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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 at California, Utah and Virginia, in the United States of America, and Kawasaki and Sapporo, Japan, for its CAs as enumerated in [Attachment B](#), DigiCert has:

- disclosed its extended validation SSL (“EV SSL”) certificate lifecycle management business practices in the applicable versions of its DigiCert Certification Practices Statement and DigiCert Certificate Policy enumerated in [Attachment A](#), including its commitment to provide EV 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 EV SSL certificates it manages is established and protected throughout their lifecycles; and
 - EV SSL subscriber information is properly authenticated

throughout the period October 1, 2021 to September 30, 2022, based on the [WebTrust Principles and Criteria for Certification Authorities - Extended Validation SSL v1.7.3](#).

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 - Extended Validation SSL v1.7.3](#).

Independent Accountant’s Responsibilities

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

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



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

Inherent Limitations

There are inherent limitations in the effectiveness of any system of internal control, including the possibility of human error and the circumvention of controls. For example, because of their nature, controls may not prevent, or detect 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 at California, Utah and Virginia, in the United States of America, and Kawasaki and Sapporo, Japan, nor the suitability of any of DigiCert's services for any customer's intended purpose.

Other Matters

While the DigiCert assertion notes all issues disclosed on Bugzilla from October 1, 2021 through the date of this report, we have noted no instances relevant to the CAs enumerated in [Attachment B](#) and applicable to the [WebTrust Principles and Criteria for Certification Authorities - Extended Validation SSL v1.7.3](#).

Use of the WebTrust Seal

DigiCert's use of the WebTrust for Certification Authorities - Extended Validation SSL 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, LLP

December 22, 2022



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

Certificate Policies

Policy Name	Version	Effective Date
DigiCert Certificate Policy	5.11	July 19, 2022
DigiCert Certificate Policy	5.10	February 7, 2022
DigiCert Certificate Policy	5.9	January 21, 2022
DigiCert Certificate Policy	5.8	December 8, 2021
DigiCert Certificate Policy	5.7	September 14, 2021

Certification Practice Statements

Policy Name	Version	Effective Date
DigiCert Certification Practices Statement	5.11	July 19, 2022
DigiCert Certification Practices Statement	5.10	February 3, 2022
DigiCert Certification Practices Statement	5.9	January 21, 2022
DigiCert Certification Practices Statement	5.8	December 8, 2021
DigiCert Certification Practices Statement	5.7	September 14, 2021



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	960ADF0063E96356750C2965DD0A0867DA0B9CBD6E77714AEAFB2349AB393DA3	12/15/2006	12/15/2021
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	7D05EBB682339F8C9451EE094EEBF7953A114EDB2F44949452FAB7D2FC185	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
C=US, O=WFA Hotspot 2.0, CN=Hotspot 2.0 Trust Root CA - 03	A3CC68595DFE7E86D8AD1772A8B5284ADD54ACE3B8A798DF47BCCAFB1FDB84DF	12/8/2013	12/8/2043



Root CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
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
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=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 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	802447EE521CC666CDB7BBAE93A385E55F200D76A3D1356A85445AC4CDBED12	1/8/2014	12/15/2030
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=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, 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
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Trusted Root G4	33846B545A49C9BE4903C60E01713C1BD4E4EF31EA65CD95D69E62794F30B941	8/1/2022	11/9/2031
C=US, O=DigiCert Inc, 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=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 ECC P384 Root G5	D92E93252EABCA950870B94331990963A2DD5DB96D833C82B08E41AFD1719178	9/21/2022	9/20/2037
C=US, O=DigiCert, Inc., CN=DigiCert TLS RSA4096 Root G5	A4BCDA32D49CDF05F0CDD085E73C3A2E67880BD48579FED4DF5940DF76A076D7	9/21/2022	11/9/2031
O=Cybertrust, Inc, CN=Cybertrust Global Root	802447EE521CC666CDB7BBAE93A385E55F200D76A3D1356A85445AC4CDBED12	1/8/2014	12/15/2030
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



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=Amazon, OU=Server CA 1B, CN=Amazon	4A1FF6BBF481170D3B773CEC1F3A84DE3B5096575CDBF8B08432209318CA0FBD	10/21/2015	10/21/2040
C=US, O=Amazon, OU=Server CA 1B, CN=Amazon	F55F9FFCB83C73453261601C7E044DB15A0F034B93C05830F28635EF889CF670	10/22/2015	10/19/2025
C=US, O=Amazon, OU=Server CA 3B, CN=Amazon	ECC295B6DDCD084BA7179FB53BDD1D422CB6C0A8D94F154D4A5B17780B7279ED	7/16/2018	7/16/2028
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	38F73647F1ECAECC0FC5AFE68AC30E0C26171E9F232F4530729412408FD53626	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=MSFT BALT RS256 CA	069DF2F8919D9209D0C524A56BA1181DF6D1BBFC4AA61C9F01D092E2D5C3A1FD	4/7/2022	5/11/2025
C=IT, O=Postecom S.p.A., OU=Servizi di Certificazione, CN=Postecom CS4	C1685683F3C8590E88580197F219CA8B99E5482A1568635F596D09867B2F405BD	4/26/2016	4/26/2023
C=IT, O=Telecom Italia Trust Technologies S.r.l., OU=Digital Identity and Security, CN=Trust Technologies Global CA	191E0B48B78B7EFA4822A465AD69B34405B878D10BD853D8E57CB8B9D9E50B8B	8/24/2017	5/10/2025
C=IT, O=Telecom Italia Trust Technologies S.r.l., OU=Digital Identity and Security, CN=Trust Technologies Global Client CA	AA6A2380A7E8254DAD4620AE0895DE74047F33F5268758DCF27C4D280B384A50	8/24/2017	5/10/2025
C=AR, O=Bolsa de Cereales, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Autoridad Certificante Bolsa de Cereales - G2	54E37620BF05CEAFBB2286EB251F69434C84677B8122299AF2E07750341268E2	8/18/2015	7/25/2022
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Extended Validation CG CA	38FDF62507CEDEE16B1455E96BD23D5C6F6C5654D68C7E3B27238D2C73744A86	9/24/2018	12/14/2021
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



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Assured ID Intermediate CA (SHA2)	C2B4BBEF4A1A643F334ED0850F928876D2AE3AE3642B986014D68C673C04D081	12/7/2011	12/7/2026
C=US, O=DigiCert, Inc., CN=DigiCert Assured ID SMIME RSA2048 SHA256 2021 CA1	61E163C56C6100A91463ACCEC29B01A881E3F9C3B3AEF2CCD0B21DB0EAF9F2AE	12/14/2021	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	1E0A3AB993157717281D42ABF801EB64DEED500E4168CA706D6A71D8103C73A2	12/7/2011	12/7/2026
C=US, O=DigiCert Grid, OU=www.digicert.com, CN=DigiCert Grid Trust CA G2	28CBB4E0D9C4EE6D04AC8F14717605AE3A4BD8CBF8D081B27AF6EDB2F3D76A32	1/8/2014	1/8/2029
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Secure Auth CA	24E9F20AC167BB8F09DE8A1E9968CC53F0B5F3A4948F51B8647B40B186C75EBE	4/23/2014	4/23/2029
C=US, O=DigiCert Inc, CN=DigiCert Secure Auth CA2	4759D6F4ED6DF0E08FC4CA801986E2BE10594DBAF341B4C45ABAF34748887D25	10/9/2020	10/8/2030
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert SHA1 Assured ID Code Signing CA - G1	82AD46ECDE882413106B1C83EF65DC02DB0C65B3870F6F744B62283DF6FA1D56	7/18/2018	7/18/2028
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert SHA2 Assured ID Code Signing CA - G3	9CDFD82596D1BAC9E44D3E491E2C07D8DCC920419915FD6F361CF70A1E433B10	7/18/2018	7/18/2028
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=GeoTrust Code Signing CA	78A95ED82180A1C33A9F34EDB75E6774FD4BB73AA2C7C4121453DDB627DB1BAF	7/18/2018	7/18/2028
C=US, ST=CA, L=Mountain View, O=Google, Inc., CN=Google CA1	438F473EBFC8884EF5D3E0D52D264CDBE56CA382D9EBFC689D77489409F55A6E	8/25/2015	8/25/2025
C=US, O=Imprivata, OU=www.imprivata.com, CN=Imprivata Secure ID CA-1	B49B1B7209D1A83F6CDBBA743AD720ACC24440FB9002F9DDB3C6F2F5CE337A47	10/25/2016	10/25/2026
C=US, ST=Minnesota, L=Minneapolis, O=Optum, CN=Optum Public Trust CA 1	253E3C9732DF8874C3D54DA522C1711142C98C2CEA7664635152A89A03EE9364	4/28/2015	4/28/2025
C=US, O=Plex, Inc., CN=Plex Devices High Assurance CA	48A7C9C5A36734FC9E204D63CE6BBBCD9E21C1978604760CD8D30D6F4C67B67C	1/14/2015	1/14/2025
C=US, O=Sonavation, Inc., OU=sonavation.com, CN=Sonavation IoT CA	4C56CA7A3C10EB58765E0FFCF8035C57C9F3BDB014862F676756CF789193F10E	5/19/2015	5/19/2025
C=NL, ST=Noord-Holland, L=Amsterdam, O=TERENA, CN=TERENA Code Signing CA 3	B7C6EBDC2A1B65EF1836DC00250C44E15703121052C1AB6B9D0385A058153AE3	11/18/2014	11/18/2024
C=NL, ST=Noord-Holland, L=Amsterdam, O=TERENA, CN=TERENA Code Signing CA 3 G3	794C63DB244BA73FB286F15DAB8D0CA5425508381E98844954E63823BB5D7F74	12/9/2014	12/9/2024
C=NL, ST=Noord-Holland, L=Amsterdam, O=TERENA, CN=TERENA eScience Personal CA 3	FDA947208BFA3203A6C57B8714A647B7009E5168E88951345450B1D2D3F91A7D	11/18/2014	11/18/2024



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=NL, ST=Noord-Holland, L=Amsterdam, O=TERENA, CN=TERENA eScience SSL CA 3	E1BE6BBBB70F5A241E736FC44C6A2160BF6CE19B95EDD67BF7BE896E83778745	11/18/2014	11/18/2024
C=NL, ST=Noord-Holland, L=Amsterdam, O=TERENA, CN=TERENA Personal CA 3	DD4E0C17900F3FC2A5B7B773AE40218AD73216B5CE5D285EBFFCE8830D0F034A	11/18/2014	11/18/2024
C=NL, ST=Noord-Holland, L=Amsterdam, O=TERENA, CN=TERENA Personal CA 3 G3	C123F5AFACC9F9096809850355E5BF78CA9377348111B5167A964DDEDC044DE9	12/9/2014	12/9/2024
C=NL, ST=Noord-Holland, L=Amsterdam, O=TERENA, CN=TERENA SSL CA 3	BEB8EFE9B1A73C841B375A90E5FFF8048848E3A2AF66F6C4DD7B938D6FE8C5D8	11/18/2014	11/18/2024
C=NL, ST=Noord-Holland, L=Amsterdam, O=TERENA, CN=TERENA SSL CA 3 G3	C9D6913F3FEDDEFF184C9EE1D7E17C5AEC90886EED5CC3D6E98105831C8C0E0B	12/9/2014	12/9/2024
C=CN, O=TrustAsia Technologies, Inc., OU=www.trustasia.com, CN=TrustAsia Secure Email CA	047217772051D292238F3355F5C5435E9B84364CCD143FC49F9C31CD605439F0	4/27/2018	4/27/2028
C=CN, O=TrustAsia Technologies, Inc., OU=www.trustasia.com, CN=TrustAsia Secure Enterprise Email CA	3D774B65EE95FD6EFD1C8732B57E607C9BEE423C36E46F6E1CC8CA1F0AE62E23	4/27/2018	4/27/2028
C=US, O=Alaska Permanent Fund Corporation, CN=Alaska Permanent Fund Corporation Public CA G1	CD662FFFCE76F071BE918AECE125F9B54873479F3AF8C3545DB330E28F92B035	3/11/2021	3/10/2026
C=US, O=Government of the District of Columbia, OU=Office of the Chief Technology Officer, CN=DC Government SHA2 Assured ID Intermediate CA	FB1147E7AB97A29BB9C1140ABF3DE831F4C5F60D11B90FEC999A0816375D8457	7/13/2017	7/13/2027
C=US, O=DigiCert Inc, CN=DigiCert Assured ID CA G2	93C381CB07B353A920C2A7BED6BEBF195C68279DD0527D37F20BDD0D99C330FA	8/1/2013	8/1/2028
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Assured ID Client CA G2	9E12D6E13DDD53A890A2B3A37423AE5E457731A7B34A153992F1EF1F5489A45E	9/23/2019	9/23/2034
C=US, O=DigiCert, Inc., 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, OU=www.digicert.com, CN=DigiCert EV Code Signing CA (SHA2) G1	8A78B966C73D769040C1A81C32168CEF8B9B9E96ECC2D33CC4ABB5A0CF8C1C67	4/27/2018	4/27/2028
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert EV Code Signing CA (SHA2) G2	EDCD88B6BD77FC8A2680E2ECB8FFBAC45898DFA0FDE983425E0F1BEB058C04B6	7/18/2018	7/18/2028
C=US, O=DigiCert Inc., CN=DigiCert One AATL CA	419507E46D6520CECE453A0C2B5292A099431C35E8967A6D0EE573CAAB116C71	4/29/2021	4/28/2031
C=US, O=DigiCert, Inc., CN=DigiCert PKI Platform AATL CA	7E15A84E1A0927AED136C59A048AE48E63BA82EDAA9827892C105A9A89BDE659	3/11/2021	3/10/2031
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert SHA2 Assured ID Code Signing	4ADB819C250A2E183313405499D8735299C88F970A5019A27566B27E5818F41B	4/27/2018	4/27/2028
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert SHA2 Assured ID Code Signing CA - G2	2A9D0D018BB49FDEA14D6C16E9BA0A942F2833B9AADFFBAD1306E301B495CFB7	7/18/2018	7/18/2028



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=PT, O=DigitalSign - Certificadora Digital SA, CN=DigitalSign CA - G5	7AA50B4EACCB422A19EF8597A71D56CB8E6910CFA4DD9BDDFAB1EFE7BCB7801F	7/7/2021	7/6/2031
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=GeoTrust Code Signing CA - G2	8D7C499D7FE9EEEC05D9EB42F03EFE402807919803E8E6CD6C1F2BF5EF6A7D8F	7/18/2018	7/18/2028
C=DE, O=Giesecke+Devrient GmbH, CN=Giesecke and Devrient CA	0A4FF256B1A0A14BB81F318B64D47D6C36A4C3529F9C39299A47ED51A2B8EE52	3/11/2021	3/10/2031
C=US, O=SAIC, OU=PKI, CN=SAIC Public Email CA 2018 01	B4739E90912D31F2829F69D60F62C5954DC98EEF9A7EF3477447692C4A440D65	2/9/2018	2/9/2028
C=US, O=DigiCert Inc, CN=DigiCert Assured ID CA G3	634FDF26C994E76A2918D9EFC4CAB9C6FCB344EF642A79C89192BCDA0ED52F4C	8/1/2013	8/1/2028
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Assured ID Client CA G3	14FAFCA84BDB8B0EC32719272BE730FE18D6FC29301C5CF789400596EC429AFE	9/23/2019	9/23/2034
C=US, O=DigiCert, Inc., 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	4E1AB9F0122809E2A8E93133187AF2E71C9C3BF86971065D578FC4C08AF79	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=Axesson Inc., OU=www.axesson.com, CN=Axesson Direct CA	BF4655F16AA338D7C7FF2BDC949A524BD4797B8B3C8341C608C9F65CB1CB8177	1/8/2014	1/8/2024
C=US, O=Quest Diagnostics Care360, OU=Care360 Direct Messaging, CN=Care360 Direct Intermediate CA	2D602B1F166D6316DAFD46B4B1EDD6DCFC54D2AF8A944BE358858FD504AAA16B	8/25/2015	8/25/2025
C=US, O=Cerner Corporation, OU=Cerner Direct, CN=Cerner Corporation Direct Intermediate CA	09DE7FA739EE47C06291845F2E0E8A9E1C7CC2900AD354CF167316E02386BD9B	9/26/2014	9/26/2024
C=US, O=Cerner Corporation, OU=Cerner Resonance, CN=Cerner Corporation Resonance Intermediate CA	64284AA5F8DC8697D43D9737CF4E266625414E449C019667714537FF7EDE31B7	11/11/2015	11/11/2021
C=US, O=CompuGroup Medical, Inc, OU=IT, CN=CompuGroup Medical Certificate Authority	B604026A3590392ABEFCB6B18E8176453656115D2A0060F713E191A9FD076532A	12/8/2015	12/8/2025
C=US, O=Corepoint Health, CN=Corepoint Direct Intermediate CA	CD2640957CF88610470CEFD409D85D9BE05962F7D6C2999C4F431ABCCC34118C	1/14/2015	1/14/2025
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Accredited Direct Med CA	0E78434EC8AD6613562C8390D8B3306FC6087E0593C7D5AC2FAF9AD263879745	8/6/2013	8/6/2023
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Direct Non-Provider CA	1AEDDADDC1ED748543EAF5960DF96AD51E21A3164F30A0640CB0732365D39062	2/11/2014	2/11/2024
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Federated Healthcare CA	54C3F501042CDCC09AE8143CB192BD5E5724C9C88A6AB395A94A1A7AFC26CE7C	2/11/2014	2/11/2024



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Federated ID L1 CA	CAB016C5EA32061BD065FE13A55A40FA61058B27B34A7F8D175F7101EE063E3B	10/30/2012	10/30/2022
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Federated ID L2 CA	91FDEB52D4265120B843B195D1B6CDB5CE61251865A45A3E920E610FDDA660D3	1/7/2014	1/7/2023
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Federated ID L3 CA	85760F77DB0FD0D93C21EE0364B8EAB09B82CF49B7849831038209B5B1081363	1/7/2014	1/7/2023
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Federated ID L4 CA	EFB2A3F37273D3589047919825EA5337E9B938A8C178B61C18C2B4270B9665AC	10/30/2012	10/30/2022
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Federated ID US L3 CA	EB84FC0B403D9B689297A5D83EA186838E3B777BC618EFDA162A75B7FEA666C1	1/8/2014	1/8/2023
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Federated ID US L4 CA	6797436214EFEE67CDE7D70358D4D8B00DFBF78D5C87C62B4A7E790D73DD7BD9	4/18/2013	4/18/2023
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Governmental Direct CA	5F665CBACC1E37171EA83EA85C570F9861CAF77BAC8886ABC4BB19B3698C094A	9/25/2015	9/25/2025
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Provisional Direct Med CA	C61029C8EEE3CE08755D562BB50C5F75E0EF849214970B13BD99185367D1D119	6/3/2014	6/3/2024
C=US, O=Indian Health Service, OU=directihs.net, CN=Indian Health Service-RPMS DIRECT Messaging CA	C07E9037CB81012D3046613285C14B63A0284964A4F5A821FC3B18ECDEBA0A66	4/4/2014	4/4/2024
C=US, O=Inpriva Inc, CN=Inpriva Direct Federated CA	5AE4F777426BBC5AA85986CA48D319270C5536210DC8EA1A28D502F6B3595138	11/18/2011	11/18/2021
C=US, O=INTEGRIS, OU=INTEGRIS DIRECT Messaging HISP, CN=INTEGRIS Direct Intermediate CA	97D276C5FDF2DC94539ABB9E17BC3995730CD51739EAE95B0F67B39E99905F11	11/18/2014	11/18/2024
C=US, O=iShare Medical, CN=iShare Medical Direct Intermediate CA	4C0A5888C34AA01B745F4EBA268696B2CCB3F4AA31C8EDCB3AFE8FA84CB74CC1	1/14/2015	1/14/2025
C=US, O=MedicaSoft LLC, OU=MedicaSoft Direct Messaging, CN=MedicaSoft Direct Intermediate CA	51A6E2ED41040AAE8E089FBABFE26A38D656F5B0855635352FEE9598286BB021	4/28/2015	4/28/2025
C=US, O=Medicity Inc., OU=www.medicity.com, CN=Medicity Direct CA	231BA402E28B3495F3BE0CAD87078D9B8FBD86041116AF9B8047E7B1CFFA82D0	2/13/2014	2/13/2024
C=US, O=Michiana Health Information Network, OU=www.mhin.com, CN=MHIN Direct CA	EAEFB08D568E7F6CF6D892CAB6A22E14F20C6F10E3A418CFB42B12309333367	1/8/2014	1/8/2024
C=US, O=Mirth, OU=NextGen Share, CN=Mirth Direct Intermediate CA	CC9FAAD83C3350943D4E45FA416C4F8BC564F7AA94CF4B2D2BCE74209D0464C9	9/26/2014	9/26/2024
C=US, O=MobileMD Health Services, OU=MobileMD, CN=MobileMD Direct Intermediate CA	33CF1F5C9396D7EE9E8283B2E76F400E50450575EB15AD02C956C1C5575B184D	10/21/2014	10/21/2024
C=US, O=MRO Corporation, OU=MRO HIE Solutions, CN=MRO Direct Intermediate CA	E25DE970AA8B685CDF55417897F65DE64C63A55D61EE9E4B830261DCFBFFFB4	10/21/2014	10/21/2024
C=US, O=Oregon Health Authority, CN=Oregon Health Authority Direct CA	86FFEA40F36FA6913278710FEABA9B206F3288DA3FD1C652BC5B5895A2B1A877	3/5/2014	3/5/2024



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=Orion Health Inc., OU=Orion Health Direct Secure Messaging, CN=Orion Health Direct Secure Messaging CA	A4106DA85F7B34A6D3DE37884D1528916B84F046FFB7D4AAC521117B0C6995F3	10/21/2013	10/23/2023
C=US, O=RelayHealth, CN=RelayHealth Direct CA	77537682E9A0B2C5BD5E62BC1CB35ECEB38FCBEBF7D2DC326F7E420F0DDBEDB3	4/4/2014	4/4/2024
C=US, O=Rochester RHIO, OU=Rochester RHIO HISP, CN=Rochester RHIO Intermediate CA	43202B9E870659921F9DA26EDA9E47BF6990DB031A0BC0B23AFA1E7968ED3E99	10/21/2014	10/21/2024
C=US, ST=SC, O=SCHIEX, OU=SCHIEX Direct Messaging, CN=SCHIEX Direct CA	443C8158264710C0B768A8170E59BF1FAE4079D2BC39939A79FA839174ED81AE	6/7/2016	6/7/2026
C=US, O=Abbott Laboratories Inc., CN=Abbott Laboratories Secure Authentication CA	DB99A4F284CCF10B26DE7B7A5D651725B857CBC871EBB33028D67B55510EFC9D	8/23/2016	8/23/2026
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 G3	ABFD261AB3733480BF58616991FFE266B6DB315E226A32339702D6C0BE6B96F2	3/11/2021	3/10/2031
C=US, O=Abbott Laboratories Inc., CN=Abbott Laboratories Secure Server CA	6C69E201656440EB98CD0875764A1ED19015ED8C4427601ACA9C68AFA8973959	7/12/2016	7/12/2026
C=US, O=Cisco Systems, Inc., CN=Cisco Meraki CA	199EE58009555DAE2CDA0626931C64391D6A88CCCB1F9F0B2EE80B667F581C06	7/12/2016	7/12/2026
C=US, O=Cisco Systems, Inc., CN=Cisco Meraki CA2	CDBCBEF16E37237702FACC4B55D3AB92A17CFA17835E13377AA4D2BA0FD47A02	9/24/2020	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
C=US, O=DigiCert Inc, CN=DigiCert ECC Secure Server CA	458446BA75D932E914F23C2B57B7D192EDDBC2181D958E1181AD5251747A1EE8	3/8/2013	3/8/2023
C=US, O=DigiCert Inc, CN=DigiCert Secure Server CA	94D4ECE2ED9A5457B969A13B260489E9A5FE4790A041F27A3EB4126C84418EF9	3/8/2013	3/8/2023
C=US, O=DigiCert Inc, 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



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=DigiCert Inc, CN=DigiCert Secure Site Pro CN CA G3	A66C97AE59DF9EA015E73C744EE5520745F101A395C497D19E1F168D39AFCDO	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, OU=www.digicert.com, CN=DigiCert SHA-2 RADIUS CA	524CF7331C4EE353EEB1ECD74E1F801A0F1F08DFA0322092F42205AFC3A17675	9/20/2016	9/20/2026
C=US, O=DigiCert Inc, CN=DigiCert SHA2 Secure Server CA	154C433C491929C5EF686E838E323664A00E6A0D822CCC958FB4DAB03E49A08F	3/8/2013	3/8/2023
C=US, O=DigiCert Inc, CN=DigiCert SHA2 Secure Server CA	C1AD7778796D20BCA65C889A2655021156528BB62FF5FA43E1B8E5A83E3D2EAA	9/23/2020	9/22/2030
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 CA G1	64616B62820D458F7C71E3449ECCF3F3E4735B76879860C1C660DF23438607EA	6/9/2020	6/9/2030
C=US, O=DigiCert Inc, CN=DigiCert Trust Service ECC CA	F269AC00B410003F72DC628AFB3D950279630C7C5D0C82148A0FD24DF4DA4301	3/4/2020	3/4/2030
C=US, O=DigiCert Inc, CN=DigiCert Trust Service ECC CA G2	B5FECC2F696C850323FC7A85C65B50A4C5E1BFBF823E266AB0A46F013B2C0EB2	6/12/2020	6/12/2030
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Encryption Everywhere DV TLS CA - G1	15EB0A75C673ABFBD02FAFC02823C91FE6CBC36E00788442C8754D72BEC3717	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
C=US, O=DigiCert Inc, CN=GeoTrust RSA CN CA G2	E3C24279DD6A337F881B1BC692E878F4A31AFE95851F208F94800B0C24D88C38	3/4/2020	3/4/2030



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=DigiCert Inc, CN=GeoTrust RSA CN CA G3	8A023C08E4A1AACCC925B34C5C7965A8D0527565AEA130ABB915E508CD33AFB45	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=NL, O=SupremeSSL, OU=www.supremessl.com, CN=GeoTrust SupremeSSL 1 ECC CA	6861BBD4CBEDA2AA01066BF476BF8F2FE6EA9F008CB0AC8E1755E2A328FA5933	5/7/2019	5/7/2029
C=US, O=DigiCert Inc, CN=GeoTrust TLS DV RSA Mixed SHA256 2020 CA-1	8C43C5E340EC640F93EA774AC5353CCA9042F764FF837F870D8B64763C458A41	7/16/2020	5/31/2023
C=US, O=DigiCert Inc, CN=GeoTrust TLS DV RSA Mixed SHA256 2021 CA-1	1D80CD18A794F1F4850EDC33C6048F02E85386A47F3CE836974A8E452A60D7F2	1/1/2021	9/30/2022
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, CN=RapidSSL TLS DV RSA Mixed SHA256 2020 CA-1	E6FA484A858940D101978555454AA466531AB6C4ABC4AD2B000626AAAC0D04F9	7/16/2020	5/31/2023
C=US, O=DigiCert Inc, CN=RapidSSL TLS DV RSA Mixed SHA256 2021 CA-1	6060EAB180122EB14F22EDE465B4A9A70E29E70FB182EBF01D5B1333F2E73242	1/1/2021	9/30/2022
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 CA G2	F614AE2B101484F15F66F4DDA56EE6EB422728F179D94399EDE19AC1D85A8BD3	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 CA G2	02FED3BA2E6A7843A318A981BC847061FD282D9E8847FFA9F54D785B6B81D6F3	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=Secure Site Pro ECC CA G2	DA3BE2B6A6D9715C1295A42BE526E0001D10E5D7540F06E7631B34E644934848	6/20/2019	6/20/2029
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Thawte CN RSA CA G1	7867AAE905EB8D55635FFEBBF8CF05A63B9B390665DE2367AC1073E92913728	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	F1CACA6AB2350A7668C13E41960908681DAFCC7E368DCB8D47FECF9631390481	4/27/2018	4/27/2028
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 OV TLS Pro CA	33E8A4ED48930760CE1AD7A2D44F079B22F660052753976109E6FC74752552BD	4/27/2018	4/27/2028
C=CN, O=TrustAsia Technologies, Inc., CN=TrustAsia OV TLS Pro CA G2	DBDF9A1ACC4DB8AD83FCC7978E35D62F6E32E55108273C8EC998E3133580D664	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., 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=Bloomberg LP, CN=Bloomberg TLS CA	440B37416F2DE852CA386150D611EC0AF31DD58D8A27F882815A7EA3EE6848EE	9/24/2020	9/23/2030
C=US, O=Bloomberg LP, CN=Bloomberg TLS CA	F5F1A8C04E5CF0FDB678DD279994463E48508C4349643B0D92CBFD7523F6C40A	3/30/2021	3/29/2031
C=US, O=DigiCert Inc, CN=DigiCert EV RSA CA G2	9588EF74199E45ACEFCCFC0C47010E9F2A37A1DD44C61A4E1C6B334DA5AF614	7/2/2020	7/2/2030
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, OU=www.digicert.com, CN=DigiCert Global Client CA G2	A449DBAB6D4C035FAAFD9D045891FE98ABD73D286268A8A83F854145551692E3	9/23/2019	9/23/2034
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	1F8EB9E9A8E066CC5B3833E06B3129764B622639D5B163F600E1C79120BF3EED	9/24/2020	9/23/2030



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=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=PT, O=DigitalSign - Certificadora Digital SA, CN=DigitalSign CA - G7	FE7AA77C5DE2D1466852F6D9070A320BE3DA439C72D74F71C62697502DA5BF6CF	11/3/2021	11/2/2031
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Encryption Everywhere DV TLS CA - G2	B1AC8CFB181B9C9354E1775FCBDFCFE7898C5CC9A17D76315B57C112EEE55234	11/27/2017	11/27/2027
C=US, O=DigiCert Inc, CN=GeoTrust EV RSA CA G2	2D140F20B8A96E2B4D2F1CC5ACA5E5A1E7DC56A7491E510906960F38D2D21AEF	7/2/2020	7/2/2030
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	F7FBDEB82BE99D41CDCA419FC91859D3E5286C076204E0903D678BB213ED89B	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=MSFT RS256 CA	96A7EFB63FCA3993C74BF764D37596957F90F208DADA9E49E622822BA0F7A889	4/7/2022	4/6/2032
C=US, O=Microsoft Corporation, CN=MSFT RS256 CA-1	F5D4CAD53B3F2EF39810DA6D3CD5FF7663F4ABB87738827CCECAFF6FCC3EAF64	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=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



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=CN, O=TrustAsia Technologies, Inc., OU=Domain Validated SSL, CN=TrustAsia TLS RSA CA G8	036A18F5F0EB9DD5EE02B7854DF5C33845601D8939CFB7B607F69D142C01D909	11/2/2017	11/2/2027
C=AU, O=Verkey, CN=Verkey Secure Web G2	5EE5AAD704A8B698883F4029720C8FA1CB79C9FA3463CC24340629EBE6C5A62B	3/17/2022	3/16/2032
C=AU, O=Verkey, CN=Verkey Verified Business G2	7EDBE6F8C49A1E3988CAADD438B72F07B6AF9CE751CF5835163161D63CAE4DDF	3/17/2022	3/16/2032
C=US, O=Wells Fargo & Company, OU=Organization Validated TLS, CN=Wells Fargo Public Trust Certification Authority 01 G2	CF7CFA4F9DBCCBCA6D20EFDEBEAD4E173B34E76BDA1EB1E619F44E06E95FC208	11/15/2017	11/15/2027
C=DE, O=CertCenter AG, OU=Domain Validated SSL, CN=AlwaysOnSSL TLS ECC CA G1	BD193C475E4E67938BEF34122B98B558A2882E7ED94369A6CB011320EF15623C	11/2/2017	11/2/2027
C=JP, O=Cybertrust Japan Co., Ltd., CN=Cybertrust Japan ECC EV CA	92E3770B1EB44F84C2F2CB0097C2FD7126BD212B41C2610E78DDFD8946761738	8/24/2017	8/24/2032
C=JP, O=Cybertrust Japan Co., Ltd., CN=Cybertrust Japan Secure Server ECC CA	C3683F7D91754219DADA4E8DC30E4B18BD3928B53D3AB93D07384BC5871CE355	7/13/2017	7/13/2032
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Extended Validation CA G3	7C0912E5DE8478BB86E8EA46BA5AE65DC3870BCEFCBC2F46795EEECF648CFBE7	11/11/2015	11/11/2030
C=US, O=DigiCert, Inc., OU=www.digicert.com, CN=DigiCert Extended Validation CA-3 G3	DA7E5778F62F87655B8FD24A89E651E57329DC9C0765A71158CE56443CA44E95	11/12/2019	11/12/2029
C=US, O=DigiCert Inc, CN=DigiCert Global CA G3	F7541CF69D1DE1AC953ABC1FAD6F7807A34EDFE9E12C11E66A195930C23AD6C6	8/1/2013	8/1/2028
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Global Client CA G3	BA361260FF1D46031686305E082DE836D4A320466E0DE9E013F00CEDDD62317	9/23/2019	9/23/2034
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, 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=NCC Group, CN=NCC Group Secure Server CA G3	963056B0D941D9DBE27AC778053D85E43CC79F476AD34CFDD799C27E381840EB	7/30/2014	7/30/2029
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=RapidSSL TLS ECC CA G1	FC16D53203BD9187D69CC99D2DA551076B4DCB298140D6751F7A012966C99FDD	11/2/2017	11/2/2027
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Thawte TLS ECC CA G1	AE82201F565E0439B7F4AD689327594EB974A4F781B1A6CBFED59BD382317F13	11/2/2017	11/2/2027



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=CN, O=TrustAsia Technologies, Inc., OU=Domain Validated SSL, CN=TrustAsia TLS ECC CA G9	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=.NET Foundation, CN=.NET Foundation Projects Code Signing CA	024F162B1D09F6A0868C38B4C8B4257C1EEA6C5A31589416D520CF1624917EB3	4/27/2018	4/27/2028
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	DDCBB4F3051D6E601310EB0E46B5BB99C5E8B99F7A539E367A987DEA030E318E	9/24/2020	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 CA	0A163600631BD66267FB7AEAD25C538B2B7D72AD6416A2BBD285F654BB642F6D	12/9/2014	12/9/2024
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	8B6CCC3BE92F0121E6494AC704BF0B9B9CEBBA2E363C8E8122D90984D3EBF386	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=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=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=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	FDC8986CFAC4F35F1ACD517E0F61B879882AE076E2BA80B77BD3F0FE5CECF8862	6/21/2016	6/21/2031
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert EV Code Signing CA (SHA2) G3	2B0A972DC0DAE218E9477396D3D82DEB82DE118867DD19E1D2FFFD958CBB6DA9	7/18/2018	7/18/2028



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Extended Validation Intermediate CA (SHA2)	802C2AD1D215E57CDC9010EA437ACE399B657194FBD40E3BB5E00B080E6496DF	12/7/2011	12/7/2026
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert High Assurance CA-3	DCB400ACC249FB8483415FC2650BC90488CA96643118CB0E4F4424B21C3AA5A4	10/12/2011	4/3/2022
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert High Assurance CA-3	COA4A1AC05E03096A3B2AB8A38502B39E2614E11397BEE73D0A66B8ACEF7A283	4/3/2008	4/3/2022
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert High Assurance CA-3	21EB37AB4CF6EF8965EC1766409CA76B8B2E03F2D1A388DF734208E86DEEE679	4/2/2008	4/3/2022
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert High Assurance CA-3	57D8D5B832616B7823466A0C372770D16A5DCF246581F0F58373E51C7E1E5316	4/3/2007	4/3/2022
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, OU=www.digicert.com, CN=DigiCert High Assurance EV CA-1	8FC1469B8005BFEBDBF67F514E795FE1F17EA239A2A6934857F2428ADCE6D24F	11/10/2007	11/10/2021
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert High Assurance EV CA-2	1188F831C949A62E9CD4F60E36F72544F0AF924DE07F9DA992E26E44C996EEE0	3/23/2007	3/23/2022
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert High Assurance Intermediate CA (SHA2)	47511629F2BC3B7CF84EFEC9F32798A43AF6252E550B6CAE76A38558712E37D8	12/7/2011	12/7/2026
C=US, O=DigiCert, Inc., 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 Hybrid ECC SHA256 2020 CA1	5D270CB4EFF587AD6CD17CB2B60D9084A153D77D2AA79A2CB3DB1DDB904684F5	3/30/2021	3/29/2031
C=US, O=DigiCert, Inc., CN=DigiCert High Assurance TLS RSA SHA256 2020 CA1	9BFED3D9DC95236BCFFCB35D4B120DB0E3867F62B1FD015A928DA0B303966683	12/17/2020	12/16/2030
C=US, O=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



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
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	403E062A2653059113285BAF80A0D4AE422C848C9F78FAD01FC94BC5B87FEF1A	10/22/2013	10/22/2028
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 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	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	863472EC79DB54077114DADE720CE1F7B41A233748FC6773FA86520F0B9AAA21	3/4/2021	3/3/2031
C=US, O=Avalanche Cloud Corporation, CN=HydrantID EV SSL CA D1	F9D4A6C011E9C6A8F5A4CF7ED0416869C7238EF93A56161EA6CA3D8B41716097	3/30/2021	3/29/2031
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	1A8D790AF9B2B34D7DD6AF61B5AA4CF1380B86095CBAC2BCAB35BD566D0180C3	4/27/2018	4/27/2028
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 Pro Extended Validation CA	3883E6DE4917A46B594ECC2D2AC6A95D43E7EAA8E089A91F9BC104FF16DF8DE6	4/27/2018	4/27/2028



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Secure Site Pro 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 ECC CA	C3804DE51E8C17052220AE1CAD3D383E54D5B7DC28843C42F0DBD9913C1E8658	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=SecurityMetrics, OU=www.securitymetrics.com, CN=SecurityMetrics DigiCert CA	F32DEAF22CE724661F53D5287311AFF2541EB38ECADF9DD877B94023E3A11B1F	10/30/2012	10/30/2022
C=US, O=SecurityMetrics, OU=www.securitymetrics.com, CN=SecurityMetrics DigiCert EV CA	6B2328E7FFF598B2ADF90B7F3EA42B45FA606D78E2B117B7D60E99E828CF7565	10/30/2012	10/30/2022
C=NL, ST=Noord-Holland, L=Amsterdam, O=TERENA, CN=TERENA SSL High Assurance CA 3	BE6A0D9E1D115F2293F6ABF11B3EC8E882E24426EEEB09AAA503597993E77A25	11/18/2014	11/18/2024
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Thawte 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	EA1F3BF4D3296B467D4B582559D6518D676D5AFC7D1C24BE80252F79191046F	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	2DAAC6FDFAC16C548C53FF1198254D7E937761D22A1E7CC5C1A9462E971461F5	4/27/2018	4/27/2028
C=CN, O=TrustAsia Technologies, Inc., CN=TrustAsia ECC EV TLS Pro CA G2	CODD060FF8CE556F35683D564E0E66B2907178808693F83F3AA642326BF6D0C8	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 EV TLS Pro CA	4AFFE4FEF39464D1788C660AF591D5E601B261C4811DF0A3DD9D61CAFE8E5ED8	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=GB, O=TRUSTCUBES LIMITED, 1.3.6.1.4.1.519.1=223013701, 1.3.6.1.4.1.52266.1=984500505FE80CD0NE58, OU=www.trustcubes.com, CN=TrustCubes ICA G1	2106CC7907C64B8A5DA2FC338EE94DFFF10EF711DEDDB4FC694EE092EC532B1D	7/18/2018	7/18/2028
C=CN, O=WoSign CA Limited, CN=WoSign EV Code Signing Pro CA	F6DFDEED61FF88EF10B9E6DCFBCE0F1615E05866CEBAFCD6D48AEE80132C70347	5/23/2017	5/23/2027



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
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 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=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=DigiCert, Inc., CN=DigiCert G5 TLS CN RSA4096 SHA384 2022 CA1	AB7EF70580B8DB2291C2BC8DC9F69AD8345A3CC543DB8CDC49A8B419282DEA22	7/12/2022	7/11/2032
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=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



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
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 AATL RSA4096 SHA384 2022 CA1	D149AF9F74029C8DBD957022BE03707F110DB1E1D0E55DDA11376A8F766D367E	7/21/2022	7/20/2032
C=US, O=DigiCert Inc, CN=DigiCert Trusted G4 TLS RSA SHA384 2020 CA1	4F35C6B9C100905FF25BB01C0A20EBE335BCFEF249CE9FA1E11E062ED66FCD1	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	D889A2641F5DF941353817C87A5CD0D9CDACED3886240BFD937329E94D3A45B	3/30/2021	3/29/2031
C=DE, O=Deutsche Kreditbank AG, CN=DKB CA 101	0E5B8040B3AB60A50D2D5FB11E19AEB2E45B564B335B79D773D42B81D8219C75	2/4/2021	2/3/2031
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	BE89264A58313012B749603C9BEB3CD7914DB716A49E5E0EA97E43A3883A5DF	3/17/2022	3/16/2032
C=US, O=DigiCert, Inc, OU=www.digicert.com, CN=DigiCert Universal Issuing CA	622A42A28CADC83D962771D9D09BD307877D4AB513B4FE0CF2E5851E79FFA6FE	12/8/2017	12/8/2027
C=US, O=DigiCert, Inc, OU=www.digicert.com, CN=GeoTrust Primary Issuing CA	F7A84E24E8E0D89154874721C5B641F48A1EF0FF3B198F53BE021DB53F097BD0	12/8/2017	12/8/2027
C=US, O=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=Alaska eHealth Network, Inc., OU=Orion Health Direct Secure Messaging, CN=Alaska eHealth Network CA	437859303D0183862A96F6ABF8B03F2A69D4CBD317217666015E1ABA3C84AA11	10/22/2013	10/22/2023
C=US, O=California Integrated Data Exchange, Inc., OU=Orion Health Direct Secure Messaging, CN=Cal INDEX CA	A5226F33474B53392665298B48F4E6129824E98BD4D38DF4E31EBBCF14FA33CD	7/12/2016	7/12/2026
C=US, O=Catholic Health Initiatives, OU=Orion Health Direct Secure Messaging, CN=Catholic Health Initiatives CA	151A3591B765D02C359EEC9C56ED8DDAD0C54E756A497D02BF979FA8DD5D95BB	8/19/2014	8/19/2024



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



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=North Dakota Information Technology Department, OU=Orion Health Direct Secure Messaging, CN=North Dakota Information Technology Department CA	6ECF658CCEA8B29BE60C85904F4ADD7CCB7950CF58C97BBF60D57CEA49A2703D	1/10/2014	1/10/2024
C=US, O=Oklahoma State Department of Health, OU=Orion Health Direct Secure Messaging, CN=Oklahoma State Department of Health CA	77ABE65DF4BE94E5EC222FC905E1233F8C77D6B3AE2933346A0C2FC3B2F1F560	2/16/2015	2/16/2025
C=US, O=Optioncare, OU=Orion Health Direct Secure Messaging, CN=Optioncare CA	89CFBC8FBFF7FE026B6CF2EA688419BDE8BBC1FB451329C865D6C6CBCF6BD097	3/1/2016	3/1/2026
C=US, O=Orion Health Inc., OU=Orion Health Direct Secure Messaging, CN=Orion Health Direct Secure Messaging Public HISP CA	D34138ED1458AE7DE4EDEA36ED3992E4F46E6EC9CF1E633E538DE9FF0F38F8E5	10/22/2013	10/22/2023
C=US, O=Rush Health, OU=Orion Health Direct Secure Messaging, CN=Rush Health CA	DB12B1D3F8CC52FFF4874F0A8B85E9FB6A2050861B1B1C61481A743AC0D33D5A	4/23/2014	4/23/2024
C=US, O=Sutter Health, a California nonprofit public benefit corporation, OU=Orion Health Direct Secure Messaging, CN=Sutter Health CA	603D69822381A0BFC274BBED67009BC7DF133CB902FA242CF58BF727D23D5495	10/21/2014	10/21/2024
C=US, O=The Koble Group, LLC, OU=Orion Health Direct Secure Messaging, CN=The Koble Group CA	A576C29481F5A2ACB1DF47500629A60F96F6ACA324E878FFDCFABD85E5649AEF	6/21/2016	6/21/2026
C=US, O=Western Connecticut Health Network, OU=Orion Health Direct Secure Messaging, CN=Western Connecticut Health Network CA	415322F3970C8CD0F54311E0F93C5F5C37BA3059FDB10F5240AC20934717F840	3/5/2014	3/5/2024
C=US, O=DigiCert, Inc, CN=DigiCert QuoVadis TLS ICA QV Root CA 1 G3	C42A4D8C0904BB211906F43B441BBBC9B5A003BA3611879FD34AE576F7C2F764	1/6/2021	1/4/2031
C=US, O=DigiCert, Inc, CN=DigiCert QuoVadis TLS ICA QuoVadis Root CA 2	673E8FEEB1168277D0153111D20ED38E9DA51F440BE7FD50B218540937741A48	1/6/2021	1/4/2031
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=US, O=DigiCert, Inc, CN=DigiCert QuoVadis TLS ICA QV Root CA 3	D8CC89C6AA6B7452881907927C81E66DA01A7598CF7674E4E2E133F16546D5F0	1/6/2021	1/4/2031
C=US, O=DigiCert, Inc, CN=DigiCert QuoVadis TLS ICA QV Root CA 3 G3	728E4BD2B399840E9D437AF975B0198910B4129B7AB708CB5C0B445D3B04D999	1/6/2021	1/4/2031
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Japan Class 1 CA	D6A3574E4C2AA2D15397D5A9BEFCF8380910CC0148BAB86A0B9FF40E2659BCE8	4/15/2014	4/14/2024
C=JP, O=VeriSign Japan K.K., OU=Symantec Trust Network, CN=VeriSign Japan Class 1 CA - G5	02E9E323CD6F98374079523514C3783AC1003AB80ABCBA0EE2258C418EAC44CC	7/24/2012	7/23/2022
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



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=Fannie Mae, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Fannie Mae Shared Online CA	D39495B310669DC6BFF57D547C53E3FF9E7B452BB609272C981F514CCA0B146F	12/20/2016	12/19/2026
C=US, O=General Electric Company, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=GE SMIME Issuing CA 2.1	6BE39EC9E02D54008A7A716DD35A3D2F0A1FD8F8F34DAE235446150C6F48BC7E	7/16/2015	7/15/2025
C=US, O=General Electric Company, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=GE SMIME Issuing CA 2.1	2D53B8177062E4C7CEA79EEBF62BFA52A5B18BC9B89483597E5714E4E9B52315	7/16/2015	7/15/2025
C=AU, O=NBN Co Limited, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=NBN Co Limited Public Issuing CA - G2	758F496C9928A3C67E0D50D03D2E2CAAFF733D427E57AB5FEE7D5AC4153C4071	2/10/2015	2/9/2025
C=ZA, O=Nedbank Limited, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Nedbank Limited Public CA	267D014C81E6D02ED5898306B64D7B5EA91BAF9DB3183CF3BC64C25D2B35CAE6	9/10/2015	9/9/2025
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 2 Signing RSA Intermediate CA	66F7B0147C09F9DA79E63800A96F649DA7E59757F876F08126D07E8FB8542488	1/22/2015	1/21/2030
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 2 SSP CA - G2	3C18176FEBA1D20C8BFA7B484066E2A5825A226237E1E7BE3828E6F6C3771B23	3/21/2013	3/20/2023
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Japan Class 2 CA	AB62A0A1DE53BA06E771438E5D0526D3D8B0235330C65AA4BF80D855908E2DC4	4/15/2014	4/14/2024
C=US, O=Veritas Technologies LLC, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Veritas Technologies LLC Class 2 Employee CA	1AB7DCA7F8B28027F2B71FBBA8CB87162FE112C47AC4D09638C8EA01915A177D	9/10/2015	9/9/2025
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 2 Individual Signing RSA CA	8B9218D93DB5377CFE7D5923E7016D379D446F0019C47B9B4EA737AEDF86A558	1/22/2015	1/20/2030
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 2 Individual Signing RSA CA	4E74475D2C33E1DD4732306B79712B5EE6997C2DBDF596CC8BD1362163DAA4F4	1/22/2015	1/20/2035
C=US, O=U.S. Nuclear Regulatory Commission, OU=External Basic, CN=NRC Basic CA G2	C40D6AB75F7E5D11CF7B0404AC7E4321A7A8B0DDF7631328F3D7CC80D6644E2B	3/21/2013	3/19/2023
C=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



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
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=US, O=DigiCert, Inc, OU=www.digicert.com, CN=thawte Primary Issuing CA G3	F6CF5D6FF850D14DB082CC9CF7C056BC60E36B1E54F1CCA3E24BDF393948978D	12/8/2017	12/8/2027
C=US, O=DigiCert, Inc, OU=www.digicert.com, CN=thawte Primary Issuing CA	9A9FC39029ABE132D674D032D199CB8431AAC878DABCE6E9E1AECB81EC99F4CC	12/8/2017	12/8/2027
C=US, O=Symantec Corporation, OU=Symantec Trust Network, OU=Persona Not Validated, CN=Symantec Class 1 Individual Subscriber CA - G5	42A5FBCA2D6AA262FF62333AB78699CE1E4BF1CF5F49F806FD324CBE5BB62CF4	10/1/2015	9/30/2025
C=JP, O=VeriSign Japan K.K., OU=Symantec Trust Network, CN=VeriSign Japan Class 1 CA - G5	9CEBC030750F1A1BAD06C998558AE209DFCCA68A80D38C161A85DC5AF68DD48	7/24/2012	7/23/2022
C=US, O=Computer Sciences Corporation, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=AGC Public CA	5E71C746D45EBCFD6D2DCE4A2DABCCD9335E3AD8D63B349989341911ECD70E88	11/11/2014	11/10/2024
C=US, O=Agilent Technologies, Inc., OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Agilent Public CA G2	6BE4732E5C0FBB61A4F8B2EED0A1C47AB7FCFA559FD5EF3D5250D20E74503A83	4/23/2013	4/22/2023
C=AU, O=ASCIANO EXECUTIVE SERVICES PTY LTD, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Asciano CA	5FC7C6E19AF873E0941D7C6AB344D3E6E4F73DD67693FADFA2DA9C6438AC1A1A	11/3/2015	11/2/2025
C=US, O=ATT Services Inc, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=ATT Services Inc Email Certificates CA - G2	AE7A31EB7007A6F64237387343C083D11950F1D6D546EDDAD8B5AA3DAC30B70C	3/3/2016	3/2/2026
C=AU, O=BHP Billiton Operations Pty Ltd, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=BHPB Secure Email for External Parties CA	2EA4E7E0AC42B3BC3DA2D9A7887209BC8CC7958CEE1B52D25B4BE30D6E95AEA8	10/6/2011	10/5/2021
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



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
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	B864FF6DE0CB1BEAF6AA5C68DB8769C91F18E1721E22AC3ECD91C0889D77078	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	AFC78EBA95C0801A2FEBAE6F695D469AF346215C5A3E554F161D23C4BB40F91	5/12/2016	5/11/2026
C=CL, O=E-Sign S.A., OU=Symantec Trust Network, CN=E-Sign C2 Firma Electronica Avanzada Consumer Individual CA G2, emailAddress=e-sign@e-sign.cl	BE4D872225F013B6E17595AA29F3C0B9F85C403E6C9B483550B069E4A2F47BFE	11/15/2012	11/14/2022
C=CL, O=E-Sign S.A., OU=Symantec Trust Network, CN=E-Sign C2 Firma Electronica Avanzada Consumer Individual CA G2, emailAddress=e-sign@e-sign.cl	52A5E31287A0F89159F7BB4BD3A6A270DEE583A77261F6D00DD92D8C9424E800	11/15/2012	11/14/2022
C=CL, O=E-Sign S.A., OU=Symantec Trust Network, CN=E-Sign SC Class 2 Consumer Individual Subscriber CA - G2, emailAddress=e-sign@e-sign.cl	C34A5709122DC9EAF3021B979D4843FBB41C5B24326BECE84D2F686675A1B6EC	11/15/2012	11/14/2022
C=CL, O=E-Sign S.A., OU=Symantec Trust Network, CN=E-Sign SC Class 2 Consumer Individual Subscriber CA - G2, emailAddress=e-sign@e-sign.cl	72F0E3B1B8CD1A86BDF7D022DA4131C302293CAE820B28A597BC84D041B8971D	11/15/2012	11/14/2022
C=US, O=Adobe Systems Incorporated, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Enterprise Services CA - G2	EA78912AE2E15549DDA02D74CC05A18DADC218DD05C13F045B26433D23732F33	10/16/2012	10/15/2022
C=DE, O=Heuer und Partner - Rechtsanw\xC3\xa4lte mbB, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Feddersen Heuer Public CA	A402AA0AE53F484A07BF4E35B55D1274127650AD6145E243B719330B92B2A10A	1/5/2016	1/4/2026
C=AU, O=Fuji Xerox Businessforce Pty. Limited, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Fuji Xerox Businessforce CA - G2	92587CDC27A5C019B413AA94D21944AC8562E8DAA8C78AEA17C623D1B77714DE	6/4/2015	6/3/2025
C=US, O=General Electric Company, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=GE Enterprise SMIME CA 2.1	5C854634778E6DDC076ABAA36E5B8F4F45140578BD3A45AF09B7F23C34F032AD	6/16/2015	6/15/2025



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=CA, O=Goldcorp Inc., OU=VeriSign Trust Network, OU=Terms of use at https://www.verisign.com/rpa (c)11, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Goldcorp Class 2 Certificate Authority	B97867E65B805D78153D5349389C7E54695A45DDB2A4A015CAD8069C63FCF669	9/15/2011	12/31/2021
C=US, O=Hewlett Packard Enterprise Company, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Hewlett Packard Enterprise Collaboration CA	2EAA4251B3FFDD3AE904833A08B7FE1E7717C17082455C07F6F6DA902CBAC5D0	3/17/2015	3/16/2025
C=US, O=Honeywell International Inc., OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Honeywell International CA G2	19550DF2A43B367AFA194C34F3C3CBF8678E346691F895F429871EEADA53F7F8	6/7/2012	6/6/2022
C=US, O=Honeywell International Inc., OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Honeywell International Co-branded CA	7C932E8709835BEC74AAB6F02E958DF70995B3FED5FE4C375D66B1228555D8ED	12/5/2012	12/4/2022
C=US, O=Honeywell International Inc., OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Honeywell International Co-branded QA CA	87C0BAE275BF11F25AE3290B3E810D97E8297F276C576CDA9AEB5FAEFC4CD22	2/14/2013	2/13/2023
C=US, O=International Business Machines Corporation, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=IBM Certification Authority G3	CB16C58F10AFFDA46A0FC05BF49F0B707C579EC52E3527EEBA0448F9B8C16E99	11/10/2016	11/9/2026
C=US, O=Identive Group, Inc., OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=idOnDemand CA G2	B812A3156BBB9F0AABF8F36BE72A95388936272070C4860DBDD4955F0D59B486	9/5/2013	9/4/2023
C=US, O=Identive Group, Inc., OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=idOnDemand SHA-2 CA G2	36CAB8A86139B82476AE824EE4939A92088E6F16C2BD270EE349BF9D5A9E3384	9/5/2013	9/4/2023
C=DE, O=LfA Foerderbank Bayern, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=LfA Foerderbank Bayern - G2	315AC96789B49D48A1C420F32F9A4A73F4871AF75A4CA53CF41CE3FB3E2E76FC	6/16/2015	6/15/2025
C=US, O=Moog, Inc., OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Moog, Inc. M2 CA	01C235311274307F4457E079E1E11CCB0AB5B2A9F9919B269A5D304821F93FB8	7/19/2012	7/18/2022
C=SG, O=National University of Singapore, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=National University of Singapore CA - G2	438BA9C85C9A8C5506ACD1146ADA068B777A32FA2C78A6D4AB57241174881AB2	9/18/2014	9/17/2024



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=FI, O=Nokia Solutions and Networks, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Nokia Solutions and Networks CA	0B5F13974CEB577E1CC39DFFADF616FCF0C17ECA6747201AEBA6AF3BC20CE4F4	10/10/2013	10/9/2023
C=ID, O=PT Astra Daihatsu Motor, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=PT Astra Daihatsu Motor CA	9FF4EC074FE370818B15ABA1BBDCB0A4DBE3F8420A993A7B5176BCC7FB4E4EAD	5/31/2016	5/30/2026
C=DE, O=RWE Dea AG, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=RWE Dea AG CA	7FC6CAB96C16C850F457DCBBFB893539EA2664395F2409693789F41BFD64714E	12/11/2014	12/10/2024
C=US, O=SRI International, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=SRI International CA - G2	8F11E6AE162CD9472CAB0B6C023A56D8A442BD5981DD0CDBBCD5D501923223B7	11/15/2012	11/14/2022
C=US, O=SRI International, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=SRI International CA - G2	5B6A31D14ED98E8CF23A115BC45E87B8ECD82A937A29DBE0EFBA3C8133494B74	11/15/2012	11/14/2022
C=US, O=State Street Bank and Trust Company, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=State Street Bank and Trust - Global Markets CA	2C68D776FFD51155D98957A66043F896E2BC69CB1943570389350057A2C70616	7/10/2015	7/9/2025
C=AU, O=Sydney Trains, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Sydney Trains CA	BD80A335B5EBB7279960E0B5802257C256062895F33D3DCBC0B7CB7199DFA75F	11/24/2015	11/23/2025
C=US, O=Symantec Corporation, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Symantec Class 2 Employee CA - G3	2F320624CC3EBC01796080BEDEB5B2ED916F02A0AE5F537EDC4766BC455659DD	1/6/2015	1/5/2025
C=US, O=Symantec Corporation, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Symantec Class 2 MPKI Individual Subscriber CA - G3	E79BACE9FF58B8EE6D3BD94AE8ADB13DF42DFD86B3701BFF8EDFF5C4E84BAE91	11/15/2016	11/14/2026
C=US, O=Symantec Corporation, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Symantec Class 2 Shared Intermediate Certificate Authority - G2	68E63395029061641385B8AFF77F6D66F2D1FD87A821630D27EC3645C9FE235D	4/23/2015	4/22/2025
C=NO, O=Telenor Norge AS, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Telenor Norge AS Dealer CA	76790AE708EFBB366BA192A68D50810AE53E82A497CFF3911F888A21E04FE2D7	4/5/2012	4/4/2022
C=NO, O=Telenor Norge AS, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Telenor Norge AS EDC CA	4F5C36419568CB1E7084FB82DACDD1015ADB1D57B5C3E3F17F77CA092977432	6/19/2012	6/18/2022



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=NO, O=Telenor Norge AS, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Telenor Norge AS EDC CA - G2	BC8EB15B0FEE05D953758E1D2C29A9E7D1E1B5AFD5659AB95E981F6F75BD1D71	9/3/2015	9/2/2025
C=NO, O=Telenor Norge AS, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Telenor Norge AS NF CA	8DE6CA4D03ADF19A56B3CDD6DCA843C51189D0A2BB60D84B9AD01EBC741F5F22	6/19/2012	6/18/2022
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 OTL CA	C7367403CF6D5C13D9690187926EF896CE6E74135080C9AFD8C8B1532467AE50	4/5/2012	4/4/2022
C=NO, O=Telenor Norge AS, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Telenor Norge AS Test Dealer CA	4325F2A8870CB6A9BF08664D697323F62546C40907F885D6A6407071B4A9B540	4/5/2012	4/4/2022
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	889957D00561EF99867402A901359C772029AD43CCBE46B82BF2E7193D385411	6/19/2012	6/18/2022
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	D9E9093FBD728E05240FDB4D0DF46B7BEB9AB7E9554D30CB49D4681D6344C75F	6/19/2012	6/18/2022
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=NO, O=Telenor Norge AS, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Telenor Norge AS Test OTL CA	FD9A6C86AE90E3F7D5511EF968357B0D0D74FEC0C71C037CC9B29F3F2940F9F9	4/5/2012	4/4/2022
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



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=Thomson Reuters Holdings Inc., OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Thomson Reuters - LEDO CA	F5DF7A85240E93C602EE9C6F77C2B126C7A37CED8F34DD714B82C47F31F3544D	12/20/2016	12/19/2026
C=US, O=Federal Retirement Thrift Investment Board, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Thrift Savings Plan CA - G2	6FE969B0E32956CDA827A4084F9330C9559BB910291B9A4107C3C470774411D1	6/11/2013	6/10/2023
C=US, O=United Launch Alliance, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=ULA CA - G2	4A84F84E880F3D96C3BFBA2AED67B0EE300FBEE0A4A90D736EF738A089FD6B17	4/25/2017	4/24/2027
C=US, O=University of Houston, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=University of Houston CA - G2	69FF03E05230DFD61E4D6F6DD6662808C65A85CBE8FEA5E43FBF387128E8B4F4	6/18/2015	6/17/2025
C=US, O=University of Houston, OU=Symantec Trust Network, CN=University of Houston Intermediate CA	8AD8E95B7B83F0BC772BEB75FFE0C51F65C77B63B0821ADC13CDC5AC9C27267	2/7/2012	2/6/2022
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	DFE583E3A1ED35E57D95104817AD823C055FB9071CD400435B5FC74E692081DB	6/7/2016	6/6/2026
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 Extended Validation SHA256 SSL CA	1F9B31F820929EBFA03117EC2B77BA6B0FB6ECC9E027682A559378DA311C54EF	4/9/2013	4/8/2023
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 Secure Server SHA256 SSL CA	E0898AD662474B9F753C79BEA878031C9A5D634A49EDD6310B960AB023C02C0E	4/9/2013	4/8/2023
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 Shared Public Organization CA - SHA256	2F72019CB45B07AB05CB1BB8ECC3076D7072660B57A29E42EBE2AA57B83BC60B	7/11/2013	7/10/2023
C=CN, O=TrustAsia Technologies, Inc., OU=Symantec Trust Network, OU=Domain Validated SSL, CN=TrustAsia DV SSL CA - G6	B90E17AB4B8778B10F9F28CBAA7664DE2EE3D66E1AFC574D168EDD24A10339FF	8/11/2016	8/10/2026



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
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
C=JP, O=Symantec Japan, Inc., OU=Symantec Trust Network, OU=Class 1 Managed PKI Individual Subscriber CA, CN=Application Service CA	2B3188332031E548FE424A7A3ABB47701FA089D9D0EEAE35585CA72974BDA69C	4/28/2015	4/27/2022
C=JP, O=KYOCERA COMMUNICATION SYSTEMS Co.,Ltd., OU=Symantec Trust Network, OU=Class 1 Managed PKI Individual Subscriber CA, CN=DATACENTER CA - G2	EA70CA9465E25593BAB909A9DBF8F095C0B20BFBB54F1D185D464CCC8A431F4B	4/15/2014	6/6/2022
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=JP, O=Bank Of Japan, OU=Symantec Trust Network, OU=Class 1 Managed PKI Individual Subscriber CA, CN=Gaitame CA - G3	D20118563ACC4AB2D1DF217E3974D00877F71D2B74959F43FED33C45EBF5FB31	9/6/2012	7/22/2022
C=JP, O=Bank Of Japan, OU=Symantec Trust Network, OU=Class 1 Managed PKI Individual Subscriber CA, CN=Gaitame CA - G3	58F0778CB9969B09B24BDC96A03091B0AA98BAFF9C23F82B78B061035D85A65F	9/6/2012	7/22/2022
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Assured ID CA-1	B8F44E4B1F8697DF54BB3D0F1E67596CE2FE9DABA85AF4E6F2A2E74396F8C56D	11/10/2006	11/10/2021
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Assured ID CA-1	425E72C87FF22855D9908B71AB4C64B0D2F248287097690C62FE733F631DE38F	11/10/2006	11/10/2021
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Global CA-1	3C750409882486D64151F4CBB5BD61432A4A7BF42F48A85198D245A64AEA2117	11/10/2006	11/10/2021
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert High Assurance EV CA-1	4C4943B9EAA14EA2A69B8A7E4D8DA89081EEA11C87E8229B9B74F68A7AD33B79	11/10/2006	11/10/2021
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert High Assurance EV CA-1	541AF019961760EF19E8FB4134E6D43085B5E5E087F30197DC42B2097E10487E	11/9/2007	11/10/2021
C=IE, O=DigiCert Ireland Limited, CN=DigiCert G2 TLS EU RSA4096 SHA384 2022 CA1	8BADECCC43864DAA403630C5FF13B0511FB90D33297280162B75A2803956C2D8	9/15/2022	9/14/2032
C=IE, O=DigiCert Ireland Limited, CN=DigiCert G5 TLS EU RSA4096 SHA384 2022 CA1	4D27EF6357BC929783575C0C8C9340B67FBFC045FDC263B8C88362E6D3ADB6F	9/15/2022	9/14/2032
C=IE, O=DigiCert Ireland Limited, CN=DigiCert G2 TLS EU RSA4096 SHA384 2022 CA1	A4ADFC2917BB1451D312371D441ACDB686107FBC0B3156D5570E99E1121974FA	9/19/2022	9/18/2032



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=IE, O=DigiCert Ireland Limited, CN=DigiCert G3 TLS EU ECC P-384 SHA384 2022 CA1	F0F573763C616F762AA6AB927CBDE789FA8EF4E69AF8A27EC63C62EEF329ECA1	9/19/2022	9/18/2032
C=IE, O=DigiCert Ireland Limited, CN=DigiCert G5 TLS EU ECC P-384 SHA384 2022 CA1	2C171064DBFA280A1F294F72E2A1FC24C86111B23723DB9375D3004B27E7B33B	9/19/2022	9/18/2032
C=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, 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
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



DIGICERT, INC. MANAGEMENT'S ASSERTION

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

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

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

DigiCert management has assessed its disclosures of its certificate practices and controls over its EV SSL CA services. Based on that assessment, in DigiCert management's opinion, in providing its EV SSL CA services at California, Utah and Virginia, in the United States of America, and Kawasaki and Sapporo, Japan, DigiCert has:

- disclosed its extended validation SSL ("EV SSL") certificate lifecycle management business practices in the applicable versions of its DigiCert Certification Practices Statement and DigiCert Certificate Policy enumerated in [Attachment A](#), including its commitment to provide EV SSL certificates in conformity with the CA/Browser Forum Guidelines 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 EV SSL certificates it manages is established and protected throughout their lifecycles; and
 - EV SSL subscriber information is properly authenticated

throughout the period October 1, 2021 to September 30, 2022, based on the [WebTrust Principles and Criteria for Certification Authorities - Extended Validation SSL v1.7.3](#).

DigiCert has disclosed the following matters publicly Mozilla's Bugzilla platform. These matters were included below due to being open during the period October 1, 2021 through the date of this report.



Bug ID	Summary	Opened	Closed	Resolution
#1744795	DigiCert: Issuance of certs with keys (ROCA)	12/7/2021	1/14/2022	Fixed
#1794050	DigiCert: Org information issue in new validation workflow	10/6/2022	11/2/2022	Fixed
#1797165	DigiCert: Delayed Revocation of ~5.5 hours	10/24/2022	11/4/2022	Fixed

DigiCert, Inc.

DocuSigned by:

CEE89E6506D0438

12/22/2022

Jeremy Rowley
Chief Information Security Officer



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

Certificate Policies

Policy Name	Version	Effective Date
DigiCert Certificate Policy	5.11	July 19, 2022
DigiCert Certificate Policy	5.10	February 7, 2022
DigiCert Certificate Policy	5.9	January 21, 2022
DigiCert Certificate Policy	5.8	December 8, 2021
DigiCert Certificate Policy	5.7	September 14, 2021

Certification Practice Statements

Policy Name	Version	Effective Date
DigiCert Certification Practices Statement	5.11	July 19, 2022
DigiCert Certification Practices Statement	5.10	February 7, 2022
DigiCert Certification Practices Statement	5.9	January 21, 2022
DigiCert Certification Practices Statement	5.8	December 8, 2021
DigiCert Certification Practices Statement	5.7	September 14, 2021



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	960ADF0063E96356750C2965DD0A0867DA0B9CBD6E77714AEAFB2349AB393DA3	12/15/2006	12/15/2021
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	7353B6D6C2D6DA4247773F3F07D075DEC5B134212BEAD0928EF1F46115260941	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=WFA Hotspot 2.0, CN=Hotspot 2.0 Trust Root CA - 03	A3CC68595DFE7E86D8AD1772A8B5284ADD54ACE3B8A798DF47BCCAFB1FDB84DF	12/8/2013	12/8/2043
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	9D190B2E314566685BE8A889E27AA8C7D7AE1D8AADD8A3CECF9D24863CD34B9	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
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=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 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	802447EE521CC666CDB7BBAE93A385E55F200D76A3D1356A85445AC4CDBBED12	1/8/2014	12/15/2030
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=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Web PKI ECC Root - G1	92BB72F15EB75DE467C84B438181034BDAE9A016EC26434BEE3C9BBAD8CD8AFO	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, 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
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Trusted Root G4	33846B545A49C9BE4903C60E01713C1BD4E4EF31EA65CD95D69E62794F30B941	8/1/2022	11/9/2031
C=US, O=DigiCert Inc, 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=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 ECC P384 Root G5	D92E93252EABCA950870B94331990963A2DD5DB96D833C82B08E41AFD1719178	9/21/2022	9/20/2037
C=US, O=DigiCert, Inc., CN=DigiCert TLS RSA4096 Root G5	A4BCDA32D49CDF05F0CDD085E73C3A2E67880BD48579FED4DF5940DF76A076D7	9/21/2022	11/9/2031



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=Amazon, OU=Server CA 1B, CN=Amazon	4A1FF6BBF481170D3B773CEC1F3A84DE3B5096575CDBF8B08432209318CA0FBD	10/21/2015	10/21/2040
C=US, O=Amazon, OU=Server CA 1B, CN=Amazon	F55F9FFC83C73453261601C7E044DB15A0F034B93C05830F28635EF889CF670	10/22/2015	10/19/2025
C=US, O=Amazon, OU=Server CA 3B, CN=Amazon	ECC295B6DDC084BA7179FB53BDD1D422CB6C0A8D94F154D4A5B17780B7279ED	7/16/2018	7/16/2028
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	38F73647F1ECAEEC0FC5AFE68AC30E0C26171E9F232F4530729412408FD53626	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=MSFT BALT RS256 CA	069DF2F8919D9209D0C524A56BA1181DF6D1BBFC4AA61C9F01D092E2D5C3A1FD	4/7/2022	5/11/2025
C=IT, O=Postecom S.p.A., OU=Servizi di Certificazione, CN=Postecom CS4	C1685683F3C8590E88580197F219CAB99E5482A1568635F596D09867B2F405BD	4/26/2016	4/26/2023
C=IT, O=Telecom Italia Trust Technologies S.r.l., OU=Digital Identity and Security, CN=Trust Technologies Global CA	191E0B48B78B7EFA4822A465AD69B34405B878D10BD853D8E57CB8B9D9E50B8B	8/24/2017	5/10/2025
C=IT, O=Telecom Italia Trust Technologies S.r.l., OU=Digital Identity and Security, CN=Trust Technologies Global Client CA	AA6A2380A7E8254DAD4620AE0895DE74047F33F5268758DCF27C4D280B384A50	8/24/2017	5/10/2025
C=AR, O=Bolsa de Cereales, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Autoridad Certificante Bolsa de Cereales - G2	54E37620BF05CEAFBB2286EB251F69434C84677B8122299AF2E07750341268E2	8/18/2015	7/25/2022
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Extended Validation CG CA	38FDF62507CEDEE16B1455E96BD23D5C6F6C5654D68C7E3B27238D2C73744A86	9/24/2018	12/14/2021
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



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
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 Intermediate CA (SHA2)	C2B4BBEF4A1A643F334ED0850F928876D2AE3AE3642B986014D68C673C04D081	12/7/2011	12/7/2026
C=US, O=DigiCert, Inc., CN=DigiCert Assured ID SMIME RSA2048 SHA256 2021 CA1	61E163C56C6100A91463ACCEC29B01A881E3F9C3B3AEF2CCD0B21DB0EAF9F2AE	12/14/2021	11/9/2031
C=US, O=DigiCert Inc, 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	1E0A3AB993157717281D42ABF801EB64DEED500E4168CA706D6A71D8103C73A2	12/7/2011	12/7/2026
C=US, O=DigiCert Grid, OU=www.digicert.com, CN=DigiCert Grid Trust CA G2	28CBB4E0D9C4EE6D04AC8F14717605AE3A4BD8CBF8D081B27AF6EDB2F3D76A32	1/8/2014	1/8/2029
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Secure Auth CA	24E9F20AC167BB8F09DE8A1E9968CC53F0B5F3A4948F51B8647B40B186C75EBE	4/23/2014	4/23/2029
C=US, 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 SHA1 Assured ID Code Signing CA - G1	82AD46ECDE882413106B1C83EF65DC02DB0C65B3870F6F744B62283DF6FA1D56	7/18/2018	7/18/2028
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert SHA2 Assured ID Code Signing CA - G3	9CDFD82596D1BAC9E44D3E491E2C07D8DCC920419915FD6F361CF70A1E433B10	7/18/2018	7/18/2028
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=GeoTrust Code Signing CA	78A95ED82180A1C33A9F34EDB75E6774FD4BB73AA2C7C4121453DDB627DB1BAF	7/18/2018	7/18/2028
C=US, ST=CA, L=Mountain View, O=Google, Inc., CN=Google CA1	438F473EBFC8884EF5D3E0D52D264CDBE56CA382D9EBFC689D77489409F55A6E	8/25/2015	8/25/2025
C=US, O=Imprivata, OU=www.imprivata.com, CN=Imprivata Secure ID CA-1	B49B1B7209D1A83F6CDBBA743AD720ACC24440FB9002F9DDB3C6F2F5CE337A47	10/25/2016	10/25/2026
C=US, ST=Minnesota, L=Minneapolis, O=Optum, CN=Optum Public Trust CA 1	253E3C9732DF8874C3D54DA522C1711142C98C2CEA7664635152A89A03EE9364	4/28/2015	4/28/2025
C=US, O=Plex, Inc., CN=Plex Devices High Assurance CA	48A7C9C5A36734FC9E204D63CE6BBBCD9E21C1978604760CD8D30D6F4C67B67C	1/14/2015	1/14/2025
C=US, O=Sonavation, Inc., OU=sonavation.com, CN=Sonavation IoT CA	4C56CA7A3C10EB58765E0FFCF8035C57C9F3BDB014862F676756CF789193F10E	5/19/2015	5/19/2025
C=NL, ST=Noord-Holland, L=Amsterdam, O=TERENA, CN=TERENA Code Signing CA 3	B7C6EBDC2A1B65EF1836DC00250C44E15703121052C1AB6B9D0385A058153AE3	11/18/2014	11/18/2024



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=NL, ST=Noord-Holland, L=Amsterdam, O=TERENA, CN=TERENA Code Signing CA 3 G3	794C63DB244BA73FB286F15DAB8D0CA5425508381E98844954E63823BB5D7F74	12/9/2014	12/9/2024
C=NL, ST=Noord-Holland, L=Amsterdam, O=TERENA, CN=TERENA eScience Personal CA 3	FDA947208BFA3203A6C57B8714A647B7009E5168E88951345450B1D2D3F91A7D	11/18/2014	11/18/2024
C=NL, ST=Noord-Holland, L=Amsterdam, O=TERENA, CN=TERENA eScience SSL CA 3	E1BE6BBBB70F5A241E736FC44C6A2160BF6CE19B95EDD67BF7BE896E83778745	11/18/2014	11/18/2024
C=NL, ST=Noord-Holland, L=Amsterdam, O=TERENA, CN=TERENA Personal CA 3	DD4E0C17900F3FC2A5B7B773AE40218AD73216B5CE5D285EBFFCE8830D0F034A	11/18/2014	11/18/2024
C=NL, ST=Noord-Holland, L=Amsterdam, O=TERENA, CN=TERENA Personal CA 3 G3	C123F5AFACC9F9096809850355E5BF78CA9377348111B5167A964DDEDCC044DE9	12/9/2014	12/9/2024
C=NL, ST=Noord-Holland, L=Amsterdam, O=TERENA, CN=TERENA SSL CA 3	BEB8EFE9B1A73C841B375A90E5FFF8048848E3A2AF66F6C4DD7B938D6FE8C5D8	11/18/2014	11/18/2024
C=NL, ST=Noord-Holland, L=Amsterdam, O=TERENA, CN=TERENA SSL CA 3 G3	C9D6913F3FEDDEFF184C9EE1D7E17C5AEC90886EED5CC3D6E98105831C8C0E0B	12/9/2014	12/9/2024
C=CN, O=TrustAsia Technologies, Inc., OU=www.trustasia.com, CN=TrustAsia Secure Email CA	047217772051D292238F3355F5C5435E9B84364CCD143FC49F9C31CD605439F0	4/27/2018	4/27/2028
C=CN, O=TrustAsia Technologies, Inc., OU=www.trustasia.com, CN=TrustAsia Secure Enterprise Email CA	3D774B65EE95FD6EFD1C8732B57E607C9BEE423C36E46F6E1CC8CA1F0AE62E23	4/27/2018	4/27/2028
C=US, O=Alaska Permanent Fund Corporation, CN=Alaska Permanent Fund Corporation Public CA G1	CD662FFFCE76F071BE918AECE125F9B54873479F3AF8C3545DB330E28F92B035	3/11/2021	3/10/2026
C=US, O=Government of the District of Columbia, OU=Office of the Chief Technology Officer, CN=DC Government SHA2 Assured ID Intermediate CA	FB1147E7AB97A29BB9C1140ABF3DE831F4C5F60D11B90FEC999A0816375D8457	7/13/2017	7/13/2027
C=US, O=DigiCert Inc, CN=DigiCert Assured ID CA G2	93C381CB07B353A920C2A7BED6BEBF195C68279DD0527D37F20BDD0D99C330FA	8/1/2013	8/1/2028
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Assured ID Client CA G2	9E12D6E13DDD53A890A2B3A37423AE5E457731A7B34A153992F1EF1F5489A45E	9/23/2019	9/23/2034
C=US, O=DigiCert, Inc., 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, OU=www.digicert.com, CN=DigiCert EV Code Signing CA (SHA2) G1	8A78B966C73D769040C1A81C32168CEF8B9B9E96ECC2D33CC4ABB5A0CF8C1C67	4/27/2018	4/27/2028
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert EV Code Signing CA (SHA2) G2	EDCD88B6BD77FC8A2680E2ECB8FFBAC45898DFA0FDE983425E0F1BEB058C04B6	7/18/2018	7/18/2028
C=US, O=DigiCert Inc., CN=DigiCert One AATL CA	419507E46D6520ECEC453A0C2B5292A099431C35E8967A6D0EE573CAAB116C71	4/29/2021	4/28/2031



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=DigiCert, Inc., CN=DigiCert PKI Platform AATL CA	7E15A84E1A0927AED136C59A048AE48E63BA82EDAA9827892C105A9A89BDE659	3/11/2021	3/10/2031
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert SHA2 Assured ID Code Signing	4ADB819C250A2E183313405499D8735299C88F970A5019A27566B27E5818F41B	4/27/2018	4/27/2028
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert SHA2 Assured ID Code Signing CA - G2	2A9D0D018BB49FDEA14D6C16E9BA0A942F2833B9AADFFBAD1306E301B495CFB7	7/18/2018	7/18/2028
C=PT, O=DigitalSign - Certificadora Digital SA, CN=DigitalSign CA - G5	7AA50B4EACCB422A19EF8597A71D56CB8E6910CFA4DD9BDDFAB1EFE7BCB7801F	7/7/2021	7/6/2031
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=GeoTrust Code Signing CA - G2	8D7C499D7FE9EEEC05D9EB42F03EFE402807919803E8E6CD6C1F2BF5EF6A7D8F	7/18/2018	7/18/2028
C=DE, O=Giesecke+Devrient GmbH, CN=Giesecke and Devrient CA	0A4FF256B1A0A14BB81F318B64D47D6C36A4C3529F9C39299A47ED51A2B8EE52	3/11/2021	3/10/2031
C=US, O=SAIC, OU=PKI, CN=SAIC Public Email CA 2018 01	B4739E90912D31F2829F69D60F62C5954DC98EEF9A7EF3477447692C4A440D65	2/9/2018	2/9/2028
C=US, O=DigiCert Inc, CN=DigiCert Assured ID CA G3	634FDF26C994E76A2918D9EFC4CAB9C6FCB344EF642A79C89192BCDA0ED52F4C	8/1/2013	8/1/2028
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Assured ID Client CA G3	14FAFCA84BDB8B0EC32719272BE730FE18D6FC29301C5CF789400596EC429AFE	9/23/2019	9/23/2034
C=US, O=DigiCert, Inc., 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	4E1AB9F0122809E2A8E93133187AFAF26E71C9C3BF86971065D578FC4C08AF79	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=Axesson Inc., OU=www.axesson.com, CN=Axesson Direct CA	BF4655F16AA338D7C7FF2BDC949A524BD4797B8B3C8341C608C9F65CB1CB8177	1/8/2014	1/8/2024
C=US, O=Quest Diagnostics Care360, OU=Care360 Direct Messaging, CN=Care360 Direct Intermediate CA	2D602B1F166D6316DAFD46B4B1EDD6DCFC54D2AF8A944BE358858FD504AAA16B	8/25/2015	8/25/2025
C=US, O=Cerner Corporation, OU=Cerner Direct, CN=Cerner Corporation Direct Intermediate CA	09DE7FA739EE47C06291845F2E0E8A9E1C7CC2900AD354CF167316E02386BD9B	9/26/2014	9/26/2024
C=US, O=Cerner Corporation, OU=Cerner Resonance, CN=Cerner Corporation Resonance Intermediate CA	64284AA5F8DC8697D43D9737CF4E266625414E449C019667714537FF7EDE31B7	11/11/2015	11/11/2021



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=Compugroup Medical, Inc, OU=IT, CN=CompuGroup Medical Certificate Authority	B604026A3590392ABEFB6B18E8176453656115D2A0060F713E191A9FD076532A	12/8/2015	12/8/2025
C=US, O=Corepoint Health, CN=Corepoint Direct Intermediate CA	CD2640957CF88610470CEFD409D85D9BE05962F7D6C2999C4F431ABCCC34118C	1/14/2015	1/14/2025
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Accredited Direct Med CA	0E78434EC8AD6613562C8390D8B3306FC6087E0593C7D5AC2FAF9AD263879745	8/6/2013	8/6/2023
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Direct Non-Provider CA	1AEDDADDC1ED748543EAF5960DF96AD51E21A3164F30A0640CB0732365D39062	2/11/2014	2/11/2024
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Federated Healthcare CA	54C3F501042CDCC09AE8143CB192BD5E5724C9C88A6AB395A94A1A7AFC26CE7C	2/11/2014	2/11/2024
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Federated ID L1 CA	CAB016C5EA32061BD065FE13A55A40FA61058B27B34A7F8D175F7101EE063E3B	10/30/2012	10/30/2022
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Federated ID L2 CA	91FDEB52D4265120B843B195D1B6CDB5CE61251865A45A3E920E610FDDA660D3	1/7/2014	1/7/2023
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Federated ID L3 CA	85760F77DB0FD0D93C21EE0364B8EAB09B82CF49B7849831038209B5B1081363	1/7/2014	1/7/2023
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Federated ID L4 CA	EFB2A3F37273D3589047919825EA5337E9B938A8C178B61C18C2B4270B9665AC	10/30/2012	10/30/2022
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Federated ID US L3 CA	EB84FC0B403D9B689297A5D83EA186838E3B777BC618EFDA162A75B7FEA666C1	1/8/2014	1/8/2023
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Federated ID US L4 CA	6797436214EFEE67CDE7D70358D4D8B00DFBF78D5C87C62B4A7E790D73DD7BD9	4/18/2013	4/18/2023
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Governmental Direct CA	5F665CBACC1E37171EA83EA85C570F9861CAF77BAC8886ABC4BB19B3698C094A	9/25/2015	9/25/2025
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Provisional Direct Med CA	C61029C8EEE3CE08755D562BB50C5F75E0EF849214970B13BD99185367D1D119	6/3/2014	6/3/2024
C=US, O=Indian Health Service, OU=directihs.net, CN=Indian Health Service-RPMS DIRECT Messaging CA	C07E9037CB81012D3046613285C14B63A0284964A4F5A821FC3B18ECDEBA0A66	4/4/2014	4/4/2024
C=US, O=Inpriva Inc, CN=Inpriva Direct Federated CA	5AE4F777426BBC5AA85986CA48D319270C5536210DC8EA1A28D502F6B3595138	11/18/2011	11/18/2021
C=US, O=INTEGRIS, OU=INTEGRIS DIRECT Messaging HISP, CN=INTEGRIS Direct Intermediate CA	97D276C5FDF2DC94539ABB9E17BC3995730CD51739EAE95B0F67B39E99905F11	11/18/2014	11/18/2024
C=US, O=iShare Medical, CN=iShare Medical Direct Intermediate CA	4C0A5888C34AA01B745F4EBA268696B2CCB3F4AA31C8EDCB3AFE8FA84CB74CC1	1/14/2015	1/14/2025
C=US, O=MedicaSoft LLC, OU=MedicaSoft Direct Messaging, CN=MedicaSoft Direct Intermediate CA	51A6E2ED41040AAE8E089FBABFE26A38D656F5B0855635352FEE9598286BB021	4/28/2015	4/28/2025
C=US, O=Medicity Inc., OU=www.medicity.com, CN=Medicity Direct CA	231BA402E28B3495F3BE0CAD87078D9B8FBD86041116AF9B8047E7B1CFFA82D0	2/13/2014	2/13/2024



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=Michiana Health Information Network, OU=www.mhin.com, CN=MHIN Direct CA	EAEFEB08D568E7F6CF6D892CAB6A22E14F20C6F10E3A418CFB42B12309333367	1/8/2014	1/8/2024
C=US, O=Mirth, OU=NextGen Share, CN=Mirth Direct Intermediate CA	CC9FAAD83C3350943D4E45FA416C4F8BC564F7AA94CF4B2D2BCE74209D0464C9	9/26/2014	9/26/2024
C=US, O=MobileMD Health Services, OU=MobileMD, CN=MobileMD Direct Intermediate CA	33CF1F5C9396D7EE9E8283B2E76F400E50450575EB15AD02C956C1C5575B184D	10/21/2014	10/21/2024
C=US, O=MRO Corporation, OU=MRO HIE Solutions, CN=MRO Direct Intermediate CA	E25DE970AA8B685CDF55417897F65DE64C63A55D61EE9E4B830261DCFBFFFB4	10/21/2014	10/21/2024
C=US, O=Oregon Health Authority, CN=Oregon Health Authority Direct CA	86FFEA40F36FA6913278710FEABA9B206F3288DA3FD1C652BC5B5895A2B1A877	3/5/2014	3/5/2024
C=US, O=Orion Health Inc., OU=Orion Health Direct Secure Messaging, CN=Orion Health Direct Secure Messaging CA	A4106DA85F7B34A6D3DE37884D1528916B84F046FFB7D4AAC521117B0C6995F3	10/21/2013	10/23/2023
C=US, O=RelayHealth, CN=RelayHealth Direct CA	77537682E9A0B2C5BD5E62BC1CB35ECEB38FCBEBF7D2DC326F7E420F0DDBEDB3	4/4/2014	4/4/2024
C=US, O=Rochester RHIO, OU=Rochester RHIO HISP, CN=Rochester RHIO Intermediate CA	43202B9E870659921F9DA26EDA9E47BF6990DB031A0BC0B23AFA1E7968ED3E99	10/21/2014	10/21/2024
C=US, ST=SC, O=SCHIEx, OU=SCHIEx Direct Messaging, CN=SCHIEx Direct CA	443C8158264710C0B768A8170E59BF1FAE4079D2BC39939A79FA839174ED81AE	6/7/2016	6/7/2026
C=US, O=Abbott Laboratories Inc., CN=Abbott Laboratories Secure Authentication CA	DB99A4F284CCF10B26DE7B7A5D651725B857CBC871EBB33028D67B55510EFC9D9	8/23/2016	8/23/2026
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 G3	ABFD261AB3733480BF58616991FFE266B6DB315E226A32339702D6C0BE6B96F2	3/11/2021	3/10/2031
C=US, O=Abbott Laboratories Inc., CN=Abbott Laboratories Secure Server CA	6C69E201656440EB98CD0875764A1ED19015ED8C4427601ACA9C68AFA8973959	7/12/2016	7/12/2026
C=US, O=Cisco Systems, Inc., CN=Cisco Meraki CA	199EE58009555DAE2CDA0626931C64391D6A88CCCB1F9F0B2EE80B667F581C06	7/12/2016	7/12/2026
C=US, O=Cisco Systems, Inc., CN=Cisco Meraki CA2	CDBCBEF16E37237702FACC4B55D3AB92A17CFA17835E13377AA4D2BA0FD47A02	9/24/2020	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



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
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 ECC Secure Server CA	458446BA75D932E914F23C2B57B7D192EDDBC2181D958E1181AD5251747A1EE8	3/8/2013	3/8/2023
C=US, O=DigiCert Inc, CN=DigiCert Secure Server CA	94D4ECE2ED9A5457B969A13B260489E9A5FE4790A041F27A3EB4126C84418EF9	3/8/2013	3/8/2023
C=US, O=DigiCert Inc, 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, OU=www.digicert.com, CN=DigiCert SHA-2 RADIUS CA	524CF7331C4EE353EEB1ECD74E1F801A0F1F08DFA0322092F42205AFC3A17675	9/20/2016	9/20/2026
C=US, O=DigiCert Inc, CN=DigiCert SHA2 Secure Server CA	154C433C491929C5EF686E838E323664A00E6A0D822CC958FB4DAB03E49A08F	3/8/2013	3/8/2023
C=US, O=DigiCert Inc, CN=DigiCert SHA2 Secure Server CA	C1AD7778796D20BCA65C889A2655021156528BB62FF5FA43E1B8E5A83E3D2EAA	9/23/2020	9/22/2030
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 CA G1	64616B62820D458F7C71E3449ECCF3F3E4735B76879860C1C660DF23438607EA	6/9/2020	6/9/2030
C=US, O=DigiCert Inc, CN=DigiCert Trust Service ECC CA	F269AC00B410003F72DC628AFB3D950279630C7C5D0C82148A0FD24DF4DA4301	3/4/2020	3/4/2030
C=US, O=DigiCert Inc, CN=DigiCert Trust Service ECC CA G2	B5FECC2F696C850323FC7A85C65B50A4C5E1BFBF823E266AB0A46F013B2C0EB2	6/12/2020	6/12/2030



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Encryption Everywhere DV TLS CA - G1	15EB0A75C673ABFBDCD2FAFC02823C91FE6CBC36E00788442C8754D72BEC3717	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
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=NL, O=SupremeSSL, OU=www.supremessl.com, CN=GeoTrust SupremeSSL 1 ECC CA	6861BBD4CBEDA2AA01066BF476BF8F2FE6EA9F008CB0AC8E1755E2A328FA5933	5/7/2019	5/7/2029
C=US, O=DigiCert Inc, CN=GeoTrust TLS DV RSA Mixed SHA256 2020 CA-1	8C43C5E340EC640F93EA774AC5353CCA9042F764FF837F870D8B64763C458A41	7/16/2020	5/31/2023
C=US, O=DigiCert Inc, CN=GeoTrust TLS DV RSA Mixed SHA256 2021 CA-1	1D80CD18A794F1F4850EDC33C6048F02E85386A47F3CE836974A8E452A60D7F2	1/1/2021	9/30/2022
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	A0D1523A0BF663550EB9081E9BDEEDA12814F9570B7697D95DF2EA53D4FF75E3	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, CN=RapidSSL TLS DV RSA Mixed SHA256 2020 CA-1	E6FA484A858940D101978555454AA466531AB6C4ABC4AD2B000626AAAC0D04F9	7/16/2020	5/31/2023



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=DigiCert Inc, CN=RapidSSL TLS DV RSA Mixed SHA256 2021 CA-1	6060EAB180122EB14F22EDE465B4A9A70E29E70FB182EBF01D5B1333F2E73242	1/1/2021	9/30/2022
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 CA G2	F614AE2B101484F15F66F4DDA56EE6EB422728F179D94399EDE19AC1D85A8BD3	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 CA G2	02FED3BA2E6A7843A318A981BC847061FD282D9E8847FFA9F54D785B6B81D6F3	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=Secure Site Pro ECC CA G2	DA3BE2B6A6D9715C1295A42BE526E0001D10E5D7540F06E7631B34E644934848	6/20/2019	6/20/2029
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Thawte CN RSA CA G1	7867AAE905EB8D55635FFEBB8FC05A63B9B390665DE2367AC1073E92913728	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	F1CACA6AB2350A7668C13E41960908681DAFCC7E368DCB8D47FECF9631390481	4/27/2018	4/27/2028
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 OV TLS Pro CA	33E8A4ED48930760CE1AD7A2D44F079B22F660052753976109E6FC74752552BD	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	D0E8A51ACAAB9AF82767E2EF16543C2CC635551B5DE0DAE25D6AAC71E7862870	3/13/2020	3/13/2030
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



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
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	DBAF58DEBFBA1DE8E04DCAE7A2C163B09D39E7E732E91DEA8655C2BD732AB00	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=Bloomberg LP, CN=Bloomberg TLS CA	440B37416F2DE852CA386150D611EC0AF31DD58D8A27F882815A7EA3EE6848EE	9/24/2020	9/23/2030
C=US, O=Bloomberg LP, CN=Bloomberg TLS CA	F5F1A8C04E5CF0FDB678DD279994463E48508C4349643B0D92CBFD7523F6C40A	3/30/2021	3/29/2031
C=US, O=DigiCert Inc, CN=DigiCert EV RSA CA G2	9588EF74199E45ACEFCCFC0C47010E9F2A37A1DD44C61A4E1C6B334DA5AF614	7/2/2020	7/2/2030
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, OU=www.digicert.com, CN=DigiCert Global Client CA G2	A449DBAB6D4C035FAAFD9D045891FE98ABD73D286268A8A83F854145551692E3	9/23/2019	9/23/2034
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	1F8EB9E9A8E066CC5B3833E06B3129764B622639D5B163F600E1C79120BF3EED	9/24/2020	9/23/2030
C=US, O=DigiCert Inc, CN=DigiCert Global G2 TLS RSA SHA256 2020 CA1	C8025F9FC65DFDC95B3CA8CC7867B9A587B5277973957917463FC813D0B625A9	3/30/2021	3/29/2031
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=PT, O=DigitalSign - Certificadora Digital SA, CN=DigitalSign CA - G7	FE7AA77C5DE2D1466852F6D9070A320BE3DA439C72D74F71C62697502DA5BFCE	11/3/2021	11/2/2031
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Encryption Everywhere DV TLS CA - G2	B1AC8CFB181B9C9354E1775FCBDFCFE7898C5CC9A17D76315B57C112EEE55234	11/27/2017	11/27/2027
C=US, O=DigiCert Inc, CN=GeoTrust EV RSA CA G2	2D140F20B8A96E2B4D2F1CC5ACA5E5A1E7DC56A7491E510906960F38D2D21AEF	7/2/2020	7/2/2030
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



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=DE, O=Legacy Technologies GmbH, CN=Legacy Technologies Intermediate	1032C6001ED664A0CD343B138BCB6860E2111011C3D5F06540F5BE41147812A5	7/2/2020	7/2/2030
C=US, O=Microsoft Corporation, CN=MSFT RS256 CA	96A7EFB63FCA3993C74BF764D37596957F90F208DADA9E49E622822BA0F7A889	4/7/2022	4/6/2032
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=US, O=DigiCert Inc, OU=www.digicert.com, CN=RapidSSL TLS RSA CA G1	4422E963EE53CD58CC9F85CD40BF5FFCEC0095FDF1A154535661C1C06BCADC69B	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=Verkey, CN=Verkey Secure Web G2	5EE5AAD704A8B698883F4029720C8FA1CB79C9FA3463CC24340629EBE6C5A62B	3/17/2022	3/16/2032
C=AU, O=Verkey, CN=Verkey Verified Business G2	7EDBE6F8C49A1E3988CAADD438B72F07B6AF9CE751CF5835163161D63CAE4DDF	3/17/2022	3/16/2032
C=US, O=Wells Fargo & Company, OU=Organization Validated TLS, CN=Wells Fargo Public Trust Certification Authority 01 G2	CF7CFA4F9DBCCBCA6D20EFDEBEAD4E173B34E76BDA1EB1E619F44E06E95FC208	11/15/2017	11/15/2027
C=DE, O=CertCenter AG, OU=Domain Validated SSL, CN=AlwaysOnSSL TLS ECC CA G1	BD193C475E4E67938BEF34122B98B558A2882E7ED94369A6CB011320EF15623C	11/2/2017	11/2/2027
C=JP, O=Cybertrust Japan Co., Ltd., CN=Cybertrust Japan ECC EV CA	92E3770B1EB44F84C2F2CB0097C2FD7126BD212B41C2610E78DDFD8946761738	8/24/2017	8/24/2032
C=JP, O=Cybertrust Japan Co., Ltd., CN=Cybertrust Japan Secure Server ECC CA	C3683F7D91754219DADA4E8DC30E4B18BD3928B53D3AB93D07384BC5871CE355	7/13/2017	7/13/2032



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 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=US, O=DigiCert Inc, CN=DigiCert Global CA G3	F7541CF69D1DE1AC953ABC1FAD6F7807A34EDFE9E12C11E66A195930C23AD6C6	8/1/2013	8/1/2028
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Global Client CA G3	BA361260FF1D46031686305E082DE836D4A320466E0DE9E013F00CEDDD62317	9/23/2019	9/23/2034
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, 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=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=.NET Foundation, CN=.NET Foundation Projects Code Signing CA	024F162B1D09F6A0868C38B4C8B4257C1EEA6C5A31589416D520CF1624917EB3	4/27/2018	4/27/2028
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	DDCB4F3051D6E601310EB0E46B5BB99F7A539E367A987DEA030E318E	9/24/2020	12/9/2024
C=US, O=Aetna Inc, CN=Aetna Inc. Secure CA2	428B87B8061A79ABA75877FD0383ADB831A1459B86BC408CE7D8D17B295B75BB	3/30/2021	3/29/2025



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
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	A1448A015E1399C5A891812F0E88C6D847B221D21F9326A6626BA43A0EB612D9	9/24/2020	12/9/2024
C=US, O=Aetna Inc, CN=Aetna Inc. Secure EV CA	8B6CCC3BE92F0121E6494AC704BF0B9B9CEBBA2E363C8E8122D90984D3EBF386	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=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=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=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	FDC8986CFAC4F35F1ACD517E0F61B879882AE076E2BA80B77BD3F0FE5CECF8862	6/21/2016	6/21/2031
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert EV Code Signing CA (SHA2) G3	2B0A972DC0DAE218E9477396D3D82DEB82DE118867DD19E1D2FFFD958CBB6DA9	7/18/2018	7/18/2028
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Extended Validation Intermediate CA (SHA2)	802C2AD1D215E57CDC9010EA437ACE399B657194FBD40E3BB5E00B080E6496DF	12/7/2011	12/7/2026
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert High Assurance CA-3	DCB400ACC249FB8483415FC2650BC90488CA96643118CB0E4F4424B21C3AA5A4	10/12/2011	4/3/2022
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert High Assurance CA-3	C0A4A1AC05E03096A3B2AB8A38502B39E2614E11397BEE73D0A66B8ACEF7A283	4/3/2008	4/3/2022
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert High Assurance CA-3	21EB37AB4CF6EF8965EC1766409CA76B8B2E03F2D1A388DF734208E86DEEE679	4/2/2008	4/3/2022
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert High Assurance CA-3	57D8D5B832616B7823466A0C372770D16A5DCF246581F0F58373E51C7E1E5316	4/3/2007	4/3/2022



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
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, OU=www.digicert.com, CN=DigiCert High Assurance EV CA-1	8FC1469B8005BFEBDBF67F514E795FE1F17EA239A2A6934857F2428ADCE6D24F	11/10/2007	11/10/2021
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert High Assurance EV CA-2	1188F831C949A62E9CD4F60E36F72544F0AF924DE07F9DA992E26E44C996EEE0	3/23/2007	3/23/2022
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert High Assurance Intermediate CA (SHA2)	47511629F2BC3B7CF84EFEC9F32798A43AF6252E550B6CAE76A38558712E37D8	12/7/2011	12/7/2026
C=US, O=DigiCert, Inc., 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 Hybrid ECC SHA256 2020 CA1	5D270CB4EFF587AD6CD17CB2B60D9084A153D77D2AA79A2CB3DB1DDB904684F5	3/30/2021	3/29/2031
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	495E6624A15340C474AB86037748AD62D1EF4F14E7C81AB7CDB629BE1404757	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	A4B2B47545559F5FFF7BCDDA7A1220E62FB74D1B7A9A4D4DACB2B2A839CE7456	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	BC91379A21E7BDE11B455BF1D51186331682805A4A353A8EE2587FA03706C664	3/13/2020	3/13/2030
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 Extended Validation Server CA-3	085A0714524DF7AE9919A6F597884439E12A533E61552D29D6A18C35096FC548	11/12/2019	11/12/2029



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
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	C87CE03AFFB5DE6319C219971F2ED2D8F6F5389E2D53B2DD2C562A5C9827FC0	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	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	863472EC79DB54077114DADE720CE1F7B41A233748FC6773FA86520F0B9AAA21	3/4/2021	3/3/2031
C=US, O=Avalanche Cloud Corporation, CN=HydrantID EV SSL CA D1	F9D4A6C011E9C6A8F5A4CF7ED0416869C7238EF93A56161EA6CA3D8B41716097	3/30/2021	3/29/2031
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	1A8D790AF9B2B34D7DD6AF61B5AA4CF1380B86095CBAC2BCAB35BD566D0180C3	4/27/2018	4/27/2028
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 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 CA G2	40D69920EA05456FA0117DE608B8A8013790B542097E343EC1CBCE2DFB9713B0	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



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
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=SecurityMetrics, OU=www.securitymetrics.com, CN=SecurityMetrics DigiCert CA	F32DEAF22CE724661F53D5287311AFF2541EB38ECAFA9DD877B94023E3A11B1F	10/30/2012	10/30/2022
C=US, O=SecurityMetrics, OU=www.securitymetrics.com, CN=SecurityMetrics DigiCert EV CA	6B2328E7FFF598B2ADF90B7F3EA42B45FA606D78E2B117B7D60E99E828CF7565	10/30/2012	10/30/2022
C=NL, ST=Noord-Holland, L=Amsterdam, O=TERENA, CN=TERENA SSL High Assurance CA 3	BE6A0D9E1D115F2293F6ABF11B3EC8E882E24426EEEB09AAA503597993E77A25	11/18/2014	11/18/2024
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=Thawte 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	EA1F38FB4D3296B467D4B582559D6518D676D5AFC7D1C24BE80252F79191046F	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	2DAAC6FDFAC16C548C53FF1198254D7E937761D22A1E7CC5C1A9462E971461F5	4/27/2018	4/27/2028
C=CN, O=TrustAsia Technologies, Inc., CN=TrustAsia ECC EV TLS Pro CA G2	CODD060FF8CE556F35683D564E0E66B2907178808693F83F3AA642326BF6D0C8	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 EV TLS Pro CA	4AFFE4FEF39464D1788C660AF591D5E601B261C4811DF0A3DD9D61CAFE8E5ED8	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=GB, O=TRUSTCUBES LIMITED, 1.3.6.1.4.1.519.1=223013701, 1.3.6.1.4.1.52266.1=984500505FE80CD0NE58, OU=www.trustcubes.com, CN=TrustCubes ICA G1	2106CC7907C64B8A5DA2FC338EE94DFFF10EF711DEDBB4FC694EE092EC532B1D	7/18/2018	7/18/2028
C=CN, O=WoSign CA Limited, CN=WoSign EV Code Signing Pro CA	F6DFDEd61FF88EF10B9E6DCFBCE0F1615E05866CEBAFCD6D48AEE80132C70347	5/23/2017	5/23/2027



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
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 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	97A073957C5812725757672F222690655A1407D71011EDFC8B2FAD5C128911DA	4/14/2021	4/13/2031
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=DigiCert, Inc., CN=DigiCert G5 TLS CN RSA4096 SHA384 2022 CA1	AB7EF70580B8DB2291C2BC8DC9F69AD8345A3CC543DB8CDC49A8B419282DEA22	7/12/2022	7/11/2032
C=US, O=DigiCert, Inc., CN=DigiCert G5 TLS RSA4096 SHA384 2021 CA1	EF9296036A6D7C986C8D59DB936093E78E85C70AEDB4FE7A54DCAA821031C72	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=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



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=DigiCert, Inc., CN=RapidSSL G5 TLS RSA4096 SHA384 2022 CA1	BB320985266F61C5D182724F15CEC428A698ED71262B4E097CB11AED8A41AAE6	6/2/2022	6/1/2032
C=US, O=DigiCert, Inc., CN=Thawte G5 TLS CN RSA4096 SHA384 2022 CA1	1E89E3D2702D3F1735DCE7DA99561600534A0645A94874D0780D0443CAF4151	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 AATL RSA4096 SHA384 2022 CA1	D149AF9F74029C8DBD957022BE03707F110DB1E1D0E55DDA11376A8F766D367E	7/21/2022	7/20/2032
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	D889A2641F5DF941353817C87A5CD0D9CDACED3886240BFBD937329E94D3A45B	3/30/2021	3/29/2031
C=DE, O=Deutsche Kreditbank AG, CN=DKB CA 101	0E5B8040B3AB60A50D2D5FB11E19AEB2E45B564B335B79D773D42B81D8219C75	2/4/2021	2/3/2031
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	BE89264A58313012B749603C9BEB3CD7914DB716A49E5E0EA97E43A3883A5DF	3/17/2022	3/16/2032
C=US, O=DigiCert, Inc, OU=www.digicert.com, CN=DigiCert Universal Issuing CA	622A42A28CADC83D962771D9D09BD307877D4AB513B4FE0CF2E5851E79FFA6FE	12/8/2017	12/8/2027
C=US, O=DigiCert, Inc, OU=www.digicert.com, CN=GeoTrust Primary Issuing CA	F7A84E24E8E0D89154874721C5B641F48A1EF0FF3B198F53BE021DB53F097BD0	12/8/2017	12/8/2027
C=US, O=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=Alaska eHealth Network, Inc., OU=Orion Health Direct Secure Messaging, CN=Alaska eHealth Network CA	437859303D0183862A96F6ABF8B03F2A69D4CBD317217666015E1ABA3C84AA11	10/22/2013	10/22/2023



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=California Integrated Data Exchange, Inc., OU=Orion Health Direct Secure Messaging, CN=Cal INDEX CA	A5226F33474B53392665298B48F4E6129824E98BD4D38DF4E31EBBCF14FA33CD	7/12/2016	7/12/2026
C=US, O=Catholic Health Initiatives, OU=Orion Health Direct Secure Messaging, CN=Catholic Health Initiatives CA	151A3591B765D02C359EEC9C56ED8DDAD0C54E756A497D02BF979FA8DD5D95BB	8/19/2014	8/19/2024
C=US, O=Greenville Health System, OU=Orion Health Direct Secure Messaging, CN=Greenville Health System CA	06433FCA9F753980B526236DD72846EC1B20770BFCC7D3188DD67BC0ECFB7782	3/5/2014	3/5/2024
C=US, O=High Mark HIE, LLC, OU=Orion Health Direct Secure Messaging, CN=Highmark Tapestry HIE CA	1B68286DEFCE036512A5DAC76C8ABD067D33A07D4E0DEF7707089C980075E192	8/19/2014	8/19/2024
C=US, O=Huntsville Hospital System, OU=Orion Health Direct Secure Messaging, CN=Huntsville Hospital System CA	20E3E88747A8D88E11A527521032DC8CAE92BC33B45C93EEE04F624A70DC920A	3/5/2014	3/5/2024
C=US, O=Inland Empire EHR Resource Center, OU=Inland Empire Health Information Exchange, CN=Inland Empire Health Information Exchange	1E72D83ED9499CBA686968452BE591C48816EC9181391A5D03C1F4D3BA1658DC	1/8/2014	1/8/2024
C=US, O=Jax Health Records - SV HIE, OU=Orion Health Direct Secure Messaging, CN=Jax HR Saint Vincents HIE CA	3D2928A2988227CE4EBC319AA34E6552E9D98839D5CE2114E79F8F5EC2BF9DE0	2/16/2015	2/16/2025
C=US, O=Keystone Health Information Exchange (KeyHIE), OU=Orion Health Direct Secure Messaging, CN=KeystoneHIE KeyHIE CA	D1C2009D472835AFBA94CC8ACB06DD0C727138AE1E73834394D27B0C06CF1265	8/19/2014	8/19/2024
C=US, O=Louisiana Health Care Quality Forum, OU=Orion Health Direct Secure Messaging, CN=Louisiana Health Care Quality Forum CA	3E4F09D65438B5CF7E456288C08FE9F47ED4E3ED669279C81AEFAB0BAFB86A09	10/22/2013	10/22/2023
C=US, O=Mary Washington Healthcare, OU=Orion Health Direct Secure Messaging, CN=Mary Washington Healthcare CA	1180C33AE1F23228923F6AE698C9C10DC729E0D811FC8B2EC02726E2DC26E2E4	3/5/2014	3/5/2024
C=US, O=Massachusetts Health Information Highway (Mass HIway), OU=Orion Health Direct Secure Messaging, CN=Mass HIway CA	23BA3A97C580DF2C316624D7FA5F7663580261CB2048142C73A3E86B113EB26D	9/25/2015	9/25/2025
C=US, O=Mississippi Division of Medicaid, OU=Orion Health Direct Secure Messaging, CN=Mississippi Division of Medicaid CA	1757291A3D7D0BB5B9B9CF8802F1B2AE173E56B0935970FC86B63A27499DB5E2	1/8/2014	1/8/2024
C=US, O=New Hampshire Health Information Organization Corporation, OU=Orion Health Direct Secure Messaging, CN=New Hampshire Health Information Organization CA	37E9A271EB4725C93CDAF183562C7D7D9EA8FC139F8374FFE418D77D32428FE0	10/22/2013	10/22/2023



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=New Mexico Health Information Collaborative, OU=Orion Health Direct Secure Messaging, CN=New Mexico Health Information Collaborative CA	10BEDDC480AA27563480B1BCAAB6C25B52995EA836E9A2ACE83F8F59206E2496	9/26/2014	9/26/2024
C=US, O=North Carolina Health Information Exchange, OU=Orion Health Direct Secure Messaging, CN=North Carolina Health Information Exchange CA	C4A842434ADB52809526B6D1E869A265F535B69BB16454A301667CC942678D58	3/5/2014	3/5/2024
C=US, O=North Dakota Information Technology Department, OU=Orion Health Direct Secure Messaging, CN=North Dakota Information Technology Department CA	6ECF658CCEA8B29BE60C85904F4ADD7CCB7950CF58C97BBF60D57CEA49A2703D	1/10/2014	1/10/2024
C=US, O=Oklahoma State Department of Health, OU=Orion Health Direct Secure Messaging, CN=Oklahoma State Department of Health CA	77ABE65DF4BE94E5EC222FC905E1233F8C77D6B3AE2933346A0C2FC3B2F1F560	2/16/2015	2/16/2025
C=US, O=Optioncare, OU=Orion Health Direct Secure Messaging, CN=Optioncare CA	89CFBC8FBFF7FE026B6CF2EA688419BDE8BBC1FB451329C865D6C6CBCF6BD097	3/1/2016	3/1/2026
C=US, O=Orion Health Inc., OU=Orion Health Direct Secure Messaging, CN=Orion Health Direct Secure Messaging Public HISP CA	D34138ED1458AE7DE4EDEA36ED3992E4F46E6EC9CF1E633E538DE9FF0F38F8E5	10/22/2013	10/22/2023
C=US, O=Rush Health, OU=Orion Health Direct Secure Messaging, CN=Rush Health CA	DB12B1D3F8CC52FFF4874F0A8B85E9FB6A2050861B1B1C61481A743AC0D33D5A	4/23/2014	4/23/2024
C=US, O=Sutter Health, a California nonprofit public benefit corporation, OU=Orion Health Direct Secure Messaging, CN=Sutter Health CA	603D69822381A0BFC274BBED67009BC7DF133CB902FA242CF58BF727D23D5495	10/21/2014	10/21/2024
C=US, O=The Koble Group, LLC, OU=Orion Health Direct Secure Messaging, CN=The Koble Group CA	A576C29481F5A2ACB1DF47500629A60F96F6ACA324E878FFDCFABD85E5649AEF	6/21/2016	6/21/2026
C=US, O=Western Connecticut Health Network, OU=Orion Health Direct Secure Messaging, CN=Western Connecticut Health Network CA	415322F3970C8CD0F54311E0F93C5F5C37BA3059FDB10F5240AC20934717F840	3/5/2014	3/5/2024
C=US, O=DigiCert, Inc, CN=DigiCert QuoVadis TLS ICA QV Root CA 1 G3	C42A4D8C0904BB211906F43B441BBBC9B5A003BA3611879FD34AE576F7C2F764	1/6/2021	1/4/2031
C=US, O=DigiCert, Inc, CN=DigiCert QuoVadis TLS ICA QuoVadis Root CA 2	673E8FEEB1168277D0153111D20ED38E9DA51F440BE7FD50B218540937741A48	1/6/2021	1/4/2031
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



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=DigiCert, Inc, CN=DigiCert QuoVadis TLS ICA QV Root CA 3	D8CC89C6AA6B7452881907927C81E66DA01A7598CF7674E4E2E133F16546D5F0	1/6/2021	1/4/2031
C=US, O=DigiCert, Inc, CN=DigiCert QuoVadis TLS ICA QV Root CA 3 G3	728E4BD2B399840E9D437AF975B0198910B4129B7AB708CB5C0B445D3B04D999	1/6/2021	1/4/2031
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Japan Class 1 CA	D6A3574E4C2AA2D15397D5A9BEFCF8380910CC0148BAB86A0B9FF40E2659BCE8	4/15/2014	4/14/2024
C=JP, O=VeriSign Japan K.K., OU=Symantec Trust Network, CN=VeriSign Japan Class 1 CA - G5	02E9E323CD6F98374079523514C3783AC1003AB80ABCBA0EE2258C418EAC44CC	7/24/2012	7/23/2022
C=AU, O=Attorney Generals Department, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Attorney Generals Department Public CA	CEF711147D8B0A1DC5200B8383BED23C1D294F2F89EBFE179D2501EA5E24AB8A	7/21/2015	7/20/2025
C=US, O=Fannie Mae, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Fannie Mae Shared Online CA	D39495B310669DC6BFF57D547C53E3FF9E7B452BB609272C981F514CCA0B146F	12/20/2016	12/19/2026
C=US, O=General Electric Company, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=GE SMIME Issuing CA 2.1	6BE39EC9E02D54008A7A716DD35A3D2F0A1FD8F8F34DAE235446150C6F48BC7E	7/16/2015	7/15/2025
C=US, O=General Electric Company, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=GE SMIME Issuing CA 2.1	2D53B8177062E4C7CEA79E8BF62BFA52A5B18BC9B89483597E5714E4E9B52315	7/16/2015	7/15/2025
C=AU, O=NBN Co Limited, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=NBN Co Limited Public Issuing CA - G2	758F496C9928A3C67E0D50D03D2E2CAAFF733D427E57AB5FEE7D5AC4153C4071	2/10/2015	2/9/2025
C=ZA, O=Nedbank Limited, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Nedbank Limited Public CA	267D014C81E6D02ED5898306B64D7B5EA91BAF9DB3183CF3BC64C25D2B35CAE6	9/10/2015	9/9/2025
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 2 Signing RSA Intermediate CA	66F7B0147C09F9DA79E63800A96F649DA7E59757F876F08126D07E8FB8542488	1/22/2015	1/21/2030
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 2 SSP CA - G2	3C18176FEBA1D20C8BFA7B484066E2A5825A226237E1E7BE3828E6F6C3771B23	3/21/2013	3/20/2023
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Japan Class 2 CA	AB62A0A1DE53BA06E771438E5D0526D3D8B0235330C65AA4BF80D855908E2DC4	4/15/2014	4/14/2024



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=Veritas Technologies LLC, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Veritas Technologies LLC Class 2 Employee CA	1AB7DCA7F8B28027F2B71FBBA8CB87162FE112C47AC4D09638C8EA01915A177D	9/10/2015	9/9/2025
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 2 Individual Signing RSA CA	8B9218D93DB5377CFE7D5923E7016D379D446F0019C47B9B4EA737AEDF86A558	1/22/2015	1/20/2030
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 2 Individual Signing RSA CA	4E74475D2C33E1DD4732306B79712B5EE6997C2DBDF596CC8BD1362163DAA4F4	1/22/2015	1/20/2035
C=US, O=U.S. Nuclear Regulatory Commission, OU=External Basic, CN=NRC Basic CA G2	C40D6AB75F7E5D11CF7B0404AC7E4321A7A8B0DDF7631328F3D7CC80D6644E2B	3/21/2013	3/19/2023
C=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=US, O=DigiCert, Inc, OU=www.digicert.com, CN=thawte Primary Issuing CA G3	F6CF5D6FF850D14DB082CC9CF7C056BC60E36B1E54F1CCA3E24BDF393948978D	12/8/2017	12/8/2027
C=US, O=DigiCert, Inc, OU=www.digicert.com, CN=thawte Primary Issuing CA	9A9FC39029ABE132D674D032D199CB8431AAC878DABCE6E9E1AECB81EC99F4CC	12/8/2017	12/8/2027
C=US, O=Symantec Corporation, OU=Symantec Trust Network, OU=Persona Not Validated, CN=Symantec Class 1 Individual Subscriber CA - G5	42A5FBCA2D6AA262FF62333AB78699CE1E4BF1CF5F49F806FD324CBE5BB62CF4	10/1/2015	9/30/2025
C=JP, O=VeriSign Japan K.K., OU=Symantec Trust Network, CN=VeriSign Japan Class 1 CA - G5	9CEBC030750F1A1BAD06C998558AE209DFCCA68A80D38C161A85DC5AF68DD48	7/24/2012	7/23/2022
C=US, O=Computer Sciences Corporation, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=AGC Public CA	5E71C746D45EBCFD6D2DCE4A2DABCCD9335E3AD8D63B349989341911ECD70E88	11/11/2014	11/10/2024
C=US, O=Agilent Technologies, Inc., OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Agilent Public CA G2	6BE4732E5C0FBB61A4F8B2EED0A1C47AB7FCFA559FD5EF3D5250D20E74503A83	4/23/2013	4/22/2023



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
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=AU, O=BHP Billiton Operations Pty Ltd, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=BHPB Secure Email for External Parties CA	2EA4E7E0AC42B3BC3DA2D9A7887209BC8CC7958CEE1B52D25B4BE30D6E95AEA8	10/6/2011	10/5/2021
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=CL, O=E-Sign S.A., OU=Symantec Trust Network, CN=E-Sign C2 Firma Electronica Avanzada Consumer Individual CA G2, emailAddress=e-sign@e-sign.cl	BE4D872225F013B6E17595AA29F3C0B9F85C403E6C9B483550B069E4A2F47BFE	11/15/2012	11/14/2022
C=CL, O=E-Sign S.A., OU=Symantec Trust Network, CN=E-Sign C2 Firma Electronica Avanzada Consumer Individual CA G2, emailAddress=e-sign@e-sign.cl	52A5E31287A0F89159F7BB4BD3A6A270DEE583A77261F6D00DD92D8C9424E800	11/15/2012	11/14/2022



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=CL, O=E-Sign S.A., OU=Symantec Trust Network, CN=E-Sign SC Class 2 Consumer Individual Subscriber CA - G2, emailAddress=e-sign@e-sign.cl	C34A5709122DC9EAF3021B979D4843FBB41C5B24326BECE84D2F686675A1B6EC	11/15/2012	11/14/2022
C=CL, O=E-Sign S.A., OU=Symantec Trust Network, CN=E-Sign SC Class 2 Consumer Individual Subscriber CA - G2, emailAddress=e-sign@e-sign.cl	72F0E3B1B8CD1A86BDF7D022DA4131C302293CAE820B28A597BC84D041B8971D	11/15/2012	11/14/2022
C=US, O=Adobe Systems Incorporated, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Enterprise Services CA - G2	EA78912AE2E15549DDA02D74CC05A18DADC218DD05C13F045B26433D23732F33	10/16/2012	10/15/2022
C=DE, O=Heuer und Partner - Rechtsanw\u00c3\u00a4lte mbB, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Feddersen Heuer Public CA	A402AA0AE53F484A07BF4E35B55D1274127650AD6145E243B719330B92B2A10A	1/5/2016	1/4/2026
C=AU, O=Fuji Xerox Businessforce Pty. Limited, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Fuji Xerox Businessforce CA - G2	92587CDC27A5C019B413AA94D21944AC8562E8DAA8C78AEA17C623D1B77714DE	6/4/2015	6/3/2025
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=CA, O=Goldcorp Inc., OU=VeriSign Trust Network, OU=Terms of use at https://www.verisign.com/rpa (c)11, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Goldcorp Class 2 Certificate Authority	B97867E65B805D78153D5349389C7E54695A45DDB2A4A015CAD8069C63FCF669	9/15/2011	12/31/2021
C=US, O=Hewlett Packard Enterprise Company, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Hewlett Packard Enterprise Collaboration CA	2EAA4251B3FFDD3AE904833A08B7FE1E7717C17082455C07F6F6DA902CBAC5D0	3/17/2015	3/16/2025
C=US, O=Honeywell International Inc., OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Honeywell International CA G2	19550DF2A43B367AFA194C34F3C3CBF8678E346691F895F429871EEADA53F7F8	6/7/2012	6/6/2022



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=Honeywell International Inc., OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Honeywell International Co-branded CA	7C932E8709835BEC74AAB6F02E958DF70995B3FED5FE4C375D66B1228555D8ED	12/5/2012	12/4/2022
C=US, O=Honeywell International Inc., OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Honeywell International Co-branded QA CA	87C0BAE275BF11F25AE3290B3E810D97E8297F276C576CDA9AEB5FAEFC4CD22	2/14/2013	2/13/2023
C=US, O=International Business Machines Corporation, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=IBM Certification Authority G3	CB16C58F10AFFDA46A0FC05BF49F0B707C579EC52E3527EEBA0448F9B8C16E99	11/10/2016	11/9/2026
C=US, O=Identive Group, Inc., OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=idOnDemand CA G2	B812A3156BBB9F0AABF8F36BE72A95388936272070C4860DBDD4955F0D59B486	9/5/2013	9/4/2023
C=US, O=Identive Group, Inc., OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=idOnDemand SHA-2 CA G2	36CAB8A86139B82476AE824EE4939A92088E6F16C2BD270EE349BF9D5A9E3384	9/5/2013	9/4/2023
C=DE, O=LfA Foerderbank Bayern, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=LfA Foerderbank Bayern - G2	315AC96789B49D48A1C420F32F9A4A73F4871AF75A4CA53CF41CE3FB3E2E76FC	6/16/2015	6/15/2025
C=US, O=Moog, Inc., OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Moog, Inc. M2 CA	01C235311274307F4457E079E1E11CCB0AB5B2A9F9919B269A5D304821F93FB8	7/19/2012	7/18/2022
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	0B5F13974CEB577E1CC39DFFADF616FCF0C17ECA6747201AEB6AF3BC20CE4F4	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



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=DE, O=RWE Dea AG, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=RWE Dea AG CA	7FC6CAB96C16C850F457DCBBFB893539EA2664395F2409693789F41BFD64714E	12/11/2014	12/10/2024
C=US, O=SRI International, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=SRI International CA - G2	8F11E6AE162CD9472CAB0B6C023A56D8A442BD5981DD0CDBBCD5D501923223B7	11/15/2012	11/14/2022
C=US, O=SRI International, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=SRI International CA - G2	5B6A31D14ED98E8CF23A115BC45E87B8ECD82A937A29DBE0EFBA3C8133494B74	11/15/2012	11/14/2022
C=US, O=State Street Bank and Trust Company, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=State Street Bank and Trust - Global Markets CA	2C68D776FFD51155D98957A66043F896E2BC69CB1943570389350057A2C70616	7/10/2015	7/9/2025
C=AU, O=Sydney Trains, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Sydney Trains CA	BD80A335B5EBB7279960E0B5802257C256062895F33D3DCBC0B7CB7199DFA75F	11/24/2015	11/23/2025
C=US, O=Symantec Corporation, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Symantec Class 2 Employee CA - G3	2F320624CC3EBC01796080BEDEB5B2ED916F02A0AE5F537EDC4766BC455659DD	1/6/2015	1/5/2025
C=US, O=Symantec Corporation, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Symantec Class 2 MPKI Individual Subscriber CA - G3	E79BACE9FF58B8EE6D3BD94AE8ADB13DF42DFD86B3701BFF8EDFF5C4E84BAE91	11/15/2016	11/14/2026
C=US, O=Symantec Corporation, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Symantec Class 2 Shared Intermediate Certificate Authority - G2	68E63395029061641385B8AFF77F6D66F2D1FD87A821630D27EC3645C9FE235D	4/23/2015	4/22/2025
C=NO, O=Telenor Norge AS, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Telenor Norge AS Dealer CA	76790AE708EFBB366BA192A68D50810AE53E82A497CFF3911F888A21E04FE2D7	4/5/2012	4/4/2022
C=NO, O=Telenor Norge AS, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Telenor Norge AS EDC CA	4F5C36419568CB1E7084FB82DACDD1015ADB1D57B5C3E3F17F7F7CA092977432	6/19/2012	6/18/2022
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



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=NO, O=Telenor Norge AS, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Telenor Norge AS NF CA	8DE6CA4D03ADF19A56B3CDD6DCA843C51189D0A2BB60D84B9AD01EBC741F5F22	6/19/2012	6/18/2022
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 OTL CA	C7367403CF6D5C13D9690187926EF896CE6E74135080C9AFD8C8B1532467AE50	4/5/2012	4/4/2022
C=NO, O=Telenor Norge AS, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Telenor Norge AS Test Dealer CA	4325F2A8870CB6A9BF08664D697323F62546C40907F885D6A6407071B4A9B540	4/5/2012	4/4/2022
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	889957D00561EF99867402A901359C772029AD43CCBE46B82BF2E7193D385411	6/19/2012	6/18/2022
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	D9E9093FBD728E05240FDB4D0DF46B7BEB9AB7E9554D30CB49D4681D6344C75F	6/19/2012	6/18/2022
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=NO, O=Telenor Norge AS, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Telenor Norge AS Test OTL CA	FD9A6C86AE90E3F7D5511EF968357B0D0D74FEC0C71C037CC9B29F3F2940F9F9	4/5/2012	4/4/2022
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



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=Thomson Reuters Holdings Inc., OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Thomson Reuters - LEDO CA	F5DF7A85240E93C602EE9C6F77C2B126C7A37CED8F34DD714B82C47F31F3544D	12/20/2016	12/19/2026
C=US, O=Federal Retirement Thrift Investment Board, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=Thrift Savings Plan CA - G2	6FE969B0E32956CDA827A4084F9330C9559BB910291B9A4107C3C470774411D1	6/11/2013	6/10/2023
C=US, O=United Launch Alliance, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=ULA CA - G2	4A84F84E880F3D96C3BFBA2AED67B0EE300FBEE0A4A90D736EF738A089FD6B17	4/25/2017	4/24/2027
C=US, O=University of Houston, OU=Symantec Trust Network, OU=Class 2 Managed PKI Individual Subscriber CA, CN=University of Houston CA - G2	69FF03E05230DFD61E4D6F6DD6662808C65A85CBE8FEA5E43FBF387128E8B4F4	6/18/2015	6/17/2025
C=US, O=University of Houston, OU=Symantec Trust Network, CN=University of Houston Intermediate CA	8AD8E95B7B83F0BC772BEB75FFE0C51F65C77B63B0821ADC13CDC5AC9C27267	2/7/2012	2/6/2022
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	DF583E3A1ED35E57D95104817AD823C055FB9071CD400435B5FC74E692081DB	6/7/2016	6/6/2026
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 Extended Validation SHA256 SSL CA	1F9B31F820929EBFA03117EC2B77BA6B0FB6ECC9E027682A559378DA311C54EF	4/9/2013	4/8/2023
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 Secure Server SHA256 SSL CA	E0898AD662474B9F753C79BEA878031C9A5D634A49EDD6310B960AB023C02C0E	4/9/2013	4/8/2023



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 Shared Public Organization CA - SHA256	2F72019CB45B07AB05CB1BB8ECC3076D7072660B57A29E42EBE2AA57B83BC60B	7/11/2013	7/10/2023
C=CN, O=TrustAsia Technologies, Inc., OU=Symantec Trust Network, OU=Domain Validated SSL, CN=TrustAsia DV SSL CA - G6	B90E17AB4B8778B10F9F28CBAA7664DE2EE3D66E1AFC574D168EDD24A10339FF	8/11/2016	8/10/2026
C=US, O=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
C=JP, O=Symantec Japan, Inc., OU=Symantec Trust Network, OU=Class 1 Managed PKI Individual Subscriber CA, CN=Application Service CA	2B3188332031E548FE424A7A3ABB47701FA089D9D0EEAE35585CA72974BDA69C	4/28/2015	4/27/2022
C=JP, O=KYOCERA COMMUNICATION SYSTEMS Co.,Ltd., OU=Symantec Trust Network, OU=Class 1 Managed PKI Individual Subscriber CA, CN=DATACENTER CA - G2	EA70CA9465E25593BAB909A9DBF8F095C0B20BFBB54F1D185D464CCC8A431F4B	4/15/2014	6/6/2022
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=JP, O=Bank Of Japan, OU=Symantec Trust Network, OU=Class 1 Managed PKI Individual Subscriber CA, CN=Gaitame CA - G3	D20118563ACC4AB2D1DF217E3974D00877F71D2B74959F43FED33C45EBF5FB31	9/6/2012	7/22/2022
C=JP, O=Bank Of Japan, OU=Symantec Trust Network, OU=Class 1 Managed PKI Individual Subscriber CA, CN=Gaitame CA - G3	58F0778CB9969B09B24BDC96A03091B0AA98BAFF9C23F82B78B061035D85A65F	9/6/2012	7/22/2022
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Assured ID CA-1	B8F44E4B1F8697DF54BB3D0F1E67596CE2FE9DABA85AF4E6F2A2E74396F8C56D	11/10/2006	11/10/2021
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Assured ID CA-1	425E72C87FF22855D9908B71AB4C64B0D2F248287097690C62FE733F631DE38F	11/10/2006	11/10/2021
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Global CA-1	3C750409882486D64151F4CBB5BD61432A4A7BF42F48A85198D245A64AEA2117	11/10/2006	11/10/2021



Subordinate CA Certificates			
Subject DN	SHA2 Thumbprint	Valid From	Valid To
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert High Assurance EV CA-1	4C4943B9EAA14EA2A69B8A7E4D8DA89081EEA11C87E8229B9B74F68A7AD33B79	11/10/2006	11/10/2021
C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert High Assurance EV CA-1	541AF019961760EF19E8FB4134E6D43085B5E5E087F30197DC42B2097E10487E	11/9/2007	11/10/2021
C=IE, O=DigiCert Ireland Limited, CN=DigiCert G2 TLS EU RSA4096 SHA384 2022 CA1	8BADECCC43864DAA403630C5FF13B0511FB90D33297280162B75A2803956C2D8	9/15/2022	9/14/2032
C=IE, O=DigiCert Ireland Limited, CN=DigiCert G5 TLS EU RSA4096 SHA384 2022 CA1	4D27EF6357BC929783575C0C8C9340B67FBFC045FDC263B8C88362E6D3ADB6F	9/15/2022	9/14/2032
C=IE, O=DigiCert Ireland Limited, CN=DigiCert G2 TLS EU RSA4096 SHA384 2022 CA1	A4ADFC2917BB1451D312371D441ACDB86107FBC0B3156D5570E99E1121974FA	9/19/2022	9/18/2032
C=IE, O=DigiCert Ireland Limited, CN=DigiCert G3 TLS EU ECC P-384 SHA384 2022 CA1	F0F573763C616F762AA6AB927CBDE789FA8EF4E69AF8A27EC63C62EEF329ECA1	9/19/2022	9/18/2032
C=IE, O=DigiCert Ireland Limited, CN=DigiCert G5 TLS EU ECC P-384 SHA384 2022 CA1	2C171064DBFA280A1F294F72E2A1FC24C86111B23723DB9375D3004B27E7B33B	9/19/2022	9/18/2032
C=US, O=Amazon, CN=Amazon ECDSA 256 M01	332B101539FA89CA4E228719FE5287AB8689AF31AB21CBF110F5DD3C5994C1C7	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, 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
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