



REPORT OF THE INDEPENDENT ACCOUNTANT

To the management of DigiCert, Inc. (“DigiCert”):

Scope

We have examined DigiCert management’s [assertion](#), that for its Certification Authority (“CA”) operations in the locations as enumerated in [Attachment A](#), for its CAs enumerated in [Attachment B](#), DigiCert has:

- disclosed its business, key lifecycle management, certificate lifecycle management, and CA environmental control practices in the applicable versions of its DigiCert Certification Practices Statement (“CPS”) and DigiCert Certificate Policy (“CP”) as enumerated in [Attachment A](#)
- maintained effective controls to provide reasonable assurance that:
 - the applicable versions of its CPS are consistent with the applicable versions of its CP; and
 - DigiCert provides its services in accordance with its CP and CPS
- maintained effective controls to provide reasonable assurance that:
 - the integrity of keys and certificates it manages is established and protected throughout their lifecycles;
 - the integrity of subscriber keys and certificates it manages is established and protected throughout their lifecycles;
 - subscriber information is properly authenticated; and
 - subordinate CA certificate requests are accurate, authenticated, and approved
- maintained effective controls to provide reasonable assurance that:
 - logical and physical access to CA systems and data is restricted to authorized individuals;
 - the continuity of key and certificate management operations is maintained; and
 - CA systems development, maintenance, and operations are properly authorized and performed to maintain CA systems integrity

throughout the period October 1, 2022 to August 31, 2023, based on the [WebTrust Principles and Criteria for Certification Authorities v2.2.2](#).

DigiCert does not escrow its CA keys and does not provide certificate suspension services. Accordingly, our examination did not extend to controls that would address those criteria.



Certification Authority's Responsibilities

DigiCert's management is responsible for its assertion, including the fairness of its presentation, and the provision of its described services in accordance with the [WebTrust Principles and Criteria for Certification Authorities v2.2.2](#).

Independent Accountant's Responsibilities

Our responsibility is to express an opinion on DigiCert management's assertion based on our examination. Our examination was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants. Those standards require that we plan and perform the examination to obtain reasonable assurance about whether management's assertion is fairly stated, in all material respects. An examination involves performing procedures to obtain evidence about management's assertion. The nature, timing, and extent of the procedures selected depend on our judgment, including an assessment of the risks of material misstatement of management's assertion, whether due to fraud or error. We believe that the evidence we obtained is sufficient and appropriate to provide a reasonable basis for our opinion.

We are required to be independent and to meet our other ethical responsibilities in accordance with relevant ethical requirements relating to the engagement.

The relative effectiveness and significance of specific controls at DigiCert and their effect on assessments of control risk for subscribers and relying parties are dependent on their interaction with the controls and other factors present at individual subscriber and relying party locations. Our examination did not extend to controls at individual subscriber and relying party locations and we have not evaluated the effectiveness of such controls.

Inherent Limitations

There are inherent limitations in the effectiveness of any system of internal control, including the possibility of human error and the circumvention of controls. For example, because of their nature, controls may not prevent, or detect unauthorized access to systems and information, or failure to comply with internal and external policies or requirements. Also, the projection to the future of any conclusions based on our findings is subject to the risk that controls may become ineffective.

Independent Accountant's Opinion

In our opinion management's assertion, as referred to above, is fairly stated, in all material respects.

This report does not include any representation as to the quality of DigiCert's services other than its CA operations in the locations as enumerated in [Attachment A](#), nor the suitability of any of DigiCert's services for any customer's intended purpose.



Other Matters

Without modifying our opinion, we noted the following other matters during our procedures:

Matter Topic		Matter Description
1	Certificate Content	DigiCert disclosed in Mozilla Bug #1794050 that it issued 153 certificates with invalid Subject Organization fields.
		DigiCert disclosed in Mozilla Bug #1827772 that they issued two (2) EV SSL certificates with incorrect Jurisdiction of Incorporation.
		DigiCert disclosed in Mozilla Bug #1845634 that it issued 418 certificates with incorrect policy OID in the subject.
		DigiCert disclosed in Mozilla Bug #1838334 that they signed eight (8) subordinate CA's with incorrect policy OID.
2	Certificate Revocation	DigiCert disclosed in Mozilla Bug #1797165 that 118 out of 153 certificates disclosed in Bugzilla #1794050 were not revoked within the Baseline Requirements timeline.
		DigiCert disclosed in Mozilla Bug #1846784 that it did not revoke the affected certificates disclosed in Bug #1845634 within the Baseline Requirements timeframe.
3	Certificate Status Validation	DigiCert disclosed in Mozilla Bug #1816806 that they had OSCP responses that were being provided later than four days after the thisUpdate field.
		DigiCert disclosed in Mozilla Bug #1820269 four (4) CRL's with misconfigured paths in the CDN configurations.
4	Subscriber Registration	DigiCert disclosed in Mozilla Bug #1824206 that it issued 77 SSL certificates with inconsistent validation information.
5	Personnel Security	DigiCert disclosed in Mozilla Bug #1865235 that it performed background check re-verifications for three (3) trusted role employees outside of the 5 year requirement.

While the DigiCert assertion notes all issues disclosed on Bugzilla from October 1, 2022 through the date of this report, we have only noted those instances relevant to the CAs enumerated in [Attachment B](#) and applicable to the [WebTrust Principles and Criteria for Certification Authorities v2.2.2](#).



Use of the WebTrust Seal

DigiCert's use of the WebTrust for Certification Authorities Seal constitutes a symbolic representation of the contents of this report and it is not intended, nor should it be construed, to update this report to provide any additional assurance.

BDO USA

November 21, 2023



ATTACHMENT A - CERTIFICATION PRACTICE STATEMENT AND CERTIFICATE POLICY VERSIONS IN-SCOPE AND LOCATIONS IN-SCOPE

Certificate Policies

Policy Name	Version	Effective Date
DigiCert Certificate Policy	6.00	August 16, 2023
DigiCert Certificate Policy	5.16	May 30, 2023
DigiCert Certificate Policy	5.15	April 13, 2023
DigiCert Certificate Policy	5.14	March 16, 2023
DigiCert Certificate Policy	5.13	March 6, 2023
DigiCert Certificate Policy	5.12	October 31, 2022
DigiCert Certificate Policy	5.11	July 19, 2022

Certification Practice Statements

Policy Name	Version	Effective Date
DigiCert Certification Practices Statement	6.00	August 16, 2023
DigiCert Certification Practices Statement	5.16	May 30, 2023
DigiCert Certification Practices Statement	5.15	April 13, 2023
DigiCert Certification Practices Statement	5.14	March 16, 2023
DigiCert Certification Practices Statement	5.13	March 6, 2023
DigiCert Certification Practices Statement	5.12	October 31, 2022
DigiCert Certification Practices Statement	5.11	July 19, 2022

CA Locations In-Scope

CA Locations
California, United States
Utah, United States
Virginia, United States
Amsterdam (South), The Netherlands
Lupfig, Switzerland
St. Gallen, Switzerland
Utrecht, Netherlands
Amstel, Netherlands
Kawasaki, Japan
Sapporo, Japan



ATTACHMENT B - LIST OF CAs IN SCOPE

Root CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Assured ID Root CA	3E9099B5015E8F486C00BCEA9D111EE721FABA355A89BCF1DF69561E3DC6325C	11/10/2006	11/10/2031
C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=(c) 2008 VeriSign, Inc. - For authorized use only, CN=VeriSign Universal Root Certification Authority	2399561127A57125DE8CEFEA610DDF2FA078B5C8067F4E828290BFB860E84B3C	4/2/2008	12/1/2037
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert High Assurance EV Root CA	7431E5F4C3C1CE4690774F0B61E05440883BA9A01ED00BA6ABD7806ED3B118CF	11/10/2006	11/10/2031
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Global Root G3	31AD6648F8104138C738F39EA4320133393E3A18CC02296EF97C2AC9EF6731D0	8/1/2013	1/15/2038
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Global Root CA	4348A0E9444C78CB265E058D5E8944B4D84F9662BD26DB257F8934A443C70161	11/10/2006	11/10/2031
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Assured ID Root G2	7D05EBB682339F8C9451EE094EEBFEDA7953A114EDB2F44949452FAB7D2FC185	8/1/2013	1/15/2038
C=IE, O=Baltimore, OU=CyberTrust, CN=Baltimore CyberTrust Root	16AF57A9F676B0AB126095AA5EBADEF22AB31119D644AC95CD4B93DBF3F26AEB	5/12/2000	5/12/2025
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Global Root G2	CB3CCBB76031E5E0138F8DD39A23F9DE47FFC35E43C1144CEA27D46A5AB1CB5F	8/1/2013	1/15/2038
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Trusted Root G4	552F7BDCF1A7AF9E6CE672017F4F12ABF77240C78E761AC203D1D9D20AC89988	8/1/2013	1/15/2038
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Assured ID Root G3	7E37CB8B4C47090CAB36551BA6F45DB840680FBA166A952DB100717F43053FC2	8/1/2013	1/15/2038
C=US, O=DigiCert, Inc., CN=DigiCert TLS ECC P384 Root G5	018E13F0772532CF809BD1B17281867283FC48C6E13BE9C69812854A490C1B05	1/15/2021	1/14/2046
C=US, O=DigiCert, Inc., CN=DigiCert SMIME ECC P384 Root G5	E8E8176536A60CC2C4E10187C3BEFCA20EF263497018F566D5BEA0F94D0C111B	1/15/2021	1/14/2046
C=US, O=DigiCert, Inc., CN=DigiCert CS ECC P384 Root G5	26C56AD2208D1E9B152F66853BF4797CBEB7552C1F3F477251E8CB1AE7E797BF	1/15/2021	1/14/2046
C=US, O=Verizon Business, OU=OmniRoot, CN=Verizon Global Root CA	68AD50909B04363C605EF13581A939FF2C96372E3F12325B0A6861E1D59F6603	7/30/2009	7/30/2034
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 2 Public Primary Certification Authority - G6	CB627D18B58AD56DDE331A30456BC65C601A4E9B18DEDCEA08E7DAAA07815FF0	10/18/2011	12/1/2037
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 1 Public Primary Certification Authority - G6	9D190B2E314566685BE8A889E27AA8C7D7AE1D8AADD3C1ECF9D24863CD34B9	10/18/2011	12/1/2037
C=US, O=DigiCert, Inc., CN=DigiCert TLS RSA4096 Root G5	371A00DC0533B3721A7EEB40E8419E70799D2B0A0F2C1D80693165F7CEC4AD75	1/15/2021	1/14/2046
C=US, O=DigiCert, Inc., CN=DigiCert SMIME RSA4096 Root G5	90370D3EFA88BF58C30105BA25104A358460A7FA52DFC2011DF233A0F417912A	1/15/2021	1/14/2046



Root CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=DigiCert, Inc., CN=DigiCert CS RSA4096 Root G5	7353B6D6C2D6DA424773F3F07D075DECB5134212BEAD0928EF1F46115260941	1/15/2021	1/14/2046
C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=(c) 1999 VeriSign, Inc. - For authorized use only, CN=VeriSign Class 2 Public Primary Certification Authority - G3	92A9D9833FE1944DB366E8BFAE7A95B6480C2D6C6C2A1BE65D4236B608FCA1BB	10/1/1999	7/16/2036
C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=(c) 1999 VeriSign, Inc. - For authorized use only, CN=VeriSign Class 1 Public Primary Certification Authority - G3	CBB5AF185E942A2402F9EACBC0ED5BB876EEA3C1223623D00447E4F3BA554B65	10/1/1999	7/16/2036
C=US, O=DigiCert, Inc., CN=DigiCert Client ECC P384 Root G5	CD851C5C25467C0095A43927D0B2292D932975E84DCE4C5E794542C6574C3AA4	1/15/2021	1/14/2046
C=US, O=DigiCert, Inc., CN=DigiCert ECC P384 Root G5	C1468CF2254E6004B24696ABA209D1A30BA6E2DFF68A9A4E32C6AB414F90C8D9	1/15/2021	1/14/2046
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 Public Primary Certification Authority - G4	53DFDFA4E297FCFE07594E8C62D5B8AB06B32C7549F38A163094FD6429D5DA43	10/18/2012	12/1/2037
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 1 Public Primary Certification Authority - G4	363F3C849EAB03B0A2A0F636D7B86D04D3AC7FCFE26A0A9121AB9795F6E176DF	10/5/2011	1/18/2038
C=US, O=WFA Hotspot 2.0, CN=Hotspot 2.0 Trust Root CA - 03	A3CC68595DFE7E86D8AD1772A8B5284ADD54ACE3B8A798DF47BCCAFB1FDB84DF	12/8/2013	12/8/2043
C=US, O=DigiCert, Inc., CN=DigiCert Client RSA4096 Root G5	3AF21466920FA91FA31F4331E445C16BE2330024BFD2C239C0D85AB530714766	1/15/2021	1/14/2046
C=US, O=DigiCert, Inc., CN=DigiCert RSA4096 Root G5	E46A392204A8DCA342A71C1CA9A60C9185B9A930370120C3B9C7E3856F0D8F3B	1/15/2021	1/14/2046
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 Public Primary Certification Authority - G6	B32396746453442F353E616292BB20BBAA5D23B546450FDB9C54B8386167D529	10/18/2012	12/1/2037



Cross-Signed Root CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
O=Cybertrust, Inc, CN=Cybertrust Global Root	24905145BD9B9BFE99C60354B49951BE0E709F1634CFBD0E370FEB9F068ED6C3	12/3/2014	12/3/2024
O=Cybertrust, Inc, CN=Cybertrust Global Root	64B3542D1BC972F58A1D179F3D0B9652BE434F3AE3842E0C447880D4D623A4DE	4/23/2014	4/23/2024
O=Cybertrust, Inc, CN=Cybertrust Global Root	E71D8C3BAF43F6B3352DF574A9F0D4A2065BF03DA179514B1FCC5D9BEC8C8FCD	12/3/2014	12/3/2024
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Global Root CA	6DACBB8945137B1DAD4211B0436EFBE06F12ACE36904973B45AE25740823D369	12/7/2016	5/10/2025
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert High Assurance EV Root CA	CBF8FB77660167E6BAACD0DF77CDA397D0117EE2BEEA23B935317F8BB5B5E3B0	12/7/2016	5/10/2025
C=US, O=Verizon Business, OU=OmniRoot, CN=Verizon Global Root CA	B90EEAE931E5E2B7D335F149DA6C2210986000D214FFDB62A72F7332D63731AF	4/9/2014	4/9/2024
C=US, O=Verizon Business, OU=OmniRoot, CN=Verizon Global Root CA	D96CBC03B523CD3315918651CF4862162887DD563AFB2352D3F34BB94576F93D	5/13/2014	5/13/2024
O=Cybertrust, Inc, CN=Cybertrust Global Root	802447EE521CC666CDB7BBAE93A385E55F200D76A3D1356A85445AC4CDBBED12	1/8/2014	12/15/2030
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Trusted Root G4	AD8EB32C9DA91DDC855F382745990147DC6F23D9FBB04FC9D476B1EE20FC71D8	7/1/2013	10/22/2023
C=US, O=DigiCert, Inc, OU=www.digicert.com, CN=DigiCert Universal Transition Root	AF0E363CAE6DF489F2976A284D12D4C33C94B135FA77F89E89298D7491E99974	12/8/2017	12/8/2037
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Web PKI ECC Root - G1	92BB72F15EB75DE467C84B438181034BD4E9A016EC26434BEE3C9BBAD8CD8AF0	9/21/2017	9/20/2042
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Web PKI RSA Root - G1	F6BB5B7985A8736594C14679FA31603814502AAEB5F4282A69985DC84A450777	9/21/2017	9/20/2042
C=US, O=DigiCert, Inc., CN=DigiCert TLS ECC P384 Root G5	D92E93252EABCA950870B94331990963A2DD5DB96D833C82B08E41AFD1719178	9/21/2022	9/20/2037
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Global Root G2	6523C34F1E879ADD7603CB2048A898A5E2F0C6C4B512C0D22782B85D43AE3371	8/15/2023	11/9/2031
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Global Root G2	0BA8C0D459B76ABC0825294F565E24F4F169D4A4819D0692D371522D297724B8	3/4/2021	3/3/2031
C=US, O=DigiCert, Inc., CN=DigiCert TLS RSA4096 Root G5	A4BCDA32D49CDF05F0CDD085E73C3A2E67880BD48579FED4DF5940DF76A076D7	9/21/2022	11/9/2031
C=US, O=DigiCert, Inc., CN=DigiCert TLS RSA4096 Root G5	048E39BBB6B15EF83525F163192CEA0DF21D3FFABAFAB7C63909FB1553EE4966	7/12/2023	7/11/2033
C=US, O=DigiCert, Inc., CN=DigiCert TLS RSA4096 Root G5	B9D53F235C5FA8C92EB31DCFCADF4959B34A32AF36ACA1EA10F07D6551C398A5	5/10/2023	11/9/2031
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Trusted Root G4	33846B545A49C9BE4903C60E01713C1BD4E4EF31EA65CD95D69E62794F30B941	8/1/2022	11/9/2031
C=US, O=DigiCert, Inc., CN=DigiCert CS ECC P384 Root G5	2F30A9B2F110FB7B7C07C1E2CD652C3B71392D55AB7402E3F40D56F414540622	5/19/2022	5/18/2037
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Trusted Root G4	E9158C6AF5688CFCF9890206C43061C81FA7FC07D08E28A27C068C58073A699A	1/13/2022	11/9/2031
C=US, O=DigiCert, Inc., CN=DigiCert CS RSA4096 Root G5	63A9756FF8A0DB5CBF94C97CD894DBAEED4BB1BD2ECFB890A9E55336FECDF060	5/19/2022	5/18/2037



Time-Stamping CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec SHA256 TimeStamping CA	F3516DDCC8AFC808788BD8B0E840BDA2B5E23C6244252CA3000BB6C87170402A	1/12/2016	1/11/2031
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert SHA2 Assured ID Timestamping CA	CA8D0F4736454AECBEC5DEEC80998C9EBF41D06C728F3C76CCA24151BC62D463	1/7/2016	1/7/2031
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Trusted Root G4	4C913D04FB495DC36119552D6068F7B9891EFE40344E9E5C1E9132F65BAEFF7F	6/9/2022	11/9/2031
C=US, O=DigiCert, Inc., CN=DigiCert Trusted G4 RSA4096 SHA256 TimeStamping CA	281734D4592D1291D27190709CB510B07E22C405D5E0D6119B70E73589F98ACF	3/23/2022	3/22/2037
CN=BT Class 2 DigiCert PKI Platform CA, O=British Telecommunications plc, C=GB	843782303040BFB33576766E1700696DE0FC14887BE293D7265EB59ECE4ED9CC	8/6/2019	6/6/2031



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Baltimore CA-1 G2	BF1CB0E213D8D3C70BAE89429FC16DE2C74F755963D1B9B488BD0260DBC91B9C	10/14/2015	5/10/2025
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Baltimore CA-2 G2	F9690880819F06CDDC0B2F224B207F2AF6003FB57339B8679A160FA95208D62D	12/8/2015	5/10/2025
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Baltimore EV CA	D46931E0182DD655EA0C16E6DD99F8E61AFFE401F734C6CA8EA0056A968EAF81	10/14/2015	5/10/2025
C=IT, O=Postecom S.p.A., OU=Servizi di Certificazione, CN=Postecom CS4	C1685683F3C8590E88580197F219CAB99E5482A1568635F596D09867B2F405BD	4/26/2016	4/26/2023
C=IT, O=Telecom Italia Trust Technologies S.r.l., OU=Digital Identity and Security, CN=Trust Technologies Global CA	191E0B48B78B7EFA4822A465AD69B34405B878D10BD853D8E57CB8B9D9E50B8B	8/24/2017	5/10/2025
C=US, O=Fresenius Kabi AG, OU=Fresenius Kabi USA, CN=Data Management Intermediate Certificate Authority	54837EF7B5AC4AA23606A15EF30DE46E9BB7E23E60F6ED4F2612092B94EDC68F	8/25/2015	8/25/2025
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Assured ID Intermediate CA (SHA2)	C2B4BBEF4A1A643F334ED0850F928876D2AE3AE3642B986014D68C673C04D081	12/7/2011	12/7/2026
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Assured ID TLS CA	D7737E5F2D3FFCA429902E9F388CFD6C5959CD35A0FC103CEE2F7E93D1C66A52	2/9/2018	2/9/2030
C=US, O=DigiCert Grid, OU=www.digicert.com, CN=DigiCert Grid Trust CA	1E0A3AB993157717281D42ABF801EB64DEED500E4168CA706D6A71D8103C73A2	12/7/2011	12/7/2026
C=US, O=DigiCert Grid, OU=www.digicert.com, CN=DigiCert Grid Trust CA G2	28CBB4E0D9C4EE6D04AC8F14717605AE3A4BD8CBF8D081B27AF6EDB2F3D76A32	1/8/2014	1/8/2029
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Secure Auth CA	24E9F20AC167BB8F09DE8A1E9968CC53F0B5F3A4948F51B8647B40B186C75EBE	4/23/2014	4/23/2029
C=US, ST=CA, L=Mountain View, O=Google, Inc., CN=Google CA1	438F473EBFC8884EF5D3E0D52D264CDBE56CA382D9EBFC689D77489409F55A6E	8/25/2015	8/25/2025
C=US, ST=Minnesota, L=Minneapolis, O=Optum, CN=Optum Public Trust CA 1	253E3C9732DF8874C3D54DA522C1711142C98C2CEA7664635152A89A03EE9364	4/28/2015	4/28/2025
C=US, O=Plex, Inc., CN=Plex Devices High Assurance CA	48A7C9C5A36734FC9E204D63CE6BBBCD9E21C1978604760CD8D30D6F4C67B67C	1/14/2015	1/14/2025
C=US, O=Sonavation, Inc., OU=sonavation.com, CN=Sonavation IoT CA	4C56CA7A3C10EB58765E0FFCF8035C57C9F3BDB014862F676756CF789193F10E	5/19/2015	5/19/2025
C=NL, ST=Noord-Holland, L=Amsterdam, O=TERENA, CN=TERENA eScience Personal CA 3	FDA947208BFA3203A6C57B8714A647B7009E5168E88951345450B1D2D3F91A7D	11/18/2014	11/18/2024
C=NL, ST=Noord-Holland, L=Amsterdam, O=TERENA, CN=TERENA eScience SSL CA 3	E1BE6BBBB70F5A241E736FC44C6A2160BF6CE19B95EDD67BF7BE896E83778745	11/18/2014	11/18/2024
C=NL, ST=Noord-Holland, L=Amsterdam, O=TERENA, CN=TERENA Personal CA 3	DD4E0C17900F3FC2A5B7B773AE40218AD73216B5CE5D285EBFFCE8830D0F034A	11/18/2014	11/18/2024
C=NL, ST=Noord-Holland, L=Amsterdam, O=TERENA, CN=TERENA Personal CA 3 G3	C123F5AFACC9F9096809850355E5BF78CA9377348111B5167A964DDEDC044DE9	12/9/2014	12/9/2024



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=NL, ST=Noord-Holland, L=Amsterdam, O=TERENA, CN=TERENA SSL CA 3	BEB8EFE9B1A73C841B375A90E5FFF8048848E3A2AF66F6C4DD7B938D6FE8C5D8	11/18/2014	11/18/2024
C=NL, ST=Noord-Holland, L=Amsterdam, O=TERENA, CN=TERENA SSL CA 3 G3	C9D6913F3FEDDEFF184C9EE1D7E17C5AEC90886EED5CC3D6E98105831C8C0E0B	12/9/2014	12/9/2024
C=US, O=DigiCert Inc, CN=DigiCert Assured ID CA G2	93C381CB07B353A920C2A7BED6BEBF195C68279DD0527D37F20BDD0D99C330FA	8/1/2013	8/1/2028
C=US, O=DigiCert Inc, CN=DigiCert Assured ID CA G3	634FDF26C994E76A2918D9EFC4CAB9C6FCB344EF642A79C89192BCDA0ED52F4C	8/1/2013	8/1/2028
C=US, O=Anne Arundel Medical Center, OU=AAMC Direct Messaging, CN=AAMC Direct Intermediate CA	BB1C01E884DD0919AB94D5AF5575CD6FEB71E560B2B58735A78B150A10D54BF3	5/28/2015	5/28/2025
C=US, O=Allina Health System, OU=Information Services, CN=Allina Health Connect HIE Intermediate CA	826C6AA610EF190BE2D7C03E22D032405B289804E3319E233C4C37FFBF305F1A	12/8/2015	12/8/2025
C=US, O=Axesson Inc., OU=www.axesson.com, CN=Axesson Direct CA	BF4655F16AA338D7C7FF2BDC949A524BD4797B8B3C8341C608C9F65CB1CB8177	1/8/2014	1/8/2024
C=US, O=Quest Diagnostics Care360, OU=Care360 Direct Messaging, CN=Care360 Direct Intermediate CA	2D602B1F166D6316DAFD46B4B1EDD6DCFC54D2AF8A944BE358858FD504AAA16B	8/25/2015	8/25/2025
C=US, O=Cerner Corporation, OU=Cerner Direct, CN=Cerner Corporation Direct Intermediate CA	09DE7FA739EE47C06291845F2E0E8A9E1C7CC2900AD354CF167316E02386BD9B	9/26/2014	9/26/2024
C=US, O=Compugroup Medical, Inc, OU=IT, CN=CompuGroup Medical Certificate Authority	B604026A3590392ABEFB6B18E8176453656115D2A0060F713E191A9FD076532A	12/8/2015	12/8/2025
C=US, O=Corepoint Health, CN=Corepoint Direct Intermediate CA	CD2640957CF88610470CEFD409D85D9BE05962F7D6C2999C4F431ABCCC34118C	1/14/2015	1/14/2025
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Accredited Direct Med CA	0E78434EC8AD6613562C8390D8B3306FC6087E0593C7D5AC2FAF9AD263879745	8/6/2013	8/6/2023
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Direct Non-Provider CA	1AEDDADDC1ED748543EAF5960DF96AD51E21A3164F30A0640CB0732365D39062	2/11/2014	2/11/2024
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Federated Healthcare CA	54C3F501042CDCC09AE8143CB192BD5E5724C9C88A6AB395A94A1A7AFC26CE7C	2/11/2014	2/11/2024
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Federated ID L1 CA	CAB016C5EA32061BD065FE13A55A40FA61058B27B34A7F8D175F7101EE063E3B	10/30/2012	10/30/2022
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Federated ID L2 CA	91FDEB52D4265120B843B195D1B6CDB5CE61251865A45A3E920E610FDFA660D3	1/7/2014	1/7/2023
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Federated ID L3 CA	85760F77DB0FD0D93C21EE0364B8EAB09B82CF49B7849831038209B5B1081363	1/7/2014	1/7/2023
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Federated ID L4 CA	EFB2A3F37273D3589047919825EA5337E9B938A8C178B61C18C2B4270B9665AC	10/30/2012	10/30/2022
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Federated ID US L3 CA	EB84FC0B403D9B689297A5D83EA186838E3B777BC618EFDA162A75B7FEA666C1	1/8/2014	1/8/2023
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Federated ID US L4 CA	6797436214EFEE67CDE7D70358D4D8B00DFBF78D5C87C62B4A7E90D73DD7BD9	4/18/2013	4/18/2023



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Governmental Direct CA	5F665CBACC1E37171EA83EA85C570F9861CAF77BAC8886ABC4BB19B3698C094A	9/25/2015	9/25/2025
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Provisional Direct Med CA	C61029C8EEE3CE08755D562BB50C5F75E0EF849214970B13BD99185367D1D119	6/3/2014	6/3/2024
C=US, O=Indian Health Service, OU=directihs.net, CN=Indian Health Service-RPMS DIRECT Messaging CA	C07E9037CB81012D3046613285C14B63A0284964A4F5A821FC3B18ECDEBA0A66	4/4/2014	4/4/2024
C=US, O=INTEGRIS, OU=INTEGRIS DIRECT Messaging HISP, CN=INTEGRIS Direct Intermediate CA	97D276C5FDF2DC94539ABB9E17BC3995730CD51739EAE95B0F67B39E99905F11	11/18/2014	11/18/2024
C=US, O=iShare Medical, CN=iShare Medical Direct Intermediate CA	4C0A5888C34AA01B745F4EBA268696B2CCB3F4AA31C8EDCB3AFE8FA84CB74CC1	1/14/2015	1/14/2025
C=US, O=MedicaSoft LLC, OU=MedicaSoft Direct Messaging, CN=MedicaSoft Direct Intermediate CA	51A6E2ED41040AAE8E089FBABFE26A38D656F5B0855635352FEE9598286BB021	4/28/2015	4/28/2025
C=US, O=Medicity Inc., OU=www.medicity.com, CN=Medicity Direct CA	231BA402E28B3495F3BE0CAD87078D9B8FBD86041116AF9B8047E7B1CFFA82D0	2/13/2014	2/13/2024
C=US, O=Michiana Health Information Network, OU=www.mhin.com, CN=MHIN Direct CA	EAEFE808D568E7F6CF6D892CAB6A22E14F20C6F10E3A418CFB42B12309333367	1/8/2014	1/8/2024
C=US, O=Mirth, OU=NextGen Share, CN=Mirth Direct Intermediate CA	CC9FAAD83C3350943D4E45FA416C4F8BC564F7AA94CF4B2D2BCE74209D0464C9	9/26/2014	9/26/2024
C=US, O=MobileMD Health Services, OU=MobileMD, CN=MobileMD Direct Intermediate CA	33CF1F5C9396D7EE9E8283B2E76F400E50450575EB15AD02C956C1C5575B184D	10/21/2014	10/21/2024
C=US, O=MRO Corporation, OU=MRO HIE Solutions, CN=MRO Direct Intermediate CA	E25DE970AA8B685CDF55417897F65DE64C63A55D61EE9E4B830261DCFBFFFB4	10/21/2014	10/21/2024
C=US, O=Oregon Health Authority, CN=Oregon Health Authority Direct CA	86FFEA40F36FA6913278710FEABA9B206F3288DA3FD1C652BC5B5895A2B1A877	3/5/2014	3/5/2024
C=US, O=Orion Health Inc., OU=Orion Health Direct Secure Messaging, CN=Orion Health Direct Secure Messaging CA	A4106DA85F7B34A6D3DE37884D1528916B84F046FFB7D4AAC521117B0C6995F3	10/21/2013	10/23/2023
C=US, O=RelayHealth, CN=RelayHealth Direct CA	77537682E9A0B2C5BD5E62BC1CB35ECEB38FCBEBF7D2DC326F7E420F0DBEDB3	4/4/2014	4/4/2024
C=US, O=Rochester RHIO, OU=Rochester RHIO HISP, CN=Rochester RHIO Intermediate CA	43202B9E870659921F9DA26EDA9E47BF6990DB031A0BC0B23AFA1E7968ED3E99	10/21/2014	10/21/2024
C=US, ST=SC, O=SCHIEx, OU=SCHIEx Direct Messaging, CN=SCHIEx Direct CA	443C8158264710C0B768A8170E59BF1FAE4079D2BC39939A79FA839174ED81AE	6/7/2016	6/7/2026
C=US, O=Abbott Laboratories Inc., CN=Abbott Laboratories Secure Authentication CA	DB99A4F284CCF10B26DE7B7A5D651725B857CBC871EBB33028D67B55510EFC9	8/23/2016	8/23/2026
C=US, O=Abbott Laboratories Inc., CN=Abbott Laboratories Secure Server CA	6C69E201656440EB98CD0875764A1ED19015ED8C4427601ACA9C68AFA8973959	7/12/2016	7/12/2026
C=US, O=Cisco Systems, Inc., CN=Cisco Meraki CA	199EE58009555DAE2CDA0626931C64391D6A88CCCB1F9F0B2EE80B667F581C06	7/12/2016	7/12/2026



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=JP, O=Cybertrust Japan Co., Ltd., CN=Cybertrust Japan Secure Server CA	33D57359831F87754E6E755D6B5B56E7E71297DDDFEA1D6397086604280F6FFC	12/7/2016	12/7/2031
C=US, O=DigiCert Inc, CN=DigiCert Cloud Services CA-1	2F6889961A7CA7067E8BA103C2CF9B9A924F8CA293F11178E23A1978D2F133D3	8/4/2015	8/4/2030
C=US, O=DigiCert Inc, CN=DigiCert ECC Secure Server CA	458446BA75D932E914F23C2B57B7D192EDDBC2181D958E1181AD5251747A1EE8	3/8/2013	3/8/2023
C=US, O=DigiCert Inc, CN=DigiCert Secure Server CA	94D4ECE2ED9A5457B969A13B260489E9A5FE4790A041F27A3EB4126C84418EF9	3/8/2013	3/8/2023
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert SHA-2 RADIUS CA	524CF7331C4EE353EEB1ECD74E1F801A0F1F08DFA0322092F42205AFC3A17675	9/20/2016	9/20/2026
C=US, O=DigiCert Inc, CN=DigiCert SHA2 Secure Server CA	154C433C491929C5EF686E838E323664A00E6A0D822CCC958FB4DAB03E49A08F	3/8/2013	3/8/2023
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Encryption Everywhere DV TLS CA - G1	15EB0A75C673ABFBCD2FAFC02823C91FE6CBC36E00788442C8754D72BEC3717	11/27/2017	11/27/2027
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=GeoTrust ECC CA 2018	D8E269A6EB08CBC337AD6578C72135787484C99D2FB08CCED029E806BE1040FC	11/6/2017	11/6/2027
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=GeoTrust RSA CA 2018	8CC34E11C167045824ADE61C4907A6440EDB2C4398E99C112A859D661F8E2BC7	11/6/2017	11/6/2027
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=RapidSSL ECC CA 2018	A0D1523A0BF663550EB9081E9BDEEDA12814F9570B7697D95DF2EA53D4FF75E3	11/6/2017	11/6/2027
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=RapidSSL RSA CA 2018	C790B47128447EC0B60F22BFCB795D71C326DD910EE12CBB4CC5A86191EB91BC	11/6/2017	11/6/2027
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Secure Site Pro CA	BA6A0C1170E1C7323860749B5E7B0ED365975D8FC90740B15D70F843A2394942	4/27/2018	4/27/2028
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Secure Site Pro ECC CA	A206644F57AFD10B94169498858981C16D633858CE0C88B57CF14FA2A92AACFD	4/27/2018	4/27/2028
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Thawte ECC CA 2018	6E62CBE3E42A41C50405B3E2F1A44257683267856184AF9C02112070AC836936	11/6/2017	11/6/2027
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Thawte RSA CA 2018	9A5EECEE9C7D898BD81DC3BF066DAF6AEFB8DB1C59676206D2BFDD682312C6F6	11/6/2017	11/6/2027
C=CN, O=TrustAsia Technologies, Inc., CN=TrustAsia ECC OV TLS Pro CA	F1CACA6AB2350A7668C13E41960908681DAFCC7E368DCB8D47FECF9631390481	4/27/2018	4/27/2028
C=CN, O=TrustAsia Technologies, Inc., CN=TrustAsia OV TLS Pro CA	33E8A4ED48930760CE1AD7A2D44F079B22F660052753976109E6FC74752552BD	4/27/2018	4/27/2028
C=CN, O=TrustAsia Technologies, Inc., OU=Domain Validated SSL, CN=TrustAsia TLS ECC CA	68D0B2E8C85BF009B4DB39AC8B5E2FA8E1FD9FD1E5028704EA9288C7E472AAEB	12/8/2017	12/8/2027
C=CN, O=TrustAsia Technologies, Inc., OU=Domain Validated SSL, CN=TrustAsia TLS RSA CA	79F1F5AB697DEBF195F5B7DA65F95399682EDAEB80115B9D42A6AE5E2FA98802	12/8/2017	12/8/2027
C=DE, O=CertCenter AG, OU=Domain Validated SSL, CN=AlwaysOnSSL TLS RSA CA G1	2A41BA819EB6125AF5CB4B8B0E9E954ECE798C2A7EE43DCDAF7D395987C4D552	11/2/2017	11/2/2027
C=US, O=DigiCert Inc, CN=DigiCert Global CA G2	8FAC576439C9FD3EF153B51F9EDD0D381B5DF7B87559CEBECA04297DD44A639B	8/1/2013	8/1/2028



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Encryption Everywhere DV TLS CA - G2	B1AC8CFB181B9C9354E1775FCBDFCFE7898C5CC9A17D76315B57C112EEE55234	11/27/2017	11/27/2027
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=GeoTrust TLS RSA CA G1	C06E307F7CFC1D32FA72A4C033C87B90019AF216F0775D64978A2ECA6C8A230E	11/2/2017	11/2/2027
C=CH, O=Hostpoint AG, OU=Domain Validated SSL, CN=Hostpoint TLS RSA CA	F7FBDEB82BE99D41CDCA419FC91859D3E5286C076204E0E903D678BB213ED89B	11/2/2017	11/2/2027
C=US, O=Oracle Corporation, OU=Organization Validated SSL, CN=Oracle TLS RSA CA G1	319896E3954D510DA3A4B75387E8C870B3BC2C3228D8550916EBE9ABDCB7F921	11/2/2017	11/2/2027
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=RapidSSL TLS RSA CA G1	4422E963EE53CD58CC9F85CD40BF5FFEC0095FDF1A154535661C1C06BCADC69B	11/2/2017	11/2/2027
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Secure Site CA	D3533B732A518A6DA68EF266085E11DFD114C0EB0092CD43530A44D54B913ED1	2/9/2018	2/9/2030
C=DE, O=STRATO AG, OU=Domain Validated SSL, CN=STRATO TLS RSA CA	A8AD1C25CC580B2131FCC6FC6D6513746F38EA99BD162C81B5C5393495175B18	11/2/2017	11/2/2027
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Thawte TLS RSA CA G1	4BCC5E234FE81EDE4EAF883AA19C31335B0B26E85E066B9945E4CB6153EB20C2	11/2/2017	11/2/2027
C=NL, O=Trust Provider B.V., OU=Domain Validated SSL, CN=Trust Provider B.V. TLS RSA CA G1	009871C3A4C607311E5AE92F01095F9BF76100B8794AB0A9A5210E6794C8607C	11/2/2017	11/2/2027
C=CN, O=TrustAsia Technologies, Inc., OU=Domain Validated SSL, CN=TrustAsia TLS RSA CA G8	036A18F5F0EB9DD5EE02B7854DF5C33845601D8939CFB7B607F69D142C01D909	11/2/2017	11/2/2027
C=US, O=Wells Fargo & Company, OU=Organization Validated TLS, CN=Wells Fargo Public Trust Certification Authority 01 G2	CF7CFA4F9DBCCBCA6D20EFDEBEAD4E173B34E76BDA1EB1E619F44E06E95FC208	11/15/2017	11/15/2027
C=DE, O=CertCenter AG, OU=Domain Validated SSL, CN=AlwaysOnSSL TLS ECC CA G1	BD193C475E4E67938BEF34122B98B558A2882E7ED94369A6CB011320EF15623C	11/2/2017	11/2/2027
C=JP, O=Cybertrust Japan Co., Ltd., CN=Cybertrust Japan ECC EV CA	92E3770B1EB44F84C2F2CB0097C2FD7126BD212B41C2610E78DDFD8946761738	8/24/2017	8/24/2032
C=JP, O=Cybertrust Japan Co., Ltd., CN=Cybertrust Japan Secure Server ECC CA	C3683F7D91754219DADA4E8DC30E4B18BD3928B53D3AB93D07384BC5871CE355	7/13/2017	7/13/2032
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Extended Validation CA G3	7C0912E5DE8478BB86E8EA46BA5AE65DC3870BCEFCBC2F46795EEECF648CFBE7	11/11/2015	11/11/2030
C=US, O=DigiCert Inc, CN=DigiCert Global CA G3	F7541CF69D1DE1AC953ABC1FAD6F7807A34EDFE9E12C11E66A195930C23AD6C6	8/1/2013	8/1/2028
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=GeoTrust TLS ECC CA G1	A838405EBB03F5DFD8D4A9572AE6E0E3F356EC4EC134375A59DB7B195DC3EC44	11/2/2017	11/2/2027
C=US, O=NCC Group, CN=NCC Group Secure Server CA G3	963056B0D941D9DBE27AC778053D85E43CC79F476AD34CFDD799C27E381840EB	7/30/2014	7/30/2029
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=RapidSSL TLS ECC CA G1	FC16D53203BD9187D69CC99D2DA551076B4DCB298140D6751F7A012966C99FDD	11/2/2017	11/2/2027
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Thawte TLS ECC CA G1	AE82201F565E0439B7F4AD689327594EB974A4F781B1A6CBFED59BD382317F13	11/2/2017	11/2/2027



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=CN, O=TrustAsia Technologies, Inc., OU=Domain Validated SSL, CN=TrustAsia TLS ECC CA G9	877F24CE70F4A3047E4EA70BEC1BC31BE9B6533ADFF3A393FF9BF3C81029446	11/2/2017	11/2/2027
C=US, O=Aetna Inc, CN=Aetna Inc. Secure CA2	5D28761CBF304EAFCD127B34D614FE179AC7744F1552AF1C31298425AD05A275	12/9/2014	12/9/2024
C=US, O=Aetna Inc, CN=Aetna Inc. Secure EV CA	0A163600631BD66267FB7AEAD25C538B2B7D72AD6416A2BBD285F654BB642F6D	12/9/2014	12/9/2024
C=US, O=Aetna Inc, CN=Aetna Inc. Secure EV CA2	1DDFDDF883E3945B2CB24FA5B83788379C5AB058422AB979DF66C77473988687	12/8/2017	12/8/2027
C=JP, O=Cybertrust Japan Co., Ltd., CN=Cybertrust Japan Extended Validation Server CA	0E10BDDDEE7512DBD79EBF0B4F48FEED7C83C2BD3DD81765565F4FF110B7BFA42	12/7/2016	12/7/2031
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert ECC Extended Validation Server CA	FDC8986CFAC4F35F1ACD517E0F61B879882AE076E2BA80B77BD3F0FE5CEFF8862	6/21/2016	6/21/2031
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Extended Validation Intermediate CA (SHA2)	802C2AD1D215E57CDC9010EA437ACE399B657194FBD40E3BB5E00B080E6496DF	12/7/2011	12/7/2026
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert High Assurance Intermediate CA (SHA2)	47511629F2BC3B7CF84EFEC9F32798A43AF6252E550B6CAE76A38558712E37D8	12/7/2011	12/7/2026
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert SHA2 Extended Validation Server CA	403E062A2653059113285BAF80A0D4AE422C848C9F78FAD01FC94BC5B87FEF1A	10/22/2013	10/22/2028
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert SHA2 High Assurance Server CA	19400BE5B7A31FB733917700789D2F0A2471C0C9D506C0E504C06C16D7CB17C0	10/22/2013	10/22/2028
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=GeoTrust EV ECC CA 2018	BF3558F877E89D27DAA60DA9671676570DFBEB215D84AC5A37122D6776B78F6E	11/6/2017	11/6/2027
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=GeoTrust EV RSA CA 2018	185C0AE470423B9D4678A7C1055B5B48D90705505B794E215C063851336981F4	11/6/2017	11/6/2027
C=US, O=NCC Group, CN=NCC Group Secure Server CA G2	6075DA5CECD15D6584C5560322D5C09FC2199E52DEA7921D91040AA75248672E	7/30/2014	7/30/2029
C=US, O=Plex, Inc., CN=Plex Devices High Assurance CA2	50D3D71FC0CD7E36ADAE32221FEFBE8CC29B2676BA326C09B8FA1B24DBE75514	5/19/2015	5/19/2025
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Secure Site Extended Validation CA	1A8D790AF9B2B34D7DD6AF61B5AA4CF1380B86095CBAC2BCAB35BD566D0180C3	4/27/2018	4/27/2028
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Secure Site Pro Extended Validation CA	3883E6DE4917A46B594ECC2D2AC6A95D43E7EAA8E089A91F9BC104FF16DF8DE6	4/27/2018	4/27/2028
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Secure Site Pro Extended Validation ECC CA	C3804DE51E8C17052220AE1CAD3D383E54D5B7DC28843C42F0DBD9913C1E8658	4/27/2018	4/27/2028
C=US, O=SecurityMetrics, OU=www.securitymetrics.com, CN=SecurityMetrics DigiCert CA	F32DEAF22CE724661F53D5287311AFF2541EB38ECAFA9DD877B94023E3A11B1F	10/30/2012	10/30/2022
C=US, O=SecurityMetrics, OU=www.securitymetrics.com, CN=SecurityMetrics DigiCert EV CA	6B2328E7FFF598B2ADF90B7F3EA42B45FA606D78E2B117B7D60E99E828CF7565	10/30/2012	10/30/2022



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=NL, ST=Noord-Holland, L=Amsterdam, O=TERENA, CN=TERENA SSL High Assurance CA 3	BE6A0D9E1D115F2293F6ABF11B3EC8E882E24426EEEB09AAA503597993E77A25	11/18/2014	11/18/2024
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Thawte EV ECC CA 2018	F74C3B2C7E455D654D9EE5AAA712789CCB267B961C1A1CE48A69C860CD193678	11/6/2017	11/6/2027
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Thawte EV RSA CA 2018	93569B26AA535E3E07C891C6BD2FA9DC0939C24DB4B3726AD8531EDB17C497CA	11/6/2017	11/6/2027
C=CN, O=TrustAsia Technologies, Inc., CN=TrustAsia ECC EV TLS Pro CA	2DAAC6FDFAC16C548C53FF1198254D7E937761D22A1E7CC5C1A9462E971461F5	4/27/2018	4/27/2028
C=CN, O=TrustAsia Technologies, Inc., CN=TrustAsia EV TLS Pro CA	4AFFE4FEF39464D1788C660AF591D5E601B261C4811DF0A3DD9D61CAFE8E5ED8	4/27/2018	4/27/2028
C=CN, O=WoSign CA Limited, CN=WoSign EV SSL Pro CA	891EE2E23282E5076C9AE9047DE8EA900E066F81D6DC9B843C59078B0F105BC	5/23/2017	5/23/2027
C=CN, O=WoSign CA Limited, CN=WoSign OV SSL Pro CA	AA61C2927DC89DB225CA9A17D600373D058F696D86D10E2BD7B5E8F44A97EED1	5/23/2017	5/23/2027
C=CN, O=WoTrus CA Limited, CN=WoTrus EV SSL Pro CA	070531383CCD100D3E9CD964DB07AA5E845A0686F2EAE3BC8A627B182057B1F1	2/9/2018	2/9/2028
C=CN, O=WoTrus CA Limited, CN=WoTrus OV SSL Pro CA	09033FE23996FE4A59C4C0F523D2560E31DFE4C17D8EA1403D429A971F4BD65A	2/9/2018	2/9/2028
C=US, O=DigiCert, Inc, OU=www.digicert.com, CN=DigiCert Transition Issuing CA G3	25B66390DD425867EC0DE58A6B198F5985BE58A43A4605E1A0B8C6F35B92D7EE	12/8/2017	12/8/2027
C=US, O=Government of the District of Columbia, OU=Office of the Chief Technology Officer, CN=DC Government SHA2 EV Intermediate CA	F12241EE34C03A608D34DBC0EA465E1BD1AA13091554F9D4D086253FF3CE83D4	7/13/2017	7/13/2027
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert EV Server CA G4	710024B37BD9F0E1537C18A4C20F9A31C4B485D1248C643F20B4C00F3716BA85	1/17/2017	1/17/2032
C=US, O=DigiCert Inc, CN=DigiCert Trusted Server CA G4	6E8D952FDBABAD8DE3D61E094393739B5A47371A52BDCB2A3C2F8C43622F640F	8/1/2013	8/1/2028
C=US, O=NCC Group, CN=NCC Group Secure Server CA G4	B7DFDC27E5FF9F35EFEC9F4BC532C35F727789B69C90A0489B40247299D97038	7/30/2014	7/30/2029
C=US, O=DigiCert, Inc, OU=www.digicert.com, CN=DigiCert Universal Issuing CA	622A42A28CAD83D962771D9D09BD307877D4AB513B4FE0CF2E5851E79FFA6FE	12/8/2017	12/8/2027
C=US, O=DigiCert, Inc, OU=www.digicert.com, CN=GeoTrust Primary Issuing CA	F7A84E24E8E0D89154874721C5B641F48A1EF0FF3B198F53BE021DB53F097BD0	12/8/2017	12/8/2027
C=US, O=Alaska eHealth Network, Inc., OU=Orion Health Direct Secure Messaging, CN=Alaska eHealth Network CA	437859303D0183862A96F6ABF8B03F2A69D4CBD317217666015E1ABA3C84AA11	10/22/2013	10/22/2023
C=US, O=California Integrated Data Exchange, Inc., OU=Orion Health Direct Secure Messaging, CN=Cal INDEX CA	A5226F33474B53392665298B48F4E6129824E98BD4D38DF4E31EBBCF14FA33CD	7/12/2016	7/12/2026
C=US, O=Catholic Health Initiatives, OU=Orion Health Direct Secure Messaging, CN=Catholic Health Initiatives CA	151A3591B765D02C359EEC9C56ED8DDAD0C54E756A497D02BF979FA8DD5D95BB	8/19/2014	8/19/2024



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=Greenville Health System, OU=Orion Health Direct Secure Messaging, CN=Greenville Health System CA	06433FCA9F753980B526236DD72846EC1B20770BFCC7D3188DD67BC0ECFB7782	3/5/2014	3/5/2024
C=US, O=High Mark HIE, LLC, OU=Orion Health Direct Secure Messaging, CN=Highmark Tapestry HIE CA	1B68286DEFCE036512A5DAC76C8ABD067D33A07D4E0DEF7707089C980075E192	8/19/2014	8/19/2024
C=US, O=Huntsville Hospital System, OU=Orion Health Direct Secure Messaging, CN=Huntsville Hospital System CA	20E3E88747A8D88E11A527521032DC8CAE92BC33B45C93EEE04F624A70DC920A	3/5/2014	3/5/2024
C=US, O=Inland Empire EHR Resource Center, OU=Inland Empire Health Information Exchange, CN=Inland Empire Health Information Exchange	1E72D83ED9499CBA686968452BE591C48816EC9181391A5D03C1F4D3BA1658DC	1/8/2014	1/8/2024
C=US, O=Jax Health Records - SV HIE, OU=Orion Health Direct Secure Messaging, CN=Jax HR Saint Vincents HIE CA	3D2928A2988227CE4EBC319AA34E6552E9D98839D5CE2114E79F8F5EC2BF9DE0	2/16/2015	2/16/2025
C=US, O=Keystone Health Information Exchange (KeyHIE), OU=Orion Health Direct Secure Messaging, CN=KeystoneHIE KeyHIE CA	D1C2009D472835AFBA94CC8ACB06DD0C727138AE1E73834394D27B0C06CF1265	8/19/2014	8/19/2024
C=US, O=Louisiana Health Care Quality Forum, OU=Orion Health Direct Secure Messaging, CN=Louisiana Health Care Quality Forum CA	3E4F09D65438B5CF7E456288C08FE9F47ED4E3ED669279C81AEFAB0BAFB86A09	10/22/2013	10/22/2023
C=US, O=Mary Washington Healthcare, OU=Orion Health Direct Secure Messaging, CN=Mary Washington Healthcare CA	1180C33AE1F23228923F6AE698C9C10DC729E0D811FC8B2EC02726E2DC26E2E4	3/5/2014	3/5/2024
C=US, O=Massachusetts Health Information Highway (Mass Hlway), OU=Orion Health Direct Secure Messaging, CN=Mass Hlway CA	23BA3A97C580DF2C316624D7FA5F7663580261CB2048142C73A3E86B113EB26D	9/25/2015	9/25/2025
C=US, O=Mississippi Division of Medicaid, OU=Orion Health Direct Secure Messaging, CN=Mississippi Division of Medicaid CA	1757291A3D7D0BB5B9B9CF8802F1B2AE173E56B0935970FC86B63A27499DB5E2	1/8/2014	1/8/2024
C=US, O=New Hampshire Health Information Organization Corporation, OU=Orion Health Direct Secure Messaging, CN=New Hampshire Health Information Organization CA	37E9A271EB4725C93CDAF183562C7D7D9EA8FC139F8374FFE418D77D32428FE0	10/22/2013	10/22/2023
C=US, O=New Mexico Health Information Collaborative, OU=Orion Health Direct Secure Messaging, CN=New Mexico Health Information Collaborative CA	10BEDDC480AA27563480B1BCAAB6C25B52995EA836E9A2ACE83F8F59206E2496	9/26/2014	9/26/2024
C=US, O=North Carolina Health Information Exchange, OU=Orion Health Direct Secure Messaging, CN=North Carolina Health Information Exchange CA	C4A842434ADB52809526B6D1E869A265F535B69BB16454A301667CC942678D58	3/5/2014	3/5/2024



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=North Dakota Information Technology Department, OU=Orion Health Direct Secure Messaging, CN=North Dakota Information Technology Department CA	6ECF658CCEA8B29BE60C85904F4ADD7CCB7950CF58C97BBF60D57CEA49A2703D	1/10/2014	1/10/2024
C=US, O=Oklahoma State Department of Health, OU=Orion Health Direct Secure Messaging, CN=Oklahoma State Department of Health CA	77ABE65DF4BE94E5EC222FC905E1233F8C77D6B3AE2933346A0C2FC3B2F1F560	2/16/2015	2/16/2025
C=US, O=Optioncare, OU=Orion Health Direct Secure Messaging, CN=Optioncare CA	89CFBC8FBFF7FE026B6CF2EA688419BDE8BBC1FB451329C865D6C6CBCF6BD097	3/1/2016	3/1/2026
C=US, O=Orion Health Inc., OU=Orion Health Direct Secure Messaging, CN=Orion Health Direct Secure Messaging Public HISP CA	D34138ED1458AE7DE4EDEA36ED3992E4F46E6EC9CF1E633E538DE9FF0F38F8E5	10/22/2013	10/22/2023
C=US, O=Rush Health, OU=Orion Health Direct Secure Messaging, CN=Rush Health CA	DB12B1D3F8CC52FFF4874F0A8B85E9FB6A2050861B1B1C61481A743AC0D33D5A	4/23/2014	4/23/2024
C=US, O=Sutter Health, a California nonprofit public benefit corporation, OU=Orion Health Direct Secure Messaging, CN=Sutter Health CA	603D69822381A0BFC274BBED67009BC7DF133CB902FA242CF58BF727D23D5495	10/21/2014	10/21/2024
C=US, O=The Koble Group, LLC, OU=Orion Health Direct Secure Messaging, CN=The Koble Group CA	A576C29481F5A2ACB1DF47500629A60F96F6ACA324E878FFDCFABD85E5649AEF	6/21/2016	6/21/2026
C=US, O=Western Connecticut Health Network, OU=Orion Health Direct Secure Messaging, CN=Western Connecticut Health Network CA	415322F3970C8CD0F54311E0F93C5F5C37BA3059FDB10F5240AC20934717F840	3/5/2014	3/5/2024
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Japan Class 1 CA	D6A3574E4C2AA2D15397D5A9BEFCF8380910CC0148BAB86A0B9FF40E2659BCE8	4/15/2014	4/14/2024
C=AU, O=Attorney Generals Department, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Attorney Generals Department Public CA	CEF711147D8B0A1DC5200B8383BED23C1D294F2F89EBFE179D2501EA5E24AB8A	7/21/2015	7/20/2025
C=US, O=Fannie Mae, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Fannie Mae Shared Online CA	D39495B310669DC6BFF57D547C53E3FF9E7B452BB609272C981F514CCA0B146F	12/20/2016	12/19/2026
C=US, O=General Electric Company, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=GE SMIME Issuing CA 2.1	6BE39EC9E02D54008A7A716DD35A3D2F0A1FD8F8F34DAE235446150C6F48BC7E	7/16/2015	7/15/2025
C=US, O=General Electric Company, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=GE SMIME Issuing CA 2.1	2D53B8177062E4C7CEA79EEBF62BFA52A5B18BC9B89483597E5714E4E9B52315	7/16/2015	7/15/2025



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=AU, O=NBN Co Limited, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=NBN Co Limited Public Issuing CA - G2	758F496C9928A3C67E0D50D03D2E2CAAFF733D427E57AB5FEE7D5AC4153C4071	2/10/2015	2/9/2025
C=ZA, O=Nedbank Limited, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Nedbank Limited Public CA	267D014C81E6D02ED5898306B64D7B5EA91BAF9DB3183CF3BC64C25D2B35CAE6	9/10/2015	9/9/2025
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 2 Signing RSA Intermediate CA	66F7B0147C09F9DA79E63800A96F649DA7E59757F876F08126D07E8FB8542488	1/22/2015	1/21/2030
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 2 SSP CA - G2	3C18176FEBA1D20C8BFA7B484066E2A5825A226237E1E7BE3828E6F6C3771B23	3/21/2013	3/20/2023
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Japan Class 2 CA	AB62A0A1DE53BA06E771438E5D0526D3D8B0235330C65AA4BF80D855908E2DC4	4/15/2014	4/14/2024
C=US, O=Veritas Technologies LLC, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Veritas Technologies LLC Class 2 Employee CA	1AB7DCA7F8B28027F2B71FBB8CB87162FE112C47AC4D09638C8EA01915A177D	9/10/2015	9/9/2025
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 2 Individual Signing RSA CA	8B9218D93DB5377CFE7D5923E7016D379D446F0019C47B9B4EA737AEDF86A558	1/22/2015	1/20/2030
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 2 Individual Signing RSA CA	4E74475D2C33E1DD4732306B79712B5EE6997C2DBDF596CC8BD1362163DAA4F4	1/22/2015	1/20/2035
C=US, O=U.S. Nuclear Regulatory Commission, OU=External Basic, CN=NRC Basic CA G2	C40D6AB75F7E5D11CF7B0404AC7E4321A7A8B0DDF7631328F3D7CC80D6644E2B	3/21/2013	3/19/2023
C=JP, O=Astellas Pharma Inc., OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Astellas Global SMIME CA - G2	B2ED9A6D9B6C48DD1494EE0CD4802179F6208C7F75894DE2607E16573BE464AE	4/15/2014	10/22/2022
C=JP, O=Symantec Japan, Inc., OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Class2 Individual Certificate Service CA	9268449725E5DE18F8A76548BBEC1F8C845B17387590E1855BFFCA5B02CF6C28	1/22/2015	4/13/2024
C=US, O=DigiCert, Inc, OU=www.digicert.com, CN=thawte Primary Issuing CA G3	F6CF5D6FF850D14DB082CC9CF7C056BC60E36B1E54F1CCA3E24BDF393948978D	12/8/2017	12/8/2027
C=US, O=DigiCert, Inc, OU=www.digicert.com, CN=thawte Primary Issuing CA	9A9FC39029ABE132D674D032D199CB8431AAC878DABCE6E9E1AECB81EC99F4CC	12/8/2017	12/8/2027
C=US, O=Symantec Corporation, OU=Symantec Trust Network, OU=Persona Not Validated, CN=Symantec Class 1 Individual Subscriber CA - G5	42A5FBCA2D6AA262FF62333AB78699CE1E4BF1CF5F49F806FD324CBE5BB62CF4	10/1/2015	9/30/2025



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=Computer Sciences Corporation, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=AGC Public CA	5E71C746D45EBCFD6D2DCE4A2DABCCD9335E3AD8D63B349989341911ECD70E88	11/11/2014	11/10/2024
C=US, O=Agilent Technologies, Inc., OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Agilent Public CA G2	6BE4732E5C0FBB61A4F8B2EED0A1C47AB7FCFA559FD5EF3D5250D20E74503A83	4/23/2013	4/22/2023
C=AU, O=ASCIANO EXECUTIVE SERVICES PTY LTD, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Asciano CA	5FC7C6E19AF873E0941D7C6AB344D3E6E4F73DD67693FADFA2DA9C6438AC1A1A	11/3/2015	11/2/2025
C=US, O=ATT Services Inc, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=ATT Services Inc Email Certificates CA - G2	AE7A31EB7007A6F64237387343C083D11950F1D6D546EDDAD8B5AA3DAC30B70C	3/3/2016	3/2/2026
C=US, O=Blue Cross and Blue Shield of Florida, Inc., OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Blue Cross and Blue Shield of Florida CA G3	BBCA83E909A956AA38BA04EA5FC6A6A13F99495DA1E23981BE5BEDE03970450A	5/3/2016	5/2/2026
C=US, O=Blue Cross and Blue Shield of Florida, Inc., OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Blue Cross Blue Shield of Florida CA G3	30C955BBF62B0E73573DDD9564A51235ED40B3B5BDD5E9B5561D64F96AD65D6	5/5/2016	5/4/2026
O=CertiSur S.A., OU=Symantec Trust Network, CN=CertiSur Class 2 CA - G3	041E70B7DDDD0F2F90F285C4C71E0E20533312A10773794A21B5791EC8755958	8/18/2015	8/17/2025
C=US, O=City of New York, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=City of New York Office of the Actuary - G2	A3E2E9FDC693C7536CD3A9ABC8E09705C113DD391635C6239BBFF21DA258C96F	6/11/2015	6/10/2025
C=US, O=HP Inc, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Collaboration Certification Authority	B864FF6DE0CB1BEAF6AA5C68DB8769C91F18E1721E22AC3ECCDD91C0889D77078	6/11/2015	6/10/2025
C=PE, O=Cosapi Data S.A., OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Cosapi Data Public CA - G2	AFCD78EBA95C0801A2FEBAE6F695D469AF346215C5A3E554F161D23C4BB40F91	5/12/2016	5/11/2026
C=CL, O=E-Sign S.A., OU=Symantec Trust Network, CN=E-Sign C2 Firma Electronica Avanzada Consumer Individual CA G2, emailAddress=e-sign@e-sign.cl	BE4D872225F013B6E17595AA29F3C0B9F85C403E6C9B483550B069E4A2F47BFE	11/15/2012	11/14/2022
C=CL, O=E-Sign S.A., OU=Symantec Trust Network, CN=E-Sign C2 Firma Electronica Avanzada Consumer Individual CA G2, emailAddress=e-sign@e-sign.cl	52A5E31287A0F89159F7BB4BD3A6A270DEE583A77261F6D00DD92D8C9424E800	11/15/2012	11/14/2022



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=CL, O=E-Sign S.A., OU=Symantec Trust Network, CN=E-Sign SC Class 2 Consumer Individual Subscriber CA - G2, emailAddress=e-sign@e-sign.cl	C34A5709122DC9EAF3021B979D4843FBB41C5B24326BECE84D2F686675A1B6EC	11/15/2012	11/14/2022
C=CL, O=E-Sign S.A., OU=Symantec Trust Network, CN=E-Sign SC Class 2 Consumer Individual Subscriber CA - G2, emailAddress=e-sign@e-sign.cl	72F0E3B1B8CD1A86BDF7D022DA4131C302293CAE820B28A597BC84D041B8971D	11/15/2012	11/14/2022
C=US, O=Adobe Systems Incorporated, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Enterprise Services CA - G2	EA78912AE2E15549DDA02D74CC05A18DADC218DD05C13F045B26433D23732F33	10/16/2012	10/15/2022
C=DE, O=Heuer und Partner - Rechtsanw\xC3\xA4lte mbB, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Feddersen Heuer Public CA	A402AA0AE53F484A07BF4E35B55D1274127650AD6145E243B719330B92B2A10A	1/5/2016	1/4/2026
C=AU, O=Fuji Xerox Businessforce Pty. Limited, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Fuji Xerox Businessforce CA - G2	92587CDC27A5C019B413AA94D21944AC8562E8DAA8C78AEA17C623D1B77714DE	6/4/2015	6/3/2025
C=US, O=General Electric Company, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=GE Enterprise SMIME CA 2.1	5C854634778E6DDC076ABAA36E5B8F4F45140578BD3A45AF09B7F23C34F032AD	6/16/2015	6/15/2025
C=US, O=Hewlett Packard Enterprise Company, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Hewlett Packard Enterprise Collaboration CA	2EAA4251B3FFDD3AE904833A08B7FE1E7717C17082455C07F6F6DA902CBAC5D0	3/17/2015	3/16/2025
C=US, O=Honeywell International Inc., OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Honeywell International Co-branded CA	7C932E8709835BEC74AAB6F02E958DF70995B3FED5FE4C375D66B1228555D8ED	12/5/2012	12/4/2022
C=US, O=Honeywell International Inc., OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Honeywell International Co-branded QA CA	87C0BAE275BF11F25AE3290B3E810D97E8297F276C576CDA9AEB5FAEFC4CD22	2/14/2013	2/13/2023
C=US, O=International Business Machines Corporation, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=IBM Certification Authority G3	CB16C58F10AFFDA46A0FC05BF49F0B707C579EC52E3527EEBA0448F9B8C16E99	11/10/2016	11/9/2026



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=Identive Group, Inc., OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=idOnDemand CA G2	B812A3156BBB9F0AABF8F36BE72A95388936272070C4860DBDD4955F0D59B486	9/5/2013	9/4/2023
C=US, O=Identive Group, Inc., OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=idOnDemand SHA-2 CA G2	36CAB8A86139B82476AE824EE4939A92088E6F16C2BD270EE349BF9D5A9E3384	9/5/2013	9/4/2023
C=DE, O=LfA Foerderbank Bayern, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=LfA Foerderbank Bayern - G2	315AC96789B49D48A1C420F32F9A4A73F4871AF75A4CA53CF41CE3FB3E2E76FC	6/16/2015	6/15/2025
C=SG, O=National University of Singapore, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=National University of Singapore CA - G2	438BA9C85C9A8C5506ACD1146ADA068B777A32FA2C78A6D4AB57241174881AB2	9/18/2014	9/17/2024
C=FI, O=Nokia Solutions and Networks, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Nokia Solutions and Networks CA	0B5F13974CEB577E1CC39DFFADF616FCF0C17ECA6747201AEBA6AF3BC20CE4F4	10/10/2013	10/9/2023
C=ID, O=PT Astra Daihatsu Motor, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=PT Astra Daihatsu Motor CA	9FF4EC074FE370818B15ABA1BBDCB0A4DBE3F8420A993A7B5176BCC7FB4E4EAD	5/31/2016	5/30/2026
C=DE, O=RWE Dea AG, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=RWE Dea AG CA	7FC6CAB96C16C850F457DCBBFB893539EA2664395F2409693789F41BFD64714E	12/11/2014	12/10/2024
C=US, O=SRI International, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=SRI International CA - G2	8F11E6AE162CD9472CAB0B6C023A56D8A442BD5981DD0CDBBCD5D501923223B7	11/15/2012	11/14/2022
C=US, O=SRI International, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=SRI International CA - G2	5B6A31D14ED98E8CF23A115BC45E87B8ECD82A937A29DBE0EFBA3C8133494B74	11/15/2012	11/14/2022
C=US, O=State Street Bank and Trust Company, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=State Street Bank and Trust - Global Markets CA	2C68D776FFD51155D98957A66043F896E2BC69CB1943570389350057A2C70616	7/10/2015	7/9/2025
C=AU, O=Sydney Trains, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Sydney Trains CA	BD80A335B5EBB7279960E0B5802257C256062895F33D3DCBC0B7CB7199DFA75F	11/24/2015	11/23/2025
C=US, O=Symantec Corporation, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Symantec Class 2 Employee CA - G3	2F320624CC3EBC01796080BEDEB5B2ED916F02A0AE5F537EDC4766BC455659DD	1/6/2015	1/5/2025



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=Symantec Corporation, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Symantec Class 2 MPKI Individual Subscriber CA - G3	E79BACE9FF58B8EE6D3BD94AE8ADB13DF42DFD86B3701BFF8EDFF5C4E84BAE91	11/15/2016	11/14/2026
C=US, O=Symantec Corporation, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Symantec Class 2 Shared Intermediate Certificate Authority - G2	68E63395029061641385B8AFF77F6D66F2D1FD87A821630D27EC3645C9FE235D	4/23/2015	4/22/2025
C=NO, O=Telenor Norge AS, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Telenor Norge AS EDC CA - G2	BC8EB15B0FEE05D953758E1D2C29A9E7D1E1B5AFD5659AB95E981F6F75BD1D71	9/3/2015	9/2/2025
C=NO, O=Telenor Norge AS, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Telenor Norge AS NF CA - G2	22261C8F0BCD85571AF2F801C47712E6C16DCAE3C7DFC4CD2451D9C538B349D1	9/3/2015	9/2/2025
C=NO, O=Telenor Norge AS, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Telenor Norge AS Test EDC CA - G2	26661F230442332E5F8F109C05A3FAA3EA339C29D22B07B8D1A048C693FA1F0C	9/3/2015	9/2/2025
C=NO, O=Telenor Norge AS, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Telenor Norge AS Test NF CA - G2	597D5A286729E73A324E5665CEE4B97FDD5A9FD14EBA4B903319A16CFC946680	9/3/2015	9/2/2025
C=MU, O=The Mauritius Commercial Bank Limited, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=The Mauritius Commercial Bank Limited CA	0A646FDC704F494A67739A7E99FD74955BB0AF1ABA622CEFE000B39557C5FC81	9/30/2014	9/29/2024
C=US, O=Thomson Reuters Holdings Inc., OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Thomson Reuters - LEDO CA	F5DF7A85240E93C602EE9C6F77C2B126C7A37CED8F34DD714B82C47F31F3544D	12/20/2016	12/19/2026
C=US, O=Federal Retirement Thrift Investment Board, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Thrift Savings Plan CA - G2	6FE969B0E32956CDA827A4084F9330C9559BB910291B9A4107C3C470774411D1	6/11/2013	6/10/2023
C=US, O=United Launch Alliance, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=ULA CA - G2	4A84F84E880F3D96C3BFA2AED67B0EE300FBEE0A4A90D736EF738A089FD6B17	4/25/2017	4/24/2027
C=US, O=University of Houston, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=University of Houston CA - G2	69FF03E05230DFD61E4D6F6DD6662808C65A85CBE8FEA5E43FBF387128E8B4F4	6/18/2015	6/17/2025



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=Voya Financial, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Voya Public Issuing CA1	63B7404D57FE17FD7E32DAC98D934EC98AB69F64D0338987193657A64364BE60	3/4/2016	3/3/2026
C=US, O=Yaana Technologies, LLC, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Yaana	7C73C0E9D52BC63E713110DA4705C7CECCB4D49F1F5FED0B6D1A707E63A4E31C	1/6/2015	1/5/2025
C=US, O=Symantec Corporation, OU=Symantec Trust Network, OU=Domain Validated SSL, CN=Symantec Basic DV SSL CA - G2	DFF583E3A1ED35E57D95104817AD823C055FB9071CD400435B5FC74E692081DB	6/7/2016	6/6/2026
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 Extended Validation SHA256 SSL CA	1F9B31F820929EBFA03117EC2B77BA6B0FB6ECC9E027682A559378DA311C54EF	4/9/2013	4/8/2023
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 Secure Server SHA256 SSL CA	E0898AD662474B9F753C79BEA878031C9A5D634A49EDD6310B960AB023C02C0E	4/9/2013	4/8/2023
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 Shared Public Organization CA - SHA256	2F72019CB45B07AB05CB1BB8ECC3076D7072660B57A29E42EBE2AA57B83BC60B	7/11/2013	7/10/2023
C=CN, O=TrustAsia Technologies, Inc., OU=Symantec Trust Network, OU=Domain Validated SSL, CN=TrustAsia DV SSL CA - G6	B90E17AB4B8778B10F9F28CBAA7664DE2EE3D66E1AFC574D168EDD24A10339FF	8/11/2016	8/10/2026
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 ECC 256 bit EV CA - G3	4B2CBA18EFBCE6C3C4A80AAABC952337000CD9346B768D062412A2DED846EDC9	1/7/2016	1/6/2026
C=ZA, O=Absa Bank Limited, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Absa Bank Limited Public CA	02302C4CF831335C9DD145DF91A8C1C703008FD234215D0E187895092BD81AD4	6/8/2017	6/7/2027
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 Extended Validation Code Signing CA - G3	C267DC115D57DD0226279B346DF1953DD2C07A85CB48A0D899FD5724F5AF681F	5/12/2016	5/11/2026
C=IE, O=DigiCert Ireland Limited, CN=DigiCert QuoVadis G4 SMIME ECC P384 SHA384 2023 CA1	E117CBC55073D91A61E7636FE46184AB8726466A338C2DF109E8A284DE551650	3/16/2023	3/13/2033
C=IE, O=DigiCert Ireland Limited, CN=DigiCert QuoVadis G4 TLS ECC P384 SHA384 2023 CA1	35A5B2730439D225E04080412EC01031F22F3902B84670E7B44F699F9701F050	3/16/2023	3/13/2033
C=IE, O=DigiCert Ireland Limited, CN=DigiCert QuoVadis G4 SMIME RSA4096 SHA384 2023 CA1	369AE7BD4D9E9E698A6F731D5AC19936AB3859431A502497357FE93ACF01982D	3/16/2023	3/13/2033
C=IE, O=DigiCert Ireland Limited, CN=DigiCert QuoVadis G4 TLS RSA4096 SHA384 2023 CA1	3E8FC16AADA8FCB6F51CA4848BB15F8ABE8DD807F9CEAA4C6CCBE9864F6CE9DE	3/16/2023	3/13/2033
C=US, O=Amazon, CN=Amazon ECDSA 384 M02	A7D15E62C78825919FB59BDE58EFCFB0225B4107DFC60026885420185DC69B63	8/23/2022	8/23/2030
C=US, O=Amazon, CN=Amazon ECDSA 384 M03	F40DA455BE136E0DB31A116FFD3C3002B1EBBC591558493FE630A9C8C9AFAD70	8/23/2022	8/23/2030
C=US, O=Amazon, CN=Amazon ECDSA 384 M04	47FD11AD552AB264D7F272770D3B5590AAE145412F4AD6081BDC485298D8E000	8/23/2022	8/23/2030
C=US, O=Amazon, CN=Amazon ECDSA 384 M01	DFE35C740CF41C0B053E2202EA5AFC2F021F70BF90B26BC861FE1D9A0BFC4F1E	8/23/2022	8/23/2030



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=CH, O=Berner Kantonalbank AG, OU=Issuing Certification Authority, CN=BEKB - BCBE Issuing CA G2	474D298059F15BC5319B4A94D38AAFADBF627CC09513FCD9362CD89C2F9B6221	2/7/2023	11/24/2031
C=US, O=Amazon, CN=Amazon RSA 4096 M01	40FE28DC925D1A8A6B8F861863EB57CD30C6776416AB8A99920BAC7C925A4174	8/23/2022	8/23/2030
C=US, O=Amazon, CN=Amazon RSA 4096 M02	2CC39F6789B967B0282AEACA4548F602A1B274E90D260773E9E7B0F7C0F13432	8/23/2022	8/23/2030
C=US, O=Amazon, CN=Amazon RSA 4096 M03	41BDC074EB9531EC81FEF08D9FFA16536F61FC59789265E95E89A4982AEF3F91	8/23/2022	8/23/2030
C=US, O=Amazon, CN=Amazon RSA 4096 M04	3B6FAB0AB11C14EEF9031969E0ADB037C8FCC3366728A6567623D3C26B3632CB	8/23/2022	8/23/2030
C=US, O=DigiCert, Inc., CN=DigiCert G5 ECC SHA384 2021 CA1	7A2311B472B99171164FFA0BCA3FA7AC9AC46D035657BFC1EA133095C9703933	4/14/2021	4/13/2031
C=US, O=DigiCert, Inc., CN=DigiCert TLS ICA SYMC PCA3-G4	B1D1244218C903B64EBF42150C5FD891EB5B663CE6F20DD12E8352DD7D1E6693	1/8/2021	1/7/2031
C=US, O=DigiCert, Inc., CN=DigiCert G5 ECC SHA384 2021 CA1	4E1AB9F0122809E2A8E93133187AF26E71C9C3BF86971065D578FC4C08AF79	3/11/2021	3/10/2031
C=US, O=Wi-Fi Alliance, CN=WFA Hotspot 2.0 Intermediate CA	FEA342D00D1A355CF51569EF7E0F617ABB0F22D6D1E73DAA11DCB4D407975543	11/25/2013	11/25/2023
C=US, O=Wi-Fi Alliance, CN=WFA Hotspot 2.0 Intermediate CA	AE0D0BA5AC3EEB823F5CA77331A99D7FDB2EC231D7CE47B7C208E3830E08A891	12/9/2013	12/9/2023
C=US, O=DigiCert, Inc., CN=DigiCert TLS ICA SYMC PCA3-G6	FDB351BDA2D821C3DFBB924A12D90D6DC760D5F6200144529E502E467BBF9ECC	1/8/2021	1/7/2031
C=US, O=DigiCert, Inc., CN=DigiCert G5 RSA4096 SHA384 2021 CA1	A11C3BC528FFE2BCEC915A5B3437D4269AD74156E0166B47A1D5F141735104FD	4/14/2021	4/13/2031
C=US, O=DigiCert, Inc., CN=DigiCert G5 RSA4096 SHA384 2021 CA1	C68B6C455593E7CE57383A736517CA46FE86641E46BDFB25C12E41E17DE53B59	3/11/2021	3/10/2031
C=US, O=Amazon, OU=Server CA 1B, CN=Amazon	4A1FF6BBF481170D3B773CEC1F3A84DE3B5096575CDBF8B08432209318CA0FBD	10/21/2015	10/21/2040
C=US, O=Amazon, OU=Server CA 1B, CN=Amazon	F55F9FFCB83C73453261601C7E044DB15A0F034B93C05830F28635EF889CF670	10/22/2015	10/19/2025
C=US, O=City of New York, CN=City of New York Office of the Actuary - G4	2893798022D936E28D6AA92EF58417F56C5E8E9B6FE0E1E1B09F973218976A20	12/7/2021	12/6/2031
C=US, O=United Launch Alliance, LLC, CN=ULA CA - G4	32980474C3DE6F784C4B6C30391171A70A8090BF42C827BBED4F3BA34EFE203	12/17/2020	12/16/2030
C=US, O=DigiCert Inc, OU=DigiCert Organizational E-Mail Certificate, CN=DigiCert SHA2 Assured ID CA - G1	87BBAD4C915D56D2E74F044D7220B957D4A853D9A1818B52F3625417DB655E3A	5/17/2019	5/17/2029
C=US, O=Alaska Permanent Fund Corporation, CN=Alaska Permanent Fund Corporation Public CA G1	CD662FFFCE76F071BE918AECE125F9B54873479F3AF8C3545DB330E28F92B035	3/11/2021	3/10/2026
C=US, O=DigiCert, Inc., CN=DigiCert High Assurance TLS Hybrid ECC SHA256 2020 CA1	5D270CB4EFF587AD6CD17CB2B60D9084A153D77D2AA79A2CB3DB1DDB904684F5	3/30/2021	3/29/2031
C=US, O=DigiCert, Inc., CN=DigiCert High Assurance TLS Hybrid ECC SHA256 2020 CA1	74EAB573DA7DB195097BE0E90F334934C7A4C89E8083759DB4333A00EDD243D9	12/17/2020	12/16/2030
C=US, O=Amazon, CN=Amazon ECDSA 256 M01	332B101539FA89CA4E228719FE5287AB6869AF31AB21CBF110F5DD3C5994C1C7	8/23/2022	8/23/2030
C=US, O=Amazon, CN=Amazon ECDSA 256 M02	F9693255933B68159D168AA9A247DA1DC66E23C0620338EF7149E48F83B1AE79	8/23/2022	8/23/2030
C=US, O=Amazon, CN=Amazon ECDSA 256 M03	493E78EEE8CCA1F26E6494ED924985AF3FA9E6110EAA61C3214E8D73B4047316	8/23/2022	8/23/2030
C=US, O=Amazon, CN=Amazon ECDSA 256 M04	D241192CCE57D438986723972DD6F18B5A3A3456A708E8F273D147223AB6FA5D	8/23/2022	8/23/2030



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=Amazon, OU=Server CA 3B, CN=Amazon	ECC295B6DDCD084BA7179FB53BDD1D422CB6C0A8D94F154D4A5B17780B7279ED	7/16/2018	7/16/2028
C=GB, O=LMAX Limited, CN=LMAX Trust Services CA X2	ADBF61297BC10F2C4150F26E6A94DA024DA60854AB5DCACED1C8486456838735	6/30/2022	6/29/2037
C=AU, O=Verokay, CN=Verokay Secure Web ECC	BCFD2614E42D63C59691C3CE8BEC792DE2FCE89CED4F9C460D0A848573074FCB	3/17/2022	3/16/2032
C=AU, O=Verokay, CN=Verokay Verified Business ECC	F1ED3B35C92FA5DAAAA3DD45F99EBA3B823A2FB1C24A89CED1699D95E02564A2	3/17/2022	3/16/2032
C=US, O=DigiCert Inc, CN=DigiCert TLS Hybrid ECC SHA384 2020 CA1	F7A9A1B2FD964A3F2670BD668D561FB7C55D3AA9AB8391E7E169702DB8A3DBCF	4/14/2021	4/13/2031
C=US, O=DigiCert, Inc., CN=DigiCert G5 SMIME ECC SHA384 2021 CA1	873DD73022087B9179FA060EF3D34381845A37E88A6A2BF20ECBAFDE8C3DB993	7/15/2021	7/14/2031
C=US, O=DigiCert Inc, CN=DigiCert Global G3 TLS ECC SHA384 2020 CA1	0587D6BD2819587AB90FB596480A5793BD9F7506A3EACE73F5EAB366017FE259	4/14/2021	4/13/2031
C=US, O=DigiCert, Inc., CN=DigiCert G5 TLS ECC SHA384 2021 CA1	97A073957C5812725757672F222690655A1407D71011EDFC8B2FADC5128911DA	4/14/2021	4/13/2031
C=US, O=DigiCert, Inc., CN=DigiCert Global G3 mPKI SMIME ECC P384 SHA384 2023 CA1	EB46C072E983B1F6F1E34C397CF7064E77D921ED82E913A27224668FE8C25901	8/30/2023	8/29/2033
C=US, O=DigiCert, Inc., CN=GeoTrust G3 TLS CN ECC P-384 SHA384 2022 CA1	662871C80F4E0FD219EA69AFC4D28AD7B41E9381560BEE787848D4EEF1CBF24	12/20/2022	12/19/2032
C=US, O=DigiCert, Inc., CN=GeoTrust EV G3 TLS CN ECC P-384 SHA384 2022 CA1	02F40238BA372E9DF51D7540E04EDFEDAB5439323F9A02DF5B38C074CA7D406E	12/20/2022	12/19/2032
C=US, O=DigiCert, Inc., CN=DigiCert Secure Site Pro G3 TLS CN ECC P-384 SHA384 2022 CA1	34CDC67D88D25217ADC8A25348E114CBEC63148391CFA475D382874695202D2C	12/20/2022	12/19/2032
C=US, O=DigiCert, Inc., CN=DigiCert Secure Site Pro EV G3 TLS CN ECC P-384 SHA384 2022 CA1	95F6B9230F27FB5FC0CB29443DBE7300168B5992C7558F3F63D4352F32B8C9CB	12/20/2022	12/19/2032
C=US, O=DigiCert, Inc., CN=DigiCert Secure Site OV G3 TLS CN ECC P-384 SHA384 2022 CA1	38D530FB170053617E47AA6CEFF21C2DB43C9D96741AF1584566072091474BB3	12/20/2022	12/19/2032
C=US, O=DigiCert, Inc., CN=DigiCert Secure Site EV G3 TLS CN ECC P-384 SHA384 2022 CA1	943BC406B0B45ACF88413045227265703F1AC8B21D6FBC2B8CBDE59D7CE51B81	12/20/2022	12/19/2032
C=US, O=DigiCert, Inc., CN=DigiCert Basic OV G3 TLS CN ECC P-384 SHA384 2022 CA1	B5528F4A43957E1ABBE08C4EBF2D8ACF4C2C1914D6354117492C8C3FE033FD97	12/20/2022	12/19/2032
C=US, O=DigiCert, Inc., CN=DigiCert Basic EV G3 TLS CN ECC P-384 SHA384 2022 CA1	1CA57EF159812BFBE2D8106F6152E51DDD0A5A4C9489CD097595B797CB37843E	12/20/2022	12/19/2032
C=US, O=DigiCert, Inc., CN=DigiCert G5 TLS CN ECC P-384 SHA384 2022 CA1	915EC8DCC237FA932CB0245A996FF3A711550A464214FD7512F225AA608061C8	7/12/2022	7/11/2032
C=US, O=DigiCert, Inc., CN=Thawte G5 TLS CN ECC P-384 SHA384 2022 CA1	D604F0148A25D93BAB577D38705CBAAE2C4477DE7EB51D86A0F6B26584013D7A	7/12/2022	7/11/2032
C=US, O=DigiCert, Inc., CN=GeoTrust G5 TLS CN ECC P-384 SHA384 2022 CA1	E43BAAD78B78F9EEA6903E56F456DEC24BD9648C13AE02E2DE17A1F84F3D0807	7/12/2022	7/11/2032
C=US, O=DigiCert, Inc., CN=DigiCert Basic EV G5 TLS CN ECC P-384 SHA384 2022 CA1	FDB76E78A450C0F3AF093D5186C3B28A1280567A0EC531CA5977FF4E616B35E3	1/19/2023	1/18/2033



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=DigiCert, Inc., CN=DigiCert Basic OV G5 TLS CN ECC P-384 SHA384 2022 CA1	1D75A0B37B4AE11E883C97D3FF0DC5D84D93FE129C12DD78086C4A78DAF3F709	1/19/2023	1/18/2033
C=US, O=DigiCert, Inc., CN=DigiCert Secure Site EV G5 TLS CN ECC P-384 SHA384 2022 CA1	49C1F25A88B5B15A80C1A2DA11589111C5AD8E222104FDC49022FD6AEF1CF54D	1/19/2023	1/18/2033
C=US, O=DigiCert, Inc., CN=DigiCert Secure Site OV G5 TLS CN ECC P-384 SHA384 2022 CA1	9E561A4B486076C219F3C95387BF11670D72F6C4F0DCD9BBB47F59F5C142EF88	1/19/2023	1/18/2033
C=US, O=DigiCert, Inc., CN=DigiCert Secure Site Pro EV G5 TLS CN ECC P-384 SHA384 2022 CA1	290E698939A24F7B63AB14D0490DE92BEBEF6C1C2D3BE717F3775B71C1AB626D	1/19/2023	1/18/2033
C=US, O=DigiCert, Inc., CN=DigiCert Secure Site Pro G5 TLS CN ECC P-384 SHA384 2022 CA1	D43B3FBC2E6715B33D3D7037200FA9D4181F97492C44DBEBA8FBAE9680D64CD0	1/19/2023	1/18/2033
C=US, O=DigiCert, Inc., CN=GeoTrust EV G5 TLS CN ECC P-384 SHA384 2022 CA1	07F55A105E886D191FBD2253283E77B1FC1CCDCC9F26A3E6C7E69706A7593FEF	1/19/2023	1/18/2033
C=US, O=DigiCert, Inc., CN=DigiCert Assured ID G3 TLS ECC384 SHA384 2022 CA1	1C8846C406AC6294FAF0D32A5A14E79C841385A57F1159B61E9014605E37E5E9	3/3/2022	3/2/2032
C=US, O=DigiCert Inc, CN=DigiCert Global G3 TLS ECC SHA384 2020 CA1	699ED65BDD3D5E790776D165EA7A325B7AEAF419647921A92FF28BB0680D72BA	3/30/2021	3/29/2031
C=AU, O=Verokery, CN=Verokery High Assurance Verified Business ECC	34263E9424D819B94BCFA87E69DD9EF43205D4E2DE84A53497314063D822969B	3/17/2022	3/16/2032
C=US, O=DigiCert, Inc., CN=DigiCert Global G3 TLS EE+ ECC384 SHA384 2022 CA1	15E77C59404015659EE26F92561F007AAF53986A27926F0E707585C2A7F301B8	4/28/2022	4/27/2032
C=LV, O=EnVers Group SIA, CN=GoGetSSL G3 TLS ECC P-384 SHA384 2022 CA-1	7E687FA866802535C3AFC3939376D4BF0FD753D9421719A8AA91A4FF305AD2	6/23/2022	6/22/2032
C=US, O=DigiCert, Inc., CN=Encryption Everywhere G3 TLS ECC P384 SHA384 2023 CA1	DA1F7CBF322E55CC082276F8519147DFA1E80CBAF7D5799FF771358832ED1712	2/2/2023	2/1/2033
C=IE, O=DigiCert Ireland Limited, CN=GeoTrust Global G3 TLS EUR ECC P384 SHA384 2023 CA1	57E0B33504DBAF6F29A095CB8A297A4ABEC121CE11640EFAFC17594098F6CAA9	6/14/2023	6/13/2033
C=US, O=DigiCert, Inc., CN=Thawte G5 TLS EC P-384 SHA384 2022 CA1	7F4E38B8B22F91DAF46ED5856D6E7F1180296FB152C026473C6328519D2AC99A	5/26/2022	5/25/2032
C=US, O=DigiCert, Inc., CN=GeoTrust G5 TLS EC P-384 SHA384 2022 CA1	72F104084DB7914BD8AFE6E347B9257ED4C1D7FC71D3F1E51F3CF47B739B386A	5/26/2022	5/25/2032
C=US, O=DigiCert, Inc., CN=RapidSSL G5 TLS ECC P-384 SHA384 2022 CA1	D2A3D4ED9C05964F4A0984381933C5AB1E93E4A0BA7FCDD60940946D68BD6262	6/2/2022	6/1/2032
C=US, O=DigiCert, Inc., CN=Thawte G5 TLS ECC P-384 SHA384 2022 CA2	0215DB7E22D36D0E7535A12691A9EC0DC7F43D83AB580C0709711C1E7A9B55EC	7/28/2022	7/27/2032
C=US, O=DigiCert, Inc., CN=GeoTrust G5 TLS ECC P-384 SHA384 2022 CA2	66E795550B16497E7CF4566EC63B56660F28DBD551C357C526FBB0D7620A8112	7/28/2022	7/27/2032
C=US, O=DigiCert, Inc., CN=Encryption Everywhere G5 TLS ECC P-384 SHA384 2022 CA1	AD7F57AA3FC5EAF4310224A4750A97CD879DE1989D4B86AB08B7A28373BCB489	11/3/2022	11/2/2032
C=US, O=DigiCert, Inc., CN=DigiCert G5 TLS ECC SHA384 2021 CA1	E5A1C1919E3BEAEE5935A8485DDCE0E3F01A2618DB0F0793B3DB3D9AC2D967C7	2/11/2021	2/10/2031



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=GB, O=British Telecommunications plc, CN=BT Corporate User - Public Trust CA2	78C065F4A95B84387E38682A8D9685FEA2BB45EE5D099E38CCB660A6319FC8E4	9/14/2021	9/13/2031
C=GB, O=Oxford Nanopore Technologies Ltd, CN=Oxford Nanopore Public Issuing CA	F7C25E1D01F743DD1F87CEFE2E572E186647CD6FA95F2DD41F12AE36D6C083CF	7/15/2021	7/14/2031
C=US, O=Fannie Mae, CN=Fannie Mae Shared Online CA G3	249CB0551F86DB117BD83E72C9B08B7314F78117843EC2A9D9DD89ABE1DF2C5E	8/31/2021	8/30/2031
C=AU, O=Attorney Generals Department, CN=Attorney Generals Department Public CA - G3	3A6F06233A059C0C8FE3C68289FD35A0DB7520F9D65984BBBF2D8E37C0BBFCDB	10/11/2021	10/10/2031
C=SA, O=Johns Hopkins Aramco Healthcare, CN=Johns Hopkins Aramco Healthcare Issuing CA	C48FC3FF9EEA47057F827CFD63944701839CA2ACD809CDD04475956895C841CD	12/14/2021	12/13/2031
C=US, O=DigiCert, Inc., CN=DigiCert Assured ID SMIME RSA2048 SHA256 2021 CA1	61E163C56C6100A91463ACCEC29B01A881E3F9C3B3AEF2CCD0B21DB0EAF9F2AE	12/14/2021	11/9/2031
C=US, O=DigiCert Inc, CN=DigiCert Baltimore TLS RSA SHA256 2020 CA1	701317250210AB91280527C3B436931015B8DCEE69A6893ADA4FFAD25A6FE44F	4/22/2021	5/12/2025
C=US, O=DigiCert, Inc., CN=DigiCert Assured ID Grid TLS RSA2048 SHA256 2022 CA1	0181B2B6173179562E75632344037CA523018618A7F7168269A3EB85367FF75C	3/10/2022	11/9/2031
C=US, O=Amazon, CN=Amazon RSA 2048 M01	5338EBEC8FB2AC60996126D3E76AA34FD0F3318AC78EBB7AC8F6F1361F484B33	8/23/2022	8/23/2030
C=US, O=Amazon, CN=Amazon RSA 2048 M02	B0F330A31A0C50987E1C3A7BB02C2DDA682991D3165B517BD44FBA4A6020BD94	8/23/2022	8/23/2030
C=US, O=Amazon, CN=Amazon RSA 2048 M03	BF8A69027BCC8D2D42A6E6D25BDD4873F6A34B8F90EDF07E86C5D6916DA0B933	8/23/2022	8/23/2030
C=US, O=Amazon, CN=Amazon RSA 2048 M04	138BDF6E23AC971EB4E626B279DD6A26F057510F1DE394293A5EEA2860DE019B	8/23/2022	8/23/2030
C=US, O=DigiCert, Inc., CN=DigiCert PKI Platform AATL CA	7E15A84E1A0927AED136C59A048AE48E63BA82EDAA9827892C105A9A89BDE659	3/11/2021	3/10/2031
C=US, O=DigiCert Inc., CN=DigiCert One AATL CA	419507E46D6520ECEC453A0C2B5292A099431C35E8967A6D0EE573CAAB116C71	4/29/2021	4/28/2031
C=US, O=Abbott Laboratories Inc., CN=Abbott Laboratories Secure Authentication CA G3	ABFD261AB3733480BF58616991FFE266B6DB315E226A32339702D6C0BE6B96F2	3/11/2021	3/10/2031
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Cybertrust Japan Issuing CA-1	87942388D29A46C06FE1E56AAB791594D0FB2E8EABF124048F130EEA9BEDD3FD	9/1/2016	9/1/2026
C=US, O=DigiCert, Inc., CN=DigiCert Assured ID Grid Client RSA2048 SHA256 2022 CA1	FC8B43C36CCB521FE0E5BD24B14665DAD350BA2C232006B98933D7878D775718	4/12/2022	11/9/2031
C=AU, O=Verkey, CN=Verkey Secure Email	0E6DDE73CC50DE243F83724F5635360556F0BB18FAB31266B046B55A0FBBAFE6	3/17/2022	11/9/2031
C=GR, O=Adacom S.A., CN=Adacom S.A. Class 1 - Public Trust CA	40CEBC99D7D6BE08E863F9816A651801574E97D69AB839DB92A0E18F607BD1FC	3/11/2021	3/10/2031
C=IT, O=Trust Italia S.p.A., CN=Trust Italia S.p.A. Class 1 - Public Trust CA	AA10D99FD120217012E67F225DB544CBBAAE13BB01F7B0B766520C13FA1A33FF	3/11/2021	3/10/2031
C=US, O=KMS Solutions, LLC, CN=DigiCert KMS Solutions LLC GCC High Email CA	4CBB63C9CD73883DBDAC9BAA662C356602FB30C4EE68B86642EA12AFBC71D367	2/14/2023	2/13/2033
C=AU, O=Verkey, CN=Verkey Assured Business ID and Secure Email	4D7DA8F7A331D30C8955C8F9A79CE75A109F2BA41969EEFF6C13A5475E1B9935	3/17/2022	11/9/2031
C=GR, O=Adacom S.A., CN=Adacom S.A. Class 2 - Public Trust CA	912E37CAA496E53CD175C05D4334B4D060FBD0C69105AF82085CAF7AD4BBD318	3/11/2021	3/10/2031
C=IT, O=Trust Italia S.p.A., CN=Trust Italia S.p.A. Class 2 - Public Trust CA	38CF02E361BC737A46DCF02DC1A5664936868267CFB8D4423488BD538EB76518	3/11/2021	3/10/2031



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=Kyndryl, Inc., CN=Kyndryl Certification Authority G1	D83CD35EFE9C610529D4C82E27229E4DE74A1A29573C24282E0C05C3B388BFAD	10/26/2021	10/25/2031
C=NL, O=Shell Information Technology International BV, CN=Shell Corporate Email CA	7A16D63926765A78E8E7666715E865F7A436E3EEE9A4DB71B66996B63448D203	4/14/2021	4/13/2031
C=US, O=NBCUNIVERSAL MEDIA, LLC, CN=NBCU SMIME CA 1	58048CAAE127A2071EA048CE646F5E9D97775ED8F0DD71BDB27C18B0A47CDEBC	3/8/2022	3/7/2032
C=GB, O=LMAX Limited, CN=LMAX Trust Services CA R2	84F83527414D88C44BFD875A8521DD0C3BFC38190848DBC24914A22B24AFBC9C	8/17/2022	8/16/2037
C=US, O=KMS Solutions, LLC, CN=KMS Solutions LLC Email CA	A42AD4E053901C06BEF79F9A7A03DB0631C2B64F780EFAB753CFB2629EFB648D	11/10/2022	11/9/2032
C=IT, O=Monte Titoli S.P.A., CN=Monte Titoli Public Trust CA	561FB017C53FE711EA356164B3A486E60C369267BA0FBF1B5A6C839AE26EFA7E	7/7/2021	7/6/2031
C=US, O=DigiCert, Inc., CN=DigiCert Assured ID SMIME RSA SHA256 2020 CA1	5944AA2A86792A7BF5B748B79144DB7FD91FEEA5A3F3E2129C6B3145A3125B10	12/8/2020	12/7/2030
C=GB, O=British Telecommunications plc, CN=BT Corporate User - Public Trust CA1	B19B321258FB89E8548124748C16726B42BE74721BDF219636B3CE9E81C29522	2/11/2021	2/10/2031
C=QA, O=Qatar Rail, CN=Qatar Rail Issuing CA	B4B636DED84A7719149D63EAB51A370AF35CADA1A8E2BD1F738D4C026B4ADD5D	2/11/2021	2/10/2031
C=US, O=DigiCert, Inc., CN=DigiCert PKI Platform Class 3 Shared SMIME Organization CA	7F755DC2B9EE99EB02D71CB1805059AAABB5EB3E8558DCA8C09A1D0DE258D767	5/29/2019	5/29/2029
C=US, O=DigiCert Inc, CN=DigiCert TLS RSA SHA256 2020 CA1	52274C57CE4DEE3B49DB7A7FF708C040F771898B3BE88725A86FB4430182FE14	4/14/2021	4/13/2031
C=AU, O=Verokey, CN=Verokey High Assurance Verified Business	2F0E385864D2DCA8AC7AE48164287BFE45126C6BCD92E91BB3DF1250C7B2DABA	3/17/2022	11/9/2031
C=AU, O=Verokey, CN=Verokey Secure Web	DBAF58DEBFBBA1DE8E04DCAE7A2C163B09D39E7E732E91DEA8655C2BD732AB00	3/17/2022	11/9/2031
C=AU, O=Verokey, CN=Verokey Verified Business	D6CC57B9260E9B012DFAC40A81BFC022B92D91FA49B7C45C59DF86702AAC2906	3/17/2022	11/9/2031
C=LV, O=EnVers Group SIA, CN=GoGetSSL Legacy TLS RSA2048 SHA256 2022 CA-1	C5EB54EB458E38183C70BF4BD1064D0CF557EA07EAA1CB305968E8A8A50733ED	6/23/2022	11/9/2031
C=US, O=Bloomberg LP, CN=Bloomberg TLS CA	F5F1A8C04E5CF0FDB678DD279994463E48508C4349643B0D92CBFD7523F6C40A	3/30/2021	3/29/2031
C=US, O=DigiCert Inc, CN=DigiCert Global G2 TLS RSA SHA256 2020 CA1	C8025F9FC65FDFC95B3CA8CC7867B9A587B5277973957917463FC813D0B625A9	3/30/2021	3/29/2031
C=AU, O=Verokey, CN=Verokey Secure Web G2	5EE5AAD704A8B698883F4029720C8FA1CB79C9FA3463CC24340629EBE6C5A62B	3/17/2022	3/16/2032
C=US, O=Microsoft Corporation, CN=MSFT RS256 CA-1	F5D4CAD53B3F2EF39810DA6D3CD5FF7663F4ABB87738827CCECAFF6FCC3EAFCA	4/28/2022	4/27/2032
C=US, O=DigiCert Inc, CN=DigiCert High Assurance CA-3b	28506E33F55A6072115F3E04C9BDBF5AF5312CA8FC132508B97AC99FEE0516E8	3/30/2021	3/29/2031
C=US, O=Aetna Inc, CN=Aetna Inc. Secure CA2	428B87B8061A79ABA75877FD0383ADB831A1459B86BC408CE7D8D17B295B75BB	3/30/2021	3/29/2025
C=US, O=Aetna Inc, CN=Aetna Inc. Secure EV CA	8B6CCC3BE92F0121E6494AC704BF0B9B9CEBBA2E363C8E8122D90984D3EBF386	3/30/2021	3/29/2025
C=US, O=CrowdStrike, Inc., CN=CrowdStrike Global EV CA	86B109232C19EC514F8CB26788E65090293F96DD8D2942017A33035AB225D5FB	3/30/2021	3/29/2031
C=US, O=CrowdStrike, Inc., CN=CrowdStrike Global EV CA G2	9ED1EDEA95AA5B72B513A3E41A1BA0D2EFB14CEC88891E34D00495C95556605C	3/30/2021	3/29/2031



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=DigiCert, Inc., CN=DigiCert High Assurance TLS RSA SHA256 2020 CA1	495E6624A15340C4C74AB86037748AD62D1EF4F14E7C81AB7CDB629BE1404757	3/30/2021	3/29/2031
C=US, O=Avalanche Cloud Corporation, CN=HydrantID EV SSL CA D1	F9D4A6C011E9C6A8F5A4CF7ED0416869C7238EF93A56161EA6CA3D8B41716097	3/30/2021	3/29/2031
C=US, O=Plex, Inc., CN=Plex Devices High Assurance CA3	1316ED42A849217D51CFB4DE1A1418A8D3A77902FB305D3024F72D4636B82FF0	3/30/2021	3/29/2025
C=US, O=DigiCert, Inc., CN=DigiCert TLS ICA Universal 2021	23EE12A8DA9D38549C54A32BC1E4A18BAF1570488107D169EBD734DFDA330B0E	1/12/2021	1/11/2031
C=US, O=Abbott Laboratories Inc., CN=Abbott Laboratories Secure Authentication CA G2	2697ACB96A49BE2BFC5C06C393949F0D8E75106AD6D4C73E2DA172A90831A85A	1/21/2021	1/20/2031
C=US, O=Avalanche Cloud Corporation, CN=HydrantID SSL CA D1	A847544CC3CD54E855CA39780C2162431F5C8E327EC66D5A43CF266877BEC50F	3/4/2021	3/3/2031
C=US, O=DigiCert, Inc., CN=DigiCert High Assurance TLS RSA SHA256 2020 CA1	9BFED3D9DC95236BCFFCB35D4B120DB0E3867F62B1FD015A928DA0B303966683	12/17/2020	12/16/2030
C=US, O=CrowdStrike, Inc., CN=CrowdStrike Global EV CA G2	5EBD9874E6B88DA38F4A7B9566CE5D4DF05E0C224D94986AD8CC5EBA004A0C04	3/4/2021	3/3/2031
C=US, O=Avalanche Cloud Corporation, CN=HydrantID EV SSL CA D1	863472EC79DB54077114DADE720CE1F7B41A233748FC6773FA86520F0B9AAA21	3/4/2021	3/3/2031
C=US, O=DigiCert, Inc., CN=DigiCert QuoVadis TLS ICA QuoVadis Root CA 2	673E8FEEB1168277D0153111D20ED38E9DA51F440BE7FD50B218540937741A48	1/6/2021	1/4/2031
C=US, O=DigiCert, Inc., CN=DigiCert QuoVadis TLS ICA QV Root CA 1 G3	C42A4D8C0904BB211906F43B441BBBC9B5A003BA3611879FD34AE576F7C2F764	1/6/2021	1/4/2031
C=US, O=DigiCert, Inc., CN=DigiCert QuoVadis TLS ICA QV Root CA 3	D8CC89C6AA6B7452881907927C81E66DA0A17598CF7674E4E2E133F16546D5F0	1/6/2021	1/4/2031
C=US, O=DigiCert, Inc., CN=DigiCert QuoVadis TLS ICA QV Root CA 3 G3	728E4BD2B399840E9D437AF975B0198910B4129B7AB708CB5C0B445D3B04D999	1/6/2021	1/4/2031
C=DE, O=Uniper IT GmbH, CN=Uniper SE SMIME CA	43067D5EF78F7276DF9B23855BF54E8DDB7DEF0D8B79A365573D05627F0A6638	6/29/2023	6/28/2033
C=AU, O=Verkey, CN=Verkey Verified Business G2	7EDBE6F8C49A1E3988CAADD438B72F07B6AF9CE751CF5835163161D63CAE4DDF	3/17/2022	3/16/2032
C=CH, O=Hitachi Energy Ltd, CN=Hitachi Energy Assured ID CA	8EAEC34A01A9E7017FD4BCE8BA432A350A2A16561ABE0617CCE1A0D4B1E09EEC	9/14/2021	9/13/2026
C=US, O=United Launch Alliance, LLC, CN=ULA CA - G5	818B703BC75A0E86692DE5F4477E8D8E085071E2435CB0FEA829CA9FEB72BA7C	10/11/2021	10/10/2031
C=GR, O=Adacom S.A., CN=ADACOM Class 2 Public Trust CA G2	C1D5F777F98E6CC616EEE9A212F070990E818D06751CC2A86551FB4A9168E29D	9/14/2021	9/13/2031
C=DE, O=Henkel AG & Co. KGaA, OU=Class 2 DigiCert PKI Platform Individual Subscriber CA, CN=Henkel Secure E-mail CA	7D89BA7764CFF6FE2EE9AD44838D56C5D57F3DD736F96068DE9B0A1710FB3D47	5/29/2019	5/29/2024
C=US, O=Microsoft Corporation, CN=MSFT BALT RS256 CA	069DF2F8919D9209D0C524A56BA1181DF6D1BBFC4AA61C9F01D092E2D5C3A1FD	4/7/2022	5/11/2025
C=DE, O=Henkel AG & Co. KGaA, CN=Henkel Secure E-mail CA G2	0872E14A4E2B7B1BA0DE0B785493E0F4B25E2E584A3F3462F0A1901CB7BBE5F0	5/10/2023	5/9/2033
C=US, O=Bechtel Global Corporation, CN=Bechtel Managed SMIME CA	D1A7ABBA00B566B8C6A4BD99A242740C45A5C5FCE6651213A3CD292E1FDCF3B5	6/23/2022	6/22/2032



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=PT, O=DigitalSign - Certificadora Digital SA, CN=DigitalSign CA - G5	7AA50B4EACCB422A19EF8597A71D56CB8E6910CFA4DD9BDDFAB1EFE7BCB7801F	7/7/2021	7/6/2031
C=PT, O=DigitalSign - Certificadora Digital SA, CN=DigitalSign CA - G7	FE7AA77C5DE2D1466852F6D9070A320BE3DA439C72D74F71C62697502DA5BFCF	11/3/2021	11/2/2031
C=DE, O=Giesecke+Devrient GmbH, CN=Giesecke and Devrient CA	0A4FF256B1A0A14BB81F318B64D47D6C36A4C3529F9C39299A47ED51A2B8EE52	3/11/2021	3/10/2031
C=US, O=DigiCert, Inc., CN=DigiCert Basic EV G2 TLS CN RSA4096 SHA256 2022 CA1	8534345E71F5450B6BD2758CEF8495547008A6E302AC8DAC625361CB24DC6BD5	12/15/2022	12/14/2032
C=US, O=DigiCert, Inc., CN=DigiCert Basic OV G2 TLS CN RSA4096 SHA256 2022 CA1	F16C99CDE19ED1ACE8B4FBC700E05E7EFF2116FD6A22427766B251C6E8BB3CE7	12/15/2022	12/14/2032
C=US, O=DigiCert, Inc., CN=DigiCert Secure Site EV G2 TLS CN RSA4096 SHA256 2022 CA1	8FC89B7368A29129735677440476908711DA8F3F04C0AB6A1D6DE9D4EB4D1C2	12/15/2022	12/14/2032
C=US, O=DigiCert, Inc., CN=DigiCert Secure Site OV G2 TLS CN RSA4096 SHA256 2022 CA1	7CD6CDD25EEE2512AAF1419AFD44C146C43AA1093D5A60D4ED39EFBDDA815AD4	12/15/2022	12/14/2032
C=US, O=DigiCert, Inc., CN=DigiCert Secure Site Pro EV G2 TLS CN RSA4096 SHA256 2022 CA1	B480E11A6BD0C2BC538B1C7DB1C63B40694E5DEDD93752D082D9FD422FCB3FBD	12/15/2022	12/14/2032
C=US, O=DigiCert, Inc., CN=DigiCert Secure Site Pro G2 TLS CN RSA4096 SHA256 2022 CA1	826EBD90E946C25D3DF05ABFB911AC0A426C7A9A063B7224464710BEC5A58CE1	12/15/2022	12/14/2032
C=US, O=DigiCert, Inc., CN=GeoTrust EV G2 TLS CN RSA4096 SHA256 2022 CA1	6FE24FBFFBFFBDC3BE69A472DBF75EF30CACF8AEA319F3893654C91BAB91143	12/15/2022	12/14/2032
C=US, O=DigiCert, Inc., CN=GeoTrust G2 TLS CN RSA4096 SHA256 2022 CA1	05DC9EDC0FDDFA975A1432EF806EC780078B5362AD45AF76DB15C907630DB25D	12/15/2022	12/14/2032
C=US, O=DigiCert, Inc., CN=DigiCert Assured ID TLS RSA4096 SHA256 2022 CA1	987FF2E3B25A3A14CB843D907B3C7F007C274921AFC10017F85D4FAE7B0CB8B6	3/3/2022	11/8/2031
C=US, O=DigiCert, Inc., CN=DigiCert Assured ID G2 TLS RSA4096 SHA256 2022 CA1	43A70E3620BC452339D878AA68F2E5358AC4607AC722C4D77D3C4D2C204F7F71	3/31/2022	3/30/2032
C=US, O=DigiCert, Inc., CN=RapidSSL Global TLS RSA4096 SHA256 2022 CA1	92A5F515AD35D3A27C490EDB135DE7044B1E399D608AC1ABE883FC82FB4B16BE	5/4/2022	11/9/2031
C=US, O=DigiCert, Inc., CN=GeoTrust Global TLS RSA4096 SHA256 2022 CA1	A797108A05AD9328585FC0CB842FBD824FAC6510B8D7EB4FF47991EEE58AA924	5/4/2022	11/9/2031
C=US, O=DigiCert, Inc., CN=DigiCert Global G2 TLS EE+ RSA4096 SHA256 2022 CA1	B915B806A8B7BE2E3809F2E932996E7C10CC82691864A89606BD50080DC2EAB3	4/28/2022	4/27/2032
C=LV, O=EnVers Group SIA, CN=GoGetSSL G2 TLS RSA4096 SHA256 2022 CA-1	8AADF068A1B7C04B3E346F7C97FD9619FFF14ECC6C82C2F15594B9732F3F3E72	6/23/2022	6/22/2032
C=US, O=Vitalwerks Internet Solutions, LLC, CN=Vitalwerks Internet Solutions, No-IP TLS ICA	2AE0626F9A43EDB2B0A22D410EB06C482EF982563A717A247287C504D79BF980	2/23/2023	2/22/2033
C=US, O=CrowdStrike, Inc., CN=CrowdStrike Federal EV RSA CA G1	EDEDD0053CB844592E673EF2A081C15B38EE3ECBEB5856C9A4FE9B7169FAFFE7	8/15/2023	8/14/2033
C=US, O=DigiCert, Inc., CN=DigiCert Omni TLS RSA4096 SHA256 2022 CA1	632ABAFBCDD7E86A19EDCB404332A9003A0478D75D58D86AAA776570B1D874E9	8/1/2022	7/31/2032
C=US, O=DigiCert, Inc., CN=DigiCert G5 SMIME RSA4096 SHA384 2021 CA1	58A5988F1BEB2558FB4C168B97AE748E448C974FD51CB521818BBA9FC6CB1B7B	7/15/2021	7/14/2031



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=DigiCert, Inc., CN=DigiCert G5 TLS RSA4096 SHA384 2021 CA1	C6270A150691FBE190D831F5139BDFEECF7B298B4FA0CA17306A69D7E91E7BA2	4/14/2021	4/13/2031
C=DE, O=Deutsche Kreditbank AG, CN=DKB CA 101	0E5B8040B3AB60A50D2D5FB11E19AEB2E45B564B335B79D773D42B81D8219C75	2/4/2021	2/3/2031
C=US, O=DigiCert, Inc., CN=DigiCert Assured ID G2 Multi Doc Signing RSA4096 SHA384 2023 CA1	0D2739351ED2CF711DA26D1D4E3AC787EEFC4145440F3CE6569DB833FE00CFA5	5/24/2023	5/23/2033
C=US, O=DigiCert, Inc., CN=DigiCert Trusted G4 AATL RSA4096 SHA384 2022 CA1	D149AF9F74029C8DBD957022BE03707F110DB1E1D0E55DDA11376A8F766D367E	7/21/2022	7/20/2032
C=US, O=DigiCert, Inc., CN=DigiCert Assured G2 mPKI SMIME RSA4096 SHA384 2023 CA1	BE1AF7D2FFED61A2140D610482952450E380448F9CAB9D63C6CDE2014A0ADE0A	8/30/2023	8/29/2033
C=US, O=DigiCert, Inc., CN=DigiCert Assured G2 SMIME RSA4096 SHA384 2023 CA1	0F18E75571996FD1F75BE6CC6186B045EA2E76FB70A1FDEBFE9CB923A010EB43	8/30/2023	8/29/2033
C=US, O=DigiCert, Inc., CN=DigiCert G5 TLS CN RSA4096 SHA384 2022 CA1	AB7EF705B0B8DB2291C2BC8DC9F69AD8345A3CC543DB8CDC49A8B419282DEA22	7/12/2022	7/11/2032
C=US, O=DigiCert, Inc., CN=Thawte G5 TLS CN RSA4096 SHA384 2022 CA1	1E89E3D2702D3F1735DCE7DA99561600534A06454A94874D0780D0443CAF4151	7/12/2022	7/11/2032
C=US, O=DigiCert, Inc., CN=GeoTrust G5 TLS CN RSA4096 SHA384 2022 CA1	2B6D199F7E35C8C67E0BBA829F92991CF31466265E11FA30BD19FC5B6C36151C	7/12/2022	7/11/2032
C=US, O=DigiCert, Inc., CN=DigiCert Basic EV G5 TLS CN RSA4096 SHA384 2022 CA1	7BAD1EBDE38C5226B5CE118E386775FAFBC4C8A545598D965CD01E97491DEF8F	1/12/2023	1/11/2033
C=US, O=DigiCert, Inc., CN=DigiCert Basic OV G5 TLS CN RSA4096 SHA384 2022 CA1	AFED062E87DF98182AD9BEF7EB13C0E2F2B6698AB4E3F33932A10E286E024E9D	1/12/2023	1/11/2033
C=US, O=DigiCert, Inc., CN=DigiCert Secure Site EV G5 TLS CN RSA4096 SHA384 2022 CA1	65248FA866C854908D0DB045F88CDABC9452553B982AECE6B0D845866B426B7F	1/12/2023	1/11/2033
C=US, O=DigiCert, Inc., CN=DigiCert Secure Site OV G5 TLS CN RSA4096 SHA384 2022 CA1	5534127F056498B4CF1C967365B1DC2D44F33109ABCFA6454F25BEE4F2B65481	1/12/2023	1/11/2033
C=US, O=DigiCert, Inc., CN=DigiCert Secure Site Pro EV G5 TLS CN RSA4096 SHA384 2022 CA1	7A3839D4B8790B197440C94DA687DCEB1A5AC07D936F81ACF40B163364B0A951	1/12/2023	1/11/2033
C=US, O=DigiCert, Inc., CN=DigiCert Secure Site Pro G5 TLS CN RSA4096 SHA384 2022 CA1	AAA627EEDAC466DBC4C7750C87D999588AB4B03E74B9BFCDA2902DD36DAE0F8	1/12/2023	1/11/2033
C=US, O=DigiCert, Inc., CN=GeoTrust EV G5 TLS CN RSA4096 SHA384 2022 CA1	25026FEBE5324EEACA89376B13EDB96991594112C311120D579364E3CC0442F4	1/12/2023	1/11/2033
C=IE, O=DigiCert Ireland Limited, CN=GeoTrust Global G2 TLS EUR RSA4096 SHA384 2023 CA1	9E7E310303EDA686FCC5F55F7506895B15FF05C780EEEADEAB9D016DB672F3BA	6/14/2023	6/13/2033
C=US, O=DigiCert, Inc., CN=Thawte G5 TLS RSA4096 SHA384 2022 CA1	48569C4FABFF4E3AA22E0E19613E90DA89AA2EE2469B0718695437F5384EDC4C	5/26/2022	5/25/2032
C=US, O=DigiCert, Inc., CN=GeoTrust G5 TLS RSA4096 SHA384 2022 CA1	0030C68C53FC05237FCC7AB6017D81FEBBA06315526C57F7E72907C87B982B61	5/26/2022	5/25/2032
C=US, O=DigiCert, Inc., CN=RapidSSL G5 TLS RSA4096 SHA384 2022 CA1	BB320985266F61C5D182724F15CEC428A698ED71262B4E097CB11AED8A41AAE6	6/2/2022	6/1/2032
C=US, O=DigiCert, Inc., CN=Encryption Everywhere G5 TLS RSA4096 SHA384 2022 CA1	654BF73B2639091FA18F296755B704959F52F67FDF7A65AAF1C315441201A09D	11/3/2022	11/2/2032



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=DigiCert Inc, CN=DigiCert Trusted G4 TLS RSA SHA384 2020 CA1	1E29690F957F64BA9C3658A31055751AACD4B440A9589DFA1D780FE07069DB52	3/30/2021	3/29/2031
C=DE, O=Deutsche Kreditbank AG, CN=DKB CA 101	D889A2641F5DF941353817C87A5CD0D9CDACED3886240BFB937329E94D3A45B	3/30/2021	3/29/2031
C=AU, O=Verokey, CN=Verokey High Assurance Verified Business G2	BE89264A58313012B749603C9BEB3CD7914DB716A49E5E0EA97E43A3883A5DF	3/17/2022	3/16/2032
C=US, O=DigiCert, Inc., CN=DigiCert G5 TLS RSA4096 SHA384 2021 CA1	EF9296036A6D7C986C8D59DB936093E78E85C70AEDB4FE7A54DDCAA821031C72	2/11/2021	2/10/2031
C=IT, O=Trust Italia S.p.A., CN=Trust Italia Intermediate CA	1D64D347A041AE7A4F9545047E3760D16ECF98360CDF7888A1CC23C2AFA3BC27	6/28/2021	6/27/2036
C=IE, O=DigiCert Ireland Limited, CN=DigiCert G3 TLS EU ECC P-384 SHA384 2022 CA1	F0F573763C616F762AA6AB927CBDE789FA8EF4E69AF8A27EC63C62EEF329ECA1	9/19/2022	9/18/2032
C=IE, O=DigiCert Ireland Limited, CN=DigiCert G5 TLS EU ECC P-384 SHA384 2022 CA1	2C171064DBFA280A1F294F72E2A1FC24C86111B23723DB9375D3004B27E7B33B	9/19/2022	9/18/2032
C=IE, O=DigiCert Ireland Limited, CN=DigiCert Assured ID G2 AATL Europe RSA4096 SHA256 2023 CA1	20E2FE0D0A6E2FE9E26C09B0F4E1E1A5C556D9FC23F10F21F400F8B99884E401	3/30/2023	3/29/2033
C=US, O=DigiCert, Inc., CN=DigiCert Assured ID G2 DocSigning Europe RSA4096 SHA256 2023 CA1	690B373C5A3B09FF56C44EEF01F39CFDA9DCF48AFEE7DD4BC748E8BC1DA66A2F	2/23/2023	2/22/2033
C=US, O=DigiCert, Inc., CN=DigiCert Assured ID G2 SMIME Europe RSA4096 SHA256 2023 CA1	2724D9D7B945BB253E379CEFF6CF4156775EE9AC7660E62D1384DD7B4A4E958FA	2/23/2023	2/22/2033
C=IE, O=DigiCert Ireland Limited, CN=DigiCert Assured ID G2 SMIME Europe RSA4096 SHA256 2023 CA2	3DED2BDFEAA4F0BEA10C95C4B48EC94BC593470155A723B937B74890049BE0F6	3/30/2023	3/29/2033
C=IE, O=DigiCert Ireland Limited, CN=DigiCert Assured G2 Multi Doc Sign EUR RSA4096 SHA384 2023 CA1	9F396CD402F9039132E6F6145C78C852F74EE1CF790FCEB31A68A4E6E58CAD26	5/24/2023	5/23/2033
C=IE, O=DigiCert Ireland Limited, CN=DigiCert QuoVadis G3 SMIME RSA4096 SHA384 2023 CA1	3C980210C4F0803388C4D9FA9699E19F88FA3B96B3CF68D675808876747A678A	7/27/2023	7/24/2033
C=IE, O=DigiCert Ireland Limited, CN=DigiCert Assured G2 EUR SMIME RSA4096 SHA384 2023 CA1	8682865D0B127A67FC0F8656CE4DD19846906671FBB97D3F3929A291FA548003	8/30/2023	8/29/2033
C=IE, O=DigiCert Ireland Limited, CN=DigiCert G2 TLS EU RSA4096 SHA384 2022 CA1	A4ADFC2917BB1451D312371D441ACDB686107FBC0B3156D5570E99E1121974FA	9/19/2022	9/18/2032
C=IE, O=DigiCert Ireland Limited, CN=DigiCert G5 TLS EU RSA4096 SHA384 2022 CA1	4D27EF6357BC929783575C0C8C9340B67FBFC045FDC263B8C88362E6D3ADB6F	9/15/2022	9/14/2032
C=US, O=Symantec Corporation, OU=Windows Phone Enterprise Applications, CN=Symantec Enterprise Mobile CA for Microsoft - G2	65E5B094657AA1D7161BA5710F024FE8DDF21ADB6270A20BAE0814183AA85370	5/24/2017	3/13/2032
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 EV SSL CA - G4	31862233620E789330CC893E8B5E66705331B888B0ED30A44574D9E0A71C4F1	1/7/2016	1/6/2026
C=NL, O=SupremeSSL, OU=www.supremessl.com, CN=GeoTrust SupremeSSL 1 ECC CA	6861BBD4CBEDA2AA01066BF476BF8F2FE6EA9F008CB0AC8E1755E2A328FA5933	5/7/2019	5/7/2029



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=DigiCert Inc, CN=DigiCert Trust Service ECC CA G2	B5FECC2F696C850323FC7A85C65B50A4C5E1BF8F823E266AB0A46F013B2C0EB2	6/12/2020	6/12/2030
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert SHA1 Assured ID Code Signing CA - G1	82AD46ECDE882413106B1C83EF65DC02DB0C65B3870F6F744B62283DF6FA1D56	7/18/2018	7/18/2028
C=US, O=Symantec Corporation, OU=Class 2 DigiCert PKI Platform Individual Subscriber CA, CN=Symantec Class 2 Employee CA - G4	1D082DDEDED16D4E4E49163893D9244978EBC54228F4B811278B55AB299C4C48E	9/23/2019	9/23/2029
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert EV Code Signing CA (SHA2) G2	EDCD88B6BD77FC8A2680E2ECB8FFBAC45898DFA0FDE983425E0F1BEB058C04B6	7/18/2018	7/18/2028
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert SHA2 Assured ID Code Signing CA - G2	2A9D0D018BB49FDEA14D6C16E9BA0A942F2833B9AADFFBAD1306E301B495CFB7	7/18/2018	7/18/2028
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=GeoTrust Code Signing CA - G2	8D7C499D7FE9EEEC05D9EB42F03EFE402807919803E8E6CD6C1F2BF5EF6A7D8F	7/18/2018	7/18/2028
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert SHA2 Assured ID Code Signing CA - G3	9CDFD82596D1BAC9E44D3E491E2C07D8DCC920419915FD6F361CF70A1E433B10	7/18/2018	7/18/2028
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=GeoTrust Code Signing CA	78A95ED82180A1C33A9F34EDB75E6774FD4BB73AA2C7C4121453DDB627DB1BAF	7/18/2018	7/18/2028
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert EV Code Signing CA (SHA2) G3	2B0A972DC0DAE218E9477396D3D82DEB82DE118867DD19E1D2FFF958CBB6DA9	7/18/2018	7/18/2028
C=US, O=DigiCert Inc, CN=DigiCert Trust Service CA G1	64616B62820D458F7C71E3449ECCF3F3E4735B76879860C1C660DF23438607EA	6/9/2020	6/9/2030
C=JP, O=Japan Exchange Group, Inc., OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Corporate CA - G3	68676E3CF0431709740A27C7E2F149C5954169192DE6E1FF7A31AE6F0B5DB566	7/2/2015	4/13/2024
C=US, O=SAIC, OU=PKI, CN=SAIC Public Email CA 2018 01	B4739E90912D31F2829F69D60F62C5954DC98EEF9A7EF3477447692C4A440D65	2/9/2018	2/9/2028
C=CH, O=World Intellectual Property Organization, OU=DigiCert Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=WIPO CA - G3	641658371E97E16332C051D9AFD1321F770C2012033D63360A6A96739DC9C357	5/3/2018	5/2/2023
C=US, O=Glosten, Inc., OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Glosten Public CA	2F90242229ABEBE362CD49B05971B10FE2F64C8289A5A6EAE25817E280B29876	7/17/2018	7/16/2023
C=AR, O=Bolsa de Comercio de Rosario, OU=DigiCert Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Autoridad Certificante Bolsa de Comercio de Rosario - G3	0A0C200DF9CF5459ADF0DD42DC2EEE10B1318C5B1C5245167269511F65B1AE65	1/18/2018	1/17/2023



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=AR, O=Banco Santander Rio S.A., OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Autoridad Certificante Banco Santander Rio - Empleados G2	CAFD79E03631E7C8B1E017CB7CD1673944D9089EF7CA7057E3AC9BD20DC0408B	1/31/2019	3/31/2023
C=AR, O=Banco Santander Rio S.A., OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Autoridad Certificante Banco Santander Rio - G2	6F75860B5669D449D32F949E98EB11B2FCC33840A0F6753912BDE76BD3D529EC	1/31/2019	3/31/2023
C=AR, O=Banco Itau Argentina S.A., OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Autoridad Certificante Banco Itau Argentina - G2	40E944C8F7317BF79F447602C62842A4CDA9FC979AE355F9CE2FB7A81CB528E8	2/12/2019	1/18/2023
C=IT, O=Postecom S.p.A., OU=Servizi di Certificazione, CN=Postecom CS5	61A01EA7E8D8016CCEFF92FF13E3DBE082E0779C4CB64BF6F0C316258D6210F5C	4/26/2016	4/26/2023
C=US, O=DigiCert Inc, CN=GeoTrust TLS DV RSA Mixed SHA256 2020 CA-1	8C43C5E340EC640F93EA774AC5353CCA9042F764FF837F870D8B64763C458A41	7/16/2020	5/31/2023
C=US, O=DigiCert Inc, CN=RapidSSL TLS DV RSA Mixed SHA256 2020 CA-1	E6FA484A858940D101978555454AA466531AB6C4ABC4AD2B000626AAAC0D04F9	7/16/2020	5/31/2023
C=US, O=Comcast Corporation, CN=Comcast Trusted User CA	5764D931D3FB3819BB5CD19DD09E075A3320114F07929249A4F64E92634808F	1/17/2017	1/17/2027
C=CN, O=TrustAsia Technologies, Inc., CN=TrustAsia ECC OV TLS Pro CA G2	70357B9E56D3FB3C6C009C38C7181454C462908DFBCE6D54D60DFE1E506E14FD	6/20/2019	6/20/2029
C=US, O=DigiCert Inc, CN=DigiCert Trust Service ECC CA	F269AC00B410003F72DC628AFB3D950279630C7C5D0C82148A0FD24DF4DA4301	3/4/2020	3/4/2030
C=US, O=DigiCert Inc, CN=DigiCert Basic ECC CN CA G2	97C4B44316055F26A52A1F664CE385800A964A8552C99D2BCAFD618E6D8074A0	3/4/2020	3/4/2030
C=US, O=DigiCert Inc, CN=GeoTrust ECC CN CA G2	7CAEEC680E6497FC5109073F83816E798F27F8968A2663C1C95711B548192E35	3/4/2020	3/4/2030
C=US, O=Cloudflare, Inc., CN=Cloudflare Inc ECC CA-3	3ABBE63DAF756C5016B6B85F52015FD8E8ACBE277C5087B127A60563A841ED8A	1/27/2020	12/31/2024
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Secure Site Korea ECC CA	EF9138993654DF92D2FB5860E28DE8818A9F49DB56ECB689A67A7FC2D5881DD2	3/25/2019	3/25/2029
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Encryption Everywhere ECC DV TLS CA	1E4FC34D26E0793D559E322FE111F1E19A9D2E34BC25D3C427B032A48D2C5B6A	7/23/2019	7/23/2029
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Secure Site Pro ECC CA G2	DA3BE2B6A6D9715C1295A42BE526E0001D10E5D7540F06E7631B34E644934848	6/20/2019	6/20/2029
C=CN, O=TrustAsia Technologies, Inc., CN=TrustAsia ECC EV TLS Pro CA G2	C0DD060FF8CE556F35683D564E0E66B2907178808693F83F3AA642326BF6D0C8	6/20/2019	6/20/2029
C=US, O=DigiCert Inc, CN=DigiCert High Assurance Trust Service ECC EV CA	E9529B428FB67390BC6455D79BA2434E816C54FE4F359930CB709DB256FDDDF94	3/4/2020	3/4/2030
C=US, O=DigiCert Inc, CN=DigiCert Basic EV ECC CN CA G2	D619F3257B98756D28811D3CEE9ADAD8BCAE1B4367BBB0C73F6B5E558FBA4563	3/4/2020	3/4/2030



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=DigiCert Inc, CN=GeoTrust EV ECC CN CA G2	FC01B58FC78B9C59211784C2E25BF1D012A1E23F337218847A62EB4145EE4AB6	3/4/2020	3/4/2030
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Secure Site Pro Extended Validation ECC CA G2	70DC86F9F7750B74B1DEC8CD352EC25837C36E640F7148E08464EF5901E5A589	6/20/2019	6/20/2029
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Secure Site Korea EV ECC CA	B0505BF2947F0807ABAE2D42C19343EAF08D1DDE3F8745B0589A57362792E470	3/25/2019	3/25/2029
C=NL, O=SupremeSSL, OU=www.supremessl.com, CN=GeoTrust SupremeSSL EV 1 ECC CA	2FBA8FE915415049AA942857CB53137FFD3D9E5A47B27B5782DAB9B4DA7D624D	5/7/2019	5/7/2029
C=US, O=DigiCert Inc, CN=DigiCert Secure Site ECC CN CA G3	00C0CBA95CBFE1E270814275F32B505D6E5916C2B6DA67FAF4DD309EE6E86CBE	3/13/2020	3/13/2030
C=US, O=DigiCert Inc, CN=Thawte ECC CN CA G2	58E89F4F70410DA00B41473CFA413FA0737ED2729F3ED77BE29A7F4705377147	3/13/2020	3/13/2030
C=US, O=DigiCert Inc, CN=DigiCert Secure Site Pro ECC CN CA G3	985140919342239C89086B22DFCAA4508590B11A3DE0A423E25EBC3DDAF8910D	3/13/2020	3/13/2030
C=CN, O=TrustAsia Technologies, Inc., CN=TrustAsia ECC OV TLS Pro CA G3	756AAB900E3F5C762734B6461FC32A9DD341EA1D4A04283409233C39787A867E	3/13/2020	3/13/2030
C=US, O=DigiCert Inc, CN=GeoTrust ECC CN CA G3	52DDE89FDD6F610473F9314C7A8B1AC442F8AA833AA5D773006FDA758C9FF1EC	6/9/2020	6/9/2030
C=CN, O=TrustAsia Technologies, Inc., CN=TrustAsia ECC EV TLS Pro CA G3	8D83D69FA615AA2683B13D7894482C542B0BCF18BB92D30F015FB42471AFBB66	3/13/2020	3/13/2030
C=US, O=DigiCert Inc, CN=DigiCert Secure Site EV ECC CN CA G3	A4B2B47545559F5FFFB7CDDA7A1220E62FB74D1B7A9A4D4DACB2B2A839CE7456	3/13/2020	3/13/2030
C=US, O=DigiCert Inc, CN=Thawte EV ECC CN CA G2	EA1F3BFB4D3296B467D4B582559D6518D676D5AFC7D1C24BE80252F79191046F	3/13/2020	3/13/2030
C=US, O=DigiCert Inc, CN=DigiCert Secure Site Pro EV ECC CN CA G3	BC91379A21E7BDE11B455BF1D51186331682805A4A353A8EE258F7A03706C664	3/13/2020	3/13/2030
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Secure Site ECC CA-1	99935E20424535EC016F337B2BE68F1349DE66CCE4CA5AB367F8F3738215B833	2/15/2019	2/15/2029
C=US, O=DigiCert, Inc., CN=DigiCert Global G3 Code Signing ECC P256 SHA384 2021 CA1	DDF122E12D2BE604BEEF8A4A55C5EB802E19D5B8D8E1AF994580BD92F4A179E3	7/28/2021	7/27/2036
C=US, O=DigiCert, Inc., CN=DigiCert G5 Code Signing ECC P256 SHA384 2022 CA1	C5EBBAF62A45DA6D2B4132F970DD281CFA1FE4F1CA86246B726A0EBDF77454CE	5/19/2022	5/18/2037
C=US, O=DigiCert, Inc., OU=www.digicert.com, CN=DigiCert Extended Validation CA-3 G3	DA7E5778F62F87655B8FD24A89E651E57329DC9C0765A71158CE56443CA44E95	11/12/2019	11/12/2029
C=NL, ST=Noord-Holland, L=Amsterdam, O=TERENA, CN=TERENA Code Signing CA 3 G3	794C63DB244BA73FB286F15DAB8D0CA5425508381E98844954E63823BB5D7F74	12/9/2014	12/9/2024
C=US, O=DigiCert Inc, CN=DigiCert TLS Hybrid ECC SHA384 2020 CA1	D79A2D5E03295C0E9FEAE36D021EBD5209700AB1A9E817A43F30FA3C66F78D21	9/23/2020	9/22/2030
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Assured ID Client CA G3	14FAFCA84BDB8B0EC32719272BE730FE18D6FC29301C5CF789400596EC429AFE	9/23/2019	9/23/2034
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Global Client CA G3	BA361260FF1D46031686305E082DE836D4A320466E0DE9E013F00CEDDD62317	9/23/2019	9/23/2034



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=DigiCert, Inc., CN=DigiCert G5 CS ECC SHA384 2021 CA1	EDAEC94C30CF7C3239312EAAF7B76D499410A55D0E008CB6A64779DAD3A1998	2/11/2021	2/10/2036
C=US, O=DigiCert, Inc., CN=DigiCert G5 Code Signing ECC P384 SHA384 2022 CA1	327F4DEAFFD4EAC5A863724E483033580AD68FC0373A4F4D20C7DBECDD25B5DD	5/19/2022	5/18/2037
C=US, O=DigiCert, Inc., CN=DigiCert Global G3 Code Signing ECC SHA384 2021 CA1	35769D41EF436A4D63DDB00AB11C6CE968989FCDD829E7018F5DB90AC4BD3CD0	4/29/2021	4/28/2036
C=US, O=DigiCert Inc, CN=DigiCert Global G3 TLS ECC SHA384 2020 CA1	338EDB04FB8BEAF07A10749E7F4E538DE0715DAFB6478D58063FB7C8BDB0C30D	9/24/2020	9/23/2030
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Assured ID Code Signing CA-1	3C8B0D5C2ADF2F7090A9B8FF452A4141833DEAA05B5F44E9513DB94BDFD1D6BD	2/11/2011	2/10/2026
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Assured ID Code Signing CA-1	E57208CBFD286CE9718267E44491CB5B435C95BB09DC9720F5B64B25AC7974CD	2/10/2011	2/10/2026
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert High Assurance Code Signing CA-1	007D2C8B15786232BAC0EAA31F60AAE06DC572921BAD0D46C77107D8C2DCA4B3	2/11/2011	2/10/2026
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert High Assurance Code Signing CA-1	BEAF46D0FF62645F56BE11830DDEFC663379619F337E85713491C83AE179481D	2/10/2011	2/10/2026
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert EV Code Signing CA	376377FD1FAF4B8A5B1472647A70B941039A62D74CFE99447E48616F8D63A978	4/18/2012	4/18/2027
C=ZA, O=Nedbank Limited, OU=Class 2 DigiCert PKI Platform Individual Subscriber CA, CN=Nedbank Limited Public CA	4946337D3954305F36770EE8317F67CFE99447E48616F8D63A978	7/2/2019	5/12/2025
C=US, O=Hewlett Packard Enterprise Company, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Hewlett Packard Enterprise Collaboration CA G22	AB480D8F7D720A161C9671843EADAAAABC5447EFD9EF8F3470874D927CCB861	4/1/2019	4/1/2029
C=US, O=Alcon Vision, LLC, OU=Class 2 DigiCert PKI Platform Individual Subscriber CA, CN=Alcon Public Online CA	4F8137882B6D7B7F1ABBCFDE0082F0E5CDEC870BA3923EF84D08DDE42E43749	7/2/2019	7/2/2029
C=US, O=Solenis LLC, OU=Class 2 DigiCert PKI Platform Individual Subscriber CA, CN=Solenis Public Online CA	0F3284B306AC422986C8F560EA46226FD8425519A6F61AA9C55AB508274B82D2	7/2/2019	7/2/2029
C=SA, O=Saudi Telecom Company, OU=Class 2 DigiCert PKI Platform Individual Subscriber CA, CN=Saudi Telecom Company Email CA	E33076FFB5267DF419F72DE06C46E2C6CA44FF4383B5316CF7D6E628E98D9BFD	7/2/2019	7/2/2029
C=US, O=Hewlett Packard Enterprise Company, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Hewlett Packard Enterprise Collaboration CA G21	B6E4C8D9D575A61404DE568E27BD6F3048D7B0F803065E2F6526260BDCA3D211	4/1/2019	4/1/2029
C=JP, O=DigiCert Japan G.K., CN=Individual Certificate Issuance Service CA	1C8DF080957A9B79F31D090297B047DCD6B541CBC0A83FDF0674A2004BFCDA6	3/11/2021	3/10/2036
C=IT, O=Trust Italia S.p.A., CN=Trust Italia Shared Client Authentication Issuing CA	7A4697191E9D97412B755F56E2B369A32DDC68488AEB9226CFD03E322FEC539B	6/24/2021	6/23/2036
C=US, O=Fidelity National Information Services, Inc., OU=Class 2 Managed PKI Individual Subscriber CA, CN=SGN FISGLOBAL PUBLIC CA 2	15F06C6C39DB15F8C14EEFA6B793403F30C7EDDB8C99408DBE36FC3EE9D56913	7/19/2023	7/18/2033



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=FAA, CN=NAIMES	78E69AD84C6464BC56C539C534FCC69CE709557EABB69390139B1AD9EC4A4207	9/1/2022	8/31/2032
C=US, O=Brown Brothers Harriman & Co., CN=Brown Brothers Harriman Public Issuer CA	FB586897D15FF353CFE83F9B214D234310A191E0CC63C0808E40E981754DD5A6	9/25/2020	9/24/2030
C=US, O=eGlobalCustody, CN=eGlobalCustody Public Issuer CA	1E1E62AE4F4721617A2CA0E3F7CA6D843AE7530151B9D8C19B5D07D4BDB33324	9/25/2020	9/24/2030
C=ZA, O=Nedbank Limited, OU=Digicert PKI Platform Individual Subscriber CA, CN=Nedbank Limited Public CA-2	F392F1416B914915D910F7A7289B0636019823F3828416F55DC3EB044E13DB91	8/3/2022	8/2/2032
C=US, O=Brown Brothers Harriman & Co., OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Brown Brothers Harriman G3 CA	B3FAEBD9495096D2C5B26CE20D7DE785DFF83CEA63BF9BC6605BC08B89996224	6/10/2014	6/9/2024
C=US, O=eGlobalCustody, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=eGlobalCustody G3 CA	2DE8DD6BE750435D703D60CF87D203AF12D1E0F2960691888F47546EED9087D6	6/10/2014	6/9/2024
C=CL, O=CertiNet S.A., OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=CertiNet S.A. Firma Electronica Avanzada - G2, emailAddress=certinet@certinet.cl	163DDECF86B4708A77705D106FD630C30331B1070C4BD9A36374ACO0A68A83DD7	8/18/2015	9/15/2024
C=US, O=Comcast Corporation, CN=Comcast Trusted User RSA CA	9B8DD7F84D5AD52AADDEA5729A6DA865FF28EE944A8379FC274103B9B5F094D9	1/31/2017	1/31/2027
C=US, O=DigiCert, Inc., CN=DigiCert PKI Platform C2 Shared Individual Subscriber CA	69713E3E4E6E5AF51E302E95EEC2771EB06B79E81C5462594932ACB4E8A28D1C	5/29/2019	5/29/2029
C=US, O=National Geospatial-Intelligence Agency, CN=NGA CA G3	357985D17EF02893AB63FE0EE4C464B8AD3A4B05EF72B27AE73D7258C8996FB8	2/5/2020	2/5/2025
C=JP, O=Mitsubishi Electric Information Network Corporation, CN=Enterprise Premium Public CA	6D7B31B61ADB78EBC6A766296886209EA8E74F4600DAE47B78DA3F08BE79F4E5	3/13/2020	3/13/2030
C=NO, O=Telenor Norge AS, CN=Telenor Norge B2B2 CA	DDA4BE3F78C6D742B100146C26011B41752AEBB810C04588C3AF81F0D3451118	3/25/2020	3/25/2030
C=JP, O=Mitsubishi Electric Information Network Corporation, CN=Enterprise Premium Public CA	4A45559AD89684BB439FCD2CC4C5EC0F92EE0692CD6B9763957DE31A2F467CCA	4/29/2020	4/29/2030
C=NO, O=Telenor Norge AS, CN=Telenor Norge AS Dealer G2 CA	9C33CB6A76596752A0C7E51C72D480CE7876C772794EBEE5841FA07035E6E8E0	4/29/2020	4/29/2030
C=NO, O=Telenor Norge AS, CN=Telenor Norge AS EDC CA G2	56D58B26F45BF3878AF4397016A96AF486E9895F66C5F3B73175120B3B4E4A48	4/29/2020	4/29/2030
C=NO, O=Telenor Norge AS, CN=Telenor Norge AS NF CA G2	5752C5FBDC03543F0CEC6CD294CD965D8D32C4EAA993D550F24491ECF9B73836	4/29/2020	4/29/2030
C=NO, O=Telenor Norge AS, CN=Telenor Norge AS OTL CA G2	70340886D08FE1B093158F11A4CC2B2AD45A67F402632A040E9067C6E447E4FE	4/29/2020	4/29/2030
C=JP, O=Mitsubishi Electric Information Network Corporation, CN=Enterprise Premium Public CA	DF025DCE2A36411BE5EB6590C161EFD2652EC2B3F70D5C651F90D023C46F3A00	6/9/2020	6/9/2030



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=ZA, O=Absa Group Limited, OU=Class 2 DigiCert PKI Platform Individual Subscriber CA, CN=Absa Group Limited Public CA	8FB88641F4E231CE81436375138A5B36D2A06A3CC2A49E5B1F4699981BE1E451	8/5/2019	8/5/2029
C=US, O=Fidelity National Information Services, Inc., OU=Class 2 Managed PKI Individual Subscriber CA, CN=SGN FISGLOBAL PUBLIC CA	0AD6A7334A5A23C986980F6FECD25006B563A0B6F1BCAA65C0345BA2D96928D3	1/8/2019	1/8/2024
C=CH, O=World Intellectual Property Organization, OU=Class 2 Managed PKI Individual Subscriber CA, CN=WIPO CA - G4	16D809ED155C2AC7E9489E1A204116C9D16EFBE4C91F53369725A2B395535E28	1/29/2019	1/29/2024
C=US, O=Imprivata, OU=www.imprivata.com, CN=Imprivata Secure ID CA-1	B49B1B7209D1A83F6CDBBA743AD720ACC24440FB9002F9DDB3C6F2F5CE337A47	10/25/2016	10/25/2026
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Japan Class 1 CA	5077797A1815E48287385898618908BD7ED182D03725F03B02F13BFFD6652F6A	4/15/2014	4/14/2024
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Japan Class 2 CA	8C82B76FCA9CED6A0C6A7B3141CCB585EC941921EC0B33D956CB29071851C7D9	4/15/2014	4/14/2024
C=US, O=DigiCert Inc, CN=DigiCert Baltimore SMIME RSA SHA256 2020 CA1	D1E87FFD17F95602571D08ADBDA469A04B14258996EC09776CD953582AF0B87E	9/24/2020	5/11/2025
C=AU, O=Fuji Xerox Businessforce Pty. Limited, CN=Fuji Xerox Businessforce CA - G2	A12A8446C0E1E5CF4079642B31A0675ECFD1D09FAD2E4884591F380026D9EAEF	9/25/2020	9/24/2030
C=US, O=Common Securitization Solutions LLC, CN=CSS Public Issuing CA G2	D040BEF3C50B536E2E8DA2AD7721A772C76B718FF10165D5AA88674C233E3766	9/25/2020	9/24/2030
C=US, O=General Electric Company, CN=GE SMIME Issuing CA 3	BDE2A6CEC1A1C04C2E423C1457949F180ED086E021BBF090556BE3CE6AD1863F	9/25/2020	9/24/2030
C=US, O=Fannie Mae, CN=Fannie Mae Shared Online CA G2	28F7CD588FC5B0DF460DD4C678F9DC51077A0E89D38DCCBA09BC1AEE9D698C1	9/25/2020	9/24/2030
C=US, O=Honeywell International Inc., CN=Honeywell International Co-branded CA - G2	B78DFC942032C042CD45490E3B32433CA167067B330B52CB1453EA3AD5819080	9/25/2020	9/24/2030
C=US, O=City of New York, CN=City of New York Office of the Actuary - G3	2431090A8009CA6F9F44DCC9E5FBD3C2F4A3152185BDA08ED313B861D895F7B4	10/21/2020	10/20/2030
C=US, O=Honeywell International Inc., CN=Honeywell International Co-branded QA CA - G2	55F064E2983EEB9AAA54229F8E35023ED10AC6BA19188B05C247BC0E79F85ACB	10/21/2020	10/20/2030
C=AU, O=Attorney Generals Department, CN=Attorney Generals Department Public CA - G2	F4DC92DB2CD8B9158D011335A95BB61BD340ACE2E5BDC8816373ABCBD31D288	10/28/2020	10/27/2030
C=US, O=Symantec Corporation, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Symantec Class 2 MPKI Individual Subscriber CA - G3	A67582B9277224D9801027217156D283136B29FD2F33031781F604EB807970D7	11/15/2016	11/14/2026
C=US, O=Symantec Corporation, OU=Symantec Trust Network, OU=Universal Root Managed PKI Individual Subscriber CA, CN=Symantec Shared Individual Email Certificate Authority	B7021BCF346E8502B1275F80057F3B97467AC8B8A761608340ECF8484EC3848C	8/22/2017	8/21/2027



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=Common Securitization Solutions LLC, OU=Class 2 DigiCert PKI Platform Individual Subscriber CA, CN=CSS Public Issuing CA	00BFE5177DA40E040506A04417FB4B8064816B5D875852A07FC3A36700091080	10/31/2019	10/31/2029
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert SHA2 Assured ID CA	A542BCA09C5E4579C619774AE59082BCE0F86D261C5A7A5A0F6217C10279EA7C	11/5/2013	11/5/2028
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Document Signing CA	B9C3073AAD74B368832F5497958E279B1D2777CAF8841713B28AB10A4BAA0810	11/5/2013	11/5/2028
C=US, O=SRI International, CN=SRI International CA - G3	A6D9A37927349DE7464C8DA63F601CE55C214BEFD7B324679E64E1B30F75CEFF	1/27/2020	1/27/2030
C=US, O=Adobe Inc, CN=Adobe Public Issuing CA	7B6BA0B173658101250395D547643037A68216155270BC9BA46B358C3B77E90E	2/5/2020	2/5/2030
C=SE, O=Volvo Car Corporation AB, CN=Volvo Car Corporation CA	B1D29BE013CF27982AAAB694785A3E9F5A169A682F8B8D38677694670C428288	2/5/2020	2/5/2030
C=US, O=Thomson Reuters Special Services LLC, CN=Thomson Reuters Special Services CA - G2	B84D709820A8FEB41CE1872E237260B446F99BD3CC158F7738D9146B13FAE64E	3/25/2020	3/25/2030
C=JP, O=ZIPAIR Tokyo, K.K., CN=ZIPAIR-Public-CA	7E882B1CC5439B7FB95A05943C5A8F40DAE75AADBB6B624C55EDD94624EFA0E3	3/25/2020	3/25/2025
C=CH, O=STMicroelectronics International N.V., CN=STMicroelectronics Public User CA1	CE15B88ECA32A371D0B51B3B04759055D6A8FF0C3D1A0D60488DF356DC050E55	4/29/2020	4/29/2030
C=AU, O=NBN Co Limited, CN=NBN CO Limited Public Issuing CA - G3	4708DD6D092D7FB5958F5B43501F6173FB9669EDB05AFD4BBCCDD2D5068D8D0	6/9/2020	6/9/2030
C=SG, O=National University of Singapore, CN=National University of Singapore CA - G3	7C29A15B74F9171BE581630394B83791120EABCBA8B9387538BDF50F9D96EAFE	7/16/2020	7/16/2030
C=SA, O=Saudi Basic Industries Corporation (SABIC), CN=Saudi Basic Industries Corporation Issuing CA	3AB4DE79829AF704A1DD79B13892BBAE44B2770F88AE833450F5B1D33802F0C4	7/16/2020	7/16/2030
C=US, O=FedEx Corporation, OU=Class 2 DigiCert PKI Platform Individual Subscriber CA, CN=FedEx Public Online CA	AA942E512B4287D5BEEC85A1C5A81C2DDD136B3CC7065B6830F0685110530412	9/23/2019	9/23/2029
C=DE, O=Duerr IT Service GmbH, OU=Class 2 DigiCert PKI Platform Individual Subscriber CA, CN=Duerr Group Global IT CA	B48CF36ABB49825C3B7C407866958C24085C938C60C7C1A48A18D00859CA348C	9/23/2019	9/23/2024
C=US, O=International Business Machines Corporation, OU=Class 2 DigiCert PKI Platform Individual Subscriber CA, CN=IBM Certification Authority G4	60F53E603B0EFA71C6CC34B6E87C1145F70DC942C89F71763D90FE18E7AC589E	9/23/2019	9/23/2029
C=SA, O=Saudi Enaya Cooperative Insurance Company, OU=Class 2 DigiCert PKI Platform Individual Subscriber CA, CN=Saudi Enaya Public Issuing CA	8F76367A7ADAE4642258E6586A2A9642A00F3ECBB1EB725F18B5E7AD3D95AED9	10/31/2019	10/31/2024
C=GB, O=Kainos Software Ltd, OU=Class 2 DigiCert PKI Platform Individual Subscriber CA, CN=KAINOS-PUBLIC-TRUST	802E0B133D61441A0A6AF799DC5E4B260972990D6DCB87DC0ACFC585D9082610	11/26/2019	11/26/2029



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=IT, O=Telecom Italia Trust Technologies S.r.l., OU=Digital Identity and Security, CN=Trust Technologies Global Client CA	AA6A2380A7E8254DAD4620AE0895DE74047F33F5268758DC727C4D280B384A50	8/24/2017	5/10/2025
C=US, O=Government of the District of Columbia, OU=Office of the Chief Technology Officer, CN=DC Government SHA2 Assured ID Intermediate CA	FB1147E7AB97A29BB9C1140ABF3DE831F4C5F60D11B90FEC999A0816375D8457	7/13/2017	7/13/2027
C=CN, O=TrustAsia Technologies, Inc., OU=www.trustasia.com, CN=TrustAsia Secure Email CA	047217772051D292238F3355F5C5435E9B84364CCD143FC49F9C31CD605439F0	4/27/2018	4/27/2028
C=CN, O=TrustAsia Technologies, Inc., OU=www.trustasia.com, CN=TrustAsia Secure Enterprise Email CA	3D774B65EE95FD6EFD1C8732B57E607C9BEE423C36E46F6E1CC8CA1F0AE62E23	4/27/2018	4/27/2028
C=US, O=APX Inc, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=APX Public CA	8B1C10711C007BE2ABF9BF6C79CE5EBD5F8EAC36D5037228237AEFB236BF2A91	4/4/2014	4/3/2024
C=US, O=Thomson Reuters Special Services LLC, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Thomson Reuters Special Services CA	BFC05BC249D92B892CE288A0E85F0E96BB9150F741719D9B73EB41EB89D49241	3/5/2015	3/4/2025
C=US, O=United Launch Alliance, LLC, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=ULA CA - G3	232AD338F64E3FC71048E1D6CCC96EA6FD5782274AA96FD618F5425087BA2FFE	8/31/2017	8/30/2027
C=US, O=DigiCert, Inc., CN=DigiCert PKI Platform C2 Shared SMIME Individual Subscriber CA	55F3A359F0A26D72FF244C2EE396FD51BC2400EA250C91EFC355E2F8103C9939	6/4/2019	6/4/2029
C=US, O=Avaya Inc, OU=Avaya IT, OU=Class 2 DigiCert PKI Platform Individual Subscriber CA, CN=Avaya Client Services Users CA 2	1FFA0D1F55CE4A0507E8C38E8B557B88CBDD690D903D996B1F7850D81D6A4A93	11/26/2019	11/26/2029
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Assured ID Client CA G2	9E12D6E13DDD53A890A2B3A37423AE5E457731A7B34A153992F1EF1F5489A45E	9/23/2019	9/23/2034
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Global Client CA G2	A449DBAB6D4C035FAAFD9D045891FE98ABD73D286268A8A83F854145551692E3	9/23/2019	9/23/2034
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert EV Code Signing CA (SHA2)	C7460B0EDDA1B44C8E2164B234EBECC3962A6A37A936B74A6E7D46682938F084	4/18/2012	4/18/2027
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 SHA256 Code Signing CA - G2	2042E38FC57388F1DB3222C7AB5BE11C6EDB7E454BF45487AE44FF2D6A2B7645	7/22/2014	7/21/2024
C=US, O=Abbott Laboratories Inc., CN=Abbott Laboratories Secure Code Signing CA	5F1A82C09CBAE239D4E3F0704C970755547E53E3CF290F9479FE7E98665FEF0F	6/7/2016	6/7/2026
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert SHA2 Assured ID Code Signing CA	51044706BD237B91B89B781337E6D62656C69F0FCFFBE8E43741367948127862	10/22/2013	10/22/2028
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert SHA2 High Assurance Code Signing CA	C51B83A0DE49A201A5FBE947032C04702F8CA7C2D02ADF28B73D42C8ACD1C362	10/22/2013	10/22/2028



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=Riverbed Technology, Inc., CN=RVBD Certificate Issuer	72563CC98ADA2C5D2126542ACC908154AEB1F9D6F7E83A55C09744C7D7ADDDBA	11/20/2018	11/20/2028
C=US, O=Riverbed Technology, Inc., CN=Riverbed Certificate Issuer	BB39497035ED9583D286CDE70FB644EB95806598092B1E8D8F11BC035D7A476A	11/20/2018	11/20/2028
C=NL, ST=Noord-Holland, L=Amsterdam, O=TERENA, CN=TERENA Code Signing CA 3	B7C6EBDC2A1B65EF1836DC00250C44E15703121052C1AB6B9D0385A058153AE3	11/18/2014	11/18/2024
C=US, O=.NET Foundation, CN=.NET Foundation Projects Code Signing CA	024F162B1D09F6A0868C38B4C8B4257C1EEA6C5A31589416D520CF1624917EB3	4/27/2018	4/27/2028
C=CN, O=WoSign CA Limited, CN=WoSign EV Code Signing Pro CA	F6DFDEd61FF88EF10B9E6DCFBCE0F1615E05866CEBAFCD6D48AE80132C70347	5/23/2017	5/23/2027
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert SHA2 Assured ID Code Signing	4ADB819C250A2E183313405499D8735299C88F970A5019A27566B27E5818F41B	4/27/2018	4/27/2028
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert EV Code Signing CA (SHA2) G1	8A78B966C73D769040C1A81C32168CEF8B9B9E96ECC2D33CC4ABB5A0CF8C1C67	4/27/2018	4/27/2028
C=US, O=Fresenius Kabi AG, CN=Data Management Intermediate CA2	422F9D4E68134E362B7569E5298A173CEC40C7C7274B2263A9BC8ADA1D1A23FA	10/9/2020	8/25/2025
C=US, O=DigiCert Inc, CN=DigiCert Secure Auth CA2	4759D6F4ED6DF0E08FC4CA801986E2BE10594DBAF341B4C45ABAF34748887D25	10/9/2020	10/8/2030
C=US, O=DigiCert Inc, CN=DigiCert SHA2 Secure Server CA	C1AD7778796D20BCA65C889A2655021156528BB62FF5FA43E1B8E5A83E3D2EAA	9/23/2020	9/22/2030
C=US, O=Cisco Systems, Inc., CN=Cisco Meraki CA2	CDBCBEF16E37237702FACC4B55D3AB92A17CFA17835E13377AA4D2BA0FD47A02	9/24/2020	7/12/2026
C=US, O=DigiCert Inc, CN=DigiCert TLS RSA SHA256 2020 CA1	25768713D3B459F9382D2A594F85F34709FD2A8930731542A4146FFB246BEC69	9/24/2020	9/23/2030
C=US, O=DigiCert Inc, CN=DigiCert Cloud Services CA-1	5F88694615E4C61686E106B84C3338C6720C535F60D36F61282ED15E1977DD44	9/25/2020	9/24/2030
C=US, O=DigiCert Inc, CN=DigiCert Global G2 TLS RSA SHA256 2020 CA1	1F8EB9E9A8E066CC5B3833E06B3129764B622639D5B163F600E1C79120BF3EED	9/24/2020	9/23/2030
C=US, O=Bloomberg LP, CN=Bloomberg TLS CA	440B37416F2DE852CA386150D611ECOAF31DD58D8A27F882815A7EA3EE6848EE	9/24/2020	9/23/2030
C=US, O=Plex, Inc., CN=Plex Devices High Assurance CA3	FB6060848440AA4594FE8109741EFAB40C56732B26C67C36D6DC945BB2FE13CF	9/24/2020	5/19/2025
C=US, O=Aetna Inc, CN=Aetna Inc. Secure EV CA	A1448A015E1399C5A891812F0E88C6D847B221D21F9326A6626BA43A0EB612D9	9/24/2020	12/9/2024
C=US, O=Aetna Inc, CN=Aetna Inc. Secure CA2	DDCBB4F3051D6E601310EB0E46B5BB99C5E8B99F7A539E367A987DEA030E318E	9/24/2020	12/9/2024
C=US, O=DigiCert Inc, CN=DigiCert Baltimore TLS RSA SHA256 2020 CA1	38F73647F1ECAECC0FC5AFE68AC30E0C26171E9F232F4530729412408FD53626	9/24/2020	5/11/2025
C=US, O=CrowdStrike, Inc., CN=CrowdStrike Global EV CA	8CD728F9C3391BA4360A10C66CA484C807651D6207F10633669ED8881FE91BF5	2/21/2020	11/9/2031
C=US, O=DigiCert Inc, CN=DigiCert High Assurance CA-3b	4E30F8004C18D3D798EC5A7734346B5A5EBE8D54423CE98257FC57735A6F738D	5/28/2020	11/9/2031
C=US, O=Cloudflare, Inc., CN=Cloudflare Inc RSA CA-2	AEC863898F284D6CD4C6A3F6C3E6523480A359C33DAF66FAD3381849B8BB018B	1/27/2020	12/31/2024
C=NL, O=SupremeSSL, OU=www.supremessl.com, CN=GeoTrust SupremeSSL 1 CA	354FCFC6162A0EE2205DBEF68931E78033ECE9D125E0824E49BAEBF82DFDD167	5/7/2019	5/7/2029



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=DigiCert Inc, CN=DigiCert Trust Service CA	75AC8E41D9A7CC758D3998FE030F638CFD28855823DA4E9B56954CFBDE054EB6	3/4/2020	3/4/2030
C=US, O=DigiCert Inc, CN=GeoTrust RSA CN CA G2	E3C24279DD6A337F881B1BC692E878F4A31AFE95851F208F94800B0C24D88C38	3/4/2020	3/4/2030
C=US, O=DigiCert Inc, CN=DigiCert Basic RSA CN CA G2	CB57B3FF2040CB269497625BC90FA9D7B4ED4938C6F60F42F69AFDF508AC2993	3/4/2020	3/4/2030
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Secure Site CA	B26EB310F8FAF0EF5B0D0B71AA65EC050FA3ADE29134FB438AB6440288FA6E67	5/17/2018	5/17/2030
C=NL, O=Trust Provider B.V., CN=Trust Provider B.V. TLS RSA EV CA G2	B23A29C312A7A80B0FE6B4E71B909CAE92AD649E88766E56C9EE8E1D7C013945	2/21/2020	2/21/2030
C=CN, O=TrustAsia Technologies, Inc., CN=TrustAsia EV TLS Pro CA G2	0D51B6CDCF34A9F22144787F3FD920DC8800FB60490BFC8D289A1953E0FBDA4D	6/20/2019	6/20/2029
C=US, O=DigiCert Inc, CN=DigiCert High Assurance Trust Service EV CA	72D0F7CBF4529B80C34A7CBB438BD1D0E1FC26E80E59CBD4FD7314FCDDF0E994	3/4/2020	3/4/2030
C=US, O=DigiCert Inc, CN=GeoTrust EV RSA CN CA G2	8937E90E1495C9A78EFB18182D43FDC73FCD292AB6347A12B9077DE878530E62	3/4/2020	3/4/2030
C=US, O=DigiCert Inc, CN=DigiCert Basic EV RSA CN CA G2	B41A4864F0D4EC4EA632D01B3E7F232775E55E22B3BFD8642EE1292280D0E47A	3/4/2020	3/4/2030
C=US, O=DigiCert Inc, CN=DigiCert Assured ID TLS CA G2	77CD51784A693D9482E7EA694E4053BCFD9DF65580FBCE14B2A7527C081803E1	3/25/2020	3/25/2030
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert CN RSA EV CA G1	B131905CC7221270613B529AC9E786AA230ABFE154A0ACBE452BC350BD1EFE4B	6/20/2019	6/20/2029
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Secure Site Extended Validation CA G2	B6EB4F8AD197073FE5203F8FCEBFD5C509CDE9CA3AA65EC59D203831424192D4	6/20/2019	6/20/2029
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=GeoTrust EV CN RSA G1	C87CE03AFFB5DE6319C219971F2ED2D8F6F5389E2D53B22DD2C562A5C9827FC0	6/20/2019	6/20/2029
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Thawte CN RSA EV CA G1	ADA188F830C313F6046488EC341F1ED4AF793C6DC28C58600445DFBEB4163746	6/20/2019	6/20/2029
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Secure Site Pro Extended Validation CA G2	40D69920EA05456FA0117DE608B8A8013790B542097E343EC1CBCE2DFB9713B0	6/20/2019	6/20/2029
C=US, O=DigiCert, Inc., OU=www.digicert.com, CN=DigiCert Global CA-3 G2	9B2DD4FBEE941F6510F716C04969B36428892765461701EF47D41B3289475D50	11/12/2019	11/12/2029
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Secure Site Korea EV CA	C022D5CEAA275F2A6268FA79AC35653B3A730DEFA41F9CD8817D6D159BD33097	3/25/2019	3/25/2029
C=US, O=DigiCert, Inc., OU=www.digicert.com, CN=DigiCert SHA2 Extended Validation Server CA-3	085A0714524DF7AE9919A6F597884439E12A533E61552D29D6A18C35096FC548	11/12/2019	11/12/2029
C=NL, O=SupremeSSL, OU=www.supremssl.com, CN=GeoTrust SupremeSSL EV 1 CA	0FB6CE80909D19AFEE6A88C959E9E9AA6466715BCE05C6449FEB530A086DAF14	5/7/2019	5/7/2029
C=US, O=DigiCert, Inc., OU=www.digicert.com, CN=DigiCert TLS ICA VRSN Universal	BA5B6E5DFEBDAE1C80BD72790BC85BCC6538AB4613023DA706CE826415F5E5B3	1/17/2019	1/16/2029



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=CN, O=TrustAsia Technologies, Inc., CN=TrustAsia OV TLS Pro CA G2	DBDFA91ACC4DB8AD83FCC7978E35D62F6E32E55108273C8EC998E3133580D664	6/20/2019	6/20/2029
C=CN, O=TrustAsia Technologies, Inc., CN=TrustAsia OV TLS Pro CA G3	D0E8A51ACAAB9AF82767E2EF16543C2CC635551B5DE0DAE25D6AAC71E7862870	3/13/2020	3/13/2030
C=US, O=DigiCert Inc, CN=DigiCert Secure Site CN CA G3	6AF5C4EAC180289B94A77A5D231E3865FFE934F3E6A24BF487EB4E2BFD809A4B	3/13/2020	3/13/2030
C=US, O=DigiCert Inc, CN=Thawte RSA CN CA G2	95141A355A5A2AA3E011221CAB9FE73810FDB5D88135864F03E4D852BD0BBEDB	3/13/2020	3/13/2030
C=US, O=DigiCert Inc, CN=DigiCert Secure Site Pro CN CA G3	A66C97AE59DFF9EA015E73C744EE5520745F101A395C497D19E1F168D39AFCD0	3/13/2020	3/13/2030
C=US, O=DigiCert Inc, CN=GeoTrust RSA CN CA G3	8A023C08E4A1AAC925B34C5C7965A8D0527565AEA130ABB915E508CD33AFB45	6/9/2020	6/9/2030
C=US, O=DigiCert Inc, CN=DigiCert Secure Site Pro EV CN CA G3	B75AEE9836FEFBC446F288A2970B84FC60AAF9EFBD2CB9F82F7581790DE4B8DC	3/13/2020	3/13/2030
C=CN, O=TrustAsia Technologies, Inc., CN=TrustAsia EV TLS Pro CA G3	9DB0A20C305541E15E818A880D06579876A9C901B8EECD968482C58D9BA7F0A7	3/13/2020	3/13/2030
C=US, O=DigiCert Inc, CN=Thawte EV RSA CN CA G2	69919D820EDF582ADBCE8E092A9284D901772EE2B419EA9DE1F5872C791FC6FA	3/13/2020	3/13/2030
C=US, O=DigiCert Inc, CN=DigiCert Secure Site EV CN CA G3	139AC36BD85398BBB4588687C20DC36827D03A5F42AADF87F02BECC4BE9BFC2	3/13/2020	3/13/2030
C=US, O=DigiCert Inc, CN=DigiCert EV RSA CA G2	9588EF74199E45ACEFCCFC0C47010E9F2A37A1DD44C61A4E1C6B334DA5AF614	7/2/2020	7/2/2030
C=US, O=DigiCert Inc, CN=GeoTrust EV RSA CA G2	2D140F20B8A96E2B4D2F1CC5ACA5E5A1E7DC56A7491E510906960F38D2D21AEF	7/2/2020	7/2/2030
C=DE, O=Legacy Technologies GmbH, CN=Legacy Technologies Intermediate	1032C6001ED664A0CD343B138BCB6860E2111011C3D5F06540F5BE41147812A5	7/2/2020	7/2/2030
C=US, O=DigiCert Inc, CN=Thawte EV RSA CA G2	3286691412F30ECE5C065FD62F4392A4762D1E77815338359DF390299FBD61EF	7/2/2020	7/2/2030
C=JP, O=DigiCert Japan G.K., OU=www.digicert.co.jp, CN=DigiCert Secure Site Japan CA	AD14A68BEC949E84F6063419D63465D137C2ADD3E3A85E00E9E3EE82E5B4018F	11/20/2018	11/20/2028
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert CN RSA CA G1	03CE9BC71B91FDB7CB3C5235CAE0701CB486BBD628D4AADE5841FC5F0AA37A46	6/20/2019	6/20/2029
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Secure Site CA G2	F614AE2B101484F15F66F4DDA56EE6EB422728F179D94399EDE19AC1D85A8BD3	6/20/2019	6/20/2029
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Secure Site Pro CA G2	02FED3BA2E6A7843A318A981BC847061FD282D9E8847FFA9F54D785B6B81D6F3	6/20/2019	6/20/2029
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Thawte CN RSA CA G1	7867AAE905EB8D55635FFEBBBF8CF05A63B9B390665DE2367AC1073E92913728	6/20/2019	6/20/2029
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=GeoTrust CN RSA CA G1	23DDF08B22373D86158EB9C99FDB5366B19804560531372DD20DCE3FB766F56C	6/20/2019	6/20/2029
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Secure Site Korea CA	6555D661D37F249A23C2D5F83479E78051B6DE76A147B506D6BEA2882B4D066	11/20/2018	11/20/2028
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Thawte Partner CA	635AF6889F49060FE0E7BABC0F23314FB118F3B18243DD17F47D8647A69684B1	11/20/2018	11/20/2028



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=GB, O=TRUSTCUBES LIMITED, 1.3.6.1.4.1.519.1=223013701, 1.3.6.1.4.1.52266.1=984500505FE80CD0NE58, OU=www.trustcubes.com, CN=TrustCubes ICA G1	2106CC7907C64B8A5DA2FC338EE94DFFF10EF711DEDBB4FC694EE092EC532B1D	7/18/2018	7/18/2028
C=US, O=DigiCert, Inc., CN=DigiCert QV TLS ICA G1	93E33AF7DA3030530D090C9C55762CADE7EAE943F834349D1057A90EB67F306B	3/16/2020	3/14/2030
C=US, O=DigiCert, Inc., CN=DigiCert QV EV TLS ICA G1	6A7B2AA3414039A663D5D8BBAB8256A3979A84C332BF5E1EE8F6D0E0ADA84668	3/16/2020	3/14/2030
C=DE, O=Daiichi Sankyo Europe GmbH, CN=Daiichi Sankyo Europe GmbH Issuing CA	A34B4B3BA3B93302804740CFF3F01A9C0FD9CFFEE5A193C997B87C5BE43A9E94	9/25/2020	9/24/2030
C=DE, O=OSRAM Continental GmbH, CN=OSRAM Continental Secure Email CA - G2	B5D61B50ACB993A27EF05D4324A04A671CEE7502E62BA5E9122CC2100BDF6CF	9/25/2020	9/24/2030
C=DE, O=OSRAM Continental GmbH, OU=Class 2 DigiCert PKI Platform Individual Subscriber CA, CN=OSRAM Continental Secure Email CA	D87A91DAC26D64E3659507119E80B11BE37ADA87A8D6C01E4E175DDB32B1A0D3	11/26/2019	11/26/2029
C=IL, O=ITsMine LTD, OU=Class 2 DigiCert PKI Platform Individual Subscriber CA, CN=ITsMine Document Signing CA	965BD258388DDDD4EA7BAAFB7754DF49F896CF02E15BE0925DE33B0038E9925F	8/5/2019	8/5/2029
C=US, O=.NET Foundation, CN=.NET Foundation Projects Code Signing CA2	D60D2D02F83920E89C0063AECA7C4630642C80EB824FFE43D9A11C250E5F51B9	7/15/2021	7/14/2031
C=US, O=DigiCert, Inc., CN=DigiCert Trusted G4 Code Signing RSA4096 SHA256 2021 CA1	47818F36F1DBA7D4F2A29360DB710E9BD75E3B13613618AAD45C01A10626523A	7/28/2021	7/27/2036
C=US, O=Abbott Laboratories Inc., CN=Abbott Laboratories Secure Code Signing CA - G2	481E80747EC14339A968C374B8BDF3FFA6EBB1F38A09E7D01360DE265BE7B90C	11/19/2021	11/18/2036
C=US, O=DigiCert, Inc., CN=DigiCert Secure Auth CA3	4A5B67AE540E54E158B0976F82FCFBD70BBA5C63CA1A5826819810212732B646	3/31/2022	3/30/2032
C=CH, O=World Intellectual Property Organization, CN=WIPO CA - G5	ECB4DDD4C2CD5FB973C724315A1A2317773254623560FBA860804508538D466C	3/8/2022	3/7/2032
C=US, O=VMware, Inc., CN=VMware Issuing SM	2996B56FE08307B04F8963B83F4AFAC25F47C34B33C25DB399F3A850D158C9F1	7/2/2020	7/2/2030
C=US, O=DigiCert, Inc., CN=DigiCert G5 Code Signing RSA4096 SHA256 2022 CA1	2DDE0BF74C225CE090EEB57F60A4C307E636B9B0DB20ECD362EEA49AB9AC46BC	5/19/2022	5/18/2037
C=US, O=Riverbed Technology, Inc., CN=Riverbed Certificate Issuer - G2	8EF3DB3C6DD26AE8B6DF5087FDAFE023092CC524F8E0271A45FE9416AEF43854	12/7/2021	12/6/2036
C=US, O=Riverbed Technology, Inc., CN=RVBD ENG Certificate Issuer - G2	AB422C705556BB41DB8663FFBF288B91E16B06EBCBEF5BAD1095B4FACB38FE39	12/7/2021	12/6/2036
C=LV, O=EnVers Group SIA, CN=GoGetSSL G4 CS RSA4096 SHA256 2022 CA-1	D5B54EBE9373F451FF0AE7CD6BC6A1FB2BD03EE9C54AB4CA019ACFC14B6E50D6	6/23/2022	6/22/2032
C=US, O=DigiCert, Inc., CN=DigiCert G5 CS RSA4096 SHA384 2021 CA1	26A9454579B138E765087276AF42C1C206C8B2ED0DE6639D1BA992626A797A91	2/11/2021	2/10/2036
C=US, O=DigiCert, Inc., CN=DigiCert G5 Code Signing RSA4096 SHA384 2022 CA1	F8D85D3FA345C654CF794DD3C8CE96866960505A170F7A057B5C5086208C9FA3	5/19/2022	5/18/2037
C=US, O=DigiCert, Inc., CN=DigiCert Trusted G4 Code Signing RSA4096 SHA384 2021 CA1	46011EDE1C147EB2BC731A539B7C047B7EE93E48B9D3C3BA710CE132BBDFAC6B	4/29/2021	4/28/2036



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=AU, O=Verkey, CN=Verkey High Assurance Secure Code EV	E03E9D15D653BCA7181522B98CBA4311E509FB81BF4FA646DDFA569B001C8E63	3/17/2022	3/16/2037
C=AU, O=Verkey, CN=Verkey Secure Code	3877D964C1983E41940D849D3ABB5EF0C8CA07D430B0DA779067E29FB700797E	3/17/2022	3/16/2037
C=US, O=DigiCert Inc, CN=DigiCert Trusted G4 TLS RSA SHA384 2020 CA1	4F35C6B9C100905FF25BB01C0A20EBE335BCEEF249CE9FFA1E11E062ED66FCD1	9/24/2020	9/23/2030
C=US, O=DigiCert, Inc., CN=DigiCert G5 Code Signing Europe ECC P-384 SHA384 2023 CA1	18A15F14E6C625C40D46611C80A84E235369F5B97ABD6B851CCDB550E6A33555	2/14/2023	2/13/2038
C=US, O=DigiCert, Inc., CN=DigiCert Global G3 Code Signing Europe ECC P-384 SHA384 2023 CA1	5903EE782F4FA2072EDCC94B8CC3DE6AE4AB27B3A07925926289467D5501F371	2/14/2023	2/13/2033
C=US, O=DigiCert, Inc., CN=DigiCert Assured ID G2 Client Europe RSA4096 SHA256 2023 CA1	79A7354CB43093E182240970EF186A4F4A23471C67B6FA3D0E30043AF30FDEF8	2/23/2023	2/22/2033
C=IE, O=DigiCert Ireland Limited, CN=DigiCert Assured ID G2 Client 2FA Europe RSA4096 SHA256 2023 CA1	70B2A6C71F1969DA8B4E1B95E8422EF8CDDF31FCA5B2308E8AB634C42DA96B4B	3/30/2023	3/29/2033
C=US, O=DigiCert, Inc., CN=DigiCert Trusted G4 Code Signing Europe RSA4096 SHA256 2023 CA1	E2612327EAF98AF9423EFEA184368E19BF9798D7DCEE0C5CF8E792C8893ED9F0	2/14/2023	2/13/2033
C=US, O=DigiCert, Inc., CN=DigiCert G5 Code Signing Europe RSA4096 SHA384 2023 CA1	061D67CC7000C1406A24B51F22BE26857100521710E7CD80BAA521E3675BA1AB	2/14/2023	2/13/2038
C=US, O=DigiCert, Inc., CN=DigiCert Trusted G4 Code Signing Europe RSA4096 SHA384 2023 CA1	086528D3B9FDB2577D82790E48A003DE74D74E4D8CBC44765F6F924A9D3FFB82	2/14/2023	2/13/2033



DIGICERT, INC. MANAGEMENT'S ASSERTION

DigiCert, Inc. ("DigiCert") operates the Certification Authority ("CA") services for its CAs enumerated in [Attachment B](#) and provides the following CA services:

- Subscriber registration
- Certificate renewal
- Certificate rekey
- Certificate issuance
- Certificate distribution
- Certificate revocation
- Certificate validation
- Subscriber key generation and management
- Subordinate CA certification and cross-certification

The management of DigiCert is responsible for establishing and maintaining effective controls over its CA operations, including its CA business practices disclosure on its [repository](#), CA business practices management, CA environmental controls, CA key lifecycle management controls, subscriber key lifecycle management controls, certificate lifecycle management controls, and subordinate CA certificate lifecycle management controls. These controls contain monitoring mechanisms, and actions are taken to correct deficiencies identified.

There are inherent limitations in any controls, including the possibility of human error, and the circumvention or overriding of controls. Accordingly, even effective controls can only provide reasonable assurance with respect to DigiCert's CA operations. Furthermore, because of changes in conditions, the effectiveness of controls may vary over time.

DigiCert management has assessed its disclosures of its certificate practices and controls over its CA services. Based on that assessment, in DigiCert management's opinion, in providing its CA services in the locations as enumerated in [Attachment A](#), DigiCert has:

- disclosed its business, key lifecycle management, certificate lifecycle management, and CA environmental control practices in the applicable versions of its DigiCert Certification Practices Statement ("CPS") and DigiCert Certificate Policy ("CP") as enumerated in [Attachment A](#)
- maintained effective controls to provide reasonable assurance that:
 - the applicable versions of its CPS are consistent with the applicable versions of its CP; and
 - DigiCert provides its services in accordance with its CP and CPS
- maintained effective controls to provide reasonable assurance that:
 - the integrity of keys and certificates it manages is established and protected throughout their lifecycles;
 - the integrity of subscriber keys and certificates it manages is established and protected throughout their lifecycles;



- subscriber information is properly authenticated; and
- subordinate CA certificate requests are accurate, authenticated, and approved
- maintained effective controls to provide reasonable assurance that:
 - logical and physical access to CA systems and data is restricted to authorized individuals;
 - the continuity of key and certificate management operations is maintained; and
 - CA systems development, maintenance, and operations are properly authorized and performed to maintain CA systems integrity

throughout the period October 1, 2022 to August 31, 2023, based on [WebTrust Principles and Criteria for Certification Authorities v2.2.2](#), including the following:

CA Business Practices Disclosure

- Certificate Practice Statement (CPS)
- Certificate Policy (CP)

CA Business Practices Management

- Certificate Policy Management
- Certification Practice Statement Management
- CP and CPS Consistency

CA Environmental Controls

- Security Management
- Asset Classification and Management
- Personnel Security
- Physical and Environmental Security
- Operations Management
- System Access Management
- System Development, Maintenance, and Change Management
- Disaster Recovery, Backups, and Business Continuity Management
- Monitoring and Compliance
- Audit Logging

CA Lifecycle Management Controls

- CA Key Generation
- CA Key Storage, Backup, and Recovery
- CA Public Key Distribution
- CA Key Usage
- CA Key Archival
- CA Key Destruction
- CA Key Compromise
- CA Cryptographic Hardware Lifecycle Management
- CA Key Transportation
- CA Key Migration



Subscriber Key Lifecycle Management Controls

- CA-Provided Subscriber Key Generation Services
- CA-Provided Subscriber Key Storage and Recovery Services
- Integrated Circuit Card (ICC) Lifecycle Management
- Requirements for Subscriber Key Management

Certificate Lifecycle Management Controls

- Subscriber Registration
- Certificate Renewal
- Certificate Rekey
- Certificate Issuance
- Certificate Distribution
- Certificate Revocation
- Certificate Validation

Subordinate CA Certificate and Cross Certificate Lifecycle Management Controls

- Subordinate CA Certificate and Cross Certificate Lifecycle Management

DigiCert does not escrow its CA keys and does not provide certificate suspension services. Accordingly, our assertion does not extend to controls that would address those criteria.

DigiCert has disclosed the following matters publicly Mozilla's Bugzilla platform. These matters were included below due to being open during the period October 1, 2022 through the date of this report.

Bug ID	Summary	Opened	Closed	Resolution
#1794050	DigiCert: Org information issue in new validation workflow	10/6/2022	11/2/2022	Fixed
#1797165	DigiCert: Delayed Revocation of ~5.5 hours	10/24/2022	11/4/2022	Fixed
#1800405	Amazon Trust Services / DigiCert: 404 error when fetching CRL	11/13/2022	12/5/2022	Fixed
#1814197	DigiCert: Late CP/CPS CCADB uploads	1/31/2023	2/14/2023	Fixed
#1816806	DigiCert: OCSP not responding issue	2/14/2023	3/9/2023	Fixed
#1820269	DigiCert: 4 CRL's not responding	3/3/2023	6/16/2023	Fixed
#1824206	DigiCert: Inconsistent validation information	3/3/2023	4/7/2023	Fixed
#1827772	DigiCert: Org-JOI type mismatch	4/12/2023	5/4/2023	Fixed
#1838334	DigiCert: Sub CA with EV OIDs without audit report	6/13/2023	6/26/2023	Fixed
#1845634	DigiCert: TLS certificates with incorrect policy OID	7/26/2023	9/2/2023	Fixed
#1846784	DigiCert: Delayed revocation of IV certificates	8/2/2023	9/2/2023	Fixed
#1853463	DigiCert: SMIME certificates issued inconsistent with BR's	9/15/2023	10/12/2023	Fixed



Bug ID	Summary	Opened	Closed	Resolution
#1860697	DigiCert: Certificates issued inconsistent with S/MIME BR v1.0.1	10/23/2023	---	Open
#1865235	DigiCert: Late background refreshment check	11/16/2023	---	Open

DigiCert, Inc.

DocuSigned by:

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11/21/2023

Jeremy Rowley
Chief Information Security Officer



ATTACHMENT A - CERTIFICATION PRACTICE STATEMENT AND CERTIFICATE POLICY VERSIONS IN-SCOPE AND LOCATIONS IN-SCOPE

Certificate Policies

Policy Name	Version	Effective Date
DigiCert Certificate Policy	6.00	August 16, 2023
DigiCert Certificate Policy	5.16	May 30, 2023
DigiCert Certificate Policy	5.15	April 13, 2023
DigiCert Certificate Policy	5.14	March 16, 2023
DigiCert Certificate Policy	5.13	March 6, 2023
DigiCert Certificate Policy	5.12	October 31, 2022
DigiCert Certificate Policy	5.11	July 19, 2022

Certification Practice Statements

Policy Name	Version	Effective Date
DigiCert Certification Practices Statement	6.00	August 16, 2023
DigiCert Certification Practices Statement	5.16	May 30, 2023
DigiCert Certification Practices Statement	5.15	April 13, 2023
DigiCert Certification Practices Statement	5.14	March 16, 2023
DigiCert Certification Practices Statement	5.13	March 6, 2023
DigiCert Certification Practices Statement	5.12	October 31, 2022
DigiCert Certification Practices Statement	5.11	July 19, 2022

CA Locations In-Scope

CA Location
California, United States
Utah, United States
Virginia, United States
Amsterdam (South), The Netherlands
Lupfig, Switzerland
St. Gallen, Switzerland
Utrecht, Netherlands
Amstel, Netherlands
Kawasaki, Japan
Sapporo, Japan



ATTACHMENT B - LIST OF CAs IN SCOPE

Root CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Assured ID Root CA	3E9099B5015E8F486C00BCEA9D111EE721FABA355A89BCF1DF69561E3DC6325C	11/10/2006	11/10/2031
C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=(c) 2008 VeriSign, Inc. - For authorized use only, CN=VeriSign Universal Root Certification Authority	2399561127A57125DE8CEFEA610DDF2FA078B5C8067F4E828290BFB860E84B3C	4/2/2008	12/1/2037
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert High Assurance EV Root CA	7431E5F4C3C1CE4690774F0B61E05440883BA9A01ED00BA6ABD7806ED3B118CF	11/10/2006	11/10/2031
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Global Root G3	31AD6648F8104138C738F39EA4320133393E3A18CC02296EF97C2AC9EF6731D0	8/1/2013	1/15/2038
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Global Root CA	4348A0E9444C78CB265E058D5E8944B4D84F9662BD26DB257F8934A443C70161	11/10/2006	11/10/2031
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Assured ID Root G2	7D05EBB682339F8C9451EE094EEBFEDA7953A114EDB2F44949452FAB7D2FC185	8/1/2013	1/15/2038
C=IE, O=Baltimore, OU=CyberTrust, CN=Baltimore CyberTrust Root	16AF57A9F676B0AB126095AA5EBADEF22AB31119D644AC95CD4B93DBF3F26AEB	5/12/2000	5/12/2025
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Global Root G2	CB3CCBB76031E5E0138F8DD39A23F9DE47FFC35E43C1144CEA27D46A5AB1CB5F	8/1/2013	1/15/2038
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Trusted Root G4	552F7BDCF1A7AF9E6CE672017F4F12ABF77240C78E761AC203D1D9D20AC89988	8/1/2013	1/15/2038
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Assured ID Root G3	7E37CB8B4C47090CAB36551BA6F45DB840680FBA166A952DB100717F43053FC2	8/1/2013	1/15/2038
C=US, O=DigiCert, Inc., CN=DigiCert TLS ECC P384 Root G5	018E13F0772532CF809BD1B17281867283FC48C6E13BE9C69812854A490C1B05	1/15/2021	1/14/2046
C=US, O=DigiCert, Inc., CN=DigiCert SMIME ECC P384 Root G5	E8E8176536A60CC2C4E10187C3BEFCA20EF263497018F566D5BEA0F94D0C111B	1/15/2021	1/14/2046
C=US, O=DigiCert, Inc., CN=DigiCert CS ECC P384 Root G5	26C56AD2208D1E9B152F66853BF4797CBEB7552C1F3F477251E8CB1AE7E797BF	1/15/2021	1/14/2046
C=US, O=Verizon Business, OU=OmniRoot, CN=Verizon Global Root CA	68AD50909B04363C605EF13581A939FF2C96372E3F12325B0A6861E1D59F6603	7/30/2009	7/30/2034
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 2 Public Primary Certification Authority - G6	CB627D18B58AD56DDE331A30456BC65C601A4E9B18DEDCEA08E7DAAA07815FF0	10/18/2011	12/1/2037
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 1 Public Primary Certification Authority - G6	9D190B2E314566685BE8A889E27AA8C7D7AE1D8AADDDBA3C1ECF9D24863CD34B9	10/18/2011	12/1/2037



Root CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=DigiCert, Inc., CN=DigiCert TLS RSA4096 Root G5	371A00DC0533B3721A7EEB40E8419E70799D2B0A0F2C1D80693165F7CEC4AD75	1/15/2021	1/14/2046
C=US, O=DigiCert, Inc., CN=DigiCert SMIME RSA4096 Root G5	90370D3EFA88BF58C30105BA25104A358460A7FA52DFC2011DF233A0F417912A	1/15/2021	1/14/2046
C=US, O=DigiCert, Inc., CN=DigiCert CS RSA4096 Root G5	7353B6D6C2D6DA4247773F3F07D075DECB5134212BEAD0928EF1F46115260941	1/15/2021	1/14/2046
C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=(c) 1999 VeriSign, Inc. - For authorized use only, CN=VeriSign Class 2 Public Primary Certification Authority - G3	92A9D9833FE1944DB366E8BFAE7A95B6480C2D6C6C2A1BE65D4236B608FCA1BB	10/1/1999	7/16/2036
C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=(c) 1999 VeriSign, Inc. - For authorized use only, CN=VeriSign Class 1 Public Primary Certification Authority - G3	CBB5AF185E942A2402F9EACBC0ED5BB876EEA3C1223623D00447E4F3BA554B65	10/1/1999	7/16/2036
C=US, O=DigiCert, Inc., CN=DigiCert Client ECC P384 Root G5	CD851C5C25467C0095A43927D0B2292D932975E84DCE4C5E794542C6574C3AA4	1/15/2021	1/14/2046
C=US, O=DigiCert, Inc., CN=DigiCert ECC P384 Root G5	C1468CF2254E6004B24696ABA209D1A30BA6E2DFF68A9A4E32C6AB414F90C8D9	1/15/2021	1/14/2046
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 Public Primary Certification Authority - G4	53DFDFA4E297FCFE07594E8C62D5B8AB06B32C7549F38A163094FD6429D5DA43	10/18/2012	12/1/2037
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 1 Public Primary Certification Authority - G4	363F3C849EAB03B0A2A0F636D7B86D04D3AC7FCFE26A0A9121AB9795F6E176DF	10/5/2011	1/18/2038
C=US, O=WFA Hotspot 2.0, CN=Hotspot 2.0 Trust Root CA - 03	A3CC68595DFE7E86D8AD1772A8B5284ADD54ACE3B8A798DF47BCCAFB1FDB84DF	12/8/2013	12/8/2043
C=US, O=DigiCert, Inc., CN=DigiCert Client RSA4096 Root G5	3AF21466920FA91FA31F4331E445C16BE2330024BFD2C239C0D85AB530714766	1/15/2021	1/14/2046
C=US, O=DigiCert, Inc., CN=DigiCert RSA4096 Root G5	E46A392204A8DCA342A71C1CA9A60C9185B9A930370120C3B9C7E3856F0D8F3B	1/15/2021	1/14/2046
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 Public Primary Certification Authority - G6	B32396746453442F353E616292BB20BBA5D23B546450FDB9C54B8386167D529	10/18/2012	12/1/2037



Cross-Signed Root CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
O=Cybertrust, Inc, CN=Cybertrust Global Root	24905145BD9B9BFE99C60354B49951BE0E709F1634CFBD0E370FEB9F068ED6C3	12/3/2014	12/3/2024
O=Cybertrust, Inc, CN=Cybertrust Global Root	64B3542D1BC972F58A1D179F3D0B9652BE434F3AE3842E0C447880D4D623A4DE	4/23/2014	4/23/2024
O=Cybertrust, Inc, CN=Cybertrust Global Root	E71D8C3BAF43F6B3352DF574A9F0D4A2065BF03DA179514B1FCC5D9BEC8C8FCFD	12/3/2014	12/3/2024
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Global Root CA	6DACBB8945137B1DAD4211B0436EFBE06F12ACE36904973B45AE25740823D369	12/7/2016	5/10/2025
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert High Assurance EV Root CA	CBF8FB77660167E6BAACD0DF77CDA397D0117EE2BEEA23B935317F8BB5B5E3B0	12/7/2016	5/10/2025
C=US, O=Verizon Business, OU=OmniRoot, CN=Verizon Global Root CA	B90EEAE931E5E2B7D335F149DA6C2210986000D214FFDB62A72F7332D63731AF	4/9/2014	4/9/2024
C=US, O=Verizon Business, OU=OmniRoot, CN=Verizon Global Root CA	D96CBC03B523CD3315918651CF4862162887DD563AFB2352D3F34BB94576F93D	5/13/2014	5/13/2024
O=Cybertrust, Inc, CN=Cybertrust Global Root	802447EE521CC666CDB7BBAE93A385E55F200D76A3D1356A85445AC4CDBED12	1/8/2014	12/15/2030
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Trusted Root G4	AD8EB32C9DA91DDC855F382745990147DC6F23D9FBB04FC9D476B1EE20FC71D8	7/1/2013	10/22/2023
C=US, O=DigiCert, Inc, OU=www.digicert.com, CN=DigiCert Universal Transition Root	AF0E363CAE6DF489F2976A284D12D4C33C94B135FA77F89E89298D7491E99974	12/8/2017	12/8/2037
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Web PKI ECC Root - G1	92BB72F15EB75DE467C84B438181034BDAE9A016EC26434BEE3C9BBAD8CD8AF0	9/21/2017	9/20/2042
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Web PKI RSA Root - G1	F6BB5B7985A8736594C14679FA31603814502AAEB5F4282A69985DC84A450777	9/21/2017	9/20/2042
C=US, O=DigiCert, Inc., CN=DigiCert TLS ECC P384 Root G5	D92E93252EABCA950870B94331990963A2DD5DB96D833C82B08E41AFD1719178	9/21/2022	9/20/2037
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Global Root G2	6523C34F1E879ADD7603CB2048A898A5E2F0C6C4B512C0D22782B85D43AE3371	8/15/2023	11/9/2031
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Global Root G2	0BA8C0D459B76ABC0825294F565E24F4F169D4A4819D0692D371522D297724B8	3/4/2021	3/3/2031
C=US, O=DigiCert, Inc., CN=DigiCert TLS RSA4096 Root G5	A4BCDA32D49CDF05F0CDD085E73C3A2E67880BD48579FED4DF5940DF76A076D7	9/21/2022	11/9/2031
C=US, O=DigiCert, Inc., CN=DigiCert TLS RSA4096 Root G5	048E39BBB6B15EF83525F163192CEA0DF21D3FFABAFAB7C63909FB1553EE4966	7/12/2023	7/11/2033
C=US, O=DigiCert, Inc., CN=DigiCert TLS RSA4096 Root G5	B9D53F235C5FA8C92EB31DCFCADF4959B34A32AF36ACA1EA10F07D6551C398A5	5/10/2023	11/9/2031
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Trusted Root G4	33846B545A49C9BE4903C60E01713C1BD4E4EF31EA65CD95D69E62794F30B941	8/1/2022	11/9/2031
C=US, O=DigiCert, Inc., CN=DigiCert CS ECC P384 Root G5	2F30A9B2F110FB7B7C07C1E2CD652C3B71392D55AB7402E3F40D56F414540622	5/19/2022	5/18/2037



Cross-Signed Root CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Trusted Root G4	E9158C6AF5688CF9890206C43061C81FA7FC07D08E28A27C068C58073A699A	1/13/2022	11/9/2031
C=US, O=DigiCert, Inc., CN=DigiCert CS RSA4096 Root G5	63A9756FF8A0DB5CBF94C97CD894DBAEED4BB1BD2ECFB890A9E55336FECDF060	5/19/2022	5/18/2037



Time-Stamping CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec SHA256 TimeStamping CA	F3516DDCC8AFC808788BD8B0E840BDA2B5E23C6244252CA3000BB6C87170402A	1/12/2016	1/11/2031
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert SHA2 Assured ID Timestamping CA	CA8D0F4736454AECBEC5DEEC80998C9EBF41D06C728F3C76CCA24151BC62D463	1/7/2016	1/7/2031
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Trusted Root G4	4C913D04FB495DC36119552D6068F7B9891EFE40344E9E5C1E9132F65BAEFF7F	6/9/2022	11/9/2031
C=US, O=DigiCert, Inc., CN=DigiCert Trusted G4 RSA4096 SHA256 TimeStamping CA	281734D4592D1291D27190709CB510B07E22C405D5E0D6119B70E73589F98ACF	3/23/2022	3/22/2037
CN=BT Class 2 DigiCert PKI Platform CA, O=British Telecommunications plc, C=GB	843782303040BFB33576766E1700696DE0FC14887BE293D7265EB59ECE4ED9CC	8/6/2019	6/6/2031



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Baltimore CA-1 G2	BF1CB0E213D8D3C70BAE89429FC16DE2C74F755963D1B9B488BD0260DBC91B9C	10/14/2015	5/10/2025
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Baltimore CA-2 G2	F9690880819F06CDCC0B2F224B207F2AF6003FB57339B8679A160FA95208D62D	12/8/2015	5/10/2025
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Baltimore EV CA	D46931E0182DD655EA0C16E6DD99F8E61AFFE401F734C6CA8EA0056A968EAF81	10/14/2015	5/10/2025
C=IT, O=Postecom S.p.A., OU=Servizi di Certificazione, CN=Postecom CS4	C1685683F3C8590E88580197F219CAB99E5482A1568635F596D09867B2F405BD	4/26/2016	4/26/2023
C=IT, O=Telecom Italia Trust Technologies S.r.l., OU=Digital Identity and Security, CN=Trust Technologies Global CA	191E0B48B78B7EFA4822A465AD69B34405B878D10BD853D8E57CB8B9D9E50B8B	8/24/2017	5/10/2025
C=US, O=Fresenius Kabi AG, OU=Fresenius Kabi USA, CN=Data Management Intermediate Certificate Authority	54837EF7B5AC4AA23606A15EF30DE46E9BB7E23E60F6ED4F2612092B94EDC68F	8/25/2015	8/25/2025
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Assured ID Intermediate CA (SHA2)	C2B4BBEF4A1A643F334ED0850F928876D2AE3AE3642B986014D68C673C04D081	12/7/2011	12/7/2026
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Assured ID TLS CA	D7737E5F2D3FFCA429902E9F388CFD6C5959CD35A0FC103CEE2F7E93D1C66A52	2/9/2018	2/9/2030
C=US, O=DigiCert Grid, OU=www.digicert.com, CN=DigiCert Grid Trust CA	1E0A3AB993157717281D42ABF801EB64DEED500E4168CA706D6A71D8103C73A2	12/7/2011	12/7/2026
C=US, O=DigiCert Grid, OU=www.digicert.com, CN=DigiCert Grid Trust CA G2	28CBB4E0D9C4EE6D04AC8F14717605AE3A4BD8CBF8D081B27AF6EDB2F3D76A32	1/8/2014	1/8/2029
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Secure Auth CA	24E9F20AC167BB8F09DE8A1E9968CC53F0B5F3A4948F51B8647B40B186C75EBE	4/23/2014	4/23/2029
C=US, ST=CA, L=Mountain View, O=Google, Inc., CN=Google CA1	438F473EBFC8884EF5D3E0D52D264CDBE56CA382D9EBFC689D77489409F55A6E	8/25/2015	8/25/2025
C=US, ST=Minnesota, L=Minneapolis, O=Optum, CN=Optum Public Trust CA 1	253E3C9732DF8874C3D54DA522C1711142C98C2CEA7664635152A89A03EE9364	4/28/2015	4/28/2025
C=US, O=Plex, Inc., CN=Plex Devices High Assurance CA	48A7C9C5A36734FC9E204D63CE6BBBCD9E21C1978604760CD8D30D6F4C67B67C	1/14/2015	1/14/2025
C=US, O=Sonavation, Inc., OU=sonavation.com, CN=Sonavation IoT CA	4C56CA7A3C10EB58765E0FFCF8035C57C9F3BDB014862F676756CF789193F10E	5/19/2015	5/19/2025
C=NL, ST=Noord-Holland, L=Amsterdam, O=TERENA, CN=TERENA eScience Personal CA 3	FDA947208BFA3203A6C57B8714A647B7009E5168E88951345450B1D2D3F91A7D	11/18/2014	11/18/2024
C=NL, ST=Noord-Holland, L=Amsterdam, O=TERENA, CN=TERENA eScience SSL CA 3	E1BE6BBB70F5A241E736FC44C6A2160BF6CE19B95EDD67BF7BE896E83778745	11/18/2014	11/18/2024



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=NL, ST=Noord-Holland, L=Amsterdam, O=TERENA, CN=TERENA Personal CA 3	DD4E0C17900F3FC2A5B7B773AE40218AD73216B5CE5D285EBFFCE8830D0F034A	11/18/2014	11/18/2024
C=NL, ST=Noord-Holland, L=Amsterdam, O=TERENA, CN=TERENA Personal CA 3 G3	C123F5AFACC9F9096809850355E5BF78CA9377348111B5167A964DDEDCC044DE9	12/9/2014	12/9/2024
C=NL, ST=Noord-Holland, L=Amsterdam, O=TERENA, CN=TERENA SSL CA 3	BEB8EFE9B1A73C841B375A90E5FFF8048848E3A2AF66F6C4DD7B938D6FE8C5D8	11/18/2014	11/18/2024
C=NL, ST=Noord-Holland, L=Amsterdam, O=TERENA, CN=TERENA SSL CA 3 G3	C9D6913F3FEDDEFF184C9EE1D7E17C5AEC90886EED5CC3D6E98105831C8C0E0B	12/9/2014	12/9/2024
C=US, O=DigiCert Inc, CN=DigiCert Assured ID CA G2	93C381CB07B353A920C2A7BED6BEBF195C68279DD0527D37F20BDD0D99C330FA	8/1/2013	8/1/2028
C=US, O=DigiCert Inc, CN=DigiCert Assured ID CA G3	634FDF26C994E76A2918D9EFC4CAB9C6FCB344EF642A79C89192BCDA0ED52F4C	8/1/2013	8/1/2028
C=US, O=Anne Arundel Medical Center, OU=AAMC Direct Messaging, CN=AAMC Direct Intermediate CA	BB1C01E884DD0919AB94D5AF5575CD6FEB71E560B2B58735A78B150A10D54BF3	5/28/2015	5/28/2025
C=US, O=Allina Health System, OU=Information Services, CN=Allina Health Connect HIE Intermediate CA	826C6AA610EF190BE2D7C03E22D032405B289804E3319E233C4C37FFBF305F1A	12/8/2015	12/8/2025
C=US, O=Axesson Inc., OU=www.axesson.com, CN=Axesson Direct CA	BF4655F16AA338D7C7FF2BDC949A524BD4797B8B3C8341C608C9F65CB1CB8177	1/8/2014	1/8/2024
C=US, O=Quest Diagnostics Care360, OU=Care360 Direct Messaging, CN=Care360 Direct Intermediate CA	2D602B1F166D6316DAFD46B4B1EDD6DCFC54D2AF8A944BE358858FD504AAA16B	8/25/2015	8/25/2025
C=US, O=Cerner Corporation, OU=Cerner Direct, CN=Cerner Corporation Direct Intermediate CA	09DE7FA739EE47C06291845F2E0E8A9E1C7CC2900AD354CF167316E02386BD9B	9/26/2014	9/26/2024
C=US, O=Compugroup Medical, Inc, OU=IT, CN=CompuGroup Medical Certificate Authority	B604026A3590392ABEFB6B18E8176453656115D2A0060F713E191A9FD076532A	12/8/2015	12/8/2025
C=US, O=Corepoint Health, CN=Corepoint Direct Intermediate CA	CD2640957CF88610470CEFD409D85D9BE05962F7D6C2999C4F431ABCCC34118C	1/14/2015	1/14/2025
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Accredited Direct Med CA	0E78434EC8AD6613562C8390D8B3306FC6087E0593C7D5AC2FAF9AD263879745	8/6/2013	8/6/2023
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Direct Non-Provider CA	1AEDDADDC1ED748543EAF5960DF96AD51E21A3164F30A0640CB0732365D39062	2/11/2014	2/11/2024
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Federated Healthcare CA	54C3F501042CDCC09AE8143CB192BD5E5724C9C88A6AB395A94A1A7AFC26CE7C	2/11/2014	2/11/2024
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Federated ID L1 CA	CAB016C5EA32061BD065FE13A55A40FA61058B27B34A7F8D175F7101EE063E3B	10/30/2012	10/30/2022
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Federated ID L2 CA	91FDEB52D4265120B843B195D1B6CDB5CE61251865A45A3E920E610FDDA660D3	1/7/2014	1/7/2023



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Federated ID L3 CA	85760F77DB0FD0D93C21EE0364B8EAB09B82CF49B7849831038209B5B1081363	1/7/2014	1/7/2023
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Federated ID L4 CA	EFB2A3F37273D3589047919825EA5337E9B938A8C178B61C18C2B4270B9665AC	10/30/2012	10/30/2022
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Federated ID US L3 CA	EB84FC0B403D9B689297A5D83EA186838E3B777BC618FDA162A75B7FEA666C1	1/8/2014	1/8/2023
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Federated ID US L4 CA	6797436214EFEE67CDE7D70358D4D8B00DFBF78D5C87C62B4A7E790D73DD7BD9	4/18/2013	4/18/2023
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Governmental Direct CA	5F665CBACC1E37171EA83EA85C570F9861CAF77BAC8886ABC4BB19B3698C094A	9/25/2015	9/25/2025
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Provisional Direct Med CA	C61029C8EEE3CE08755D562BB50C5F75E0EF849214970B13BD99185367D1D119	6/3/2014	6/3/2024
C=US, O=Indian Health Service, OU=directihs.net, CN=Indian Health Service-RPMS DIRECT Messaging CA	C07E9037CB81012D3046613285C14B63A0284964A4F5A821FC3B18ECDEBA0A66	4/4/2014	4/4/2024
C=US, O=INTEGRIS, OU=INTEGRIS DIRECT Messaging HISP, CN=INTEGRIS Direct Intermediate CA	97D276C5FDF2DC94539ABB9E17BC3995730CD51739EAE95B0F67B39E99905F11	11/18/2014	11/18/2024
C=US, O=iShare Medical, CN=iShare Medical Direct Intermediate CA	4C0A5888C34AA01B745F4EBA268696B2CCB3F4AA31C8EDCB3AFE8FA84CB74CC1	1/14/2015	1/14/2025
C=US, O=MedicaSoft LLC, OU=MedicaSoft Direct Messaging, CN=MedicaSoft Direct Intermediate CA	51A6E2ED41040AAE8E089FBABFE26A38D656F5B0855635352FEE9598286BB021	4/28/2015	4/28/2025
C=US, O=Medicity Inc., OU=www.medicity.com, CN=Medicity Direct CA	231BA402E28B3495F3BE0CAD87078D9B8FBD86041116AF9B8047E7B1CFFA82D0	2/13/2014	2/13/2024
C=US, O=Michiana Health Information Network, OU=www.mhin.com, CN=MHIN Direct CA	EAEFFB08D568E7F6CF6D892CAB6A22E14F20C6F10E3A418CFB42B12309333367	1/8/2014	1/8/2024
C=US, O=Mirth, OU=NextGen Share, CN=Mirth Direct Intermediate CA	CC9FAAD83C3350943D4E45FA416C4F8BC564F7AA94CF4B2D2BCE74209D00464C9	9/26/2014	9/26/2024
C=US, O=MobileMD Health Services, OU=MobileMD, CN=MobileMD Direct Intermediate CA	33CF1F5C9396D7EE9E8283B2E76F400E50450575EB15AD02C956C1C5575B184D	10/21/2014	10/21/2024
C=US, O=MRO Corporation, OU=MRO HIE Solutions, CN=MRO Direct Intermediate CA	E25DE970AA8B685CDF55417897F65DE64C63A55D61EE9E4B830261DCFBFFFB4	10/21/2014	10/21/2024
C=US, O=Oregon Health Authority, CN=Oregon Health Authority Direct CA	86FFEA40F36FA6913278710FEABA9B206F3288DA3FD1C652BC5B5895A2B1A877	3/5/2014	3/5/2024



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Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=Orion Health Inc., OU=Orion Health Direct Secure Messaging, CN=Orion Health Direct Secure Messaging CA	A4106DA85F7B34A6D3DE37884D1528916B84F046FFB7D4AAC521117B0C6995F3	10/21/2013	10/23/2023
C=US, O=RelayHealth, CN=RelayHealth Direct CA	77537682E9A0B2C5BD5E62BC1CB35ECEB38FCBEBF7D2DC326F7E420F0DDBEDB3	4/4/2014	4/4/2024
C=US, O=Rochester RHIO, OU=Rochester RHIO HISP, CN=Rochester RHIO Intermediate CA	43202B9E870659921F9DA26EDA9E47BF6990DB031A0BC0B23AFA1E7968ED3E99	10/21/2014	10/21/2024
C=US, ST=SC, O=SCHIEX, OU=SCHIEX Direct Messaging, CN=SCHIEX Direct CA	443C8158264710C0B768A8170E59BF1FAE4079D2BC39939A79FA839174ED81AE	6/7/2016	6/7/2026
C=US, O=Abbott Laboratories Inc., CN=Abbott Laboratories Secure Authentication CA	DB99A4F284CCF10B26DE7B7A5D651725B857CBC871EBB33028D67B55510EFC9	8/23/2016	8/23/2026
C=US, O=Abbott Laboratories Inc., CN=Abbott Laboratories Secure Server CA	6C69E201656440EB98CD0875764A1ED19015ED8C4427601ACA9C68AFA8973959	7/12/2016	7/12/2026
C=US, O=Cisco Systems, Inc., CN=Cisco Meraki CA	199EE58009555DAE2CDA0626931C64391D6A88CCCB1F9F0B2EE80B667F581C06	7/12/2016	7/12/2026
C=JP, O=Cybertrust Japan Co., Ltd., CN=Cybertrust Japan Secure Server CA	33D57359831F87754E6E755D6B5B56E7E71297DDDFEA1D6397086604280F6FFC	12/7/2016	12/7/2031
C=US, O=DigiCert Inc, CN=DigiCert Cloud Services CA-1	2F6889961A7CA7067E8BA103C2CF9B9A924F8CA293F11178E23A1978D2F133D3	8/4/2015	8/4/2030
C=US, O=DigiCert Inc, CN=DigiCert ECC Secure Server CA	458446BA75D932E914F23C2B57B7D192EDDBC2181D958E1181AD5251747A1EE8	3/8/2013	3/8/2023
C=US, O=DigiCert Inc, CN=DigiCert Secure Server CA	94D4ECE2ED9A5457B969A13B260489E9A5FE4790A041F27A3EB4126C84418EF9	3/8/2013	3/8/2023
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert SHA-2 RADIUS CA	524CF7331C4EE353EEB1ECD74E1F801A0F1F08DFA0322092F42205AFC3A17675	9/20/2016	9/20/2026
C=US, O=DigiCert Inc, CN=DigiCert SHA2 Secure Server CA	154C433C491929C5EF686E838E323664A00E6A0D822CCC958FB4DAB03E49A08F	3/8/2013	3/8/2023
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Encryption Everywhere DV TLS CA - G1	15EB0A75C673ABFBCD2FAFC02823C91FE6CBC36E00788442C8754D72BEC3717	11/27/2017	11/27/2027
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=GeoTrust ECC CA 2018	D8E269A6EB08CBC337AD6578C72135787484C99D2FB08CCED029E806BE1040FC	11/6/2017	11/6/2027
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=GeoTrust RSA CA 2018	8CC34E11C167045824ADE61C4907A6440EDB2C4398E99C112A859D661F8E2BC7	11/6/2017	11/6/2027
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=RapidSSL ECC CA 2018	A0D1523A0BF663550EB9081E9BDEEDA12814F9570B7697D95DF2EA53D4FF75E3	11/6/2017	11/6/2027
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=RapidSSL RSA CA 2018	C790B47128447EC0B60F22BFCB795D71C326DD910EE12CBB4CC5A86191EB91BC	11/6/2017	11/6/2027
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Secure Site Pro CA	BA6A0C1170E1C7323860749B5E7B0ED365975D8FC90740B15D70F843A2394942	4/27/2018	4/27/2028



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Secure Site Pro ECC CA	A206644F57AFD10B94169498858981C16D633858CE0C88B57CF14FA2A92AACFD	4/27/2018	4/27/2028
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Thawte ECC CA 2018	6E62CBE3E42A41C50405B3E2F1A44257683267856184AF9C02112070AC836936	11/6/2017	11/6/2027
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Thawte RSA CA 2018	9A5EECEE9C7D898BD81DC3BF066DAF6AEFB8DB1C59676206D2BFDD682312C6F6	11/6/2017	11/6/2027
C=CN, O=TrustAsia Technologies, Inc., CN=TrustAsia ECC OV TLS Pro CA	F1CACA6AB2350A7668C13E41960908681DAFCC7E368DCB8D47FECF9631390481	4/27/2018	4/27/2028
C=CN, O=TrustAsia Technologies, Inc., CN=TrustAsia OV TLS Pro CA	33E8A4ED48930760CE1AD7A2D44F079B22F660052753976109E6FC74752552BD	4/27/2018	4/27/2028
C=CN, O=TrustAsia Technologies, Inc., OU=Domain Validated SSL, CN=TrustAsia TLS ECC CA	68D0B2E8C85BF009B4DB39AC8B5E2FA8E1FD9FD1E5028704EA9288C7E472AAEB	12/8/2017	12/8/2027
C=CN, O=TrustAsia Technologies, Inc., OU=Domain Validated SSL, CN=TrustAsia TLS RSA CA	79F1F5AB697DEBF195F5B7DA65F95399682EDAEB80115B9D42A6AE5E2FA98802	12/8/2017	12/8/2027
C=DE, O=CertCenter AG, OU=Domain Validated SSL, CN=AlwaysOnSSL TLS RSA CA G1	2A41BA819EB6125AF5CB4B8B0E9E954ECE798C2A7EE43DCDAF7D395987C4D552	11/2/2017	11/2/2027
C=US, O=DigiCert Inc, CN=DigiCert Global CA G2	8FAC576439C9FD3EF153B51F9EDD0D381B5DF7B87559CEBECA04297DD44A639B	8/1/2013	8/1/2028
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Encryption Everywhere DV TLS CA - G2	B1AC8CFB181B9C9354E1775FCBDFCFE7898C5CC9A17D76315B57C112EEE55234	11/27/2017	11/27/2027
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=GeoTrust TLS RSA CA G1	C06E307F7CFC1D32FA72A4C033C87B90019AF216F0775D64978A2ECA6C8A230E	11/2/2017	11/2/2027
C=CH, O=Hostpoint AG, OU=Domain Validated SSL, CN=Hostpoint TLS RSA CA	F7FBDEB82BE99D41CDCA419FC91859D3E5286C076204E0E903D678BB213ED89B	11/2/2017	11/2/2027
C=US, O=Oracle Corporation, OU=Organization Validated SSL, CN=Oracle TLS RSA CA G1	319896E3954D510DA3A4B75387E8C870B3BC2C3228D8550916EBE9ABDCB7F921	11/2/2017	11/2/2027
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=RapidSSL TLS RSA CA G1	4422E963EE53CD58CC9F85CD40BF5FFEC0095FDF1A154535661C1C06BCADC69B	11/2/2017	11/2/2027
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Secure Site CA	D3533B732A518A6DA68EF266085E11DFD114C0EB0092CD43530A44D54B913ED1	2/9/2018	2/9/2030
C=DE, O=STRATO AG, OU=Domain Validated SSL, CN=STRATO TLS RSA CA	A8AD1C25CC580B2131FCC6FC6D6513746F38EA99BD162C81B5C5393495175B18	11/2/2017	11/2/2027
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Thawte TLS RSA CA G1	4BCC5E234FE81EDE4EAF883AA19C31335B0B26E85E066B9945E4CB6153EB20C2	11/2/2017	11/2/2027
C=NL, O=Trust Provider B.V., OU=Domain Validated SSL, CN=Trust Provider B.V. TLS RSA CA G1	009871C3A4C607311E5AE92F01095F9BF76100B8794AB0A9A5210E6794C8607C	11/2/2017	11/2/2027



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Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=CN, O=TrustAsia Technologies, Inc., OU=Domain Validated SSL, CN=TrustAsia TLS RSA CA G8	036A18F5F0EB9DD5EE02B7854DF5C33845601D8939CFB7B607F69D142C01D909	11/2/2017	11/2/2027
C=US, O=Wells Fargo & Company, OU=Organization Validated TLS, CN=Wells Fargo Public Trust Certification Authority 01 G2	CF7CFA4F9DBCCBCA6D20EFDEBEAD4E173B34E76BDA1EB1E619F44E06E95FC208	11/15/2017	11/15/2027
C=DE, O=CertCenter AG, OU=Domain Validated SSL, CN=AlwaysOnSSL TLS ECC CA G1	BD193C475E4E67938BEF34122B98B558A2882E7ED94369A6CB011320EF15623C	11/2/2017	11/2/2027
C=JP, O=Cybertrust Japan Co., Ltd., CN=Cybertrust Japan ECC EV CA	92E3770B1EB44F84C2F2CB0097C2FD7126BD212B41C2610E78DDFD8946761738	8/24/2017	8/24/2032
C=JP, O=Cybertrust Japan Co., Ltd., CN=Cybertrust Japan Secure Server ECC CA	C3683F7D91754219DADA4E8DC30E4B18BD3928B53D3AB93D07384BC5871CE355	7/13/2017	7/13/2032
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Extended Validation CA G3	7C0912E5DE8478BB86E8EA46BA5AE65DC3870BCEFCBC2F46795EEECF648CFBE7	11/11/2015	11/11/2030
C=US, O=DigiCert Inc, CN=DigiCert Global CA G3	F7541CF69D1DE1AC953ABC1FAD6F7807A34EDFE9E12C11E66A195930C23AD6C6	8/1/2013	8/1/2028
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=GeoTrust TLS ECC CA G1	A838405EBB03F5DFD8D4A9572AE6E0E3F356EC4EC134375A59DB7B195DC3EC44	11/2/2017	11/2/2027
C=US, O=NCC Group, CN=NCC Group Secure Server CA G3	963056B0D941D9DBE27AC778053D85E43CC79F476AD34CFDD799C27E381840EB	7/30/2014	7/30/2029
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=RapidSSL TLS ECC CA G1	FC16D53203BD9187D69CC99D2DA551076B4DCB298140D6751F7A012966C99FDD	11/2/2017	11/2/2027
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Thawte TLS ECC CA G1	AE82201F565E0439B7F4AD689327594EB974A4F781B1A6CBFED59BD382317F13	11/2/2017	11/2/2027
C=CN, O=TrustAsia Technologies, Inc., OU=Domain Validated SSL, CN=TrustAsia TLS ECC CA G9	877F24CE70F4A3047E4EA70BEC1BC31BE9B6533ADFF3A393FF9BFB3C81029446	11/2/2017	11/2/2027
C=US, O=Aetna Inc, CN=Aetna Inc. Secure CA2	5D28761CBF304EAFCD127B34D614FE179AC7744F1552AF1C31298425AD05A275	12/9/2014	12/9/2024
C=US, O=Aetna Inc, CN=Aetna Inc. Secure EV CA	0A163600631BD66267FB7AEAD25C538B2B7D72AD6416A2BBD285F654BB642F6D	12/9/2014	12/9/2024
C=US, O=Aetna Inc, CN=Aetna Inc. Secure EV CA2	1DDFDDF883E3945B2CB24FA5B83788379C5AB058422AB979DF66C77473988687	12/8/2017	12/8/2027
C=JP, O=Cybertrust Japan Co., Ltd., CN=Cybertrust Japan Extended Validation Server CA	0E10BDDEE7512DBD79EBF0B4F48FEED7C83C2BD3DD81765565F4FF110B7BFA42	12/7/2016	12/7/2031
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert ECC Extended Validation Server CA	FDC8986CFAC4F35F1ACD517E0F61B879882AE076E2BA80B77BD3F0FE5CEF8862	6/21/2016	6/21/2031



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Extended Validation Intermediate CA (SHA2)	802C2AD1D215E57CDC9010EA437ACE399B657194FBD40E3BB5E00B080E6496DF	12/7/2011	12/7/2026
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert High Assurance Intermediate CA (SHA2)	47511629F2BC3B7CF84EFEC9F32798A43AF6252E550B6CAE76A38558712E37D8	12/7/2011	12/7/2026
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert SHA2 Extended Validation Server CA	403E062A2653059113285BAF80A0D4AE422C848C9F78FAD01FC94BC5B87FEF1A	10/22/2013	10/22/2028
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert SHA2 High Assurance Server CA	19400BE5B7A31FB733917700789D2F0A2471C0C9D506C0E504C06C16D7CB17C0	10/22/2013	10/22/2028
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=GeoTrust EV ECC CA 2018	BF3558F877E89D27DAA60DA9671676570DFBEB215D84AC5A37122D6776B78F6E	11/6/2017	11/6/2027
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=GeoTrust EV RSA CA 2018	185C0AE470423B9D4678A7C1055B5B48D90705505B794E215C063851336981F4	11/6/2017	11/6/2027
C=US, O=NCC Group, CN=NCC Group Secure Server CA G2	6075DA5CECD15D6584C5560322D5C09FC2199E52DEA7921D91040AA75248672E	7/30/2014	7/30/2029
C=US, O=Plex, Inc., CN=Plex Devices High Assurance CA2	50D3D71FC0CD7E36ADAE32221FEFBE8CC29B2676BA326C09B8FA1B24DBE75514	5/19/2015	5/19/2025
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Secure Site Extended Validation CA	1A8D790AF9B2B34D7DD6AF61B5AA4CF1380B86095CBAC2BCAB35BD566D0180C3	4/27/2018	4/27/2028
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Secure Site Pro Extended Validation CA	3883E6DE4917A46B594ECC2D2AC6A95D43E7EAA8E089A91F9BC104FF16DF8DE6	4/27/2018	4/27/2028
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Secure Site Pro Extended Validation ECC CA	C3804DE51E8C17052220AE1CAD3D383E54D5B7DC28843C42F0DBD9913C1E8658	4/27/2018	4/27/2028
C=US, O=SecurityMetrics, OU=www.securitymetrics.com, CN=SecurityMetrics DigiCert CA	F32DEAF22CE724661F53D5287311AFF2541EB38ECAFA9DD877B94023E3A11B1F	10/30/2012	10/30/2022
C=US, O=SecurityMetrics, OU=www.securitymetrics.com, CN=SecurityMetrics DigiCert EV CA	6B2328E7FFF598B2ADF90B7F3EA42B45FA606D78E2B117B7D60E99E828CF7565	10/30/2012	10/30/2022
C=NL, ST=Noord-Holland, L=Amsterdam, O=TERENA, CN=TERENA SSL High Assurance CA 3	BE6A0D9E1D115F2293F6ABF11B3EC8E882E24426EEEB09AAA503597993E77A25	11/18/2014	11/18/2024
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Thawte EV ECC CA 2018	F74C3B2C7E455D654D9EE5AAA712789CCB267B961C1A1CE48A69C860CD193678	11/6/2017	11/6/2027
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Thawte EV RSA CA 2018	93569B26AA535E3E07C891C6BD2FA9DC0939C24DB4B3726AD8531EDB17C497CA	11/6/2017	11/6/2027



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=CN, O=TrustAsia Technologies, Inc., CN=TrustAsia ECC EV TLS Pro CA	2DAAC6FDFAC16C548C53FF1198254D7E937761D22A1E7CC5C1A9462E971461F5	4/27/2018	4/27/2028
C=CN, O=TrustAsia Technologies, Inc., CN=TrustAsia EV TLS Pro CA	4AFFE4FEF39464D1788C660AF591D5E601B261C4811DF0A3DD9D61CAFE8E5ED8	4/27/2018	4/27/2028
C=CN, O=WoSign CA Limited, CN=WoSign EV SSL Pro CA	891EE2E23282E5076C9AE9047DE8EA900E066F81D6DCD9B843C59078B0F105BC	5/23/2017	5/23/2027
C=CN, O=WoSign CA Limited, CN=WoSign OV SSL Pro CA	AA61C2927DC89DB225CA9A17D600373D058F696D86D10E2BD7B5E8F44A97EED1	5/23/2017	5/23/2027
C=CN, O=WoTrus CA Limited, CN=WoTrus EV SSL Pro CA	070531383CCD100D3E9CD964DB07AA5E845A0686F2EAE3BC8A627B182057B1F1	2/9/2018	2/9/2028
C=CN, O=WoTrus CA Limited, CN=WoTrus OV SSL Pro CA	09033FE23996FE4A59C4C0F523D2560E31DFE4C17D8EA1403D429A971F4BD65A	2/9/2018	2/9/2028
C=US, O=DigiCert, Inc, OU=www.digicert.com, CN=DigiCert Transition Issuing CA G3	25B66390DD425867EC0DE58A6B198F5985BE58A43A4605E1A0B8C6F35B92D7EE	12/8/2017	12/8/2027
C=US, O=Government of the District of Columbia, OU=Office of the Chief Technology Officer, CN=DC Government SHA2 EV Intermediate CA	F12241EE34C03A608D34DBC0EA465E1BD1AA13091554F9D4D086253FF3CE83D4	7/13/2017	7/13/2027
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert EV Server CA G4	710024B37BD9F0E1537C18A4C20F9A31C4B485D1248C643F20B4C00F3716BA85	1/17/2017	1/17/2032
C=US, O=DigiCert Inc, CN=DigiCert Trusted Server CA G4	6E8D952FDBABAD8DE3D61E094393739B5A47371A52BDCB2A3C2F8C43622F640F	8/1/2013	8/1/2028
C=US, O=NCC Group, CN=NCC Group Secure Server CA G4	B7DFDC27E5FF9F35EFEC9F4BC532C35F727789B69C90A0489B40247299D97038	7/30/2014	7/30/2029
C=US, O=DigiCert, Inc, OU=www.digicert.com, CN=DigiCert Universal Issuing CA	622A42A28CAD83D962771D9D09BD307877D4AB513B4FE0CF2E5851E79FFA6FE	12/8/2017	12/8/2027
C=US, O=DigiCert, Inc, OU=www.digicert.com, CN=GeoTrust Primary Issuing CA	F7A84E24E8E0D89154874721C5B641F48A1EF0FF3B198F53BE021DB53F097BD0	12/8/2017	12/8/2027
C=US, O=Alaska eHealth Network, Inc., OU=Orion Health Direct Secure Messaging, CN=Alaska eHealth Network CA	437859303D0183862A96F6ABF8B03F2A69D4CBD317217666015E1ABA3C84AA11	10/22/2013	10/22/2023
C=US, O=California Integrated Data Exchange, Inc., OU=Orion Health Direct Secure Messaging, CN=Cal INDEX CA	A5226F33474B53392665298B48F4E6129824E98BD4D38DF4E31EBBCF14FA33CD	7/12/2016	7/12/2026
C=US, O=Catholic Health Initiatives, OU=Orion Health Direct Secure Messaging, CN=Catholic Health Initiatives CA	151A3591B765D02C359EEC9C56ED8DDAD0C54E756A497D02BF979FA8DD5D95BB	8/19/2014	8/19/2024
C=US, O=Greenville Health System, OU=Orion Health Direct Secure Messaging, CN=Greenville Health System CA	06433FCA9F753980B526236DD72846EC1B20770BFCC7D3188DD67BC0ECFB7782	3/5/2014	3/5/2024



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=High Mark HIE, LLC, OU=Orion Health Direct Secure Messaging, CN=Highmark Tapestry HIE CA	1B68286DEFCE036512A5DAC76C8ABD067D33A07D4E0DEF7707089C980075E192	8/19/2014	8/19/2024
C=US, O=Huntsville Hospital System, OU=Orion Health Direct Secure Messaging, CN=Huntsville Hospital System CA	20E3E88747A8D88E11A527521032DC8CAE92BC33B45C93EEE04F624A70DC920A	3/5/2014	3/5/2024
C=US, O=Inland Empire EHR Resource Center, OU=Inland Empire Health Information Exchange, CN=Inland Empire Health Information Exchange	1E72D83ED9499CBA686968452BE591C48816EC9181391A5D03C1F4D3BA1658DC	1/8/2014	1/8/2024
C=US, O=Jax Health Records - SV HIE, OU=Orion Health Direct Secure Messaging, CN=Jax HR Saint Vincents HIE CA	3D2928A2988227CE4EBC319AA34E6552E9D98839D5CE2114E79F8F5EC2BF9DE0	2/16/2015	2/16/2025
C=US, O=Keystone Health Information Exchange (KeyHIE), OU=Orion Health Direct Secure Messaging, CN=KeystoneHIE KeyHIE CA	D1C2009D472835AFBA94CC8ACB06DD0C727138AE1E73834394D27B0C06CF1265	8/19/2014	8/19/2024
C=US, O=Louisiana Health Care Quality Forum, OU=Orion Health Direct Secure Messaging, CN=Louisiana Health Care Quality Forum CA	3E4F09D65438B5CF7E456288C08FE9F47ED4E3ED669279C81AEFAB0BAFB86A09	10/22/2013	10/22/2023
C=US, O=Mary Washington Healthcare, OU=Orion Health Direct Secure Messaging, CN=Mary Washington Healthcare CA	1180C33AE1F23228923F6AE698C9C10DC729E0D811FC8B2EC02726E2DC26E2E4	3/5/2014	3/5/2024
C=US, O=Massachusetts Health Information Highway (Mass Hlway), OU=Orion Health Direct Secure Messaging, CN=Mass Hlway CA	23BA3A97C580DF2C316624D7FA5F7663580261CB2048142C73A3E86B113EB26D	9/25/2015	9/25/2025
C=US, O=Mississippi Division of Medicaid, OU=Orion Health Direct Secure Messaging, CN=Mississippi Division of Medicaid CA	1757291A3D7D0BB5B9B9CF8802F1B2AE173E56B0935970FC86B63A27499DB5E2	1/8/2014	1/8/2024
C=US, O=New Hampshire Health Information Organization Corporation, OU=Orion Health Direct Secure Messaging, CN=New Hampshire Health Information Organization CA	37E9A271EB4725C93CDAF183562C7D7D9EA8FC139F8374FFE418D77D32428FE0	10/22/2013	10/22/2023
C=US, O=New Mexico Health Information Collaborative, OU=Orion Health Direct Secure Messaging, CN=New Mexico Health Information Collaborative CA	10BEDDC480AA27563480B1BCAAB6C25B52995EA836E9A2ACE83F8F59206E2496	9/26/2014	9/26/2024
C=US, O=North Carolina Health Information Exchange, OU=Orion Health Direct Secure Messaging, CN=North Carolina Health Information Exchange CA	C4A842434ADB52809526B6D1E869A265F535B69BB16454A301667CC942678D58	3/5/2014	3/5/2024



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=North Dakota Information Technology Department, OU=Orion Health Direct Secure Messaging, CN=North Dakota Information Technology Department CA	6ECF658CCEA8B29BE60C85904F4ADD7CCB7950CF58C97BBF60D57CEA49A2703D	1/10/2014	1/10/2024
C=US, O=Oklahoma State Department of Health, OU=Orion Health Direct Secure Messaging, CN=Oklahoma State Department of Health CA	77ABE65DF4BE94E5EC222FC905E1233F8C77D6B3AE2933346A0C2FC3B2F1F560	2/16/2015	2/16/2025
C=US, O=Optioncare, OU=Orion Health Direct Secure Messaging, CN=Optioncare CA	89CFBC8FBFF7FE026B6CF2EA688419BDE8BBC1FB451329C865D6C6CBCF6BD097	3/1/2016	3/1/2026
C=US, O=Orion Health Inc., OU=Orion Health Direct Secure Messaging, CN=Orion Health Direct Secure Messaging Public HISP CA	D34138ED1458AE7DE4EDEA36ED3992E4F46E6EC9CF1E633E538DE9FF0F38F8E5	10/22/2013	10/22/2023
C=US, O=Rush Health, OU=Orion Health Direct Secure Messaging, CN=Rush Health CA	DB12B1D3F8CC52FFF4874F0A8B85E9FB6A2050861B1B1C61481A743AC0D33D5A	4/23/2014	4/23/2024
C=US, O=Sutter Health, a California nonprofit public benefit corporation, OU=Orion Health Direct Secure Messaging, CN=Sutter Health CA	603D69822381A0BFC274BBED67009BC7DF133CB902FA242CF58BF727D23D5495	10/21/2014	10/21/2024
C=US, O=The Koble Group, LLC, OU=Orion Health Direct Secure Messaging, CN=The Koble Group CA	A576C29481F5A2ACB1DF47500629A60F96F6ACA324E87FFDCFABD85E5649AEF	6/21/2016	6/21/2026
C=US, O=Western Connecticut Health Network, OU=Orion Health Direct Secure Messaging, CN=Western Connecticut Health Network CA	415322F3970C8CD0F54311E0F93C5F5C37BA3059FDB10F5240AC20934717F840	3/5/2014	3/5/2024
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Japan Class 1 CA	D6A3574E4C2AA2D15397D5A9BEFCF8380910CC0148BAB86A0B9FF40E2659BCE8	4/15/2014	4/14/2024
C=AU, O=Attorney Generals Department, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Attorney Generals Department Public CA	CEF711147D8B0A1DC5200B8383BED23C1D294F2F89EBFE179D2501EA5E24AB8A	7/21/2015	7/20/2025
C=US, O=Fannie Mae, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Fannie Mae Shared Online CA	D39495B310669DC6BFF57D547C53E3FF9E7B452BB609272C981F514CCA0B146F	12/20/2016	12/19/2026
C=US, O=General Electric Company, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=GE SMIME Issuing CA 2.1	6BE39EC9E02D54008A7A716DD35A3D2F0A1FD8F8F34DAE235446150C6F48BC7E	7/16/2015	7/15/2025



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=General Electric Company, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=GE SMIME Issuing CA 2.1	2D53B8177062E4C7CEA79EEBF62BFA52A5B18BC9B89483597E5714E4E9B52315	7/16/2015	7/15/2025
C=AU, O=NBN Co Limited, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=NBN Co Limited Public Issuing CA - G2	758F496C9928A3C67E0D50D03D2E2CAAFF733D427E57AB5FEE7D5AC4153C4071	2/10/2015	2/9/2025
C=ZA, O=Nedbank Limited, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Nedbank Limited Public CA	267D014C81E6D02ED5898306B64D7B5EA91BAF9DB3183CF3BC64C25D2B35CAE6	9/10/2015	9/9/2025
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 2 Signing RSA Intermediate CA	66F7B0147C09F9DA79E63800A96F649DA7E59757F876F08126D07E8FB8542488	1/22/2015	1/21/2030
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 2 SSP CA - G2	3C18176FEBA1D20C8BFA7B484066E2A5825A226237E1E7BE3828E6F6C3771B23	3/21/2013	3/20/2023
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Japan Class 2 CA	AB62A0A1DE53BA06E771438E5D0526D3D8B0235330C65AA4BF80D855908E2DC4	4/15/2014	4/14/2024
C=US, O=Veritas Technologies LLC, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Veritas Technologies LLC Class 2 Employee CA	1AB7DCA7F8B28027F2B71FBBA8CB87162FE112C47AC4D09638C8EA01915A177D	9/10/2015	9/9/2025
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 2 Individual Signing RSA CA	8B9218D93DB5377CFE7D5923E7016D379D446F0019C47B9B4EA737AEDF86A558	1/22/2015	1/20/2030
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 2 Individual Signing RSA CA	4E74475D2C33E1DD4732306B79712B5EE6997C2DBDF596CC8BD1362163DAA4F4	1/22/2015	1/20/2035
C=US, O=U.S. Nuclear Regulatory Commission, OU=External Basic, CN=NRC Basic CA G2	C40D6AB75F7E5D11CF7B0404AC7E4321A7A8B0DDF7631328F3D7CC80D6644E2B	3/21/2013	3/19/2023
C=JP, O=Astellas Pharma Inc., OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Astellas Global SMIME CA - G2	B2ED9A6D9B6C48DD1494EE0CD4802179F6208C7F75894DE2607E16573BE464AE	4/15/2014	10/22/2022



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=JP, O=Symantec Japan, Inc., OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Class2 Individual Certificate Service CA	9268449725E5DE18F8A76548BBEC1F8C845B17387590E1855BFFCA5B02CF6C28	1/22/2015	4/13/2024
C=US, O=DigiCert, Inc, OU=www.digicert.com, CN=thawte Primary Issuing CA G3	F6CF5D6FF850D14DB082CC9CF7C056BC60E36B1E54F1CCA3E24BDF393948978D	12/8/2017	12/8/2027
C=US, O=DigiCert, Inc, OU=www.digicert.com, CN=thawte Primary Issuing CA	9A9FC39029ABE132D674D032D199CB8431AAC878DABCE6E9E1AECB81EC99F4CC	12/8/2017	12/8/2027
C=US, O=Symantec Corporation, OU=Symantec Trust Network, OU=Persona Not Validated, CN=Symantec Class 1 Individual Subscriber CA - G5	42A5FBCA2D6AA262FF62333AB78699CE1E4BF1CF5F49F806FD324CBE5BB62CF4	10/1/2015	9/30/2025
C=US, O=Computer Sciences Corporation, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=AGC Public CA	5E71C746D45EBCFD6D2DCE4A2DABCCD9335E3AD8D63B349989341911ECD70E88	11/11/2014	11/10/2024
C=US, O=Agilent Technologies, Inc., OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Agilent Public CA G2	6BE4732E5C0FBB61A4F8B2EED0A1C47AB7FCFA559FD5EF3D5250D20E74503A83	4/23/2013	4/22/2023
C=AU, O=ASCIANO EXECUTIVE SERVICES PTY LTD, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Asciano CA	5FC7C6E19AF873E0941D7C6AB344D3E6E4F73DD67693FADFA2DA9C6438AC1A1A	11/3/2015	11/2/2025
C=US, O=ATT Services Inc, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=ATT Services Inc Email Certificates CA - G2	AE7A31EB7007A6F64237387343C083D11950F1D6D546EDDAD8B5AA3DAC30B70C	3/3/2016	3/2/2026
C=US, O=Blue Cross and Blue Shield of Florida, Inc., OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Blue Cross and Blue Shield of Florida CA G3	BBCA83E909A956AA38BA04EA5FC6A6A13F99495DA1E23981BE5BEDE03970450A	5/3/2016	5/2/2026
C=US, O=Blue Cross and Blue Shield of Florida, Inc., OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Blue Cross Blue Shield of Florida CA G3	30C955BBF62B0E73573DDD9564A51235ED40B3B5BBDD5E9B5561D64F96AD65D6	5/5/2016	5/4/2026
O=CertiSur S.A., OU=Symantec Trust Network, CN=CertiSur Class 2 CA - G3	041E70B7DDDD0F2F90F285C4C71E0E20533312A10773794A21B5791EC8755958	8/18/2015	8/17/2025



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=City of New York, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=City of New York Office of the Actuary - G2	A3E2E9FDC693C7536CD3A9ABC8E09705C113DD391635C6239BBFF21DA258C96F	6/11/2015	6/10/2025
C=US, O=HP Inc, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Collaboration Certification Authority	B864FF6DE0CB1BEAF6AA5C68DB8769C91F18E1721E22AC3ECCDD91C0889D77078	6/11/2015	6/10/2025
C=PE, O=Cosapi Data S.A., OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Cosapi Data Public CA - G2	AFCD78EBA95C0801A2FEBAE6F695D469AF346215C5A3E554F161D23C4BB40F91	5/12/2016	5/11/2026
C=CL, O=E-Sign S.A., OU=Symantec Trust Network, CN=E-Sign C2 Firma Electronica Avanzada Consumer Individual CA G2, emailAddress=e-sign@e-sign.cl	BE4D872225F013B6E17595AA29F3C0B9F85C403E6C9B483550B069E4A2F47BFE	11/15/2012	11/14/2022
C=CL, O=E-Sign S.A., OU=Symantec Trust Network, CN=E-Sign C2 Firma Electronica Avanzada Consumer Individual CA G2, emailAddress=e-sign@e-sign.cl	52A5E31287A0F89159F7BB4BD3A6A270DEE583A77261F6D00DD92D8C9424E800	11/15/2012	11/14/2022
C=CL, O=E-Sign S.A., OU=Symantec Trust Network, CN=E-Sign SC Class 2 Consumer Individual Subscriber CA - G2, emailAddress=e-sign@e-sign.cl	C34A5709122DC9EAF3021B979D4843FBB41C5B24326BECE84D2F686675A1B6EC	11/15/2012	11/14/2022
C=CL, O=E-Sign S.A., OU=Symantec Trust Network, CN=E-Sign SC Class 2 Consumer Individual Subscriber CA - G2, emailAddress=e-sign@e-sign.cl	72F0E3B1B8CD1A86BDF7D022DA4131C302293CAE820B28A597BC84D041B8971D	11/15/2012	11/14/2022
C=US, O=Adobe Systems Incorporated, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Enterprise Services CA - G2	EA78912AE2E15549DDA02D74CC05A18DADC218DD05C13F045B26433D23732F33	10/16/2012	10/15/2022
C=DE, O=Heuer und Partner - Rechtsanw\u00c3\u00a4lte mbB, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Feddersen Heuer Public CA	A402AA0AE53F484A07BF4E35B55D1274127650AD6145E243B719330B92B2A10A	1/5/2016	1/4/2026
C=AU, O=Fuji Xerox Businessforce Pty. Limited, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Fuji Xerox Businessforce CA - G2	92587CDC27A5C019B413AA94D21944AC8562E8DAA8C78AEA17C623D1B77714DE	6/4/2015	6/3/2025



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=General Electric Company, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=GE Enterprise SMIME CA 2.1	5C854634778E6DDC076ABAA36E5B8F4F45140578BD3A45AF09B7F23C34F032AD	6/16/2015	6/15/2025
C=US, O=Hewlett Packard Enterprise Company, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Hewlett Packard Enterprise Collaboration CA	2EAA4251B3FFDD3AE904833A08B7FE1E7717C17082455C07F6F6DA902CBAC5D0	3/17/2015	3/16/2025
C=US, O=Honeywell International Inc., OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Honeywell International Co-branded CA	7C932E8709835BEC74AAB6F02E958DF70995B3FED5FE4C375D66B1228555D8ED	12/5/2012	12/4/2022
C=US, O=Honeywell International Inc., OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Honeywell International Co-branded QA CA	87C0BAE275BF11F25AE3290B3E810D97E8297F276C576CDA9AEB5FAEFC4CD22	2/14/2013	2/13/2023
C=US, O=International Business Machines Corporation, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=IBM Certification Authority G3	CB16C58F10AFFDA46A0FC05BF49F0B707C579EC52E3527EEBA0448F9B8C16E99	11/10/2016	11/9/2026
C=US, O=Identive Group, Inc., OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=idOnDemand CA G2	B812A3156BBB9F0AABF8F36BE72A95388936272070C4860DBDD4955F0D59B486	9/5/2013	9/4/2023
C=US, O=Identive Group, Inc., OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=idOnDemand SHA-2 CA G2	36CAB8A86139B82476AE824EE4939A92088E6F16C2BD270EE349BF9D5A9E3384	9/5/2013	9/4/2023
C=DE, O=LfA Foerderbank Bayern, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=LfA Foerderbank Bayern - G2	315AC96789B49D48A1C420F32F9A4A73F4871AF75A4CA53CF41CE3FB3E2E76FC	6/16/2015	6/15/2025
C=SG, O=National University of Singapore, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=National University of Singapore CA - G2	438BA9C85C9A8C5506ACD1146ADA068B777A32FA2C78A6D4AB57241174881AB2	9/18/2014	9/17/2024



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=FI, O=Nokia Solutions and Networks, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Nokia Solutions and Networks CA	0B5F13974CEB577E1CC39DFFADF616FCF0C17ECA6747201AEBA6AF3BC20CE4F4	10/10/2013	10/9/2023
C=ID, O=PT Astra Daihatsu Motor, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=PT Astra Daihatsu Motor CA	9FF4EC074FE370818B15ABA1BBDCB0A4DBE3F8420A993A7B5176BCC7FB4E4EAD	5/31/2016	5/30/2026
C=DE, O=RWE Dea AG, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=RWE Dea AG CA	7FC6CAB96C16C850F457DCBBFB893539EA2664395F2409693789F41BFD64714E	12/11/2014	12/10/2024
C=US, O=SRI International, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=SRI International CA - G2	8F11E6AE162CD9472CAB0B6C023A56D8A442BD5981DD0CDBBCD5D501923223B7	11/15/2012	11/14/2022
C=US, O=SRI International, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=SRI International CA - G2	5B6A31D14ED98E8CF23A115BC45E87B8ECD82A937A29DBE0EFBA3C8133494B74	11/15/2012	11/14/2022
C=US, O=State Street Bank and Trust Company, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=State Street Bank and Trust - Global Markets CA	2C68D776FFD51155D98957A66043F896E2BC69CB1943570389350057A2C70616	7/10/2015	7/9/2025
C=AU, O=Sydney Trains, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Sydney Trains CA	BD80A335B5EBB7279960E0B5802257C256062895F33D3DCBC0B7CB7199DFA75F	11/24/2015	11/23/2025
C=US, O=Symantec Corporation, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Symantec Class 2 Employee CA - G3	2F320624CC3EBC01796080BEDEB5B2ED916F02A0AE5F537EDC4766BC455659DD	1/6/2015	1/5/2025
C=US, O=Symantec Corporation, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Symantec Class 2 MPKI Individual Subscriber CA - G3	E79BACE9FF58B8EE6D3BD94AE8ADB13DF42DFD86B3701BFF8EDFF5C4E84BAE91	11/15/2016	11/14/2026
C=US, O=Symantec Corporation, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Symantec Class 2 Shared Intermediate Certificate Authority - G2	68E63395029061641385B8AFF77F6D66F2D1FD87A821630D27EC3645C9FE235D	4/23/2015	4/22/2025



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=NO, O=Telenor Norge AS, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Telenor Norge AS EDC CA - G2	BC8EB15B0FEE05D953758E1D2C29A9E7D1E1B5AFD5659AB95E981F6F75BD1D71	9/3/2015	9/2/2025
C=NO, O=Telenor Norge AS, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Telenor Norge AS NF CA - G2	22261C8F0BCD85571AF2F801C47712E6C16DCAE3C7DFC4CD2451D9C538B349D1	9/3/2015	9/2/2025
C=NO, O=Telenor Norge AS, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Telenor Norge AS Test EDC CA - G2	26661F230442332E5F8F109C05A3FAA3EA339C29D22B07B8D1A048C693FA1F0C	9/3/2015	9/2/2025
C=NO, O=Telenor Norge AS, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Telenor Norge AS Test NF CA - G2	597D5A286729E73A324E5665CEE4B97FDD5A9FD14EBA4B903319A16CFC946680	9/3/2015	9/2/2025
C=MU, O=The Mauritius Commercial Bank Limited, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=The Mauritius Commercial Bank Limited CA	0A646FDC704F494A67739A7E99FD74955BB0AF1ABA622CEFE000B39557C5FC81	9/30/2014	9/29/2024
C=US, O=Thomson Reuters Holdings Inc., OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Thomson Reuters - LEDO CA	F5DF7A85240E93C602EE9C6F77C2B126C7A37CED8F34DD714B82C47F31F3544D	12/20/2016	12/19/2026
C=US, O=Federal Retirement Thrift Investment Board, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Thrift Savings Plan CA - G2	6FE969B0E32956CDA827A4084F9330C9559BB910291B9A4107C3C470774411D1	6/11/2013	6/10/2023
C=US, O=United Launch Alliance, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=ULA CA - G2	4A84F84E880F3D96C3BFBA2AED67B0EE300FBEE0A4A90D736EF738A089FD6B17	4/25/2017	4/24/2027
C=US, O=University of Houston, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=University of Houston CA - G2	69FF03E05230DFD61E4D6F6DD6662808C65A85CBE8FEA5E43FBF387128E8B4F4	6/18/2015	6/17/2025
C=US, O=Voya Financial, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Voya Public Issuing CA1	63B7404D57FE17FD7E32DAC98D934EC98AB69F64D0338987193657A64364BE60	3/4/2016	3/3/2026



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=Yaana Technologies, LLC, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Yaana	7C73C0E9D52BC63E713110DA4705C7CECCB4D49F1F5FED0B6D1A707E63A4E31C	1/6/2015	1/5/2025
C=US, O=Symantec Corporation, OU=Symantec Trust Network, OU=Domain Validated SSL, CN=Symantec Basic DV SSL CA - G2	DFE583E3A1ED35E57D95104817AD823C055FB9071CD400435B5FC74E692081DB	6/7/2016	6/6/2026
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 Extended Validation SHA256 SSL CA	1F9B31F820929EBFA03117EC2B77BA6B0FB6ECC9E027682A559378DA311C54EF	4/9/2013	4/8/2023
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 Secure Server SHA256 SSL CA	E0898AD662474B9F753C79BEA878031C9A5D634A49EDD6310B960AB023C02C0E	4/9/2013	4/8/2023
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 Shared Public Organization CA - SHA256	2F72019CB45B07AB05CB1BB8ECC3076D7072660B57A29E42EBE2AA57B83BC60B	7/11/2013	7/10/2023
C=CN, O=TrustAsia Technologies, Inc., OU=Symantec Trust Network, OU=Domain Validated SSL, CN=TrustAsia DV SSL CA - G6	B90E17AB4B8778B10F9F28CBAA7664DE2EE3D66E1AFC574D168EDD24A10339FF	8/11/2016	8/10/2026
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 ECC 256 bit EV CA - G3	4B2CBA18EFBCE6C3C4A80AAABC952337000CD9346B768D062412A2DED846EDC9	1/7/2016	1/6/2026
C=ZA, O=Absa Bank Limited, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Absa Bank Limited Public CA	02302C4CF831335C9DD145DF91A8C1C703008FD234215D0E187895092BD81AD4	6/8/2017	6/7/2027
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 Extended Validation Code Signing CA - G3	C267DC115D57DD0226279B346DF1953DD2C07A85CB48A0D899FD5724F5AF681F	5/12/2016	5/11/2026
C=IE, O=DigiCert Ireland Limited, CN=DigiCert QuoVadis G4 SMIME ECC P384 SHA384 2023 CA1	E117CBC55073D91A61E7636FE46184AB8726466A338C2DF109E8A284DE551650	3/16/2023	3/13/2033
C=IE, O=DigiCert Ireland Limited, CN=DigiCert QuoVadis G4 TLS ECC P384 SHA384 2023 CA1	35A5B2730439D225E04080412EC01031F22F3902B84670E7B44F699F9701F050	3/16/2023	3/13/2033
C=IE, O=DigiCert Ireland Limited, CN=DigiCert QuoVadis G4 SMIME RSA4096 SHA384 2023 CA1	369AE7BD4D9E9E698A6F731D5AC19936AB3859431A502497357FE93ACF01982D	3/16/2023	3/13/2033
C=IE, O=DigiCert Ireland Limited, CN=DigiCert QuoVadis G4 TLS RSA4096 SHA384 2023 CA1	3E8FC16AADA8FCB6F51CA4848BB15F8ABE8DD807F9CEAA4C6CCBE9864F6CE9DE	3/16/2023	3/13/2033
C=US, O=Amazon, CN=Amazon ECDSA 384 M02	A7D15E62C78825919FB59BDE58EFCFB0225B4107DFC60026885420185DC69B63	8/23/2022	8/23/2030
C=US, O=Amazon, CN=Amazon ECDSA 384 M03	F40DA455BE136E0DB31A116FFD3C3002B1EBBC591558493FE630A9C8C9AFAD70	8/23/2022	8/23/2030



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=Amazon, CN=Amazon ECDSA 384 M04	47FD11AD552AB264D7F272770D3B5590AAE145412F4AD6081BDC485298D8E000	8/23/2022	8/23/2030
C=US, O=Amazon, CN=Amazon ECDSA 384 M01	DFE35C740CF41C0B053E2202EA5AFC2F021F70BF90B26BC861FE1D9A0BFC4F1E	8/23/2022	8/23/2030
C=CH, O=Berner Kantonbank AG, OU=Issuing Certification Authority, CN=BEKB - BCBE Issuing CA G2	474D298059F15BC5319B4A94D38AAFADBF627CC09513FCD9362CD89C2F9B6221	2/7/2023	11/24/2031
C=US, O=Amazon, CN=Amazon RSA 4096 M01	40FE28DC925D1A8A6B8F861863EB57CD30C6776416AB8A99920BAC7C925A4174	8/23/2022	8/23/2030
C=US, O=Amazon, CN=Amazon RSA 4096 M02	2CC39F6789B967B0282AEACA4548F602A1B274E90D260773E9E7B0F7C0F13432	8/23/2022	8/23/2030
C=US, O=Amazon, CN=Amazon RSA 4096 M03	41BDC074EB9531EC81FEF08D9FFA16536F61FC59789265E95E89A4982AEF3F91	8/23/2022	8/23/2030
C=US, O=Amazon, CN=Amazon RSA 4096 M04	3B6FAB0AB11C14EEF9031969E0ADB037C8FCC3366728A6567623D3C26B3632CB	8/23/2022	8/23/2030
C=US, O=DigiCert, Inc., CN=DigiCert G5 ECC SHA384 2021 CA1	7A2311B472B99171164FFA0BCA3FA7AC9AC46D035657BFC1EA133095C9703933	4/14/2021	4/13/2031
C=US, O=DigiCert, Inc., CN=DigiCert TLS ICA SYMC PCA3-G4	B1D1244218C903B64EBF42150C5FD891EB5B663CE6F20DD12E8352DD7D1E6693	1/8/2021	1/7/2031
C=US, O=DigiCert, Inc., CN=DigiCert G5 ECC SHA384 2021 CA1	4E1AB9F0122809E2A8E93133187AF26E71C9C3BF86971065D578FC4C08AF79	3/11/2021	3/10/2031
C=US, O=Wi-Fi Alliance, CN=WFA Hotspot 2.0 Intermediate CA	FEA342D00D1A355CF51569EF7E0F617ABB0F22D6D1E73DAA11DCB4D407975543	11/25/2013	11/25/2023
C=US, O=Wi-Fi Alliance, CN=WFA Hotspot 2.0 Intermediate CA	AE0D0BA5AC3EEB823F5CA77331A99D7FDB2EC231D7CE47B7C208E3830E08A891	12/9/2013	12/9/2023
C=US, O=DigiCert, Inc., CN=DigiCert TLS ICA SYMC PCA3-G6	FDB351BDA2D821C3DFBB924A12D90D6DC760D5F6200144529E502E467BBF9ECC	1/8/2021	1/7/2031
C=US, O=DigiCert, Inc., CN=DigiCert G5 RSA4096 SHA384 2021 CA1	A11C3BC528FFE2BCEC915A5B3437D4269AD74156E0166B47A1D5F141735104FD	4/14/2021	4/13/2031
C=US, O=DigiCert, Inc., CN=DigiCert G5 RSA4096 SHA384 2021 CA1	C68B6C455593E7CE57383A736517CA46FE86641E46BDFB25C12E41E17DE53B59	3/11/2021	3/10/2031
C=US, O=Amazon, OU=Server CA 1B, CN=Amazon	4A1FF6BBF481170D3B773CEC1F3A84DE3B5096575CDBF8B08432209318CA0FBD	10/21/2015	10/21/2040
C=US, O=Amazon, OU=Server CA 1B, CN=Amazon	F55F9FFCB83C73453261601C7E044DB15A0F034B93C05830F28635EF889CF670	10/22/2015	10/19/2025
C=US, O=City of New York, CN=City of New York Office of the Actuary - G4	2893798022D936E28D6AA92EF58417F56C5E8E9B6FE0E1E1B09F973218976A20	12/7/2021	12/6/2031
C=US, O=United Launch Alliance, LLC, CN=ULA CA - G4	32980474C3DE6F784C4B6C30391171A70A8090BF42C827BB6ED4F3BA34EFE203	12/17/2020	12/16/2030
C=US, O=DigiCert Inc, OU=DigiCert Organizational E-Mail Certificate, CN=DigiCert SHA2 Assured ID CA - G1	87BBAD4C915D56D2E74F044D7220B957D4A853D9A1818B52F3625417DB655E3A	5/17/2019	5/17/2029
C=US, O=Alaska Permanent Fund Corporation, CN=Alaska Permanent Fund Corporation Public CA G1	CD662FFFCE76F071BE918AECE125F9B54873479F3AF8C3545DB330E28F92B035	3/11/2021	3/10/2026



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=DigiCert, Inc., CN=DigiCert High Assurance TLS Hybrid ECC SHA256 2020 CA1	5D270CB4EFF587AD6CD17CB2B60D9084A153D77D2AA79A2CB3DB1DDB904684F5	3/30/2021	3/29/2031
C=US, O=DigiCert, Inc., CN=DigiCert High Assurance TLS Hybrid ECC SHA256 2020 CA1	74EAB573DA7DB195097BE0E90F334934C7A4C89E8083759DB4333A00EDD243D9	12/17/2020	12/16/2030
C=US, O=Amazon, CN=Amazon ECDSA 256 M01	332B101539FA89CA4E228719FE5287AB6869AF31AB21CBF110F5DD3C5994C1C7	8/23/2022	8/23/2030
C=US, O=Amazon, CN=Amazon ECDSA 256 M02	F9693255933B68159D168AA9A247DA1DC66E23C0620338EF7149E48F83B1AE79	8/23/2022	8/23/2030
C=US, O=Amazon, CN=Amazon ECDSA 256 M03	493E78EEE8CCA1F26E6494ED924985AF3FA9E6110EAA61C3214E8D73B4047316	8/23/2022	8/23/2030
C=US, O=Amazon, CN=Amazon ECDSA 256 M04	D241192CCE57D438986723972DD6F18B5A3A3456A708E8F273D147223AB6FA5D	8/23/2022	8/23/2030
C=US, O=Amazon, OU=Server CA 3B, CN=Amazon	ECC295B6DDC084BA7179FB53BDD1D422CB6C0A8D94F154D4A5B17780B7279ED	7/16/2018	7/16/2028
C=GB, O=LMAX Limited, CN=LMAX Trust Services CA X2	ADBF61297BC10F2C4150F26E6A94DA024DA60854AB5DCACED1C8486456838735	6/30/2022	6/29/2037
C=AU, O=Verokkey, CN=Verokkey Secure Web ECC	BCFD2614E42D63C59691C3CE8BEC792DE2FCE89CED4F9C460D0A848573074FCB	3/17/2022	3/16/2032
C=AU, O=Verokkey, CN=Verokkey Verified Business ECC	F1ED3B35C92FA5DAAA3DD45F99EBA3B823A2FB1C24A89CED1699D95E02564A2	3/17/2022	3/16/2032
C=US, O=DigiCert Inc, CN=DigiCert TLS Hybrid ECC SHA384 2020 CA1	F7A9A1B2FD964A3F2670BD668D561FB7C55D3AA9AB8391E7E169702DB8A3DBCFC	4/14/2021	4/13/2031
C=US, O=DigiCert, Inc., CN=DigiCert G5 SMIME ECC SHA384 2021 CA1	873DD73022087B9179FA060EF3D34381845A37E88A6A2BF20ECBAFDE8C3DB993	7/15/2021	7/14/2031
C=US, O=DigiCert Inc, CN=DigiCert Global G3 TLS ECC SHA384 2020 CA1	0587D6BD2819587AB90FB596480A5793BD9F7506A3EACE73F5EAB366017FE259	4/14/2021	4/13/2031
C=US, O=DigiCert, Inc., CN=DigiCert G5 TLS ECC SHA384 2021 CA1	97A073957C5812725757672F222690655A1407D71011EDFC8B2FADC5128911DA	4/14/2021	4/13/2031
C=US, O=DigiCert, Inc., CN=DigiCert Global G3 mPKI SMIME ECC P384 SHA384 2023 CA1	EB46C072E983B1F6F1E34C397CF7064E77D921ED82E913A27224668FE8C25901	8/30/2023	8/29/2033
C=US, O=DigiCert, Inc., CN=GeoTrust G3 TLS CN ECC P-384 SHA384 2022 CA1	662871C80F4E0FD219EA69AFC4D28AD7B41E9381560BEE787848D4EEF1CBF24	12/20/2022	12/19/2032
C=US, O=DigiCert, Inc., CN=GeoTrust EV G3 TLS CN ECC P-384 SHA384 2022 CA1	02F40238BA372E9DF51D7540E04EDFEDAB5439323F9A02DF5B38C074CA7D406E	12/20/2022	12/19/2032
C=US, O=DigiCert, Inc., CN=DigiCert Secure Site Pro G3 TLS CN ECC P-384 SHA384 2022 CA1	34CDC67D88D25217ADC8A25348E114CBEC63148391CFA475D382874695202D2C	12/20/2022	12/19/2032
C=US, O=DigiCert, Inc., CN=DigiCert Secure Site Pro EV G3 TLS CN ECC P-384 SHA384 2022 CA1	95F6B9230F27FB5FC0CB29443DBE7300168B5992C7558F3F63D4352F32B8C9CB	12/20/2022	12/19/2032
C=US, O=DigiCert, Inc., CN=DigiCert Secure Site OV G3 TLS CN ECC P-384 SHA384 2022 CA1	38D530FB170053617E47AA6CEFF21C2DB43C9D96741AF1584566072091474BB3	12/20/2022	12/19/2032
C=US, O=DigiCert, Inc., CN=DigiCert Secure Site EV G3 TLS CN ECC P-384 SHA384 2022 CA1	943BC406B0B45ACF88413045227265703F1AC8B21D6FBC2B8CBDE59D7CE51B81	12/20/2022	12/19/2032



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=DigiCert, Inc., CN=DigiCert Basic OV G3 TLS CN ECC P-384 SHA384 2022 CA1	B5528F4A43957E1ABBE08C4EBF2D8ACF4C2C1914D6354117492C8C3FE033FD97	12/20/2022	12/19/2032
C=US, O=DigiCert, Inc., CN=DigiCert Basic EV G3 TLS CN ECC P-384 SHA384 2022 CA1	1CA57EF159812BFBE2D8106F6152E51DDD0A5A4C9489CD097595B797CB37843E	12/20/2022	12/19/2032
C=US, O=DigiCert, Inc., CN=DigiCert G5 TLS CN ECC P-384 SHA384 2022 CA1	915EC8DCC237FA932CB0245A996FF3A711550A464214FD7512F225AA608061C8	7/12/2022	7/11/2032
C=US, O=DigiCert, Inc., CN=Thawte G5 TLS CN ECC P-384 SHA384 2022 CA1	D604F0148A25D93BAB577D38705CBAAE2C4477DE7EB51D86A0F6B26584013D7A	7/12/2022	7/11/2032
C=US, O=DigiCert, Inc., CN=GeoTrust G5 TLS CN ECC P-384 SHA384 2022 CA1	E43BAAD78B78F9EEA6903E56F456DEC24BD9648C13AE0E2DE17A1F84F3D0807	7/12/2022	7/11/2032
C=US, O=DigiCert, Inc., CN=DigiCert Basic EV G5 TLS CN ECC P-384 SHA384 2022 CA1	FDB76E78A450C0F3AF093D5186C3B28A1280567A0EC531CA5977FF4E616B35E3	1/19/2023	1/18/2033
C=US, O=DigiCert, Inc., CN=DigiCert Basic OV G5 TLS CN ECC P-384 SHA384 2022 CA1	1D75A0B37B4AE11E883C97D3FF0DC5D84D93FE129C12DD78086C4A78DAF3F709	1/19/2023	1/18/2033
C=US, O=DigiCert, Inc., CN=DigiCert Secure Site EV G5 TLS CN ECC P-384 SHA384 2022 CA1	49C1F25A88B5B15A80C1A2DA11589111C5AD8E222104FDC49022FD6AEF1CF54D	1/19/2023	1/18/2033
C=US, O=DigiCert, Inc., CN=DigiCert Secure Site OV G5 TLS CN ECC P-384 SHA384 2022 CA1	9E561A4B486076C219F3C95387BF11670D72F6C4F0DC9BBB47F59F5C142EF88	1/19/2023	1/18/2033
C=US, O=DigiCert, Inc., CN=DigiCert Secure Site Pro EV G5 TLS CN ECC P-384 SHA384 2022 CA1	290E698939A24F7B63AB14D0490DE92BEBEF6C1C2D3BE717F3775B71C1AB626D	1/19/2023	1/18/2033
C=US, O=DigiCert, Inc., CN=DigiCert Secure Site Pro G5 TLS CN ECC P-384 SHA384 2022 CA1	D43B3FBC2E6715B33D3D7037200FA9D4181F97492C44DBEBA8FBAE9680D64CD0	1/19/2023	1/18/2033
C=US, O=DigiCert, Inc., CN=GeoTrust EV G5 TLS CN ECC P-384 SHA384 2022 CA1	07F55A105E886D191FBD2253283E77B1FC1CCDCC9F26A3E6C7E69706A7593FEF	1/19/2023	1/18/2033
C=US, O=DigiCert, Inc., CN=DigiCert Assured ID G3 TLS ECC384 SHA384 2022 CA1	1C8846C406AC6294FAF0D32A5A14E79C841385A57F1159B61E9014605E37E5E9	3/3/2022	3/2/2032
C=US, O=DigiCert Inc, CN=DigiCert Global G3 TLS ECC SHA384 2020 CA1	699ED65BDD3D5E790776D165EA7A325B7AEAF419647921A92FF28BB0680D72BA	3/30/2021	3/29/2031
C=AU, O=Verokay, CN=Verokay High Assurance Verified Business ECC	34263E9424D819B94BCFA87E69DD9EF43205D4E2DE84A53497314063D822969B	3/17/2022	3/16/2032
C=US, O=DigiCert, Inc., CN=DigiCert Global G3 TLS EE+ ECC384 SHA384 2022 CA1	15E77C59404015659EE26F92561F007AAF53986A27926F0E707585C2A7F301B8	4/28/2022	4/27/2032
C=LV, O=EnVers Group SIA, CN=GoGetSSL G3 TLS ECC P-384 SHA384 2022 CA-1	7E687FA866802535C3AFC393939376D4BF0FD753D9421719A8AA91A4FF305AD2	6/23/2022	6/22/2032
C=US, O=DigiCert, Inc., CN=Encryption Everywhere G3 TLS ECC P384 SHA384 2023 CA1	DA1F7CBF322E55CC082276F8519147DFA1E80CBAF7D5799FF771358832ED1712	2/2/2023	2/1/2033



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=IE, O=DigiCert Ireland Limited, CN=GeoTrust Global G3 TLS EUR ECC P384 SHA384 2023 CA1	57E0B33504DBAF6F29A095CB8A297A4ABEC121CE11640EFAFC17594098F6CAA9	6/14/2023	6/13/2033
C=US, O=DigiCert, Inc., CN=Thawte G5 TLS EC P-384 SHA384 2022 CA1	7F4E38B8B22F91DAF46ED5856D6E7F1180296FB152C026473C6328519D2AC99A	5/26/2022	5/25/2032
C=US, O=DigiCert, Inc., CN=GeoTrust G5 TLS EC P-384 SHA384 2022 CA1	72F104084DB7914BD8AFE6E347B9257ED4C1D7FC71D3F1E51F3CF47B739B386A	5/26/2022	5/25/2032
C=US, O=DigiCert, Inc., CN=RapidSSL G5 TLS ECC P-384 SHA384 2022 CA1	D2A3D4ED9C05964F4A0984381933C5AB1E93E4A0BA7FCDD60940946D68BD6262	6/2/2022	6/1/2032
C=US, O=DigiCert, Inc., CN=Thawte G5 TLS ECC P-384 SHA384 2022 CA2	0215DB7E22D36D0E7535A12691A9EC0DC7F43D83AB580C0709711C1E7A9B55EC	7/28/2022	7/27/2032
C=US, O=DigiCert, Inc., CN=GeoTrust G5 TLS ECC P-384 SHA384 2022 CA2	66E795550B16497E7CF4566EC63B56660F28DBD551C357C526FBB0D7620A8112	7/28/2022	7/27/2032
C=US, O=DigiCert, Inc., CN=Encryption Everywhere G5 TLS ECC P-384 SHA384 2022 CA1	AD7F57AA3FC5EAF4310224A4750A97CD879DE1989D4B86AB08B7A28373BCB489	11/3/2022	11/2/2032
C=US, O=DigiCert, Inc., CN=DigiCert G5 TLS ECC SHA384 2021 CA1	E5A1C1919E3BEAEE5935A8485DDCE0E3F01A2618DB0F0793B3DB3D9AC2D967C7	2/11/2021	2/10/2031
C=GB, O=British Telecommunications plc, CN=BT Corporate User - Public Trust CA2	78C065F4A95B84387E38682A8D9685FEA2BB45EE5D099E38CCB660A6319FC8E4	9/14/2021	9/13/2031
C=GB, O=Oxford Nanopore Technologies Ltd, CN=Oxford Nanopore Public Issuing CA	F7C25E1D01F743DD1F87CFE2E572E186647CD6FA95F2DD41F12AE36D6C083CF	7/15/2021	7/14/2031
C=US, O=Fannie Mae, CN=Fannie Mae Shared Online CA G3	249CB0551F86DB117BD83E72C9B08B7314F78117843EC2A9D9DD89ABE1DF2C5E	8/31/2021	8/30/2031
C=AU, O=Attorney Generals Department, CN=Attorney Generals Department Public CA - G3	3A6F06233A059C0C8FE3C68289FD35A0DB7520F9D65984BBBF2D8E37C0BBFCDB	10/11/2021	10/10/2031
C=SA, O=Johns Hopkins Aramco Healthcare, CN=Johns Hopkins Aramco Healthcare Issuing CA	C48FC3FF9EEA47057F827CFD63944701839CA2ACD809CDD04475956895C841CD	12/14/2021	12/13/2031
C=US, O=DigiCert, Inc., CN=DigiCert Assured ID SMIME RSA2048 SHA256 2021 CA1	61E163C56C6100A91463ACCEC29B01A881E3F9C3B3AEF2CCD0B21DB0EAF9F2AE	12/14/2021	11/9/2031
C=US, O=DigiCert Inc, CN=DigiCert Baltimore TLS RSA SHA256 2020 CA1	701317250210AB91280527C3B436931015B8DCEE69A6893ADA4FFAD25A6FE44F	4/22/2021	5/12/2025
C=US, O=DigiCert, Inc., CN=DigiCert Assured ID Grid TLS RSA2048 SHA256 2022 CA1	0181B2B6173179562E75632344037CA523018618A7F7168269A3EB85367FF75C	3/10/2022	11/9/2031
C=US, O=Amazon, CN=Amazon RSA 2048 M01	5338EBEC8FB2AC60996126D3E76AA34FD0F3318AC78EBB7AC8F6F1361F484B33	8/23/2022	8/23/2030
C=US, O=Amazon, CN=Amazon RSA 2048 M02	B0F330A31A0C50987E1C3A7BB02C2DDA682991D3165B517BD44FBA4A6020BD94	8/23/2022	8/23/2030
C=US, O=Amazon, CN=Amazon RSA 2048 M03	BF8A69027BCC8D2D42A6E6D25BDD4873F6A34B8F90EDF07E86C5D6916DA0B933	8/23/2022	8/23/2030
C=US, O=Amazon, CN=Amazon RSA 2048 M04	138BDF6E23AC971EB4E626B279DD6A26F057510F1DE394293A5EEA2860DE019B	8/23/2022	8/23/2030



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=DigiCert, Inc., CN=DigiCert PKI Platform AATL CA	7E15A84E1A0927AED136C59A048AE48E63BA82EDAA9827892C105A9A89BDE659	3/11/2021	3/10/2031
C=US, O=DigiCert Inc., CN=DigiCert One AATL CA	419507E46D6520ECEC453A0C2B5292A099431C35E8967A6D0EE573CAAB116C71	4/29/2021	4/28/2031
C=US, O=Abbott Laboratories Inc., CN=Abbott Laboratories Secure Authentication CA G3	ABFD261AB3733480BF58616991FFE266B6DB315E226A32339702D6C0BE6B96F2	3/11/2021	3/10/2031
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Cybertrust Japan Issuing CA-1	87942388D29A46C06FE1E56AAB791594D0FB2E8EABF124048F130EEA9BEDD3FD	9/1/2016	9/1/2026
C=US, O=DigiCert, Inc., CN=DigiCert Assured ID Grid Client RSA2048 SHA256 2022 CA1	FC8B43C36CCB521FE0E5BD24B14665DAD350BA2C232006B98933D7878D775718	4/12/2022	11/9/2031
C=AU, O=Verkey, CN=Verkey Secure Email	0E6DDE73CC50DE243F83724F5635360556F0BB18FAB31266B046B55A0FBBAFE6	3/17/2022	11/9/2031
C=GR, O=Adacom S.A., CN=Adacom S.A. Class 1 - Public Trust CA	40CEBC99D7D6BE08E863F9816A651801574E97D69AB839DB92A0E18F607BD1FC	3/11/2021	3/10/2031
C=IT, O=Trust Italia S.p.A., CN=Trust Italia S.p.A. Class 1 - Public Trust CA	AA10D99FD120217012E67F225DB544CBBAEA13BB01F7B0B766520C13FA1A33FF	3/11/2021	3/10/2031
C=US, O=KMS Solutions, LLC, CN=DigiCert KMS Solutions LLC GCC High Email CA	4CBB63C9CD73883DBDAC9BA662C356602FB30C4EE68B86642EA12AFBC71D367	2/14/2023	2/13/2033
C=AU, O=Verkey, CN=Verkey Assured Business ID and Secure Email	4D7DA8F7A331D30C8955C8F9A79CE75A109F2BA41969EEFF6C13A5475E1B9935	3/17/2022	11/9/2031
C=GR, O=Adacom S.A., CN=Adacom S.A. Class 2 - Public Trust CA	912E37CAA496E53CD175C05D4334B4D060FBD0C69105AF82085CAF7AD4BBD318	3/11/2021	3/10/2031
C=IT, O=Trust Italia S.p.A., CN=Trust Italia S.p.A. Class 2 - Public Trust CA	38CF02E361BC737A46DCF02DC1A5664936868267CBF8D4423488BD538EB76518	3/11/2021	3/10/2031
C=US, O=Kyndryl, Inc., CN=Kyndryl Certification Authority G1	D83CD35EFE9C610529D4CB2E27229E4DE74A1A29573C24282E0C05C3B388BFAD	10/26/2021	10/25/2031
C=NL, O=Shell Information Technology International BV, CN=Shell Corporate Email CA	7A16D63926765A78E8E7666715E865F7A436E3EEE9A4DB71B66996B63448D203	4/14/2021	4/13/2031
C=US, O=NBCUNIVERSAL MEDIA, LLC, CN=NBCU SMIME CA 1	58048CAAE127A2071EA048CE646F5E9D97775ED8F0DD71BDB27C18B0A47CDEBC	3/8/2022	3/7/2032
C=GB, O=LMAX Limited, CN=LMAX Trust Services CA R2	84F83527414D88C44BFD875A8521DD0C3BFC38190848DBC24914A22B24AFBC9C	8/17/2022	8/16/2037
C=US, O=KMS Solutions, LLC, CN=KMS Solutions LLC Email CA	A42AD4E053901C06BEF79F9A7A03DB0631C2B64F780EFAB753CFB2629EFB648D	11/10/2022	11/9/2032
C=IT, O=Monte Titoli S.P.A., CN=Monte Titoli Public Trust CA	561FB017C53FE711EA356164B3A486E60C369267BA0FBF1B5A6C839AE26EFA7E	7/7/2021	7/6/2031
C=US, O=DigiCert, Inc., CN=DigiCert Assured ID SMIME RSA SHA256 2020 CA1	5944AA2A86792A7BF5B748B79144DB7FD91FEEA5A3F3E2129C6B3145A3125B10	12/8/2020	12/7/2030
C=GB, O=British Telecommunications plc, CN=BT Corporate User - Public Trust CA1	B19B321258FB89E8548124748C16726B42BE74721BDF219636B3CE9E81C29522	2/11/2021	2/10/2031
C=QA, O=Qatar Rail, CN=Qatar Rail Issuing CA	B4B636DED84A7719149D63EAB51A370AF35CADA1A8E2BD1F738D4C026B4ADD5D	2/11/2021	2/10/2031



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=DigiCert, Inc., CN=DigiCert PKI Platform Class 3 Shared SMIME Organization CA	7F755DC2B9EE99EB02D71CB1805059AAABB5EB3E8558DCA8C09A1D0DE258D767	5/29/2019	5/29/2029
C=US, O=DigiCert Inc, CN=DigiCert TLS RSA SHA256 2020 CA1	52274C57CE4DEE3B49DB7A7FF708C040F771898B3BE88725A86FB4430182FE14	4/14/2021	4/13/2031
C=AU, O=Verokery, CN=Verokery High Assurance Verified Business	2F0E385864D2DCA8AC7AE48164287BFE45126C6BCD92E91BB3DF1250C7B2DABA	3/17/2022	11/9/2031
C=AU, O=Verokery, CN=Verokery Secure Web	DBAF58DEBFBBA1DE8E04DCAE7A2C163B09D39E7E732E91DEA8655C2BD732AB00	3/17/2022	11/9/2031
C=AU, O=Verokery, CN=Verokery Verified Business	D6CC57B9260E9B012DFAC40A81BFC022B92D91FA49B7C45C59DF86702AAC2906	3/17/2022	11/9/2031
C=LV, O=EnVers Group SIA, CN=GoGetSSL Legacy TLS RSA2048 SHA256 2022 CA-1	C5EB54EB458E38183C70BF4BD1064D0CF557EA07EAA1CB305968E8A8A50733ED	6/23/2022	11/9/2031
C=US, O=Bloomberg LP, CN=Bloomberg TLS CA	F5F1A8C04E5CF0FDB678DD279994463E48508C4349643B0D92CBFD7523F6C40A	3/30/2021	3/29/2031
C=US, O=DigiCert Inc, CN=DigiCert Global G2 TLS RSA SHA256 2020 CA1	C8025F9FC65FDFC95B3CA8CC7867B9A587B5277973957917463FC813D0B625A9	3/30/2021	3/29/2031
C=AU, O=Verokery, CN=Verokery Secure Web G2	5EE5AAD704A8B698883F4029720C8FA1CB79C9FA3463CC24340629EBE6C5A62B	3/17/2022	3/16/2032
C=US, O=Microsoft Corporation, CN=MSFT RS256 CA-1	F5D4CAD53B3F2EF39810DA6D3CD5FF7663F4ABB87738827CCECAFF6FCC3EAFC4	4/28/2022	4/27/2032
C=US, O=DigiCert Inc, CN=DigiCert High Assurance CA-3b	28506E33F55A6072115F3E04C9BDBF5AF5312CA8FC132508B97AC99FEE0516E8	3/30/2021	3/29/2031
C=US, O=Aetna Inc, CN=Aetna Inc. Secure CA2	428B87B8061A79ABA75877FD0383ADB831A1459B86BC408CE7D8D17B295B75BB	3/30/2021	3/29/2025
C=US, O=Aetna Inc, CN=Aetna Inc. Secure EV CA	8B6CCC3BE92F0121E6494AC704BF0B9B9CEBBA2E363C8E8122D90984D3EBF386	3/30/2021	3/29/2025
C=US, O=CrowdStrike, Inc., CN=CrowdStrike Global EV CA	86B109232C19EC514F8CB26788E65090293F96DD8D2942017A33035AB225D5FB	3/30/2021	3/29/2031
C=US, O=CrowdStrike, Inc., CN=CrowdStrike Global EV CA G2	9ED1EDEA95AA5B72B513A3E41A1BA0D2EFB14CEC88891E34D00495C95556605C	3/30/2021	3/29/2031
C=US, O=DigiCert, Inc., CN=DigiCert High Assurance TLS RSA SHA256 2020 CA1	495E6624A15340C4C74AB86037748AD62D1EF4F14E7C81AB7CDB629BE1404757	3/30/2021	3/29/2031
C=US, O=Avalanche Cloud Corporation, CN=HydrantID EV SSL CA D1	F9D4A6C011E9C6A8F5A4CF7ED0416869C7238EF93A56161EA6CA3D8B41716097	3/30/2021	3/29/2031
C=US, O=Plex, Inc., CN=Plex Devices High Assurance CA3	1316ED42A849217D51CFB4DE1A1418A8D3A77902FB305D3024F72D4636B82FF0	3/30/2021	3/29/2025
C=US, O=DigiCert, Inc., CN=DigiCert TLS ICA Universal 2021	23EE12A8DA9D38549C54A32BC1E4A18BAF1570488107D169EBD734DFDA330B0E	1/12/2021	1/11/2031
C=US, O=Abbott Laboratories Inc., CN=Abbott Laboratories Secure Authentication CA G2	2697ACB96A49BE2BFC5C06C393949F0D8E75106AD6D4C73E2DA172A90831A85A	1/21/2021	1/20/2031
C=US, O=Avalanche Cloud Corporation, CN=HydrantID SSL CA D1	A847544CC3CD54E855CA39780C2162431F5C8E327EC66D5A43CF266877BEC50F	3/4/2021	3/3/2031



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=DigiCert, Inc., CN=DigiCert High Assurance TLS RSA SHA256 2020 CA1	9BFED3D9DC95236BCFFCB35D4B120DB0E3867F62B1FD015A928DA0B303966683	12/17/2020	12/16/2030
C=US, O=CrowdStrike, Inc., CN=CrowdStrike Global EV CA G2	5EBD9874E6B88DA38F4A7B9566CE5D4DF05E0C224D94986AD8CC5EBA004A0C04	3/4/2021	3/3/2031
C=US, O=Avalanche Cloud Corporation, CN=HydrantID EV SSL CA D1	863472EC79DB54077114DADE720CE1F7B41A233748FC6773FA86520F0B9AAA21	3/4/2021	3/3/2031
C=US, O=DigiCert, Inc, CN=DigiCert QuoVadis TLS ICA QuoVadis Root CA 2	673E8FEEB1168277D0153111D20ED38E9DA51F440BE7FD50B218540937741A48	1/6/2021	1/4/2031
C=US, O=DigiCert, Inc, CN=DigiCert QuoVadis TLS ICA QV Root CA 1 G3	C42A4D8C0904BB211906F43B441BBBC9B5A003BA3611879FD34AE576F7C2F764	1/6/2021	1/4/2031
C=US, O=DigiCert, Inc, CN=DigiCert QuoVadis TLS ICA QV Root CA 3	D8CC89C6AA6B7452881907927C81E66DA01A7598CF7674E4E2E133F16546D5F0	1/6/2021	1/4/2031
C=US, O=DigiCert, Inc, CN=DigiCert QuoVadis TLS ICA QV Root CA 3 G3	728E4BD2B399840E9D437AF975B0198910B4129B7AB708CB5C0B445D3B04D999	1/6/2021	1/4/2031
C=DE, O=Uniper IT GmbH, CN=Uniper SE SMIME CA	43067D5EF78F7276DF9B23855BF54E8DDB7DEF0D8B79A365573D05627F0A6638	6/29/2023	6/28/2033
C=AU, O=Verkey, CN=Verkey Verified Business G2	7EDBE6F8C49A1E3988CAADD438B72F07B6AF9CE751CF5835163161D63CAE4DDF	3/17/2022	3/16/2032
C=CH, O=Hitachi Energy Ltd, CN=Hitachi Energy Assured ID CA	8EAE34A01A9E7017FD4BCE8BA432A350A2A16561ABE0617CCE1A0D4B1E09EEC	9/14/2021	9/13/2026
C=US, O=United Launch Alliance, LLC, CN=ULA CA - G5	818B703BC75A0E86692DE5F4477E8D8E085071E2435CB0FEA829CA9FEB72BA7C	10/11/2021	10/10/2031
C=GR, O=Adacom S.A., CN=ADACOM Class 2 Public Trust CA G2	C1D5F777F98E6CC616EEE9A212F070990E818D06751CC2A86551FB4A9168E29D	9/14/2021	9/13/2031
C=DE, O=Henkel AG & Co. KGaA, OU=Class 2 DigiCert PKI Platform Individual Subscriber CA, CN=Henkel Secure E-mail CA	7D89BA7764CFF6FE2EE9AD44838D56C5D57F3DD736F96068DE9B0A1710FB3D47	5/29/2019	5/29/2024
C=US, O=Microsoft Corporation, CN=MSFT BALT RS256 CA	069DF2F8919D9209D0C524A56BA1181DF6D1BBFC4AA61C9F01D092E2D5C3A1FD	4/7/2022	5/11/2025
C=DE, O=Henkel AG & Co. KGaA, CN=Henkel Secure E-mail CA G2	0872E14A4E2B7B1BA0DE0B785493E0F4B25E2E584A3F3462F0A1901CB7BBE5F0	5/10/2023	5/9/2033
C=US, O=Bechtel Global Corporation, CN=Bechtel Managed SMIME CA	D1A7ABBA00B566B8C6A4BD99A242740C45A5C5FCE6651213A3CD292E1FDCF3B5	6/23/2022	6/22/2032
C=PT, O=DigitalSign - Certificadora Digital SA, CN=DigitalSign CA - G5	7AA50B4EACCB422A19EF8597A71D56CB8E6910CFA4DD9BDDFAB1EFE7BCB7801F	7/7/2021	7/6/2031
C=PT, O=DigitalSign - Certificadora Digital SA, CN=DigitalSign CA - G7	FE7AA77C5DE2D1466852F6D9070A320BE3DA439C72D74F71C62697502DA5BFCF	11/3/2021	11/2/2031
C=DE, O=Giesecke+Devrient GmbH, CN=Giesecke and Devrient CA	0A4FF256B1A0A14BB81F318B64D47D6C36A4C3529F9C39299A47ED51A2B8EE52	3/11/2021	3/10/2031



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=DigiCert, Inc., CN=DigiCert Basic EV G2 TLS CN RSA4096 SHA256 2022 CA1	8534345E71F5450B6BD2758CEF8495547008A6E302AC8DAC625361CB24DC6BD5	12/15/2022	12/14/2032
C=US, O=DigiCert, Inc., CN=DigiCert Basic OV G2 TLS CN RSA4096 SHA256 2022 CA1	F16C99CDE19ED1ACE8B4FBC700E05E7EFF2116FD6A22427766B251C6E8BB3CE7	12/15/2022	12/14/2032
C=US, O=DigiCert, Inc., CN=DigiCert Secure Site EV G2 TLS CN RSA4096 SHA256 2022 CA1	8FC89B7368A29129735677440476908711DA8F3F04C0AB6A61D6DE9D4EB4D1C2	12/15/2022	12/14/2032
C=US, O=DigiCert, Inc., CN=DigiCert Secure Site OV G2 TLS CN RSA4096 SHA256 2022 CA1	7CD6CDD25EEE2512AAF1419AFD44C146C43AA1093D5A60D4ED39EFBDDA815AD4	12/15/2022	12/14/2032
C=US, O=DigiCert, Inc., CN=DigiCert Secure Site Pro EV G2 TLS CN RSA4096 SHA256 2022 CA1	B480E11A6BD0C2BC538B1C7DB1C63B40694E5DEDD93752D082D9FD422FCB3FBD	12/15/2022	12/14/2032
C=US, O=DigiCert, Inc., CN=DigiCert Secure Site Pro G2 TLS CN RSA4096 SHA256 2022 CA1	826EBD90E946C25D3DF05ABFB911AC0A426C7A9A063B7224464710BEC5A58CE1	12/15/2022	12/14/2032
C=US, O=DigiCert, Inc., CN=GeoTrust EV G2 TLS CN RSA4096 SHA256 2022 CA1	6FE24FBFFBFFBDC3BE69A472DBF75EF30CACF8AEA319F3893654C91BAB91143	12/15/2022	12/14/2032
C=US, O=DigiCert, Inc., CN=GeoTrust G2 TLS CN RSA4096 SHA256 2022 CA1	05DC9EDC0FDDFA975A1432EF806EC780078B5362AD45AF76DB15C907630DB25D	12/15/2022	12/14/2032
C=US, O=DigiCert, Inc., CN=DigiCert Assured ID TLS RSA4096 SHA256 2022 CA1	987FF2E3B25A3A14CB843D907B3C7F007C274921AFC10017F85D4FAE7B0CB8B6	3/3/2022	11/8/2031
C=US, O=DigiCert, Inc., CN=DigiCert Assured ID G2 TLS RSA4096 SHA256 2022 CA1	43A70E3620BC452339D878AA68F2E5358AC4607AC722C4D77D3C4D2C204F7F71	3/31/2022	3/30/2032
C=US, O=DigiCert, Inc., CN=RapidSSL Global TLS RSA4096 SHA256 2022 CA1	92A5F515AD35D3A27C490EDB135DE7044B1E399D608AC1ABE883FC82FB4B16BE	5/4/2022	11/9/2031
C=US, O=DigiCert, Inc., CN=GeoTrust Global TLS RSA4096 SHA256 2022 CA1	A797108A05AD9328585FC0CB842FBD824FAC6510B8D7EB4FF47991EEE58AA924	5/4/2022	11/9/2031
C=US, O=DigiCert, Inc., CN=DigiCert Global G2 TLS EE+ RSA4096 SHA256 2022 CA1	B915B806A8B7BE2E3809F2E932996E7C10CC82691864A89606BD50080DC2EAB3	4/28/2022	4/27/2032
C=LV, O=EnVers Group SIA, CN=GoGetSSL G2 TLS RSA4096 SHA256 2022 CA-1	8AADF068A1B7C04B3E346F7C97FD9619FFF14ECC6C82C2F15594B9732F3F3E72	6/23/2022	6/22/2032
C=US, O=Vitalwerks Internet Solutions, LLC, CN=Vitalwerks Internet Solutions, No-IP TLS ICA	2AE0626F9A43EDB2B0A22D410EB06C482EF982563A717A247287C504D79BF980	2/23/2023	2/22/2033
C=US, O= CrowdStrike, Inc., CN= CrowdStrike Federal EV RSA CA G1	EDEDD0053CB844592E673EF2A081C15B38EE3ECBEB5856C9A4FE9B7169FAFFE7	8/15/2023	8/14/2033
C=US, O=DigiCert, Inc., CN=DigiCert Omni TLS RSA4096 SHA256 2022 CA1	632ABAFBCDD7E86A19EDCB404332A9003A0478D75D58D86AAA776570B1D874E9	8/1/2022	7/31/2032
C=US, O=DigiCert, Inc., CN=DigiCert G5 SMIME RSA4096 SHA384 2021 CA1	58A5988F1BEB2558FB4C168B97AE748E448C974FD51CB251818BBA9FC6CB1B7B	7/15/2021	7/14/2031
C=US, O=DigiCert, Inc., CN=DigiCert G5 TLS RSA4096 SHA384 2021 CA1	C6270A150691FBE190D831F5139BDFEECF7B298B4FA0CA17306A69D7E91E7BA2	4/14/2021	4/13/2031



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=DE, O=Deutsche Kreditbank AG, CN=DKB CA 101	0E5B8040B3AB60A50D2D5FB11E19AEB2E45B564B335B79D773D42B81D8219C75	2/4/2021	2/3/2031
C=US, O=DigiCert, Inc., CN=DigiCert Assured ID G2 Multi Doc Signing RSA4096 SHA384 2023 CA1	0D2739351ED2CF711DA26D1D4E3AC787EEFC4145440F3CE6569DB833FE00CFA5	5/24/2023	5/23/2033
C=US, O=DigiCert, Inc., CN=DigiCert Trusted G4 AATL RSA4096 SHA384 2022 CA1	D149AF9F74029C8DBD957022BE03707F110DB1E1D0E55DDA11376A8F766D367E	7/21/2022	7/20/2032
C=US, O=DigiCert, Inc., CN=DigiCert Assured G2 mPKI SMIME RSA4096 SHA384 2023 CA1	BE1AF7D2FFED61A2140D610482952450E380448F9CAB9D63C6CDE2014A0ADE0A	8/30/2023	8/29/2033
C=US, O=DigiCert, Inc., CN=DigiCert Assured G2 SMIME RSA4096 SHA384 2023 CA1	0F18E75571996FD1F75BE6CC6186B045EA2E76FB70A1FDEBFE9CB923A010EB43	8/30/2023	8/29/2033
C=US, O=DigiCert, Inc., CN=DigiCert G5 TLS CN RSA4096 SHA384 2022 CA1	AB7EF705B0B8DB2291C2BC8DC9F69AD8345A3CC543DB8CDC49A8B419282DEA22	7/12/2022	7/11/2032
C=US, O=DigiCert, Inc., CN=Thawte G5 TLS CN RSA4096 SHA384 2022 CA1	1E89E3D2702D3F1735DCE7DA99561600534A06454A94874D0780D0443CAF4151	7/12/2022	7/11/2032
C=US, O=DigiCert, Inc., CN=GeoTrust G5 TLS CN RSA4096 SHA384 2022 CA1	2B6D199F7E35C8C67E0BBA829F92991CF31466265E11FA30BD19FC5B6C36151C	7/12/2022	7/11/2032
C=US, O=DigiCert, Inc., CN=DigiCert Basic EV G5 TLS CN RSA4096 SHA384 2022 CA1	7BAD1EBDE38C5226B5CE118E386775FAFBC4C8A545598D965CD01E97491DEF8F	1/12/2023	1/11/2033
C=US, O=DigiCert, Inc., CN=DigiCert Basic OV G5 TLS CN RSA4096 SHA384 2022 CA1	AFED062E87DF98182AD9BEF7EB13C0E2F2B6698AB4E3F33932A10E286E024E9D	1/12/2023	1/11/2033
C=US, O=DigiCert, Inc., CN=DigiCert Secure Site EV G5 TLS CN RSA4096 SHA384 2022 CA1	65248FA866C854908D0DB045F88CDABC9452553B982AECE6B0D845866B426B7F	1/12/2023	1/11/2033
C=US, O=DigiCert, Inc., CN=DigiCert Secure Site OV G5 TLS CN RSA4096 SHA384 2022 CA1	5534127F056498B4CF1C967365B1DC2D44F33109ABCFA6454F25BEE4F2B65481	1/12/2023	1/11/2033
C=US, O=DigiCert, Inc., CN=DigiCert Secure Site Pro EV G5 TLS CN RSA4096 SHA384 2022 CA1	7A3839D4B8790B197440C94DA687DCEB1A5AC07D936F81ACF40B163364B0A951	1/12/2023	1/11/2033
C=US, O=DigiCert, Inc., CN=DigiCert Secure Site Pro G5 TLS CN RSA4096 SHA384 2022 CA1	AAA627EEDAC466DBC4C7750C87D999588AB4B03E74B9BFDCA2902DD36DAE0F8	1/12/2023	1/11/2033
C=US, O=DigiCert, Inc., CN=GeoTrust EV G5 TLS CN RSA4096 SHA384 2022 CA1	25026FEBE5324EEACA89376B13EDB96991594112C311120D579364E3CC0442F4	1/12/2023	1/11/2033
C=IE, O=DigiCert Ireland Limited, CN=GeoTrust Global G2 TLS EUR RSA4096 SHA384 2023 CA1	9E7E310303EDA686FCC5F55F7506895B15FF05C780EEEADEAB9D016DB672F3BA	6/14/2023	6/13/2033
C=US, O=DigiCert, Inc., CN=Thawte G5 TLS RSA4096 SHA384 2022 CA1	48569C4FABFF4E3AA22E0E19613E90DA89AA2EE2469B0718695437F5384EDC4C	5/26/2022	5/25/2032
C=US, O=DigiCert, Inc., CN=GeoTrust G5 TLS RSA4096 SHA384 2022 CA1	0030C68C53FC05237FCC7AB6017D81FEBBA06315526C57F7E72907C87B982B61	5/26/2022	5/25/2032



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=DigiCert, Inc., CN=RapidSSL G5 TLS RSA4096 SHA384 2022 CA1	BB320985266F61C5D182724F15CEC428A698ED71262B4E097CB11AED8A41AAE6	6/2/2022	6/1/2032
C=US, O=DigiCert, Inc., CN=Encryption Everywhere G5 TLS RSA4096 SHA384 2022 CA1	654BF73B2639091FA18F296755B704959F52F67FDF7A65AAF1C315441201A09D	11/3/2022	11/2/2032
C=US, O=DigiCert Inc, CN=DigiCert Trusted G4 TLS RSA SHA384 2020 CA1	1E29690F957F64BA9C3658A31055751AACD4B440A9589DFA1D780FE07069DB52	3/30/2021	3/29/2031
C=DE, O=Deutsche Kreditbank AG, CN=DKB CA 101	D889A2641F5DF941353817C87A5CD0D9CDACED3886240BFB937329E94D3A45B	3/30/2021	3/29/2031
C=AU, O=Verkey, CN=Verkey High Assurance Verified Business G2	BE89264A58313012B749603C9BEB3CD7914DB716A49E5E0EA97E43A3883A5DF	3/17/2022	3/16/2032
C=US, O=DigiCert, Inc., CN=DigiCert G5 TLS RSA4096 SHA384 2021 CA1	EF9296036A6D7C986C8D59DB936093E78E85C70AEDB4FE7A54DDCAA821031C72	2/11/2021	2/10/2031
C=IT, O=Trust Italia S.p.A., CN=Trust Italia Intermediate CA	1D64D347A041AE7A4F9545047E3760D16ECF98360CDF7888A1CC23C2AFA3BC27	6/28/2021	6/27/2036
C=IE, O=DigiCert Ireland Limited, CN=DigiCert G3 TLS EU ECC P-384 SHA384 2022 CA1	F0F573763C616F762AA6AB927CBDE789FA8EF4E69AF8A27EC63C62EEF329ECA1	9/19/2022	9/18/2032
C=IE, O=DigiCert Ireland Limited, CN=DigiCert G5 TLS EU ECC P-384 SHA384 2022 CA1	2C171064DBFA280A1F294F72E2A1FC24C86111B23723DB9375D3004B27E7B33B	9/19/2022	9/18/2032
C=IE, O=DigiCert Ireland Limited, CN=DigiCert Assured ID G2 AATL Europe RSA4096 SHA256 2023 CA1	20E2FE0D0A6E2FE9E26C09B0F4E1E1A5C556D9FC23F10F21F400F8B99884E401	3/30/2023	3/29/2033
C=US, O=DigiCert, Inc., CN=DigiCert Assured ID G2 DocSigning Europe RSA4096 SHA256 2023 CA1	690B373C5A3B09FF56C44EEF01F39CFDA9DCF48AFEE7DD4BC748E8BC1DA66A2F	2/23/2023	2/22/2033
C=US, O=DigiCert, Inc., CN=DigiCert Assured ID G2 SMIME Europe RSA4096 SHA256 2023 CA1	2724D9D7B945BB253E379CEF6CF4156775EE9AC7660E62D1384DD7B4A4E958FA	2/23/2023	2/22/2033
C=IE, O=DigiCert Ireland Limited, CN=DigiCert Assured ID G2 SMIME Europe RSA4096 SHA256 2023 CA2	3DED2BDFEAA4F0BEA10C95C4B48EC94BC593470155A723B937B74890049BE0F6	3/30/2023	3/29/2033
C=IE, O=DigiCert Ireland Limited, CN=DigiCert Assured G2 Multi Doc Sign EUR RSA4096 SHA384 2023 CA1	9F396CD402F9039132E6F6145C78C852F74EE1CF790FCEB31A68A4E6E58CAD26	5/24/2023	5/23/2033
C=IE, O=DigiCert Ireland Limited, CN=DigiCert QuoVadis G3 SMIME RSA4096 SHA384 2023 CA1	3C980210C4F0803388C4D9FA9699E19F88FA3B96B3CF68D675808876747A678A	7/27/2023	7/24/2033
C=IE, O=DigiCert Ireland Limited, CN=DigiCert Assured G2 EUR SMIME RSA4096 SHA384 2023 CA1	8682865D0B127A67FC0F8656CE4DD19846906671FBB97D3F3929A291FA548003	8/30/2023	8/29/2033
C=IE, O=DigiCert Ireland Limited, CN=DigiCert G2 TLS EU RSA4096 SHA384 2022 CA1	A4ADFC2917BB1451D312371D441ACDB686107FBC0B3156D5570E99E1121974FA	9/19/2022	9/18/2032



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=IE, O=DigiCert Ireland Limited, CN=DigiCert G5 TLS EU RSA4096 SHA384 2022 CA1	4D27EF6357BC929783575C0C8C9340B67FBFC045FDC263B8C88362E6D3ADB6F	9/15/2022	9/14/2032
C=US, O=Symantec Corporation, OU=Windows Phone Enterprise Applications, CN=Symantec Enterprise Mobile CA for Microsoft - G2	65E5B094657AA1D7161BA5710F024FE8DDF21ADB6270A20BAE0814183AA85370	5/24/2017	3/13/2032
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 EV SSL CA - G4	31862233620E789330CC893E8B5E66705331B8B88B0ED30A44574D9E0A71C4F1	1/7/2016	1/6/2026
C=NL, O=SupremeSSL, OU=www.supremessl.com, CN=GeoTrust SupremeSSL 1 ECC CA	6861BBD4CBEDA2AA01066BF476BF8F2FE6EA9F008CB0AC8E1755E2A328FA5933	5/7/2019	5/7/2029
C=US, O=DigiCert Inc, CN=DigiCert Trust Service ECC CA G2	B5FECC2F696C850323FC7A85C65B50A4C5E1BFBF823E266AB0A46F013B2C0EB2	6/12/2020	6/12/2030
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert SHA1 Assured ID Code Signing CA - G1	82AD46ECDE882413106B1C83EF65DC02DB0C65B3870F6F744B62283DF6FA1D56	7/18/2018	7/18/2028
C=US, O=Symantec Corporation, OU=Class 2 DigiCert PKI Platform Individual Subscriber CA, CN=Symantec Class 2 Employee CA - G4	1D082DDED16D4E4E49163893D9244978EBC54228F4B811278B55AB299C4C48E	9/23/2019	9/23/2029
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert EV Code Signing CA (SHA2) G2	EDCD88B6BD77FC8A2680E2ECB8FFBAC45898DFA0FDE983425E0F1BEB058C04B6	7/18/2018	7/18/2028
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert SHA2 Assured ID Code Signing CA - G2	2A9D0D018BB49FDEA14D6C16E9BA0A942F2833B9AADFFBAD1306E301B495CFB7	7/18/2018	7/18/2028
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=GeoTrust Code Signing CA - G2	8D7C499D7FE9EEEC05D9EB42F03EFE402807919803E8E6CD6C1F2BF5EF6A7D8F	7/18/2018	7/18/2028
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert SHA2 Assured ID Code Signing CA - G3	9CDFD82596D1BAC9E44D3E491E2C07D8DCC920419915FD6F361CF70A1E433B10	7/18/2018	7/18/2028
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=GeoTrust Code Signing CA	78A95ED82180A1C33A9F34EDB75E6774FD4BB73AA2C7C4121453DDB627DB1BAF	7/18/2018	7/18/2028
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert EV Code Signing CA (SHA2) G3	2B0A972DC0DAE218E9477396D3D82DEB82DE118867DD19E1D2FFFD958CBB6DA9	7/18/2018	7/18/2028
C=US, O=DigiCert Inc, CN=DigiCert Trust Service CA G1	64616B62820D458F7C71E3449ECCF3F3E4735B76879860C1C660DF23438607EA	6/9/2020	6/9/2030
C=JP, O=Japan Exchange Group, Inc., OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Corporate CA - G3	68676E3CF0431709740A27C7E2F149C5954169192DE6E1FF7A31AE6F0B5DB566	7/2/2015	4/13/2024



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=SAIC, OU=PKI, CN=SAIC Public Email CA 2018 01	B4739E90912D31F2829F69D60F62C5954DC98EEF9A7EF3477447692C4A440D65	2/9/2018	2/9/2028
C=CH, O=World Intellectual Property Organization, OU=DigiCert Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=WIPO CA - G3	641658371E97E16332C051D9AFD1321F770C2012033D63360A6A96739DC9C357	5/3/2018	5/2/2023
C=US, O=Glosten, Inc., OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Glosten Public CA	2F90242229ABEBE362CD49B05971B10FE2F64C8289A5A6EAE25817E280B29876	7/17/2018	7/16/2023
C=AR, O=Bolsa de Comercio de Rosario, OU=DigiCert Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Autoridad Certificante Bolsa de Comercio de Rosario - G3	0A0C200DF9CF5459ADF0DD42DC2EEE10B1318C5B1C5245167269511F65B1AE65	1/18/2018	1/17/2023
C=AR, O=Banco Santander Rio S.A., OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Autoridad Certificante Banco Santander Rio - Empleados G2	CAFD79E03631E7C8B1E017CB7CD1673944D9089EF7CA7057E3AC9BD20DC0408B	1/31/2019	3/31/2023
C=AR, O=Banco Santander Rio S.A., OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Autoridad Certificante Banco Santander Rio - G2	6F75860B5669D449D32F949E98EB11B2FCC33840A0F6753912BDE76BD3D529EC	1/31/2019	3/31/2023
C=AR, O=Banco Itau Argentina S.A., OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Autoridad Certificante Banco Itau Argentina - G2	40E944C8F7317BF79F447602C62842A4CDA9FC979AE355F9CE2FB7A81CB528E8	2/12/2019	1/18/2023
C=IT, O=Postecom S.p.A., OU=Servizi di Certificazione, CN=Postecom CS5	61A01EA7E8D8016CCEF92FF13E3DBE082E0779C4CB64BF6F0C316258D6210F5C	4/26/2016	4/26/2023
C=US, O=DigiCert Inc, CN=GeoTrust TLS DV RSA Mixed SHA256 2020 CA-1	8C43C5E340EC640F93EA774AC5353CCA9042F764FF837F870D8B64763C458A41	7/16/2020	5/31/2023
C=US, O=DigiCert Inc, CN=RapidSSL TLS DV RSA Mixed SHA256 2020 CA-1	E6FA484A858940D10197855545AA466531AB6C4ABC4AD2B000626AAAC0D04F9	7/16/2020	5/31/2023
C=US, O=Comcast Corporation, CN=Comcast Trusted User CA	5764D931D3FB3819B5CD19DD09E075A3320114F079292494A4F64E92634808F	1/17/2017	1/17/2027
C=CN, O=TrustAsia Technologies, Inc., CN=TrustAsia ECC OV TLS Pro CA G2	70357B9E56D3FB3C6C009C38C7181454C462908DFBCE6D54D60DFE1E506E14FD	6/20/2019	6/20/2029



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=DigiCert Inc, CN=DigiCert Trust Service ECC CA	F269AC00B410003F72DC628AFB3D950279630C7C5D0C82148A0FD24DF4DA4301	3/4/2020	3/4/2030
C=US, O=DigiCert Inc, CN=DigiCert Basic ECC CN CA G2	97C4B44316055F26A52A1F664CE385800A964A8552C99D2BCAFD618E6D8074A0	3/4/2020	3/4/2030
C=US, O=DigiCert Inc, CN=GeoTrust ECC CN CA G2	7CAEEC680E6497FC5109073F83816E798F27F8968A2663C1C95711B548192E35	3/4/2020	3/4/2030
C=US, O=Cloudflare, Inc., CN=Cloudflare Inc ECC CA-3	3ABBE63DAF756C5016B6B85F52015FD8E8ACBE277C5087B127A60563A841ED8A	1/27/2020	12/31/2024
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Secure Site Korea ECC CA	EF9138993654DF92D2FB5860E28DE8818A9F49DB56ECB689A67A7FC2D5881DD2	3/25/2019	3/25/2029
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Encryption Everywhere ECC DV TLS CA	1E4FC34D26E0793D559E322FE111F1E19A9D2E34BC25D3C427B032A48D2C5B6A	7/23/2019	7/23/2029
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Secure Site Pro ECC CA G2	DA3BE2B6A6D9715C1295A42BE526E0001D10E5D7540F06E7631B34E644934848	6/20/2019	6/20/2029
C=CN, O=TrustAsia Technologies, Inc., CN=TrustAsia ECC EV TLS Pro CA G2	CODD060FF8CE556F35683D564E0E66B2907178808693F83F3AA642326BF6D0C8	6/20/2019	6/20/2029
C=US, O=DigiCert Inc, CN=DigiCert High Assurance Trust Service ECC EV CA	E9529B428FB67390BC6455D79BA2434E816C54FE4F359930CB709DB256FDDF94	3/4/2020	3/4/2030
C=US, O=DigiCert Inc, CN=DigiCert Basic EV ECC CN CA G2	D619F3257B98756D28811D3CEE9ADAD8BCAE1B4367BBB0C73F6B5E558FBA4563	3/4/2020	3/4/2030
C=US, O=DigiCert Inc, CN=GeoTrust EV ECC CN CA G2	FC01B58FC78B9C59211784C2E25BF1D012A1E23F337218847A62EB4145EE4AB6	3/4/2020	3/4/2030
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Secure Site Pro Extended Validation ECC CA G2	70DC86F9F7750B74B1DEC8CD352EC25837C36E640F7148E08464EF5901E5A589	6/20/2019	6/20/2029
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Secure Site Korea EV ECC CA	B0505BF2947F0807ABAE2D42C19343EAF08D1DDE3F8745B0589A57362792E470	3/25/2019	3/25/2029
C=NL, O=SupremeSSL, OU=www.supremessl.com, CN=GeoTrust SupremeSSL EV 1 ECC CA	2FBA8FE915415049AA942857CB53137FFD3D9E5A47B27B5782DAB9B4DA7D624D	5/7/2019	5/7/2029
C=US, O=DigiCert Inc, CN=DigiCert Secure Site ECC CN CA G3	00C0CBA95CBFE1E270814275F32B505D6E5916C2B6DA67FAF4DD309EE6E86CBE	3/13/2020	3/13/2030
C=US, O=DigiCert Inc, CN=Thawte ECC CN CA G2	58E89F4F70410DA00B41473CFA413FA0737ED2729F3ED77BE29A7F4705377147	3/13/2020	3/13/2030
C=US, O=DigiCert Inc, CN=DigiCert Secure Site Pro ECC CN CA G3	985140919342239C89086B22DFCAA4508590B11A3DE0A423E25EBC3DDAF8910D	3/13/2020	3/13/2030
C=CN, O=TrustAsia Technologies, Inc., CN=TrustAsia ECC OV TLS Pro CA G3	756AAB900E3F5C762734B6461FC32A9DD341EA1D4A04283409233C39787A867E	3/13/2020	3/13/2030
C=US, O=DigiCert Inc, CN=GeoTrust ECC CN CA G3	52DDE89FDD6F610473F9314C7A8B1AC442F8AA833AA5D773006FDA758C9FF1EC	6/9/2020	6/9/2030



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=CN, O=TrustAsia Technologies, Inc., CN=TrustAsia ECC EV TLS Pro CA G3	8D83D69FA615AA2683B13D7894482C542B0BCF18BB92D30F015FB42471AFBB66	3/13/2020	3/13/2030
C=US, O=DigiCert Inc, CN=DigiCert Secure Site EV ECC CN CA G3	A4B2B47545559F5FFFB7CDDA7A1220E62FB74D1B7A9A4D4DACB2B2A839CE7456	3/13/2020	3/13/2030
C=US, O=DigiCert Inc, CN=Thawte EV ECC CN CA G2	EA1F3BFB4D3296B467D4B582559D6518D676D5AFC7D1C24BE80252F79191046F	3/13/2020	3/13/2030
C=US, O=DigiCert Inc, CN=DigiCert Secure Site Pro EV ECC CN CA G3	BC91379A21E7BDE11B455BF1D51186331682805A4A353A8EE258F7A03706C664	3/13/2020	3/13/2030
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Secure Site ECC CA-1	99935E20424535EC016F337B2BE68F1349DE66CCE4CA5AB367F8F3738215B833	2/15/2019	2/15/2029
C=US, O=DigiCert, Inc., CN=DigiCert Global G3 Code Signing ECC P256 SHA384 2021 CA1	DDF122E12D2BE604BEEF8A4A55C5EB802E19D5B8D8E1AF994580BD92F4A179E3	7/28/2021	7/27/2036
C=US, O=DigiCert, Inc., CN=DigiCert G5 Code Signing ECC P256 SHA384 2022 CA1	C5EBBAF62A45DA6D2B4132F970DD281CFA1FE4F1CA86246B726A0EBDF77454CE	5/19/2022	5/18/2037
C=US, O=DigiCert, Inc., OU=www.digicert.com, CN=DigiCert Extended Validation CA-3 G3	DA7E5778F62F87655B8FD24A89E651E57329DC9C0765A71158CE56443CA44E95	11/12/2019	11/12/2029
C=NL, ST=Noord-Holland, L=Amsterdam, O=TERENA, CN=TERENA Code Signing CA 3 G3	794C63DB244BA73FB286F15DAB8D0CA5425508381E98844954E63823BB5D7F74	12/9/2014	12/9/2024
C=US, O=DigiCert Inc, CN=DigiCert TLS Hybrid ECC SHA384 2020 CA1	D79A2D5E03295C0E9FEAE36D021EBD5209700AB1A9E817A43F30FA3C66F78D21	9/23/2020	9/22/2030
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Assured ID Client CA G3	14FAFCA84BDB8B0EC32719272BE730FE18D6FC29301C5CF789400596EC429AFE	9/23/2019	9/23/2034
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Global Client CA G3	BA361260FF1D46031686305E082DE836D4A320466E0DE9E013F00CEDDD62317	9/23/2019	9/23/2034
C=US, O=DigiCert, Inc., CN=DigiCert G5 CS ECC SHA384 2021 CA1	EDAEC94C3C0F7C3239312EAAF7B76D499410A55D0E008CB6A64779DAD3A1998	2/11/2021	2/10/2036
C=US, O=DigiCert, Inc., CN=DigiCert G5 Code Signing ECC P384 SHA384 2022 CA1	327F4DEAFFD4EAC5A863724E483033580AD68FC0373A4F4D20C7DBECDD25B5DD	5/19/2022	5/18/2037
C=US, O=DigiCert, Inc., CN=DigiCert Global G3 Code Signing ECC SHA384 2021 CA1	35769D41EF436A4D63DDB00AB11C6CE968989FCDD829E7018F5DB90AC4BD3CD0	4/29/2021	4/28/2036
C=US, O=DigiCert Inc, CN=DigiCert Global G3 TLS ECC SHA384 2020 CA1	338EDB04FB8BEAF07A10749E7F4E538DE0715DAFB6478D58063FB7C8BDB0C30D	9/24/2020	9/23/2030
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Assured ID Code Signing CA-1	3C8B0D5C2ADF2F7090A9B8FF452A4141833DEAA05B5F44E9513DB94BDFD1D6BD	2/11/2011	2/10/2026
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Assured ID Code Signing CA-1	E57208CBFD286CE9718267E44491CB5B435C95BB09DC9720F5B64B25AC7974CD	2/10/2011	2/10/2026
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert High Assurance Code Signing CA-1	007D2C8B15786232BAC0EAA31F60AAE06DC572921BAD0D46C77107D8C2DCA4B3	2/11/2011	2/10/2026



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert High Assurance Code Signing CA-1	BEAF46D0FF62645F56BE11830DDEFC663379619F337E85713491C83AE179481D	2/10/2011	2/10/2026
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert EV Code Signing CA	376377FD1FAF4B8A5B1472647A70B941039A62D74CFE99447E48616F8D63A978	4/18/2012	4/18/2027
C=ZA, O=Nedbank Limited, OU=Class 2 DigiCert PKI Platform Individual Subscriber CA, CN=Nedbank Limited Public CA	4946337D3954305F36770EE8317F67CFE99447E48616F8D63A978	7/2/2019	5/12/2025
C=US, O=Hewlett Packard Enterprise Company, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Hewlett Packard Enterprise Collaboration CA G22	AB480D8F7D720A161C9671843EADAEAAAABC5447EFD9EF8F3470874D927CCB861	4/1/2019	4/1/2029
C=US, O=Alcon Vision, LLC, OU=Class 2 DigiCert PKI Platform Individual Subscriber CA, CN=Alcon Public Online CA	4F8137882B6D7B7F1ABBCFDE0082F0E5CDEC870BA3923EF84D08DDE42E43749	7/2/2019	7/2/2029
C=US, O=Solenis LLC, OU=Class 2 DigiCert PKI Platform Individual Subscriber CA, CN=Solenis Public Online CA	0F3284B306AC422986C8F560EA46226FD8425519A6F61AA9C55AB508274B82D2	7/2/2019	7/2/2029
C=SA, O=Saudi Telecom Company, OU=Class 2 DigiCert PKI Platform Individual Subscriber CA, CN=Saudi Telecom Company Email CA	E33076FFB5267DF419F72DE06C46E2C6CA44FF4383B5316CF7D6E628E98D9BFD	7/2/2019	7/2/2029
C=US, O=Hewlett Packard Enterprise Company, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Hewlett Packard Enterprise Collaboration CA G21	B6E4C8D9D575A61404DE568E27BD6F3048D7B0F803065E2F6526260BDCA3D211	4/1/2019	4/1/2029
C=JP, O=DigiCert Japan G.K., CN=Individual Certificate Issuance Service CA	1C8DF080957A9B79F31D090297B047DCD6B541CBC0A83FDF0674A2004BFCDA6	3/11/2021	3/10/2036
C=IT, O=Trust Italia S.p.A., CN=Trust Italia Shared Client Authentication Issuing CA	7A4697191E9D97412B755F56E2B369A32DDC68488AEB9226CFD03E322FEC539B	6/24/2021	6/23/2036
C=US, O=Fidelity National Information Services, Inc., OU=Class 2 Managed PKI Individual Subscriber CA, CN=SGN FISGLOBAL PUBLIC CA 2	15F06C6C39DB15F8C14EEFA6B793403F30C7EDDB8C99408DBE36FC3EE9D56913	7/19/2023	7/18/2033
C=US, O=FAA, CN=NAIMES	78E69AD84C6464BC56C539C534FCC69CE709557EABB69390139B1AD9EC4A4207	9/1/2022	8/31/2032
C=US, O=Brown Brothers Harriman & Co., CN=Brown Brothers Harriman Public Issuer CA	FB586897D15FF353CFE83F9B214D234310A191E0CC63C0808E40E981754DD5A6	9/25/2020	9/24/2030
C=US, O=eGlobalCustody, CN=eGlobalCustody Public Issuer CA	1E1E62AE4F4721617A2CA0E3F7CA6D843AE7530151B9D8C19B5D07D4BDB33324	9/25/2020	9/24/2030
C=ZA, O=Nedbank Limited, OU=Digicert PKI Platform Individual Subscriber CA, CN=Nedbank Limited Public CA-2	F392F1416B914915D910F7A7289B0636019823F3828416F55DC3EB044E13DB91	8/3/2022	8/2/2032



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=Brown Brothers Harriman & Co., OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Brown Brothers Harriman G3 CA	B3FAEBD9495096D2C5B26CE20D7DE785DFF83CEA63BF9BC6605BC08B89996224	6/10/2014	6/9/2024
C=US, O=eGlobalCustody, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=eGlobalCustody G3 CA	2DE8DD6BE750435D703D60CF87D203AF12D1E0F2960691888F47546EED9087D6	6/10/2014	6/9/2024
C=CL, O=CertiNet S.A., OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=CertiNet S.A. Firma Electronica Avanzada - G2, emailAddress=certinet@certinet.cl	163DDECF86B4708A77705D106FD630C30331B1070C4BD9A36374AC0A68A83DD7	8/18/2015	9/15/2024
C=US, O=Comcast Corporation, CN=Comcast Trusted User RSA CA	9B8DD7F84D5AD52AADDEA5729A6DA865FF28EE944A8379FC274103B9B5F094D9	1/31/2017	1/31/2027
C=US, O=DigiCert, Inc., CN=DigiCert PKI Platform C2 Shared Individual Subscriber CA	69713E3E4E6E5AF51E302E95EEC2771EB06B79E81C5462594932ACB4E8A28D1C	5/29/2019	5/29/2029
C=US, O=National Geospatial-Intelligence Agency, CN=NGA CA G3	357985D17EF02893AB63FE0EE4C464B8AD3A4B05EF72B27AE73D7258C8996FB8	2/5/2020	2/5/2025
C=JP, O=Mitsubishi Electric Information Network Corporation, CN=Enterprise Premium Public CA	6D7B31B61ADB78EBC6A766296886209EA8E74F4600DAE47B78DA3F08BE79F4E5	3/13/2020	3/13/2030
C=NO, O=Telenor Norge AS, CN=Telenor Norge B2B2 CA	DDA4BE3F78C6D742B100146C26011B41752AEBB810C04588C3AF81F0D3451118	3/25/2020	3/25/2030
C=JP, O=Mitsubishi Electric Information Network Corporation, CN=Enterprise Premium Public CA	4A45559AD89684BB439FCD2CC4C5EC0F92EE0692CD6B9763957DE31A2F467CCA	4/29/2020	4/29/2030
C=NO, O=Telenor Norge AS, CN=Telenor Norge AS Dealer G2 CA	9C33CB6A76596752A0C7E51C72D480CE7876C772794EBEE5841FA07035E6E8E0	4/29/2020	4/29/2030
C=NO, O=Telenor Norge AS, CN=Telenor Norge AS EDC CA G2	56D58B26F45BF3878AF4397016A96AF486E9895F66C5F3B73175120B3B4E4A48	4/29/2020	4/29/2030
C=NO, O=Telenor Norge AS, CN=Telenor Norge AS NF CA G2	5752C5FBDC03543F0CEC6CD294CD965D8D32C4EAA993D550F24491ECF9B73836	4/29/2020	4/29/2030
C=NO, O=Telenor Norge AS, CN=Telenor Norge AS OTL CA G2	70340886D08FE1B093158F11A4CC2B2AD45A67F402632A040E9067C6E447E4FE	4/29/2020	4/29/2030
C=JP, O=Mitsubishi Electric Information Network Corporation, CN=Enterprise Premium Public CA	DF025DCE2A36411BE5EB6590C161EFD2652EC2B3F70D5C651F90D023C46F3A00	6/9/2020	6/9/2030
C=ZA, O=Absa Group Limited, OU=Class 2 DigiCert PKI Platform Individual Subscriber CA, CN=Absa Group Limited Public CA	8FB88641F4E231CE81436375138A5B36D2A06A3CC2A49E5B1F4699981BE1E451	8/5/2019	8/5/2029



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=Fidelity National Information Services, Inc., OU=Class 2 Managed PKI Individual Subscriber CA, CN=SGN FISGLOBAL PUBLIC CA	0AD6A7334A5A23C986980F6FECD25006B563A0B6F1BCAA65C0345BA2D96928D3	1/8/2019	1/8/2024
C=CH, O=World Intellectual Property Organization, OU=Class 2 Managed PKI Individual Subscriber CA, CN=WIPO CA - G4	16D809ED155C2AC7E9489E1A204116C9D16EFBE4C91F53369725A2B395535E28	1/29/2019	1/29/2024
C=US, O=Imprivata, OU=www.imprivata.com, CN=Imprivata Secure ID CA-1	B49B1B7209D1A83F6CDBBA743AD720ACC24440FB9002F9DDB3C6F2F5CE337A47	10/25/2016	10/25/2026
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Japan Class 1 CA	5077797A1815E48287385898618908BD7ED182D03725F03B02F13BFFD6652F6A	4/15/2014	4/14/2024
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Japan Class 2 CA	8C82B76FCA9CED6A0C6A7B3141CCB585EC941921EC0B33D956CB29071851C7D9	4/15/2014	4/14/2024
C=US, O=DigiCert Inc, CN=DigiCert Baltimore SMIME RSA SHA256 2020 CA1	D1E87FFD17F95602571D08ADBDA469A04B14258996EC09776CD953582AF0B87E	9/24/2020	5/11/2025
C=AU, O=Fuji Xerox Businessforce Pty. Limited, CN=Fuji Xerox Businessforce CA - G2	A12A8446C0E1E5CF4079642B31A0675ECFD1D09FAD2E4884591F380026D9EAEF	9/25/2020	9/24/2030
C=US, O=Common Securitization Solutions LLC, CN=CSS Public Issuing CA G2	D040BEF3C50B536E2E8DA2AD7721A772C76B718FF10165D5AA88674C233E3766	9/25/2020	9/24/2030
C=US, O=General Electric Company, CN=GE SMIME Issuing CA 3	BDE2A6CEC1A1C04C2E423C1457949F180ED086E021BBF090556BE3CE6AD1863F	9/25/2020	9/24/2030
C=US, O=Fannie Mae, CN=Fannie Mae Shared Online CA G2	28F7CD588FC5B0DF460DD4C678F9DC51077A0E89D38DCCBA09BC1AEEE9D698C1	9/25/2020	9/24/2030
C=US, O=Honeywell International Inc., CN=Honeywell International Co-branded CA - G2	B78DFC942032C042CD45490E3B32433CA167067B330B52CB1453EA3AD5819080	9/25/2020	9/24/2030
C=US, O=City of New York, CN=City of New York Office of the Actuary - G3	2431090A8009CA6F9F44DCC9E5FBD3C2F4A3152185BDA08ED313B861D895F7B4	10/21/2020	10/20/2030
C=US, O=Honeywell International Inc., CN=Honeywell International Co-branded QA CA - G2	55F064E2983EEB9AAA54229F8E35023ED10AC6BA19188B05C247BC0E79F85ACB	10/21/2020	10/20/2030
C=AU, O=Attorney Generals Department, CN=Attorney Generals Department Public CA - G2	F4DC92DB2CD8B9158D011335A95BB61BD340ACE2E5BDC8816373ABC2D31D288	10/28/2020	10/27/2030
C=US, O=Symantec Corporation, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Symantec Class 2 MPKI Individual Subscriber CA - G3	A67582B9277224D9801027217156D283136B29FD2F33031781F604EB807970D7	11/15/2016	11/14/2026



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=Symantec Corporation, OU=Symantec Trust Network, OU=Universal Root Managed PKI Individual Subscriber CA, CN=Symantec Shared Individual Email Certificate Authority	B7021BCF346E8502B1275F80057F3B97467AC8B8A761608340ECF8484EC3848C	8/22/2017	8/21/2027
C=US, O=Common Securitization Solutions LLC, OU=Class 2 DigiCert PKI Platform Individual Subscriber CA, CN=CSS Public Issuing CA	00BFE5177DA40E040506A04417FB4B8064816B5D875852A07FC3A36700091080	10/31/2019	10/31/2029
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert SHA2 Assured ID CA	A542BCA09C5E4579C619774AE59082BCE0F86D261C5A7A5A0F6217C10279EA7C	11/5/2013	11/5/2028
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Document Signing CA	B9C3073AAD74B368832F5497958E279B1D2777CAF8841713B28AB10A4BAA0810	11/5/2013	11/5/2028
C=US, O=SRI International, CN=SRI International CA - G3	A6D9A37927349DE7464C8DA63F601CE55C214BEFD7B324679E64E1B30F75CEFF	1/27/2020	1/27/2030
C=US, O=Adobe Inc, CN=Adobe Public Issuing CA	7B6BA0B173658101250395D547643037A68216155270BC9BA46B358C3B77E90E	2/5/2020	2/5/2030
C=SE, O=Volvo Car Corporation AB, CN=Volvo Car Corporation CA	B1D29BE013CF27982AAAB694785A3E9F5A169A682F8B8D38677694670C428288	2/5/2020	2/5/2030
C=US, O=Thomson Reuters Special Services LLC, CN=Thomson Reuters Special Services CA - G2	B84D709820A8FEB41CE1872E237260B446F99BD3CC158F7738D9146B13FAE64E	3/25/2020	3/25/2030
C=JP, O=ZIPAIR Tokyo, K.K., CN=ZIPAIR-Public-CA	7E882B1CC5439B7FB95A05943C5A8F40DAE75AADBB6B624C55EDD94624EFA0E3	3/25/2020	3/25/2025
C=CH, O=STMicroelectronics International N.V., CN=STMicroelectronics Public User CA1	CE15B88ECA32A371D0B51B3B04759055D6A8FF0C3D1A0D60488DF356DC050E55	4/29/2020	4/29/2030
C=AU, O=NBN Co Limited, CN=NBN CO Limited Public Issuing CA - G3	4708DD6D092D7FB5958F5B43501F6173FB9669EDB05AFD4BBCCDD2D5068D8D0	6/9/2020	6/9/2030
C=SG, O=National University of Singapore, CN=National University of Singapore CA - G3	7C29A15B74F9171BE581630394B83791120EABCBA8B9387538BDF50F9D96EAFE	7/16/2020	7/16/2030
C=SA, O=Saudi Basic Industries Corporation (SABIC), CN=Saudi Basic Industries Corporation Issuing CA	3AB4DE79829AF704A1DD79B13892BBAE44B2770F88AE833450F5B1D33802F0C4	7/16/2020	7/16/2030
C=US, O=FedEx Corporation, OU=Class 2 DigiCert PKI Platform Individual Subscriber CA, CN=FedEx Public Online CA	AA942E512B4287D5BEEC85A1C5A81C2DDD136B3CC7065B6830F0685110530412	9/23/2019	9/23/2029
C=DE, O=Duerr IT Service GmbH, OU=Class 2 DigiCert PKI Platform Individual Subscriber CA, CN=Duerr Group Global IT CA	B48CF36ABB49825C3B7C407866958C24085C938C60C7C1A48A18D00859CA348C	9/23/2019	9/23/2024



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=International Business Machines Corporation, OU=Class 2 DigiCert PKI Platform Individual Subscriber CA, CN=IBM Certification Authority G4	60F53E603B0EFA71C6CC34B6E87C1145F70DC942C89F71763D90FE18E7AC589E	9/23/2019	9/23/2029
C=SA, O=Saudi Enaya Cooperative Insurance Company, OU=Class 2 DigiCert PKI Platform Individual Subscriber CA, CN=Saudi Enaya Public Issuing CA	8F76367A7ADAE4642258E6586A2A9642A00F3ECBB1EB725F18B5E7AD3D95AED9	10/31/2019	10/31/2024
C=GB, O=Kainos Software Ltd, OU=Class 2 DigiCert PKI Platform Individual Subscriber CA, CN=KAINOS-PUBLIC-TRUST	802E0B133D61441A0A6AF799DC5E4B260972990D6DCB87DC0ACFC585D9082610	11/26/2019	11/26/2029
C=IT, O=Telecom Italia Trust Technologies S.r.l., OU=Digital Identity and Security, CN=Trust Technologies Global Client CA	AA6A2380A7E8254DAD4620AE0895DE74047F33F5268758DCF27C4D280B384A50	8/24/2017	5/10/2025
C=US, O=Government of the District of Columbia, OU=Office of the Chief Technology Officer, CN=DC Government SHA2 Assured ID Intermediate CA	FB1147E7AB97A29BB9C1140ABF3DE831F4C5F60D11B90FEC999A0816375D8457	7/13/2017	7/13/2027
C=CN, O=TrustAsia Technologies, Inc., OU=www.trustasia.com, CN=TrustAsia Secure Email CA	047217772051D292238F3355F5C5435E9B84364CCD143FC49F9C31CD605439F0	4/27/2018	4/27/2028
C=CN, O=TrustAsia Technologies, Inc., OU=www.trustasia.com, CN=TrustAsia Secure Enterprise Email CA	3D774B65EE95FD6EFD1C8732B57E607C9BEE423C36E46F6E1CC8CA1F0AE62E23	4/27/2018	4/27/2028
C=US, O=APX Inc, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=APX Public CA	8B1C10711C007BE2ABF9BF6C79CE5EBD5F8EAC36D5037228237AEFB236BF2A91	4/4/2014	4/3/2024
C=US, O=Thomson Reuters Special Services LLC, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Thomson Reuters Special Services CA	BFC05BC249D92B892CE288A0E85F0E96BB9150F741719D9B73EB41EB89D49241	3/5/2015	3/4/2025
C=US, O=United Launch Alliance, LLC, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=ULA CA - G3	232AD338F64E3FC71048E1D6CCC96EA6FD5782274AA96FD618F5425087BA2FFE	8/31/2017	8/30/2027
C=US, O=DigiCert, Inc., CN=DigiCert PKI Platform C2 Shared SMIME Individual Subscriber CA	55F3A359F0A26D72FF244C2EE396FD51BC2400EA250C91EFC355E2F8103C9939	6/4/2019	6/4/2029



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=Avaya Inc, OU=Avaya IT, OU=Class 2 DigiCert PKI Platform Individual Subscriber CA, CN=Avaya Client Services Users CA 2	1FFA0D1F55CE4A0507E8C38E8B557B88CBDD690D903D996B1F7850D81D6A4A93	11/26/2019	11/26/2029
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Assured ID Client CA G2	9E12D6E13DD53A890A2B3A37423AE5E457731A7B34A153992F1EF1F5489A45E	9/23/2019	9/23/2034
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Global Client CA G2	A449DBAB6D4C035FAAFD9D045891FE98ABD73D286268A8A83F854145551692E3	9/23/2019	9/23/2034
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert EV Code Signing CA (SHA2)	C7460B0EDDA1B44C8E2164B234EBECC3962A6A37A936B74A6E7D46682938F084	4/18/2012	4/18/2027
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 SHA256 Code Signing CA - G2	2042E38FC57388F1DB3222C7AB5BE11C6EDB7E454BF45487AE44FF2D6A2B7645	7/22/2014	7/21/2024
C=US, O=Abbott Laboratories Inc., CN=Abbott Laboratories Secure Code Signing CA	5F1A82C09CBAE239D4E3F0704C970755547E53E3CF290F9479FE7E98665FEF0F	6/7/2016	6/7/2026
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert SHA2 Assured ID Code Signing CA	51044706BD237B91B89B781337E6D62656C69F0FCFFBE8E43741367948127862	10/22/2013	10/22/2028
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert SHA2 High Assurance Code Signing CA	C51B83A0DE49A201A5FBE947032C04702F8CA7C2D02ADF28B73D42C8ACD1C362	10/22/2013	10/22/2028
C=US, O=Riverbed Technology, Inc., CN=RVBD Certificate Issuer	72563CC98ADA2C5D2126542ACC908154AEB1F9D6F7E83A55C09744C7D7ADDDDBA	11/20/2018	11/20/2028
C=US, O=Riverbed Technology, Inc., CN=Riverbed Certificate Issuer	BB39497035ED9583D286CDE70FB644EB95806598092B1E8D8F11BC035D7A476A	11/20/2018	11/20/2028
C=NL, ST=Noord-Holland, L=Amsterdam, O=TERENA, CN=TERENA Code Signing CA 3	B7C6EBDC2A1B65EF1836DC00250C44E15703121052C1AB6B9D0385A058153AE3	11/18/2014	11/18/2024
C=US, O=.NET Foundation, CN=.NET Foundation Projects Code Signing CA	024F162B1D09F6A0868C38B4C8B4257C1EEA6C5A31589416D520CF1624917EB3	4/27/2018	4/27/2028
C=CN, O=WoSign CA Limited, CN=WoSign EV Code Signing Pro CA	F6DFDED61FF88EF10B9E6DCFBCE0F1615E05866CEBAFCD6D48AEE80132C70347	5/23/2017	5/23/2027
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert SHA2 Assured ID Code Signing	4ADB819C250A2E183313405499D8735299C88F970A5019A27566B27E5818F41B	4/27/2018	4/27/2028
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert EV Code Signing CA (SHA2) G1	8A78B966C73D769040C1A81C32168CEF8B9B9E96ECC2D33CC4ABB5A0CF8C1C67	4/27/2018	4/27/2028
C=US, O=Fresenius Kabi AG, CN=Data Management Intermediate CA2	422F9D4E68134E362B7569E5298A173CEC40C7C7274B2263A9BC8ADA1D1A23FA	10/9/2020	8/25/2025
C=US, O=DigiCert Inc, CN=DigiCert Secure Auth CA2	4759D6F4ED6DF0E08FC4CA801986E2BE10594DBAF341B4C45ABAF3748887D25	10/9/2020	10/8/2030
C=US, O=DigiCert Inc, CN=DigiCert SHA2 Secure Server CA	C1AD7778796D20BCA65C889A2655021156528BB62FF5FA43E1B8E5A83E3D2EAA	9/23/2020	9/22/2030



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=Cisco Systems, Inc., CN=Cisco Meraki CA2	CDBCBEF16E37237702FACC4B55D3AB92A17CFA17835E13377AA4D2BA0FD47A02	9/24/2020	7/12/2026
C=US, O=DigiCert Inc, CN=DigiCert TLS RSA SHA256 2020 CA1	25768713D3B459F9382D2A594F85F34709FD2A8930731542A4146FFB246BEC69	9/24/2020	9/23/2030
C=US, O=DigiCert Inc, CN=DigiCert Cloud Services CA-1	5F88694615E4C61686E106B84C3338C6720C535F60D36F61282ED15E1977DD44	9/25/2020	9/24/2030
C=US, O=DigiCert Inc, CN=DigiCert Global G2 TLS RSA SHA256 2020 CA1	1F8EB9E9A8E066CC5B3833E06B3129764B622639D5B163F600E1C79120BF3EED	9/24/2020	9/23/2030
C=US, O=Bloomberg LP, CN=Bloomberg TLS CA	440B37416F2DE852CA386150D611EC0AF31DD58D8A27F882815A7EA3EE6848EE	9/24/2020	9/23/2030
C=US, O=Plex, Inc., CN=Plex Devices High Assurance CA3	FB6060848440AA4594FE8109741EFAB40C56732B26C67C36D6DC945BB2FE13CF	9/24/2020	5/19/2025
C=US, O=Aetna Inc, CN=Aetna Inc. Secure EV CA	A1448A015E1399C5A891812F0E88C6D847B221D21F9326A6626BA43A0EB612D9	9/24/2020	12/9/2024
C=US, O=Aetna Inc, CN=Aetna Inc. Secure CA2	DDCBB4F3051D6E601310EB0E46B5BB99C5E8B99F7A539E367A987DEA030E318E	9/24/2020	12/9/2024
C=US, O=DigiCert Inc, CN=DigiCert Baltimore TLS RSA SHA256 2020 CA1	38F73647F1ECAECC0FC5AFE68AC30E0C26171E9F232F4530729412408FD53626	9/24/2020	5/11/2025
C=US, O=CrowdStrike, Inc., CN=CrowdStrike Global EV CA	8CD728F9C3391BA4360A10C66CA484C807651D6207F10633669ED8881FE91BF5	2/21/2020	11/9/2031
C=US, O=DigiCert Inc, CN=DigiCert High Assurance CA-3b	4E30F8004C18D3D798EC5A7734346B5A5EBE8D54423CE98257FC57735A6F738D	5/28/2020	11/9/2031
C=US, O=Cloudflare, Inc., CN=Cloudflare Inc RSA CA-2	AEC863898F284D6CD4C6A3F6C3E6523480A359C33DAF66FAD3381849B8BB018B	1/27/2020	12/31/2024
C=NL, O=SupremeSSL, OU=www.supremessl.com, CN=GeoTrust SupremeSSL 1 CA	354FCFC6162A0EE2205DBEF68931E78033ECE9D125E0824E49BAEBF82DFDD167	5/7/2019	5/7/2029
C=US, O=DigiCert Inc, CN=DigiCert Trust Service CA	75AC8E41D9A7CC758D3998FE030F638CFD28855823DA4E9B56954CFBDE054EB6	3/4/2020	3/4/2030
C=US, O=DigiCert Inc, CN=GeoTrust RSA CN CA G2	E3C24279DD6A337F881B1BC692E878F4A31AFE95851F208F94800B0C24D88C38	3/4/2020	3/4/2030
C=US, O=DigiCert Inc, CN=DigiCert Basic RSA CN CA G2	CB57B3FF2040CB269497625BC90FA9D7B4ED4938C6F60F42F69AFDF508AC2993	3/4/2020	3/4/2030
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Secure Site CA	B26EB310F8FAF0EF5B0D0B71AA65EC050FA3ADE29134FB438AB6440288FA6E67	5/17/2018	5/17/2030
C=NL, O=Trust Provider B.V., CN=Trust Provider B.V. TLS RSA EV CA G2	B23A29C312A7A80B0FE6B4E71B909CAE92AD649E88766E56C9EE8E1D7C013945	2/21/2020	2/21/2030
C=CN, O=TrustAsia Technologies, Inc., CN=TrustAsia EV TLS Pro CA G2	0D51B6CDCF34A9F22144787F3FD920DC8800FB60490BFC8D289A1953E0FBDA4D	6/20/2019	6/20/2029
C=US, O=DigiCert Inc, CN=DigiCert High Assurance Trust Service EV CA	72D0F7CBF4529B80C34A7CBB438BD1D0E1FC26E80E59CBD4FD7314FCDDF0E994	3/4/2020	3/4/2030



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=DigiCert Inc, CN=GeoTrust EV RSA CN CA G2	8937E90E1495C9A78EFB18182D43FDC73FCD292AB6347A12B9077DE878530E62	3/4/2020	3/4/2030
C=US, O=DigiCert Inc, CN=DigiCert Basic EV RSA CN CA G2	B41A4864F0D4EC4EA632D01B3E7F232775E55E22B3BFD8642EE1292280D0E47A	3/4/2020	3/4/2030
C=US, O=DigiCert Inc, CN=DigiCert Assured ID TLS CA G2	77CD51784A693D9482E7EA694E4053BCFD9DF65580FBCE14B2A7527C081803E1	3/25/2020	3/25/2030
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert CN RSA EV CA G1	B131905CC7221270613B529AC9E786AA230ABFE154A0ACBE452BC350BD1EFE4B	6/20/2019	6/20/2029
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Secure Site Extended Validation CA G2	B6EB4F8AD197073FE5203F8FCEBFD5C509CDE9CA3AA65EC59D203831424192D4	6/20/2019	6/20/2029
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=GeoTrust EV CN RSA G1	C87CE03AFFB5DE6319C219971F2ED2D8F6F5389E2D53B22DD2C562A5C9827FC0	6/20/2019	6/20/2029
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Thawte CN RSA EV CA G1	ADA188F830C313F6046488EC341F1ED4AF793C6DC28C58600445DFBEB4163746	6/20/2019	6/20/2029
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Secure Site Pro Extended Validation CA G2	40D69920EA05456FA0117DE608B8A8013790B542097E343EC1CBCE2DFB9713B0	6/20/2019	6/20/2029
C=US, O=DigiCert, Inc., OU=www.digicert.com, CN=DigiCert Global CA-3 G2	9B2DD4FBEE941F6510F716C04969B36428892765461701EF47D41B3289475D50	11/12/2019	11/12/2029
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Secure Site Korea EV CA	C022D5CEAA275F2A6268FA79AC35653B3A730DEFA41F9CD8817D6D159BD33097	3/25/2019	3/25/2029
C=US, O=DigiCert, Inc., OU=www.digicert.com, CN=DigiCert SHA2 Extended Validation Server CA-3	085A0714524DF7AE9919A6F597884439E12A533E61552D29D6A18C35096FC548	11/12/2019	11/12/2029
C=NL, O=SupremeSSL, OU=www.supremessl.com, CN=GeoTrust SupremeSSL EV 1 CA	0FB6CE80909D19AFEE6A88C959E9E9AA6466715BCE05C6449FEB530A086DAF14	5/7/2019	5/7/2029
C=US, O=DigiCert, Inc., OU=www.digicert.com, CN=DigiCert TLS ICA VRSN Universal	BA5B6E5DFEBDAE1C80BD72790BC85BCC6538AB4613023DA706CE826415F5E5B3	1/17/2019	1/16/2029
C=CN, O=TrustAsia Technologies, Inc., CN=TrustAsia OV TLS Pro CA G2	DBDFA91ACC4DB8AD83FCC7978E35D62F6E32E55108273C8EC998E3133580D664	6/20/2019	6/20/2029
C=CN, O=TrustAsia Technologies, Inc., CN=TrustAsia OV TLS Pro CA G3	D0E8A51ACAAB9AF82767E2EF16543C2CC635551B5DE0DAE25D6AAC71E7862870	3/13/2020	3/13/2030
C=US, O=DigiCert Inc, CN=DigiCert Secure Site CN CA G3	6AF5C4EAC180289B94A77A5D231E3865FFE934F3E6A24BF487EB4E2BFD809A4B	3/13/2020	3/13/2030
C=US, O=DigiCert Inc, CN=Thawte RSA CN CA G2	95141A355A5A2AA3E011221CAB9FE73810FDB5D88135864F03E4D852BD0BBEDB	3/13/2020	3/13/2030
C=US, O=DigiCert Inc, CN=DigiCert Secure Site Pro CN CA G3	A66C97AE59DFF9EA015E73C744EE5520745F101A395C497D19E1F168D39AFCD0	3/13/2020	3/13/2030



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=DigiCert Inc, CN=GeoTrust RSA CN CA G3	8A023C08E4A1AACC925B34C5C7965A8D0527565AEA130ABB915E508CD33AFB45	6/9/2020	6/9/2030
C=US, O=DigiCert Inc, CN=DigiCert Secure Site Pro EV CN CA G3	B75AEE9836FEFBC446F288A2970B84FC60AAF9EFBD2CB9F82F7581790DE4B8DC	3/13/2020	3/13/2030
C=CN, O=TrustAsia Technologies, Inc., CN=TrustAsia EV TLS Pro CA G3	9DB0A20C305541E15E818A880D06579876A9C901B8EECD968482C58D9BA7F0A7	3/13/2020	3/13/2030
C=US, O=DigiCert Inc, CN=Thawte EV RSA CN CA G2	69919D820EDF582ADBFCF8E092A9284D901772EE2B419EA9DE1F5872C791FC6FA	3/13/2020	3/13/2030
C=US, O=DigiCert Inc, CN=DigiCert Secure Site EV CN CA G3	139AC36BD85398BBB4588687C20DC36827D03A5F42AADF87F02BECC4BE9BFC2	3/13/2020	3/13/2030
C=US, O=DigiCert Inc, CN=DigiCert EV RSA CA G2	9588EF74199E45ACEFCFCFC0C47010E9F2A37A1DD44C61A4E1C6B334DA5AF614	7/2/2020	7/2/2030
C=US, O=DigiCert Inc, CN=GeoTrust EV RSA CA G2	2D140F20B8A96E2B4D2F1CC5ACA5E5A1E7DC56A7491E510906960F38D2D21AEF	7/2/2020	7/2/2030
C=DE, O=Legacy Technologies GmbH, CN=Legacy Technologies Intermediate	1032C6001ED664A0CD343B138BCB6860E2111011C3D5F06540F5BE41147812A5	7/2/2020	7/2/2030
C=US, O=DigiCert Inc, CN=Thawte EV RSA CA G2	3286691412F30ECE5C065FD62F4392A4762D1E77815338359DF390299FBD61EF	7/2/2020	7/2/2030
C=JP, O=DigiCert Japan G.K., OU=www.digicert.co.jp, CN=DigiCert Secure Site Japan CA	AD14A68BEC949E84F6063419D63465D137C2ADD3E3A85E00E9E3EE82E5B4018F	11/20/2018	11/20/2028
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert CN RSA CA G1	03CE9BC71B91FDB7CB3C5235CAE0701CB486BBD628D4AADE5841FC5F0AA37A46	6/20/2019	6/20/2029
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Secure Site CA G2	F614AE2B101484F15F66F4DDA56EE6EB422728F179D94399EDE19AC1D85A8BD3	6/20/2019	6/20/2029
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Secure Site Pro CA G2	02FED3BA2E6A7843A318A981BC847061FD282D9E8847FFA9F54D785B6B81D6F3	6/20/2019	6/20/2029
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Thawte CN RSA CA G1	7867AAE905EB8D55635FFEBBBF8CF05A63B9B390665DE2367AC1073E92913728	6/20/2019	6/20/2029
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=GeoTrust CN RSA CA G1	23DDF08B22373D86158EB9C99FDB5366B19804560531372DD20DCE3FB766F56C	6/20/2019	6/20/2029
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Secure Site Korea CA	6555D661D37F249A23C2D5F83479E78051B6DE76A147B506D6BEA2882B4D066	11/20/2018	11/20/2028
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Thawte Partner CA	635AF6889F49060FE0E7BABC0F23314FB118F3B18243DD17F47D8647A69684B1	11/20/2018	11/20/2028
C=GB, O=TRUSTCUBES LIMITED, 1.3.6.1.4.1.519.1=223013701, 1.3.6.1.4.1.52266.1=984500505FE80CD0NE58, OU=www.trustcubes.com, CN=TrustCubes ICA G1	2106CC7907C64B8A5DA2FC338EE94DFFF10EF711DEDBB4FC694EE092EC532B1D	7/18/2018	7/18/2028



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=DigiCert, Inc., CN=DigiCert QV TLS ICA G1	93E33AF7DA3030530D090C9C55762CADE7EAE943F834349D1057A90EB67F306B	3/16/2020	3/14/2030
C=US, O=DigiCert, Inc., CN=DigiCert QV EV TLS ICA G1	6A7B2AA3414039A663D5D8BBAB8256A3979A84C332BF5E1EE8F6D0E0ADA84668	3/16/2020	3/14/2030
C=DE, O=Daiichi Sankyo Europe GmbH, CN=Daiichi Sankyo Europe GmbH Issuing CA	A34B4B3BA3B93302804740CFF3F01A9C0FD9CFEE5A193C997B87C5BE43A9E94	9/25/2020	9/24/2030
C=DE, O=OSRAM Continental GmbH, CN=OSRAM Continental Secure Email CA - G2	B5D61B50ACB993A27EF05D4324A04A671CEE7502E62BA5E9122CC2100BDF6CF	9/25/2020	9/24/2030
C=DE, O=OSRAM Continental GmbH, OU=Class 2 DigiCert PKI Platform Individual Subscriber CA, CN=OSRAM Continental Secure Email CA	D87A91DAC26D64E3659507119E80B11BE37ADA87A8D6C01E4E175DBB32B1A0D3	11/26/2019	11/26/2029
C=IL, O=ITsMine LTD, OU=Class 2 DigiCert PKI Platform Individual Subscriber CA, CN=ITsMine Document Signing CA	965BD258388DDDD4EA7BAAF7754DF49F896CF02E15BE0925DE33B0038E9925F	8/5/2019	8/5/2029
C=US, O=.NET Foundation, CN=.NET Foundation Projects Code Signing CA2	D60D2D02F83920E89C0063AECA7C4630642C80EB824FFE43D9A11C250E5F51B9	7/15/2021	7/14/2031
C=US, O=DigiCert, Inc., CN=DigiCert Trusted G4 Code Signing RSA4096 SHA256 2021 CA1	47818F36F1DBA7D4F2A29360DB710E9BD75E3B13613618AAD45C01A10626523A	7/28/2021	7/27/2036
C=US, O=Abbott Laboratories Inc., CN=Abbott Laboratories Secure Code Signing CA - G2	481E80747EC14339A968C374B8BDF3FFA6EBB1F38A09E7D01360DE265BE7B90C	11/19/2021	11/18/2036
C=US, O=DigiCert, Inc., CN=DigiCert Secure Auth CA3	4A5B67AE540E54E158B0976F82FCFBD70BBA5C63CA1A5826819810212732B646	3/31/2022	3/30/2032
C=CH, O=World Intellectual Property Organization, CN=WIPO CA - G5	ECB4DDD4C2CD5FB973C724315A1A2317773254623560FBA860804508538D466C	3/8/2022	3/7/2032
C=US, O=VMware, Inc., CN=VMware Issuing SM	2996B56FE08307B04F8963B83F4AFAC25F47C34B33C25DB399F3A850D158C9F1	7/2/2020	7/2/2030
C=US, O=DigiCert, Inc., CN=DigiCert G5 Code Signing RSA4096 SHA256 2022 CA1	2DDE0BF74C225CE090EEB57F60A4C307E636B9B0DB20ECD362EEA49AB9AC46BC	5/19/2022	5/18/2037
C=US, O=Riverbed Technology, Inc., CN=Riverbed Certificate Issuer - G2	8EF3DB3C6DD26AE8B6DF5087FDAFE023092CC524F8E0271A45FE9416AEF43854	12/7/2021	12/6/2036
C=US, O=Riverbed Technology, Inc., CN=RVBD ENG Certificate Issuer - G2	AB422C705556BB41DB8663FFBF288B91E16B06EBCB5BAD1095B4FACB38FE39	12/7/2021	12/6/2036
C=LV, O=EnVers Group SIA, CN=GoGetSSL G4 CS RSA4096 SHA256 2022 CA-1	D5B54EBE9373F451FF0AE7CD6BC6A1FB2BD03EE9C54AB4CA019ACFC14B6E50D6	6/23/2022	6/22/2032
C=US, O=DigiCert, Inc., CN=DigiCert G5 CS RSA4096 SHA384 2021 CA1	26A9454579B138E765087276AF42C1C206C8B2ED0DE6639D1BA992626A797A91	2/11/2021	2/10/2036
C=US, O=DigiCert, Inc., CN=DigiCert G5 Code Signing RSA4096 SHA384 2022 CA1	F8D85D3FA345C654CF794DD3C8CE96866960505A170F7A057B5C5086208C9FA3	5/19/2022	5/18/2037
C=US, O=DigiCert, Inc., CN=DigiCert Trusted G4 Code Signing RSA4096 SHA384 2021 CA1	46011EDE1C147EB2BC731A539B7C047B7EE93E48B9D3C3BA710CE132BBDFAC6B	4/29/2021	4/28/2036



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=AU, O=Verkey, CN=Verkey High Assurance Secure Code EV	E03E9D15D653BCA7181522B98CBA4311E509FB81BF4FA646DDFA569B001C8E63	3/17/2022	3/16/2037
C=AU, O=Verkey, CN=Verkey Secure Code	3877D964C1983E41940D849D3ABB5EF0C8CA07D430B0DA779067E29FB700797E	3/17/2022	3/16/2037
C=US, O=DigiCert Inc, CN=DigiCert Trusted G4 TLS RSA SHA384 2020 CA1	4F35C6B9C100905FF25BB01C0A20EBE335BCEEF249CE9FFA1E11E062ED66FCD1	9/24/2020	9/23/2030
C=US, O=DigiCert, Inc., CN=DigiCert G5 Code Signing Europe ECC P-384 SHA384 2023 CA1	18A15F14E6C625C40D46611C80A84E235369F5B97ABD6B851CCDB550E6A33555	2/14/2023	2/13/2038
C=US, O=DigiCert, Inc., CN=DigiCert Global G3 Code Signing Europe ECC P-384 SHA384 2023 CA1	5903EE782F4FA2072EDCC94B8CC3DE6AE4AB27B3A07925926289467D5501F371	2/14/2023	2/13/2033
C=US, O=DigiCert, Inc., CN=DigiCert Assured ID G2 Client Europe RSA4096 SHA256 2023 CA1	79A7354CB43093E182240970EF186A4F4A23471C67B6FA3D0E30043AF30FDEF8	2/23/2023	2/22/2033
C=IE, O=DigiCert Ireland Limited, CN=DigiCert Assured ID G2 Client 2FA Europe RSA4096 SHA256 2023 CA1	70B2A6C71F1969DA8B4E1B95E8422EF8CDDF31FCA5B2308E8AB634C42DA96B4B	3/30/2023	3/29/2033
C=US, O=DigiCert, Inc., CN=DigiCert Trusted G4 Code Signing Europe RSA4096 SHA256 2023 CA1	E2612327EAF98AF9423EFEA184368E19BF9798D7DCEE0C5CF8E792C8893ED9F0	2/14/2023	2/13/2033
C=US, O=DigiCert, Inc., CN=DigiCert G5 Code Signing Europe RSA4096 SHA384 2023 CA1	061D67CC7000C1406A24B51F22BE26857100521710E7CD80BAA521E3675BA1AB	2/14/2023	2/13/2038
C=US, O=DigiCert, Inc., CN=DigiCert Trusted G4 Code Signing Europe RSA4096 SHA384 2023 CA1	086528D3B9FDB2577D82790E48A003DE74D74E4D8CBC44765F6F924A9D3FFB82	2/14/2023	2/13/2033