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REPORT OF THE INDEPENDENT ACCOUNTANT

To the management of DigiCert, Inc. ("DigiCert"):

We have examined DigiCert management's [assertion](#) that for its Symantec, GeoTrust, and Thawte branded Certification Authority (CA) operations at Mountain View, California, USA; New Castle, Delaware, USA; Melbourne, Australia; Sydney, Australia; Cape Town, South Africa; Dublin, Ireland; Sapporo, Japan; and Kawasaki-shi, Japan, throughout the period November 1, 2017 to October 31, 2018 for CAs as enumerated in [Attachment B](#), DigiCert has:

- disclosed its code signing certificate lifecycle management business practices in its Symantec, GeoTrust, and Thawte Certification Practices Statements and DigiCert Certificate Policy for Symantec Trust Network (STN) as enumerated in [Attachment A](#), including its commitment to provide code signing certificates in conformity with the CA/Browser Forum Code Sign Working Group requirements on the DigiCert [website](#), and provided such services in accordance with its disclosed practices
- maintained effective controls to provide reasonable assurance that:
 - the integrity of keys and code signing certificates it manages is established and protected throughout their lifecycles; and
 - code signing subscriber information is properly authenticated
- maintained effective controls to provide reasonable assurance that:
 - requests for code signing authority certificates are properly authenticated; and
 - certificates issued to code signing authority certificates are not valid for a period longer than specified by the CA/Browser Forum Code Sign Working Group requirements
- maintained effective controls to provide reasonable assurance that its code signing authority is operated in conformity with the CA/Browser Forum Code Sign Working Group

based on the [WebTrust Principles and Criteria for Certification Authorities - Publicly Trusted Code Signing Certificates v1.0.1](#). DigiCert's management is responsible for its respective assertions. Our responsibility is to express an opinion on management's assertion based on our examination.

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.



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 managements' assertions are fairly stated, in all material respects. An examination involves performing procedures to obtain evidence about managements' assertions. The nature, timing, and extent of the procedures selected depend on our judgment, including an assessment of the risks of material misstatement of managements' assertions, 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.

Because of the nature and inherent limitations of controls, DigiCert's ability to meet the aforementioned criteria may be affected. For example, controls may not prevent, or detect and correct, error, fraud, unauthorized access to systems and information, or failure to comply with internal and external policies or requirements. Also, the projection of any conclusions based on our findings to future periods is subject to the risk that changes may alter the validity of such conclusions.

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

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

Matter Topic		Matter Description
1	Certificate Revocation List ("CRL") Profile Content	Digicert reissues CRLs daily, but for seven out of the nine CAs selected, the subscriber status CRLs' nextUpdate field was fourteen days, instead of the required ten days, after the thisUpdate field.

This report does not include any representation as to the quality of DigiCert's services other than its Symantec, GeoTrust, and Thawte branded CA operations at Mountain View, California, USA; New Castle, Delaware, USA; Melbourne, Australia; Sydney, Australia; Cape Town, South Africa; Dublin, Ireland; Sapporo, Japan; and Kawasaki-shi, Japan, nor the suitability of any of DigiCert's services for any customer's intended purpose.

DigiCert's use of the WebTrust Principles and Criteria for Certification Authorities - Publicly Trusted Code Signing Certificates 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

St. Louis, Missouri
January 29, 2019



Attachment A - Certification Practice Statement and Certificate Policy Versions In-Scope

Policy Name	Version	Date
DigiCert Certification Practices Statement for Symantec Trust Network (STN)	3.9	September 11, 2018
Symantec Trust Network (STN) Certification Practice Statement	3.8.28	September 8, 2017
DigiCert Certification Practices Statement for GeoTrust, RapidSSL and FreeSSL	1.2	September 11, 2018
GeoTrust Certification Practices Statement	1.1.21	September 8, 2017
DigiCert Certification Practices Statement for Thawte	3.7.19	September 11, 2018
thawte Certification Practice Statement	3.7.18	September 8, 2017
DigiCert Certificate Policy for Symantec Trust Network (STN)	2.9	September 11, 2018
Symantec Trust Network (STN) Certificate Policy	2.8.24	September 8, 2017



Attachment B - List of CAs In-Scope

Root CA	Serial Number	SHA1 Thumbprint	SHA2 Thumbprint
C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=(c) 1999 VeriSign, Inc. - For authorized use only, CN=VeriSign Class 3 Public Primary Certification Authority - G3	009B7E0649A33E62B9D5 EE90487129EF57	13:2D:0D:45:53:4B:69:97:CD :B2:D5:C3:39:E2:55:76:60:9 B:5C:C6	EB:04:CF:5E:B1:F3:9A:FA:76 :2F:2B:B1:20:F2:96:CB:A5:2 0:C1:B9:7D:B1:58:95:65:B8: 1C:B9:A1:7B:72:44
C=US, O=GeoTrust Inc., OU=(c) 2008 GeoTrust Inc. - For authorized use only, CN=GeoTrust Primary Certification Authority - G3	15AC6E9419B2794B41F6 27A9C3180F1F	03:9E:ED:B8:0B:E7:A0:3C:69 :53:89:3B:20:D2:D9:32:3A:4 C:2A:FD	B4:78:B8:12:25:0D:F8:78:63: 5C:2A:A7:EC:7D:15:5E:AA:62 :5E:E8:29:16:E2:CD:29:43:6 1:88:6C:D1:FB:D4
C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=(c) 2008 VeriSign, Inc. - For authorized use only, CN=VeriSign Universal Root Certification Authority	401AC46421B31321030E BBE4121AC51D	36:79:CA:35:66:87:72:30:4D :30:A5:FB:87:3B:0F:A7:7B:B 7:0D:54	23:99:56:11:27:A5:71:25:DE: 8C:EF:EA:61:0D:DF:2F:A0:78 :B5:C8:06:7F:4E:82:82:90:BF :B8:60:E8:4B:3C
C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=(c) 2006 VeriSign, Inc. - For authorized use only, CN=VeriSign Class 3 Public Primary Certification Authority - G5	18DAD19E267DE8BB4A2 158CDCC6B3B4A	4E:B6:D5:78:49:9B:1C:CF:5F :58:1E:AD:56:BE:3D:9B:67:4 4:A5:E5	9A:CF:AB:7E:43:C8:D8:80:D0 :6B:26:2A:94:DE:EE:E4:B4:6 5:99:89:C3:D0:CA:F1:9B:AF: 64:05:E4:1A:B7:DF
C=US, O=thawte, Inc., OU=Certification Services Division, OU=(c) 2006 thawte, Inc. - For authorized use only, CN=thawte Primary Root CA	344ED55720D5EDEC49F4 2FCE37DB2B6D	91:C6:D6:EE:3E:8A:C8:63:84 :E5:48:C2:99:29:5C:75:6C:8 1:7B:81	8D:72:2F:81:A9:C1:13:C0:79 :1D:F1:36:A2:96:6D:B2:6C:9 5:0A:97:1D:B4:6B:41:99:F4: EA:54:B7:8B:FB:9F
C=US, O=GeoTrust Inc., CN=GeoTrust Global CA	023456	DE:28:F4:A4:FF:E5:B9:2F:A3 :C5:03:D1:A3:49:A7:F9:96:2 A:82:12	FF:85:6A:2D:25:1D:CD:88:D3 :66:56:F4:50:12:67:98:CF:A B:AA:DE:40:79:9C:72:2D:E4: D2:B5:DB:36:A7:3A
C=US, O=thawte, Inc., OU=Certification Services Division, OU=(c) 2008 thawte, Inc. - For authorized use only, CN=thawte Primary Root CA - G3	600197B746A7EAB4B49A D64B2FF790FB	F1:8B:53:8D:1B:E9:03:B6:A6 :F0:56:43:5B:17:15:89:CA:F 3:6B:F2	4B:03:F4:58:07:AD:70:F2:1B :FC:2C:AE:71:C9:FD:E4:60:4 C:06:4C:F5:FF:B6:86:BA:E5: DB:AA:D7:FD:D3:4C

Class 3 CA	Serial Number	SHA1 Thumbprint	SHA2 Thumbprint
C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=Terms of use at https://www.verisign.com/rpa (c)10, CN=VeriSign Class 3 Code Signing 2010 CA	490EA5686468F1C09F0C FE2FFE300F26	4E:D5:0C:FA:AB:E6:AD:09:F0 :CC:6A:F8:7E:07:DC:11:9D:B 8:01:4C	F4:5C:03:B5:68:3E:3E:A8:F0 :AB:C5:F1:4E:74:9F:BB:F6:3 2:76:65:96:D9:07:4B:00:0D: 68:B7:62:26:F7:A3
C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=Terms of use at https://www.verisign.com/rpa (c)10, CN=VeriSign Class 3 Code Signing 2010 CA	2753F806FE9137322F5B 409F1C31875C	BD:A4:3A:EB:B5:5D:57:A6:D 4:44:5C:10:B0:53:B8:8F:FB: 66:B6:82	D0:F9:0B:BF:6E:E8:62:9E:4A :31:CF:DB:AA:22:02:E3:24:A F:2F:5F:45:69:67:DD:83:CA: 5B:36:84:C3:42:97



C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 SHA256 Code Signing CA	3D78D7F9764960B2617D F4F01ECA862A	00:77:90:F6:56:1D:AD:89:B0 :BC:D8:55:85:76:24:95:E3:5 8:F8:A5	58:2D:C1:D9:7A:79:0E:F0:4F :E2:56:7B:1E:C8:8C:26:B0:3 B:F6:E9:99:37:CA:E6:A0:B5: 03:97:AD:20:BB:F8
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 Extended Validation Code Signing CA - G2	191A32CB759C97B8CFA C118DD5127F49	5B:8F:88:C8:0A:73:D3:5F:76 :CD:41:2A:9E:74:E9:16:59:4 D:FA:67	F7:26:C8:89:13:36:B1:B9:7C :BC:86:F5:96:F1:26:7F:C1:8 0:15:21:22:57:3E:76:D5:14:5 A:7C:64:E2:CF:F7
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 SHA256 Code Signing CA - G2	7C1B35354AE7DB74E741 5F1169CA6BA8	13:92:E4:C7:FF:25:B9:51:7E: 93:10:77:BB:E2:66:4D:C8:7E :F7:0D	20:42:E3:8F:C5:73:88:F1:DB :32:22:C7:AB:5B:E1:1C:6E:D B:7E:45:4B:F4:54:87:AE:44:F F:2D:6A:2B:76:45
C=US, O=Symantec Corporation, CN=Symantec SAS Code Signing CA	023A72	49:7D:69:1C:07:70:8A:FD:F2 :BA:1B:05:99:0B:FF:89:50:4 F:BC:DE	27:9A:05:5E:2C:41:A9:10:5F :DF:D2:63:43:22:9D:0D:38:1 2:58:72:45:5C:43:34:4D:DE: BC:AE:5A:0B:F7:36
C=US, O=Symantec Corporation, CN=Symantec SAS EV Code Signing CA	5D74EC40C72FA11E6B91 C2E5BAC472FF	8E:F6:55:31:C8:88:7C:73:9E: 2B:BD:51:8A:37:FA:C2:CD:69 :0D:53	E8:65:F5:83:A9:28:CC:B6:A7 :28:6B:94:E7:92:0E:E1:F4:99 :8C:03:0B:43:86:89:E9:58:3B :CC:D6:AC:52:61
C=US, O=Symantec Corporation, CN=Symantec SHA1 SAS Code Signing CA	023A84	2B:35:08:C4:C2:EE:D9:32:F2 :D8:29:22:9F:E4:05:0F:A4:A F:12:1E	F8:2C:F9:00:3A:28:69:3F:43: 0C:7E:93:95:81:09:7B:A0:97 :C9:3A:EE:51:0A:10:5D:78:2 2:32:4F:36:4C:9A
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 Extended Validation Code Signing CA - G3	2A953218E10B4B7B6FD1 4B2A9EC30D26	E9:EA:87:52:65:C6:A3:39:11 :4B:3E:91:48:4E:E5:02:46:E4 :A7:06	C2:67:DC:11:5D:57:DD:02:26 :27:9B:34:6D:F1:95:3D:D2:C 0:7A:85:CB:48:A0:D8:99:FD: 57:24:F5:AF:68:1F
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 Extended Validation Code Signing CA	6C59EFA9E100E10EE306 BA8FE0292559	F8:D2:C1:03:80:ED:A2:77:46 :55:E5:61:9D:B7:D0:2F:7D:9 E:85:0A	16:9D:AF:83:C0:87:0A:B8:92 :7C:99:D3:FC:07:74:DD:F3:4 F:BA:28:B0:2B:88:1D:CD:0B: 63:3B:6D:71:B2:BA
C=US, O=Thawte, Inc., CN=Thawte Code Signing CA - G2	47974D7873A5BCAB0D2 FB370192FCE5E	80:8D:62:64:2B:7D:1C:4A:9A :83:FD:66:7F:7A:2A:9D:24:3 F:B1:C7	AF:84:0C:A2:B9:DF:B7:76:BF :81:AA:94:C4:01:BC:44:0C:5 2:E5:C5:90:C4:36:07:A1:3D: 66:80:D8:3E:33:49
C=US, O=thawte, Inc., CN=thawte EV Code Signing CA	779A2BE6DEEDA2BFB90 2CA8E3668B9AF	B1:7E:FE:36:89:24:DF:F5:0A :91:9C:58:A6:A8:6E:F1:81:F A:C5:6E	F3:76:F6:E5:BF:66:0F:6B:ED :B7:68:DC:D1:30:3E:AD:D4:A 9:6F:2E:D7:A9:77:17:E8:78:F A:E6:BB:59:59:FA
C=US, O=thawte, Inc., CN=thawte SHA256 Code Signing CA	71A0B73695DDB1AFC23 B2B9A18EE54CB	D0:0C:FD:BF:46:C9:8A:83:8B :C1:0D:C4:E0:97:AE:01:52:C 4:61:BC	C4:D1:8E:0A:58:E4:EF:FD:17 :ED:77:C8:40:B6:13:EF:15:F 5:51:07:6E:A9:2C:2B:77:F6: 60:9A:6C:25:57:C7
C=US, O=thawte, Inc., CN=thawte SHA256 Code Signing CA - G2	0BF3CC63CF04304D47C 3B587049FA807	F3:75:9A:4E:54:48:BA:CD:B7 :85:62:32:84:61:04:58:44:21 :6E:B7	F7:6F:0D:8A:D3:30:AC:FD:4C :5B:D0:5A:58:A1:CF:15:5D:E 0:0B:E2:C9:8F:4E:78:99:BE: 24:E8:0A:2A:BC:BF
C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=Terms of use at https://www.verisign.com/rpa(c)10, CN=VeriSign Class 3 Code Signing 2010 CA	5200E5AA2556FC1A86ED 96C9D44B33C7	49:58:47:A9:31:87:CF:B8:C7 :1F:84:0C:B7:B4:14:97:AD:9 5:C6:4F	0C:FC:19:DB:68:1B:01:4B:FE :3F:23:CB:3A:78:B6:72:08:B 4:E3:D8:D7:B6:A7:B1:80:7F: 7C:D6:EC:B2:A5:4E



C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=Terms of use at https://www.verisign.com/rpa (c)10, CN=VeriSign Class 3 Code Signing 2010 CA	3D881D656DEA1C951F09 E1DB52DD9C07	5F:C3:86:A0:E8:B5:2B:33:76 :D8:4F:54:EF:FE:79:8F:BD:4 3:85:59	19:3A:2A:64:C8:2C:92:0C:BC :2A:3A:2D:03:2A:A1:F8:E5:F 7:F3:48:30:58:71:0F:0B:6A:0 F:BB:EB:69:7B:69
C=US, O=GeoTrust Inc, OU=GeoTrust TimeStamping CA, CN=GeoTrust TimeStamping CA I	02359E	1D:70:68:AB:BE:A7:6B:0E:E2 :2E:11:36:B2:65:01:FD:4F:0 D:FB:B3	D3:60:27:A8:5F:E1:ED:CB:A4 :F1:BA:92:C3:C8:B3:78:64:E 8:62:D2:B4:A0:2B:8F:F6:43: F5:82:60:9F:6A:08
C=US, O=GeoTrust Inc, OU=GeoTrust TimeStamping CA, CN=GeoTrust TimeStamping CA I	02359D	3F:B8:EF:A7:CD:57:C7:8E:64 :1D:E4:CA:B1:54:A0:D1:94:B 8:F4:87	32:1D:F6:81:FB:13:68:22:59: A5:72:BE:65:FD:DB:8E:6C:9A :2C:B2:1F:94:56:83:D3:B7:0 4:51:7B:C1:92:E4
C=US, O=Symantec Corporation, CN=Symantec Time Stamping Services CA - G2	023A64	44:D7:BC:27:88:29:17:14:72 :CA:B5:41:9C:4A:BD:F1:AC:6 0:EA:C9	83:C1:EA:9E:9E:FC:A2:83:B8 :40:E1:67:F9:EA:79:C4:E3:2 A:CD:33:83:4F:59:D1:38:FC: DA:B9:D8:80:6B:20
C=US, O=Symantec Corporation, CN=Symantec Time Stamping Services CA - G2	7E93EBFB7CC64E59EA4B 9A77D406FC3B	6C:07:45:3F:FD:DA:08:B8:37 :07:C0:9B:82:FB:3D:15:F3:5 3:36:B1	06:25:FE:E1:A8:0D:7B:89:7A :97:12:24:9C:2F:55:FF:39:1D :66:61:DB:D8:B8:7F:9B:E6:F 2:52:D8:8C:ED:95
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec SHA256 TimeStamping CA	7B05B1D449685144F7C9 89D29C199D12	6F:C9:ED:B5:E0:0A:B6:41:51 :C1:CD:FC:AC:74:AD:2C:7B: 7E:3B:E4	F3:51:6D:DC:C8:AF:C8:08:78 :8B:D8:B0:E8:40:BD:A2:B5:E 2:3C:62:44:25:2C:A3:00:0B: B6:C8:71:70:40:2A



DIGICERT, INC. MANAGEMENT'S ASSERTION

DigiCert, Inc. ("DigiCert") operates the Symantec, GeoTrust, and Thawte branded Certification Authority ("CA") services for its CAs as enumerated in [Attachment B](#) and provides code signing ("CS") CA services.

DigiCert management has assessed its disclosures of its certificate practices and controls over its CS CA services. Based on that assessment, in providing its CS CA services at Mountain View, California, USA; New Castle, Delaware, USA; Melbourne, Australia; Sydney, Australia; Cape Town, South Africa; Dublin, Ireland; Sapporo, Japan; and Kawasaki-shi, Japan, throughout the period November 1, 2017 to October 31, 2018, DigiCert has:

- disclosed its code signing certificate lifecycle management business practices in its Symantec, GeoTrust, and Thawte Certification Practices Statements and DigiCert Certificate Policy for Symantec Trust Network (STN) as enumerated in [Attachment A](#), including its commitment to provide CS certificates in conformity with the CA/Browser Forum Code Sign Working Group requirements on the DigiCert [website](#), and provided such services in accordance with its disclosed practices
- maintained effective controls to provide reasonable assurance that:
 - the integrity of keys and CS certificates it manages is established and protected throughout their lifecycles; and
 - CS subscriber information is properly authenticated
- maintained effective controls to provide reasonable assurance that:
 - requests for CS Signing Authority and are properly authenticated; and
 - certificates issued to code signing authority certificates are not valid for a period longer than specified by the CA/Browser Forum Code Sign Working Group requirements
- maintained effective controls to provide reasonable assurance that its code signing authority and is operated in conformity with CA/Browser Forum Code Sign Working Group requirements

based on the [WebTrust Principles and Criteria for Certification Authorities - Publicly Trusted Code Signing Certificates v1.0.1](#).

DigiCert, Inc.

A handwritten signature in blue ink, appearing to read 'Jeremy Rowley', is written over a light-colored rectangular background.

Jeremy Rowley
Executive VP of Product
January 29, 2019



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thawte Certification Practice Statement	3.7.18	September 8, 2017
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Attachment B - List of CAs In-Scope

Root CA	Serial Number	SHA1 Thumbprint	SHA2 Thumbprint
C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=(c) 1999 VeriSign, Inc. - For authorized use only, CN=VeriSign Class 3 Public Primary Certification Authority - G3	009B7E0649A33E62B9D5 EE90487129EF57	13:2D:0D:45:53:4B:69:97:CD :B2:D5:C3:39:E2:55:76:60:9 B:5C:C6	EB:04:CF:5E:B1:F3:9A:FA:76 :2F:2B:B1:20:F2:96:CB:A5:2 0:C1:B9:7D:B1:58:95:65:B8: 1C:B9:A1:7B:72:44
C=US, O=GeoTrust Inc., OU=(c) 2008 GeoTrust Inc. - For authorized use only, CN=GeoTrust Primary Certification Authority - G3	15AC6E9419B2794B41F6 27A9C3180F1F	03:9E:ED:B8:0B:E7:A0:3C:69 :53:89:3B:20:D2:D9:32:3A:4 C:2A:FD	B4:78:B8:12:25:0D:F8:78:63: 5C:2A:A7:EC:7D:15:5E:AA:62 :5E:E8:29:16:E2:CD:29:43:6 1:88:6C:D1:FB:D4
C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=(c) 2008 VeriSign, Inc. - For authorized use only, CN=VeriSign Universal Root Certification Authority	401AC46421B31321030E BBE4121AC51D	36:79:CA:35:66:87:72:30:4D :30:A5:FB:87:3B:0F:A7:7B:B 7:0D:54	23:99:56:11:27:A5:71:25:DE: 8C:EF:EA:61:0D:DF:2F:A0:78 :B5:C8:06:7F:4E:82:82:90:BF :B8:60:E8:4B:3C
C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=(c) 2006 VeriSign, Inc. - For authorized use only, CN=VeriSign Class 3 Public Primary Certification Authority - G5	18DAD19E267DE8BB4A2 158CDCC6B3B4A	4E:B6:D5:78:49:9B:1C:CF:5F :58:1E:AD:56:BE:3D:9B:67:4 4:A5:E5	9A:CF:AB:7E:43:C8:D8:80:D0 :6B:26:2A:94:DE:EE:E4:B4:6 5:99:89:C3:D0:CA:F1:9B:AF: 64:05:E4:1A:B7:DF
C=US, O=thawte, Inc., OU=Certification Services Division, OU=(c) 2006 thawte, Inc. - For authorized use only, CN=thawte Primary Root CA	344ED55720D5EDEC49F4 2FCE37DB2B6D	91:C6:D6:EE:3E:8A:C8:63:84 :E5:48:C2:99:29:5C:75:6C:8 1:7B:81	8D:72:2F:81:A9:C1:13:C0:79 :1D:F1:36:A2:96:6D:B2:6C:9 5:0A:97:1D:B4:6B:41:99:F4: EA:54:B7:8B:FB:9F
C=US, O=GeoTrust Inc., CN=GeoTrust Global CA	023456	DE:28:F4:A4:FF:E5:B9:2F:A3 :C5:03:D1:A3:49:A7:F9:96:2 A:82:12	FF:85:6A:2D:25:1D:CD:88:D3 :66:56:F4:50:12:67:98:CF:A B:AA:DE:40:79:9C:72:2D:E4: D2:B5:DB:36:A7:3A
C=US, O=thawte, Inc., OU=Certification Services Division, OU=(c) 2008 thawte, Inc. - For authorized use only, CN=thawte Primary Root CA - G3	600197B746A7EAB4B49A D64B2FF790FB	F1:8B:53:8D:1B:E9:03:B6:A6 :F0:56:43:5B:17:15:89:CA:F 3:6B:F2	4B:03:F4:58:07:AD:70:F2:1B :FC:2C:AE:71:C9:FD:E4:60:4 C:06:4C:F5:FF:B6:86:BA:E5: DB:AA:D7:FD:D3:4C

Class 3 CA	Serial Number	SHA1 Thumbprint	SHA2 Thumbprint
C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=Terms of use at https://www.verisign.com/rpa (c)10, CN=VeriSign Class 3 Code Signing 2010 CA	490EA5686468F1C09F0C FE2FFE300F26	4E:D5:0C:FA:AB:E6:AD:09:F0 :CC:6A:F8:7E:07:DC:11:9D:B 8:01:4C	F4:5C:03:B5:68:3E:3E:A8:F0 :AB:C5:F1:4E:74:9F:BB:F6:3 2:76:65:96:D9:07:4B:00:0D: 68:B7:62:26:F7:A3



C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=Terms of use at https://www.verisign.com/rpa (c)10, CN=VeriSign Class 3 Code Signing 2010 CA	2753F806FE9137322F5B 409F1C31875C	BD:A4:3A:EB:B5:5D:57:A6:D 4:44:5C:10:B0:53:B8:8F:FB: 66:B6:82	D0:F9:0B:BF:6E:E8:62:9E:4A :31:CF:DB:AA:22:02:E3:24:A F:2F:5F:45:69:67:DD:83:CA: 5B:36:84:C3:42:97
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 SHA256 Code Signing CA	3D78D7F9764960B2617D F4F01ECA862A	00:77:90:F6:56:1D:AD:89:B0 :BC:D8:55:85:76:24:95:E3:5 8:F8:A5	58:2D:C1:D9:7A:79:0E:F0:4F :E2:56:7B:1E:C8:8C:26:B0:3 B:F6:E9:99:37:CA:E6:A0:B5: 03:97:AD:20:BB:F8
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 Extended Validation Code Signing CA - G2	191A32CB759C97B8CFA C118DD5127F49	5B:8F:88:C8:0A:73:D3:5F:76 :CD:41:2A:9E:74:E9:16:59:4 D:FA:67	F7:26:C8:89:13:36:B1:B9:7C :BC:86:F5:96:F1:26:7F:C1:8 0:15:21:22:57:3E:76:D5:14:5 A:7C:64:E2:CF:F7
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 SHA256 Code Signing CA - G2	7C1B35354AE7DB74E741 5F1169CA6BA8	13:92:E4:C7:FF:25:B9:51:7E: 93:10:77:BB:E2:66:4D:C8:7E :F7:0D	20:42:E3:8F:C5:73:88:F1:DB :32:22:C7:AB:5B:E1:1C:6E:D B:7E:45:4B:F4:54:87:AE:44:F F:2D:6A:2B:76:45
C=US, O=Symantec Corporation, CN=Symantec SAS Code Signing CA	023A72	49:7D:69:1C:07:70:8A:FD:F2 :BA:1B:05:99:0B:FF:89:50:4 F:BC:DE	27:9A:05:5E:2C:41:A9:10:5F :DF:D2:63:43:22:9D:0D:38:1 2:58:72:45:5C:43:34:4D:DE: BC:AE:5A:0B:F7:36
C=US, O=Symantec Corporation, CN=Symantec SAS EV Code Signing CA	5D74EC40C72FA11E6B91 C2E5BAC472FF	8E:F6:55:31:C8:88:7C:73:9E: 2B:BD:51:8A:37:FA:C2:CD:69 :0D:53	E8:65:F5:83:A9:28:CC:B6:A7 :28:6B:94:E7:92:0E:E1:F4:99 :8C:03:0B:43:86:89:E9:58:3B :CC:D6:AC:52:61
C=US, O=Symantec Corporation, CN=Symantec SHA1 SAS Code Signing CA	023A84	2B:35:08:C4:C2:EE:D9:32:F2 :D8:29:22:9F:E4:05:0F:A4:A F:12:1E	F8:2C:F9:00:3A:28:69:3F:43: 0C:7E:93:95:81:09:7B:A0:97 :C9:3A:EE:51:0A:10:5D:78:2 2:32:4F:36:4C:9A
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 Extended Validation Code Signing CA - G3	2A953218E10B4B7B6FD1 4B2A9EC30D26	E9:EA:87:52:65:C6:A3:39:11 :4B:3E:91:48:4E:E5:02:46:E4 :A7:06	C2:67:DC:11:5D:57:DD:02:26 :27:9B:34:6D:F1:95:3D:D2:C 0:7A:85:CB:48:A0:D8:99:FD: 57:24:F5:AF:68:1F
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 Extended Validation Code Signing CA	6C59EFA9E100E10EE306 BA8FE0292559	F8:D2:C1:03:80:ED:A2:77:46 :55:E5:61:9D:B7:D0:2F:7D:9 E:85:0A	16:9D:AF:83:C0:87:0A:B8:92 :7C:99:D3:FC:07:74:DD:F3:4 F:BA:28:B0:2B:88:1D:CD:0B: 63:3B:6D:71:B2:BA
C=US, O=Thawte, Inc., CN=Thawte Code Signing CA - G2	47974D7873A5BCAB0D2 FB370192FCE5E	80:8D:62:64:2B:7D:1C:4A:9A :83:FD:66:7F:7A:2A:9D:24:3 F:B1:C7	AF:84:0C:A2:B9:DF:B7:76:BF :81:AA:94:C4:01:BC:44:0C:5 2:E5:C5:90:C4:36:07:A1:3D: 66:80:D8:3E:33:49
C=US, O=thawte, Inc., CN=thawte EV Code Signing CA	779A2BE6DEEDA2BFB90 2CA8E3668B9AF	B1:7E:FE:36:89:24:DF:F5:0A :91:9C:58:A6:A8:6E:F1:81:F A:C5:6E	F3:76:F6:E5:BF:66:0F:6B:ED :B7:68:DC:D1:30:3E:AD:D4:A 9:6F:2E:D7:A9:77:17:E8:78:F A:E6:BB:59:59:FA



C=US, O=thawte, Inc., CN=thawte SHA256 Code Signing CA	71A0B73695DDB1AFC23 B2B9A18EE54CB	D0:0C:FD:BF:46:C9:8A:83:8B :C1:0D:C4:E0:97:AE:01:52:C 4:61:BC	C4:D1:8E:0A:58:E4:EF:FD:17 :ED:77:C8:40:B6:13:EF:15:F 5:51:07:6E:A9:2C:2B:77:F6: 60:9A:6C:25:57:C7
C=US, O=thawte, Inc., CN=thawte SHA256 Code Signing CA - G2	0BF3CC63CF04304D47C 3B587049FA807	F3:75:9A:4E:54:48:BA:CD:B7 :85:62:32:84:61:04:58:44:21 :6E:B7	F7:6F:0D:8A:D3:30:AC:FD:4C :5B:D0:5A:58:A1:CF:15:5D:E 0:0B:E2:C9:8F:4E:78:99:BE: 24:E8:0A:2A:BC:BF
C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=Terms of use at https://www.verisign.com/rpa (c)10, CN=VeriSign Class 3 Code Signing 2010 CA	5200E5AA2556FC1A86ED 96C9D44B33C7	49:58:47:A9:31:87:CF:B8:C7 :1F:84:0C:B7:B4:14:97:AD:9 5:C6:4F	0C:FC:19:DB:68:1B:01:4B:FE :3F:23:CB:3A:78:B6:72:08:B 4:E3:D8:D7:B6:A7:B1:80:7F: 7C:D6:EC:B2:A5:4E
C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=Terms of use at https://www.verisign.com/rpa (c)10, CN=VeriSign Class 3 Code Signing 2010 CA	3D881D656DEA1C951F09 E1DB52DD9C07	5F:C3:86:A0:E8:B5:2B:33:76 :D8:4F:54:EF:FE:79:8F:BD:4 3:85:59	19:3A:2A:64:C8:2C:92:0C:BC :2A:3A:2D:03:2A:A1:F8:E5:F 7:F3:48:30:58:71:0F:0B:6A:0 F:BB:EB:69:7B:69
C=US, O=GeoTrust Inc, OU=GeoTrust TimeStamping CA, CN=GeoTrust TimeStamping CA I	02359E	1D:70:68:AB:BE:A7:6B:0E:E2 :2E:11:36:B2:65:01:FD:4F:0 D:FB:B3	D3:60:27:A8:5F:E1:ED:CB:A4 :F1:BA:92:C3:C8:B3:78:64:E 8:62:D2:B4:A0:2B:8F:F6:43: F5:82:60:9F:6A:08
C=US, O=GeoTrust Inc, OU=GeoTrust TimeStamping CA, CN=GeoTrust TimeStamping CA I	02359D	3F:B8:EF:A7:CD:57:C7:8E:64 :1D:E4:CA:B1:54:A0:D1:94:B 8:F4:87	32:1D:F6:81:FB:13:68:22:59: A5:72:BE:65:FD:DB:8E:6C:9A :2C:B2:1F:94:56:83:D3:B7:0 4:51:7B:C1:92:E4
C=US, O=Symantec Corporation, CN=Symantec Time Stamping Services CA - G2	023A64	44:D7:BC:27:88:29:17:14:72 :CA:B5:41:9C:4A:BD:F1:AC:6 0:EA:C9	83:C1:EA:9E:9E:FC:A2:83:B8 :40:E1:67:F9:EA:79:C4:E3:2 A:CD:33:83:4F:59:D1:38:FC: DA:B9:D8:80:6B:20
C=US, O=Symantec Corporation, CN=Symantec Time Stamping Services CA - G2	7E93EBFB7CC64E59EA4B 9A77D406FC3B	6C:07:45:3F:FD:DA:08:B8:37 :07:C0:9B:82:FB:3D:15:F3:5 3:36:B1	06:25:FE:E1:A8:0D:7B:89:7A :97:12:24:9C:2F:55:FF:39:1D :66:61:DB:D8:B8:7F:9B:E6:F 2:52:D8:8C:ED:95
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec SHA256 TimeStamping CA	7B05B1D449685144F7C9 89D29C199D12	6F:C9:ED:B5:E0:0A:B6:41:51 :C1:CD:FC:AC:74:AD:2C:7B: 7E:3B:E4	F3:51:6D:DC:C8:AF:C8:08:78 :8B:D8:B0:E8:40:BD:A2:B5:E 2:3C:62:44:25:2C:A3:00:0B: B6:C8:71:70:40:2A