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## REPORT OF THE INDEPENDENT ACCOUNTANT

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

We have examined the assertions by the management of [DigiCert](#) and [VeriSign, Inc.](#) ("Verisign"), an independent service organization that provides datacenter hosting services to DigiCert, that for its Symantec 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 its CAs as enumerated in [Attachment B](#), DigiCert has:

- disclosed its SSL certificate lifecycle management business practices in the applicable versions of its DigiCert Certificate Policy for Symantec Trust Network (STN) and DigiCert Certification Practices Statement for Symantec Trust Network (STN) enumerated in [Attachment A](#), including its commitment to provide SSL certificates in conformity with the CA/Browser Forum Requirements on its [website](#), and provided such services in accordance with its disclosed practices
- maintained effective controls to provide reasonable assurance that:
  - the integrity of keys and SSL certificates it manages is established and protected throughout their lifecycles; and
  - SSL subscriber information is properly authenticated
- maintained effective controls to provide reasonable assurance that:
  - logical and physical access to CA systems and data is restricted to authorized individuals;
  - the continuity of key and certificate management operations is maintained; and
  - CA systems development, maintenance, and operations are properly authorized and performed to maintain CA systems integrity
- maintained effective controls to provide reasonable assurance that it meets the Network and Certificate System Security Requirements as set forth by the CA/Browser Forum

based on the [WebTrust Principles and Criteria for Certification Authorities - SSL Baseline with Network Security v2.2](#). DigiCert's and Verisign's management are responsible for their respective assertions. Our responsibility is to express an opinion on managements' assertions based on our examination.

The relative effectiveness and significance of specific controls at DigiCert and Verisign 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 judgement, 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 and Verisign'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 DigiCert's and Verisign's management assertions, as referred to above, are fairly stated, in all material respects.

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

Matter Topic		Matter Description
1	Disaster Recovery	DigiCert does not have documented disaster recovery procedures specific to the handling of offline CA operations and no test was conducted to determine the capabilities to recover offline CA operations from the secondary facility.

This report does not include any representation as to the quality of DigiCert's or Verisign's services other than its Symantec 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 and Verisign's services for any customer's intended purpose.

DigiCert's use of the WebTrust for Certification Authorities - SSL Baseline with Network Security 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
<a href="#">DigiCert Certification Practices Statement for Symantec Trust Network (STN)</a>	3.9	September 11, 2018
Symantec Trust Network (STN) Certification Practice Statement	3.8.28	September 8, 2017
<a href="#">DigiCert Certificate Policy for Symantec Trust Network (STN)</a>	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	009B7E0649A33E62B 9D5EE90487129EF57	13:2D:0D:45:53:4B:69:97:C D:B2:D5:C3:39:E2:55:76:6 0:9B:5C:C6	EB:04:CF:5E:B1:F3:9A:FA: 76:2F:2B:B1:20:F2:96:CB:A 5:20:C1:B9:7D:B1:58:95:65 :B8:1C:B9:A1:7B:72:44
C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=(c) 2007 VeriSign, Inc. - For authorized use only, CN=VeriSign Class 3 Public Primary Certification Authority - G4	2F80FE238C0E220F4 86712289187ACB3	22:D5:D8:DF:8F:02:31:D1: 8D:F7:9D:B7:CF:8A:2D:64: C9:3F:6C:3A	69:DD:D7:EA:90:BB:57:C9: 3E:13:5D:C8:5E:A6:FC:D5: 48:0B:60:32:39:BD:C4:54:F C:75:8B:2A:26:CF:7F:79
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 Public Primary Certification Authority - G6	65637185D36F45C68 F7F31F909879282	26:A1:6C:23:5A:24:72:22:9 B:23:62:80:25:BC:80:97:C8 :85:24:A1	B3:23:96:74:64:53:44:2F:3 5:3E:61:62:92:BB:20:BB:A A:5D:23:B5:46:45:0F:DB:9 C:54:B8:38:61:67:D5:29
C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=(c) 2008 VeriSign, Inc. - For authorized use only, CN=VeriSign Universal Root Certification Authority	401AC46421B313210 30EBBE4121AC51D	36:79:CA:35:66:87:72:30:4 D:30:A5:FB:87:3B:0F:A7:7 B:B7:0D:54	23:99:56:11:27:A5:71:25:D E:8C:EF:EA:61:0D:DF:2F:A 0:78: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	18DAD19E267DE8BB4 A2158CDCC6B3B4A	4E:B6:D5:78:49:9B:1C:CF: 5F:58:1E:AD:56:BE:3D:9B: 67:44:A5:E5	9A:CF:AB:7E:43:C8:D8:80: D0:6B:26:2A:94:DE:EE:E4: B4:65:99:89:C3:D0:CA:F1: 9B:AF:64:05:E4:1A:B7:DF
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 Public Primary Certification Authority - G4	4C79B59A289C76316 4F58944D09102DE	58:D5:2D:B9:33:01:A4:FD: 29:1A:8C:96:45:A0:8F:EE:7 F:52:92:82	53:DF:DF:A4:E2:97:FC:FE: 07:59:4E:8C:62:D5:B8:AB: 06:B3:2C:75:49:F3:8A:16:3 0:94:FD:64:29:D5:DA:43
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Web PKI ECC Root - G1	0E23CC37AC7466480 F6B1A4B01831698	65:91:04:DA:A4:04:93:26:2 1:5A:5D:26:31:52:70:D9:A A:BD:16:1D	92:BB:72:F1:5E:B7:5D:E4:6 7:C8:4B:43:81:81:03:4B:D A:E9:A0:16:EC:26:43:4B:EE :3C:9B:BA:D8:CD:8A:FO
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Web PKI RSA Root - G1	2D9AD0E39DBD2DAE 835F446FBB64FD28	77:08:8D:6A:EF:B6:19:1D: E4:1F:68:85:93:9A:AE:F9:E C:6C:73:1C	F6:BB:5B:79:85:A8:73:65:9 4:C1:46:79:FA:31:60:38:14 :50:2A:AE:B5:F4:28:2A:69: 98:5D:C8:4A:45:07:77

Cross Signed CAs				
Issuer	Subject	Serial Number	SHA1 Thumbprint	SHA2 Thumbprint
C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=(c) 2008 VeriSign, Inc. - For authorized use only, CN=VeriSign Universal Root Certification Authority	C=US, O=DigiCert, Inc, OU=www.digicert.com, CN=DigiCert Universal Transition Root	7708008661C2F2 6765BD4DDAC794 0E2F	02:9E:ED:AF:52:BC:5B :84:8C:30:E5:13:6F:5 2:1D:6D:3D:E4:2D:FB	88:A0:70:73:D4:52:70 :69:DC:9E:97:80:53:F 3:57:29:70:5C:05:83: 02:64:8E:D0:2E:5F:CE :65:61:45:9E:61



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	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	217A65CF638175 37E03332833A42 CCD7	14:49:AF:AF:83:6F:A6 :6C:40:53:49:88:F3:D F:C7:62:8E:BD:78:6A	D9:BC:97:3F:88:90:96 :96:DA:10:83:31:97:9 4:4C:A5:8A:C4:A8:88: 47:77:9C:91:33:37:42 :67:10:0E:EC:58
C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=(c) 2007 VeriSign, Inc. - For authorized use only, CN=VeriSign Class 3 Public Primary Certification Authority - G4	C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Global Root G3	3DCD5F225EA4C9 6D4B9094A02D2B 56C6	1C:C4:C0:AA:35:4F:1F :77:18:6F:8C:02:9D:7 A:94:93:8D:07:21:3F	53:A5:E3:2A:CC:57:14 :ED:20:C7:77:8C:65:5 D:1E:E9:7E:C0:71:56: 07:4C:8B:01:6E:2C:FC :73:E9:D2:71:2B
C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=(c) 2007 VeriSign, Inc. - For authorized use only, CN=VeriSign Class 3 Public Primary Certification Authority - G4	C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Transition ECC Root	79C67041B46232 04394DD042FB6E 9680	27:B0:F3:7B:DB:63:66 :25:8E:7C:C2:05:88:C F:8A:D6:A7:C9:27:28	DB:98:19:4E:55:B9:36 :D2:6E:6C:B3:F4:60:A 2:62:EB:6C:A6:63:37: E7:BF:F1:7A:0B:FC:08 :32:51:F6:36:26
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	C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Transition RSA Root	78AEA431C15CEB 757B0D8A610A74 8E67	2E:B0:1A:16:D5:5D:26 :04:90:20:68:73:D6:D 0:3F:38:EC:A8:31:89	0D:88:90:0D:BB:68:C6 :CA:54:71:F6:53:FC:A C:D4:07:EB:D7:B1:51: 90:46:F9:E0:B8:CE:D3 :C2:74:FD:11:A1
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	C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=(c) 2007 VeriSign, Inc. - For authorized use only, CN=VeriSign Class 3 Public Primary Certification Authority - G4	6611549AD086E3 98912FFBBF74D1 D85F	3C:C7:4E:31:65:51:C9 :7E:18:39:D1:00:08:8 2:9C:9D:BF:24:C2:47	61:43:6A:4E:D6:3E:31 :F2:2E:EF:AC:26:B5:2 5:79:6C:F5:EB:F8:9A: 77:E7:3C:0A:DC:C8:4 D:E9:79:B1:C5:E0
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	C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=(c) 2008 VeriSign, Inc. - For authorized use only, CN=VeriSign Universal Root Certification Authority	1A55C0C60F0F26 F6489BA6CDA98D 2425	43:6A:8A:70:3D:44:93 :23:8C:45:73:1C:09:4 1:5C:2A:9A:4B:41:F9	FB:2B:D3:59:81:44:35 :6D:CB:D2:B2:59:E8:F 3:EB:D0:B0:F6:EE:18: 0C:15:EF:55:3B:82:D1 :99:EF:07:F3:9A



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	C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=(c) 2008 VeriSign, Inc. - For authorized use only, CN=VeriSign Universal Root Certification Authority	4B0BCEB194B330 FB0E366DBBA0C8 773E	45:06:F9:BA:E3:4B:6D :0A:CC:60:1A:94:78:A D:3C:80:E8:0B:A0:82	15:12:DF:AE:DF:91:53 :FF:AC:B7:0B:C8:05:B A:32:CB:6F:9C:B3:D0: 95:B6:4E:66:59:E6:52 :C3:CA:33:5A:32
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	C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Web PKI RSA Root - G1	7A6FC74D8D350A FBFA2138241FE7 ED96	55:4F:29:93:DD:09:91 :80:98:3E:46:07:52:0 C:DD:86:1F:EC:48:E0	C4:9A:A6:D4:F3:5A:83 :3B:8B:0E:1E:29:97:C F:5A:C2:8C:93:4F:BA: D3:CF:EB:EF:5C:45:FB :0A:DA:B1:01:35
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	C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=(c) 2008 VeriSign, Inc. - For authorized use only, CN=VeriSign Universal Root Certification Authority	2445A1BD977380 B5F40C4550B871 6D0A	6E:B8:B6:28:D6:24:97 :A6:62:4F:C4:C5:59:C F:66:25:DF:71:74:C4	C9:D8:9E:C4:FC:9C:A C:1E:49:43:22:94:E8: A7:AA:30:11:7A:B3:E4 :E0:19:9B:9E:29:7D:6 B:E1:0F:C6:E2:DF
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	C=US, O=DigiCert, Inc, OU=www.digicert.com, CN=DigiCert Transition Root G3	718F6D6990A629 4B6A4BDC8DE6C 69144	8C:45:33:1F:9C:FA:3D :B2:BB:A5:E7:58:59:5 6:FA:74:98:90:04:56	0F:57:B9:6F:A7:B3:12 :47:EC:39:CB:30:7D:3 8:CA:2B:F3:B2:9F:54: AF:D5:0A:35:1D:18:53 :35:29:51:7B:46
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	C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Web PKI ECC Root - G1	24B2C474397688 7AAAC9E9D55B04 3F5C	A2:BA:17:BE:03:BA:63 :CA:EA:30:5B:0E:A3:9 D:BB:73:76:97:F2:11	F5:65:03:9D:13:92:07 :80:1F:87:34:D3:57:E 7:CA:1D:A1:A6:29:FB: 48:DC:2E:FD:EA:08:E5 :16:F6:3F:B2:61
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	C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Global Root G2	63180D38FB8097 78A9D035A31618 F840	E9:95:EF:91:26:8D:E1 :5C:A2:2C:0C:74:CB:E 9:2E:B6:C8:31:48:7E	2D:4F:AD:34:55:AB:61 :39:74:01:AB:BB:51:8 9:22:F8:43:36:B6:7E: 02:FC:8D:2D:B2:83:82 :5C:4A:B9:81:BB



C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=(c) 2008 VeriSign, Inc. - For authorized use only, CN=VeriSign Universal Root Certification Authority	C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Web PKI RSA Root - G1	0F8752C22E2E76 31AD31FB4A2D34 85CA	F4:54:6C:31:25:BA:AB :DC:31:AD:50:B9:99:4 1:AA:BA:77:B5:14:49	92:DB:39:46:47:CF:E1 :22:57:3A:99:E4:9D:9 4:D9:A1:F6:41:2E:A3: A0:4D:78:B4:4A:50:44 :C4:02:11:0A:CE
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Class 3 CA	Serial Number	SHA1 Thumbprint	SHA2 Thumbprint
C=CN, O=TrustAsia Technologies, Inc., OU=Domain Validated SSL, CN=TrustAsia ECC DV CA - G9	6DFF21109CB0A3594 0A7850D70B97913	36:28:72:EA:6F:16:23:5A:9 0:0D:90:60:40:2B:38:15:A9 :C0:E6:05	15:7D:3A:B9:9D:C5:1A:C9: F5:F4:F1:0C:43:C6:85:42:A C:6B:16:23:63:8F:1D:51:1E :8E:EA:11:C4:88:E9:08
C=CN, O=TrustAsia Technologies, Inc., OU=Domain Validated SSL, CN=TrustAsia RSA DV CA - G8	2638DC5EB7C68D30A 2D6E83F00479896	3F:B1:7D:9F:02:58:EA:BD: 4F:AC:04:E7:74:52:5F:58:C 1:0F:56:D3	D6:4C:1E:38:CB:68:A4:63: 62:37:9A:33:2E:5E:D3:D8: A8:44:36:65:E6:25:1A:19:B 1:40:53:BE:03:03:34:51
C=DE, O=CertCenter AG, OU=Domain Validated SSL, CN=AlwaysOnSSL Web PKI RSA DV CA - G1	59F3D4B279D2174E1 285655811AFCA44	22:75:26:FB:3D:48:31:FB:B E:F1:29:D5:BF:16:FB:E2:B3 :0A:0D:4B	47:9A:91:F6:93:68:BE:C9:B 4:D8:A6:92:EF:D9:38:D1:E 9:48:C7:33:30:2E:E0:B9:C4 :90:06:F3:62:F6:65:88
C=DE, O=STRATO AG, OU=Domain Validated SSL, CN=STRATO Web PKI RSA DV CA - G1	2917D03AE05D392A4 4980C52A4364666	2E:FF:07:98:88:33:08:AB:1 F:C7:49:79:A6:9F:8B:9B:41 :68:8F:C3	A3:EC:7D:8B:BB:8B:9F:99: 28:7B:CA:4C:AC:67:A4:65: 01:D5:43:24:AC:B6:A0:78: 15:14:ED:D5:11:B1:9E:BE
C=NL, O=Trust Provider B.V., OU=Domain Validated SSL, CN=Trust Provider B.V. Web PKI RSA DV CA - G1	2F355878F925737BC 7DE3924D0166BF6	E4:50:45:FB:13:6A:4B:2E:0 F:50:E6:40:60:08:7F:46:26 :C4:F0:A4	67:FF:03:C0:C0:1D:1F:01: D4:00:6E:B8:69:B4:53:F1:1 5:AE:48:EC:B7:51:7F:29:C3 :0C:D0:1A:FE:76:F4:95
C=US, O=GeoTrust Inc., OU=Domain Validated SSL, CN=GeoTrust Class 3 Web PKI RSA DV CA - G1	6BD1C36F56DEA9062 692F147D2A13172	21:C1:C9:A0:78:C8:39:43:1 B:7C:69:7A:5E:9F:3F:30:D B:F7:C2:E0	7D:EC:B7:88:02:94:C6:81: D6:19:79:53:4C:1C:2F:1D: 88:AD:FA:AE:8A:57:33:CD: 2D:B6:73:0E:05:E2:A5:47
C=US, O=GeoTrust Inc., OU=Domain Validated SSL, CN=RapidSSL Class 3 Web PKI RSA DV CA - G1	4238AE5F4CB56A05D 042A983076CA1DF	84:A0:AF:53:56:B6:B8:C6:1 5:8A:4A:58:27:5E:A9:45:C1 :B9:CE:49	4B:04:99:89:E0:34:CC:16:F 5:86:24:7B:0D:38:78:95:0F :39:38:2E:28:E1:10:87:42: 0B:AF:2B:6F:27:D6:79
C=US, O=GeoTrust Inc., OU=Extended Validation SSL, CN=GeoTrust Class 3 Web PKI RSA EV CA - G1	75206CABFB5ED21CD 96AE287809DC45A	B5:43:0C:91:AA:71:FA:08: E5:72:DA:AF:C8:36:14:28: 77:FF:63:C0	E8:41:E1:36:D3:85:3D:E0:C 9:B8:D3:A7:01:66:AD:EE:A 9:76:7B:F0:94:2E:C8:B1:8A :18:06:DB:A8:72:04:C2
C=US, O=GeoTrust Inc., OU=Organization Validated SSL, CN=GeoTrust Class 3 Web PKI RSA OV CA - G1	630B2556A1B073D08 791A6645CD678C7	43:A9:74:9E:9A:AC:D7:C2: 8B:E6:51:25:30:DA:86:FC:9 4:51:72:24	E5:7B:96:72:61:9D:2C:58:C 6:80:5A:2A:05:8C:8A:2C:3 E:41:8E:33:7F:95:8E:26:65 :BB:1C:F6:DD:2E:D0:41
C=US, O=GeoTrust Inc., OU=Organization Validated SSL, CN=RapidSSL Class 3 Web PKI RSA OV CA - G1	7D9D7433209EE758C 08D90AC0E0A9AC4	1C:5A:60:C9:8B:00:45:F9: A4:0F:C0:54:FE:1C:DD:FO: B4:CA:16:D9	8A:8F:5C:E1:DD:74:54:0A: 8A:57:49:38:93:1F:22:7B:D 6:E3:12:65:6E:7D:F6:BC:6E :3A:0E:B3:D8:90:35:20
C=US, O=GeoTrust, Inc., OU=Domain Validated SSL, CN=GeoTrust Class 3 Web PKI ECC DV CA - G1	2C9F3029BAD05E04F C544C59EAF11F58	40:28:7C:56:06:AC:90:A2:8 0:B3:09:EE:FD:6B:26:F8:55 :E6:53:4A	C5:EC:25:5A:B5:9D:A0:91: F5:87:B9:CE:14:61:BD:D6: 3A:7D:56:41:1E:49:9F:24:F D:9C:5E:1C:FA:8A:3F:E0



C=US, O=GeoTrust, Inc., OU=Domain Validated SSL, CN=RapidSSL Class 3 Web PKI ECC DV CA - G1	3DB5DD80037303208 E099E6A6BFEC4E8	5D:13:A1:73:E6:79:63:84:8 4:A7:B4:0C:EB:B3:02:9F:A E:B3:C2:70	CE:A2:3A:E9:7F:B7:3D:36: AA:D2:56:0A:B7:73:0A:1E: 9D:7C:21:C0:8E:80:0C:2B: 05:33:C9:67:30:EF:DE:92
C=US, O=GeoTrust, Inc., OU=Extended Validation SSL, CN=GeoTrust Class 3 Web PKI ECC EV CA - G1	120B49D5FFBFB59C2 519F83452EED709	35:F1:AF:D5:BD:00:46:B9: 6E:92:C4:1C:BB:1C:8D:04: 55:15:6F:BF	6A:67:55:BA:10:DC:5D:5E: AE:9B:EE:C7:AC:E8:D9:73: DE:53:D3:D1:85:01:74:D4: E0:2E:C2:33:63:E1:2C:C8
C=US, O=GeoTrust, Inc., OU=Organization Validated SSL, CN=GeoTrust Class 3 Web PKI ECC OV CA - G1	1B3E2E1EB2F6BACAD 366B3C21DEB85E6	16:E1:E3:4B:AE:7E:95:87:E B:AC:53:6D:1A:9B:6E:D8:4 3:3F:91:A9	3C:4A:B6:84:92:BC:0D:76: AA:06:DE:99:61:DF:25:77: 4C:9E:F2:6C:AF:71:22:D3: 99:2E:B8:B2:FA:31:35:49
C=US, O=Oracle Corporation, OU=Symantec Trust Network, OU=Organization Validated SSL, CN=Oracle Web PKI RSA OV CA - G1	056B9C903E1D3C765 85B94E106C97E69	8A:74:0F:49:39:A1:58:EE:0 8:05:5F:4B:D5:47:3E:52:6F :D5:7F:08	70:BA:89:67:F6:92:26:9B:0 E:40:08:DA:12:54:D3:7E:A 9:FA:02:FC:1A:EB:A7:C4:A A:C2:20:3D:A4:81:79:65
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 Secure Server CA - G4	13B3E302180397668 D5034E0E674E28D	44:9E:3B:9F:21:04:A9:64:0 9:32:6D:A6:F2:9B:B4:E8:46 :9B:EF:D4	59:F8:CB:7D:7E:9E:13:CB: 77:8F:F6:21:98:EB:E0:55:5 1:B5:15:A5:8B:BB:A2:EF:1 9:C3:3C:76:0C:82:39:16
C=US, O=Symantec Corporation, OU=Symantec Trust Network, OU=Domain Validated SSL, CN=Symantec Class 3 Web PKI ECC DV CA - G1	6B618A9D16D8319D2 8664473244F0D23	E5:DC:C3:E5:75:33:17:8B: DA:98:4F:6D:6F:0A:B6:70: 61:F4:0D:2F	5C:69:E8:2F:B2:48:F8:0B:5 E:43:14:B9:D2:C4:88:3E:D 1:4F:5A:06:D5:8F:10:9F:33 :50:0E:86:DD:C0:73:8F
C=US, O=Symantec Corporation, OU=Symantec Trust Network, OU=Domain Validated SSL, CN=Symantec Class 3 Web PKI RSA DV CA - G1	4EC6830D3861A3285 7D7449444EDCD32	0E:E1:0E:D9:94:EE:2D:7F:1 E:F7:B7:63:D1:B9:DF:57:0 D:F5:C5:94	4D:F2:95:46:78:93:5B:E7:E 8:0A:E9:05:11:30:4B:08:FA :04:FF:40:BD:DA:69:CE:E3: 33:DA:80:C1:3A:D3:10
C=US, O=Symantec Corporation, OU=Symantec Trust Network, OU=Extended Validation SSL, CN=Symantec Class 3 Web PKI ECC EV CA - G1	2004AAC18E52902F 25460385F9D8BEF	EE:C5:84:18:DB:F2:79:31: DE:5A:F4:1B:B3:17:DF:47: 9D:AF:3C:BE	B1:3F:9D:19:08:2D:8C:D7: CD:1B:EB:0A:B7:C2:45:ED: 25:2F:21:AE:2A:30:16:3E:9 1:B6:E8:BE:2E:0E:96:14
C=US, O=Symantec Corporation, OU=Symantec Trust Network, OU=Extended Validation SSL, CN=Symantec Class 3 Web PKI RSA EV CA - G1	0B6B506566F67A840 3D970B7179252CE	BF:63:51:0D:A8:C9:7D:DF: D6:4A:67:68:57:A6:B9:51:2 2:EE:62:2F	87:B8:50:BD:37:15:C0:10:4 B:5E:C9:D5:E8:0B:FE:78:85 :0A:AE:41:25:55:9B:BC:DD :E0:85:24:97:0B:5A:FF
C=US, O=Symantec Corporation, OU=Symantec Trust Network, OU=Organization Validated SSL, CN=Symantec Class 3 Web PKI ECC OV CA - G1	50A33F08D1763AF0B 88226270141BF02	6C:83:88:18:D8:25:5E:D2:3 1:13:05:AA:EA:80:0F:7D:2 A:C8:65:CB	ED:34:8B:62:45:A3:C1:90:2 C:7F:8E:F7:CC:A8:CF:05:4 B:94:B8:F1:8C:D7:8A:A7:9 A:36:BF:9C:32:99:82:6A
C=US, O=Symantec Corporation, OU=Symantec Trust Network, OU=Organization Validated SSL, CN=Symantec Class 3 Web PKI RSA OV CA - G1	7DAF5A80682E3077C 1A2B3135D731DF6	AE:0C:B2:38:63:48:AF:85: AE:78:C0:3E:5E:E4:6B:F4:A 3:CF:F0:69	A5:A6:B2:EF:89:14:26:EA: B0:F6:10:6B:2B:0B:13:2D:0 1:A1:CE:C5:20:08:5F:80:64 :59:05:94:9B:D3:28:6A
C=US, O=thawte, Inc., OU=Domain Validated SSL, CN=thawte Class 3 Web PKI ECC DV CA - G1	5F7894773C4212D38 02A98932ECAA304	C6:0C:7E:F6:65:37:48:B4:A 6:47:26:93:89:50:60:F2:12 :26:61:86	3E:86:87:28:08:2E:19:9B:7 7:3E:DF:91:EB:3E:B9:73:6A :E7:E2:BC:68:7E:42:BA:35: A2:B5:8F:DE:55:6C:82





C=US, O=thawte, Inc., OU=Domain Validated SSL, CN=thawte Class 3 Web PKI RSA DV CA - G1	1C60F646DBD731A3C3A8720F2DD5E873	13:47:6F:79:21:50:D1:E7:91:9B:36:7C:E2:17:E5:6D:F3:2E:19:6C	FA:AE:92:82:05:90:F2:D8:DB:52:1C:20:C9:EF:4B:53:CF:DF:3C:07:C9:0E:17:6A:D9:13:DA:CF:E9:54:81:ED
C=US, O=thawte, Inc., OU=Extended Validation SSL, CN=thawte Class 3 Web PKI ECC EV CA - G1	42CA5B1F1CD66F8D525FD4D4845D4DD4	52:78:7E:18:6C:FA:34:05:B3:7F:19:F0:D9:DC:9B:AB:08:70:33:99	94:AC:33:E6:72:91:4F:A5:8B:BE:64:4A:58:29:36:79:C8:8E:8A:5E:40:BB:08:FF:F1:CD:9C:37:EE:81:FC:94
C=US, O=thawte, Inc., OU=Extended Validation SSL, CN=thawte Class 3 Web PKI RSA EV CA - G1	1AC917AC8164CCB4BEE32A2140CF4450	55:5F:F7:DF:34:78:09:B7:63:07:48:D5:66:E9:C7:5E:EF:55:C2:1E	B0:DA:8C:71:E8:52:0E:CF:3B:9F:A9:3D:AE:E2:F8:C6:DC:D2:5C:1F:7B:8C:02:47:9D:BA:52:23:B6:B0:91:84
C=US, O=thawte, Inc., OU=Organization Validated SSL, CN=thawte Class 3 Web PKI ECC OV CA - G1	4DB3F20FD367B04731C8AE8B22CAFBF2	CB:3A:FF:9E:C5:F0:00:7E:CB:7A:09:1F:DD:14:93:C9:BA:53:5C:EB	90:C9:EA:1E:92:A1:C8:5E:37:CB:2A:2F:BF:74:CC:5E:96:15:AA:19:07:55:ED:E8:EA:6C:7B:AE:33:F1:83:30
C=US, O=thawte, Inc., OU=Organization Validated SSL, CN=thawte Class 3 Web PKI RSA OV CA - G1	29464C5CE523DAC758DA2D917E0A7FE5	42:94:5E:B7:60:55:EF:B6:46:93:08:0B:71:C7:01:DC:35:F4:BF:10	FE:62:99:E9:D2:12:CA:34:6B:54:DD:1A:69:4A:E8:4B:43:4A:63:A8:C3:E6:2C:61:E4:67:73:C8:8D:D8:2F:8E
C=US, O=Wells Fargo & Company, OU=Symantec Trust Network, OU=Organization Validated TLS, CN=Wells Fargo Public Trust Certification Authority 01 G2	3F8B149DCFBE86553F6D78F4CD24E571	86:14:15:06:B4:C3:61:C9:FC:DF:E5:71:7B:6B:19:76:15:19:3B:44	8F:FC:B7:E2:35:33:0E:F0:AA:B9:19:DE:AF:C4:F5:E6:21:F6:6F:AE:DD:A2:D4:C1:25:6D:09:93:AE:24:EA:21
C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=Terms of use at https://www.verisign.com/rpa (c)09, CN=VeriSign Class 3 Secure Server CA - G2	1F532AF85493D7826B5930D6515940	44:32:01:47:89:47:51:13:62:BA:58:E2:25:3C:FD:98:3D:76:D3:24	0E:48:FE:8D:F7:98:36:EF:81:1C:61:B3:6E:A2:C5:47:05:31:AE:80:04:1D:B6:4D:29:B6:94:B4:A1:C1:BE:1F
C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=Terms of use at https://www.verisign.com/rpa (c)09, CN=VeriSign Class 3 Secure Server CA - G2	2F006ECD177066E75FA3820A791F05AE	76:44:59:78:1B:AC:B0:47:63:A5:D0:A1:58:91:65:26:1F:29:8E:3B	0A:41:51:D5:E5:8B:84:B8:AC:E5:3A:5C:12:12:2A:C9:59:CD:69:91:FB:B3:8E:99:B5:76:C0:AB:DA:C3:58:14
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 EV SSL CA - G2	366585077A8867AB58F4A094F8103733	E4:99:59:A4:B3:36:AC:BD:2D:AC:75:9B:B5:21:B9:46:03:3E:82:3A	6C:66:B7:6E:68:D6:C7:9F:AF:E5:C9:4E:9B:7D:0C:F7:53:C7:15:CC:85:38:7E:11:32:3B:79:35:F8:61:C1:87
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 EV SSL CA - G3	7EE14A6F6FEFF2D37F3FAD654D3ADAB4	E3:FC:0A:D8:4F:2F:5A:83:ED:6F:86:F5:67:F8:B1:4B:40:DC:BF:12	9E:6B:C5:F9:EC:C5:24:60:E8:ED:C0:2C:64:4D:1B:E1:C8:9F:23:16:F4:1D:AF:3B:61:6A:0B:20:58:29:4B:31
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 Secure Server CA - G4	282E2791793392E428F221A74EC937AE	CD:EE:2C:D3:C6:EE:A1:1D:B3:35:AB:DB:9A:D5:6E:EA:F8:EF:C1:F6	56:4D:BC:6A:76:55:0F:D2:D4:F4:BA:C6:44:8A:11:57:B3:3C:BD:8E:0B:3F:D7:6D:72:10:75:40:96:4A:85:B5
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 Secure Server CA - G4	513FB9743870B73440418D30930699FF	FF:67:36:7C:5C:D4:DE:4A:E1:8B:CC:E1:D7:0F:DA:BD:7C:86:61:35	EA:E7:2E:B4:54:BF:6C:39:77:EB:D2:89:E9:70:B2:F5:28:29:49:19:00:93:D0:D2:6F:98:D0:F0:D6:A9:CF:17
C=US, O=Symantec Corporation, OU=Symantec Trust Network,	7A0F41DF1CCD14DCB269298EE22C6A35	37:8F:E7:3E:16:E4:F1:E3:39:49:B7:60:A3:BD:22:51:49:35:90:25	B2:74:5D:0A:9B:71:D9:48:F3:4E:92:1A:F5:9F:34:2A:D



CN=Symantec Class 3 EV SSL SGC CA - G2			F:6E:40:7D:88:BC:51:D3:8A:C5:2B:58:3A:0E:BD:15
C=US, O=Wells Fargo, OU=Symantec Trust Network, CN=Wells Fargo Certificate Authority WS1	50776F58B196C391691EE658A90A9D6B	E8:03:9D:FE:57:13:1F:11:D9:D6:77:F7:CF:7C:F5:B6:E8:9D:98:5D	C2:10:87:41:6B:BF:98:3B:9F:FE:40:F5:D5:6E:E0:FF:D9:4E:B1:E6:66:B0:4A:53:2A:DE:48:2E:C2:01:D6:7C
C=US, O=Oracle Corporation, OU=Symantec Trust Network, CN=Oracle SSL CA - G2	3135BB7E6DE2663AB0E233E6B0E1A5CC	03:86:D9:39:CF:7B:A7:88:55:27:34:18:5B:EA:D0:B1:3E:87:39:14	E4:AF:2F:AE:41:18:7D:58:F2:09:B0:1B:1D:87:53:C2:DC:CB:3F:60:1C:E8:62:73:E3:7E:87:38:C2:A5:CC:B5
C=US, O=Symantec Corporation, OU=Symantec Trust Network, OU=Domain Validated SSL, CN=Symantec Basic DV SSL CA - G1	4C4CD8A0FC4FEAAE1554A87F090EDA87	54:C5:AA:E5:07:D2:12:FD:07:02:E0:90:70:66:1A:FD:59:53:5C:57	52:6E:30:DE:D6:BF:9D:5C:F2:16:F5:0C:83:24:02:B4:8A:B7:0D:55:AE:DA:91:8A:18:73:A5:88:3E:BD:B1:B5
C=US, O=Symantec Corporation, OU=Symantec Trust Network, OU=Domain Validated SSL, CN=Symantec Basic DV SSL CA - G2	1877F66568A782BBA9FB42DAE44E33D7	47:F2:DB:11:60:6B:7A:58:36:C5:B9:58:2C:EF:C3:3A:0D:67:C4:FE	DF:F5:83:E3:A1:ED:35:E5:7D:95:10:48:17:AD:82:3C:05:5F:B9:07:1C:D4:00:43:5B:5F:C7:4E:69:20:81:DB
C=CN, O=TrustAsia Technologies, Inc., OU=Symantec Trust Network, OU=Domain Validated SSL, CN=TrustAsia DV SSL CA - G5	3A100E7F109E1AC59CC5FFF640D5E442	51:A5:1E:10:E1:FA:FD:5A:2C:50:08:0E:CD:E5:56:73:AC:E7:5A:1F	B4:1A:B8:45:CA:B4:DB:9C:B1:FE:65:05:76:5F:36:A0:86:8A:DC:5D:F4:19:B3:89:79:FB:6A:4F:E4:13:1F:70
C=CN, O=TrustAsia Technologies, Inc., OU=Symantec Trust Network, OU=Domain Validated SSL, CN=TrustAsia DV SSL CA - G6	15C20B71AC2C36527A07667D871BC6D8	A6:33:0A:ED:72:6F:80:67:B5:80:04:E1:89:22:76:8A:B5:A9:11:0B	B9:0E:17:AB:4B:87:78:B1:0F:9F:28:CB:AA:76:64:DE:2E:E3:D6:6E:1A:FC:57:4D:16:8E:DD:24:A1:03:39:FF
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 EV SSL CA - G4	5398D1998C7CBF2310C0F999A0051833	A5:65:3F:4A:81:6E:00:09:7C:CF:0F:CC:65:6A:89:1B:29:BE:19:93	31:86:22:33:62:0E:78:93:30:CC:89:3E:8B:5E:66:70:53:31:B8:B8:8B:0E:D3:0A:44:57:4D:9E:0A:71:C4:F1
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 ECC 256 bit SSL CA	0BB8A60497D81E27B5BF5F2687D12FD04	16:17:2B:72:98:09:74:4A:36:E2:6B:A0:E5:A5:99:86:29:EF:8A:C3	AD:EB:F8:3F:D3:D3:F9:54:6B:B7:7F:AA:B5:16:DD:93:37:CC:F9:1E:11:98:F7:43:37:76:9E:C6:8E:6E:82:6E
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 ECC 256 bit SSL CA - G2	567F888DFFA505DA21E375370091936A	57:7A:8D:F6:E2:62:F9:A7:64:82:9D:A9:37:5D:94:D2:59:6F:20:AB	3B:6D:70:13:31:A8:CB:80:94:43:E4:2A:73:2B:AD:67:5F:22:5B:15:CC:43:9A:CF:26:A0:95:87:C8:85:EC:FD
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 ECC 256 bit SSL CA - G2	14DB7E7A40B856200DD8EB382C262BC0	DD:2B:89:2F:DB:0A:69:78:38:11:51:D6:62:98:0D:53:04:E9:E2:AE	74:EB:30:7A:78:AC:7E:85:70:CC:1B:AE:1C:51:10:2A:60:53:C9:6F:33:32:D7:03:28:5A:74:3B:CB:D3:5D:9E
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 ECC 256 bit SSL CA - G2	3F9287BE9D1DA4A37A9DF6282E775AC4	FE:3C:41:90:1F:36:59:C6:ED:DC:0C:1C:2D:85:D0:B2:0E:64:96:14	2E:28:61:28:9B:5C:CE:DE:CA:E4:C3:1B:F2:62:E0:FB:0C:29:B6:C1:53:05:73:44:27:31:CA:65:D8:21:E9:01
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 ECC 256 bit EV CA - G2	71223CA522185EAC44CF1770D1A8AA5D	0B:69:D3:71:3F:1B:05:84:F1:C8:89:45:A8:5B:4C:EB:5F:CF:D7:21	66:36:36:C0:3F:D0:B5:B1:71:F2:B0:44:07:C3:DF:76:7B:34:9C:8A:99:0D:87:CE:48:58:98:16:6E:2B:51:20
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 ECC 256 bit Extended Validation CA	4D955D20AF85C49F6925FBAB7C665F89	CA:C5:5F:77:BC:17:B2:47:B0:B9:F5:91:F5:8E:6A:E9:7B:FB:9E:1B	5A:D4:18:3B:54:F0:E2:76:2D:A8:D9:10:E1:E7:E9:F2:AB:2F:1B:C4:CE:6A:63:8F:0D:BB:F3:37:EB:4A:13:9F



C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 ECC 256 bit EV CA - G3	4934B1B3964602493 9700C645B4F1FA0	5C:EB:F0:3C:1A:8F:E1:EA: 16:19:57:AC:F9:44:66:D1:A 8:8D:74:C4	4B:2C:BA:18:EF:BC:E6:C3: C4:A8:0A:AA:BC:95:23:37: 00:0C:D9:34:6B:76:8D:06:2 4:12:A2:DE:D8:46:ED:C9
C=CN, O=TrustAsia Technologies, Inc., OU=Symantec Trust Network, OU=Domain Validated SSL, CN=TrustAsia ECC DV SSL CA - G7	25815D93D5C9B8A65 E7F367C01D3C3D2	97:11:31:77:A5:41:19:04:F 3:57:88:B0:3E:E7:9E:18:D5 :3B:FA:97	AD:80:6A:93:57:B8:7D:1E: B1:DD:85:A5:A3:C0:92:D0: 20:4B:A4:47:FF:4B:37:14:E 3:F1:03:4F:4D:3D:E8:A0
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 ECC 384 bit SSL CA	535E42B75BAE2F1EB 66C725D2F10C6F6	B9:05:04:ED:56:CC:18:39:9 D:23:54:0D:E2:46:68:02:C7 :43:71:0B	14:21:45:83:E5:F4:9C:E2:D B:88:B9:3C:FE:3F:7D:81:B 6:78:C8:6A:FB:CA:92:40:B A:A4:B9:EA:4C:90:BF:2C
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 ECC 384 bit Extended Validation CA	7A760B273C322398D 3D4F86B6EBB2D50	38:CC:3D:7E:F8:69:60:4D: B3:9D:34:FD:B7:BD:66:D0: 74:42:E9:B6	77:FE:87:6A:1C:47:63:49:F 5:EB:9A:E9:BF:53:F7:81:4A :0A:E4:11:56:26:67:C5:8B: 7E:D2:78:69:C5:40:91
C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=Terms of use at <a href="https://www.verisign.com/rpa">https://www.verisign.com/rpa</a> (c)10, CN=VeriSign Class 3 Secure Server CA - T1	4DEEDEC061BDB105 4CD26EAB7F838E8	3C:25:D7:B9:79:97:BE:FB: D5:3D:D8:AA:8B:36:18:21: EC:F4:A4:75	2C:31:A9:2D:B8:88:91:32:E 0:4A:D5:F4:3D:AF:6D:42:1 B:85:45:10:C6:1E:41:C7:87 :CB:5E:10:E0:96:2D:C7
C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=Terms of use at <a href="https://www.verisign.com/rpa">https://www.verisign.com/rpa</a> (c)10, CN=VeriSign Class 3 International Server CA - T1	6A64B0902DCFE7C61 B551ED4F8D3E829	15:B0:5C:48:65:41:0C:6B:3 F:F7:6A:4E:8F:3D:87:27:67 :56:BD:0C	F7:4D:A4:D9:A6:87:C5:04: 64:99:AE:FC:9F:A8:67:DE: 91:A1:A3:94:1A:09:F2:4C:F 9:46:03:B7:AB:78:10:8A
C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=Terms of use at <a href="https://www.verisign.com/rpa">https://www.verisign.com/rpa</a> (c)10, CN=VeriSign Class 3 Extended Validation CA - T1	33F5AE11193083147 E5B66F31FED1129	09:BA:2F:C6:04:B7:D6:63: 24:24:70:83:A4:B8:44:57:9 A:B7:F0:7E	D8:05:64:43:3E:D3:5C:85:0 E:2A:D5:89:B7:71:3A:4D:A C:01:A0:92:92:86:9B:DB:B 8:0E:42:E2:3F:93:36:EA
C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=Terms of use at <a href="https://www.verisign.com/rpa">https://www.verisign.com/rpa</a> (c)10, CN=VeriSign Class 3 Extended Validation SGC CA - T1	1A4CE18725E5C114B 8C98DE0EBA99AD6	C3:70:A4:69:A4:D2:20:BE: C8:5C:89:73:BF:C3:E6:BC: 3E:09:46:B5	6E:DA:D2:26:1A:A3:D5:3B: E0:D6:FF:5F:A7:1C:34:A3: 4B:25:3B:0C:63:7B:35:BF:3 E:96:65:40:F7:8B:63:1B
C=US, O=Thawte, Inc., CN=Thawte SGC CA - G2	18A2236CD727C7528 DF67B4B856EFFED	BE:BC:70:D3:DF:2B:3F:8F: 55:AE:D9:83:BF:20:F2:E3:B 2:1A:36:F6	0C:EB:F9:7D:1F:AB:C6:47: 53:79:9F:7A:9A:50:8C:7C:5 F:2B:58:B9:28:FB:1B:3C:D C:6C:41:09:C0:CF:2E:99
C=US, O=Oracle Corporation, OU=VeriSign Trust Network, OU=Class 3 MPKI Secure Server CA, CN=Oracle SSL CA	2585C838A4C935E38 3866B6BA2422FC7	4B:E8:0A:AC:65:90:EE:FE:5 0:08:A5:A1:DD:33:40:66:5 4:BA:32:2A	7F:68:89:FF:E8:B0:20:45:E 2:CA:C9:9A:2F:2E:E4:F4:C 2:EE:D2:49:34:B6:52:18:72 :D3:4B:F8:12:67:1C:4B
C=US, O=Oracle Corporation, OU=VeriSign Trust Network, OU=Class 3 MPKI Secure Server CA, CN=Oracle SSL CA	71636635EBF3823D7 E130959A2D8E5DE	5B:FC:FD:DB:69:63:A8:70: C4:91:13:A9:15:1C:E3:8A: C5:53:57:1B	C7:6F:70:98:05:98:C6:6A:8 E:32:7E:17:B4:95:A2:27:62 :65:C4:B9:A3:57:5E:FA:1D: 55:05:02:A8:23:D5:91
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 Extended Validation SHA256 SSL CA	09B749FD7F0B4916C A055656CFF6D982	CD:F4:28:A8:90:D3:74:8C: 5D:28:ED:1F:4C:69:49:9A: 3E:16:F1:33	1F:9B:31:F8:20:92:9E:BF:A 0:31:17:EC:2B:77:BA:6B:0F :B6:EC:C9:E0:27:68:2A:55: 93:78:DA:31:1C:54:EF



C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 Secure Server SHA256 SSL CA	69879419D9E362707 49DBBE59DC6685E	E7:32:73:E5:3A:CF:E8:0F:4 1:0B:3E:F4:6B:18:02:87:AO :04:40:CD	E0:89:8A:D6:62:47:4B:9F:7 5:3C:79:BE:A8:78:03:1C:9 A:5D:63:4A:49:ED:D6:31:0 B:96:0A:B0:23:C0:2C:0E
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 Secure Server CA - G3	2CFEB6090EE2ADE2E 9FC223724F1B6BF	12:C9:B2:91:D1:9D:36:32: D4:4F:10:69:55:1C:46:49:0 A:EA:05:42	5B:9F:35:0C:2A:76:BE:64:B B:3C:2C:6E:2A:41:4A:ED:D D:0E:F0:A2:6D:7C:97:FA:7 A:F5:7D:52:0C:60:B2:E9
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 Secure Server CA - G3	6ECC7AA5A7032009B 8CEBCF4E952D491	5D:EB:8F:33:9E:26:4C:19:F 6:68:6F:5F:8F:32:B5:4A:4C :46:B4:76	64:90:35:46:A5:80:58:D1:E 6:F1:BE:AD:11:34:ED:E6:6 A:68:31:D2:31:F0:DF:8D:4 E:28:53:5D:7A:30:04:96
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 Secure Server CA - G3	7916E894B11C76FC5 C43F5168924261F	91:88:F8:85:10:6E:81:EB:A F:BB:11:83:71:3D:11:43:53 :6B:95:E9	31:DC:82:EA:89:15:E2:7D: 03:BB:D0:43:36:58:A3:C2: 4C:6D:3A:CF:F4:8C:4F:AA: C0:2F:E8:7E:94:C9:9A:3B
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 International Server CA - G3	641BE820CE020813F 32D4D2D95D67E67	B1:8D:9D:19:56:69:BA:0F: 78:29:51:75:66:C2:5F:42:2 A:27:71:04	6E:21:87:6C:F1:63:47:20:1 F:63:7A:17:8C:B4:2B:17:1 D:52:37:9A:F7:E5:F5:B6:F6 :75:5B:3E:E9:BB:2E:D4
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 International Server CA - G3	326AF958B76C7F6F3 9A86850D37FC42D	E5:AC:F7:ED:FC:38:30:AC: D1:0C:EF:76:08:3B:D3:2F: 1F:02:64:DC	33:02:60:A6:9C:08:87:F1:B 9:A4:98:30:2A:EC:FD:A1:7 D:E8:9A:81:9C:7E:57:E2:8 C:40:A5:30:80:BE:10:E8
C=NZ, O=IBM New Zealand Limited, OU=Symantec Trust Network, CN=IBM New Zealand Limited Public CA	7C8E8FF07BCA9C7A1 AB3E26BE3729410	DC:4B:C2:BD:A3:A8:7D:5F: 8F:B1:8D:73:CA:BF:BC:4E: F6:96:D6:12	A6:AE:79:59:A1:95:74:9C: A8:87:38:6F:A0:44:82:BD:1 6:9D:C1:15:7E:31:2D:30:1 B:0D:5C:33:3F:AF:2B:02



## DIGICERT, INC. MANAGEMENT'S ASSERTION

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

DigiCert management has assessed its disclosures of its certificate practices and controls over its SSL CA services. Based on that assessment, in providing its SSL Certification Authority (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 SSL certificate lifecycle management business practices in the applicable versions of its DigiCert Certification Practices Statement for Symantec Trust Network (STN) and DigiCert Certificate Policy for Symantec Trust Network (STN) enumerated in [Attachment A](#) including its commitment to provide SSL certificates in conformity with the CA/Browser Forum 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 SSL certificates it manages is established and protected throughout their lifecycles; and
  - SSL subscriber information is properly authenticated (for the registration activities performed by DigiCert)
- maintained effective controls to provide reasonable assurance that:
  - logical and physical access to CA systems and data is restricted to authorized individuals;
  - the continuity of key and certificate management operations is maintained; and
  - CA systems development, maintenance, and operations are properly authorized and performed to maintain CA systems integrity
- maintained effective controls to provide reasonable assurance that it meets the Network and Certificate System Security Requirements as set forth by the CA/Browser Forum

based on the [WebTrust Principles and Criteria for Certification Authorities - SSL Baseline with Network Security v2.2](#).



DigiCert management also disclosed to BDO USA, LLP all known non-compliance issues during the audit period. Although we disclosed the incidents related to the CA/Browser Forum ballot SC12 related to underscores within certificates, these incidents are not reflected for the period November 1, 2017 to October 31, 2018 as the effective date of the respective ballot was subsequent to that period.

DigiCert, Inc.

A handwritten signature in blue ink on a light-colored background. The signature is stylized and appears to read 'Jeremy Rowley'.

Jeremy Rowley  
Executive VP of Product

January 29, 2019



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

Policy Name	Version	Date
<a href="#">DigiCert Certification Practices Statement for Symantec Trust Network (STN)</a>	3.9	September 11, 2018
Symantec Trust Network (STN) Certification Practice Statement	3.8.28	September 8, 2017
<a href="#">DigiCert Certificate Policy for Symantec Trust Network (STN)</a>	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	009B7E0649A33E62B 9D5EE90487129EF57	13:2D:0D:45:53:4B:69:97:C D:B2:D5:C3:39:E2:55:76:6 0:9B:5C:C6	EB:04:CF:5E:B1:F3:9A:FA: 76:2F:2B:B1:20:F2:96:CB:A 5:20:C1:B9:7D:B1:58:95:65 :B8:1C:B9:A1:7B:72:44
C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=(c) 2007 VeriSign, Inc. - For authorized use only, CN=VeriSign Class 3 Public Primary Certification Authority - G4	2F80FE238C0E220F4 86712289187ACB3	22:D5:D8:DF:8F:02:31:D1: 8D:F7:9D:B7:CF:8A:2D:64: C9:3F:6C:3A	69:DD:D7:EA:90:BB:57:C9: 3E:13:5D:C8:5E:A6:FC:D5: 48:0B:60:32:39:BD:C4:54:F C:75:8B:2A:26:CF:7F:79
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 Public Primary Certification Authority - G6	65637185D36F45C68 F7F31F909879282	26:A1:6C:23:5A:24:72:22:9 B:23:62:80:25:BC:80:97:C8 :85:24:A1	B3:23:96:74:64:53:44:2F:3 5:3E:61:62:92:BB:20:BB:A A:5D:23:B5:46:45:0F:DB:9 C:54:B8:38:61:67:D5:29
C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=(c) 2008 VeriSign, Inc. - For authorized use only, CN=VeriSign Universal Root Certification Authority	401AC46421B313210 30EBBE4121AC51D	36:79:CA:35:66:87:72:30:4 D:30:A5:FB:87:3B:0F:A7:7 B:B7:0D:54	23:99:56:11:27:A5:71:25:D E:8C:EF:EA:61:0D:DF:2F:A 0:78: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	18DAD19E267DE8BB4 A2158CDDC6B3B4A	4E:B6:D5:78:49:9B:1C:CF: 5F:58:1E:AD:56:BE:3D:9B: 67:44:A5:E5	9A:CF:AB:7E:43:C8:D8:80: D0:6B:26:2A:94:DE:EE:E4: B4:65:99:89:C3:D0:CA:F1: 9B:AF:64:05:E4:1A:B7:DF
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 Public Primary Certification Authority - G4	4C79B59A289C76316 4F58944D09102DE	58:D5:2D:B9:33:01:A4:FD: 29:1A:8C:96:45:A0:8F:EE:7 F:52:92:82	53:DF:DF:A4:E2:97:FC:FE: 07:59:4E:8C:62:D5:B8:AB: 06:B3:2C:75:49:F3:8A:16:3 0:94:FD:64:29:D5:DA:43
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Web PKI ECC Root - G1	0E23CC37AC7466480 F6B1A4B01831698	65:91:04:DA:A4:04:93:26:2 1:5A:5D:26:31:52:70:D9:A A:BD:16:1D	92:BB:72:F1:5E:B7:5D:E4:6 7:C8:4B:43:81:81:03:4B:D A:E9:A0:16:EC:26:43:4B:EE :3C:9B:BA:D8:CD:8A:FO
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Web PKI RSA Root - G1	2D9AD0E39DBD2DAE 835F446FBB64FD28	77:08:8D:6A:EF:B6:19:1D: E4:1F:68:85:93:9A:AE:F9:E C:6C:73:1C	F6:BB:5B:79:85:A8:73:65:9 4:C1:46:79:FA:31:60:38:14 :50:2A:AE:B5:F4:28:2A:69: 98:5D:C8:4A:45:07:77

Cross Signed CAs				
Issuer	Subject	Serial Number	SHA1 Thumbprint	SHA2 Thumbprint
C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=(c) 2008 VeriSign, Inc. - For authorized use only, CN=VeriSign Universal Root Certification Authority	C=US, O=DigiCert, Inc, OU=www.digicert.com, CN=DigiCert Universal Transition Root	7708008661C2F2 6765BD4DDAC794 0E2F	02:9E:ED:AF:52:BC:5B :84:8C:30:E5:13:6F:5 2:1D:6D:3D:E4:2D:FB	88:A0:70:73:D4:52:70 :69:DC:9E:97:80:53:F 3:57:29:70:5C:05:83: 02:64:8E:D0:2E:5F:CE :65:61:45:9E:61





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	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	217A65CF638175 37E03332833A42 CCD7	14:49:AF:AF:83:6F:A6 :6C:40:53:49:88:F3:D F:C7:62:8E:BD:78:6A	D9:BC:97:3F:88:90:96 :96:DA:10:83:31:97:9 4:4C:A5:8A:C4:A8:88: 47:77:9C:91:33:37:42 :67:10:0E:EC:58
C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=(c) 2007 VeriSign, Inc. - For authorized use only, CN=VeriSign Class 3 Public Primary Certification Authority - G4	C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Global Root G3	3DCD5F225EA4C9 6D4B9094A02D2B 56C6	1C:C4:C0:AA:35:4F:1F :77:18:6F:8C:02:9D:7 A:94:93:8D:07:21:3F	53:A5:E3:2A:CC:57:14 :ED:20:C7:77:8C:65:5 D:1E:E9:7E:C0:71:56: 07:4C:8B:01:6E:2C:FC :73:E9:D2:71:2B
C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=(c) 2007 VeriSign, Inc. - For authorized use only, CN=VeriSign Class 3 Public Primary Certification Authority - G4	C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Transition ECC Root	79C67041B46232 04394DD042FB6E 9680	27:B0:F3:7B:DB:63:66 :25:8E:7C:C2:05:88:C F:8A:D6:A7:C9:27:28	DB:98:19:4E:55:B9:36 :D2:6E:6C:B3:F4:60:A 2:62:EB:6C:A6:63:37: E7:BF:F1:7A:0B:FC:08 :32:51:F6:36:26
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	C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Transition RSA Root	78AEA431C15CEB 757B0D8A610A74 8E67	2E:B0:1A:16:D5:5D:26 :04:90:20:68:73:D6:D 0:3F:38:EC:A8:31:89	0D:88:90:0D:BB:68:C6 :CA:54:71:F6:53:FC:A C:D4:07:EB:D7:B1:51: 90:46:F9:E0:B8:CE:D3 :C2:74:FD:11:A1
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	C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=(c) 2007 VeriSign, Inc. - For authorized use only, CN=VeriSign Class 3 Public Primary Certification Authority - G4	6611549AD086E3 98912FFBBF74D1 D85F	3C:C7:4E:31:65:51:C9 :7E:18:39:D1:00:08:8 2:9C:9D:BF:24:C2:47	61:43:6A:4E:D6:3E:31 :F2:2E:EF:AC:26:B5:2 5:79:6C:F5:EB:F8:9A: 77:E7:3C:0A:DC:C8:4 D:E9:79:B1:C5:E0
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	C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=(c) 2008 VeriSign, Inc. - For authorized use only, CN=VeriSign Universal Root Certification Authority	1A55C0C60F0F26 F6489BA6CDA98D 2425	43:6A:8A:70:3D:44:93 :23:8C:45:73:1C:09:4 1:5C:2A:9A:4B:41:F9	FB:2B:D3:59:81:44:35 :6D:CB:D2:B2:59:E8:F 3:EB:D0:B0:F6:EE:18: 0C:15:EF:55:3B:82:D1 :99:EF:07:F3:9A



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	C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=(c) 2008 VeriSign, Inc. - For authorized use only, CN=VeriSign Universal Root Certification Authority	4B0BCEB194B330 FB0E366DBBA0C8 773E	45:06:F9:BA:E3:4B:6D :0A:CC:60:1A:94:78:A D:3C:80:E8:0B:A0:82	15:12:DF:AE:DF:91:53 :FF:AC:B7:0B:C8:05:B A:32:CB:6F:9C:B3:D0: 95:B6:4E:66:59:E6:52 :C3:CA:33:5A:32
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	C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Web PKI RSA Root - G1	7A6FC74D8D350A FBFA2138241FE7 ED96	55:4F:29:93:DD:09:91 :80:98:3E:46:07:52:0 C:DD:86:1F:EC:48:E0	C4:9A:A6:D4:F3:5A:83 :3B:8B:0E:1E:29:97:C F:5A:C2:8C:93:4F:BA: D3:CF:EB:EF:5C:45:FB :0A:DA:B1:01:35
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	C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=(c) 2008 VeriSign, Inc. - For authorized use only, CN=VeriSign Universal Root Certification Authority	2445A1BD977380 B5F40C4550B871 6D0A	6E:B8:B6:28:D6:24:97 :A6:62:4F:C4:C5:59:C F:66:25:DF:71:74:C4	C9:D8:9E:C4:FC:9C:A C:1E:49:43:22:94:E8: A7:AA:30:11:7A:B3:E4 :E0:19:9B:9E:29:7D:6 B:E1:0F:C6:E2:DF
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	C=US, O=DigiCert, Inc, OU=www.digicert.com, CN=DigiCert Transition Root G3	718F6D6990A629 4B6A4BDC8DE6C 69144	8C:45:33:1F:9C:FA:3D :B2:BB:A5:E7:58:59:5 6:FA:74:98:90:04:56	0F:57:B9:6F:A7:B3:12 :47:EC:39:CB:30:7D:3 8:CA:2B:F3:B2:9F:54: AF:D5:0A:35:1D:18:53 :35:29:51:7B:46
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	C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Web PKI ECC Root - G1	24B2C474397688 7AAAC9E9D55B04 3F5C	A2:BA:17:BE:03:BA:63 :CA:EA:30:5B:0E:A3:9 D:BB:73:76:97:F2:11	F5:65:03:9D:13:92:07 :80:1F:87:34:D3:57:E 7:CA:1D:A1:A6:29:FB: 48:DC:2E:FD:EA:B8:E5 :16:F6:3F:B2:61
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	C=US, O=DigiCert Inc, OU=www.digicert.com, CN=DigiCert Global Root G2	63180D38FB8097 78A9D035A31618 F840	E9:95:EF:91:26:8D:E1 :5C:A2:2C:0C:74:CB:E 9:2E:B6:C8:31:48:7E	2D:4F:AD:34:55:AB:61 :39:74:01:AB:BB:51:8 9:22:F8:43:36:B6:7E: 02:FC:8D:2D:B2:83:82 :5C:4A:B9:81:BB



C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=(c) 2008 VeriSign, Inc. - For authorized use only, CN=VeriSign Universal Root Certification Authority	C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Web PKI RSA Root - G1	0F8752C22E2E76 31AD31FB4A2D34 85CA	F4:54:6C:31:25:BA:AB :DC:31:AD:50:B9:99:4 1:AA:BA:77:B5:14:49	92:DB:39:46:47:CF:E1 :22:57:3A:99:E4:9D:9 4:D9:A1:F6:41:2E:A3: A0:4D:78:B4:4A:50:44 :C4:02:11:0A:CE
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Class 3 CA	Serial Number	SHA1 Thumbprint	SHA2 Thumbprint
C=CN, O=TrustAsia Technologies, Inc., OU=Domain Validated SSL, CN=TrustAsia ECC DV CA - G9	6DFF21109CB0A3594 0A7850D70B97913	36:28:72:EA:6F:16:23:5A:9 0:0D:90:60:40:2B:38:15:A9 :C0:E6:05	15:7D:3A:B9:9D:C5:1A:C9: F5:F4:F1:0C:43:C6:85:42:A C:6B:16:23:63:8F:1D:51:1E :8E:EA:11:C4:88:E9:08
C=CN, O=TrustAsia Technologies, Inc., OU=Domain Validated SSL, CN=TrustAsia RSA DV CA - G8	2638DC5EB7C68D30A 2D6E83F00479896	3F:B1:7D:9F:02:58:EA:BD: 4F:AC:04:E7:74:52:5F:58:C 1:0F:56:D3	D6:4C:1E:38:CB:68:A4:63: 62:37:9A:33:2E:5E:D3:D8: A8:44:36:65:E6:25:1A:19:B 1:40:53:BE:03:03:34:51
C=DE, O=CertCenter AG, OU=Domain Validated SSL, CN=AlwaysOnSSL Web PKI RSA DV CA - G1	59F3D4B279D2174E1 285655811AFCA44	22:75:26:FB:3D:48:31:FB:B E:F1:29:D5:BF:16:FB:E2:B3 :0A:0D:4B	47:9A:91:F6:93:68:BE:C9:B 4:D8:A6:92:EF:D9:38:D1:E 9:48:C7:33:30:2E:E0:B9:C4 :90:06:F3:62:F6:65:88
C=DE, O=STRATO AG, OU=Domain Validated SSL, CN=STRATO Web PKI RSA DV CA - G1	2917D03AE05D392A4 4980C52A4364666	2E:FF:07:98:88:33:08:AB:1 F:C7:49:79:A6:9F:8B:9B:41 :68:8F:C3	A3:EC:7D:8B:BB:8B:9F:99: 28:7B:CA:4C:AC:67:A4:65: 01:D5:43:24:AC:B6:A0:78: 15:14:ED:D5:11:B1:9E:BE
C=NL, O=Trust Provider B.V., OU=Domain Validated SSL, CN=Trust Provider B.V. Web PKI RSA DV CA - G1	2F355878F925737BC 7DE3924D0166BF6	E4:50:45:FB:13:6A:4B:2E:0 F:50:E6:40:60:08:7F:46:26 :C4:F0:A4	67:FF:03:C0:C0:1D:1F:01: D4:00:6E:B8:69:B4:53:F1:1 5:AE:48:EC:B7:51:7F:29:C3 :0C:D0:1A:FE:76:F4:95
C=US, O=GeoTrust Inc., OU=Domain Validated SSL, CN=GeoTrust Class 3 Web PKI RSA DV CA - G1	6BD1C36F56DEA9062 692F147D2A13172	21:C1:C9:A0:78:C8:39:43:1 B:7C:69:7A:5E:9F:3F:30:D B:F7:C2:E0	7D:EC:B7:88:02:94:C6:81: D6:19:79:53:4C:1C:2F:1D: 88:AD:FA:AE:8A:57:33:CD: 2D:B6:73:0E:05:E2:A5:47
C=US, O=GeoTrust Inc., OU=Domain Validated SSL, CN=RapidSSL Class 3 Web PKI RSA DV CA - G1	4238AE5F4CB56A05D 042A983076CA1DF	84:A0:AF:53:56:B6:B8:C6:1 5:8A:4A:58:27:5E:A9:45:C1 :B9:CE:49	4B:04:99:89:E0:34:CC:16:F 5:86:24:7B:0D:38:78:95:0F :39:38:2E:28:E1:10:87:42: 0B:AF:2B:6F:27:D6:79
C=US, O=GeoTrust Inc., OU=Extended Validation SSL, CN=GeoTrust Class 3 Web PKI RSA EV CA - G1	75206CABFB5ED21CD 96AE287809DC45A	B5:43:0C:91:AA:71:FA:08: E5:72:DA:AF:C8:36:14:28: 77:FF:63:C0	E8:41:E1:36:D3:85:3D:E0:C 9:B8:D3:A7:01:66:AD:EE:A 9:76:7B:F0:94:2E:C8:B1:8A :18:06:DB:A8:72:04:C2
C=US, O=GeoTrust Inc., OU=Organization Validated SSL, CN=GeoTrust Class 3 Web PKI RSA OV CA - G1	630B2556A1B073D08 791A6645CD678C7	43:A9:74:9E:9A:AC:D7:C2: 8B:E6:51:25:30:DA:86:FC:9 4:51:72:24	E5:7B:96:72:61:9D:2C:58:C 6:80:5A:2A:05:8C:8A:2C:3 E:41:8E:33:7F:95:8E:26:65 :BB:1C:F6:DD:2E:D0:41
C=US, O=GeoTrust Inc., OU=Organization Validated SSL, CN=RapidSSL Class 3 Web PKI RSA OV CA - G1	7D9D7433209EE758C 08D90AC0E0A9AC4	1C:5A:60:C9:8B:00:45:F9: A4:0F:C0:54:FE:1C:DD:F0: B4:CA:16:D9	8A:8F:5C:E1:DD:74:54:0A: 8A:57:49:38:93:1F:22:7B:D 6:E3:12:65:6E:7D:F6:BC:6E :3A:0E:B3:D8:90:35:20
C=US, O=GeoTrust, Inc., OU=Domain Validated SSL, CN=GeoTrust Class 3 Web PKI ECC DV CA - G1	2C9F3029BAD05E04F C544C59EAF11F58	40:28:7C:56:06:AC:90:A2:8 0:B3:09:EE:FD:6B:26:F8:55 :E6:53:4A	C5:EC:25:5A:B5:9D:A0:91: F5:87:B9:CE:14:61:BD:D6: 3A:7D:56:41:1E:49:9F:24:F D:9C:5E:1C:FA:8A:3F:E0



C=US, O=GeoTrust, Inc., OU=Domain Validated SSL, CN=RapidSSL Class 3 Web PKI ECC DV CA - G1	3DB5DD80037303208 E099E6A6BFEC4E8	5D:13:A1:73:E6:79:63:84:8 4:A7:B4:0C:EB:B3:02:9F:A E:B3:C2:70	CE:A2:3A:E9:7F:B7:3D:36: AA:D2:56:0A:B7:73:0A:1E: 9D:7C:21:C0:8E:80:0C:2B: 05:33:C9:67:30:EF:DE:92
C=US, O=GeoTrust, Inc., OU=Extended Validation SSL, CN=GeoTrust Class 3 Web PKI ECC EV CA - G1	120B49D5FFBFB59C2 519F83452EED709	35:F1:AF:D5:BD:00:46:B9: 6E:92:C4:1C:BB:1C:8D:04: 55:15:6F:BF	6A:67:55:BA:10:DC:5D:5E: AE:9B:EE:C7:AC:E8:D9:73: DE:53:D3:D1:85:01:74:D4: E0:2E:C2:33:63:E1:2C:C8
C=US, O=GeoTrust, Inc., OU=Organization Validated SSL, CN=GeoTrust Class 3 Web PKI ECC OV CA - G1	1B3E2E1EB2F6BACAD 366B3C21DEB85E6	16:E1:E3:4B:AE:7E:95:87:E B:AC:53:6D:1A:9B:6E:D8:4 3:3F:91:A9	3C:4A:B6:84:92:BC:0D:76: AA:06:DE:99:61:DF:25:77: 4C:9E:F2:6C:AF:71:22:D3: 99:2E:B8:B2:FA:31:35:49
C=US, O=Oracle Corporation, OU=Symantec Trust Network, OU=Organization Validated SSL, CN=Oracle Web PKI RSA OV CA - G1	056B9C903E1D3C765 85B94E106C97E69	8A:74:0F:49:39:A1:58:EE:0 8:05:5F:4B:D5:47:3E:52:6F :D5:7F:08	70:BA:89:67:F6:92:26:9B:0 E:40:08:DA:12:54:D3:7E:A 9:FA:02:FC:1A:EB:A7:C4:A A:C2:20:3D:A4:81:79:65
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 Secure Server CA - G4	13B3E302180397668 D5034E0E674E28D	44:9E:3B:9F:21:04:A9:64:0 9:32:6D:A6:F2:9B:B4:E8:46 :9B:EF:D4	59:F8:CB:7D:7E:9E:13:CB: 77:8F:F6:21:98:EB:E0:55:5 1:B5:15:A5:8B:BB:A2:EF:1 9:C3:3C:76:0C:82:39:16
C=US, O=Symantec Corporation, OU=Symantec Trust Network, OU=Domain Validated SSL, CN=Symantec Class 3 Web PKI ECC DV CA - G1	6B618A9D16D8319D2 8664473244F0D23	E5:DC:C3:E5:75:33:17:8B: DA:98:4F:6D:6F:0A:B6:70: 61:F4:0D:2F	5C:69:E8:2F:B2:48:F8:0B:5 E:43:14:B9:D2:C4:88:3E:D 1:4F:5A:06:D5:8F:10:9F:33 :50:0E:86:DD:C0:73:8F
C=US, O=Symantec Corporation, OU=Symantec Trust Network, OU=Domain Validated SSL, CN=Symantec Class 3 Web PKI RSA DV CA - G1	4EC6830D3861A3285 7D7449444EDCD32	0E:E1:0E:D9:94:EE:2D:7F:1 E:F7:B7:63:D1:B9:DF:57:0 D:F5:C5:94	4D:F2:95:46:78:93:5B:E7:E 8:0A:E9:05:11:30:4B:08:FA :04:FF:40:BD:DA:69:CE:E3: 33:DA:80:C1:3A:D3:10
C=US, O=Symantec Corporation, OU=Symantec Trust Network, OU=Extended Validation SSL, CN=Symantec Class 3 Web PKI ECC EV CA - G1	20044AAC18E52902F 25460385F9D8BEF	EE:C5:84:18:DB:F2:79:31: DE:5A:F4:1B:B3:17:DF:47: 9D:AF:3C:BE	B1:3F:9D:19:08:2D:8C:D7: CD:1B:EB:0A:B7:C2:45:ED: 25:2F:21:AE:2A:30:16:3E:9 1:B6:E8:BE:2E:0E:96:14
C=US, O=Symantec Corporation, OU=Symantec Trust Network, OU=Extended Validation SSL, CN=Symantec Class 3 Web PKI RSA EV CA - G1	0B6B506566F67A840 3D970B7179252CE	BF:63:51:0D:A8:C9:7D:DF: D6:4A:67:68:57:A6:B9:51:2 2:EE:62:2F	87:B8:50:BD:37:15:C0:10:4 B:5E:C9:D5:E8:0B:FE:78:85 :0A:AE:41:25:55:9B:BC:DD :E0:85:24:97:0B:5A:FF
C=US, O=Symantec Corporation, OU=Symantec Trust Network, OU=Organization Validated SSL, CN=Symantec Class 3 Web PKI ECC OV CA - G1	50A33F08D1763AF0B 88226270141BF02	6C:83:88:18:D8:25:5E:D2:3 1:13:05:AA:EA:80:0F:7D:2 A:C8:65:CB	ED:34:8B:62:45:A3:C1:90:2 C:7F:8E:F7:CC:A8:CF:05:4 B:94:B8:F1:8C:D7:8A:A7:9 A:36:BF:9C:32:99:82:6A
C=US, O=Symantec Corporation, OU=Symantec Trust Network, OU=Organization Validated SSL, CN=Symantec Class 3 Web PKI RSA OV CA - G1	7DAF5A80682E3077C 1A2B3135D731DF6	AE:0C:B2:38:63:48:AF:85: AE:78:C0:3E:5E:E4:6B:F4:A 3:CF:F0:69	A5:A6:B2:EF:89:14:26:EA: B0:F6:10:6B:2B:0B:13:2D:0 1:A1:CE:C5:20:08:5F:80:64 :59:05:94:9B:D3:28:6A
C=US, O=thawte, Inc., OU=Domain Validated SSL, CN=thawte Class 3 Web PKI ECC DV CA - G1	5F7894773C4212D38 02A98932ECAA304	C6:0C:7E:F6:65:37:48:B4:A 6:47:26:93:89:50:60:F2:12 :26:61:86	3E:86:87:28:08:2E:19:9B:7 7:3E:DF:91:EB:3E:B9:73:6A :E7:E2:BC:68:7E:42:BA:35: A2:B5:8F:DE:55:6C:82



C=US, O=thawte, Inc., OU=Domain Validated SSL, CN=thawte Class 3 Web PKI RSA DV CA - G1	1C60F646DBD731A3C3A8720F2DD5E873	13:47:6F:79:21:50:D1:E7:91:9B:36:7C:E2:17:E5:6D:F3:2E:19:6C	FA:AE:92:82:05:90:F2:D8:DB:52:1C:20:C9:EF:4B:53:CF:DF:3C:07:C9:0E:17:6A:D9:13:DA:CF:E9:54:81:ED
C=US, O=thawte, Inc., OU=Extended Validation SSL, CN=thawte Class 3 Web PKI ECC EV CA - G1	42CA5B1F1CD66F8D525FD4D4845D4DD4	52:78:7E:18:6C:FA:34:05:B3:7F:19:F0:D9:DC:9B:AB:08:70:33:99	94:AC:33:E6:72:91:4F:A5:8B:BE:64:4A:58:29:36:79:C8:8E:8A:5E:40:BB:08:FF:F1:CD:9C:37:EE:81:FC:94
C=US, O=thawte, Inc., OU=Extended Validation SSL, CN=thawte Class 3 Web PKI RSA EV CA - G1	1AC917AC8164CCB4BEE32A2140CF4450	55:5F:F7:DF:34:78:09:B7:63:07:48:D5:66:E9:C7:5E:EF:55:C2:1E	B0:DA:8C:71:E8:52:0E:CF:3B:9F:A9:3D:AE:E2:F8:C6:DC:D2:5C:1F:7B:8C:02:47:9D:BA:52:23:B6:B0:91:84
C=US, O=thawte, Inc., OU=Organization Validated SSL, CN=thawte Class 3 Web PKI ECC OV CA - G1	4DB3F20FD367B04731C8AE8B22CAFBF2	CB:3A:FF:9E:C5:F0:00:7E:CB:7A:09:1F:DD:14:93:C9:BA:53:5C:EB	90:C9:EA:1E:92:A1:C8:5E:37:CB:2A:2F:BF:74:CC:5E:96:15:AA:19:07:55:ED:E8:EA:6C:7B:AE:33:F1:83:30
C=US, O=thawte, Inc., OU=Organization Validated SSL, CN=thawte Class 3 Web PKI RSA OV CA - G1	29464C5CE523DAC758DA2D917E0A7FE5	42:94:5E:B7:60:55:EF:B6:46:93:08:0B:71:C7:01:DC:35:F4:BF:10	FE:62:99:E9:D2:12:CA:34:6B:54:DD:1A:69:4A:E8:4B:43:4A:63:A8:C3:E6:2C:61:E4:67:73:C8:8D:D8:2F:8E
C=US, O=Wells Fargo & Company, OU=Symantec Trust Network, OU=Organization Validated TLS, CN=Wells Fargo Public Trust Certification Authority 01 G2	3F8B149DCFBE86553F6D78F4CD24E571	86:14:15:06:B4:C3:61:C9:FC:DF:E5:71:7B:6B:19:76:15:19:3B:44	8F:FC:B7:E2:35:33:0E:F0:AA:B9:19:DE:AF:C4:F5:E6:21:F6:6F:AE:DD:A2:D4:C1:25:6D:09:93:AE:24:EA:21
C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=Terms of use at <a href="https://www.verisign.com/rpa">https://www.verisign.com/rpa</a> (c)09, CN=VeriSign Class 3 Secure Server CA - G2	1F532AF85493D7826B5930D6515940	44:32:01:47:89:47:51:13:62:BA:58:E2:25:3C:FD:98:3D:76:D3:24	0E:48:FE:8D:F7:98:36:EF:81:1C:61:B3:6E:A2:C5:47:05:31:AE:80:04:1D:B6:4D:29:B6:94:B4:A1:C1:BE:1F
C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=Terms of use at <a href="https://www.verisign.com/rpa">https://www.verisign.com/rpa</a> (c)09, CN=VeriSign Class 3 Secure Server CA - G2	2F006ECD177066E75FA3820A791F05AE	76:44:59:78:1B:AC:B0:47:63:A5:D0:A1:58:91:65:26:1F:29:8E:3B	0A:41:51:D5:E5:8B:84:B8:AC:E5:3A:5C:12:12:2A:C9:59:CD:69:91:FB:B3:8E:99:B5:76:C0:AB:DA:C3:58:14
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 EV SSL CA - G2	366585077A8867AB58F4A094F8103733	E4:99:59:A4:B3:36:AC:BD:2D:AC:75:9B:B5:21:B9:46:03:3E:82:3A	6C:66:B7:6E:68:D6:C7:9F:AF:E5:C9:4E:9B:7D:0C:F7:53:C7:15:CC:85:38:7E:11:32:3B:79:35:F8:61:C1:87
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 EV SSL CA - G3	7EE14A6F6FEFF2D37F3FAD654D3ADAB4	E3:FC:0A:D8:4F:2F:5A:83:ED:6F:86:F5:67:F8:B1:4B:40:DC:BF:12	9E:6B:C5:F9:EC:C5:24:60:E8:ED:C0:2C:64:4D:1B:E1:C8:9F:23:16:F4:1D:AF:3B:61:6A:0B:20:58:29:4B:31
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 Secure Server CA - G4	282E2791793392E428F221A74EC937AE	CD:EE:2C:D3:C6:EE:A1:1D:B3:35:AB:DB:9A:D5:6E:EA:F8:EF:C1:F6	56:4D:BC:6A:76:55:0F:D2:D4:F4:BA:C6:44:8A:11:57:B3:3C:BD:8E:0B:3F:D7:6D:72:10:75:40:96:4A:85:B5
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 Secure Server CA - G4	513FB9743870B73440418D30930699FF	FF:67:36:7C:5C:D4:DE:4A:E1:8B:CC:E1:D7:0F:DA:BD:7C:86:61:35	EA:E7:2E:B4:54:BF:6C:39:77:EB:D2:89:E9:70:B2:F5:28:29:49:19:00:93:D0:D2:6F:98:D0:F0:D6:A9:CF:17
C=US, O=Symantec Corporation, OU=Symantec Trust Network,	7A0F41DF1CCD14DCB269298EE22C6A35	37:8F:E7:3E:16:E4:F1:E3:39:49:B7:60:A3:BD:22:51:49:35:90:25	B2:74:5D:0A:9B:71:D9:48:F3:4E:92:1A:F5:9F:34:2A:D



CN=Symantec Class 3 EV SSL SGC CA - G2			F:6E:40:7D:88:BC:51:D3:8A:C5:2B:58:3A:0E:BD:15
C=US, O=Wells Fargo, OU=Symantec Trust Network, CN=Wells Fargo Certificate Authority WS1	50776F58B196C391691EE658A90A9D6B	E8:03:9D:FE:57:13:1F:11:D9:D6:77:F7:CF:7C:F5:B6:E8:9D:98:5D	C2:10:87:41:6B:BF:98:3B:9F:FE:40:F5:D5:6E:E0:FF:D9:4E:B1:E6:66:B0:4A:53:2A:DE:48:2E:C2:01:D6:7C
C=US, O=Oracle Corporation, OU=Symantec Trust Network, CN=Oracle SSL CA - G2	3135BB7E6DE2663AB0E233E6B0E1A5CC	03:86:D9:39:CF:7B:A7:88:55:27:34:18:5B:EA:D0:B1:3E:87:39:14	E4:AF:2F:AE:41:18:7D:58:F2:09:B0:1B:1D:87:53:C2:DC:CB:3F:60:1C:E8:62:73:E3:7E:87:38:C2:A5:CC:B5
C=US, O=Symantec Corporation, OU=Symantec Trust Network, OU=Domain Validated SSL, CN=Symantec Basic DV SSL CA - G1	4C4CD8A0FC4FEAAE1554A87F090EDA87	54:C5:AA:E5:07:D2:12:FD:07:02:E0:90:70:66:1A:FD:59:53:5C:57	52:6E:30:DE:D6:BF:9D:5C:F2:16:F5:0C:83:24:02:B4:8A:B7:0D:55:AE:DA:91:8A:18:73:A5:88:3E:BD:B1:B5
C=US, O=Symantec Corporation, OU=Symantec Trust Network, OU=Domain Validated SSL, CN=Symantec Basic DV SSL CA - G2	1877F66568A782BBA9FB42DAE44E33D7	47:F2:DB:11:60:6B:7A:58:36:C5:B9:58:2C:EF:C3:3A:0D:67:C4:FE	DF:F5:83:E3:A1:ED:35:E5:7D:95:10:48:17:AD:82:3C:05:5F:B9:07:1C:D4:00:43:5B:5F:C7:4E:69:20:81:DB
C=CN, O=TrustAsia Technologies, Inc., OU=Symantec Trust Network, OU=Domain Validated SSL, CN=TrustAsia DV SSL CA - G5	3A100E7F109E1AC59CC5FFF640D5E442	51:A5:1E:10:E1:FA:FD:5A:2C:50:08:0E:CD:E5:56:73:AC:E7:5A:1F	B4:1A:B8:45:CA:B4:DB:9C:B1:FE:65:05:76:5F:36:A0:86:8A:DC:5D:F4:19:B3:89:79:FB:6A:4F:E4:13:1F:70
C=CN, O=TrustAsia Technologies, Inc., OU=Symantec Trust Network, OU=Domain Validated SSL, CN=TrustAsia DV SSL CA - G6	15C20B71AC2C36527A07667D871BC6D8	A6:33:0A:ED:72:6F:80:67:B5:80:04:E1:89:22:76:8A:B5:A9:11:0B	B9:0E:17:AB:4B:87:78:B1:0F:9F:28:CB:AA:76:64:DE:2E:E3:D6:6E:1A:FC:57:4D:16:8E:DD:24:A1:03:39:FF
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 EV SSL CA - G4	5398D1998C7CBF2310C0F999A0051833	A5:65:3F:4A:81:6E:00:09:7C:CF:0F:CC:65:6A:89:1B:29:BE:19:93	31:86:22:33:62:0E:78:93:30:CC:89:3E:8B:5E:66:70:53:31:B8:B8:8B:0E:D3:0A:44:57:4D:9E:0A:71:C4:F1
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 ECC 256 bit SSL CA	0BB8A60497D81E27B5F5F2687D12FD04	16:17:2B:72:98:09:74:4A:36:E2:6B:A0:E5:A5:99:86:29:EF:8A:C3	AD:EB:F8:3F:D3:D3:F9:54:6B:B7:7F:AA:B5:16:DD:93:37:CC:F9:1E:11:98:F7:43:37:76:9E:C6:8E:6E:82:6E
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 ECC 256 bit SSL CA - G2	567F888DFFA505DA21E375370091936A	57:7A:8D:F6:E2:62:F9:A7:64:82:9D:A9:37:5D:94:D2:59:6F:20:AB	3B:6D:70:13:31:A8:CB:80:94:43:E4:2A:73:2B:AD:67:5F:22:5B:15:CC:43:9A:CF:26:A0:95:87:C8:85:EC:FD
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 ECC 256 bit SSL CA - G2	14DB7E7A40B856200DD8EB382C262BC0	DD:2B:89:2F:DB:0A:69:78:38:11:51:D6:62:98:0D:53:04:E9:E2:AE	74:EB:30:7A:78:AC:7E:85:70:CC:1B:AE:1C:51:10:2A:60:53:C9:6F:33:32:D7:03:28:5A:74:3B:CB:D3:5D:9E
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 ECC 256 bit SSL CA - G2	3F9287BE9D1DA4A37A9DF6282E775AC4	FE:3C:41:90:1F:36:59:C6:ED:DC:0C:1C:2D:85:D0:B2:0E:64:96:14	2E:28:61:28:9B:5C:CE:DE:CA:E4:C3:1B:F2:62:E0:FB:0C:29:B6:C1:53:05:73:44:27:31:CA:65:D8:21:E9:01
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 ECC 256 bit EV CA - G2	71223CA522185EAC44CF1770D1A8AA5D	0B:69:D3:71:3F:1B:05:84:F1:C8:89:45:A8:5B:4C:EB:5F:CF:D7:21	66:36:36:C0:3F:D0:B5:B1:71:F2:B0:44:07:C3:DF:76:7B:34:9C:8A:99:0D:87:CE:48:58:98:16:6E:2B:51:20
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 ECC 256 bit Extended Validation CA	4D955D20AF85C49F6925FBAB7C665F89	CA:C5:5F:77:BC:17:B2:47:B0:B9:F5:91:F5:8E:6A:E9:7B:FB:9E:1B	5A:D4:18:3B:54:F0:E2:76:2D:A8:D9:10:E1:E7:E9:F2:AB:2F:1B:C4:CE:6A:63:8F:0D:BB:F3:37:EB:4A:13:9F



C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 ECC 256 bit EV CA - G3	4934B1B3964602493 9700C645B4F1FA0	5C:EB:F0:3C:1A:8F:E1:EA: 16:19:57:AC:F9:44:66:D1:A 8:8D:74:C4	4B:2C:BA:18:EF:BC:E6:C3: C4:A8:0A:AA:BC:95:23:37: 00:0C:D9:34:6B:76:8D:06:2 4:12:A2:DE:D8:46:ED:C9
C=CN, O=TrustAsia Technologies, Inc., OU=Symantec Trust Network, OU=Domain Validated SSL, CN=TrustAsia ECC DV SSL CA - G7	25815D93D5C9B8A65 E7F367C01D3C3D2	97:11:31:77:A5:41:19:04:F 3:57:88:B0:3E:E7:9E:18:D5 :3B:FA:97	AD:80:6A:93:57:B8:7D:1E: B1:DD:85:A5:A3:C0:92:D0: 20:4B:A4:47:FF:4B:37:14:E 3:F1:03:4F:4D:3D:E8:A0
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 ECC 384 bit SSL CA	535E42B75BAE2F1EB 66C725D2F10C6F6	B9:05:04:ED:56:CC:18:39:9 D:23:54:0D:E2:46:68:02:C7 :43:71:0B	14:21:45:83:E5:F4:9C:E2:D B:88:B9:3C:FE:3F:7D:81:B 6:78:C8:6A:FB:CA:92:40:B A:A4:B9:E4:CE:90:BF:2C
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 ECC 384 bit Extended Validation CA	7A760B273C322398D 3D4F86B6EBB2D50	38:CC:3D:7E:F8:69:60:4D: B3:9D:34:FD:B7:BD:66:D0: 74:42:E9:B6	77:FE:87:6A:1C:47:63:49:F 5:EB:9A:E9:BF:53:F7:81:4A :0A:E4:11:56:26:67:C5:8B: 7E:D2:78:69:C5:40:91
C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=Terms of use at <a href="https://www.verisign.com/rpa">https://www.verisign.com/rpa</a> (c)10, CN=VeriSign Class 3 Secure Server CA - T1	4DEEDEC061BDB105 4CD26EAB7F838E8	3C:25:D7:B9:79:97:BE:FB: D5:3D:D8:AA:8B:36:18:21: EC:F4:A4:75	2C:31:A9:2D:B8:88:91:32:E 0:4A:D5:F4:3D:AF:6D:42:1 B:85:45:10:C6:1E:41:C7:87 :CB:5E:10:E0:96:2D:C7
C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=Terms of use at <a href="https://www.verisign.com/rpa">https://www.verisign.com/rpa</a> (c)10, CN=VeriSign Class 3 International Server CA - T1	6A64B0902DCFE7C61 B551ED4F8D3E829	15:B0:5C:48:65:41:0C:6B:3 F:F7:6A:4E:8F:3D:87:27:67 :56:BD:0C	F7:4D:A4:D9:A6:87:C5:04: 64:99:AE:FC:9F:A8:67:DE: 91:A1:A3:94:1A:09:F2:4C:F 9:46:03:B7:AB:78:10:8A
C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=Terms of use at <a href="https://www.verisign.com/rpa">https://www.verisign.com/rpa</a> (c)10, CN=VeriSign Class 3 Extended Validation CA - T1	33F5AE11193083147 E5B66F31FED1129	09:BA:2F:C6:04:B7:D6:63: 24:24:70:83:A4:B8:44:57:9 A:B7:F0:7E	D8:05:64:43:3E:D3:5C:85:0 E:2A:D5:89:B7:71:3A:4D:A C:01:A0:92:92:86:9B:DB:B 8:0E:42:E2:3F:93:36:EA
C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=Terms of use at <a href="https://www.verisign.com/rpa">https://www.verisign.com/rpa</a> (c)10, CN=VeriSign Class 3 Extended Validation SGC CA - T1	1A4CE18725E5C114B 8C98DE0EBA99AD6	C3:70:A4:69:A4:D2:20:BE: C8:5C:89:73:BF:C3:E6:BC: 3E:09:46:B5	6E:DA:D2:26:1A:A3:D5:3B: E0:D6:FF:5F:A7:1C:34:A3: 4B:25:3B:0C:63:7B:35:BF:3 E:96:65:40:F7:8B:63:1B
C=US, O=Thawte, Inc., CN=Thawte SGC CA - G2	18A2236CD727C7528 DF67B4B856EFFED	BE:BC:70:D3:DF:2B:3F:8F: 55:AE:D9:83:BF:20:F2:E3:B 2:1A:36:F6	0C:EB:F9:7D:1F:AB:C6:47: 53:79:9F:7A:9A:50:8C:7C:5 F:2B:58:B9:28:FB:1B:3C:D C:6C:41:09:C0:CF:2E:99
C=US, O=Oracle Corporation, OU=VeriSign Trust Network, OU=Class 3 MPKI Secure Server CA, CN=Oracle SSL CA	2585C838A4C935E38 3866B6BA2422FC7	4B:E8:0A:AC:65:90:EE:FE:5 0:08:A5:A1:DD:33:40:66:5 4:BA:32:2A	7F:68:89:FF:E8:B0:20:45:E 2:CA:C9:9A:2F:2E:E4:F4:C 2:EE:D2:49:34:B6:52:18:72 :D3:4B:F8:12:67:1C:4B
C=US, O=Oracle Corporation, OU=VeriSign Trust Network, OU=Class 3 MPKI Secure Server CA, CN=Oracle SSL CA	71636635EBF3823D7 E130959A2D8E5DE	5B:FC:FD:DB:69:63:A8:70: C4:91:13:A9:15:1C:E3:8A: C5:53:57:1B	C7:6F:70:98:05:98:C6:6A:8 E:32:7E:17:B4:95:A2:27:62 :65:C4:B9:A3:57:5E:FA:1D: 55:05:02:A8:23:D5:91
C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 Extended Validation SHA256 SSL CA	09B749FD7F0B4916C A055656CFF6D982	CD:F4:28:A8:90:D3:74:8C: 5D:28:ED:1F:4C:69:49:9A: 3E:16:F1:33	1F:9B:31:F8:20:92:9E:BF:A 0:31:17:EC:2B:77:BA:6B:0F :B6:EC:C9:E0:27:68:2A:55: 93:78:DA:31:1C:54:EF



C=US, O=Symantec Corporation, OU=Symantec Trust Network, CN=Symantec Class 3 Secure Server SHA256 SSL CA	69879419D9E362707 49DBBE59DC6685E	E7:32:73:E5:3A:CF:E8:0F:4 1:0B:3E:F4:6B:18:02:87:AO :04:40:CD	E0:89:8A:D6:62:47:4B:9F:7 5:3C:79:BE:A8:78:03:1C:9 A:5D:63:4A:49:ED:D6:31:0 B:96:0A:B0:23:C0:2C:0E
C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=Terms of use at <a href="https://www.verisign.com/rpa">https://www.verisign.com/rpa</a> (c)10, CN=VeriSign Class 3 Secure Server CA - G3	2CFEB6090EE2ADE2E 9FC223724F1B6BF	12:C9:B2:91:D1:9D:36:32: D4:4F:10:69:55:1C:46:49:0 A:EA:05:42	5B:9F:35:0C:2A:76:BE:64:B B:3C:2C:6E:2A:41:4A:ED:D D:0E:F0:A2:6D:7C:97:FA:7 A:F5:7D:52:0C:60:B2:E9
C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=Terms of use at <a href="https://www.verisign.com/rpa">https://www.verisign.com/rpa</a> (c)10, CN=VeriSign Class 3 Secure Server CA - G3	6ECC7AA5A7032009B 8CEBCF4E952D491	5D:EB:8F:33:9E:26:4C:19:F 6:68:6F:5F:8F:32:B5:4A:4C :46:B4:76	64:90:35:46:A5:80:58:D1:E 6:F1:BE:AD:11:34:ED:E6:6 A:68:31:D2:31:F0:DF:8D:4 E:28:53:5D:7A:30:04:96
C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=Terms of use at <a href="https://www.verisign.com/rpa">https://www.verisign.com/rpa</a> (c)10, CN=VeriSign Class 3 Secure Server CA - G3	7916E894B11C76FC5 C43F5168924261F	91:88:F8:85:10:6E:81:EB:A F:BB:11:83:71:3D:11:43:53 :6B:95:E9	31:DC:82:EA:89:15:E2:7D: 03:BB:D0:43:36:58:A3:C2: 4C:6D:3A:CF:F4:8C:4F:AA: C0:2F:E8:7E:94:C9:9A:3B
C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=Terms of use at <a href="https://www.verisign.com/rpa">https://www.verisign.com/rpa</a> (c)10, CN=VeriSign Class 3 International Server CA - G3	641BE820CE020813F 32D4D2D95D67E67	B1:8D:9D:19:56:69:BA:0F: 78:29:51:75:66:C2:5F:42:2 A:27:71:04	6E:21:87:6C:F1:63:47:20:1 F:63:7A:17:8C:B4:2B:17:1 D:52:37:9A:F7:E5:F5:B6:F6 :75:5B:3E:E9:BB:2E:D4
C=US, O=VeriSign, Inc., OU=VeriSign Trust Network, OU=Terms of use at <a href="https://www.verisign.com/rpa">https://www.verisign.com/rpa</a> (c)10, CN=VeriSign Class 3 International Server CA - G3	326AF958B76C7F6F3 9A86850D37FC42D	E5:AC:F7:ED:FC:38:30:AC: D1:0C:EF:76:08:3B:D3:2F: 1F:02:64:DC	33:02:60:A6:9C:08:87:F1:B 9:A4:98:30:2A:EC:FD:A1:7 D:E8:9A:81:9C:7E:57:E2:8 C:40:A5:30:80:BE:10:E8
C=NZ, O=IBM New Zealand Limited, OU=Symantec Trust Network, CN=IBM New Zealand Limited Public CA	7C8E8FF07BCA9C7A1 AB3E26BE3729410	DC:4B:C2:BD:A3:A8:7D:5F: 8F:B1:8D:73:CA:BF:BC:4E: F6:96:D6:12	A6:AE:79:59:A1:95:74:9C: A8:87:38:6F:A0:44:82:BD:1 6:9D:C1:15:7E:31:2D:30:1 B:0D:5C:33:3F:AF:2B:02





**Assertion by Management of VeriSign, Inc. Regarding Its Controls  
Over DigiCert Certification Authority Operations Hosted in New Castle, Delaware  
During the Period November 1, 2017 to October 31, 2018**

VeriSign, Inc. ("Verisign"), an independent service organization (sub-service provider), provides datacenter hosting services to DigiCert, Inc. ("DigiCert") for its Symantec, GeoTrust and Thawte Certification Authority operations ("CAs") hosted in New Castle, Delaware.

The management of Verisign is responsible for establishing and maintaining effective controls over its datacenter hosting services for the Symantec, GeoTrust and Thawte CAs hosted in New Castle, Delaware including CA environmental controls (limited to physical and environmental security), in accordance with applicable versions of the DigiCert Certificate Policy and Symantec, GeoTrust, and Thawte Certification Practice Statements. 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 Verisign's datacenter hosting services for Symantec, GeoTrust and Thawte CAs hosted in New Castle, Delaware. Furthermore, because of changes in conditions, the effectiveness of controls may vary over time.

Management has assessed the controls over its data center hosting services for Symantec, GeoTrust and Thawte CA operations. Based on that assessment, in Verisign management's opinion, in providing its datacenter hosting services in New Castle, Delaware during the period November 1, 2017 to October 31, 2018, Verisign has maintained effective controls to provide reasonable assurance that physical access to CA systems is restricted to authorized individuals based on the [WebTrust Principles and Criteria for Certification Authorities - SSL Baseline with Network Security v2.2.](#)

VeriSign, Inc.

**Pool, Dave**

Digitally signed by Pool,  
Dave  
Date: 2019.01.29 07:51:17  
-08'00'

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Joseph David Pool  
Senior Vice President, Technology Services

DATE