



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 as enumerated in [Attachment B](#), DigiCert has:

- disclosed its SSL certificate lifecycle management business practices in the applicable versions of its DigiCert Certification Practices Statement (“CPS”), DigiCert Certificate Policy (“CP”) and DigiCert Certificate Policy and Certification Practices Statement for Public Trust Store PKI Services (“CP/CPS”) as enumerated in [Attachment A](#), including its commitment to provide SSL certificates in conformity with the CA/Browser Forum Requirements on its [repository](#), and provided such services in accordance with its disclosed practices
- maintained effective controls to provide reasonable assurance that:
 - the integrity of keys and SSL certificates it manages is established and protected throughout their lifecycles; and
 - SSL subscriber information is properly authenticated
- 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 September 1, 2023 to August 31, 2024, based on the [WebTrust Principles and Criteria for Certification Authorities - SSL Baseline - Version 2.8](#).

The CA/Browser Forum Baseline Requirements for the Issuance and Management of Publicly-Trusted TLS Server Certificates requires compliance with the Network and Certificate System Security Requirements (“Network Security Requirements”) as set forth by the CA/Browser Forum. The relevant principle and criteria are included as part of WebTrust Principles and Criteria for Certification Authorities - Network Security, which are reported on under separate cover.

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 - SSL Baseline - Version 2.8](#).



Independent Accountant's Responsibilities

Our responsibility is to express an opinion on 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 judgement, 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 unauthorised 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 #1891531 that it issued 27 EV SSL certificates with "Government Entity" listed in

Matter Topic		Matter Description
		the Subject:Serial Number field instead of the registration number.
		DigiCert disclosed in Mozilla Bug #1894560 that it issued 10,926 EV certificates with incorrect businessCategory capitalizations.
		DigiCert disclosed in Mozilla Bug #1910258 that it issued one (1) TLS certificate that had an incorrect Subject Organization Name.
2	Certificate Revocation	DigiCert disclosed in Mozilla Bug #1896053 that it did not revoke 3,788 TLS certificates within the Baseline Requirements timeframe.
		DigiCert disclosed in Mozilla Bug #1910805 that it did not revoke 83,267 TLS and 1,308 S/MIME certificates within the Baseline Requirements timeframe.
3	Subscriber Registration	DigiCert disclosed in Mozilla Bug #1910322 that it issued 83,267 TLS and 1,308 S/MIME certificates where the random value used in the DNS-based validation was not properly using an underscore prefix.
		DigiCert disclosed in Mozilla Bug #1914911 that it issued 185 TLS certificates with an Issuer Domain Name that DigiCert had not disclosed in Section 4.2 of their CP/CPS.

While the DigiCert assertion notes all issues disclosed on Bugzilla from September 1, 2023 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 - SSL Baseline - Version 2.8](#).

Use of the WebTrust Seal

DigiCert's use of the WebTrust for Certification Authorities - SSL Baseline 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 or provide any additional assurance.

BDO USA

November 27, 2024



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

Certificate Policy/Certificate Practice Statement¹

Policy Name	Version	Effective Date
DigiCert Certificate Policy and Certification Practices Statement for Public Trust Store PKI Services	7.01	August 27, 2024
DigiCert Certificate Policy and Certification Practices Statement for Public Trust Store PKI Services	7.00	July 29, 2024

Certificate Policies

Policy Name	Version	Effective Date
DigiCert Certificate Policy	6.06	May 23, 2024
DigiCert Certificate Policy	6.05	January 10, 2024
DigiCert Certificate Policy	6.04	December 14, 2023
DigiCert Certificate Policy	6.03	November 09, 2023
DigiCert Certificate Policy	6.02	September 07, 2023
DigiCert Certificate Policy	6.01	September 05, 2023
DigiCert Certificate Policy	6.00	August 16, 2023

Certification Practice Statements

Policy Name	Version	Effective Date
DigiCert Certification Practices Statement	6.06	May 23, 2024
DigiCert Certification Practices Statement	6.05	January 10, 2024
DigiCert Certification Practices Statement	6.04	December 14, 2023
DigiCert Certification Practices Statement	6.03	November 09, 2023
DigiCert Certification Practices Statement	6.02	September 07, 2023
DigiCert Certification Practices Statement	6.01	September 05, 2023
DigiCert Certification Practices Statement	6.00	August 16, 2023

CA Locations In-Scope

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

¹ Effective July 29, 2024, the DigiCert Certificate Policy and DigiCert Certification Practices Statement combined into the DigiCert Certificate Policy and Certification Practices Statement for Public Trust Store PKI Services.



ATTACHMENT B - LIST OF CAs IN SCOPE

Root CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=IE, O=Baltimore, OU=CyberTrust, CN=Baltimore CyberTrust Root	16AF57A9F676B0AB126095AA5EBADEF22AB31119D644AC95CD4B93DBF3F26AEB	5/12/2000	5/12/2025
O=Cybertrust, Inc, CN=Cybertrust Global Root	802447EE521CC666CDB7BBAE93A385E55F200D76A3D1356A85445AC4CBDBED12	1/8/2014	12/15/2030
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=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Assured ID Root G2	7D05EBB682339F8C9451EE094EEBFEDA7953A114EDB2F44949452FAB7D2FC185	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 Client ECC P384 Root G5	CD851C5C25467C0095A43927D0B2292D932975E84DCE4C5E794542C6574C3AA4	1/15/2021	1/14/2046
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 CS ECC P384 Root G5	26C56AD2208D1E9B152F66853BF4797CBEB7552C1F3F477251E8CB1AE7E797BF	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=DigiCert, Inc., CN=DigiCert ECC P384 Root G5	C1468CF2254E6004B24696ABA209D1A30BA6E2DFF68A9A4E32C6AB414F90C8D9	1/15/2021	1/14/2046
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 Global Root G2	CB3CCBB76031E5E0138F8DD39A23F9DE47FFC35E43C1144CEA27D46A5AB1CB5F	8/1/2013	1/15/2038
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 High Assurance EV Root CA	7431E5F4C3C1CE4690774F0B61E05440883BA9A01ED00BA6ABD7806ED3B118CF	11/10/2006	11/10/2031
C=US, O=DigiCert, Inc., CN=DigiCert RSA4096 Root G5	E46A392204A8DCA342A71C1CA9A60C9185B9A930370120C3B9C7E3856F0D8F3B	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 SMIME RSA4096 Root G5	90370D3EFA88BF58C30105BA25104A358460A7FA52DFC2011DF233A0F417912A	1/15/2021	1/14/2046
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 TLS RSA4096 Root G5	371A00DC0533B3721A7EEB40E8419E70799D2B0A0F2C1D80693165F7CEC4AD75	1/15/2021	1/14/2046
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Trusted Root G4	552F7BDCFA1A7AF9E6CE672017F4F12ABF77240C78E761AC203D1D9D20AC89988	8/1/2013	1/15/2038
C=US, O=DigiCert, Inc, OU=www.digicert.com, CN=DigiCert Universal Transition Root	AF0E363CAE6DF489F2976A284D12D4C33C94B135FA77F89E89298D7491E99974	12/8/2017	12/8/2037



Root CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, S=Utah, L=Lehi, O=DigiCert, Inc., OU=www.digicert.com, CN=DigiCert Verified Mark Root CA	504386C9EE8932FECC95FADE427F69C3E2534B7310489E300FEE448E33C46B42	9/23/2019	9/23/2049
C=US, O=WFA Hotspot 2.0, CN=Hotspot 2.0 Trust Root CA - 03	A3CC68595DFE7E86D8AD1772A8B5284ADD54ACE3B8A798DF47BCCAFB1FDB84DF	12/8/2013	12/8/2043
C=NL, O=QuoVadis Trustlink B.V., CN=QuoVadis Client ECC P384 Root G4	D3C07AC44BD8FF1975BC62F1C7E9840EA8E188A4BA51133B8C4EFF05E34A2729	3/16/2023	3/9/2048
C=NL, O=QuoVadis Trustlink B.V., CN=QuoVadis Client RSA 4096 Root G4	80AC91FA891C79723A61ABC77F86E19905A92DA27E51695CA0C0B66C1C039BF2	3/16/2023	3/9/2048
C=BM, O=QuoVadis Limited, CN=QuoVadis Root CA 1 G3	8A866FD1B276B57E578E921C65828A2BED58E92F2F288054134B7F1F4BFC9CC74	1/12/2012	1/12/2042
C=BM, O=QuoVadis Limited, CN=QuoVadis Root CA 2 G3	8FE4FB0AF93A4D0D67DB0BEBB23E37C71BF325DCBCDD240EA04DAF58B47E1840	1/12/2012	1/12/2042
C=BM, O=QuoVadis Limited, CN=QuoVadis Root CA 2	85A0DD7DD720ADB7FF05F83D542B209DC7FF4528F7D677B18389FEA5E5C49E86	11/24/2006	11/24/2031
C=BM, O=QuoVadis Limited, CN=QuoVadis Root CA 3 G3	88EF81DE202EB018452E43F864725CEA5FBD1FC2D9D205730709C5D8B8690F46	1/12/2012	1/12/2042
C=BM, O=QuoVadis Limited, CN=QuoVadis Root CA 3	18F1FC7F205DF8ADDEB7FE007DD57E3AF375A9C4D8D73546BF4F1FED1E18D35	11/24/2006	11/24/2031
C=NL, O=QuoVadis Trustlink B.V., CN=QuoVadis Signing ECC P384 Root G4	771535D43D4633BD307EB7B8A3966B5DF00707C088089920080C1AE6D3CB0F68	3/16/2023	3/9/2048
C=NL, O=QuoVadis Trustlink B.V., CN=QuoVadis Signing RSA 4096 Root G4	9F8E6DB31E740285E0C2C2DEB09E442BDD4E74BDEEAE2962BC82D1ECB9F39855	3/16/2023	3/9/2048
C=NL, O=QuoVadis Trustlink B.V., CN=QuoVadis SMIME ECC P384 Root G4	83FDD82FD9DAE3B21EEBD33CF46251D746F0D6102B683150DD7B98AD8E4BB9F8	3/16/2023	3/9/2048
C=NL, O=QuoVadis Trustlink B.V., CN=QuoVadis SMIME RSA 4096 Root G4	5232A304AA4A10CFE6C47842EA3381CB31D619E24F58126D534CD50C5CE7845D	3/16/2023	3/9/2048
C=NL, O=QuoVadis Trustlink B.V., CN=QuoVadis TLS ECC P384 Root G4	6E1FD3AE0D2D477C8F5EE5F335CC5B6356872654E5356A73D8C0A30A17C252A2	3/16/2023	3/9/2048
C=NL, O=QuoVadis Trustlink B.V., CN=QuoVadis TLS RSA 4096 Root G4	C8A2D38A24F5AC302D8A08EBD38923D9A750B49220F092E82D1C53249E1533D0	3/16/2023	3/9/2048
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=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 1 Public Primary Certification Authority - G6	9D190B2E314566685BE8A889E27AA8C7D7AE1D8AADDBA3C1ECF9D24863CD34B9	10/18/2011	12/1/2037
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 3 Public Primary Certification Authority - G4	53DFDFA4E297FCFE07594E8C62D5B8AB06B32C7549F38A163094FD6429D5DA43	10/18/2012	12/1/2037



Root CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
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
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=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=VeriSign, Inc., OU=VeriSign Trust Network, OU=(c) 1999 VeriSign, Inc. - For authorized use only, CN=VeriSign Class 1 Public Primary Certification Authority - G3	7B2A147C2FEFED78A7A4BAE0147A5177C4CA1035B5281CDF989BA0B9F97A054A	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	0939110E0DCC06CEBFD0D73C01AB7BFB7A97979F7649EABD725B18CC9BC85F8	10/1/1999	10/1/2049
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	BA7D7BB1DFBE64EA956CD776185C8DACC7E1ED548C4A9BD40631BEF5BFB1522A	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 2 Public Primary Certification Authority - G3	4DDDA06A1A9B475C38B89EED41B1535A3A35AB321BD5C6607B312E46DD766876	10/1/1999	10/1/2049
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) 2008 VeriSign, Inc. - For authorized use only, CN=VeriSign Universal Root Certification Authority	2399561127A57125DE8CEFEA610DDF2FA078B5C8067F4E828290BFB860E84B3C	4/2/2008	12/1/2037
C=US, O=Verizon Business, OU=OmniRoot, CN=Verizon Global Root CA	68AD50909B04363C605EF13581A939FF2C96372E3F12325B0A6861E1D59F6603	7/30/2009	7/30/2034



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	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	D92E93252EABCA950870B94331990963A2DD5B96D833C82B08E41AFD1719178	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



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
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	B0F330A31A0C50987E1C3A7BB02CDDA682991D3165B517BD44FBA4A6020BD94	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=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=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	ECC295B6DDCD084BA7179FB53BDD1D422CB6C0A8D94F154D4A5B17780B7279ED	7/16/2018	7/16/2028
C=US, O=Amazon, CN=Amazon ECDSA 384 M01	DFE35C740CF41C0B053E2202EA5AFC2F021F70BF90B26BC861FE1D9A0BFC4F1E	8/23/2022	8/23/2030
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
CN=Apple IST CA 2 - G1, OU=Certification Authority, O=Apple Inc., C=US	C9B06CC083186220618E61A8772640F824DF69D561AD56BDC15AD56D0CE08608	12/12/2018	5/7/2025
CN=Apple IST CA 8 - G1, OU=Certification Authority, O=Apple Inc., C=US	5C29DBEA9B7CC8B02418F28C1C8736DFDF170665D098EF681D903BE76987D249	12/12/2018	5/7/2025
C=US, O=Apple Inc., CN=Apple Public Server ECC CA 2 - G1	DA8546816D891C1241E9387DE436D1B9F7EA70DBA1EB3D25F58271CE816A7ABC	12/12/2018	5/7/2025
C=US, O=Apple Inc., CN=Apple Public Server RSA CA 2 - G1	F518F0BB716521F0A26FDB40C304FF9B82FDBDE7ACBD46BF0EF23A180188EB5C	12/12/2018	5/7/2025
C=US, O=Cloudflare, Inc., CN=Cloudflare Inc ECC CA-3	3ABBE63DAF756C5016B6B85F52015FD8E8ACBE277C5087B127A60563A841ED8A	1/27/2020	12/31/2024
C=US, O=Cloudflare, Inc., CN=Cloudflare Inc RSA CA-2	AEC863898F284D6CD4C6A3F6C3E6523480A359C33DAF66FAD3381849B8BB018B	1/27/2020	12/31/2024
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=US, O=DigiCert Inc, CN=DigiCert Baltimore TLS RSA SHA256 2020 CA1	38F73647F1ECAEEOFC5AFE68AC30E0C26171E9F232F4530729412408FD53626	9/24/2020	5/11/2025
C=US, O=DigiCert Inc, CN=DigiCert Baltimore TLS RSA SHA256 2020 CA1	701317250210AB91280527C3B436931015B8DCEE69A6893ADA4FFAD25A6FE44F	4/22/2021	5/12/2025
C=US, O=Microsoft Corporation, CN=Microsoft RSA TLS CA 01	04EEEE8E50B4775B3C24797262917EE50002EC4C75B56CDF3EE1C18CFCA5BA52	7/21/2020	10/8/2024
C=US, O=Microsoft Corporation, CN=Microsoft RSA TLS CA 02	05E4005DB0C382F3BD66B47729E9011577601BF6F7B287E9A52CED710D258346	7/21/2020	10/8/2024



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=Microsoft Corporation, CN=MSFT BALT RS256 CA	069DF2F8919D9209D0C524A56BA1181DF6D1BBFC4AA61C9F01D092E2D5C3A1FD	4/7/2022	5/11/2025
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, CN=Data Management Intermediate CA2	422F9D4E68134E362B7569E5298A173CEC40C7C7274B2263A9BC8ADA1D1A23FA	10/9/2020	8/25/2025
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., CN=DigiCert Assured ID Grid TLS RSA2048 SHA256 2022 CA1	0181B2B6173179562E75632344037CA523018618A7F7168269A3EB85367FF75C	3/10/2022	11/9/2031
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, Inc., CN=DigiCert Assured ID TLS RSA4096 SHA256 2022 CA1	987FF2E3B25A3A14CB843D907B3C7F007C274921AFC10017F85D4FAE7B0CB8B6	3/3/2022	11/8/2031
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 Grid, OU=www.digicert.com, CN=DigiCert Grid Trust CA	1E0A3AB993157717281D42ABF801EB64DEED500E4168CA706D6A71D8103C73A2	12/7/2011	12/7/2026
C=US, O=DigiCert Inc, CN=DigiCert Secure Auth CA2	4759D6F4ED6DF0E08FC4CA801986E2BE10594DBAF341B4C45ABAF3748887D25	10/9/2020	10/8/2030
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Secure Auth CA	24E9F20AC167BB8F09DE8A1E9968CC53F0B5F3A4948F51B8647B40B186C75EBE	4/23/2014	4/23/2029
C=US, S=CA, L=Mountain View, O=Google, Inc., CN=Google CA1	438F473EBFC8884EF5D3E0D52D264CDBE56CA382D9EBFC689D77489409F55A6E	8/25/2015	8/25/2025
C=US, S=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, S=Noord-Holland, L=Amsterdam, O=TERENA, CN=TERENA eScience Personal CA 3	FDA947208BFA3203A6C57B8714A647B7009E5168E88951345450B1D2D3F91A7D	11/18/2014	11/18/2024
C=NL, S=Noord-Holland, L=Amsterdam, O=TERENA, CN=TERENA eScience SSL CA 3	E1BE6BBB70F5A241E736FC44C6A2160BF6CE19B95EDD67BF7BE896E83778745	11/18/2014	11/18/2024
C=NL, S=Noord-Holland, L=Amsterdam, O=TERENA, CN=TERENA Personal CA 3 G3	C123F5AFACC9F9096809850355E5BF78CA9377348111B5167A964DDEDC044DE9	12/9/2014	12/9/2024
C=NL, S=Noord-Holland, L=Amsterdam, O=TERENA, CN=TERENA Personal CA 3	DD4E0C17900F3FC2A5B7B773AE40218AD73216B5CE5D285EBFFCE8830D0F034A	11/18/2014	11/18/2024
C=NL, S=Noord-Holland, L=Amsterdam, O=TERENA, CN=TERENA SSL CA 3 G3	C9D6913F3FEDDEFF184C9EE1D7E17C5AEC90886EED5CC3D6E98105831C8C0E0B	12/9/2014	12/9/2024



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=NL, S=Noord-Holland, L=Amsterdam, O=TERENA, CN=TERENA SSL CA 3	BEB8EFE9B1A73C841B375A90E5FFF8048848E3A2AF66F6C4DD7B938D6FE8C5D8	11/18/2014	11/18/2024
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 G2 TLS RSA4096 SHA256 2022 CA1	43A70E3620BC452339D878AA68F2E5358AC4607AC722C4D77D3C4D2C204F7F71	3/31/2022	3/30/2032
C=US, O=DigiCert Inc, CN=DigiCert Assured ID TLS CA G2	77CD51784A693D9482E7EA694E4053BCFD9DF65580FBCE14B2A7527C081803E1	3/25/2020	3/25/2030
C=US, O=DigiCert Inc, CN=DigiCert Assured ID CA G3	634FDF26C994E76A2918D9EFC4CAB9C6FCB344EF642A79C89192BCDA0ED52F4C	8/1/2013	8/1/2028
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 G5 ECC SHA384 2021 CA1	4E1AB9F0122809E2A8E93133187AF26E71C9C3BF86971065D578FC4C08AF79	3/11/2021	3/10/2031
C=US, O=DigiCert, Inc., CN=DigiCert G5 ECC SHA384 2021 CA1	7A2311B472B99171164FFA0BCA3FA7AC9AC46D035657BFC1EA133095C9703933	4/14/2021	4/13/2031
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=Abbott Laboratories Inc., CN=Abbott Laboratories Secure Authentication CA G2	2697ACB96A49BE2BFC5C06C393949F0D8E75106AD6D4C73E2DA172A90831A85A	1/21/2021	1/20/2031
C=US, O=Abbott Laboratories Inc., CN=Abbott Laboratories Secure Authentication CA	DB99A4F284CCF10B26DE7B7A5D651725B857CBC871EBB33028D67B55510EFC9D	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 CA2	CDBCBEF16E37237702FACC4B55D3AB92A17CFA17835E13377AA4D2BA0FD47A02	9/24/2020	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 Basic ECC CN CA G2	97C4B44316055F26A52A1F664CE385800A964A8552C99D2BCAFD618E6D8074A0	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, CN=DigiCert Cloud Services CA-1	2F6889961A7CA7067E8BA103C2CF9B9A924F8CA293F11178E23A1978D2F133D3	8/4/2015	8/4/2030
C=US, O=DigiCert Inc, CN=DigiCert Cloud Services CA-1	5F88694615E4C61686E106B84C3338C6720C535F60D36F61282ED15E1977DD44	9/25/2020	9/24/2030
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert CN RSA CA G1	03CE9BC71B91FDB7CB3C5235CAE0701CB486BBD628D4AADE5841FC5F0AA37A46	6/20/2019	6/20/2029



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=DigiCert Inc, CN=DigiCert Secure Site CN CA G3	6AF5C4EAC180289B94A77A5D231E3865FFE934F3E6A24BF487EB4E2BFD809A4B	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 Secure Site ECC CN CA G3	00C0CBA95CBFE1E270814275F32B505D6E5916C2B6DA67FAF4DD309EE6E86CBE	3/13/2020	3/13/2030
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, CN=DigiCert Secure Site Pro CN CA G3	A66C97AE59DFF9EA015E73C744EE5520745F101A395C497D19E1F168D39AFC0D	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=US, O=DigiCert Inc, CN=DigiCert SHA2 Secure Server CA	C1AD7778796D20BCA65C889A2655021156528BB2FF5FA43E1B8E5A83E3D2EAA	9/23/2020	9/22/2030
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 TLS Hybrid ECC SHA384 2020 CA1	D79A2D5E03295C0E9FEAE36D021EBD5209700AB1A9E817A43F30FA3C66F78D21	9/23/2020	9/22/2030
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 TLS RSA SHA256 2020 CA1	25768713D3B459F9382D2A594F85F34709FD2A8930731542A4146FFB246BEC69	9/24/2020	9/23/2030
C=US, O=DigiCert Inc, CN=DigiCert TLS RSA SHA256 2020 CA1	52274C57CE4DEE3B49DB7A7FF708C040F771898B3BE88725A86FB4430182FE14	4/14/2021	4/13/2031
C=US, O=DigiCert Inc, CN=DigiCert Trust Service CA	75AC8E41D9A7CC758D3998FE030F638CFD28855823DA4E9B56954CFBDE054EB6	3/4/2020	3/4/2030
C=US, O=DigiCert Inc, CN=DigiCert Trust Service ECC CA	F269AC00B410003F72DC628AFB3D950279630C7C5D0C82148A0FD24DF4DA4301	3/4/2020	3/4/2030
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=Encryption Everywhere ECC DV TLS CA	1E4FC34D26E0793D559E322FE111F1E19A9D2E34BC25D3C427B032A48D2C5B6A	7/23/2019	7/23/2029
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=GeoTrust ECC CA 2018	D8E269A6EB08CBC337AD6578C72135787484C99D2FB08CCED029E806BE1040FC	11/6/2017	11/6/2027
C=US, O=DigiCert Inc, CN=GeoTrust ECC CN CA G2	7CAEEC680E6497FC5109073F83816E798F27F8968A2663C1C95711B548192E35	3/4/2020	3/4/2030
C=US, O=DigiCert Inc, CN=GeoTrust ECC CN CA G3	52DDE89FDD6F610473F9314C7A8B1AC442F8AA833AA5D773006FDA758C9FF1EC	6/9/2020	6/9/2030
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, OU=www.digicert.com, CN=GeoTrust RSA CA 2018	8CC34E11C167045824ADE61C4907A6440EDB2C4398E99C112A859D661F8E2BC7	11/6/2017	11/6/2027



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=DigiCert Inc, CN=GeoTrust RSA CN CA G2	E3C24279DD6A337F881B1BC692E878F4A31AFE95851F208F94800B0C24D88C38	3/4/2020	3/4/2030
C=US, O=DigiCert Inc, CN=GeoTrust RSA CN CA G3	8A023C08E4A1AACC925B34C5C7965A8D0527565AEA130ABB915E508CD33AFB45	6/9/2020	6/9/2030
C=NL, O=SupremeSSL, OU=www.supremessl.com, CN=GeoTrust SupremeSSL 1 CA	354FCFC6162A0EE2205DBEF68931E78033ECE9D125E0824E49BAEBF82DFDD167	5/7/2019	5/7/2029
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=Avalanche Cloud Corporation, CN=HydrantID SSL CA D1	A847544CC3CD54E855CA39780C2162431F5C8E327EC66D5A43CF266877BEC50F	3/4/2021	3/3/2031
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=RapidSSL ECC CA 2018	A0D1523A0BF663550EB9081E9BDDEDA12814F9570B7697D95DF2EA53D4FF75E3	11/6/2017	11/6/2027
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, 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 CA G2	F614AE2B101484F15F66F4DDA56EE6EB422728F179D94399EDE19AC1D85A8BD3	6/20/2019	6/20/2029
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Secure Site CA	B26EB310F8FAF0EF5B0D0B71AA65EC050FA3ADE29134FB438AB6440288FA6E67	5/17/2018	5/17/2030
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=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 G2	DA3BE2B6A6D9715C1295A42BE526E0001D10E5D7540F06E7631B34E644934848	6/20/2019	6/20/2029
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 CN RSA CA G1	7867AAE905EB8D55635FFEBB8CF05A63B9B390665DE2367AC1073E92913728	6/20/2019	6/20/2029
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, CN=Thawte ECC CN CA G2	58E89F4F70410DA00B41473CFA413FA0737ED2729F3ED77BE29A7F4705377147	3/13/2020	3/13/2030
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Thawte RSA CA 2018	9A5EECEE9C7D898BD81DC3BF066DAF6AEFB8DB1C59676206D2BFDD682312C6F6	11/6/2017	11/6/2027
C=US, O=DigiCert Inc, CN=Thawte RSA CN CA G2	95141A355A5A2AA3E011221CAB9FE73810FDB5D88135864F03E4D852BD0BBEDB	3/13/2020	3/13/2030
C=CN, O=TrustAsia Technologies, Inc., CN=TrustAsia ECC OV TLS Pro CA G2	70357B9E56D3FB3C6C009C38C7181454C462908DFBCE6D54D60DFE1E506E14FD	6/20/2019	6/20/2029
C=CN, O=TrustAsia Technologies, Inc., CN=TrustAsia ECC OV TLS Pro CA G3	756AAB900E3F5C762734B6461FC32A9DD341EA1D4A04283409233C39787A867E	3/13/2020	3/13/2030
C=CN, O=TrustAsia Technologies, Inc., CN=TrustAsia ECC OV TLS Pro CA	F1CACA6AB2350A7668C13E41960908681DAFCC7E368DCB8D47FECF9631390481	4/27/2018	4/27/2028



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=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=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=DE, O=CertCenter AG, OU=Domain Validated SSL, CN=AlwaysOnSSL TLS RSA CA G1	2A41BA819EB6125AF5CB4B8B0E9E54ECE798C2A7EE43DCDAF7D395987C4D552	11/2/2017	11/2/2027
C=US, O=Apple Inc., CN=Apple Public EV Server RSA CA 1 - G1	340CA5BA402D140B65A2C976E7AE8128A1505C29D190E0E034F59CCAE7A92BC2	4/29/2020	4/10/2030
C=US, O=Apple Inc., CN=Apple Public Server RSA CA 1 - G1	392583543B93B10E0506DE75D69399FCBBC1469C8DE396066C756088B92241DA	12/12/2018	12/11/2030
C=US, O=Bloomberg LP, CN=Bloomberg TLS CA	F5F1A8C04E5CF0FDB678DD279994463E48508C4349643B0D92CBFD7523F6C40A	3/30/2021	3/29/2031
C=US, O=Bloomberg LP, CN=Bloomberg TLS CA	440B37416F2DE852CA386150D611EC0AF31DD58D8A27F882815A7EA3EE6848EE	9/24/2020	9/23/2030
C=US, O=Cloudflare, Inc., CN=Cloudflare Inc RSA CA-3	9FB0385317FAB1C00541B274A6C82B7644DE7C7FD4BB5E335DE445FA0A96BFD9	7/10/2024	7/9/2029
C=US, O=CrowdStrike, Inc., CN=CrowdStrike Federal EV RSA CA G1	EDED0053CB844592E673EF2A081C15B38EE3ECBEB5856C9A4FE9B7169FAFFE7	8/15/2023	8/14/2033
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 EV RSA CA G2	9588EF74199E45ACEFCCFC0C47010E9F2A37A1DD44C61A4E1C6B334DA5AF614	7/2/2020	7/2/2030
C=IE, O=DigiCert Ireland Limited, CN=DigiCert G2 TLS EU RSA4096 SHA384 2022 CA1	A4ADFC2917BB1451D312371D441ACDB686107FBC0B3156D5570E99E1121974FA	9/19/2022	9/18/2032
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=DigiCert Global CA-3 G2	9B2DD4FBEE941F6510F716C04969B36428892765461701EF47D41B3289475D50	11/12/2019	11/12/2029
C=US, O=DigiCert, Inc., CN=DigiCert Global G2 TLS EE+ RSA4096 SHA256 2022 CA1	B915B806A8B7BE2E3809F2E932996E7C10CC82691864A89606BD50080DC2EAB3	4/28/2022	4/27/2032



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=DigiCert Inc, CN=DigiCert Global G2 TLS RSA SHA256 2020 CA1	C8025F9FC65FDFC95B3CA8CC7867B9A587B5277973957917463FC813D0B625A9	3/30/2021	3/29/2031
C=US, O=DigiCert Inc, CN=DigiCert Global G2 TLS RSA SHA256 2020 CA1	1F8EB9E9A8E066CC5B3833E06B3129764B622639D5B163F600E1C79120BF3EED	9/24/2020	9/23/2030
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=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 Secure Site Korea CA	6555D661D37F2494A23C2D5F83479E78051B6DE76A147B506D6BEA2882B4D066	11/20/2018	11/20/2028
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, OU=www.digicert.com, CN=Encryption Everywhere DV TLS CA - G2	B1AC8CFB181B9C9354E1775FCBDFCFE7898C5CC9A17D76315B57C112EEE55234	11/27/2017	11/27/2027
C=FR, O=Gandi SAS, CN=GandiCert	3337D4E4B4EF6A94F04915D2E86B1F8F47A3C83667DA2519D9B95AE7270AFFE1	4/17/2024	4/16/2034
C=US, O=DigiCert, Inc., CN=GeoTrust EV G2 TLS CN RSA4096 SHA256 2022 CA1	6FE24FBFBFBFBC3BE69A472DBF75EF30CACF8AEA319F3893654C91BAB91143	12/15/2022	12/14/2032
C=US, O=DigiCert Inc, CN=GeoTrust EV RSA CA G2	2D140F20B8A96E2B4D2F1CC5ACA5E5A1E7DC56A7491E510906960F38D2D21AEF	7/2/2020	7/2/2030
C=US, O=DigiCert, Inc., CN=GeoTrust G2 TLS CN RSA4096 SHA256 2022 CA1	05DC9EDC0FDDFA975A1432EF806EC780078B5362AD45AF76DB15C907630DB25D	12/15/2022	12/14/2032
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, OU=www.digicert.com, CN=GeoTrust TLS RSA CA G1	C06E307F7CFC1D32FA72A4C033C87B90019AF216F0775D64978A2ECA6C8A230E	11/2/2017	11/2/2027
C=LV, O=EnVers Group SIA, CN=GoGetSSL G2 TLS RSA4096 SHA256 2022 CA-1	8AADF068A1B7C04B3E346F7C97FD9619FFF14ECC6C82C2F15594B9732F3F3E72	6/23/2022	6/22/2032
C=CH, O=Hostpoint AG, OU=Domain Validated SSL, CN=Hostpoint TLS RSA CA	F7FBDEB82BE99D41CDCA419FC91859D3E5286C076204E0E903D678BB213ED89B	11/2/2017	11/2/2027
C=DE, O=Legacy Technologies GmbH, CN=Legacy Technologies Intermediate	1032C6001ED664A0CD343B138BCB6860E211011C3D5F06540F5BE41147812A5	7/2/2020	7/2/2030
C=US, O=Microsoft Corporation, CN=Microsoft Azure RSA TLS Issuing CA 03	9D1BC5D2DD75BF8B64F35E7F919E2546C225BE888C1A8CBE82C0E9579234A7ED	6/8/2023	8/25/2026
C=US, O=Microsoft Corporation, CN=Microsoft Azure RSA TLS Issuing CA 04	33F9731BE910A66DC6ACD07D9D9CA212EE8D0A9A5C78C8BF3E89BB74DF8FB936	6/8/2023	8/25/2026
C=US, O=Microsoft Corporation, CN=Microsoft Azure RSA TLS Issuing CA 07	724247794951C93F3E41711617E95CE143263E3196C345A1DA78F6639749EC03	6/8/2023	8/25/2026



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=Microsoft Corporation, CN=Microsoft Azure RSA TLS Issuing CA 08	511C1C41CB7EB2A10078C32C82F17925BA786DE46C633921D038E7409E15A5EA	6/8/2023	8/25/2026
C=US, O=Microsoft Corporation, CN=Microsoft Azure TLS Issuing CA 01	24C7299864E0A2A6964F551C0E8DF2461532FA8C48E4DBBB6080716691F190E5	7/29/2020	6/27/2024
C=US, O=Microsoft Corporation, CN=Microsoft Azure TLS Issuing CA 02	15A98761EBE011554DA3A46D206B0812CB2EB69AE87AAA11A6DD4CB84ED5142A	7/29/2020	6/27/2024
C=US, O=Microsoft Corporation, CN=Microsoft Azure TLS Issuing CA 05	D6831BA43607F5AC19778D627531562AF55145F191CAB5EFAFA0E0005442B302	7/29/2020	6/27/2024
C=US, O=Microsoft Corporation, CN=Microsoft Azure TLS Issuing CA 06	48FF8B494668C752304B48BFE818758987DEF6582E5F09B921F4B60BB3D6A8DD	7/29/2020	6/27/2024
C=US, O=Microsoft Corporation, CN=MSFT RS256 CA-1	F5D4CAD53B3F2EF39810DA6D3CD5FF7663F4ABB87738827CCECAFF6FCC3EAFCA	4/28/2022	4/27/2032
C=US, O=Oracle Corporation, OU=Organization Validated SSL, CN=Oracle TLS RSA CA G1	319896E3954D510DA3A4B75387E8C870B3BC2C3228D8550916EBE9ABDCB7F921	11/2/2017	11/2/2027
C=NL, O=PerfectSSL, CN=PerfectSSL	6B40D3DBAAD68BE6E804E32085F7837CEE08B7C4FA6A990B36227A6DCFF0873B	4/17/2024	4/16/2034
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, CN=Thawte EV RSA CA G2	3286691412F30ECE5C065FD62F4392A4762D1E77815338359DF390299FBD61EF	7/2/2020	7/2/2030
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Thawte Partner CA	635AF6889F49060FE0E7BABC0F23314FB118F3B18243DD17F47D8647A69684B1	11/20/2018	11/20/2028
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=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., OU=Domain Validated SSL, CN=TrustAsia TLS RSA CA G8	036A18F5F0EB9DD5EE02B7854DF5C33845601D8939CFB7B607F69D142C01D909	11/2/2017	11/2/2027
C=AU, O=Verokey, CN=Verokey High Assurance Verified Business SHA256	A542DE4E6ECD35ABEB009EB5D5EC3887EC4371794BCF25CEAE0E1881C51D5DD	7/24/2024	7/23/2034
C=AU, O=Verokey, CN=Verokey Secure Web G2	5EE5AAD704A8B698883F4029720C8FA1CB79C9FA3463CC24340629EBE6C5A62B	3/17/2022	3/16/2032
C=AU, O=Verokey, CN=Verokey Verified Business G2	7EDBE6F8C49A1E3988CAADD438B72F07B6AF9CE751CF5835163161D63CAE4DDF	3/17/2022	3/16/2032
C=AU, O=Verokey, CN=Verokey Verified Business SHA256	B10ED8C2C76C7C99FC175B23B8E78F3F0C15D197DF3AA2C87FF29E92414711E9	7/24/2024	7/23/2034
C=US, O=Vitalwerks Internet Solutions, LLC, CN=Vitalwerks Internet Solutions, No-IP TLS ICA	2AE0626F9A43EDB2B0A22D410EB06C482EF982563A717A247287C504D79BF980	2/23/2023	2/22/2033



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
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
CN=Apple IST CA 8 - G1, O=Apple Inc., C=US	8711EE539E74213F5F412EB4A18A98C3B58DA620B4D43E75B0542AFC39FC6033	12/12/2018	6/8/2031
CN=Apple IST CA 8 - G1, OU=Certification Authority, O=Apple Inc., C=US	9218BAB94E7D5D1F81D62D0FC23E31C8BBCBEE3545D1D7E9D3FD29B30BC188C8	12/21/2018	6/8/2031
C=US, O=Apple Inc., CN=Apple Public EV Server ECC CA 1 - G1	2585928D2C5BFD952E025BD12E27C6776224CF752EC362D3031CDD49351844D4	4/29/2020	4/10/2030
C=US, O=Apple Inc., CN=Apple Public Server ECC CA 1 - G1	2AF988F26F6EF0DAB9055697F0941FB4E5C42247CA982826895EF29985D30CD6	12/12/2018	12/11/2030
C=US, O=Cloudflare, Inc., CN=Cloudflare Inc ECC CA-4	7EB5F4AAAC39B3A7835D76F722A473F9B4911E4A3691DE78B3C2973595764EA2	7/10/2024	7/9/2029
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., CN=DigiCert Basic EV G3 TLS CN ECC P-384 SHA384 2022 CA1	1CA57EF159812BFBED8106F6152E51DDD0A5A4C9489CD097595B797CB37843E	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, OU=www.digicert.com, CN=DigiCert Extended Validation CA G3	7C0912E5DE8478BB86E8EA46BA5AE65DC3870BCEFCBC2F46795EEECF648CFBE7	11/11/2015	11/11/2030
C=US, O=DigiCert, Inc., OU=www.digicert.com, CN=DigiCert Extended Validation CA-3 G3	DA7E5778F62F87655B8FD24A89E651E57329DC9C0765A71158CE56443CA44E95	11/12/2019	11/12/2029
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=US, O=DigiCert Inc, CN=DigiCert Global CA G3	F7541CF69D1DE1AC953ABC1FAD6F7807A34EDFE9E12C11E66A195930C23AD6C6	8/1/2013	8/1/2028
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, CN=DigiCert Global G3 TLS ECC SHA384 2020 CA1	699ED65BDD3D5E790776D165EA7A325B7AEAF419647921A92FF28BB0680D72BA	3/30/2021	3/29/2031
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 Global G3 TLS EE+ ECC384 SHA384 2022 CA1	15E77C59404015659EE26F92561F007AAF53986A27926F0E707585C2A7F301B8	4/28/2022	4/27/2032
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 Secure Site OV G3 TLS CN ECC P-384 SHA384 2022 CA1	38D530FB170053617E47AA6CEFF21C2DB43C9D96741AF1584566072091474BB3	12/20/2022	12/19/2032



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
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 Pro G3 TLS CN ECC P-384 SHA384 2022 CA1	34CDC67D88D25217ADC8A25348E114CBEC63148391CFA475D382874695202D2C	12/20/2022	12/19/2032
C=US, O=DigiCert, Inc., CN=Encryption Everywhere G3 TLS ECC P384 SHA384 2023 CA1	DA1F7CBF322E55CC082276F8519147DFA1E80CBAF7D5799FF771358832ED1712	2/2/2023	2/1/2033
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=GeoTrust G3 TLS CN ECC P-384 SHA384 2022 CA1	662871C80F4E0FD219EA69AFC4D28AD7B41E9381560BEE787848D4EEF1CBF24	12/20/2022	12/19/2032
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, OU=www.digicert.com, CN=GeoTrust TLS ECC CA G1	A838405EBB03F5DFD8D4A9572AE6E0E3F356EC4EC134375A59D8B7B195DC3EC44	11/2/2017	11/2/2027
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=Microsoft Corporation, CN=Microsoft Azure ECC TLS Issuing CA 01	949D6B4B761CA134AD3E7A8571186F580EE887F2C6B568B5140F4157F98D68DD	8/12/2020	6/27/2024
C=US, O=Microsoft Corporation, CN=Microsoft Azure ECC TLS Issuing CA 02	9C64A9A43E990E98FBC8E8317B2D4C1C07FFE6E032DA8BB6D60A696E2FF038F1F	8/12/2020	6/27/2024
C=US, O=Microsoft Corporation, CN=Microsoft Azure ECC TLS Issuing CA 03	BBD27139C5302C63D903F570F173AD4DC06C974B9EBE292C90FFCCAB5D6FA54E	6/8/2023	8/25/2026
C=US, O=Microsoft Corporation, CN=Microsoft Azure ECC TLS Issuing CA 04	7A3AE4F12920D5A8129BE1183FBEC4370EF10B8B3AD41EAE4A58D5385AA94D33	6/8/2023	8/25/2026
C=US, O=Microsoft Corporation, CN=Microsoft Azure ECC TLS Issuing CA 05	003F71DC4820216575FC5AACFE3B1AEB76F72AEA5B8E8FCEFC80B9F517A4A612	8/12/2020	6/27/2024
C=US, O=Microsoft Corporation, CN=Microsoft Azure ECC TLS Issuing CA 06	2975BAB51D00D862D0E16EEDEF8306A759C65CD4B9F00DAF50ECDFCB4EC396E4	8/12/2020	6/27/2024
C=US, O=Microsoft Corporation, CN=Microsoft Azure ECC TLS Issuing CA 07	BE23414A42E74886E7C72A861BA2DDDA0175ED829223D894C5D272651FC0C189	6/8/2023	8/25/2026
C=US, O=Microsoft Corporation, CN=Microsoft Azure ECC TLS Issuing CA 08	89AADE767B7BA43F8DDE8E9E74A2FCBBEA40D57155F7E1F2259C88835601FAED	6/8/2023	8/25/2026
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



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=AU, O=Verkey, CN=Verkey High Assurance Verified Business ECC	34263E9424D819B94BCFA87E69DD9EF43205D4E2DE84A53497314063D822969B	3/17/2022	3/16/2032
C=AU, O=Verkey, CN=Verkey Secure Web ECC	BCFD2614E42D63C59691C3CE8BEC792DE2FCE89CED4F9C460D0A848573074FCB	3/17/2022	3/16/2032
C=AU, O=Verkey, CN=Verkey Verified Business ECC	F1ED3B35C92FA5DAAA3DD45F99EBA3B823A2FB1C24A89CED1699D95E02564A2	3/17/2022	3/16/2032
C=US, O=Aetna Inc, CN=Aetna Inc. Secure CA2	DDCBB4F3051D6E601310EB0E46B5BB99C5E8B99F7A539E367A987DEA030E318E	9/24/2020	12/9/2024
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 CA2	428B87B8061A79ABA75877FD0383ADB831A1459B86BC408CE7D8D17B295B75BB	3/30/2021	3/29/2025
C=US, O=Aetna Inc, CN=Aetna Inc. Secure EV CA2	1DDFDDF883E3945B2CB24FA5B83788379C5AB058422AB979DF66C77473988687	12/8/2017	12/8/2027
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 EV CA	0A163600631BD66267FB7AEAD25C538B2B7D72AD6416A2BBD285F654BB642F6D	12/9/2014	12/9/2024
C=US, O=Aetna Inc, CN=Aetna Inc. Secure EV CA	8B6CCC3BE92F0121E6494AC704BF0B9B9CEBBA2E363C8E8122D90984D3EBF386	3/30/2021	3/29/2025
C=US, O=Apple Inc., CN=Apple Public EV Server RSA CA 2 - G1	D6EF3E09EBE0D9370E51F5C09A532B3AC70D3CE822253F9FC84C28E9BFA550D5	4/29/2020	4/10/2030
C=US, O=Apple Inc., CN=Apple Public EV Server RSA CA 3 - G1	E881D3B83C3BC694D7D99F92DE83B2BFF5C6EE2D9871A446DEA107D6397565FC	7/15/2021	4/10/2030
C=US, O=CrowdStrike, Inc., CN=CrowdStrike Global EV CA G2	5EBD9874E6B88DA38F4A7B9566CE5D4DF05E0C224D94986AD8CC5EBA004A0C04	3/4/2021	3/3/2031
C=US, O=CrowdStrike, Inc., CN=CrowdStrike Global EV CA G2	9ED1EDEA95AA5B72B513A3E41A1BA0D2EFB14CEC88891E34D00495C95556605C	3/30/2021	3/29/2031
C=US, O=CrowdStrike, Inc., CN=CrowdStrike Global EV CA	8CD728F9C3391BA4360A10C66CA484C807651D6207F10633669ED8881FE91BF5	2/21/2020	11/9/2031
C=US, O=CrowdStrike, Inc., CN=CrowdStrike Global EV CA	86B109232C19EC514F8CB26788E65090293F96DD8D2942017A33035AB225D5FB	3/30/2021	3/29/2031
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, CN=DigiCert Basic EV ECC CN CA G2	D619F3257B98756D28811D3CEE9ADAD8BCAE1B4367BBB0C73F6B5E558FBA4563	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, 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=DigiCert ECC Extended Validation Server CA	FDC8986CFAC4F35F1ACD517E0F61B879882AE076E2BA80B77BD3F0FE5CEF8862	6/21/2016	6/21/2031
C=US, O=DigiCert Inc, CN=DigiCert High Assurance CA-3b	4E30F8004C18D3D798EC5A7734346B5A5EBE8D54423CE98257FC57735A6F738D	5/28/2020	11/9/2031
C=US, O=DigiCert Inc, CN=DigiCert High Assurance CA-3b	28506E33F55A6072115F3E04C9BDBF5AF5312CA8FC132508B97AC99FEE0516E8	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 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=DigiCert, Inc., CN=DigiCert High Assurance TLS RSA SHA256 2020 CA1	98FED3D9DC95236BCFFCB35D4B120DB0E3867F62B1FD015A928DA0B303966683	12/17/2020	12/16/2030
C=US, O=DigiCert, Inc., CN=DigiCert High Assurance TLS RSA SHA256 2020 CA1	495E6624A15340C4C74AB86037748AD62D1EF4F14E7C81AB7CDB629BE1404757	3/30/2021	3/29/2031
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 High Assurance Trust Service EV CA	72D0F7CBF4529B80C34A7CBB438BD1D0E1FC26E80E59CBD4FD7314FCDDF0E994	3/4/2020	3/4/2030
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 Secure Site EV ECC CN CA G3	A4B2B47545559F5FFFB7CDDA7A1220E62FB74D1B7A9A4D4DACB2B2A839CE7456	3/13/2020	3/13/2030
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 Secure Site Korea EV ECC CA	B0505BF2947F0807ABAE2D42C19343EAF08D1DDE3F8745B0589A57362792E470	3/25/2019	3/25/2029
C=US, O=DigiCert Inc, CN=DigiCert Secure Site Pro EV CN CA G3	B75AEE9836FEFBC446F288A2970B84FC60AAF9EFBD2CB9F82F7581790DE4B8DC	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 SHA2 Extended Validation Server CA-3	085A0714524DF7AE9919A6F597884439E12A533E61552D29D6A18C35096FC548	11/12/2019	11/12/2029
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 CN RSA G1	C87CE03AFFB5DE6319C219971F2ED2D8F6F5389E2D53B22DD2C562A5C9827FC0	6/20/2019	6/20/2029
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, CN=GeoTrust EV ECC CN CA G2	FC01B58FC78B9C59211784C2E25BF1D012A1E23F337218847A62EB4145EE4AB6	3/4/2020	3/4/2030
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=DigiCert Inc, CN=GeoTrust EV RSA CN CA G2	8937E90E1495C9A78EFB18182D43FDC7373FCD292AB6347A12B9077DE878530E62	3/4/2020	3/4/2030
C=NL, O=SupremeSSL, OU=www.supremessl.com, CN=GeoTrust SupremeSSL EV 1 CA	0FB6CE80909D19AFEE6A88C959E9AA6466715BCE05C6449FEB530A086DAF14	5/7/2019	5/7/2029



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
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=Avalanche Cloud Corporation, CN=HydrantID EV SSL CA D1	F9D4A6C011E9C6A8F5A4CF7ED0416869C7238EF93A56161EA6CA3D8B41716097	3/30/2021	3/29/2031
C=US, O=Avalanche Cloud Corporation, CN=HydrantID EV SSL CA D1	863472EC79DB54077114DADE720CE1F7B41A233748FC6773FA86520F0B9AAA21	3/4/2021	3/3/2031
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=Plex, Inc., CN=Plex Devices High Assurance CA3	FB6060848440AA4594FE8109741EFAB40C56732B26C67C36D6DC945BB2FE13CF	9/24/2020	5/19/2025
C=US, O=Plex, Inc., CN=Plex Devices High Assurance CA3	1316ED42A849217D51CFB4DE1A1418A8D3A77902FB305D3024F72D4636B82FF0	3/30/2021	3/29/2025
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=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 G2	40D69920EA05456FA0117DE608B8A8013790B542097E343EC1CBCE2DFB9713B0	6/20/2019	6/20/2029
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 G2	70DC86F9F7750B74B1DEC8CD352EC25837C36E640F7148E08464EF5901E5A589	6/20/2019	6/20/2029
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=NL, S=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 CN RSA EV CA G1	ADA188F830C313F6046488EC341F1ED4AF793C6DC28C58600445DFBEB4163746	6/20/2019	6/20/2029
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, CN=Thawte EV ECC CN CA G2	EA1F3BFB4D3296B467D4B582559D6518D676D5AFC7D1C24BE80252F79191046F	3/13/2020	3/13/2030
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Thawte EV RSA CA 2018	93569B26AA535E3E07C891C6BD2FA9DC0939C24DB4B3726AD8531EDB17C497CA	11/6/2017	11/6/2027
C=US, O=DigiCert Inc, CN=Thawte EV RSA CN CA G2	69919D820EDF582ADBCE8E092A9284D901772EE2B419EA9DE1F5872C791FC6FA	3/13/2020	3/13/2030
C=CN, O=TrustAsia Technologies, Inc., CN=TrustAsia ECC EV TLS Pro CA G2	C0DD060FF8CE556F35683D564E0E66B2907178808693F83F3AA642326BF6D0C8	6/20/2019	6/20/2029



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=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 G2	0D51B6CDCF34A9F22144787F3FD920DC8800FB60490BFC8D289A1953E0FBDA4D	6/20/2019	6/20/2029
C=CN, O=TrustAsia Technologies, Inc., CN=TrustAsia EV TLS Pro CA G3	9DB0A20C305541E15E818A880D06579876A9C901B8EECD968482C58D9BA7F0A7	3/13/2020	3/13/2030
C=CN, O=TrustAsia Technologies, Inc., CN=TrustAsia EV TLS Pro CA	4AFFE4FEF39464D1788C660AF591D5E601B261C4811DF0A3DD9D61CAFE8E5ED8	4/27/2018	4/27/2028
C=GB, O=TRUSTCUBES LIMITED, identified-organization=223013701, legal_entity_identifier=984500505FE80CDONE58, OU=www.trustcubes.com, CN=TrustCubes ICA G1	2106CC7907C64B8A5DA2FC338EE94DFFF10EF711DEDBB4FC694EE092EC532B1D	7/18/2018	7/18/2028
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., CN=DigiCert G5 RSA4096 SHA384 2021 CA1	C68B6C4555937CE57383A736517CA46FE86641E46BDFB25C12E41E17DE53B59	3/11/2021	3/10/2031
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 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 G5 TLS CN ECC P-384 SHA384 2022 CA1	915EC8DCC237FA932CB0245A996FF3A711550A464214FD7512F225AA608061C8	7/12/2022	7/11/2032
C=US, O=DigiCert, Inc., CN=DigiCert G5 TLS ECC SHA384 2021 CA1	E5A1C1919E3BEAEE5935A8485DDCE0E3F01A2618DB0F0793B3DB3D9AC2D967C7	2/11/2021	2/10/2031
C=US, O=DigiCert, Inc., CN=DigiCert G5 TLS ECC SHA384 2021 CA1	97A073957C5812725757672F222690655A1407D71011EDFC8B2FADC5128911DA	4/14/2021	4/13/2031
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=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



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
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=Encryption Everywhere G5 TLS ECC P-384 SHA384 2022 CA1	AD7F57AA3FC5EAF431022A4750A97CD879DE1989D4B86AB08B7A28373BCB489	11/3/2022	11/2/2032
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=GeoTrust G5 TLS CN ECC P-384 SHA384 2022 CA1	E43BAAD78B78F9EEA6903E56F456DEC24BD9648C13AE02E2DE17A1F84F3D0807	7/12/2022	7/11/2032
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=GeoTrust G5 TLS ECC P-384 SHA384 2022 CA2	66E795550B16497E7CF4566EC63B56660F28DBD551C357C526FBB0D7620A8112	7/28/2022	7/27/2032
C=US, O=DigiCert, Inc., CN=RapidSSL G5 TLS ECC P-384 SHA384 2022 CA1	D2A3D4ED9C05964F4A0984381933C5AB1E93E4A0BA7FCDD60940946D8BD6262	6/2/2022	6/1/2032
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=Thawte G5 TLS EC P-384 SHA384 2022 CA1	7F4E38B8B22F91DAF46ED5856D6E7F1180296FB152C026473C6328519D2AC99A	5/26/2022	5/25/2032
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=CrowdStrike, Inc., CN=CrowdStrike TLS RSA CA G5	E5BFCED9D216EBA7DA3634819FB534FB9CEBA1ECF9E6379ED83583D2EB177C1B	5/1/2024	4/30/2034
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 G5 TLS CN RSA4096 SHA384 2022 CA1	AB7EF705B0B8DB2291C2BC8DC9F69AD8345A3CC543DB8CDC49A8B419282DEA22	7/12/2022	7/11/2032
C=IE, O=DigiCert Ireland Limited, CN=DigiCert G5 TLS EU RSA4096 SHA384 2022 CA1	4D27EF6357BC929783575C0C8C9340B67FBEFC045FDC263B8C88362E6D3ADB6F	9/15/2022	9/14/2032
C=US, O=DigiCert, Inc., CN=DigiCert G5 TLS RSA4096 SHA384 2021 CA1	EF9296036A6D7C986C8D59DB936093E78E85C70AEDB4FE7A54DDCAA821031C72	2/11/2021	2/10/2031
C=US, O=DigiCert, Inc., CN=DigiCert G5 TLS RSA4096 SHA384 2021 CA1	C6270A150691FBE190D831F5139BDFEECF7B298B4FA0CA17306A69D7E91E7BA2	4/14/2021	4/13/2031
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



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
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=Encryption Everywhere G5 TLS RSA4096 SHA384 2022 CA1	654BF73B2639091FA18F296755B704959F52F67FDF7A65AAF1C315441201A09D	11/3/2022	11/2/2032
C=US, O=DigiCert, Inc., CN=GeoTrust EV G5 TLS CN RSA4096 SHA384 2022 CA1	25026FEBE5324EEACA89376B13EDB96991594112C311120D579364E3CC0442F4	1/12/2023	1/11/2033
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=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=Tesla, Inc., CN=Tesla China Public RSA TLS Issuing CA 2024	7754CAB7C25AD2605A681E3A04187C1E3B3A46F188A8247DC86E02A0FC336F91	3/13/2024	3/12/2034
C=US, O=Tesla, Inc., CN=Tesla Public RSA TLS Issuing CA 2024	32952030B947D80858A87425788518BDF6D9A4631D55E20117585C89EBB29197	3/13/2024	3/12/2034
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=Thawte G5 TLS RSA4096 SHA384 2022 CA1	48569C4FABFF4E3AA22E0E19613E90DA89AA2EE2469B0718695437F5384EDC4C	5/26/2022	5/25/2032
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 G4 TLS RSA SHA384 2020 CA1	4F35C6B9C100905FF25BB01C0A20EBE335BCEE249CE9FFA1E11E062ED66FCD1	9/24/2020	9/23/2030
C=US, O=DigiCert Inc, CN=DigiCert Trusted G4 TLS RSA SHA384 2020 CA1	1E29690F957F64BA9C3658A31055751AACD4B440A9589DFA1D780FE07069DB52	3/30/2021	3/29/2031
C=US, O=DigiCert Inc, CN=DigiCert Trusted Server CA G4	6E8D952FDBABAD8E3D61E094393739B5A47371A52BDCB2A3C2F8C43622F640F	8/1/2013	8/1/2028
C=DE, O=Deutsche Kreditbank AG, CN=DKB CA 101	0E5B8040B3AB60A50D2D5FB11E19AEB2E45B564B335B79D773D42B81D8219C75	2/4/2021	2/3/2031
C=DE, O=Deutsche Kreditbank AG, CN=DKB CA 101	D889A2641F5DF941353817C87A5CD0D9CDACED3886240BFD937329E94D3A45B	3/30/2021	3/29/2031
C=US, O=NCC Group, CN=NCC Group Secure Server CA G4	B7DFDC27E5FF9F35EFEC9F4BC532C35F727789B69C90A0489B40247299D97038	7/30/2014	7/30/2029
C=AU, O=Verkey, CN=Verkey High Assurance Verified Business G2	BE89264A58313012B749603C9BEC3CD7914DB716A49E5E0EA97E43A3883A5DF	3/17/2022	3/16/2032



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=AU, O=Verokey, CN=Verokey Secure Web G3	CB01BEAC6315F30EB675B19CA08DC249E73867B0DAFAB5A5C30631A2372B2E65	7/24/2024	7/23/2034
CN=Apple IST CA 8 - G1, OU=Certification Authority, O=Apple Inc., C=US	A4FE7C7F15155F3F0AEF7AAA83CF6E06DEB97CA3F909DF920AC1490882D488ED	6/9/2016	6/8/2031
C=US, O=DigiCert, Inc, OU=www.digicert.com, CN=GeoTrust Primary Issuing CA	F7A84E24E8E0D89154874721C5B641F48A1EF0FF3B198F53BE021DB53F097BD0	12/8/2017	12/8/2027
C=US, O=Wi-Fi Alliance, CN=WFA Hotspot 2.0 Intermediate CA	AE0D0BA5AC3EEB823F5CA77331A99D7FDB2EC231D7CE47B7C208E3830E08A891	12/9/2013	12/9/2023
C=US, O=Wi-Fi Alliance, CN=WFA Hotspot 2.0 Intermediate CA	FEA342D00D1A355CF51569EF7E0F617ABB0F22D6D1E73DAA11DCB4D407975543	11/25/2013	11/25/2023
C=US, O=DigiCert, Inc, CN=DigiCert QuoVadis TLS ICA QV Root CA 1 G3	C42A4D8C0904BB211906F43B441BBBC9B5A003BA3611879FD34AE576F7C2F764	1/6/2021	1/4/2031
C=BM, O=QuoVadis Limited, CN=QuoVadis Enterprise Trust CA 1 G3	0531C86F785958939FDC539924D395D1EFA409364E6827D3AB9876311FFB27B0	6/6/2016	6/6/2031
C=BM, O=QuoVadis Limited, CN=QuoVadis RCA1G3 TLS CA	18BB70EFDA3F91438115C9EB4F333EB4EC68354571E6949195A0A91C9E6FBCD8	10/21/2020	10/19/2030
C=IE, O=DigiCert Ireland Limited, CN=DigiCert QuoVadis 2G3 TLS RSA4096 SHA384 2023 CA1	9163F1910D4944BE32D0D224A79F9FA6B4036E9098795AC81D3DD14CE4FF24D2	12/12/2023	12/11/2033
C=NL, O=QuoVadis Trustlink B.V., oid.2.5.4.97=NTRNL-30237459, CN=DigiCert QuoVadis G3 Qualified TLS RSA4096 SHA256 2023 CA1	FE3CBED838D30BAB900184C1F21A4B27D3211CB5C9257D7E985C2AE43AC6A89F	3/14/2023	3/11/2033
C=US, O=DigiCert, Inc., CN=DigiCert QV EV TLS ICA G1	6A7B2AA3414039A663D5D8BBAB8256A3979A84C332BF5E1EE8F6D0E0ADA84668	3/16/2020	3/14/2030
C=US, O=DigiCert, Inc., CN=DigiCert QV TLS ICA G1	93E33AF7DA3030530D090C9C55762CADE7EAE943F834349D1057A90EB67F306B	3/16/2020	3/14/2030
C=BM, O=QuoVadis Limited, CN=QuoVadis Enterprise Trust CA 2 G3	B6F6559BBCE0A2CC91E507B5D7319E32487EDAE28A063BC73B6405E6C44665B6	9/22/2020	6/6/2031
C=NL, O=QuoVadis Trustlink B.V., CN=QuoVadis Enterprise Trust CA 2 G4	1E356823FE40C0EAAC29F9ED5463B7B2DB1C088B63EBB05876A2E631C1087798	7/23/2020	7/20/2035
C=NL, O=QuoVadis Trustlink B.V., CN=QuoVadis Europe EV SSL CA G1	CB666B32BFF2EFEDCC4187DF149A6D34A5D10B7165B9CFF2A67C0E311AEEED7	7/20/2020	7/18/2030
C=NL, O=QuoVadis Trustlink B.V., CN=QuoVadis Europe SSL CA G2	B1AAE1BCD555E8A3D1E3DDA8EC84E757C552655344CE3FEEBBAF98E895DBEDAC	7/22/2020	7/20/2030
C=BM, O=QuoVadis Limited, CN=QuoVadis Global SSL ICA G3	161EE5386329B28A27FF405736552A621D5A844A43811E3623E52EEFA0BA840A	11/3/2021	11/2/2026
C=NL, O=QuoVadis Trustlink B.V., CN=QuoVadis Qualified Web ICA G2	7FEB9374EAB08D392717C647436DAE06176A24C010607FDA1CCE5E5F0106B472	7/22/2020	7/20/2030
C=NL, O=QuoVadis Trustlink B.V., CN=QuoVadis Qualified Web ICA G3	3F225BDBCD788CE924870CAF92F814B7C6FF4EDABABAD93F1D3A9177252CF1D1	8/28/2020	8/26/2030
C=US, O=DigiCert, Inc, CN=DigiCert QuoVadis TLS ICA QuoVadis Root CA 2	673E8FEEB1168277D0153111D20ED38E9DA51F440BE7FD50B218540937741A48	1/6/2021	1/4/2031
C=US, O=HydrantID (Avalanche Cloud Corporation), CN=HydrantID EV SSL CA G2	60388B773D33E9141648613F36B9149F015A114378BACF3E3694864FFDA426EC	7/21/2020	7/19/2030
C=US, O=HydrantID (Avalanche Cloud Corporation), CN=HydrantID SSL CA G3	AA57F482CBC516B4D10CA4097DD90D99F5AA727D207090D07DA9C36998ABB9AD	9/29/2020	9/27/2030



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=HydrantID (Avalanche Cloud Corporation), CN=HydrantID SSL ICA G2	9C6D08933201407FBF2B12540B67CC0E4C9666F132E1504762A717CBAE8F3FD6	12/17/2013	12/17/2023
C=US, O=HydrantID (Avalanche Cloud Corporation), CN=HydrantID SSL ICA G2	01453F645CD91E233B7484827F23F8A573FD641029EA8A6BFE549EF4ED8B323D	1/14/2021	12/17/2023
C=BM, O=QuoVadis Limited, CN=QuoVadis Global SSL ICA G2	E5CD0DD44E1120C79415C84F5369D79AE04F047E80DC0856351AABC232056CA5	5/25/2022	5/24/2027
C=BM, O=QuoVadis Limited, CN=QuoVadis Grid ICA G2	278ECF211E2518E9DD9913AFC583EEB3127C8184BCBEEDAAD7BD64E89E8C4310	9/22/2020	5/23/2026
C=DE, O=Fiducia & GAD IT AG, CN=VR IDENT EV SSL CA 2020	D33A847F640377BE0AE1A429153A07E87C8827FA4840B5158BCDCB85E10A453A	7/22/2020	7/20/2030
C=DE, O=Fiducia & GAD IT AG, CN=VR IDENT SSL CA 2020	347D18DCCC2EFC51A920E7A7FBB07BFBDA35613681F82DCA5C4C72BB0C83C035	7/22/2020	7/20/2030
C=US, O=DigiCert, Inc, CN=DigiCert QuoVadis TLS ICA QV Root CA 3 G3	728E4BD2B399840E9D437AF975B0198910B4129B7AB708CB5C0B445D3B04D999	1/6/2021	1/4/2031
C=BM, O=QuoVadis Limited, CN=QuoVadis Enterprise Trust CA 3 G3	DA5462526A0C2E9852A86186B025390158759CDCA6AE21F09F713CA6ACDD1F1	6/6/2016	6/6/2031
C=BM, O=QuoVadis Limited, CN=QuoVadis RCA3G3 TLS CA	ECC0D17AC3263AC6A164DCDB08F82D07E93FCEA723F66B88B06EEBA9678DF2BB	10/21/2020	10/19/2030
C=US, O=DigiCert, Inc, CN=DigiCert QuoVadis TLS ICA QV Root CA 3	D8CC89C6AA6B7452881907927C81E66DA0A1A7598CF7674E4E2E133F16546D5F0	1/6/2021	1/4/2031
C=BM, O=QuoVadis Limited, CN=QuoVadis RCA3G1 TLS CA	3A66E648212E6321F94D9EABCC92C052E679D992C99AD4596A4E7B85ADCEE5DE	10/21/2020	10/19/2030
C=IE, O=DigiCert Ireland Limited, CN=DigiCert QuoVadis G4 TLS ECC P384 SHA384 2023 CA1	0CAB7DBD736B1BFBE8E63ABE2DD55D64A0805140386DA05FC6E28D4FCF81B9B6	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=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	2D53B8177062E4C7CEA79EEBF62BFA52A5B18BC9B89483597E5714E4E9B52315	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	6BE39EC9E02D54008A7A716DD35A3D2F0A1FD8F8F34DAE235446150C6F48BC7E	7/16/2015	7/15/2025
C=AU, O=NB Co Limited, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=NB Co Limited Public Issuing CA - G2	758F496C9928A3C67E0D50D03D2E2CAFF733D427E57AB5FEE7D5AC4153C4071	2/10/2015	2/9/2025



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
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 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	1AB7DCA7F8B28027F2B71FBB8C8B87162FE112C47AC4D09638C8EA01915A177D	9/10/2015	9/9/2025
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=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 2 Individual Signing RSA CA	8B9218D93DB5377CFE7D5923E7016D379D446F0019C47B9B4EA737AEDF86A558	1/22/2015	1/20/2030
C=US, O=DigiCert, Inc., CN=DigiCert TLS ICA SYMC PCA3-G4	B1D1244218C903B64EBF42150C5FD891EB5B663CE6F20DD12E8352DD7D1E6693	1/8/2021	1/7/2031
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=US, O=DigiCert, Inc., CN=DigiCert TLS ICA SYMC PCA3-G6	FDB351BDA2D821C3DFBB924A12D90D6DC760D5F6200144529E502E467BBF9ECC	1/8/2021	1/7/2031
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 EV SSL CA - G4	31862233620E789330CC893E8B5E66705331B8888B0ED30A44574D9E0A71C4F1	1/7/2016	1/6/2026
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=JP, O=DAIICHI SANKYO COMPANY, LIMITED, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=DAIICHI SANKYO COMPANY Public CA - G2	68361FD0131D79AC91C9939F3E5479CA32E2BE419A7CF519E026F992234509EE	4/15/2014	8/27/2022
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



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
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=AU, O=ASCIANO EXECUTIVE SERVICES PTY LTD, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Asciano CA	5FC7C6E19AF873E0941D7C6AB344D3E6E4F73DD67693FADF2A9C6438AC1A1A	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	B864FF6DE0CB1BEAF6AA5C68DB8769C91F18E1721E22AC3ECDD91C0889D77078	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=DE, O=Heuer und Partner - Rechtsanwälte 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=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=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	0B5F13974CEB577E1CC39DFFADF616FCF0C17ECA6747201AEB46AF3BC20CE4F4	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	7FC6CAB96C16C850F457DCBBF893539EA2664395F2409693789F41BFD64714E	12/11/2014	12/10/2024
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=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=DigiCert, Inc., CN=DigiCert TLS ICA Universal 2021	23EE12A8DA9D38549C54A32BC1E4A18BAF1570488107D169EBD734DFDA330B0E	1/12/2021	1/11/2031
C=US, O=DigiCert, Inc., OU=www.digicert.com, CN=DigiCert TLS ICA VRSN Universal	BA5B6E5DFEBDAE1C80BD72790BC85BCC6538AB4613023DA706CE826415F5E5B3	1/17/2019	1/16/2029
C=US, O=Symantec Corporation, OU=Symantec Trust Network, OU=Domain Validated SSL, CN=Symantec Basic DV SSL CA - G2	DDF583E3A1ED35E57D95104817AD823C055FB9071CD400435B5FC74E692081DB	6/7/2016	6/6/2026
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=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 Omni TLS RSA4096 SHA256 2022 CA1	632ABAFBCDD7E86A19EDCB404332A9003A0478D75D58D86AAA776570B1D874E9	8/1/2022	7/31/2032



Timestamping 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., 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
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Trusted Root G4	4C913D04FB495DC36119552D6068F7B9891EFE40344E9E5C1E9132F65BAEFF7F	6/9/2022	11/9/2031



DIGICERT, INC. MANAGEMENT'S ASSERTION

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

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

- disclosed its SSL certificate lifecycle management business practices in the applicable versions of its DigiCert Certification Practices Statement ("CPS"), DigiCert Certificate Policy ("CP") and DigiCert Certificate Policy and Certification Practices Statement for Public Trust Store PKI Services ("CP/CPS") as enumerated in [Attachment A](#), including its commitment to provide SSL certificates in conformity with the CA/Browser Forum Requirements on its [repository](#), and provided such services in accordance with its disclosed practices
- maintained effective controls to provide reasonable assurance that:
 - the integrity of keys and SSL certificates it manages is established and protected throughout their lifecycles; and
 - SSL subscriber information is properly authenticated
- 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 September 1, 2023 to August 31, 2024, based on the [WebTrust Principles and Criteria for Certification Authorities - SSL Baseline - Version 2.8](#).

DigiCert has disclosed the following matters publicly Mozilla's Bugzilla platform. These matters were included below due to being open during the period September 1, 2023 through the date of this report.



Bug ID	Summary	Opened	Closed	Resolution
#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
#1860697	DigiCert: Certificates issued inconsistent with S/MIME BR v1.0.1	10/23/2023	1/4/2024	Fixed
#1865235	DigiCert: Late background refreshment check	11/16/2023	12/7/2023	Fixed
#1875205	DigiCert: SMIME certs missing State in Org ID	1/17/2024	1/26/2024	Fixed
#1881364	DigiCert: SMIME certificate with unvalidated information	2/21/2024	3/29/2024	Fixed
#1891531	DigiCert: Government Entity listed instead of registration number	4/15/2024	5/2/2024	Fixed
#1894560	DigiCert: Incorrect case in Business Category	5/1/2024	7/3/2024	Fixed
#1896053	DigiCert: Delayed Revocation for bug 1894560	5/10/2024	Open	---
#1896462	DigiCert: Preview certificate uploaded to CCADB instead of the actual certificate	5/13/2024	6/1/2024	Fixed
#1898986	DigiCert: Incorrect Org ID Scheme in S/MIME	5/25/2024	6/21/2024	Fixed
#1910258	DigiCert: Typo in TLS Org Name	7/27/2024	Open	---
#1910322	DigiCert: Random value in CNAME without underscore prefix	7/28/2024	Open	---
#1910805	DigiCert: Delayed revocation of 1910322	7/30/2024	Open	---
#1914911	DigiCert: Unclear Disclosure of CAA Issuer Domain Names	8/26/2024	Open	---
#1925106	DigiCert: Incorrect CP listed in CCADB	10/16/2024	Open	---
#1927506	DigiCert: Incorrect OrgID in S/MIME certificates for one customer	10/28/2024	Open	---
#1930759	DigiCert: Domain used for CRLs and OCSP has expired	11/12/2024	Open	---

DigiCert, Inc.

DocuSigned by:

11/27/2024

1E5E181D82CE40D

Jason Sabin
Chief Technology Officer



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

Certificate Policy/Certificate Practice Statement¹

Policy Name	Version	Effective Date
DigiCert Certificate Policy and Certification Practices Statement for Public Trust Store PKI Services	7.01	August 27, 2024
DigiCert Certificate Policy and Certification Practices Statement for Public Trust Store PKI Services	7.00	July 29, 2024

Certificate Policies

Policy Name	Version	Effective Date
DigiCert Certificate Policy	6.06	May 23, 2024
DigiCert Certificate Policy	6.05	January 10, 2024
DigiCert Certificate Policy	6.04	December 14, 2023
DigiCert Certificate Policy	6.03	November 09, 2023
DigiCert Certificate Policy	6.02	September 07, 2023
DigiCert Certificate Policy	6.01	September 05, 2023
DigiCert Certificate Policy	6.00	August 16, 2023

Certification Practice Statements

Policy Name	Version	Effective Date
DigiCert Certification Practices Statement	6.06	May 23, 2024
DigiCert Certification Practices Statement	6.05	January 10, 2024
DigiCert Certification Practices Statement	6.04	December 14, 2023
DigiCert Certification Practices Statement	6.03	November 09, 2023
DigiCert Certification Practices Statement	6.02	September 07, 2023
DigiCert Certification Practices Statement	6.01	September 05, 2023
DigiCert Certification Practices Statement	6.00	August 16, 2023

CA Locations In-Scope

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

¹ Effective July 29, 2024, the DigiCert Certificate Policy and DigiCert Certification Practices Statement combined into the DigiCert Certificate Policy and Certification Practices Statement for Public Trust Store PKI Services.



ATTACHMENT B - LIST OF CAs IN SCOPE

Root CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=IE, O=Baltimore, OU=CyberTrust, CN=Baltimore CyberTrust Root	16AF57A9F676B0AB126095AA5EBADEF22AB31119D644AC95CD4B93DBF3F26AEB	5/12/2000	5/12/2025
O=Cybertrust, Inc, CN=Cybertrust Global Root	802447EE521CC666CDB7BBAE93A385E55F200D76A3D1356A85445AC4CBDBED12	1/8/2014	12/15/2030
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=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Assured ID Root G2	7D05EBB682339F8C9451EE094EEBFEEFA7953A114EDB2F44949452FAB7D2FC185	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 Client ECC P384 Root G5	CD851C5C25467C0095A43927D0B2292D932975E84DCE4C5E794542C6574C3AA4	1/15/2021	1/14/2046
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 CS ECC P384 Root G5	26C56AD2208D1E9B152F66853BF4797CBEB7552C1F3F477251E8CB1AE7E797BF	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=DigiCert, Inc., CN=DigiCert ECC P384 Root G5	C1468CF2254E6004B24696ABA209D1A30BA6E2DFF68A9A4E32C6AB414F90C8D9	1/15/2021	1/14/2046
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 Global Root G2	CB3CCBB76031E5E0138F8DD39A23F9DE47FFC35E43C1144CEA27D46A5AB1CB5F	8/1/2013	1/15/2038
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 High Assurance EV Root CA	7431E5F4C3C1CE4690774F0B61E05440883BA9A01ED00BA6ABD7806ED3B118CF	11/10/2006	11/10/2031
C=US, O=DigiCert, Inc., CN=DigiCert RSA4096 Root G5	E46A392204A8DCA342A71C1CA9A60C9185B9A930370120C3B9C7E3856F0D8F3B	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 SMIME RSA4096 Root G5	90370D3EFA88BF58C30105BA25104A358460A7FA52DFC2011DF233A0F417912A	1/15/2021	1/14/2046
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 TLS RSA4096 Root G5	371A00DC0533B3721A7EEB40E8419E70799D2B0A0F2C1D80693165F7CEC4AD75	1/15/2021	1/14/2046
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Trusted Root G4	552F7BDCF1A7AF9E6CE672017F4F12ABF77240C78E761AC203D1D9D20AC89988	8/1/2013	1/15/2038



Root CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=DigiCert, Inc, OU=www.digicert.com, CN=DigiCert Universal Transition Root	AF0E363CAE6DF489F2976A284D12D4C33C94B135FA77F89E89298D7491E99974	12/8/2017	12/8/2037
C=US, S=Utah, L=Lehi, O=DigiCert, Inc., OU=www.digicert.com, CN=DigiCert Verified Mark Root CA	504386C9EE8932FECC95FADE427F69C3E2534B7310489E300FEE448E33C46B42	9/23/2019	9/23/2049
C=US, O=WFA Hotspot 2.0, CN=Hotspot 2.0 Trust Root CA - 03	A3CC68595DFE7E86D8AD1772A8B5284ADD54ACE3B8A798DF47BCCAFB1FDB84DF	12/8/2013	12/8/2043
C=NL, O=QuoVadis Trustlink B.V., CN=QuoVadis Client ECC P384 Root G4	D3C07AC44BD8FF1975BC62F1C7E9840EA8E188A4BA51133B8CAEFF05E34A2729	3/16/2023	3/9/2048
C=NL, O=QuoVadis Trustlink B.V., CN=QuoVadis Client RSA 4096 Root G4	80AC91FA891C79723A61ABC77F86E19905A92DA27E51695CA0C0B66C1C039BF2	3/16/2023	3/9/2048
C=BM, O=QuoVadis Limited, CN=QuoVadis Root CA 1 G3	8A866FD1B276B57E578E921C65828A2BED58E9F2F288054134B7F1F4BFC9CC74	1/12/2012	1/12/2042
C=BM, O=QuoVadis Limited, CN=QuoVadis Root CA 2 G3	8FE4FB0AF93A4D0D67DB0BEBB23E37C71BF325DCBCDD240EA04DAF58B47E1840	1/12/2012	1/12/2042
C=BM, O=QuoVadis Limited, CN=QuoVadis Root CA 2	85A0DD7DD720ADB7FF05F83D542B209DC7FF4528F7D677B18389FEA5E5C49E86	11/24/2006	11/24/2031
C=BM, O=QuoVadis Limited, CN=QuoVadis Root CA 3 G3	88EF81DE202EB018452E43F864725CEA5FBD1FC2D9D205730709C5D8B8690F46	1/12/2012	1/12/2042
C=BM, O=QuoVadis Limited, CN=QuoVadis Root CA 3	18F1FC7F205DF8ADDDEB7FE007DD57E3AF375A9C4D8D73546BF4F1FED1E18D35	11/24/2006	11/24/2031
C=NL, O=QuoVadis Trustlink B.V., CN=QuoVadis Signing ECC P384 Root G4	771535D43D4633BD307EB7B8A3966B5DF00707C088089920080C1AE6D3CB0F68	3/16/2023	3/9/2048
C=NL, O=QuoVadis Trustlink B.V., CN=QuoVadis Signing RSA 4096 Root G4	9F8E6DB31E740285E0C2C2DEB09E442BDD4E74BDEEAE2962BC82D1ECB9F39855	3/16/2023	3/9/2048
C=NL, O=QuoVadis Trustlink B.V., CN=QuoVadis SMIME ECC P384 Root G4	83FDD82FD9DAE3B21EEBD33CF46251D746F0D6102B683150DD7B98AD8E4BB9F8	3/16/2023	3/9/2048
C=NL, O=QuoVadis Trustlink B.V., CN=QuoVadis SMIME RSA 4096 Root G4	5232A304AA4A10CFE6C47842EA3381CB31D619E24F58126D534CD50C5CE7845D	3/16/2023	3/9/2048
C=NL, O=QuoVadis Trustlink B.V., CN=QuoVadis TLS ECC P384 Root G4	6E1FD3AE0D2D477C8F5EE5F335CC5B6356872654E5356A73D8C0A30A17C252A2	3/16/2023	3/9/2048
C=NL, O=QuoVadis Trustlink B.V., CN=QuoVadis TLS RSA 4096 Root G4	C8A2D38A24F5AC302D8A08EBD38923D9A750B49220F092E82D1C53249E1533D0	3/16/2023	3/9/2048
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=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 1 Public Primary Certification Authority - G6	9D190B2E314566685BE8A889E27AA8C7D7AE1D8AADDBA3C1ECF9D24863CD34B9	10/18/2011	12/1/2037
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



Root CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
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 3 Public Primary Certification Authority - G6	B32396746453442F353E616292BB20BBAA5D23B546450FDB9C54B8386167D529	10/18/2012	12/1/2037
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=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=VeriSign, Inc., OU=VeriSign Trust Network, OU=(c) 1999 VeriSign, Inc. - For authorized use only, CN=VeriSign Class 1 Public Primary Certification Authority - G3	7B2A147C2FEFED78A7A4BAE0147A5177C4CA1035B5281CDF989BA0B9F97A054A	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	0939110E0DCC06CEBFD0D73C01AB7BFB7A97979F7649EABD725B18CC9BC85F8	10/1/1999	10/1/2049
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	BA7D7BB1DFBE64EA956CD776185C8DACC7E1ED548C4A9BD40631BEF5BFB1522A	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 2 Public Primary Certification Authority - G3	4DDDA06A1A9B475C38B89EED41B1535A3A35AB321BD5C6607B312E46DD766876	10/1/1999	10/1/2049
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) 2008 VeriSign, Inc. - For authorized use only, CN=VeriSign Universal Root Certification Authority	2399561127A57125DE8CEFEA610DDF2FA078B5C8067F4E828290BFB860E84B3C	4/2/2008	12/1/2037
C=US, O=Verizon Business, OU=OmniRoot, CN=Verizon Global Root CA	68AD50909B04363C605EF13581A939FF2C96372E3F12325B0A6861E1D59F6603	7/30/2009	7/30/2034



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	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



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
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=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=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=US, O=Amazon, CN=Amazon ECDSA 384 M01	DFE35C740CF41C0B053E2202EA5AFC2F021F70BF90B26BC861FE1D9A0BFC4F1E	8/23/2022	8/23/2030
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
CN=Apple IST CA 2 - G1, OU=Certification Authority, O=Apple Inc., C=US	C9B06CC083186220618E61A8772640F824DF69D561AD56BDC15AD56DOCE08608	12/12/2018	5/7/2025
CN=Apple IST CA 8 - G1, OU=Certification Authority, O=Apple Inc., C=US	5C29DBEA9B7CC8B02418F28C1C8736DFDF170665D098EF681D903BE76987D249	12/12/2018	5/7/2025
C=US, O=Apple Inc., CN=Apple Public Server ECC CA 2 - G1	DA8546816D891C1241E9387DE436D1B9F7EA70DBA1EB3D25F58271CE816A7ABC	12/12/2018	5/7/2025
C=US, O=Apple Inc., CN=Apple Public Server RSA CA 2 - G1	F518F0BB716521F0A26FDB40C304FF9B82FBD8E7ACBD46BF0EF23A180188EB5C	12/12/2018	5/7/2025
C=US, O=Cloudflare, Inc., CN=Cloudflare Inc ECC CA-3	3ABBE63DAF756C5016B6B85F52015FD8E8ACBE277C5087B127A60563A841ED8A	1/27/2020	12/31/2024
C=US, O=Cloudflare, Inc., CN=Cloudflare Inc RSA CA-2	AEC863898F284D6CD4C6A3F6C3E6523480A359C33DAF66FAD3381849B8BB018B	1/27/2020	12/31/2024
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	F9690880819F06DCC0B2F224B207F2AF6003FB57339B8679A160FA95208D62D	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=US, O=DigiCert Inc, CN=DigiCert Baltimore TLS RSA SHA256 2020 CA1	38F73647F1ECAEE0CFC5AFE68AC30E0C26171E9F232F4530729412408FD53626	9/24/2020	5/11/2025
C=US, O=DigiCert Inc, CN=DigiCert Baltimore TLS RSA SHA256 2020 CA1	701317250210AB91280527C3B436931015B8DCEE69A6893ADA4FFAD25A6FE44F	4/22/2021	5/12/2025
C=US, O=Microsoft Corporation, CN=Microsoft RSA TLS CA 01	04EEEA8E50B4775B3C24797262917EE50002EC4C75B56CDF3EE1C18CFA5BA52	7/21/2020	10/8/2024



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=Microsoft Corporation, CN=Microsoft RSA TLS CA 02	05E4005DB0C382F3BD66B47729E9011577601BF6F7B287E9A52CED710D258346	7/21/2020	10/8/2024
C=US, O=Microsoft Corporation, CN=MSFT BALT RS256 CA	069DF2F8919D9209D0C524A56BA1181DF6D1BBFC4AA61C9F01D092E2D5C3A1FD	4/7/2022	5/11/2025
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, CN=Data Management Intermediate CA2	422F9D4E68134E362B7569E5298A173CEC40C7C7274B2263A9BC8ADA1D1A23FA	10/9/2020	8/25/2025
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., CN=DigiCert Assured ID Grid TLS RSA2048 SHA256 2022 CA1	0181B2B6173179562E75632344037CA523018618A7F7168269A3EB85367FF75C	3/10/2022	11/9/2031
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, Inc., CN=DigiCert Assured ID TLS RSA4096 SHA256 2022 CA1	987FF2E3B25A3A14CB843D907B3C7F007C274921AFC10017F85D4FAE7B0CB8B6	3/3/2022	11/8/2031
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 Grid, OU=www.digicert.com, CN=DigiCert Grid Trust CA	1E0A3AB993157717281D42ABF801EB64DEED500EA4168CA706D6A71D8103C73A2	12/7/2011	12/7/2026
C=US, O=DigiCert Inc, CN=DigiCert Secure Auth CA2	4759D6F4ED6DF0E08FC4CA801986E2BE10594DBAF341B4C45ABAF3748887D25	10/9/2020	10/8/2030
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Secure Auth CA	24E9F20AC167BB8F09DE8A1E9968CC53F0B5F3A4948F51B8647B40B186C75EBE	4/23/2014	4/23/2029
C=US, S=CA, L=Mountain View, O=Google, Inc., CN=Google CA1	438F473EBFC8884EF5D3E0D52D264CDBE56CA382D9EBFC689D77489409F55A6E	8/25/2015	8/25/2025
C=US, S=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, S=Noord-Holland, L=Amsterdam, O=TERENA, CN=TERENA eScience Personal CA 3	FDA947208BFA3203A6C57B8714A647B7009E5168E88951345450B1D2D3F91A7D	11/18/2014	11/18/2024
C=NL, S=Noord-Holland, L=Amsterdam, O=TERENA, CN=TERENA eScience SSL CA 3	E1BE6BBBB70F5A241E736FC44C6A2160BF6CE19B95EDD67BF7BE896E83778745	11/18/2014	11/18/2024
C=NL, S=Noord-Holland, L=Amsterdam, O=TERENA, CN=TERENA Personal CA 3 G3	C123F5AFACC9F9096809850355E5BF78CA937734811B5167A964DDEDC044DE9	12/9/2014	12/9/2024



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=NL, S=Noord-Holland, L=Amsterdam, O=TERENA, CN=TERENA Personal CA 3	DD4E0C17900F3FC2A5B7B73AE40218AD73216B5CE5D285EBFFCE8830D0F034A	11/18/2014	11/18/2024
C=NL, S=Noord-Holland, L=Amsterdam, O=TERENA, CN=TERENA SSL CA 3 G3	C9D6913F3FEDDEFF184C9EE1D7E17C5AEC90886EED5CC3D6E98105831C8C0E0B	12/9/2014	12/9/2024
C=NL, S=Noord-Holland, L=Amsterdam, O=TERENA, CN=TERENA SSL CA 3	BEB8EFE9B1A73C841B375A90E5FFF8048848E3A2AF66F6C4DD7B938D6FE8C5D8	11/18/2014	11/18/2024
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 G2 TLS RSA4096 SHA256 2022 CA1	43A70E3620BC452339D878AA68F2E5358AC4607AC722C4D77D3C4D2C204F7F71	3/31/2022	3/30/2032
C=US, O=DigiCert Inc, CN=DigiCert Assured ID TLS CA G2	77CD51784A693D9482E7EA694E4053BCFD9DF65580FBCE14B2A7527C081803E1	3/25/2020	3/25/2030
C=US, O=DigiCert Inc, CN=DigiCert Assured ID CA G3	634FDF26C994E76A2918D9EFC4CAB9C6FCB344EF642A79C89192BCDA0ED52F4C	8/1/2013	8/1/2028
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 G5 ECC SHA384 2021 CA1	4E1AB9F0122809E2A8E93133187AF7E671C9C3BF86971065D578FC4C08AF79	3/11/2021	3/10/2031
C=US, O=DigiCert, Inc., CN=DigiCert G5 ECC SHA384 2021 CA1	7A2311B472B99171164FFA0BCA3FA7AC9AC46D035657BFC1EA133095C9703933	4/14/2021	4/13/2031
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=Abbott Laboratories Inc., CN=Abbott Laboratories Secure Authentication CA G2	2697ACB96A49BE2BFC5C06C393949F0D8E75106AD6D4C73E2DA172A90831A85A	1/21/2021	1/20/2031
C=US, O=Abbott Laboratories Inc., CN=Abbott Laboratories Secure Authentication CA	DB99A4F284CCF10B26DE7B7A5D651725B857CBC871EBB33028D67B55510EFC9D	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 CA2	CDBCBEF16E37237702FACC4B55D3AB92A17CFA17835E13377AA4D2BA0FD47A02	9/24/2020	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 Basic ECC CN CA G2	97C4B44316055F26A52A1F664CE385800A964A8552C99D2BCAFD618E6D8074A0	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



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
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 Cloud Services CA-1	5F88694615E4C61686E106B84C3338C6720C535F60D36F61282ED15E1977DD44	9/25/2020	9/24/2030
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, CN=DigiCert Secure Site CN CA G3	6AF5C4EAC180289B94A77A5D231E3865FFE934F3E6A24BF487EB4E2BFD809A4B	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 Secure Site ECC CN CA G3	00C0CBA95CBFE1E270814275F32B505D6E5916C2B6DA67FAF4DD309EE6E86CBE	3/13/2020	3/13/2030
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, CN=DigiCert Secure Site Pro CN CA G3	A66C97AE59DFF9EA015E73C744EE5520745F101A395C497D19E1F168D39AFCD0	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=US, O=DigiCert Inc, CN=DigiCert SHA2 Secure Server CA	C1AD7778796D20BCA65C889A2655021156528BB62FF5FA43E1B8E5A83E3D2EAA	9/23/2020	9/22/2030
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 TLS Hybrid ECC SHA384 2020 CA1	D79A2D5E03295C0E9FEAE36D021EBD5209700AB1A9E817A43F30FA3C66F78D21	9/23/2020	9/22/2030
C=US, O=DigiCert Inc, CN=DigiCert TLS Hybrid ECC SHA384 2020 CA1	F7A9A1B2FD964A3F2670BD668D561FB7C55D3AA9AB8391E7E169702DB8A3DBC	4/14/2021	4/13/2031
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 TLS RSA SHA256 2020 CA1	52274C57CE4DEE3B49DB7A7FF708C040F771898B3BE88725A86FB4430182FE14	4/14/2021	4/13/2031
C=US, O=DigiCert Inc, CN=DigiCert Trust Service CA	75AC8E41D9A7CC758D3998FE030F638CFD28855823DA4E9B56954CFBDE054EB6	3/4/2020	3/4/2030
C=US, O=DigiCert Inc, CN=DigiCert Trust Service ECC CA	F269AC00B410003F72DC628AFB3D950279630C7C5D0C82148A0FD24DF4DA4301	3/4/2020	3/4/2030
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Encryption Everywhere DV TLS CA - G1	15EB0A75C673ABFBD022FAFC02823C91FE6CBC36E00788442C8754D72BEC3717	11/27/2017	11/27/2027
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=GeoTrust CN RSA CA G1	23DDF08B22373D86158EB9C99FDB5366B19804560531372DD20DCE3FB766F56C	6/20/2019	6/20/2029
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=GeoTrust ECC CA 2018	D8E269A6EB08CBC337AD6578C72135787484C99D2FB08CCED029E806BE1040FC	11/6/2017	11/6/2027



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=DigiCert Inc, CN=GeoTrust ECC CN CA G2	7CAEEC680E6497FC5109073F83816E798F27F8968A2663C1C95711B548192E35	3/4/2020	3/4/2030
C=US, O=DigiCert Inc, CN=GeoTrust ECC CN CA G3	52DDE89FDD6F610473F9314C7A8B1AC442F8AA833AA5D773006FDA758C9FF1EC	6/9/2020	6/9/2030
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, OU=www.digicert.com, CN=GeoTrust RSA CA 2018	8CC34E11C167045824ADE61C4907A6440EDB2C4398E99C112A859D661F8E2BC7	11/6/2017	11/6/2027
C=US, O=DigiCert Inc, CN=GeoTrust RSA CN CA G2	E3C24279DD6A337F881B1BC692E878F4A31AFE95851F208F94800B0C24D88C38	3/4/2020	3/4/2030
C=US, O=DigiCert Inc, CN=GeoTrust RSA CN CA G3	8A023C08E4A1AACC925B34C5C7965A8D0527565AEA130ABB915E508CD33AFB45	6/9/2020	6/9/2030
C=NL, O=SupremeSSL, OU=www.supremessl.com, CN=GeoTrust SupremeSSL 1 CA	354FCFC6162A0EE2205DBEF68931E78033ECE9D125E0824E49BAEBF82DFDD167	5/7/2019	5/7/2029
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=Avalanche Cloud Corporation, CN=HydrantID SSL CA D1	A847544CC3CD54E855CA39780C2162431F5C8E327EC66D5A43CF266877BEC50F	3/4/2021	3/3/2031
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=RapidSSL ECC CA 2018	A0D1523A0BF663550EB9081E9BDDEDA12814F9570B7697D95DF2EA53D4FF75E3	11/6/2017	11/6/2027
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, 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 CA G2	F614AE2B101484F15F66F4DDA56EE6EB422728F179D94399EDE19AC1D85A8BD3	6/20/2019	6/20/2029
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Secure Site CA	B26EB310F8FAF0EF5B0D0B71AA65EC050FA3ADE29134FB438AB6440288FA6E67	5/17/2018	5/17/2030
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=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 G2	DA3BE2B6A6D9715C1295A42BE526E0001D10E5D7540F06E7631B34E644934848	6/20/2019	6/20/2029
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 CN RSA CA G1	7867AAE905EB8D55635FFEBBBF8CF05A63B9B390665DE2367AC1073E92913728	6/20/2019	6/20/2029
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, CN=Thawte ECC CN CA G2	58E89F4F70410DA00B41473CFA413FA0737ED2729F3ED77BE29A7F4705377147	3/13/2020	3/13/2030



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Thawte RSA CA 2018	9A5EECEE9C7D898BD81DC3BF066DAF6AEFB8DB1C59676206D2BFDD682312C6F6	11/6/2017	11/6/2027
C=US, O=DigiCert Inc, CN=Thawte RSA CN CA G2	95141A355A5A2AA3E011221CAB9FE73810FDB5D88135864F03E4D852BD0BBEDB	3/13/2020	3/13/2030
C=CN, O=TrustAsia Technologies, Inc., CN=TrustAsia ECC OV TLS Pro CA G2	70357B9E56D3FB3C6C009C38C7181454C462908DFBCE6D54D60DFE1E506E14FD	6/20/2019	6/20/2029
C=CN, O=TrustAsia Technologies, Inc., CN=TrustAsia ECC OV TLS Pro CA G3	756AAB900E3F5C762734B6461FC32A9DD341EA1D4A04283409233C39787A867E	3/13/2020	3/13/2030
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 G2	DBDFA91ACC4DB8AD83FCC7978E35D62F6E32E55108273C8EC998E3133580D664	6/20/2019	6/20/2029
C=CN, O=TrustAsia Technologies, Inc., CN=TrustAsia OV TLS Pro CA G3	D0E8A51ACAA89AF82767E2EF16543C2CC635551B5DE0DAE25D6AAC71E7862870	3/13/2020	3/13/2030
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=AU, O=Verkey, CN=Verkey High Assurance Verified Business	2F0E385864D2DCA8AC7AE48164287BFE45126C6BCD92E91BB3DF1250C7B2DABA	3/17/2022	11/9/2031
C=AU, O=Verkey, CN=Verkey Secure Web	DBAF58DEBFBBA1DE8E04DCAE7A2C163B09D39E7E732E91DEA8655C2BD732AB00	3/17/2022	11/9/2031
C=AU, O=Verkey, CN=Verkey Verified Business	D6CC57B9260E9B012DFAC40A81BFC022B92D91FA49B7C45C59DF86702AAC2906	3/17/2022	11/9/2031
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=Apple Inc., CN=Apple Public EV Server RSA CA 1 - G1	340CA5BA402D140B65A2C976E7AE8128A1505C29D190E0E034F59CCAE7A92BC2	4/29/2020	4/10/2030
C=US, O=Apple Inc., CN=Apple Public Server RSA CA 1 - G1	392583543B93B10E0506DE75D69399FCBBC1469C8DE396066C756088B92241DA	12/12/2018	12/11/2030
C=US, O=Bloomberg LP, CN=Bloomberg TLS CA	F5F1A8C04E5CF0FDB678DD279994463E48508C4349643B0D92CBFD7523F6C40A	3/30/2021	3/29/2031
C=US, O=Bloomberg LP, CN=Bloomberg TLS CA	440B37416F2DE852CA386150D611EC0AF31DD58D8A27F882815A7EA3EE6848EE	9/24/2020	9/23/2030
C=US, O=Cloudflare, Inc., CN=Cloudflare Inc RSA CA-3	9FB0385317FAB1C00541B274A6C82B7644DE7C7FD4BB5E335DE445FA0A96BFD9	7/10/2024	7/9/2029
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 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



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=DigiCert Inc, CN=DigiCert EV RSA CA G2	9588EF74199E45ACEFCCFC0C47010E9F2A37A1DD44C61A4E1C6B334DA5AF614	7/2/2020	7/2/2030
C=IE, O=DigiCert Ireland Limited, CN=DigiCert G2 TLS EU RSA4096 SHA384 2022 CA1	A4ADFC2917BB1451D312371D441ACDB686107FBC0B3156D5570E99E1121974FA	9/19/2022	9/18/2032
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=DigiCert Global CA-3 G2	9B2DD4FBEE941F6510F716C04969B36428892765461701EF47D41B3289475D50	11/12/2019	11/12/2029
C=US, O=DigiCert, Inc., CN=DigiCert Global G2 TLS EE+ RSA4096 SHA256 2022 CA1	B915B806A8B7BE2E3809F2E932996E7C10CC82691864A89606BD50080DC2EAB3	4/28/2022	4/27/2032
C=US, O=DigiCert Inc, CN=DigiCert Global G2 TLS RSA SHA256 2020 CA1	C8025F9FC65FDFC95B3CA8CC7867B9A587B5277973957917463FC813D0B625A9	3/30/2021	3/29/2031
C=US, O=DigiCert Inc, CN=DigiCert Global G2 TLS RSA SHA256 2020 CA1	1F8EB9E9A8E066CC5B3833E06B3129764B622639D5B163F600E1C79120BF3EED	9/24/2020	9/23/2030
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=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 Secure Site Korea CA	6555D661D37F2494A23C2D5F83479E78051B6DE76A147B506D6BEA2882B4D066	11/20/2018	11/20/2028
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, OU=www.digicert.com, CN=Encryption Everywhere DV TLS CA - G2	B1AC8CFB181B9C9354E1775FCBDFCFE7898C5CC9A17D76315B57C112EEE55234	11/27/2017	11/27/2027
C=FR, O=Gandi SAS, CN=GandiCert	3337D4E4B4EF6A94F04915D2E86B1F8F47A3C83667DA2519D9B95AE7270AFFE1	4/17/2024	4/16/2034
C=US, O=DigiCert, Inc., CN=GeoTrust EV G2 TLS CN RSA4096 SHA256 2022 CA1	6FE24FBFBFBFBD3BE69A472DBF75EF30CACF8AEA319F3893654C91BAB91143	12/15/2022	12/14/2032
C=US, O=DigiCert Inc, CN=GeoTrust EV RSA CA G2	2D140F20B8A96E2B4D2F1CC5ACA5E5A1E7DC56A7491E510906960F38D2D21AEF	7/2/2020	7/2/2030
C=US, O=DigiCert, Inc., CN=GeoTrust G2 TLS CN RSA4096 SHA256 2022 CA1	05DC9EDC0FDDFA975A1432EF806EC780078B5362AD45AF76DB15C907630DB25D	12/15/2022	12/14/2032
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, OU=www.digicert.com, CN=GeoTrust TLS RSA CA G1	C06E307F7CFC1D32FA72A4C033C87B90019AF216F0775D64978A2ECA6C8A230E	11/2/2017	11/2/2027



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=LV, O=EnVers Group SIA, CN=GoGetSSL G2 TLS RSA4096 SHA256 2022 CA-1	8AADF068A1B7C04B3E346F7C97FD9619FFF14ECC6C82C2F15594B9732F3F3E72	6/23/2022	6/22/2032
C=CH, O=Hostpoint AG, OU=Domain Validated SSL, CN=Hostpoint TLS RSA CA	F7FBDEB82BE99D41CDCA419FC91859D3E5286C076204E0E903D678BB213ED89B	11/2/2017	11/2/2027
C=DE, O=Legacy Technologies GmbH, CN=Legacy Technologies Intermediate	1032C6001ED664A0CD343B138BCB6860E2111011C3D5F06540F5BE41147812A5	7/2/2020	7/2/2030
C=US, O=Microsoft Corporation, CN=Microsoft Azure RSA TLS Issuing CA 03	9D1BC5D2DD75BF8B64F35E7F919E2546C225BE888C1A8CBE82C0E9579234A7ED	6/8/2023	8/25/2026
C=US, O=Microsoft Corporation, CN=Microsoft Azure RSA TLS Issuing CA 04	33F9731BE910A66DC6ACD07D9D9CA212EE8D0A9A5C78C8BF3E89BB74DF8FB936	6/8/2023	8/25/2026
C=US, O=Microsoft Corporation, CN=Microsoft Azure RSA TLS Issuing CA 07	724247794951C93F3E41711617E95CE143263E3196C345A1DA78F6639749EC03	6/8/2023	8/25/2026
C=US, O=Microsoft Corporation, CN=Microsoft Azure RSA TLS Issuing CA 08	511C1C41CB7EB2A10078C32C82F17925BA786DE46C633921D038E7409E15A5EA	6/8/2023	8/25/2026
C=US, O=Microsoft Corporation, CN=Microsoft Azure TLS Issuing CA 01	24C7299864E0A2A6964F551C0E8DF2461532FA8C48E4DBBB6080716691F190E5	7/29/2020	6/27/2024
C=US, O=Microsoft Corporation, CN=Microsoft Azure TLS Issuing CA 02	15A98761EBE011554DA3A46D206B0812CB2EB69AE87AAA11A6DD4CB84ED5142A	7/29/2020	6/27/2024
C=US, O=Microsoft Corporation, CN=Microsoft Azure TLS Issuing CA 05	D6831BA43607F5AC19778D627531562AF55145F191CAB5EFAFA0E0005442B302	7/29/2020	6/27/2024
C=US, O=Microsoft Corporation, CN=Microsoft Azure TLS Issuing CA 06	48FF8B494668C752304B48BFE818758987DEF6582E5F09B921F4B60BB3D6A8DD	7/29/2020	6/27/2024
C=US, O=Microsoft Corporation, CN=MSFT RS256 CA-1	F5D4CAD53B3F2EF39810DA6D3CD5FF7663F4ABB87738827CCECAFF6FCC3EAFC4	4/28/2022	4/27/2032
C=US, O=Oracle Corporation, OU=Organization Validated SSL, CN=Oracle TLS RSA CA G1	319896E3954D510DA3A4B75387E8C870B3BC2C3228D8550916EBE9ABDCB7F921	11/2/2017	11/2/2027
C=NL, O=PerfectSSL, CN=PerfectSSL	6B40D3DBAAD68BE6E804E32085F7837CEE08B7C4FA6A990B36227A6DCFF0873B	4/17/2024	4/16/2034
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, CN=Thawte EV RSA CA G2	3286691412F30ECE5C065FD62F4392A4762D1E77815338359DF390299FBD61EF	7/2/2020	7/2/2030
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Thawte Partner CA	635AF6889F49060FE0E7BABC0F23314FB118F3B18243DD17F47D8647A69684B1	11/20/2018	11/20/2028
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



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
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., OU=Domain Validated SSL, CN=TrustAsia TLS RSA CA G8	036A18F5F0EB9DD5EE02B7854DF5C33845601D8939CFB7B607F69D142C01D909	11/2/2017	11/2/2027
C=AU, O=Verokey, CN=Verokey High Assurance Verified Business SHA256	A542DE4E6ECD35ABEB009EB5D5EC3887EC4371794BCF25CEEAE0E1881C51D5DD	7/24/2024	7/23/2034
C=AU, O=Verokey, CN=Verokey Secure Web G2	5EE5AAD704A8B698883F4029720C8FA1CB79C9FA3463CC24340629EBE6C5A62B	3/17/2022	3/16/2032
C=AU, O=Verokey, CN=Verokey Verified Business G2	7EDBE6F8C49A1E3988CAADD438B72F07B6AF9CE751CF5835163161D63CAE4DDF	3/17/2022	3/16/2032
C=AU, O=Verokey, CN=Verokey Verified Business SHA256	B10ED8C2C76C799FC175B23B8E78F3F0C15D197DF3AA2C87FF29E92414711E9	7/24/2024	7/23/2034
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=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
CN=Apple IST CA 8 - G1, O=Apple Inc., C=US	8711EE539E74213F5F412EB4A18A98C3B58DA620B4D43E75B0542AFC39FC6033	12/12/2018	6/8/2031
CN=Apple IST CA 8 - G1, OU=Certification Authority, O=Apple Inc., C=US	9218BAB94E7D5D1F81D62D0FC23E31C8BBCBEE3545D1D7E9D3FD29B30BC188C8	12/21/2018	6/8/2031
C=US, O=Apple Inc., CN=Apple Public EV Server ECC CA 1 - G1	2585928D2C5BFD952E025BD12E27C6776224CF752EC362D3031CDD49351844D4	4/29/2020	4/10/2030
C=US, O=Apple Inc., CN=Apple Public Server ECC CA 1 - G1	2AF988F26F6EF0DAB9055697F0941FB4E5C42247CA982826895EF29985D30CD6	12/12/2018	12/11/2030
C=US, O=Cloudflare, Inc., CN=Cloudflare Inc ECC CA-4	7EB5F4AAAC39B3A7835D76F722A473F9B4911E4A3691DE78B3C2973595764EA2	7/10/2024	7/9/2029
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., 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 Basic OV G3 TLS CN ECC P-384 SHA384 2022 CA1	B5528F4A43957E1ABBE08C4EBF2D8ACF4C2C1914D6354117492C8C3FE033FD97	12/20/2022	12/19/2032
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Extended Validation CA G3	7C0912E5DE8478BB86E8EA46BA5AE65DC3870BCEFCBC2F46795EEECF648CFBE7	11/11/2015	11/11/2030



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=DigiCert, Inc., OU=www.digicert.com, CN=DigiCert Extended Validation CA-3 G3	DA7E5778F62F87655B8FD24A89E651E57329DC9C0765A71158CE56443CA44E95	11/12/2019	11/12/2029
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=US, O=DigiCert Inc, CN=DigiCert Global CA G3	F7541CF69D1DE1AC953ABC1FAD6F7807A34EDFE9E12C11E66A195930C23AD6C6	8/1/2013	8/1/2028
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, CN=DigiCert Global G3 TLS ECC SHA384 2020 CA1	699ED65BDD3D5E790776D165EA7A325B7AEAF419647921A92FF28BB0680D72BA	3/30/2021	3/29/2031
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 Global G3 TLS EE+ ECC384 SHA384 2022 CA1	15E77C59404015659EE26F92561F007AAF53986A27926F0E707585C2A7F301B8	4/28/2022	4/27/2032
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 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 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 Pro G3 TLS CN ECC P-384 SHA384 2022 CA1	34CDC67D88D25217ADC8A25348E114CBEC63148391CFA475D382874695202D2C	12/20/2022	12/19/2032
C=US, O=DigiCert, Inc., CN=Encryption Everywhere G3 TLS ECC P384 SHA384 2023 CA1	DA1F7CBF322E55CC082276F8519147DFA1E80CBAF7D5799FF771358832ED1712	2/2/2023	2/1/2033
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=GeoTrust G3 TLS CN ECC P-384 SHA384 2022 CA1	662871C80F4E0FD219EA69A AFC4D28AD7B41E9381560BEE787848D4EEF1CBF24	12/20/2022	12/19/2032
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, OU=www.digicert.com, CN=GeoTrust TLS ECC CA G1	A838405EBB03F5DFD8D4A9572AE6E0E3F356EC4EC134375A59DB7B195DC3EC44	11/2/2017	11/2/2027
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=Microsoft Corporation, CN=Microsoft Azure ECC TLS Issuing CA 01	949D6B4B761CA134AD3E7A8571186F580EE887F2C6B568B5140F4157F98D68DD	8/12/2020	6/27/2024
C=US, O=Microsoft Corporation, CN=Microsoft Azure ECC TLS Issuing CA 02	9C64A9A43E990E98FBCE8317B2D4C1C07FFE6E032DA8BB6D60A696E2FF038F1F	8/12/2020	6/27/2024



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=Microsoft Corporation, CN=Microsoft Azure ECC TLS Issuing CA 03	BBD27139C5302C63D903F570F173AD4DC06C974B9EBE292C90FFCCAB5D6FA54E	6/8/2023	8/25/2026
C=US, O=Microsoft Corporation, CN=Microsoft Azure ECC TLS Issuing CA 04	7A3AE4F12920D5A8129BE1183FBEC4370EF10B8B3AD41EAE4A58D5385AA94D33	6/8/2023	8/25/2026
C=US, O=Microsoft Corporation, CN=Microsoft Azure ECC TLS Issuing CA 05	003F71DC4820216575FC5AACFE3B1AEB76F72AEA5B8E8FCEFC80B9F517A4A612	8/12/2020	6/27/2024
C=US, O=Microsoft Corporation, CN=Microsoft Azure ECC TLS Issuing CA 06	2975BAB51D00D862D0E16EEDEF8306A759C65CD4B9F00DAF50ECDFCB4EC396E4	8/12/2020	6/27/2024
C=US, O=Microsoft Corporation, CN=Microsoft Azure ECC TLS Issuing CA 07	BE23414A42E74886E7C72A861BA2DDDA0175ED829223D894C5D272651FC0C189	6/8/2023	8/25/2026
C=US, O=Microsoft Corporation, CN=Microsoft Azure ECC TLS Issuing CA 08	89AADE767B7BA43F8DDE8E9E74A2FCBBEA40D57155F7E1F2259C88835601FAED	6/8/2023	8/25/2026
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=AU, O=Verokey, CN=Verokey High Assurance Verified Business ECC	34263E9424D819B94BCFA87E69DD9EF43205D4E2DE84A53497314063D822969B	3/17/2022	3/16/2032
C=AU, O=Verokey, CN=Verokey Secure Web ECC	BCFD2614E42D63C59691C3CE8BEC792DE2FCE89CED4F9C460D0A848573074FCB	3/17/2022	3/16/2032
C=AU, O=Verokey, CN=Verokey Verified Business ECC	F1ED3B35C92FA5DAAA3DD45F99EBA3B823A2FB1C24A89CED1699D95E02564A2	3/17/2022	3/16/2032
C=US, O=Aetna Inc, CN=Aetna Inc. Secure CA2	DDCBB4F3051D6E601310EB0E46B5BB99C5E8B99F7A539E367A987DEA030E318E	9/24/2020	12/9/2024
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 CA2	428B87B8061A79ABA75877FD0383ADB831A1459B86BC408CE7D8D17B295B75BB	3/30/2021	3/29/2025
C=US, O=Aetna Inc, CN=Aetna Inc. Secure EV CA2	1DDFDDF883E3945B2CB24FA5B83788379C5AB058422AB979DF66C77473988687	12/8/2017	12/8/2027
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 EV CA	0A163600631BD66267FB7AED25C538B2B7D72AD6416A2BBD285F654BB642F6D	12/9/2014	12/9/2024
C=US, O=Aetna Inc, CN=Aetna Inc. Secure EV CA	8B6CCC3BE92F0121E6494AC704BF0B9B9CEBBA2E363C8E8122D90984D3EBF386	3/30/2021	3/29/2025
C=US, O=Apple Inc., CN=Apple Public EV Server RSA CA 2 - G1	D6EF3E09EBE0D9370E51F5C09A532B3AC70D3CE822253F9FC84C28E9BFA550D5	4/29/2020	4/10/2030
C=US, O=Apple Inc., CN=Apple Public EV Server RSA CA 3 - G1	E881D3B83C3BC694D7D99F92DE83B2BFF5C6EE2D9871A446DEA107D6397565FC	7/15/2021	4/10/2030



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=CrowdStrike, Inc., CN=CrowdStrike Global EV CA G2	5EBD9874E6B88DA38F4A7B9566CE5D4DF05E0C224D94986AD8CC5EBA004A0C04	3/4/2021	3/3/2031
C=US, O=CrowdStrike, Inc., CN=CrowdStrike Global EV CA G2	9ED1EDEA95AA5B72B513A3E41A1BA0D2EFB14CEC88891E34D00495C95556605C	3/30/2021	3/29/2031
C=US, O=CrowdStrike, Inc., CN=CrowdStrike Global EV CA	8CD728F9C3391BA4360A10C66CA484C807651D6207F10633669ED8881FE91BF5	2/21/2020	11/9/2031
C=US, O=CrowdStrike, Inc., CN=CrowdStrike Global EV CA	86B109232C19EC514F8CB26788E65090293F96DD8D2942017A33035AB225D5FB	3/30/2021	3/29/2031
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, CN=DigiCert Basic EV ECC CN CA G2	D619F3257B98756D28811D3CEE9ADAD8BCAE1B4367BBB0C73F6B5E558FBA4563	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, 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=DigiCert ECC Extended Validation Server CA	FDC8986CFAC4F35F1ACD517E0F61B879882AE076E2BA80B77BD3F0FE5CEF8862	6/21/2016	6/21/2031
C=US, O=DigiCert Inc, CN=DigiCert High Assurance CA-3b	4E30F8004C18D3D798EC5A7734346B5A5EBE8D54423CE98257FC57735A6F738D	5/28/2020	11/9/2031
C=US, O=DigiCert Inc, CN=DigiCert High Assurance CA-3b	28506E33F55A6072115F3E04C9BDBF5AF5312CA8FC132508B97AC99FEE0516E8	3/30/2021	3/29/2031
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=DigiCert, Inc., CN=DigiCert High Assurance TLS RSA SHA256 2020 CA1	9BFED3D9DC95236BCFFCB35D4B120DB0E3867F62B1FD015A928DA0B303966683	12/17/2020	12/16/2030
C=US, O=DigiCert, Inc., CN=DigiCert High Assurance TLS RSA SHA256 2020 CA1	495E6624A15340C4C74AB86037748AD62D1EF4F14E7C81AB7CDB629BE1404757	3/30/2021	3/29/2031
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 High Assurance Trust Service EV CA	72D0F7CBF4529B80C34A7CBB438BD1D0E1FC26E80E59CBD4FD7314FCDDF0E994	3/4/2020	3/4/2030
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 Secure Site EV ECC CN CA G3	A4B2B47545559F5FFB7CDDA7A1220E62FB74D1B7A9A4D4DACB2B2A839CE7456	3/13/2020	3/13/2030
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Secure Site Korea EV CA	C022D5CEAA275F2A6268FA79AC35653B3A730DEFA41F9CD8817D6D159BD33097	3/25/2019	3/25/2029



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
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=US, O=DigiCert Inc, CN=DigiCert Secure Site Pro EV CN CA G3	B75AEE9836FEFBC446F288A2970B84FC60AAF9EFBD2CB9F82F7581790DE4B8DC	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 SHA2 Extended Validation Server CA-3	085A0714524DF7AE9919A6F597884439E12A533E61552D29D6A18C35096FC548	11/12/2019	11/12/2029
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 CN RSA G1	C87CE03AFFB5DE6319C219971F2ED2D8F6F5389E2D53B22DD2C562A5C9827FC0	6/20/2019	6/20/2029
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, CN=GeoTrust EV ECC CN CA G2	FC01B58FC78B9C59211784C2E25BF1D012A1E23F37218847A62EB4145EE4AB6	3/4/2020	3/4/2030
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=DigiCert Inc, CN=GeoTrust EV RSA CN CA G2	8937E90E1495C9A78EFB18182D43FDC73FCD292AB6347A12B9077DE878530E62	3/4/2020	3/4/2030
C=NL, O=SupremeSSL, OU=www.supremessl.com, CN=GeoTrust SupremeSSL EV 1 CA	0FB6CE80909D19AFEE6A88C959E9E9AA6466715BCE05C6449FEB530A086DAF14	5/7/2019	5/7/2029
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=Avalanche Cloud Corporation, CN=HydrantID EV SSL CA D1	F9D4A6C011E9C6A8F5A4CF7ED0416869C7238EF93A56161EA6CA3D8B41716097	3/30/2021	3/29/2031
C=US, O=Avalanche Cloud Corporation, CN=HydrantID EV SSL CA D1	863472EC79DB54077114DADE720CE1F7B41A233748FC6773FA86520F0B9AAA21	3/4/2021	3/3/2031
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=Plex, Inc., CN=Plex Devices High Assurance CA3	FB6060848440AA4594FE8109741EFAB40C56732B26C67C36D6DC945BB2FE13CF	9/24/2020	5/19/2025
C=US, O=Plex, Inc., CN=Plex Devices High Assurance CA3	1316ED42A849217D51CFB4DE1A1418A8D3A77902FB305D3024F72D4636B82FF0	3/30/2021	3/29/2025



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
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=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 G2	40D69920EA05456FA0117DE608B8A8013790B542097E343EC1CBCE2DFB9713B0	6/20/2019	6/20/2029
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 G2	70DC86F9F7750B74B1DEC8CD352EC25837C36E640F7148E08464EF5901E5A589	6/20/2019	6/20/2029
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=NL, S=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 CN RSA EV CA G1	ADA188F830C313F6046488EC341F1ED4AF793C6DC28C58600445DFBEB4163746	6/20/2019	6/20/2029
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, CN=Thawte EV ECC CN CA G2	EA1F3BFB4D3296B467D4B582559D6518D676D5AFC7D1C24BE80252F79191046F	3/13/2020	3/13/2030
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Thawte EV RSA CA 2018	93569B26AA535E3E07C891C6BD2FA9DC0939C24DB4B3726AD8531EDB17C497CA	11/6/2017	11/6/2027
C=US, O=DigiCert Inc, CN=Thawte EV RSA CN CA G2	69919D820EDF582ADBCF8E092A9284D901772EE2B419EA9DE1F5872C791FC6FA	3/13/2020	3/13/2030
C=CN, O=TrustAsia Technologies, Inc., CN=TrustAsia ECC EV TLS Pro CA G2	C0DD060FF8CE556F35683D564E0E66B2907178808693F83F3AA642326BF6D0C8	6/20/2019	6/20/2029
C=CN, O=TrustAsia Technologies, Inc., CN=TrustAsia ECC EV TLS Pro CA G3	8D83D69FA615AA2683B13D7894482C542B0BCF18BB92D30F015FB42471AFBB66	3/13/2020	3/13/2030
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 G2	0D51B6CDCF34A9F22144787F3FD920DC8800FB60490BFC8D289A1953E0FBDA4D	6/20/2019	6/20/2029
C=CN, O=TrustAsia Technologies, Inc., CN=TrustAsia EV TLS Pro CA G3	9DB0A20C305541E15E818A880D06579876A9C901B8EECD968482C58D9BA7F0A7	3/13/2020	3/13/2030
C=CN, O=TrustAsia Technologies, Inc., CN=TrustAsia EV TLS Pro CA	4AFFE4FEF39464D1788C660AF591D5E601B261C4811DF0A3DD9D61CAFE8E5ED8	4/27/2018	4/27/2028



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=GB, O=TRUSTCUBES LIMITED, identified-organization=223013701, legal_entity_identifier=984500505FE80CDONE58, OU=www.trustcubes.com, CN=TrustCubes ICA G1	2106CC7907C64B8A5DA2FC338EE94DFFF10EF711DEDBB4FC694EE092EC532B1D	7/18/2018	7/18/2028
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., CN=DigiCert G5 RSA4096 SHA384 2021 CA1	C68B6C455593E7CE57383A736517CA46FE86641E46BDFB25C12E41E17DE53B59	3/11/2021	3/10/2031
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 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 G5 TLS CN ECC P-384 SHA384 2022 CA1	915EC8DCC237FA932CB0245A996FF3A711550A464214FD7512F225AA608061C8	7/12/2022	7/11/2032
C=US, O=DigiCert, Inc., CN=DigiCert G5 TLS ECC SHA384 2021 CA1	E5A1C1919E3BEAEE5935A8485DDCE0E3F01A2618DB0F0793B3DB3D9AC2D967C7	2/11/2021	2/10/2031
C=US, O=DigiCert, Inc., CN=DigiCert G5 TLS ECC SHA384 2021 CA1	97A073957C5812725757672F222690655A1407D71011EDFC8B2FADC5128911DA	4/14/2021	4/13/2031
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=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=Encryption Everywhere G5 TLS ECC P-384 SHA384 2022 CA1	AD7F57AA3FC5EAF431022A4750A97CD879DE1989D4B86AB08B7A28373BCB489	11/3/2022	11/2/2032



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
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=GeoTrust G5 TLS CN ECC P-384 SHA384 2022 CA1	E43BAAD78B78F9EEA6903E56F456DEC24BD9648C13AE02E2DE17A1F84F3D0807	7/12/2022	7/11/2032
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=GeoTrust G5 TLS ECC P-384 SHA384 2022 CA2	66E795550B16497E7CF4566EC63B56660F28DBD551C357C526FBB0D7620A8112	7/28/2022	7/27/2032
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 CN ECC P-384 SHA384 2022 CA1	D604F0148A25D93BAB577D38705CBAAE2C4477DE7EB51D86A0F6B26584013D7A	7/12/2022	7/11/2032
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=Thawte G5 TLS ECC P-384 SHA384 2022 CA2	0215DB7E22D36D0E7535A12691A9EC0DC7F43D83AB580C0709711C1E7A9B55EC	7/28/2022	7/27/2032
C=US, O=CrowdStrike, Inc., CN=CrowdStrike TLS RSA CA G5	E5BFCED9D216EBA7DA3634819FB534FB9CEBA1ECF9E6379ED83583D2EB177C1B	5/1/2024	4/30/2034
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 G5 TLS CN RSA4096 SHA384 2022 CA1	AB7EF705B0B8DB2291C2BC8DC9F69AD8345A3CC543DB8CDC49A8B419282DEA22	7/12/2022	7/11/2032
C=IE, O=DigiCert Ireland Limited, CN=DigiCert G5 TLS EU RSA4096 SHA384 2022 CA1	4D27EF6357BC929783575C0C8C9340B67FBEFC045FDC263B8C88362E6D3ADB6F	9/15/2022	9/14/2032
C=US, O=DigiCert, Inc., CN=DigiCert G5 TLS RSA4096 SHA384 2021 CA1	EF9296036A6D7C986C8D59DB936093E78E85C70AEDB4FE7A54DDCAA821031C72	2/11/2021	2/10/2031
C=US, O=DigiCert, Inc., CN=DigiCert G5 TLS RSA4096 SHA384 2021 CA1	C6270A150691FBE190D831F5139BDFEECF7B298B4FA0CA17306A69D7E91E7BA2	4/14/2021	4/13/2031
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=Encryption Everywhere G5 TLS RSA4096 SHA384 2022 CA1	654BF73B2639091FA18F296755B704959F52F67FDF7A65AAF1C315441201A09D	11/3/2022	11/2/2032
C=US, O=DigiCert, Inc., CN=GeoTrust EV G5 TLS CN RSA4096 SHA384 2022 CA1	25026FEBE5324EEACA89376B13EDB96991594112C311120D579364E3CC0442F4	1/12/2023	1/11/2033



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
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=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=Tesla, Inc., CN=Tesla China Public RSA TLS Issuing CA 2024	7754CAB7C25AD2605A681E3A04187C1E3B3A46F188A8247DC86E02A0FC336F91	3/13/2024	3/12/2034
C=US, O=Tesla, Inc., CN=Tesla Public RSA TLS Issuing CA 2024	32952030B947D80858A87425788518BDF6D94A631D55E20117585C89EBB29197	3/13/2024	3/12/2034
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=Thawte G5 TLS RSA4096 SHA384 2022 CA1	48569C4FABFF4E3AA22E0E19613E90DA89AA2EE2469B0718695437F5384EDC4C	5/26/2022	5/25/2032
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 G4 TLS RSA SHA384 2020 CA1	4F35C6B9C100905FF25BB01C0A20EBE335BCEE249CE9FFA1E11E062ED66FCD1	9/24/2020	9/23/2030
C=US, O=DigiCert Inc, CN=DigiCert Trusted G4 TLS RSA SHA384 2020 CA1	1E29690F957F64BA9C3658A31055751AACD4B440A9589DFA1D780FE07069DB52	3/30/2021	3/29/2031
C=US, O=DigiCert Inc, CN=DigiCert Trusted Server CA G4	6E8D952FDBABAD8DE3D61E094393739B5A47371A52BDCB2A3C2F8C43622F640F	8/1/2013	8/1/2028
C=DE, O=Deutsche Kreditbank AG, CN=DKB CA 101	0E5B8040B3AB60A50D2D5FB11E19AEB2E45B564B335B79D773D42B81D8219C75	2/4/2021	2/3/2031
C=DE, O=Deutsche Kreditbank AG, CN=DKB CA 101	D889A2641F5DF941353817C87A5CD0D9CDACED3886240BFD937329E94D3A45B	3/30/2021	3/29/2031
C=US, O=NCC Group, CN=NCC Group Secure Server CA G4	B7DFDC27E5FF9F35EFEC9F4BC532C35F727789B69C90A0489B40247299D97038	7/30/2014	7/30/2029
C=AU, O=Verokey, CN=Verokey High Assurance Verified Business G2	BE89264A58313012B749603C9BEC3CD7914DB716A49E5E0EA97E43A3883A5DF	3/17/2022	3/16/2032
C=AU, O=Verokey, CN=Verokey Secure Web G3	CB01BEAC6315F30EB675B19CA08DC249E73867B0DAFAB5A5C30631A2372B2E65	7/24/2024	7/23/2034
CN=Apple IST CA 8 - G1, OU=Certification Authority, O=Apple Inc., C=US	A4FE7C7F15155F3F0AEF7AAA83CF6E06DEB97CA3F909DF920AC1490882D488ED	6/9/2016	6/8/2031
C=US, O=DigiCert, Inc, OU=www.digicert.com, CN=GeoTrust Primary Issuing CA	F7A84E24E8E0D89154874721C5B641F48A1EF0FF3B198F53BE021DB53F097BD0	12/8/2017	12/8/2027
C=US, O=Wi-Fi Alliance, CN=WFA Hotspot 2.0 Intermediate CA	AE0D0BA5AC3EEB823F5CA77331A99D7FDB2EC231D7CE47B7C208E3830E08A891	12/9/2013	12/9/2023



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=Wi-Fi Alliance, CN=WFA Hotspot 2.0 Intermediate CA	FEA342D00D1A355CF51569EF7E0F617ABB0F22D6D1E73DAA11DCB4D407975543	11/25/2013	11/25/2023
C=US, O=DigiCert, Inc., CN=DigiCert QuoVadis TLS ICA QV Root CA 1 G3	C42A4D8C0904BB211906F43B441BBBC9B5A003BA3611879FD34AE5767C2F764	1/6/2021	1/4/2031
C=BM, O=QuoVadis Limited, CN=QuoVadis Enterprise Trust CA 1 G3	0531C86F785958939FDC539924D395D1EFA409364E6827D3AB9876311FFB27B0	6/6/2016	6/6/2031
C=BM, O=QuoVadis Limited, CN=QuoVadis RCA1G3 TLS CA	18BB70EFD3AF91438115C9EB4F333EB4EC68354571E6949195A0A91C9E6FBCD8	10/21/2020	10/19/2030
C=IE, O=DigiCert Ireland Limited, CN=DigiCert QuoVadis 2G3 TLS RSA4096 SHA384 2023 CA1	9163F1910D4944BE32D0D224A79F9FA6B4036E9098795AC81D3DD14CE4FF24D2	12/12/2023	12/11/2033
C=NL, O=QuoVadis Trustlink B.V., oid.2.5.4.97=NTRNL-30237459, CN=DigiCert QuoVadis G3 Qualified TLS RSA4096 SHA256 2023 CA1	FE3CBED838D30BAB900184C1F21A4B27D3211CB5C9257D7E985C2AE43AC6A89F	3/14/2023	3/11/2033
C=US, O=DigiCert, Inc., CN=DigiCert QV EV TLS ICA G1	6A7B2AA3414039A663D5D8BBAB8256A3979A84C332BF5E1EE8F6D0E0ADA84668	3/16/2020	3/14/2030
C=US, O=DigiCert, Inc., CN=DigiCert QV TLS ICA G1	93E33AF7DA3030530D090C9C55762CADE7EAE943F834349D1057A90EB67F306B	3/16/2020	3/14/2030
C=BM, O=QuoVadis Limited, CN=QuoVadis Enterprise Trust CA 2 G3	B6F6559BBCE0A2CC91E507B5D7319E32487EDAE28A063BC73B6405E6C44665B6	9/22/2020	6/6/2031
C=NL, O=QuoVadis Trustlink B.V., CN=QuoVadis Enterprise Trust CA 2 G4	1E356823FE40C0EAAAC29F9ED5463B7B2DB1C088B63EBB05876A2E631C1087798	7/23/2020	7/20/2035
C=NL, O=QuoVadis Trustlink B.V., CN=QuoVadis Europe EV SSL CA G1	CB6666B32BFF2EFEDCC4187DF149A6D34A5D10B7165B9CFF2A67C0E311AEEED7	7/20/2020	7/18/2030
C=NL, O=QuoVadis Trustlink B.V., CN=QuoVadis Europe SSL CA G2	B1AAE1BCD555E8A3D1E3DDA8EC84E757C552655344CE3FEEBBAF98E895DBEDAC	7/22/2020	7/20/2030
C=BM, O=QuoVadis Limited, CN=QuoVadis Global SSL ICA G3	161EE5386329B28A27FF405736552A621D5A844A43811E3623E52EEFA0BA840A	11/3/2021	11/2/2026
C=NL, O=QuoVadis Trustlink B.V., CN=QuoVadis Qualified Web ICA G2	7FEB9374EAB08D392717C647436DAE06176A24C010607FDA1CCE5E5F0106B472	7/22/2020	7/20/2030
C=NL, O=QuoVadis Trustlink B.V., CN=QuoVadis Qualified Web ICA G3	3F225BDBCD788CE924870CAF92F814B7C6FF4EDABABAD93F1D3A9177252CF1D1	8/28/2020	8/26/2030
C=US, O=DigiCert, Inc., CN=DigiCert QuoVadis TLS ICA QuoVadis Root CA 2	673E8FEEB1168277D0153111D20ED38E9DA51F440BE7FD50B218540937741A48	1/6/2021	1/4/2031
C=US, O=HydrantID (Avalanche Cloud Corporation), CN=HydrantID EV SSL CA G2	60388B773D33E9141648613F36B9149F015A114378BACF3E3694864FFDA426EC	7/21/2020	7/19/2030
C=US, O=HydrantID (Avalanche Cloud Corporation), CN=HydrantID SSL CA G3	AA57F482CBC516B4D10CA4097DD90D99F5AA727D207090D07DA9C36998ABB9AD	9/29/2020	9/27/2030
C=US, O=HydrantID (Avalanche Cloud Corporation), CN=HydrantID SSL ICA G2	9C6D08933201407FBF2B12540B67CC0E4C9666F132E1504762A717CBAE8F3FD6	12/17/2013	12/17/2023
C=US, O=HydrantID (Avalanche Cloud Corporation), CN=HydrantID SSL ICA G2	01453F645CD91E233B7484827F23F8A573FD641029EA8ABFE549EF4ED8B323D	1/14/2021	12/17/2023



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=BM, O=QuoVadis Limited, CN=QuoVadis Global SSL ICA G2	E5CD0DD44E1120C79415C84F5369D79AE04F047E80DC0856351AABC232056CA5	5/25/2022	5/24/2027
C=BM, O=QuoVadis Limited, CN=QuoVadis Grid ICA G2	278ECF211E2518E9DD9913AFC583EEB3127C8184BCBEEDAAD7BD64E89E8C4310	9/22/2020	5/23/2026
C=DE, O=Fiducia & GAD IT AG, CN=VR IDENT EV SSL CA 2020	D33A847F640377BE0AE1A429153A07E87C8827FA4840B5158BCDCB85E10A453A	7/22/2020	7/20/2030
C=DE, O=Fiducia & GAD IT AG, CN=VR IDENT SSL CA 2020	347D18DCCC2EFC51A920E7A7FBB07BFBDA35613681F82DCA5C4C72BB0C83C035	7/22/2020	7/20/2030
C=US, O=DigiCert, Inc, CN=DigiCert QuoVadis TLS ICA QV Root CA 3 G3	728E4BD2B399840E9D437AF975B0198910B4129B7AB708CB5C0B445D3B04D999	1/6/2021	1/4/2031
C=BM, O=QuoVadis Limited, CN=QuoVadis Enterprise Trust CA 3 G3	DA5462526A0C2E9852A86186B025390158759CDCA6AE21F09F713CA6ACDD1F1	6/6/2016	6/6/2031
C=BM, O=QuoVadis Limited, CN=QuoVadis RCA3G3 TLS CA	ECC0D17AC3263AC6A164DCDB08F82D07E93FCEA723F66B88B06EEBA9678DF2BB	10/21/2020	10/19/2030
C=US, O=DigiCert, Inc, CN=DigiCert QuoVadis TLS ICA QV Root CA 3	D8CC89C6AA6B7452881907927C81E66DA01A7598CF7674E4E2E133F16546D5F0	1/6/2021	1/4/2031
C=BM, O=QuoVadis Limited, CN=QuoVadis RCA3G1 TLS CA	3A66E648212E6321F94D9EABCC92C052E679D992C99AD4596A4E7B85ADCEE5DE	10/21/2020	10/19/2030
C=IE, O=DigiCert Ireland Limited, CN=DigiCert QuoVadis G4 TLS ECC P384 SHA384 2023 CA1	0CAB7DBD736B1BFBE8E63ABE2DD55D64A0805140386DA05FC6E28D4FCF81B9B6	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=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	2D53B8177062E4C7CEA79EEBF62BFA52A5B18BC9B89483597E5714E4E9B52315	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	6BE39EC9E02D54008A7A716DD35A3D2F0A1FD8F8F34DAE235446150C6F48BC7E	7/16/2015	7/15/2025
C=AU, O=NBNC Co Limited, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=NBNC Co Limited Public Issuing CA - G2	758F496C9928A3C67E0D50D03D2E2CAAFF733D427E57AB5FEE7D5AC4153C4071	2/10/2015	2/9/2025



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
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 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	4E74475D2C33E1DD4732306B79712B5EE6997C2DBDF596CC8BD1362163DAA4F4	1/22/2015	1/20/2035
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=DigiCert, Inc., CN=DigiCert TLS ICA SYMC PCA3-G4	B1D1244218C903B64EBF42150C5FD891EB5B663CE6F20DD12E8352DD7D1E6693	1/8/2021	1/7/2031
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=US, O=DigiCert, Inc., CN=DigiCert TLS ICA SYMC PCA3-G6	FDB351BDA2D821C3DFBB924A12D90D6DC760D5F6200144529E502E467BBF9ECC	1/8/2021	1/7/2031
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=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=JP, O=DAIICHI SANKYO COMPANY, LIMITED, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=DAIICHI SANKYO COMPANY Public CA - G2	68361FD0131D79AC91C9939F3E5479CA32E2BE419A7CF519E026F992234509EE	4/15/2014	8/27/2022
C=US, O=DigiCert, Inc, OU=www.digicert.com, CN=thawte Primary Issuing CA G3	F6CF5D6FF850D14DB082CC9CF7C056BC60E36B1E54F1CCA3E24BDF393948978D	12/8/2017	12/8/2027



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
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=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
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	B864FF6DE0CB1BEAF6AA5C68DB8769C91F18E1721E22AC3ECDD91C0889D77078	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=DE, O=Heuer und Partner - Rechtsanwälte 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



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
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=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=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	0B5F13974CEB577E1CC39DFFADF616FCF0C17ECA6747201AEB46AF3BC20CE4F4	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=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



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 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
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=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



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
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
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=DigiCert, Inc., CN=DigiCert TLS ICA Universal 2021	23EE12A8DA9D38549C54A32BC1E4A18BAF1570488107D169EBD734DFDA330B0E	1/12/2021	1/11/2031
C=US, O=DigiCert, Inc., OU=www.digicert.com, CN=DigiCert TLS ICA VRSN Universal	BA5B6E5DFEBDAE1C80BD72790BC85BCC6538AB4613023DA706CE826415F5E5B3	1/17/2019	1/16/2029
C=US, O=Symantec Corporation, OU=Symantec Trust Network, OU=Domain Validated SSL, CN=Symantec Basic DV SSL CA - G2	DDF583E3A1ED35E57D95104817AD823C055FB9071CD400435B5FC74E692081DB	6/7/2016	6/6/2026
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=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 Omni TLS RSA4096 SHA256 2022 CA1	632ABAFBCDD7E86A19EDCB404332A9003A0478D75D58D86AAA776570B1D874E9	8/1/2022	7/31/2032



Timestamping 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., 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
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Trusted Root G4	4C913D04FB495DC36119552D6068F7B9891EFE40344E9E5C1E9132F65BAEFF7F	6/9/2022	11/9/2031



REPORT OF THE INDEPENDENT ACCOUNTANT

To the management of DigiCert Ireland Limited (“DigiCert” or “QuoVadis”):

Scope

We have examined DigiCert management’s [assertion](#) that for its Certification Authority (“CA”) operations in the locations in the Netherlands, Switzerland, the United States, Ireland, Belgium and Germany, for its CAs as enumerated in [Attachment B](#), DigiCert has:

- disclosed its SSL certificate lifecycle management business practices in the applicable versions of its QuoVadis Root CA 1 G3 / QuoVadis Root CA 3 / QuoVadis Root CA 3 G3 Certificate Policy/Certificate Practice Statement (“Root CA 3 CP/CPS”), QuoVadis Root CA 2 and Root CA 2 G3 Certification Policy/ Certification Practice Statement (“Root CA 2 CP/CPS”) and DigiCert Europe/QuoVadis Certificate Policy/Certification Practices Statement (“QV CP/CPS”) as enumerated in [Attachment A](#), including its commitment to provide SSL certificates in conformity with the CA/Browser Forum Requirements on its [repository](#), and provided such services in accordance with its disclosed practices
- maintained effective controls to provide reasonable assurance that:
 - the integrity of keys and SSL certificates it manages is established and protected throughout their lifecycles; and
 - SSL subscriber information is properly authenticated (for the registration activities performed by DigiCert)
- 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 September 1, 2023 to August 31, 2024, based on the [WebTrust Principles and Criteria for Certification Authorities - SSL Baseline - Version 2.8](#).

The CA/Browser Forum Baseline Requirements for the Issuance and Management of Publicly-Trusted TLS Server Certificates requires compliance with the Network and Certificate System Security Requirements (“Network Security Requirements”) as set forth by the CA/Browser Forum. The relevant principle and criteria are included as part of WebTrust Principles and Criteria for Certification Authorities - Network Security, which are reported on under separate cover.



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 - SSL Baseline - Version 2.8](#).

Independent Accountant's Responsibilities

Our responsibility is to express an opinion on 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 judgement, 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 unauthorised 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 in the Netherlands, Switzerland, the United States, Ireland, Belgium and Germany, nor the suitability of any of DigiCert's services for any customer's intended purpose.



Use of the WebTrust Seal

DigiCert's use of the WebTrust for Certification Authorities - SSL Baseline 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 or provide any additional assurance.

BDO USA

November 27, 2024



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

Certificate Policy/Certificate Practice Statement¹

Policy Name	Version	Effective Date
DigiCert Europe / QuoVadis Certificate Policy/Certification Practices Statement	5.2	March 1, 2024
DigiCert Europe / QuoVadis Certificate Policy/Certification Practices Statement	5.1	December 15, 2023
DigiCert Europe / QuoVadis Certificate Policy/Certification Practices Statement	5.0	November 22, 2023

Root CA and Root CA 3 Certificate Policy/Certificate Practice Statement

Policy Name	Version	Effective Date
QuoVadis Root CA 1 G3 / QuoVadis Root CA 3 / QuoVadis Root CA 3 G3 Certificate Policy/Certificate Practice Statement	4.43	August 1, 2023

Root CA 2 Certificate Policy/Certification Practice Statements

Policy Name	Version	Effective Date
QuoVadis Root CA 2 and Root CA 2 G3 Certification Policy/Certification Practice Statement	2.21	June 9, 2023

¹ Effective November 22, 2023, the QuoVadis Root CA 1 G3 / QuoVadis Root CA 3 / QuoVadis Root CA 3 G3 Certificate Policy/Certificate Practice Statement and QuoVadis Root CA 2 and Root CA 2 G3 Certification Policy/Certification Practice Statement combined into the DigiCert Europe / QuoVadis Certificate Policy/Certification Practices Statement.



ATTACHMENT B - LIST OF CAs IN SCOPE

Root CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
CN = QuoVadis Root CA 1 G3 O = QuoVadis Limited C = BM	8A866FD1B276B57E578E921C65828A2BED58E9F2F288054134B7F1F4BFC9CC74	1/12/2012	1/12/2042
CN = QuoVadis Client RSA 4096 Root G4 O = QuoVadis Trustlink B.V. C = NL	80AC91FA891C79723A61ABC77F86E19905A92DA27E51695CA0C0B66C1C039BF2	3/16/2023	3/9/2048
CN = QuoVadis Client ECC P384 Root G4 O = QuoVadis Trustlink B.V. C = NL	D3C07AC44BD8FF1975BC62F1C7E9840EA8E188A4BA51133B8C4EFF05E34A2729	3/16/2023	3/9/2048
CN = QuoVadis Signing ECC P384 Root G4 O = QuoVadis Trustlink B.V. C = NL	771535D43D4633BD307EB7B8A3966B5DF00707C088089920080C1AE6D3CB0F68	3/16/2023	3/9/2048
CN = QuoVadis Signing RSA 4096 Root G4 O = QuoVadis Trustlink B.V. C = NL	9F8E6DB31E740285E0C2C2DEB09E442BDD4E74BDDEAE2962BC82D1ECB9F39855	3/16/2023	3/9/2048
CN = QuoVadis SMIME ECC P384 Root G4 O = QuoVadis Trustlink B.V. C = NL	83FDD82FD9DAE3B21EEBD33CF46251D746F0D6102B683150DD7B98AD8E4BB9F8	3/16/2023	3/9/2048
CN = QuoVadis SMIME RSA 4096 Root G4 O = QuoVadis Trustlink B.V. C = NL	5232A304AA4A10CFE6C47842EA3381CB31D619E24F58126D534CD50C5CE7845D	3/16/2023	3/9/2048
CN = QuoVadis TLS ECC P384 Root G4 O = QuoVadis Trustlink B.V. C = NL	6E1FD3AE0D2D477C8F5EE5F335CC5B6356872654E5356A73D8C0A30A17C252A2	3/16/2023	3/9/2048
CN = QuoVadis TLS RSA 4096 Root G4 O = QuoVadis Trustlink B.V. C = NL	C8A2D38A24F5AC302D8A08EBD38923D9A750B49220F092E82D1C53249E1533D0	3/16/2023	3/9/2048
CN = QuoVadis Root CA 2 O = QuoVadis Limited C = BM	85A0DD7DD720ADB7FF05F83D542B209DC7FF4528F7D677B18389FEA5E5C49E86	11/24/2006	11/24/2031
CN = QuoVadis Root CA 2 G3 O = QuoVadis Limited C = BM	8FE4FB0AF93A4D0D67DB0EBEB23E37C71BF325DCBCDD240EA04DAF58B47E1840	1/12/2012	1/12/2042
CN = QuoVadis Root CA 3 O = QuoVadis Limited C = BM	18F1FC7F205DF8ADDDEB7FE007DD57E3AF375A9C4D8D73546BF4F1FED1E18D35	11/24/2006	11/24/2031
CN = QuoVadis Root CA 3 G3 O = QuoVadis Limited C = BM	88EF81DE202EB018452E43F864725CEA5FBD1FC2D9D205730709C5D8B8690F46	1/12/2012	1/12/2042



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
CN = HydrantID EV SSL CA G2 O = HydrantID (Avalanche Cloud Corporation) C = US	60388B773D33E9141648613F36B9149F015A114378BACF3E3694864FFDA426EC	7/21/2020	7/19/2030
CN = HydrantID SSL CA G3 O = HydrantID (Avalanche Cloud Corporation) C = US	AA57F482CBC516B4D10CA4097DD90D99F5AA727D207090D07DA9C36998ABB9AD	9/29/2020	9/27/2030
CN = QuoVadis Grid ICA G2 O = QuoVadis Limited C = BM	278ECF211E2518E9DD9913AFC583EEB3127C8184BCBEEDAAD7BD64E89E8C4310	9/22/2020	5/23/2026
CN = QuoVadis Qualified Web ICA G2 O = QuoVadis Trustlink B.V. C = NL	7FEB9374EAB08D392717C647436DAE06176A24C010607FDA1CCE5E5F0106B472	7/22/2020	7/20/2030
CN = QuoVadis Global SSL ICA G2 O = QuoVadis Limited C = BM	F67C23EF7BF7412809DB6B1DD3D44A08D3754D99CABA6A13F7A05C7249089C89	9/22/2020	6/1/2023
CN = VR IDENT EV SSL CA 2020 O = Fiducia & GAD IT AG C = DE	D33A847F640377BE0AE1A429153A07E87C8827FA4840B5158BCDCB85E10A453A	7/22/2020	7/20/2030
CN = QuoVadis RCA1G3 TLS CA O = QuoVadis Limited C = BM	18BB70EFDA3F91438115C9EB4F333EB4EC68354571E6949195A0A91C9E6FBCD8	10/21/2020	10/19/2030
CN = DigiCert QV EV TLS ICA G1 O = DigiCert, Inc. C = US	6A7B2AA3414039A663D5D8BBAB8256A3979A84C332BF5E1EE8F6D0E0ADA84668	3/16/2020	3/14/2030
CN = QuoVadis RCA3G3 TLS CA O = QuoVadis Limited C = BM	ECC0D17AC3263AC6A164DCDB08F82D07E93FCEA723F66B88B06EEBA9678DF2BB	10/21/2020	10/19/2030
CN = QuoVadis Europe SSL CA G2 O = QuoVadis Trustlink B.V. C = NL	B1AAE1BCD555E8A3D1E3DDA8EC84E757C552655344CE3FEEBBAF98E895DBEDAC	7/22/2020	7/20/2030
CN = QuoVadis RCA3G1 TLS CA O = QuoVadis Limited C = BM	3A66E648212E6321F94D9EABCC92C052E679D992C99AD4596A4E7B85ADCEE5DE	10/21/2020	10/19/2030
CN = QuoVadis Qualified Web ICA G3 O = QuoVadis Trustlink B.V. C = NL	3F225BDBCD788CE924870CAF92F814B7C6FF4EDABABAD93F1D3A9177252CF1D1	8/28/2020	8/26/2030
CN = DigiCert QV TLS ICA G1 O = DigiCert, Inc. C = US	93E33AF7DA3030530D090C9C55762CADE7EAE943F834349D1057A90EB67F306B	3/16/2020	3/14/2030
CN = QuoVadis Enterprise Trust CA 3 G3 O = QuoVadis Limited C = BM	DA5462526A0C2E9852A86186B025390158759CDCA6AE21F09F713CA6ACDD1F1	6/6/2016	6/6/2031
CN = QuoVadis Enterprise Trust CA 1 G3 O = QuoVadis Limited C = BM	0531C86F785958939FDC539924D395D1EFA409364E6827D3AB9876311FFB27B0	6/6/2016	6/6/2031



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
CN = QuoVadis Europe EV SSL CA G1 O = QuoVadis Trustlink B.V. C = NL	CB6666B32BFF2EFEDCC4187DF149A6D34A5D10B7165B9CFF2A67C0E311AEEED7	7/20/2020	7/18/2030
CN = VR IDENT SSL CA 2020 O = Fiducia & GAD IT AG C = DE	347D18DCCC2EFC51A920E7A7FBB07BFBDA35613681F82DCA5C4C72BB0C83C035	7/22/2020	7/20/2030
CN = QuoVadis Enterprise Trust CA 2 G4 O = QuoVadis Trustlink B.V. C = NL	1E356823FE40C0EAAAC29F9ED5463B7B2DB1C088B63EBB05876A2E631C1087798	7/23/2020	7/20/2035
CN = HydrantID SSL ICA G2 O = HydrantID (Avalanche Cloud Corporation) C = US	9C6D08933201407FBF2B12540B67CC0E4C9666F132E1504762A717CBAE8F3FD6	12/17/2013	12/17/2023
CN = QuoVadis Enterprise Trust CA 2 G3 O = QuoVadis Limited C = BM	B6F659BBCE0A2CC91E507B5D7319E32487EDAE28A063BC73B6405E6C44665B6	9/22/2020	6/6/2031
CN = HydrantID SSL ICA G2 O = QuoVadis Limited C = BM	01453F645CD91E233B7484827F23F8A573FD641029EA8A6BFE549EF4ED8B323D	1/14/2021	12/17/2023
CN = QuoVadis Global SSL ICA G3 O = QuoVadis Limited C = BM	161EE5386329B28A27FF405736552A621D5A844A43811E3623E52EEFA0BA840A	11/3/2021	11/2/2026
CN=QuoVadis Global SSL ICA G2 O=QuoVadis Limited C=BM	E5CD0DD44E1120C79415C84F5369D79AE04F047E80DC0856351AABC232056CA5	5/25/2022	5/24/2027
CN = DigiCert QuoVadis G4 TLS ECC P384 SHA384 2023 CA1 O = DigiCert Ireland Limited C = IE	0CAB7DBD736B1BFBE8E63ABE2DD55D64A0805140386DA05FC6E28D4FCF81B9B6	3/16/2023	3/13/2033
CN = DigiCert QuoVadis G3 Qualified TLS RSA4096 SHA256 2023 CA1 2.5.4.97 = NTRNL-30237459 O = QuoVadis Trustlink B.V. C = NL	FE3CBED838D30BAB900184C1F21A4B27D3211CB5C9257D7E985C2AE43AC6A89F	3/14/2023	3/11/2033
CN = DigiCert QuoVadis G4 TLS RSA4096 SHA384 2023 CA1 O = DigiCert Ireland Limited C = IE	3E8FC16AADA8FCB6F51CA4848BB15F8ABE8DD807F9CEAA4C6CCBE9864F6CE9DE	3/16/2023	3/13/2033
CN = DigiCert QuoVadis G4 TLS ECC P384 SHA384 2023 CA1 O = DigiCert Ireland Limited C = IE	35A5B2730439D225E04080412EC01031F22F3902B84670E7B44F699F9701F050	3/16/2023	3/13/2033
CN = QuoVadis Private TLS ECC P384 Root G4 O = QuoVadis Trustlink B.V. C = NL	B421FEE95C6D9F034E89CF51E92F4A54EB9ECC15757008179F9EF0A417B76317	3/16/2023	3/9/2048



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
CN = QuoVadis Private TLS RSA 4096 Root G4 O = QuoVadis Trustlink B.V. C = NL	A20FE0B76EED3D700661E24EE8619C08BF989716A50CE911C2CEA354A9CFBF8B	3/16/2023	3/9/2048



DIGICERT IRELAND LIMITED MANAGEMENT'S ASSERTION

DigiCert Ireland Limited ("DigiCert" or "QuoVadis") operates the Certification Authority ("CA") services for its CAs as enumerated in [Attachment B](#) and provides SSL CA services.

DigiCert management has assessed its disclosures of its certificate practices and controls over its SSL CA services. Based on that assessment, in providing its SSL CA services in providing its CA services in the locations in the Netherlands, Switzerland, the United States, Ireland, Belgium and Germany, DigiCert has:

- disclosed its SSL certificate lifecycle management business practices in the applicable versions of its QuoVadis Root CA 1 G3 / QuoVadis Root CA 3 / QuoVadis Root CA 3 G3 Certificate Policy/Certificate Practice Statement ("Root CA 3 CP/CPS"), QuoVadis Root CA 2 and Root CA 2 G3 Certification Policy/ Certification Practice Statement ("Root CA 2 CP/CPS") and DigiCert Europe/QuoVadis Certificate Policy/Certification Practices Statement ("QV CP/CPS") as enumerated in [Attachment A](#), including its commitment to provide SSL certificates in conformity with the CA/Browser Forum Requirements on its [repository](#), and provided such services in accordance with its disclosed practices
- maintained effective controls to provide reasonable assurance that:
 - the integrity of keys and SSL certificates it manages is established and protected throughout their lifecycles; and
 - SSL subscriber information is properly authenticated (for registration activities performed by DigiCert)
- 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 September 1, 2023 to August 31, 2024, based on the [WebTrust Principles and Criteria for Certification Authorities - SSL Baseline - Version 2.8](#).

DigiCert has disclosed the following matters publicly Mozilla's Bugzilla platform. These matters were included below due to being open during the period September 1, 2023 through the date of this report.



Bug ID	Summary	Opened	Closed	Resolution
#1853463	DigiCert: SMIME certificates issued inconsistent with BR's	9/15/2023	10/12/2023	Fixed
#1888016	DigiCert: Failure to include CPS URI in 1 certificate	3/26/2024	6/5/2024	Fixed
#1918467	QuoVadis: Findings in 2024 ETSI Audit of QuoVadis Qualified Web ICA G2	9/11/2024	10/7/2024	Fixed

DigiCert Ireland Limited

DocuSigned by:



11/27/2024

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Jason Sabin

Chief Technology Officer



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

Certificate Policy/Certificate Practice Statement¹

Policy Name	Version	Effective Date
DigiCert Europe / QuoVadis Certificate Policy/Certification Practices Statement	5.2	March 1, 2024
DigiCert Europe / QuoVadis Certificate Policy/Certification Practices Statement	5.1	December 15, 2023
DigiCert Europe / QuoVadis Certificate Policy/Certification Practices Statement	5.0	November 22, 2023

Root CA and Root CA 3 Certificate Policy/Certificate Practice Statement

Policy Name	Version	Effective Date
QuoVadis Root CA 1 G3 / QuoVadis Root CA 3 / QuoVadis Root CA 3 G3 Certificate Policy/Certificate Practice Statement	4.43	August 1, 2023

Root CA 2 Certificate Policy/Certification Practice Statements

Policy Name	Version	Effective Date
QuoVadis Root CA 2 and Root CA 2 G3 Certification Policy/Certification Practice Statement	2.21	June 9, 2023

¹ Effective November 22, 2023, the QuoVadis Root CA 1 G3 / QuoVadis Root CA 3 / QuoVadis Root CA 3 G3 Certificate Policy/Certificate Practice Statement and QuoVadis Root CA 2 and Root CA 2 G3 Certification Policy/Certification Practice Statement combined into the DigiCert Europe / QuoVadis Certificate Policy/Certification Practices Statement



ATTACHMENT B - LIST OF CAs IN SCOPE

Root CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
CN = QuoVadis Root CA 1 G3 O = QuoVadis Limited C = BM	8A866FD1B276B57E578E921C65828A2BED58E9F2F288054134B7F1F4BFC9CC74	1/12/2012	1/12/2042
CN = QuoVadis Client RSA 4096 Root G4 O = QuoVadis Trustlink B.V. C = NL	80AC91FA891C79723A61ABC77F86E19905A92DA27E51695CA0C0B66C1C039BF2	3/16/2023	3/9/2048
CN = QuoVadis Client ECC P384 Root G4 O = QuoVadis Trustlink B.V. C = NL	D3C07AC44BD8FF1975BC62F1C7E9840EA8E188A4BA51133B8C4EFF05E34A2729	3/16/2023	3/9/2048
CN = QuoVadis Signing ECC P384 Root G4 O = QuoVadis Trustlink B.V. C = NL	771535D43D4633BD307EB7B8A3966B5DF00707C088089920080C1AE6D3CB0F68	3/16/2023	3/9/2048
CN = QuoVadis Signing RSA 4096 Root G4 O = QuoVadis Trustlink B.V. C = NL	9F8E6DB31E740285E0C2C2DEB09E442BDD4E74BDEEAE2962BC82D1ECB9F39855	3/16/2023	3/9/2048
CN = QuoVadis SMIME ECC P384 Root G4 O = QuoVadis Trustlink B.V. C = NL	83FDDB2FD9DAE3B21EEBD33CF46251D746F0D6102B683150DD7B98AD8E4BB9F8	3/16/2023	3/9/2048
CN = QuoVadis SMIME RSA 4096 Root G4 O = QuoVadis Trustlink B.V. C = NL	5232A304AA4A10CFE6C47842EA3381CB31D619E24F58126D534CD50C5CE7845D	3/16/2023	3/9/2048
CN = QuoVadis TLS ECC P384 Root G4 O = QuoVadis Trustlink B.V. C = NL	6E1FD3AE0D2D477C8F5EE5F335CC5B6356872654E5356A73D8C0A30A17C252A2	3/16/2023	3/9/2048
CN = QuoVadis TLS RSA 4096 Root G4 O = QuoVadis Trustlink B.V. C = NL	C8A2D38A24F5AC302D8A08EBD38923D9A750B49220F092E82D1C53249E1533D0	3/16/2023	3/9/2048
CN = QuoVadis Root CA 2 O = QuoVadis Limited C = BM	85A0DD7DD720ADB7FF05F83D542B209DC7FF4528F7D677B18389FEA5E5C49E86	11/24/2006	11/24/2031
CN = QuoVadis Root CA 2 G3 O = QuoVadis Limited C = BM	8FE4FB0AF93A4D0D67DB0BEBB23E37C71BF325DCBCDD240EA04DAF58B47E1840	1/12/2012	1/12/2042
CN = QuoVadis Root CA 3 O = QuoVadis Limited C = BM	18F1FC7F205DF8ADDDEB7FE007DD57E3AF375A9C4D8D73546BF4F1FED1E18D35	11/24/2006	11/24/2031
CN = QuoVadis Root CA 3 G3 O = QuoVadis Limited C = BM	88EF81DE202EB018452E43F864725CEA5FBD1FC2D9D205730709C5D8B8690F46	1/12/2012	1/12/2042



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
CN = HydrantID EV SSL CA G2 O = HydrantID (Avalanche Cloud Corporation) C = US	60388B773D33E9141648613F36B9149F015A114378BACF3E3694864FFDA426EC	7/21/2020	7/19/2030
CN = HydrantID SSL CA G3 O = HydrantID (Avalanche Cloud Corporation) C = US	AA57F482CBC516B4D10CA4097DD90D99F5AA727D207090D07DA9C36998ABB9AD	9/29/2020	9/27/2030
CN = QuoVadis Grid ICA G2 O = QuoVadis Limited C = BM	278ECF211E2518E9DD9913AFC583EEB3127C8184BCBEEDAAD7BD64E89E8C4310	9/22/2020	5/23/2026
CN = QuoVadis Qualified Web ICA G2 O = QuoVadis Trustlink B.V. C = NL	7FEB9374EAB08D392717C647436DAE06176A24C010607FDA1CCE5E5F0106B472	7/22/2020	7/20/2030
CN = QuoVadis Global SSL ICA G2 O = QuoVadis Limited C = BM	F67C23EF7BF7412809DB6B1DD3D44A08D3754D99CABA6A13F7A05C7249089C89	9/22/2020	6/1/2023
CN = VR IDENT EV SSL CA 2020 O = Fiducia & GAD IT AG C = DE	D33A847F640377BE0AE1A429153A07E87C8827FA4840B5158BCDCB85E10A453A	7/22/2020	7/20/2030
CN = QuoVadis RCA1G3 TLS CA O = QuoVadis Limited C = BM	18BB70EFDA3F91438115C9EB4F333EB4EC68354571E6949195A0A91C9E6FBCD8	10/21/2020	10/19/2030
CN = DigiCert QV EV TLS ICA G1 O = DigiCert, Inc. C = US	6A7B2AA3414039A663D5D8BBAB8256A3979A84C332BF5E1EE8F6D0E0ADA84668	3/16/2020	3/14/2030
CN = QuoVadis RCA3G3 TLS CA O = QuoVadis Limited C = BM	ECC0D17AC3263AC6A164DCDB08F82D07E93FCEA723F66B88B06EEBA9678DF2BB	10/21/2020	10/19/2030
CN = QuoVadis Europe SSL CA G2 O = QuoVadis Trustlink B.V. C = NL	B1AAE1BCD555E8A3D1E3DDA8EC84E757C552655344CE3FEEBBAF98E895DBEDAC	7/22/2020	7/20/2030
CN = QuoVadis RCA3G1 TLS CA O = QuoVadis Limited C = BM	3A66E648212E6321F94D9EABCC92C052E679D992C99AD4596A4E7B85ADCEE5DE	10/21/2020	10/19/2030
CN = QuoVadis Qualified Web ICA G3 O = QuoVadis Trustlink B.V. C = NL	3F225BDBCD788CE924870CAF92F814B7C6FF4EDABABAD93F1D3A9177252CF1D1	8/28/2020	8/26/2030
CN = DigiCert QV TLS ICA G1 O = DigiCert, Inc. C = US	93E33AF7DA3030530D090C9C55762CADE7EAE943F834349D1057A90EB67F306B	3/16/2020	3/14/2030
CN = QuoVadis Enterprise Trust CA 3 G3 O = QuoVadis Limited C = BM	DA5462526A0C2E9852A86186B025390158759CDCA6AE21F09F713CA6ACDD1F1	6/6/2016	6/6/2031



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
CN = QuoVadis Enterprise Trust CA 1 G3 O = QuoVadis Limited C = BM	0531C86F785958939FDC539924D395D1EFA409364E6827D3AB9876311FFB27B0	6/6/2016	6/6/2031
CN = QuoVadis Europe EV SSL CA G1 O = QuoVadis Trustlink B.V. C = NL	CB6666B32BFF2EFEDCC4187DF149A6D34A5D10B7165B9CFF2A67C0E311AEEED7	7/20/2020	7/18/2030
CN = VR IDENT SSL CA 2020 O = Fiducia & GAD IT AG C = DE	347D18DCCC2EFC51A920E7A7FBB07BFBDA35613681F82DCA5C4C72BB0C83C035	7/22/2020	7/20/2030
CN = QuoVadis Enterprise Trust CA 2 G4 O = QuoVadis Trustlink B.V. C = NL	1E356823FE40C0EAAAC29F9ED5463B7B2DB1C088B63EBB05876A2E631C1087798	7/23/2020	7/20/2035
CN = HydrantID SSL ICA G2 O = HydrantID (Avalanche Cloud Corporation) C = US	9C6D08933201407FBF2B12540B67CC0E4C9666F132E1504762A717CBAE8F3FD6	12/17/2013	12/17/2023
CN = QuoVadis Enterprise Trust CA 2 G3 O = QuoVadis Limited C = BM	B6F6559BBCE0A2CC91E507B5D7319E32487EDAE28A063BC73B6405E6C44665B6	9/22/2020	6/6/2031
CN = HydrantID SSL ICA G2 O = QuoVadis Limited C = BM	01453F645CD91E233B7484827F23F8A573FD641029EA8A6BFE549EF4ED8B323D	1/14/2021	12/17/2023
CN = QuoVadis Global SSL ICA G3 O = QuoVadis Limited C = BM	161EE5386329B28A27FF405736552A621D5A844A43811E3623E52EEFA0BA840A	11/3/2021	11/2/2026
CN=QuoVadis Global SSL ICA G2 O=QuoVadis Limited C=BM	E5CD0DD44E1120C79415C84F5369D79AE04F047E80DC0856351AABC232056CA5	5/25/2022	5/24/2027
CN = DigiCert QuoVadis G4 TLS ECC P384 SHA384 2023 CA1 O = DigiCert Ireland Limited C = IE	0CAB7DBD736B1BFB8E63ABE2DD55D64A0805140386DA05FC6E28D4FCF81B9B6	3/16/2023	3/13/2033
CN = DigiCert QuoVadis G3 Qualified TLS RSA4096 SHA256 2023 CA1 2.5.4.97 = NTRNL-30237459 O = QuoVadis Trustlink B.V. C = NL	FE3CBED838D30BAB900184C1F21A4B27D3211CB5C9257D7E985C2AE43AC6A89F	3/14/2023	3/11/2033
CN = DigiCert QuoVadis G4 TLS RSA4096 SHA384 2023 CA1 O = DigiCert Ireland Limited C = IE	3E8FC16AADA8FCB6F51CA4848BB15F8ABE8DD807F9CEAA4C6CCBE9864F6CE9DE	3/16/2023	3/13/2033
CN = DigiCert QuoVadis G4 TLS ECC P384 SHA384 2023 CA1 O = DigiCert Ireland Limited C = IE	35A5B2730439D225E04080412EC01031F22F3902B84670E7B44F699F9701F050	3/16/2023	3/13/2033



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
CN = QuoVadis Private TLS ECC P384 Root G4 O = QuoVadis Trustlink B.V. C = NL	B421FEE95C6D9F034E89CF51E92F4A54EB9ECC15757008179F9EF0A417B76317	3/16/2023	3/9/2048
CN = QuoVadis Private TLS RSA 4096 Root G4 O = QuoVadis Trustlink B.V. C = NL	A20FE0B76EED3D700661E24EE8619C08BF989716A50CE911C2CEA354A9CFBF8B	3/16/2023	3/9/2048