d0617766541239a4ad032d7c55175aa34ffde2fbc4f5c5294	CN=Security Communication RootCA3,O=SECOM Trust Systems CO.\,LTD.,C=JP
97f654859cbde586fd90311e82ec7902c238cba0d6e529564c9c88f44895ec50	CN=ACA ROOT,O=CONSEJO GENERAL DE LA ABOGACIA,2.5.4.5=Q2863006I,C=ES
bebce57dcb85f60a93bfa5019edb1a294bf6d81f82d9b4e71f502f0b15a1fc08	CN=ePKI EV SSL Certification Authority - G1,O=Chunghwa Telecom Co.\, Ltd.,C=TW
1e51942b84fd467bf77d1c89da241c04254dc8f3ef4c22451fe7a89978bdcd4f	CN=ePKI Root Certification Authority - G2,O=Chunghwa Telecom Co.\, Ltd.,C=TW
0c258a12a5674aef25f28ba7dcfaecee348e541e6f5cc4ee63b71b361606ac3	CN=Chambers of Commerce Root,OU=http://www.chambersign.org,O=AC Camerfirma SA CIF A82743287,C=EU
507941c74460a0b47086220d4e9932572ab5d1b5bbcb8980ab1cb17651a844d2	C=IL,O=ComSign,CN=ComSign Secured CA
6fdb3f76c8b801a75338d8a50a7c02879f6198b57e594d318d3832900fedcd79	CN=KISA RootCA 1,OU=Korea Certification Authority Central,O=KISA,C=KR
ddff53ecd7743b60bb7b2795ff5732fa785f9a14df1120fb40a38cf84ca2a566	CN=Certipost E-Trust TOP Root CA,O=Certipost s.a./n.v.,C=BE
5607e260163f49c8ea4175a1c0a53b13195cb7d07845611e943a2ff507036834	CN=Autoridad de Certificacion de la Abogacia,O=Consejo General de la Abogacia NIF:Q-2863006I,C=ES
0b9f26dfca684c2cfce23e4e4dd567c886ba259e1db267f9806f0c5a099711f2	CN=SSC Root CA B,OU=Certification Authority,O=Skaitmeninio sertifikavimo centras,C=LT

Fingerprint	Subject
a22dba681e97376e2d397d728aae3a9b6296b9fdb60bc2e11f647f2c675fb37	OU=Security Communication EV RootCA1,O=SECOM Trust Systems CO.,LTD.,C=JP
23804203ca45d8cde716b8c13bf3b448457fa06cc10250997fa01458317c41e5	CN=lzenpe.com,O=IZENPE S.A.,C=ES
a1f05ccb80c2d710ec7d479abdcbb879e58d7edb7149fe78a87884e3d0bad0f9	CN=UCA Global Root,O=UniTrust,C=CN
8327bc8c9d69947b3de3c27511537267f59c21b9fa7b613fafbccd53b7024000	CN=Cisco Root CA 2048,O=Cisco Systems
04acfb3b24793f300f67ef87e44dd72cb9b28b204f389a7cd5ae28785c7d42cd	CN=Common Policy,OU=FBCA,O=U.S. Government,C=us
46273285615d96e52da9fc2ed8c036f10af3d9f6280f8d288706c52b2011b4da	CN=Correo Uruguayo - Root CA,OU=SERVICIOS ELECTRONICOS,O=ADMINISTRACION NACIONAL DE CORREOS,C=UY
03950fb49a531f3e1991942398dfa9e0ea32d7ba1cdd9bc85db57ed9400b434a	C=ES,O=EDICOM,OU=PKI,CN=ACEDICOM Root
632d80bb096d209677d1734e5b35ea9d3019b9c44f8fcb2640c879039ac94ee8	CN=TWCA Root Certification Authority,OU=Root CA,O=TAIWAN-CA,C=TW
cd201256fe5ced0bfff8df595fff36b1416d5313a999f532ef4a9915df96dee0	CN=Posta CA Root,CN=AIA,CN=Public Key Services,CN=Services,CN=Configuration,DC=ca,DC=posta,DC=rs
42143a511a3afcd80d555debb4191ec6bb285ee66e62ec657ed20adf7d55faa	CN=Certeurope Root CA 2,OU=0002 434202180,O=Certeurope,C=FR
7af6ea9f753a1e709bd64d0beb867c11e8c295a56e24a6e0471459dccdaa1558	CN=SwissSign Gold Root CA - G3,O=SwissSign AG,C=CH
1e49ac5dc69e86d0565da2c1305c419330b0b781bfec50e54a1b35af71ddd501	CN=SwissSign Silver Root CA - G3,O=SwissSign AG,C=CH
0e88eb6ea256e19ef8d3abd61a24d38dbad632816dd957294427e4724d81a386	1.2.840.1.13549.1.9.1=acraiz@suscerte.gob.ve,OU=Superintendencia de Servicios de Certificacion Electronica,O=Sistema Nacional de Certificacion Electronica,ST=Distrito Capital,L=Caracas,C=VE,CN=Autoridad de Certificacion Raiz del Estado Venezolano
894ebc0b23da2a50c0186b7f8f25ef1f6b2935af32a94584ef80aaf877a3a06e	CN=Federal Common Policy CA,OU=FPKI,O=U.S. Government,C=US
f4336bc2ac75950beccf1c1f2f9da6dddafd1f41161ca71f59c76889bd474033	CN=ANCERT Certificados CGN V2,O=Agencia Notarial de Certificacion S.L.U. - CIF B83395988,C=ES
001686cd181f83a1b1217d305b365c41e3470a78a1d37b134a98cd547b92dab3	CN=Network Solutions Certificate Authority,O=Network Solutions L.L.C.,C=US
6ec6614e9a8efd47d6318ffdf0bf65b493a141f77c38d0b319be1bbbc053dd2	CN=Swiss Government Root CA 1,OU=Certification Authorities,OU=Services,O=The Federal Authorities of the Swiss Confederation,C=CH

Fingerprint	Subject
1e1a6984b4e76bd709aee3e9c9cf3118eac096dab9cc20dc25faab67297e965a	CN=IGC/A AC racine Etat francais,OU=0002130007669,O=ANSSI,C=FR
407c276bead2e4af0661ef6697341dec0a1f9434e4eafb2d3d32a90549d9de4a	CN=GPKIRootCA1,OU=GPKI,O=Government of Korea,C=KR
fc50b26bdc4a8fdf1344cc80157ae13ac671e2706facfc0605fe34e249eb72d6	CN=SITHS Root CA v1,O=Inera AB,C=SE
0771920c8cb874d5c5a4dc0d6a51a2d495d38c4de2cd5b83d2a06faa051935f6	O=CFCA GT CA,C=CN
8b3fdb151af759c566143e07c950ede4f9e8c7cf808453d33bcb78e52a400af9	CN=Halcom Root CA,O=Halcom,C=SI
53dfdfa4e297fcfe07594e8c62d5b8ab06b32c7549f38a163094fd6429d5da43	CN=Symantec Class 3 Public Primary Certification Authority - G4,OU=Symantec Trust Network,O=Symantec Corporation,C=US
a9c77af1bcdfaa3739442b0b2734c68eaf2e9833f0d766fbcaa6f2aeb42dec02	CN=TM Applied Business Root Certificate,OU=TM Applied Business Certification Authority,O=TM,C=my
5533a0401f612c688ebce5bf53f2ec14a734eb178bfae00e50e85dae6723078a	C=UY,O=AGESIC,CN=Autoridad Certificadora Ra??z Nacional de Uruguay
1a2512cda6744abea11432a2fdc9f8c088db5a98c89e13352574cde4d9e80cdd	1.2.840.1.13549.1.9.1=pkiaadmin@trustcentre.co.za,CN=SAPO Class 3 Root CA,OU=SAPO Trust Centre,O=South African Post Office Limited,L=Somerset West,ST=Western Cape,C=ZA
c2157309d9aee17bf34f4df5e88dbaeba57e0361eb814cbc239f4d54d329a38d	CN=F??tan??s??tv??nykiad?? - Korm??nyzati Hiteles??t??s Szolg??ltat??,O=NISZ Nemzeti Infokommunik??ci??s Szolg??ltat?? Zrt.,L=Budapest,C=HU
c31eef5682abb551ebc828ded84098518a6768526d152ee164cfb972a1425d53	CN=SSC GDL CA Root B,OU=CA ROOT Services,O=Skaitmeninio sertifikavimo centras,C=LT
e0e17aea06cf9ce12aae8190345a2c59720130a7d8ff72f3745ad75dba a365b6	CN=ANF Global Root CA,2.5.4.5=G63287510,1.2.840.113549.1.9.1=info@anf.es,OU=ANF Clase 1 CA,O=ANF Autoridad de Certificacion,L=Barcelona (see current address at <a href="http://www.anf.es/es/address-direccion.html">http://www.anf.es/es/address-direccion.html</a> ),ST=Barcelona,C=ES
2a8da2f8d23e0cd3b5871ecfb0f42276ca73230667f474eede71c5ee32cc3ec6	CN=Thailand National Root Certification Authority - G1,OU=Thailand National Root Certification Authority,O=Electronic Transactions Development Agency (Public Organization),C=TH
6cc05041e6445e74696c4cfbc9f80f543b7eabbb44b4ce6f787c6a9971c42f17	CN=Certplus Root CA G2,O=Certplus,C=FR
b7c36231706e81078c367cb896198f1e3208dd926949dd8f5709a410f75b6292	CN=OpenTrust Root CA G3,O=OpenTrust,C=FR
56c77128d98c18d91b4cfdffbc25ee9103d4758ea2abad826a90f3457d460eb4	CN=OpenTrust Root CA G1,O=OpenTrust,C=FR
c795ff8ff20c966688f064a1e091421d3110a3456c17ec2404b998738741f622	O=National Digital Certification Agency,CN=Tunisian Root Certificate Authority - TunRootCA2,C=TN

Fingerprint	Subject
d80fef910ae3f104723b045cec2d019f441ce6213adf156791e70c1790110a31	CN=S-TRUST Universal Root CA,OU=S-TRUST Certification Services,O=Deutscher Sparkassen Verlag GmbH,C=DE
229ccc196d32c98421cc119e78486eebef603aec525c6b88b47abb740692b96	CN=Cisco RXC-R2,O=Cisco Systems,C=US
d3d607a9ff24a19523b6da9d2c649446f8788cb96d9fd130972e120c13677730	2.5.4.5=NTRCZ-26439395,CN=I.CA Root CA/RSA,O=Prvn??certifika??n?? autorita\, a.s.,C=CZ
604d32d036895aed3bfefab727c009ec0f2b3cdfa42a1c71730e6a72c3be9d4	CN=MULTICERT Root Certification Authority 01,O=MULTICERT - Servi??os de Certifica????o Electr??nica S.A.,C=PT
9cefb0cb7b74e642932532831e0dc8f4d68ad414261fc3f474b795e72a164e57	CN=Swedish Government Root Authority v2,O=Swedish Social Insurance Agency,C=SE
27995829fe6a7515c1bfe848f9c4761db16c225929257bf40d0894f29ea8baf2	CN=OpenTrust Root CA G2,O=OpenTrust,C=FR
152a402bfcdf2cd548054d2275b39c7fca3ec0978078b0f0ea76e561a6c7433e	CN=Certplus Root CA G1,O=Certplus,C=FR
70b922bfda0e3f4a342e4ee22d579ae598d071cc5ec9c30f123680340388aea5	O=Government Root Certification Authority,C=TW
2a99f5bc1174b73cbb1d620884e01c34e51ccb3978da125f0e33268883bf4158	CN=Certinomis - Root CA,OU=0002 433998903,O=Certinomis,C=FR
34bb34e14faed0d3392f2fc441c0ecd5fd88ad88118df2d1ba76cdec1eea10b8	OU=Saudi National Root CA,O=National Center for Digital Certification,C=SA
f96f23f4c3e79c077a46988d5af5900676a0f039cb645dd17549b216c82440ce	CN=CA Disig Root R1,O=Disig a.s.,L=Bratislava,C=SK
fabcf5197cdd7f458ac33832d3284021db2425fd6bea7a2e69b7486e8f51f9cc	CN=SZAFIR ROOT CA,O=Krajowa Izba Rozliczeniowa S.A.,C=PL
7286ce249fe9e32bd4752257c17cd8f6991a9c1e6f1a3cc73304ed023e6ae4eb	CN=Signet Root CA,OU=Signet Certification Authority,O=Telekomunikacja Polska S.A.,C=PL
126bf01c1094d2f0ca2e352380b3c724294546ccc65597bef7f112d8a171f1984	CN=ApplicationCA2 Root,OU=GPKI,O=Japanese Government,C=JP
7a77c6c61eeeb9aa65c4ea410d65d895b26a81123283009db104b48de80b2479	CN=OATI WebCARES Root CA,O=Open Access Technology International Inc,L=Minneapolis,ST=MN,C=US
b32396746453442f353e616292bb20bbaa5d23b546450fdb9c54b8386167d529	CN=Symantec Class 3 Public Primary Certification Authority - G6,OU=Symantec Trust Network,O=Symantec Corporation,C=US
a73563e859cbcfa173cf3285debf2578ede15d47a3bee385861ab7a4fb6d7b6e	CN=ATHEX Root CA,O=Athens Exchange S.A.,C=GR
d95fea3ca4eedce74cd76e75fc6d1ff62c441f0fa8bc77f034b19e5db258015d	CN=Swisscom Root EV CA 2,OU=Digital Certificate Services,O=Swisscom,C=ch
417dcf3180f4ed1a3747acf1179316cd48cb05c5788435168aed98c98cdcb615	CN=Digidentity L3 Root CA - G2,O=Digidentity B.V.,C=NL

Fingerprint	Subject
f09b122c7114f4a09bd4ea4f4a99d558b46e4c25cd81140d29c05613914c3841	CN=Swisscom Root CA 2,OU=Digital Certificate Services,O=Swisscom,C=ch
075bfcca2d55ae6e35742c32afd0ca8ea4c958feefc23224999541c033d69c8d	CN=PersonalID Trustworthy RootCA 2011,OU=Certificate Services,O=PersonalID Ltd.,C=IL
a3d7435a18c46b23b6a4f8929cd59050c9168b03a7fad532626f297cac5356e4	CN=Swiss Government Root CA II,OU=Certification Authorities,OU=Services,O=The Federal Authorities of the Swiss Confederation,C=CH
2605875afcc176b2d66dd66a995d7f8d5ebb86ce120d0e7e9e7c6ef294a27d4c	C=IL,O=ComSign Ltd.,CN=ComSign Global Root CA
1a0d20445de5ba1862d19ef880858cbce50102b36e8f0a040c3c69e74522fe6e	CN=COMODO Certification Authority,O=COMODO CA Limited,L=Salford,ST=Greater Manchester,C=GB
4be8b5a1c76c6aead0611918fccf9dbd398b67fb12294758bdf994d0f9682f60	CN=ANCERT Certificados Notariales V2,O=Agencia Notarial de Certificacion S.L.U. - CIF B83395988,C=ES
ca7a5e68c53d2c51f72f6b465d3ed753f5903ec7901c8d0f55d868337c81975a	1.2.840.1.13549.1.9.1=acraiz@suscerte.gob.ve,OU=Superintendencia de Servicios de Certificacion Electronica,O=Sistema Nacional de Certificacion Electronica,ST=Distrito Capital,L=Caracas,C=VE,CN=Autoridad de Certificacion Raiz del Estado Venezolano
68ad50909b04363c605ef13581a939ff2c96372e3f12325b0a6861e1d59f6603	CN=Verizon Global Root CA,OU=OmniRoot,O=Verizon Business,C=US
59b3829f1ff443344958fae8bff621b684c848cfb7ead6b63a6ca50f2794f89	CN=SwissSign Platinum Root CA - G3,O=SwissSign AG,C=CH
fcbe2886206f72b27593c8b070297e12d769ed10ed7930705a8098effc14d17	CN=Certinomis - Autorit?? Racine,OU=0002433998903,O=Certinomis,C=FR
7d2bf3489ebc9ad3448b8b0827715a3cbfe3d523e3b56a9b5fc1d2a2da2f20fe	CN=Registradores de Espa??a - CA Ra??z,OU=Certificado Propio,O=Colegio de Registradores de la Propiedad y Mercantiles de Espa??a,C=ES
488e134f30c5db56b76473e608086842bf21af8ab3cd7ac67ebdf125d531834e	CN=ECRaizEstado,O=SCEE,C=PT
4d9ebb28825c9643ab15d54e5f9614f13cb3e95de3cf4eac971301f320f9226e	OU=AC RAIZ FNMT-RCM,O=FNMT-RCM,C=ES
cd0b3b2aa174b55f18c7502f3c3a76f2198175ce45637370cf4f48b9c2ce4fbf	CN=E-ME SSI (RCA),OU=Sertifikacijas pakalpojumu dala,C=LV
eb7e05aa58e7bd328a282bf8867033f3c035342b516ee85c01673dffffb bfe58	CN=NetLock Platina (Class Platinum) F??tan??s??tv??ny,OU=Tan??s??tv??nykiad??k (Certification Services),O=NetLock Kft.,L=Budapest,C=HU
93e65ec762f055dc718a332582c41a04430d72e3cb87e8b897b67516f0d1aa39	CN=UCA Root,O=UniTrust,C=CN
b5bd2cb79cbd1907298d6bdf4842e516d8c78fa6fc96d25f71af814e16cc245e	CN=Starfield Services Root Certificate Authority,OU=http://certificates.starfieldtech.com/repository/,O=Starfield Technologies\, Inc.,L=Scottsdale,ST=Arizona,C=US

Fingerprint	Subject
f1b13f5c9a326403b0f31bbe7699cd17c7d1c0b981586dd1a7b219c52508fe99	CN=SSC Root CA A,OU=Certification Authority,O=Skaitmeninio sertifikavimo centras,C=LT
e6e4a951ecbf7d8edc01bc873f7b6fd35868bdb10ed786f3a1b1ee16d8cec3e9	CN=SSC Root CA C,OU=Certification Authority,O=Skaitmeninio sertifikavimo centras,C=LT
5e3571f33f45a7df1537a68b5ffb9e036af9d2f5bc4c9717130dc43d7175aac7	1.2.840.113549.1.9.1=info@globaltrust.info,CN=GLOBALTRUST,OU=GLOBALTRUST Certification Service,O=ARGE DATEN - Austrian Society for Data Protection,ST=Austria,L=Vienna,C=AT
3b222e566711e992300dc0b15ab9473dafdef8c84d0cef7d3317b4c1821d1436	CN=SwissSign Platinum CA - G2,O=SwissSign AG,C=CH
21db20123660bb2ed418205da11ee7a85a65e2bc6e55b5af7e7899c8a266d92e	CN=Swisscom Root CA 1,OU=Digital Certificate Services,O=Swisscom,C=ch
739710c5245e33ec8a243a1b20048fc9d5f4528599213845c164d004b8b667f9	CN=AC RAIZ DNIE,OU=DNIE,O=DIRECCION GENERAL DE LA POLICIA,C=ES
8688e58f4c7a945fadce7f62bfef521b82da7dc38bfd0163478a5fe42e57870	CN=A-Trust-nQual-03,OU=A-Trust-nQual-03,O=A-Trust Ges. f. Sicherheitssysteme im elektr. Datenverkehr GmbH,C=AT
ae4457b40d9eda96677b0d3c92d57b5177abd7ac1037958356d1e094518be5f2	C=IL,O=ComSign,CN=ComSign CA
3ccc3ccfe45496d07b620dbf1328e8a1490018f48633c8a28a995ca60408b0be	CN=ComSign Advanced Security CA
ef3cb417fc8ebf6f97876c9e4ece39de1ea5fe649141d1028b7d11c0b2298ced	CN=Global Chambersign Root,OU=http://www.chambersign.org,O=AC Camerfirma SA CIF A82743287,C=EU
d8e0febcd1db2e38d00940f37d27d41344d993e734b99d5656d9778d4d8143624	CN=Certum CA,O=Unizeto Sp. z o.o.,C=PL
5adfa25013bed3710831572de51c4b9a21171c00313249c4cb4719d37fbb8d20	CN=SSL.com EV Root Certification Authority RSA,O=SSL Corporation,L=Houston,ST=Texas,C=US
e74fbd55bd564c473a36b441aa799c8a68e077440e8288b9fa1e50e4bbaca11	CN=Security Communication ECC RootCA1,O=SECOM Trust Systems CO.,LTD.,C=JP
04f1bec36951bc1454a904ce32890c5da3cde1356b7900f6e62dfa2041ebad51	CN=CHAMBERS OF COMMERCE ROOT - 2016,O=AC CAMERFIRMA S.A.,2.5.4.97=VATES-A82743287,2.5.4.5=A82743287,OU=CHAMBERS OF COMMERCE ROOT - 2016,OU=see current address at www.camerfirma.com/address,L=MADRID,ST=MADRID,C=ES
ddb149733bc2bf8a09d7f012b01a6dea11d7bae26713783ef6407a2495bf189	CN=Network Solutions RSA Certificate Authority,O=Network Solutions L.L.C.,L=Jacksonville,ST=FL,C=US
209e956af04df3996507c887d356230d6eb49fdbdd2d8a058ff50b8f80f690aa	CN=Australian Defence Public Root CA,OU=CAs,OU=PKI,OU=DoD,O=GOV,C=AU
958abbaff760f4fb66ff0f2c2708f4739b2c686127239a2c4ec87a68a984c8	CN=Swiss Government Root CA III,OU=www.pki.admin.ch,O=Swiss Government PKI,C=CH

Fingerprint	Subject
19abccdf3a74402fa8f0ca206b7fab0dfff3ae2bbd719584d21090a4353207	CN=PosDigicert Class 2 Root CA G2,O=Digicert Sdn. Bhd.,C=MY
d7ba3f4ff8ad05633451470dda3378a3491b90005e5c687d2b68d53647cfd66	CN=Halcom Root Certificate Authority,2.5.4.97=VATSI-43353126,O=Halcom d.d.,C=SI
657cfe2fa73faa38462571f332a2363a46fce7020951710702cdfbb6eeda3305	OU=certSIGN ROOT CA G2,O=CERTSIGN SA,C=RO
416b1f9e84e74c1d19b23d8d7191c6ad81246e641601f599132729f507beb3cc	CN=GLOBALTRUST 2015,OU=GLOBALTRUST Certification Service,O=e-commerce monitoring GmbH,L=Wien,ST=Wien,C=AT
fea1884ab3aea6d0dbedbe4b9cd9fec8655116300a86a856488fc488bb4b44d2	CN=Microsoft ECC Root Certificate Authority 2017,O=Microsoft Corporation,L=Redmond,ST=Washington,C=US
dfb3c314740596ad5fb97960ef62ad7c1fcceead16e74054652d1032e6f140ef	CN=Microsoft EV RSA Root Certificate Authority 2017,O=Microsoft Corporation,L=Redmond,ST=Washington,C=US
7707bb2be9f7ce057060b8308c3bc087b56529b3638eaf5b2a8049c8e15ed720	CN=RCSC RootCA,O=VI Registru centras- i.k.124110246,OU=RCSC,C=LT
97552015f5ddfc3c8788c006944555408894450084f100867086bc1a2bb58dc8	CN=Trustwave Global Certification Authority,O=Trustwave Holdings\, Inc.,L=Chicago,ST=Illinois,C=US
55903859c8c0c3ebb8759ece4e2557225ff5758bbd38ebd48276601e1bd58097	CN=Trustwave Global ECC P384 Certification Authority,O=Trustwave Holdings\, Inc.,L=Chicago,ST=Illinois,C=US
f015ce3cc239bef064be9f1d2c417e1a0264a0a94be1f0c8d121864eb6949cc	CN=HiPKI Root CA - G1,O=Chunghwa Telecom Co.\, Ltd.,C=TW
cbb5af185e942a2402f9eacbc0ed5bb876eea3c1223623d00447e4f3ba554b65	CN=VeriSign Class 1 Public Primary Certification Authority - G3,OU=(c) 1999 VeriSign\, Inc. - For authorized use only,OU=VeriSign Trust Network,O=VeriSign\, Inc.,C=US
63343abfb89a6a03ebb57e9b3f5fa7be7c4f5c756f3017b3a8c488c3653e9179	C=US,O=Apple Inc.,OU=Apple Certification Authority,CN=Apple Root CA - G3
cb627d18b58ad56dde331a30456bc65c601a4e9b18dedcea08e7daaa07815ff0	CN=Symantec Class 2 Public Primary Certification Authority - G6,OU=Symantec Trust Network,O=Symantec Corporation,C=US
92a9d9833fe1944db366e8bfae7a95b6480c2d6c6c2a1be65d4236b608fca1bb	CN=VeriSign Class 2 Public Primary Certification Authority - G3,OU=(c) 1999 VeriSign\, Inc. - For authorized use only,OU=VeriSign Trust Network,O=VeriSign\, Inc.,C=US
6639d13cab85df1ad9a23c443b3a60901e2b138d456fa71183578108884ec6bf	CN=Echoworx Root CA2,OU=Certification Services,O=Echoworx Corporation,L=Toronto,ST=Ontario,C=CA
c2b9b042dd57830e7d117dac55ac8ae19407d38e41d88f3215bc3a890444a050	C=US,O=Apple Inc.,OU=Apple Certification Authority,CN=Apple Root CA - G2
92d8092ee77bc9208f0897dc05271894e63ef27933ae537fb983eef0ea3e3e8	CN=TRUST2408 OCES Primary CA,O=TRUST2408,C=DK
fe863d0822fe7a2353fa484d5924e875656d3dc9fb58771f6f616f9d571bc592	CN=Symantec Class 2 Public Primary Certification Authority - G4,OU=Symantec Trust Network,O=Symantec Corporation,C=US

Fingerprint	Subject
0ed3ffab6c149c8b4e71058e8668d429abfda681c2fff508207641f0d751a3e5	1.2.840.113549.1.9.1=acraiz@suscerte.gob.ve,OU=Superintendencia de Servicios de Certificacion Electronica,O=Sistema Nacional de Certificacion Electronica,ST=Distrito Capital,L=Caracas,C=VE,CN=Autoridad de Certificacion Raiz del Estado Venezolano
7afc9d01a62f03a2de9637936d4afe68090d2de18d03f29c88cfb0b1ba63587f	C=US,O=Apple Inc.,OU=Apple Certification Authority,CN=Developer ID Certification Authority
a1a86d04121eb87f027c66f53303c28e5739f943fc84b38ad6af009035dd9457	CN=D-TRUST Root CA 3 2013,O=D-Trust GmbH,C=DE
363f3c849eab03b0a2a0f636d7b86d04d3ac7fcfe26a0a9121ab9795f6e176df	CN=Symantec Class 1 Public Primary Certification Authority - G4,OU=Symantec Trust Network,O=Symantec Corporation,C=US
b0b1730ecbc7ff4505142c49f1295e6eda6bcaed7e2c68c5be91b5a11001f024	CN=Apple Root CA,OU=Apple Certification Authority,O=Apple Inc.,C=US
e3268f6106ba8b665a1a962dea1459d2a46972f1f2440329b390b895749ad45	CN=ANF Global Root CA,2.5.4.5=G63287510,1.2.840.113549.1.9.1=info@anf.es,OU=ANF Clase 1 CA,O=ANF Autoridad de Certificacion,L=Barcelona (see current address at <a href="http://www.anf.es/es/address-direccion.html">http://www.anf.es/es/address-direccion.html</a> ),ST=Barcelona,C=ES
9d190b2e314566685be8a889e27aa8c7d7ae1d8aaddba3c1ecf9d24863cd34b9	CN=Symantec Class 1 Public Primary Certification Authority - G6,OU=Symantec Trust Network,O=Symantec Corporation,C=US
f1b52392c4a4ec2a8709b1308304a911fcec2ce0b63a94f969164567c4925	CN=Cisco Licensing Root CA,O=Cisco
3a6308acd77a5a33d8da04d669fa00f8e5ae153f259087678b76bf1654b30a06	CN=Cisco ECC Root CA,O=Cisco
e7e12793643f18bee5b8e53ab5803bb3d59d8e63d14ce6346c004b0dfa34fecc	CN=Cisco Root CA 2099,O=Cisco
705eaafc3ff488030017d59832603eefad514171b583808675f45c190e6378f8	CN=Cisco Root CA M1,O=Cisco
cd85167b3935e27bcc3b0f5fa24c8457882d0bb994f88269a7f72829d957eae9	CN=Cisco Root CA M2,O=Cisco
3f034bb5704d44b2d08545a02057de93ebf3905fce721acbc730c06ddaee904e	CN=SecureSign Root CA12,O=Cybertrust Japan Co., Ltd.,C=JP
3fd4be8baad2f26e1bde06c7584bb720dd1a972d111f5a4999bc44b08fb4960d	CN=Microsoft ECC TS Root Certificate Authority 2018,O=Microsoft Corporation,L=Redmond,ST=Washington,C=US
2ffb7f813bbbb3c89ab4e8162d0f16d71509a830cc9d73c262e5140875d1ad4a	CN=CommScope Public Trust ECC Root-02,O=CommScope,C=US
df545bf919a2439c36983b54cdfc903dfa4f37d3996d8d84b4c31eec6f3c163e	CN=Microsoft Root Certificate Authority 2010,O=Microsoft Corporation,L=Redmond,ST=Washington,C=US
6e1fd3ae0d2d477c8f5ee5f335cc5b6356872654e5356a73d8c0a30a17c252a2	CN=QuoVadis TLS ECC P384 Root G4,O=QuoVadis Trustlink B.V.,C=NL

Fingerprint	Subject
34d8a73ee208d9bcdb0d956520934b4e40e69482596e8b6f73c8426b010a6f48	CN=GTS Root R3,O=Google Trust Services LLC,C=US
d95d0e8eda79525bf9beeb11b14d2100d3294985f0c62d9fabd9cd999eccb7b1d	CN=HARICA TLS RSA Root CA 2021,O=Hellenic Academic and Research Institutions CA,C=GR
b085d70b964f191a73e4af0d54ae7a0e07aafdaf9b71dd0862138ab7325a24a2	CN=GlobalSign,O=GlobalSign,OU=GlobalSign ECC Root CA - R4
8ac552ad577e37ad2c6808d72aa331d6a96b4b3febff34ce9bc0578e08055ec3	CN=A-Trust-Root-07,OU=A-Trust-Root-07,O=A-Trust Ges. f. Sicherheitssysteme im elektr. Datenverkehr GmbH,C=AT
1cf341ae35341ac3ae1dc68d5b10dc0c9dc1307656f75fd92ca2c68489d52e9a	CN=MOIS SSL Root CA,O=Ministry of the Interior and Safety,C=KR
dd6c44b39401b053dbe61120748bbb0f6056007665c168e5c286750edc8df129	CN=Entrust 4K TLS Root CA - 2022,O=Entrust\, Inc.,C=US
193144f431e0fddb740717d4de926a571133884b4360d30e272913cbe660ce41	CN=SwissSign RSA TLS Root CA 2022 - 1,O=SwissSign AG,C=CH
00ebc87bac129867b30524294a42eb04101c0cebd7f8e92c84e29143d2bc1ec3	CN=Cisco Network Security Appliance Root CA,OU=Security Business Group,O=Cisco Systems Inc.
ef66b0b10a3c3db9f2e3648c76bd2af18ead2bfe6f117655e28c4060da1a3f4c2	CN=E-Tugra Global Root CA RSA v3,OU=E-Tugra Trust Center,O=E-Tugra EBG A.S.,L=Ankara,C=TR
a7dedf5a842167dd12fdaa0f2080e73295b8b8bea71b2094ea0950945a482fc1	CN=AffirmTrust 4K TLS Root CA - 2022,O=AffirmTrust,C=CA
69729b8e15a86efc177a57afb7171dfc64add28c2fca8cf1507e34453ccb1470	CN=ISRG Root X2,O=Internet Security Research Group,C=US
6e0bff069a26994c15de2c4888cc54af84882e5495b7fbf66be9ccffec7489f6	CN=Autoridade Certificadora Raiz Brasileira v10,OU=Instituto Nacional de Tecnologia da Informacao - ITI,O=ICP-Brasil,C=BR
b724689b79b2ef9421ef8f5cc733eb093851b170ee715177005a09f226d8c91a	CN=CCA India 2022 SPL,O=India PKI,C=IN
6b328085625318aa50d173c98d8bda09d57e27413d114cf787a0f5d06c030cf6	CN=Certum EC-384 CA,OU=Certum Certification Authority,O=Asseco Data Systems S.A.,C=PL
e6be68ce06fe0da0c140f1aeb00b67b636c5eea9422088929362375ce086db39	CN=Visa Public ECC Root CA,OU=Visa International Service Association,O=VISA,C=US
07cd9aa9064a9b94c6aef8fb784c1bbc1beda08acbe86878d781a39167626cf8	CN=Visa Public RSA Root CA,OU=Visa International Service Association,O=VISA,C=US
e778f0f095fe843729cd1a0082179e5314a9c291442805e1fb1d8fb6b8886c3a	CN=SecureSign Root CA15,O=Cybertrust Japan Co.\, Ltd.,C=JP
bef256daf26e9c69bdec1602359798f3caf71821a03e018257c53c65617f3d4a	CN=FIRMAPROFESIONAL CA ROOT-A WEB,2.5.4.97=VATES-A62634068,O=Firmaprofesional SA,C=ES
554153b13d2cf9ddb753bfbe1a4e0ae08d0aa4187058fe60a2b862b2e4b87bcb	CN=AC RAZ FNMT-RCM SERVIDORES SEGUROS,2.5.4.97=VATES-Q2826004J,OU=Ceres,O=FNMT-RCM,C=ES

Fingerprint	Subject
349dfa4058c5e263123b398ae795573c4e1313c83fe68f93556cd5e8031b3c7d	CN=GTS Root R4,O=Google Trust Services LLC,C=US
be4b56cb5056c0136a526df444508daa36a0b54f42e4ac38f72af470e479654c	CN=TrustAsia Global Root CA G4,O=TrustAsia Technologies\, Inc.,C=CN
c8a2d38a24f5ac302d8a08ebd38923d9a750b49220f092e82d1c53249e1533d0	CN=QuoVadis TLS RSA 4096 Root G4,O=QuoVadis Trustlink B.V.,C=NL
371a00dc0533b3721a7eeb40e8419e70799d2b0a0f2c1d80693165f7cec4ad75	CN=DigiCert TLS RSA4096 Root G5,O=DigiCert\, Inc.,C=US
4fa3126d8d3a11d1c4855a4f807cbad6cf919d3a5a88b03bea2c6372d93c40c9	CN=GlobalSign Root R46,O=GlobalSign nv-sa,C=BE
08170d1aa36453901a2f959245e347db0c8d37abaabc56b81aa100dc958970db	CN=D-TRUST EV Root CA 1 2020,O=D-Trust GmbH,C=DE
d649c40830aab9869f2536ff933c4050746659b31dfa735405e4f7ad447c20d5	CN=Cisco Basic Assurance Root CA 2099,O=Cisco
50df022dfa477185b4032a19196cb9840e29a87298830c5962d23f9b0a07dd5e	CN=Internal Private Root,O=Cisco,OU=Corvus
efc65cadbb59adb6efe84da22311b35624b71b3b1ea0da8b6655174ec8978646	CN=Telekom Security TLS RSA Root 2023,O=Deutsche Telekom Security GmbH,C=DE
caca93b9d23d2b6fa76e8b8471931e0df3ec6f63af3cddb936c41954a1872326	CN=Microsoft ECC Product Root Certificate Authority 2018,O=Microsoft Corporation,L=Redmond,ST=Washington,C=US
647987d98d52645da4d3de3b80771a0ce02b9b9285e6e86999882170744ec9aa	CN=Entrust 4K EV TLS Root CA - 2022,O=Entrust\, Inc.,C=US
0552e6f83df65e8fa9670e666df28a4e21340b510cbe52566f97c4fb94b2bd1	CN=D-TRUST BR Root CA 2 2023,O=D-Trust GmbH,C=DE
7bb647a62aeac88bf257aa522d01fea395e0ab45c73f93f65654ec38f25a06	CN=Sectigo Public Server Authentication Root R46,O=Sectigo Limited,C=GB
937ef8f12276b3c7a3f58e345d09a6eff01f862f8d2794441cd84d511825fa0c	CN=Entrust P384 EV TLS Root CA - 2022,O=Entrust\, Inc.,C=US
8faf7d2e2cb4709bb8e0b33666bf75a5dd45b5de480f8ea8d4bfe6bec17f2ed	CN=SSL.com TLS RSA Root CA 2022,O=SSL Corporation,C=US
9a296a5182d1d451a2e37f439b74daafa267523329f90f9a0d2007c334e23c9a	CN=GLOBALTRUST 2020,O=e-commerce monitoring GmbH,C=AT
8d25cd97229dbf70356bda4eb3cc734031e24cf00fafcd32dc76eb5841c7ea8	CN=GTS Root R2,O=Google Trust Services LLC,C=US
b49141502d00663d740f2e7ec340c52800962666121a36d09cf7dd2b90384fb4	CN=e-Szigno TLS Root CA 2023,2.5.4.97=VATHU-23584497,O=Microsec Ltd.,L=Budapest,C=HU
242b69742fcb1e5b2abf98898b94572187544e5b4d9911786573621f6a74b82c	CN=Telia Root CA v2,O=Telia Finland Oyj,C=FI

Fingerprint	Subject
c1468cf2254e6004b24696aba209d1a30ba6e2dff68a9a4e32c6ab41f90c8d9	CN=DigiCert ECC P384 Root G5,O=DigiCert\, Inc.,C=US
0da80cc491638f8c756396e0afac16079829fa06697bfe6d7ee93a6a0c9e212d	CN=IT Private Root CA,O=Cisco,OU=Phoenix
4b009c1034494f9ab56bba3ba1d62731fc4d20d8955adcec10a925607261e338	CN=SecureSign Root CA14,O=Cybertrust Japan Co.\, Ltd.,C=JP
c90f26f0fb1b4018b22227519b5ca2b53e2ca5b3be5cf18efe1bef47380c5383	CN=Sectigo Public Server Authentication Root E46,O=Sectigo Limited,C=GB
3f63bb2814be174ec8b6439cf08d6d56f0b7c405883a5648a334424d6b3ec558	CN=TWCA CYBER Root CA,OU=Root CA,O=TAIWAN-CA,C=TW
d947432abde7b7fa90fc2e6b59101b1280e0e1c7e4e40fa3c6887fff57a7f4cf	CN=GTS Root R1,O=Google Trust Services LLC,C=US
5546a52504fba74f61ffd4890067529ade3b9c9d07e502592831ccda9b369fd3	CN=DVV Gov. Root CA - G3 ECC,OU=Varmennepalvelut,OU=Certification Authority Services,O=Digi- ja vaestotietovirasto CA,C=FI
beb00b30839b9bc32c32e4447905950641f26421b15ed089198b518ae2ea1b99	CN=e-Szigno Root CA 2017,2.5.4.97=VATHU-23584497,O=Microsec Ltd.,L=Budapest,C=HU
49a2762987788d4834b32305d767760f244d507742e8c2539fd4ca3ad52c16ee	CN=NAVER Cloud Trust Services RSA Root G1,O=NAVER Cloud Trust Services Corp.,C=KR
1435f225c5d252d7a21948cc3ce62aecfa88001e3dd72d1cc3555100eb372f93	CN=SECOM TLS RSA Root CA 2024,O=SECOM Trust Systems Co.\, Ltd.,C=JP
fe7696573855773e37a95e7ad4d9cc96c30157c15d31765ba9b15704e1ae78fd	CN=Certum Trusted Root CA,OU=Certum Certification Authority,O=Asseco Data Systems S.A.,C=PL
d3ed3fc40ad26b52e001e1e18f4b9449529deb75a81d5eb680d7b62db23ba96d	CN=DVV Gov. Root CA - G3 RSA,OU=Varmennepalvelut,OU=Certification Authority Services,O=Digi- ja vaestotietovirasto CA,C=FI
02bdf96e2a45dd9bf18fc7e1dbdf21a0379ba3c9c2610344cfd8d606fec1ed81	CN=CommScope Public Trust RSA Root-01,O=CommScope,C=US
b2fae53e14ccd7ab9212064701ae279c1d8988facb775fa8a008914e663988a8	C=DE,O=Atos,CN=Atos TrustedRoot Root CA ECC TLS 2021
8e8221b2e7d4007836a1672f0dcc299c33bc07d316f132fa1a206d587150f1ce	CN=D-TRUST EV Root CA 2 2023,O=D-Trust GmbH,C=DE
30fba2c32238e2a98547af97931e550428b9b3f1c8eeb6633dcfa86c5b27dd3	CN=vTrus ECC Root CA,O=iTrusChina Co.\,Ltd.,C=CN
6ab2ab75f51cb4f4f0156203fbf6f646232f514be059f62833308b82b4d72db1	CN=SECOM TLS ECC Root CA 2024,O=SECOM Trust Systems Co.\, Ltd.,C=JP
fb8fec759169b9106b1e511644c618c51304373f6c0643088d8beffd1b997599	CN=ANF Secure Server Root CA,OU=ANF CA Raiz,O=ANF Autoridad de Certificacion,C=ES,2.5.4.5=G63287510
018e13f0772532cf809bd1b17281867283fc48c6e13be9c69812854a490c1b05	CN=DigiCert TLS ECC P384 Root G5,O=DigiCert\, Inc.,C=US

Fingerprint	Subject
574df6931e278039667b720afdc1600fc27eb66dd3092979fb73856487212882	CN=BJCA Global Root CA2,O=BEIJING CERTIFICATE AUTHORITY,C=CN
9ee289cc39971c15e94beb65142d360b5873feb970de1f9fda53ac26d10b25c6	CN=IT Application Root CA,O=Cisco,OU=Pollux
11437cda7bb45e41365f45b39a38986b0de00def348e0c7bb0873633800bc38b	CN=CommScope Public Trust ECC Root-01,O=CommScope,C=US
578af4ded0853f4e5998db4aeaf9cbea8d945f60b620a38d1a3c13b2bc7ba8e1	CN=Telekom Security TLS ECC Root 2020,O=Deutsche Telekom Security GmbH,C=DE
f3896f88fe7c0a882766a7fa6ad2749fb57a7f3e98fb769c1fa7b09c2c44d5ae	CN=BJCA Global Root CA1,O=BEIJING CERTIFICATE AUTHORITY,C=CN
a7c8681042f3675aa8505d3ba313d80f8ac3250fdf874ad29b834689c087fb11	CN=NAVER Cloud Trust Services ECC Root G1,O=NAVER Cloud Trust Services Corp.,C=KR
dec669e322e07cd7c60a56904bf50c29fa1e75071723fc103577e27b226968d5	CN=TRS Bundle Root CA,O=Cisco
7a38f708a35a31e42e1cf3220f9a2d273e7666354618b2464657d43d8e77adc2	CN=A-Trust-Root-09,OU=A-Trust-Root-09,O=A-Trust GmbH,C=AT
e0d3226aeb1163c2e48ff9be3b50b4c6431be7bb1eacc5c36b5d5ec509039a08	CN=TrustAsia Global Root CA G3,O=TrustAsia Technologies\, Inc.,C=CN
e46a392204a8dca342a71c1ca9a60c9185b9a930370120c3b9c7e3856f0d8f3b	CN=DigiCert RSA4096 Root G5,O=DigiCert\, Inc.,C=US
358df39d764af9e1b766e9c972df352ee15cfac227af6ad1d70e8e4a6edcba02	CN=Microsoft ECC Root Certificate Authority 2017,O=Microsoft Corporation,C=US
41dfd9c52d71f6a2c7f1083aa8f80153ff6ec23349d2599de347adbe423504f3	CN=Internal Customer Root CA,O=Cisco,OU=Arcturus
e59aaa816009c22bff5b25bad37df306f049797c1f81d85ab089e657bd8f0044	CN=D-TRUST BR Root CA 1 2020,O=D-Trust GmbH,C=DE
8a71de6559336f426c26e53880d00d88a18da4c6a91f0dcb6194e206c5c96387	CN=vTrus Root CA,O=iTrusChina Co.\,Ltd.,C=CN
ffe943d793424b4f7c440c1c3d648d5363f34b82dc87aa7a9f118fc5dee101f1	CN=CommScope Public Trust RSA Root-02,O=CommScope,C=US
f9a17a00e5c294ba9614a715819af57f3fd48cc413453fbb8a5fc7e97964e2bc	C=CZ,2.5.4.97=NTRCZ-26439395,O=Prvn?? certifika??n?? autorita\, a.s.,CN=I.CA TLS Root CA/RSA 05/2022
847df6a78497943f27fc72eb93f9a637320a02b561d0a91b09e87a7807ed7c61	CN=Microsoft Root Certificate Authority 2011,O=Microsoft Corporation,L=Redmond,ST=Washington,C=US
3f99cc474acfce4dfed58794665e478d1547739f2e780f1bb4ca9b133097d401	CN=HARICA TLS ECC Root CA 2021,O=Hellenic Academic and Research Institutions CA,C=GR
c741f70f4b2a8d88bf2e71c14122ef53ef10eba0cfa5e64cfa20f418853073e0	CN=Microsoft RSA Root Certificate Authority 2017,O=Microsoft Corporation,C=US

Fingerprint	Subject
2e44102ab58cb85419451c8e19d9acf3662cafbc614b6a53960a30f7d0e2eb41	CN=TunTrust Root CA,O=Agence Nationale de Certification Electronique,C=TN
c32ffd9f46f936d16c3673990959434b9ad60aafbb9e7cf33654f144cc1ba143	CN=SSL.com TLS ECC Root CA 2022,O=SSL Corporation,C=US
b4585f22e4ac756a4e8612a1361c5d9d031a93fd84febb778fa3068b0fc42dc2	CN=Certainly Root E1,O=Certainly,C=US
77b82cd8644c4305f7acc5cb156b45675004033d51c60c6202a8e0c33467d3a0	CN=Certainly Root R1,O=Certainly,C=US
57de0583efd2b26e0361da99da9df4648def7ee8441c3b728afa9bcde0f9b26a	CN=Autoridad de Certificacion Firmaprofesional CIF A62634068,C=ES
81a9088ea59fb364c548a6f85559099b6f0405efbf18e5324ec9f457ba00112f	C=DE,O=Atos,CN=Atos TrustedRoot Root CA RSA TLS 2021
420332ef876ebe78f2af5d28aaacde24aad0c10f8ffaac469efd7bd941929568	CN=Entrust P384 TLS Root CA - 2022,O=Entrust\, Inc.,C=US
873f4685fa7f563625252e6d36bcd7f16fc24951f264e47e1b954f4908cdca13	CN=E-Tugra Global Root CA ECC v3,OU=E-Tugra Trust Center,O=E-Tugra EBG A.S.,L=Ankara,C=TR
cbb9c44d84b8043e1050ea31a69f514955d7bfd2e2c6b49301019ad61d9f5058	CN=GlobalSign Root E46,O=GlobalSign nv-sa,C=BE

## Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, using the Cisco Bug Search Tool (BST), submitting a service request, and gathering additional information, see *What's New in Cisco Product Documentation* at:

<http://www.cisco.com/c/en/us/td/docs/general/whatsnew/whatsnew.html>.

Subscribe to *What's New in Cisco Product Documentation*, which lists all new and revised Cisco technical documentation, as an RSS feed and deliver content directly to your desktop using a reader application. The RSS feeds are a free service.

## Legal Information

THE SPECIFICATIONS AND INFORMATION REGARDING THE PRODUCTS IN THIS MANUAL ARE SUBJECT TO CHANGE WITHOUT NOTICE. ALL STATEMENTS, INFORMATION, AND RECOMMENDATIONS IN THIS MANUAL ARE BELIEVED TO BE ACCURATE BUT ARE PRESENTED WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. USERS MUST TAKE FULL RESPONSIBILITY FOR THEIR APPLICATION OF ANY PRODUCTS.

THE SOFTWARE LICENSE AND LIMITED WARRANTY FOR THE ACCOMPANYING PRODUCT ARE SET FORTH IN THE INFORMATION PACKET THAT SHIPPED WITH THE PRODUCT AND ARE INCORPORATED HEREIN BY THIS REFERENCE. IF YOU ARE UNABLE TO LOCATE THE SOFTWARE LICENSE OR LIMITED WARRANTY, CONTACT YOUR CISCO REPRESENTATIVE FOR A COPY.

The following information is for FCC compliance of Class A devices: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio-frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case users will be required to correct the interference at their own expense.

The following information is for FCC compliance of Class B devices: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If the equipment causes interference to radio or television reception, which can be determined by turning the equipment off and on, users are encouraged to try to correct the interference by using one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Modifications to this product not authorized by Cisco could void the FCC approval and negate your authority to operate the product.

The Cisco implementation of TCP header compression is an adaptation of a program developed by the University of California, Berkeley (UCB) as part of UCB's public domain version of the UNIX operating system. All rights reserved. Copyright © 1981, Regents of the University of California.

NOTWITHSTANDING ANY OTHER WARRANTY HEREIN, ALL DOCUMENT FILES AND SOFTWARE OF THESE SUPPLIERS ARE PROVIDED "AS IS" WITH ALL FAULTS. CISCO AND THE ABOVE-NAMED SUPPLIERS DISCLAIM ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, THOSE OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT OR ARISING FROM A COURSE OF DEALING, USAGE, OR TRADE PRACTICE.

IN NO EVENT SHALL CISCO OR ITS SUPPLIERS BE LIABLE FOR ANY INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES, INCLUDING, WITHOUT LIMITATION, LOST PROFITS OR LOSS OR DAMAGE TO DATA ARISING OUT OF THE USE OR INABILITY TO USE THIS MANUAL, EVEN IF CISCO OR ITS SUPPLIERS HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Any Internet Protocol (IP) addresses and phone numbers used in this document are not intended to be actual addresses and phone numbers. Any examples, command display output, network topology diagrams, and other figures included in the document are shown for illustrative purposes only. Any use of actual IP addresses or phone numbers in illustrative content is unintentional and coincidental.

All printed copies and duplicate soft copies are considered un-Controlled copies and the original on-line version should be referred to for latest version.

Cisco has more than 200 offices worldwide. Addresses, phone numbers, and fax numbers are listed on the Cisco website at [www.cisco.com/go/offices](http://www.cisco.com/go/offices).

© 2025 Cisco Systems, Inc. All rights reserved.