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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 Thawte 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 Thawte 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:
 - o 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:
 - o logical and physical access to CA systems and data is restricted to authorized individuals;
 - o the continuity of key and certificate management operations is maintained; and
 - o 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 management 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' assertion. 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.

This report does not include any representation as to the quality of DigiCert's or Verisign's services other than its Thawte 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 or 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
<u>DigiCert Certification Practices Statement for Thawte</u>	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=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=thawte, Inc., OU=(c) 2007 thawte, Inc For authorized use only, CN=thawte Primary Root CA - G2	35FC265CD9844FC93D26 3D579BAED756	AA:DB:BC:22:23:8F:C4:01:A1 :27:BB:38:DD:F4:1D:DB:08:9 E:F0:12	A4:31:0D:50:AF:18:A6:44:71 :90:37:2A:86:AF:AF:8B:95:1 F:FB:43:1D:83:7F:1E:56:88: B4:59:71:ED:15:57
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

Cross Signed CAs				
		Serial	SHA1	SHA2
Issuer	Subject	Number	Thumbprint	Thumbprint
C=US, O=thawte, Inc., OU=Certification Services Division, OU=(c) 2008 thawte, Inc For authorized use only, CN=thawte Primary Root CA - G3	C=US, O=DigiCert, Inc, OU=www.digicert.com, CN=thawte Primary G3 Transition Root	2CE0DDA0A50D5 8F1B98B9CD051A 70F75	4D:90:53:2C:6F:82:28 :03:AF:39:52:93:50:2 1:8A:14:48:E8:7F:E2	85:74:3A:EA:6A:97:C1: 34:45:E0:82:4C:2E:1F: E5:02:B9:7A:DD:12:4A :97:EF:51:20:FE:07:F5 :58:12:FC:33
C=US, O=thawte, Inc., OU=Certification Services Division, OU=(c) 2006 thawte, Inc For authorized use only, CN=thawte Primary Root CA	C=US, O=DigiCert, Inc, OU=www.digicert.com, CN=thawte Primary Transition Root	06776FBA09F6D3 4694325ECB0D26 7472	A4:E4:11:DE:0A:FD:61 :97:76:40:F9:D8:69:2 0:C5:E7:0E:B5:0A:E3	DB:A1:09:77:10:F3:C6: 29:94:3C:23:DC:75:03: AC:82:B9:14:28:25:EF: 04:9F:1C:26:53:8D:B3: 6B:48:05:49

Class 3 CA	Serial Number	SHA1 Thumbprint	SHA2 Thumbprint
C=US, O=thawte, Inc., CN=thawte ECC EV SSL CA	1FF2FCBC6326AABD286 693991F43EC21	E9:2B:D8:99:36:8C:0F:41:67 :82:A5:BE:8D:F2:B9:75:66:A 8:3F:6B	EA:D6:2F:42:BB:36:9D:D4:3C :F6:13:1A:C2:D8:D7:2E:4F:9 F:EE:85:E6:9D:45:DA:AF:FE: 32:6A:AC:2A:46:F1
C=US, O=thawte, Inc., CN=thawte EV SSL CA - G2	05237150E67BDD38F33E F53CD211313F	19:73:F3:07:35:9B:C9:61:03: 03:57:90:BF:75:DD:91:51:E8 :3F:99	37:F6:BD:9B:EE:0C:74:F6:08 :DD:47:4B:56:A7:2F:81:83:0 7:7D:FC:26:62:AF:79:BF:E3: D4:FA:BC:F0:B1:C4
C=US, O=thawte, Inc., CN=thawte EV SSL CA - G3	5D72FB337620F64C7280 DBE91281FF6A	68:06:0C:A0:74:FF:36:C7:E8 :1B:0B:33:8D:7E:83:76:79:0 E:D0:20	1A:99:01:9F:9D:41:2A:64:45 :47:49:ED:AA:8E:7D:C4:66:7 3:D6:44:DF:3C:E1:5C:C6:55: 73:5E:A0:DF:86:FE
C=US, O=thawte, Inc., CN=thawte Extended Validation SHA256 SSL CA	0A489E88537E8AA6454D 6E2C4B2AEB20	14:B4:AC:F9:44:34:F7:D0:76 :8D:3E:E4:8D:18:8E:FD:0C:2 9:13:7A	79:20:B8:E1:8D:2F:C1:2D:81 :C2:FA:B9:0A:63:B1:B5:2A:B 3:29:CE:7C:D1:CB:7C:A0:94: CD:F9:D6:00:F4:92



C=US, O=thawte, Inc., CN=thawte SHA256 SSL CA	36349E18C99C2669B656 2E6CE5AD7132	67:D1:47:D5:DA:B7:F2:8D:66 :3C:A5:B7:A9:56:8F:08:74:2 7:B9:F7	3F:3A:F9:C9:CC:2C:75:99:EF :8F:6D:D7:CA:51:6C:FC:17:9 7:D7:D1:20:02:25:4F:3B:FD: 0D:4D:0F:E9:DE:86
C=US, O=Thawte, Inc., CN=Thawte SSL CA	4D5F2C3408B24C20CD6 D507E244DC9EC	73:E4:26:86:65:7A:EC:E3:54: FB:F6:85:71:23:61:65:8F:2F: 43:57	08:55:41:4A:F5:F5:FD:7E:26: 4F:8B:00:2A:39:CC:ED:67:E5 :95:2E:89:B6:1B:68:0C:C8:4 7:BA:A3:49:44:DE
C=US, O=thawte, Inc., CN=thawte SSL CA - G2	1687D6886DE230068523 3DBF11BF6597	2E:A7:1C:36:7D:17:8C:84:3F :D2:1D:B4:FD:B6:30:BA:54:A 2:0D:C5	B7:A8:AF:2A:4A:43:F0:A8:6B :15:60:4D:E6:46:12:09:C9:C D:76:89:4D:8B:07:48:BC:99: D9:A7:97:01:3B:B0
C=US, O=Thawte, Inc., OU=Domain Validated SSL, CN=Thawte DV SSL CA	7610128A17B682BB3A1F 9D1A9A35C092	3C:A9:58:F3:E7:D6:83:7E:1C :1A:CF:8B:0F:6A:2E:6D:48:7 D:67:62	D2:57:38:31:FA:53:76:B1:C7 :DC:0D:BB:0E:F5:88:13:E9:0 7:06:18:FA:5A:21:E1:3F:5E:9 F:2B:65:E0:A3:20
C=US, O=thawte, Inc., OU=Domain Validated SSL, CN=thawte DV SSL CA - G2	2C69E12F6A670BD99DD 20F919EF09E51	4C:03:68:21:E4:34:13:B6:63: B0:6D:CF:01:4C:E9:0D:50:34 :7F:99	9F:25:11:A2:3E:70:D9:5F:B6 :27:98:50:8A:67:6C:C3:89:6 4:10:09:36:A6:E6:D3:CA:E7: 71:54:C0:29:0F:02
C=US, O=thawte, Inc., OU=Domain Validated SSL, CN=thawte DV SSL SHA256 CA	3E23345AED2C0A517B26 DED4801D10AA	50:F1:25:EF:CA:24:28:FF:17: D2:04:B8:9E:52:64:50:9A:28 :3D:A7	53:7C:5C:80:72:36:3E:14:7C :84:D2:1D:0D:22:48:B6:B9:9 A:9A:8A:43:31:16:59:83:5E: C3:39:26:DA:28:60



DIGICERT, INC. MANAGEMENT'S ASSERTION

DigiCert, Inc. ("DigiCert") operates the Thawte Certification Authority ("CA") services for its CAs as enumerated in <u>Attachment B</u> and provides SSL CA services.

DigiCert management has assessed its disclosures of its certificate practices and controls over its SSL CA services. Based on that assessment, in providing its SSL CA services 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 Certificate Policy for Symantec Trust Network (STN) and DigiCert Certification Practices Statement for Thawte enumerated in <u>Attachment A</u>, including its commitment to provide SSL certificates in conformity with the CA/Browser Forum Requirements on its <u>website</u>, 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
 - o SSL subscriber information is properly authenticated
- maintained effective controls to provide reasonable assurance that:
 - o logical and physical access to CA systems and data is restricted to authorized individuals:
 - o 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 <u>WebTrust Principles and Criteria for Certification Authorities - SSL Baseline with</u> Network Security v2.2.

DigiCert, Inc.

Jeremy Rowley
Executive VP of Product

January 29, 2019



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

Policy Name	Version	Date
<u>DigiCert Certification Practices Statement for Thawte</u>	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=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=thawte, Inc., OU=(c) 2007 thawte, Inc For authorized use only, CN=thawte Primary Root CA - G2	35FC265CD9844FC93D26 3D579BAED756	AA:DB:BC:22:23:8F:C4:01:A1 :27:BB:38:DD:F4:1D:DB:08:9 E:F0:12	A4:31:0D:50:AF:18:A6:44:71 :90:37:2A:86:AF:AF:8B:95:1 F:FB:43:1D:83:7F:1E:56:88: B4:59:71:ED:15:57
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

Cross Signed CAs				
		Serial	SHA1	SHA2
Issuer	Subject	Number	Thumbprint	Thumbprint
C=US, O=thawte, Inc., OU=Certification Services Division, OU=(c) 2008 thawte, Inc For authorized use only, CN=thawte Primary Root CA - G3	C=US, O=DigiCert, Inc, OU=www.digicert.com, CN=thawte Primary G3 Transition Root	2CE0DDA0A50D5 8F1B98B9CD051A 70F75	4D:90:53:2C:6F:82:28 :03:AF:39:52:93:50:2 1:8A:14:48:E8:7F:E2	85:74:3A:EA:6A:97:C1: 34:45:E0:82:4C:2E:1F: E5:02:B9:7A:DD:12:4A:97:EF:51:20:FE:07:F5:58:12:FC:33
C=US, O=thawte, Inc., OU=Certification Services Division, OU=(c) 2006 thawte, Inc For authorized use only, CN=thawte Primary Root CA	C=US, O=DigiCert, Inc, OU=www.digicert.com, CN=thawte Primary Transition Root	06776FBA09F6D3 4694325ECB0D26 7472	A4:E4:11:DE:0A:FD:61 :97:76:40:F9:D8:69:2 0:C5:E7:0E:B5:0A:E3	DB:A1:09:77:10:F3:C6: 29:94:3C:23:DC:75:03: AC:82:B9:14:28:25:EF: 04:9F:1C:26:53:8D:B3: 6B:48:05:49

Class 3 CA	Serial Number	SHA1 Thumbprint	SHA2 Thumbprint
C=US, O=thawte, Inc., CN=thawte ECC EV SSL CA	1FF2FCBC6326AABD286 693991F43EC21	E9:2B:D8:99:36:8C:0F:41:67 :82:A5:BE:8D:F2:B9:75:66:A 8:3F:6B	EA:D6:2F:42:BB:36:9D:D4:3C :F6:13:1A:C2:D8:D7:2E:4F:9 F:EE:85:E6:9D:45:DA:AF:FE: 32:6A:AC:2A:46:F1
C=US, O=thawte, Inc., CN=thawte EV SSL CA - G2	05237150E67BDD38F33E F53CD211313F	19:73:F3:07:35:9B:C9:61:03: 03:57:90:BF:75:DD:91:51:E8 :3F:99	37:F6:BD:9B:EE:0C:74:F6:08 :DD:47:4B:56:A7:2F:81:83:0 7:7D:FC:26:62:AF:79:BF:E3: D4:FA:BC:F0:B1:C4
C=US, O=thawte, Inc., CN=thawte EV SSL CA - G3	5D72FB337620F64C7280 DBE91281FF6A	68:06:0C:A0:74:FF:36:C7:E8 :1B:0B:33:8D:7E:83:76:79:0 E:D0:20	1A:99:01:9F:9D:41:2A:64:45 :47:49:ED:AA:8E:7D:C4:66:7 3:D6:44:DF:3C:E1:5C:C6:55: 73:5E:A0:DF:86:FE



C=US, O=thawte, Inc., CN=thawte Extended Validation SHA256 SSL CA	0A489E88537E8AA6454D 6E2C4B2AEB20	14:B4:AC:F9:44:34:F7:D0:76 :8D:3E:E4:8D:18:8E:FD:0C:2 9:13:7A	79:20:B8:E1:8D:2F:C1:2D:81 :C2:FA:B9:0A:63:B1:B5:2A:B 3:29:CE:7C:D1:CB:7C:A0:94: CD:F9:D6:00:F4:92
C=US, O=thawte, Inc., CN=thawte SHA256 SSL CA	36349E18C99C2669B656 2E6CE5AD7132	67:D1:47:D5:DA:B7:F2:8D:66 :3C:A5:B7:A9:56:8F:08:74:2 7:B9:F7	3F:3A:F9:C9:CC:2C:75:99:EF :8F:6D:D7:CA:51:6C:FC:17:9 7:D7:D1:20:02:25:4F:3B:FD: 0D:4D:0F:E9:DE:86
C=US, O=Thawte, Inc., CN=Thawte SSL CA	4D5F2C3408B24C20CD6 D507E244DC9EC	73:E4:26:86:65:7A:EC:E3:54: FB:F6:85:71:23:61:65:8F:2F: 43:57	08:55:41:4A:F5:F5:FD:7E:26: 4F:8B:00:2A:39:CC:ED:67:E5 :95:2E:89:B6:1B:68:0C:C8:4 7:BA:A3:49:44:DE
C=US, O=thawte, Inc., CN=thawte SSL CA - G2	1687D6886DE230068523 3DBF11BF6597	2E:A7:1C:36:7D:17:8C:84:3F :D2:1D:B4:FD:B6:30:BA:54:A 2:0D:C5	B7:A8:AF:2A:4A:43:F0:A8:6B :15:60:4D:E6:46:12:09:C9:C D:76:89:4D:8B:07:48:BC:99: D9:A7:97:01:3B:B0
C=US, O=Thawte, Inc., OU=Domain Validated SSL, CN=Thawte DV SSL CA	7610128A17B682BB3A1F 9D1A9A35C092	3C:A9:58:F3:E7:D6:83:7E:1C :1A:CF:8B:0F:6A:2E:6D:48:7 D:67:62	D2:57:38:31:FA:53:76:B1:C7 :DC:0D:BB:0E:F5:88:13:E9:0 7:06:18:FA:5A:21:E1:3F:5E:9 F:2B:65:E0:A3:20
C=US, O=thawte, Inc., OU=Domain Validated SSL, CN=thawte DV SSL CA - G2	2C69E12F6A670BD99DD 20F919EF09E51	4C:03:68:21:E4:34:13:B6:63: B0:6D:CF:01:4C:E9:0D:50:34 :7F:99	9F:25:11:A2:3E:70:D9:5F:B6 :27:98:50:8A:67:6C:C3:89:6 4:10:09:36:A6:E6:D3:CA:E7: 71:54:C0:29:0F:02
C=US, O=thawte, Inc., OU=Domain Validated SSL, CN=thawte DV SSL SHA256 CA	3E23345AED2C0A517B26 DED4801D10AA	50:F1:25:EF:CA:24:28:FF:17: D2:04:B8:9E:52:64:50:9A:28 :3D:A7	53:7C:5C:80:72:36:3E:14:7C :84:D2:1D:0D:22:48:B6:B9:9 A:9A:8A:43:31:16:59:83:5E: C3:39:26:DA:28:60



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 Date: 2019.01.29 07:51:17

Digitally signed by Pool,

-08'00'

Joseph David Pool Senior Vice President, Technology Services

DATE