

Ernst & Young Réviseurs d'Entreprises Bedrijfsrevisoren De Kleetlaan 2 B - 1831 Diegem

Ernst & Young Tel: +32 (0)2 774 91 11 Réviseurs d'Entreprises Fax: +32 (0)2 774 90 90

ev.com

INDEPENDENT ASSURANCE REPORT

To the management of GlobalSign NV/SA:

Scope

We have been engaged, in a reasonable assurance engagement, to report on GlobalSign NV/SA management's assertion that for its Certification Authority (CA) operations at Japan, Singapore and the United Kingdom, throughout the period April 1, 2017 to March 31, 2018 for its list of Root and Subordinate CAs in scope for SSL Baseline Requirements as stipulated in Appendix B, GlobalSign NV/SA has:

- Disclosed its SSL certificate lifecycle management business practices in the applicable versions of the Certificate Practice Statements and Certificate Policies, as stipulated in <u>Appendix A</u>, including its commitment to provide SSL certificates in conformity with the CA/Browser Forum Guidelines on the GlobalSign NV/SA's 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 GlobalSign NV/SA)
- Maintained effective controls to provide reasonable assurance that:
 - Logical and physical access to CA systems and data is restricted to authorized individuals; and
 - 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 met the Network and Certificate System Security Requirements as set forth by the CA/Browser Forum

in accordance with the <u>WebTrust Principles and Criteria for Certification Authorities - SSL Baseline</u> with Network Security v2.2.

Certification authority's responsibilities

GlobalSign NV/SA's management is responsible for its assertion, including the fairness of its presentation, and the provision of its described services in accordance with the <u>WebTrust Principles</u> and <u>Criteria for Certification Authorities - SSL Baseline with Network Security v2.2</u>.

Our independence and quality control

We have complied with the independence and other ethical requirements of the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.



The firm applies International Standard on Quality Control 1, and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Auditor's responsibilities

Our responsibility is to express an opinion on management's assertion based on our procedures. We conducted our procedures in accordance with International Standard on Assurance Engagements 3000, Assurance Engagements Other than Audits or Reviews of Historical Financial Information, issued by the International Auditing and Assurance Standards Board. This standard requires that we plan and perform our procedures to obtain reasonable assurance about whether, in all material respects, management's assertion is fairly stated, and, accordingly, included:

- 1. Obtaining an understanding of GlobalSign NV/SA's SSL certificate lifecycle management business
 - practices, including its relevant controls over the issuance, renewal, and revocation of SSL certificates, and obtaining an understanding of GlobalSign NV/SA's network and certificate system security to meet the requirements set forth by the CA/Browser Forum;
- 2. Selectively testing transactions executed in accordance with disclosed SSL certificate lifecycle management practices
- 3. Testing and evaluating the operating effectiveness of the controls; and
- 4. Performing such other procedures as we considered necessary in the circumstances.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Relative effectiveness of controls

The relative effectiveness and significance of specific controls at GlobalSign NV/SA 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. We have performed no procedures to evaluate the effectiveness of controls at individual subscriber and relying party locations.

Inherent limitations

Because of the nature and inherent limitations of controls, GlobalSign NV/SA'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.

Opinion

In our opinion, throughout the period April 1, 2017 to March 31, 2018, GlobalSign NV/SA management's assertion, as referred to above, is fairly stated, in all material respects, in accordance with the <u>WebTrust Principles and Criteria for Certification Authorities - SSL Baseline</u> with Network Security v2.2.

This report does not include any representation as to the quality of GlobalSign NV/SA's services



beyond those covered by the <u>WebTrust Principles and Criteria for Certification Authorities - SSL</u> <u>Baseline with Network Security v2.2</u>, nor the suitability of any of GlobalSign NV/SA's services for any customer's intended purpose.

Use of the WebTrust seal

GlobalSign NV/SA'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.

Ernst & Young Bedrijfsrevisoren BCVBA

Christel Weymeersch

Partner

May 31, 2018



Appendix A – Certification Practice Statements and Certificate Policies in Scope

Certification Practice Statement	Begin Effective Date	End Effective Date
Version 8.4	02-Feb-17	06-Aug-17
Version 8.5	07-Aug-17	13-Dec-17
Version 8.6	14-Dec-17	02-Apr-18

Certificate Policy	Begin Effective Date	End Effective Date
Version 5.4	02-Feb-17	06-Aug-17
Version 5.5	07-Aug-17	13-Dec-17
Version 5.6	14-Dec-17	02-Apr-18



Appendix B – In-Scope CAs

Root CAs	SHA256 HASH
C = BE O = GlobalSign nv-sa OU = Root CA CN = GlobalSign Root CA	EB:D4:10:40:E4:BB:3E:C7:42:C9:E3:81:D3:1E:F2:A4:1A:48:B6:68: 5C:96:E7:CE:F3:C1:DF:6C:D4:33:1C:99
OU = GlobalSign Root CA - R3 O = GlobalSign CN = GlobalSign	CB:B5:22:D7:B7:F1:27:AD:6A:01:13:86:5B:DF:1C:D4:10:2E:7D:07: 59:AF:63:5A:7C:F4:72:0D:C9:63:C5:3B
OU = GlobalSign ECC Root CA - R5 O = GlobalSign CN = GlobalSign	17:9F:BC:14:8A:3D:D0:0F:D2:4E:A1:34:58:CC:43:BF:A7:F5:9C:81: 82:D7:83:A5:13:F6:EB:EC:10:0C:89:24
OU = GlobalSign Root CA - R6 O = GlobalSign CN = GlobalSign	2C:AB:EA:FE:37:D0:6C:A2:2A:BA:73:91:C0:03:3D:25:98:29:52:C4: 53:64:73:49:76:3A:3A:B5:AD:6C:CF:69
C = BE O = GlobalSign nv-sa OU = Root CA CN = GlobalSign Root CA - R7	E9:5B:31:25:40:5E:0D:46:04:2D:55:AC:62:15:45:07:C6:78:EB:C3:6 0:76:57:85:FB:20:4A:F3:49:BF:E8:80
C = BE O = GlobalSign nv-sa OU = Root CA CN = GlobalSign Root CA - R8	AE:48:51:FF:42:03:9B:AD:E0:58:27:91:51:D8:26:83:04:1D:25:98:E 2:40:68:3C:C5:6D:76:FB:8C:F5:3D:42

Other CAs	SHA256 HASH
C = AlphaSSL CA - SHA256 - G2 O = AlphaSSL	93:3E:4A:2D:8D:B1:FF:9F:F0:E5:08:EA:7F:16:37:E0:74:F6:60:FE:6 F:36:5A:22:33:DF:C2:B5:2C:88:9D:98
C = AlphaSSL CA - SHA256 - G2 O = GlobalSign nv-sa C = BE	8C:24:10:F7:6B:14:9C:A0:62:B4:20:AB:61:1B:6B:F0:A0:6E:6E:79:9 A:29:58:7E:4D:4E:C1:6D:05:37:B7:EA
C = ATT Wi-Fi Services Root Certificate Authority G3 OU = ATT Wi-Fi Services O = ATT Services Inc S = Texas C = US	12:F3:C6:42:3F:95:C7:FF:C9:A9:70:67:FD:2D:95:3E:70:60:9A:44:2 9:9C:A7:D4:58:C5:73:C6:3A:59:2E:66



C = ATT Wi-Fi Services Root Certificate Authority G3 OU = ATT Wi-Fi Services O = ATT Services Inc S = Texas C = US	27:13:C7:A3:21:05:C5:E7:40:18:46:5D:14:D5:1A:95:9C:8A:EF:C2:1 1:5E:1C:00:7A:6A:6B:4C:88:31:3B:C6
C = Cloudflare ECC DV CA O = Cloudflare, Inc. L = San Francisco S = CA C = US	0F:45:17:48:7F:D0:A8:BA:31:94:A6:12:24:50:A7:B3:2C:98:7F:FF:1 6:F2:D4:AF:54:E6:ED:B6:FE:D6:8E:08
C = Cloudflare RSA DV CA O = Cloudflare, Inc. L = San Francisco S = CA C = US	D4:39:F8:8E:8F:2F:80:A3:06:F9:10:DC:DE:54:8D:71:BB:FD:99:A8: 5F:C7:03:4E:FB:61:0E:37:49:55:09:32
C = GlobalSign Domain Validation CA - SHA256 - G2 O = GlobalSign nv-sa C = BE	37:D0:80:A5:E9:A5:26:66:3E:56:EE:20:DE:4B:D9:F7:95:2D:AC:C3: 41:49:14:39:08:01:67:AD:5D:D1:8C:AC
C = GlobalSign Domain Validation CA - SHA256 - G2 O = GlobalSign nv-sa C = BE	66:9E:77:27:A9:2B:E7:2D:97:18:E1:69:22:DC:1B:C1:49:2B:1A:F3:3 F:A4:79:3E:68:D8:77:8F:19:A2:EB:E0
C = GlobalSign ECC CloudSSL CA - SHA384 - G3 O = GlobalSign nv-sa C = BE	B0:CD:6A:E7:B9:E2:0E:C5:F8:30:FE:E0:1F:66:6D:5D:90:E6:E2:29: D0:6B:C4:6A:30:AC:CE:DF:EC:88:96:48
C = GlobalSign ECC HV S/MIME CA 1 O = GlobalSign nv-sa C = BE	E0:CE:5C:4E:F5:D2:18:69:63:D2:B0:4A:DE:46:12:BB:AF:78:7E:16: 04:8A:5B:46:8F:73:67:77:6C:3A:03:DE
C = GlobalSign Extended Validation CA - SHA256 - G2 O = GlobalSign nv-sa C = BE	5B:B2:38:2D:20:E0:9A:E5:6B:4F:3A:51:57:83:8F:7B:AE:49:E4:2E:3 C:E5:34:84:D6:6E:EB:2C:07:47:EF:4A
C = GlobalSign Organization Validated CA - SHA256 - G4 O = GlobalSign nv-sa C = BE	1E:17:41:A1:2E:B8:DA:2B:D7:6E:A9:6C:04:F5:20:35:98:39:71:0F:6 2:0E:80:95:2F:48:DD:02:40:A1:2C:D8



C = GlobalSign Organization Validated ECC CA - SHA256 - G4 O = GlobalSign nv-sa C = BE	65:EE:C0:CC:6C:97:0C:C1:CD:73:65:91:15:DC:8D:90:4E:6F:12:E6 :DC:8F:D4:DD:A3:9D:54:CB:30:22:47:80
C = GlobalSign Organization Validation CA - SHA256 - G2 O = GlobalSign nv-sa C = BE	1C:97:37:E9:68:AD:9D:FF:8D:8D:7F:CF:99:6A:14:4B:B9:78:51:A1: 90:11:A0:19:0C:94:3C:AE:8D:43:CF:E0
C = GlobalSign Organization Validation CA - SHA256 - G2 O = GlobalSign nv-sa C = BE	0B:33:92:12:D7:CF:F1:7A:2C:59:E3:56:69:B5:8E:77:35:01:33:75:0 A:78:DA:94:04:77:0E:DD:47:0D:EF:76
C = GlobalSign R6 Admin CA - SHA256 - G3 O = GlobalSign nv-sa C = BE	C5:B6:79:10:69:58:15:2F:83:FB:58:86:DD:C4:1F:07:85:19:3E:F6:7 C:69:75:BE:3E:50:9F:17:F2:9B:7A:86
C = Liberty University External Issuing CA 01 O = Liberty University L = Lynchburg S = VA C = US	CA:00:5A:A7:5E:33:59:4B:D1:DE:DC:58:4E:1E:74:E5:19:8E:BB:1D :E8:89:29:ED:4F:3E:2E:9F:FC:E3:87:3B
C = Prodrive Technologies B.V. OV SSL Issuing CA O = Prodrive Technologies B.V. OU = IT Services L = Son S = Noord-Brabant C = NL	39:8B:14:99:CE:00:A2:5F:61:CA:C3:D8:BE:E5:71:60:18:80:82:3E:F 2:88:BE:97:72:A4:D1:33:98:42:25:95
CN = AlphaSSL CA - G2 O = AlphaSSL	1D:CA:65:B8:6A:57:33:6B:A5:AF:B7:21:4A:36:F7:D6:ED:E6:98:EB: 4F:03:38:7C:B3:AD:6B:BD:3A:93:BA:B6
CN = AlphaSSL CA - SHA256 - G2 O = GlobalSign nv-sa C = BE	EE:79:36:43:19:94:74:ED:60:EF:DC:8C:CD:E4:D3:74:45:92:16:83: 59:3A:A7:51:BB:F8:EE:49:1A:39:1E:97
CN = AlphaSSL CA - SHA256 - G2 O = GlobalSign nv-sa C = BE	5A:81:7E:AD:A4:AD:78:73:4E:BB:2C:F6:74:35:2D:97:F4:35:22:90: C4:0E:AF:10:E7:64:B1:EA:C0:75:B0:E6



CN = AlphaSSL CA - SHA256 - G3 O = GlobalSign nv-sa C = BE	4C:01:3B:88:54:68:9C:B6:62:6C:C0:87:B4:D4:FC:CA:45:10:4E:2D: 73:BF:AD:F3:3A:69:79:ED:12:4B:78:37
CN = Beame.io CA 1 O = Beame.io Ltd L = Tel Aviv-Jaffa S = Tel Aviv C = IL	43:26:39:13:B4:83:EB:6F:0B:02:05:40:F8:F7:BE:0A:1D:7C:9C:E7:6 5:2F:E0:FB:47:43:D7:21:33:93:55:1C
CN = Beame.io CA 2 O = Beame.io Ltd L = Tel Aviv-Jaffa S = Tel Aviv C = IL	CF:6E:6B:82:C9:97:CB:5C:C1:A5:50:66:AF:5F:60:CA:AC:77:59:4E: B1:06:FB:4D:49:8B:C5:0E:CD:EB:8A:3A
CN = Crown Prince Court CA O = Crown Prince Court L = Abu Dhabi S = Abu Dhabi C = AE	A0:13:3B:E5:B1:4E:02:31:0A:2D:4B:EA:B6:01:09:4F:11:94:EE:8B: D6:FD:29:DD:FE:7B:93:47:46:7C:2E:EC
CN = Crown Prince Court CA O = Crown Prince Court L = Abu Dhabi S = Abu Dhabi C = AE	BF:5E:DF:BE:EB:85:99:9C:51:69:CB:F3:F4:DB:63:B6:79:AD:2E:1E :22:72:FC:37:95:F9:F9:92:1E:6D:04:87
CN = DPDHL TLS SHA2 CA I3 O = Deutsche Post L = Bonn S = Nordrhein-Westfalen C = DE	BE:44:1E:EA:2B:79:50:00:C1:C1:33:AD:C3:2B:CE:6F:8D:3D:20:1D :A7:13:F4:53:3A:E0:F6:A2:AC:96:28:8E
CN = DPDHL TLS SHA2 CA I3 O = Deutsche Post L = Bonn S = Nordrhein-Westfalen C = DE	5A:40:55:35:C1:12:A0:A8:1A:F0:D2:AC:CA:3C:3F:9B:C1:A6:77:58: 6C:DB:C6:33:CB:4F:5F:77:8E:1A:35:50
CN = DPDHL TLS SHA2 CA I3 O = Deutsche Post L = Bonn S = Nordrhein-Westfalen C = DE	23:A7:47:04:D7:7A:03:CF:D3:FF:19:E6:2C:50:08:48:21:4E:6C:60:F D:2A:AE:F7:DC:E7:A8:F9:EE:9F:92:32



CN = DPDHL TLS SHA2 CA I3 O = Deutsche Post L = Bonn S = Nordrhein-Westfalen C = DE	1C:94:2A:22:A0:16:A1:E5:55:9D:AE:77:EC:5C:E8:67:1F:98:AE:0B: A4:AC:2D:C2:59:41:8E:8E:1E:9F:94:AD
CN = DPDHL TLS SHA2 CA I3 O = Deutsche Post L = Bonn S = Nordrhein-Westfalen C = DE	25:BA:CC:40:A5:39:2B:82:AA:DE:A0:49:03:90:5A:46:71:21:F2:82:2 0:E6:F2:F7:E0:FE:98:2A:AF:C1:4F:A6
CN = GlobalSign 4096 Administration CA O = GlobalSign nv-sa C = BE	18:1B:85:15:19:D2:F1:C3:FE:BA:51:18:FF:49:D0:B6:4E:3C:4D:56:7 3:D6:2A:C6:47:1C:44:69:52:2D:3A:E6
CN = GlobalSign CloudSSL CA - SHA256 - G3 O = GlobalSign nv-sa C = BE	4B:73:34:E1:D8:99:98:22:BA:FA:8F:F6:88:81:25:38:9B:18:A4:E5:A B:26:FF:A6:24:C7:F6:8F:DC:81:F0:CB
CN = GlobalSign CloudSSL CA - SHA256 - G3 O = GlobalSign nv-sa C = BE	C2:E4:23:6D:B1:B7:57:B5:1B:77:92:13:88:EF:A8:23:E6:A6:00:FD:4 B:DA:30:B6:3A:B7:78:86:F2:56:18:B7
CN = GlobalSign CloudSSL CA - SHA256 - G3 O = GlobalSign nv-sa C = BE	E1:55:EB:F9:63:34:E7:9A:E2:E2:87:D5:5C:FC:91:85:DE:24:93:5A: 65:3F:13:C5:BA:05:AF:F8:18:77:1B:C6
CN = GlobalSign CloudSSL CA - SHA256 - G3 O = GlobalSign nv-sa C = BE	E0:C2:EB:D1:F6:BA:D4:FE:AA:E3:1A:31:07:E6:9A:BE:E9:02:DB:38 :B9:DF:BE:33:F0:57:0B:DA:34:94:C2:0A
CN = GlobalSign Domain Validation CA - G2 O = GlobalSign nv-sa C = BE	E8:7E:A2:BE:D6:C6:20:3B:2C:55:B0:0F:E4:9D:28:76:FB:A6:47:02: 10:5A:EB:74:8B:86:5A:91:8B:5C:7D:27
CN = GlobalSign Domain Validation CA - G2 O = GlobalSign nv-sa C = BE	4E:15:3A:58:88:77:68:8F:1A:0C:10:3A:08:4C:2E:DB:3A:D1:D8:C4: 80:CF:03:D8:AB:6F:ED:47:D9:20:43:70
CN = GlobalSign Domain Validation CA - G2 O = GlobalSign nv-sa C = BE	BA:0E:2B:6B:F2:C9:8E:D2:C3:B1:C1:C0:8A:1B:BD:CA:F9:27:0A:C 5:28:A3:19:43:01:DD:2A:0B:6B:67:B9:B3



CN = GlobalSign Domain Validation CA - SHA256 - G2 O = GlobalSign nv-sa C = BE	BF:DF:4C:F3:F1:43:AD:0D:B9:12:D8:AB:3A:7C:12:F6:17:B9:EA:60: CE:8B:1F:4E:44:F7:42:70:FB:21:B1:9B
CN = GlobalSign Domain Validation CA - SHA256 - G3 O = GlobalSign nv-sa C = BE	09:BC:1B:13:7C:03:12:39:EF:78:86:73:E9:4E:B1:7F:5F:3E:CA:B0:7 D:3A:DB:FB:48:5E:75:AB:FA:AF:3B:9A
CN = GlobalSign EC Administration CA2 O = GlobalSign nv-sa C = BE	C8:83:B3:EC:C6:AC:0D:EE:75:CD:D5:85:E7:3A:20:92:87:BC:0C:9 F:9D:79:D4:88:86:0F:63:E2:EA:8A:7D:2C
CN = GlobalSign ECC384 EV SSL CA - G3 O = GlobalSign nv-sa C = BE	15:54:91:87:49:03:14:F5:17:76:41:F0:BE:B3:26:34:AA:12:30:EB:2C :F2:C2:8A:D9:C7:39:14:FB:18:AB:A0
CN = GlobalSign ECC384 SSL CA - G3 O = GlobalSign nv-sa C = BE	DC:6C:44:AC:8A:3C:D5:C3:45:12:73:F4:43:15:26:B2:EF:66:60:62: EE:76:32:58:A9:28:F6:0B:D0:8E:39:FE
CN = GlobalSign Extended Validation CA - SHA256 - G2 O = GlobalSign nv-sa C = BE	24:F9:1C:07:05:A0:A5:33:86:41:B3:65:FB:0D:9D:97:09:B5:62:97:C F:F1:85:7E:73:C0:2C:16:36:D4:86:AA
CN = GlobalSign Extended Validation CA - SHA256 - G3 O = GlobalSign nv-sa C = BE	AE:D5:DD:9A:53:39:68:5D:FB:02:9F:6D:89:A1:43:35:A9:65:12:C3: CA:CC:52:B2:99:4A:F8:B6:B3:7F:A4:D2
CN = GlobalSign Organization Validation CA - G2 O = GlobalSign nv-sa C = BE	A6:64:22:C4:E4:49:D4:65:CB:02:3A:7F:C7:63:3D:E8:ED:18:16:98:5 C:A4:10:93:FC:96:B3:66:3E:D7:A4:3B
CN = GlobalSign Organization Validation CA - G2 O = GlobalSign nv-sa C = BE	08:2B:24:30:47:BF:00:F5:84:40:1F:53:8B:50:4B:AE:9E:C0:60:E0:0 7:FF:F2:8B:15:9C:08:41:70:68:65:4E
CN = GlobalSign Organization Validation CA - G2 O = GlobalSign nv-sa C = BE	A6:23:3E:CB:77:05:3F:72:93:7E:89:43:72:A6:01:ED:3A:BE:A9:0C: C3:B5:D8:95:12:72:0B:F3:FF:CB:DC:9D



CN = GlobalSign Organization Validation CA - SHA256 - G2 O = GlobalSign nv-sa C = BE	74:EF:33:5E:5E:18:78:83:07:FB:9D:89:CB:70:4B:EC:11:2A:BD:23: 48:7D:BF:F4:1C:4D:ED:50:70:F2:41:D9
CN = GlobalSign Organization Validation CA - SHA256 - G3 O = GlobalSign nv-sa C = BE	69:9D:54:B7:48:2A:5D:32:93:31:EA:04:15:CC:2E:DC:D6:0F:DA:01: D1:9E:71:D0:54:19:6B:CE:06:77:73:5C
CN = GlobalSign O = GlobalSign OU = GlobalSign Root CA - R3	FD:FC:65:60:B0:9C:23:7F:46:8B:81:30:EB:90:99:6F:F8:5F:A1:3F:A 2:66:23:9B:8D:58:63:79:8D:6A:B8:98
CN = GlobalSign O = GlobalSign OU = GlobalSign Root CA - R3	52:D6:00:74:D5:D0:E6:5F:08:0C:A3:CD:6A:31:BC:94:76:2F:26:58:3 A:0A:99:A4:13:5A:CA:F9:4A:69:1D:A9
CN = GlobalSign O = GlobalSign OU = GlobalSign Root CA - R3	C9:4F:ED:DA:4E:86:08:90:85:80:BC:7F:87:B4:34:E0:3B:B2:62:E4: 2F:64:C6:38:20:A8:F5:0F:B1:7C:1C:EC
CN = ICPEdu O = Rede Nacional de Ensino e Pesquisa - RNP OU = Gerencia de Servicos (GSer) L = Rio de Janeiro S = Rio de Janeiro C = BR	EA:CB:A6:C9:65:98:B4:A4:1F:D5:3D:69:AB:9E:D9:FB:BB:13:81:15: 4C:45:34:56:72:0C:17:4F:FE:57:6D:1D
CN = NSW-DEC-ISS-CA1 O = NSW Department of Education and Communities L = Sydney S = NSW C = AU	FE:13:A3:85:20:62:DF:49:0F:8F:0D:ED:4D:B4:13:8D:2B:60:9A:79: D4:ED:E4:31:05:EC:6D:89:5A:D6:F7:B6



CN = NSW-DEC-ISS-CA1 O = NSW Department of Education and Communities L = Sydney S = NSW C = AU	C7:68:21:31:79:F8:07:1B:FA:B3:94:15:B3:C0:91:12:97:C2:34:6E:41 :1E:20:0A:B6:79:12:94:8E:4C:99:D7
CN = Soluti CA - DV O = SOLUTI - SOLUCOES EM NEGOCIOS INTELIGENTES S/A L = Goiânia S = Goiás C = BR	A7:4F:FF:F5:28:47:19:05:38:50:73:AD:F3:99:70:19:B2:6F:4F:AF:24 :BC:E9:10:2A:27:2E:7A:44:84:E4:BC
CN = Soluti CA - EV O = SOLUTI - SOLUCOES EM NEGOCIOS INTELIGENTES S/A L = Goiânia S = Goiás C = BR	BB:17:0B:39:78:4D:02:78:43:25:CE:A9:38:D9:23:14:C6:17:DD:E8:0 8:C8:67:E3:3E:2A:D1:61:D5:4B:3E:8A
CN = Soluti CA - OV O = SOLUTI - SOLUCOES EM NEGOCIOS INTELIGENTES S/A L = Goiânia S = Goiás C = BR	E6:E9:29:C8:45:6C:01:4E:8D:A7:33:AC:E4:E9:81:45:52:27:2B:81:1 7:60:50:A1:3E:A4:5A:82:32:00:B1:4B
CN = Southern Company External Issuing CA 1 O = Southern Company Services, Inc. L = Atlanta S = GA C = US	FB:95:3C:4F:C0:04:58:46:D0:24:91:C8:EC:CF:38:7B:A3:43:47:C1: 7A:BB:0E:A6:D5:9F:6D:E4:D2:F1:EA:04
CN = Trusted Root CA G2 O = GlobalSign nv-sa OU = Trusted Root C = BE	6E:32:A3:5B:59:9E:90:87:BB:1A:B3:5C:E7:30:22:EC:2E:26:AF:34: BE:38:89:19:41:9C:95:70:0C:D8:E7:FB



CN = Trusted Root CA SHA256 G2 O = GlobalSign nv-sa OU = Trusted Root C = BE	01:FD:73:EF:5E:70:F5:26:FC:9C:11:F6:5F:E2:EE:6F:71:25:B3:69:3 9:49:22:7F:FD:8E:45:9E:58:3C:45:8A
CN = Virginia Tech Global Qualified Server CA O = Virginia Polytechnic Institute and State University OU = Global Qualified Server CA L = Blacksburg S = Virginia C = US	B7:9E:63:78:23:6B:F5:B6:F0:C2:77:EC:C0:80:62:7E:F3:FE:28:71:2 8:1A:60:AC:42:7B:DB:6F:6A:E4:F7:94
CN = Virginia Tech Global Qualified Server CA O = Virginia Polytechnic Institute and State University OU = Global Qualified Server CA L = Blacksburg S = Virginia C = US	D4:D0:31:41:EC:A4:19:0D:93:BC:EE:47:81:AF:6F:2F:DF:0F:65:34: A1:1B:ED:CC:F0:61:4F:4D:4B:17:57:53



Assertion of Management as to its Disclosure of its Business Practices and its Controls over its SSL Certification Authority Services during the period of April 1, 2017 through March 31, 2018

May 31, 2018

We, as management of GlobalSign NV/SA are responsible for operating the SSL Certification Authority (CA) services for its root and subordinate CA as disclosed in <u>Appendix B</u>.

The management of GlobalSign NV/SA is responsible for establishing and maintaining effective controls over its SSL CA operations, including its network and certificate security system controls, its SSL CA business practices disclosure on its website, SSL key lifecycle management controls, and SSL certificate lifecycle management controls. These controls contain monitoring mechanisms, and actions are taken to correct deficiencies identified.

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

GlobalSign NV/SA management has assessed its disclosures of its certificate practices and controls over its SSL CA services. Based on that assessment, in GlobalSign NV/SA management's opinion, in providing its SSL Certification Authority (CA) services at Japan, Singapore and the United Kingdom, throughout the period April 1, 2017 to March 31, 2018, GlobalSign NV/SA has:

- Disclosed its SSL certificate lifecycle management business practices in the
 applicable versions of the Certificate Practice Statements and Certificate Policies, as
 stipulated in Appendix A, including its commitment to provide SSL certificates in
 conformity with the CA/Browser Forum Guidelines, 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 was established and protected throughout their lifecycles; and
 - SSL subscriber information was properly authenticated (for the registration activities performed by GlobalSign NV/SA)
- Maintained effective controls to provide reasonable assurance that:
 - Logical and physical access to CA systems and data was restricted to authorized individuals; and
 - The continuity of key and certificate management operations was maintained;
 and
 - CA systems development, maintenance, and operations were 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.



In accordance with the <u>WebTrust Principles and Criteria for Certification Authorities – SSL Baseline with Network Security v2.2.</u>

GlobalSign Leuven, Belgium

Koji Takenobu Board member



Appendix A - Certification Practice Statements and Certificate Policies in Scope

Certification Practice Statement	Begin Effective Date	End Effective Date
Version 8.4	02-Feb-17	06-Aug-17
Version 8.5	07-Aug-17	13-Dec-17
Version 8.6	14-Dec-17	02-Apr-18

Certificate Policy	Begin Effective Date	End Effective Date
Version 5.4	02-Feb-17	06-Aug-17
Version 5.5	07-Aug-17	13-Dec-17
Version 5.6	14-Dec-17	02-Apr-18



Appendix B – In-Scope CAs

Root CAs	SHA256 Hash
C = BE O = GlobalSign nv-sa OU = Root CA CN = GlobalSign Root CA	EB:D4:10:40:E4:BB:3E:C7:42:C9:E3:81:D3:1E:F2:A4:1A:48:B6:68: 5C:96:E7:CE:F3:C1:DF:6C:D4:33:1C:99
OU = GlobalSign Root CA - R3 O = GlobalSign CN = GlobalSign	CB:B5:22:D7:B7:F1:27:AD:6A:01:13:86:5B:DF:1C:D4:10:2E:7D:07: 59:AF:63:5A:7C:F4:72:0D:C9:63:C5:3B
OU = GlobalSign ECC Root CA - R5 O = GlobalSign CN = GlobalSign	17:9F:BC:14:8A:3D:D0:0F:D2:4E:A1:34:58:CC:43:BF:A7:F5:9C:81: 82:D7:83:A5:13:F6:EB:EC:10:0C:89:24
OU = GlobalSign Root CA - R6 O = GlobalSign CN = GlobalSign	2C:AB:EA:FE:37:D0:6C:A2:2A:BA:73:91:C0:03:3D:25:98:29:52:C4: 53:64:73:49:76:3A:3A:B5:AD:6C:CF:69
C = BE O = GlobalSign nv-sa OU = Root CA CN = GlobalSign Root CA - R7	E9:5B:31:25:40:5E:0D:46:04:2D:55:AC:62:15:45:07:C6:78:EB:C3:6 0:76:57:85:FB:20:4A:F3:49:BF:E8:80
C = BE O = GlobalSign nv-sa OU = Root CA CN = GlobalSign Root CA - R8	AE:48:51:FF:42:03:9B:AD:E0:58:27:91:51:D8:26:83:04:1D:25:98:E 2:40:68:3C:C5:6D:76:FB:8C:F5:3D:42

Other CAs	SHA256 Hash
C = AlphaSSL CA - SHA256 - G2 O = AlphaSSL	93:3E:4A:2D:8D:B1:FF:9F:F0:E5:08:EA:7F:16:37:E0:74:F6:60:FE:6 F:36:5A:22:33:DF:C2:B5:2C:88:9D:98
C = AlphaSSL CA - SHA256 - G2 O = GlobalSign nv-sa C = BE	8C:24:10:F7:6B:14:9C:A0:62:B4:20:AB:61:1B:6B:F0:A0:6E:6E:79:9 A:29:58:7E:4D:4E:C1:6D:05:37:B7:EA
C = ATT Wi-Fi Services Root Certificate Authority G3 OU = ATT Wi-Fi Services O = ATT Services Inc S = Texas C = US	12:F3:C6:42:3F:95:C7:FF:C9:A9:70:67:FD:2D:95:3E:70:60:9A:44:2 9:9C:A7:D4:58:C5:73:C6:3A:59:2E:66



C = ATT Wi-Fi Services Root Certificate Authority G3 OU = ATT Wi-Fi Services O = ATT Services Inc S = Texas C = US	27:13:C7:A3:21:05:C5:E7:40:18:46:5D:14:D5:1A:95:9C:8A:EF:C2:1 1:5E:1C:00:7A:6A:6B:4C:88:31:3B:C6
C = Cloudflare ECC DV CA O = Cloudflare, Inc. L = San Francisco S = CA C = US	0F:45:17:48:7F:D0:A8:BA:31:94:A6:12:24:50:A7:B3:2C:98:7F:FF:1 6:F2:D4:AF:54:E6:ED:B6:FE:D6:8E:08
C = Cloudflare RSA DV CA O = Cloudflare, Inc. L = San Francisco S = CA C = US	D4:39:F8:8E:8F:2F:80:A3:06:F9:10:DC:DE:54:8D:71:BB:FD:99:A8: 5F:C7:03:4E:FB:61:0E:37:49:55:09:32
C = GlobalSign Domain Validation CA - SHA256 - G2 O = GlobalSign nv-sa C = BE	37:D0:80:A5:E9:A5:26:66:3E:56:EE:20:DE:4B:D9:F7:95:2D:AC:C3: 41:49:14:39:08:01:67:AD:5D:D1:8C:AC
C = GlobalSign Domain Validation CA - SHA256 - G2 O = GlobalSign nv-sa C = BE	66:9E:77:27:A9:2B:E7:2D:97:18:E1:69:22:DC:1B:C1:49:2B:1A:F3:3 F:A4:79:3E:68:D8:77:8F:19:A2:EB:E0
C = GlobalSign ECC CloudSSL CA - SHA384 - G3 O = GlobalSign nv-sa C = BE	B0:CD:6A:E7:B9:E2:0E:C5:F8:30:FE:E0:1F:66:6D:5D:90:E6:E2:29: D0:6B:C4:6A:30:AC:CE:DF:EC:88:96:48
C = GlobalSign ECC HV S/MIME CA 1 O = GlobalSign nv-sa C = BE	E0:CE:5C:4E:F5:D2:18:69:63:D2:B0:4A:DE:46:12:BB:AF:78:7E:16: 04:8A:5B:46:8F:73:67:77:6C:3A:03:DE
C = GlobalSign Extended Validation CA - SHA256 - G2 O = GlobalSign nv-sa C = BE	5B:B2:38:2D:20:E0:9A:E5:6B:4F:3A:51:57:83:8F:7B:AE:49:E4:2E:3 C:E5:34:84:D6:6E:EB:2C:07:47:EF:4A
C = GlobalSign Organization Validated CA - SHA256 - G4 O = GlobalSign nv-sa C = BE	1E:17:41:A1:2E:B8:DA:2B:D7:6E:A9:6C:04:F5:20:35:98:39:71:0F:6
C = GlobalSign Organization Validated ECC CA - SHA256 - G4 O = GlobalSign nv-sa C = BE	65:EE:C0:CC:6C:97:0C:C1:CD:73:65:91:15:DC:8D:90:4E:6F:12:E6 :DC:8F:D4:DD:A3:9D:54:CB:30:22:47:80



C = GlobalSign Organization Validation CA - SHA256 - G2 O = GlobalSign nv-sa C = BE	1C:97:37:E9:68:AD:9D:FF:8D:8D:7F:CF:99:6A:14:4B:B9:78:51:A1: 90:11:A0:19:0C:94:3C:AE:8D:43:CF:E0
C = GlobalSign Organization Validation CA - SHA256 - G2 O = GlobalSign nv-sa C = BE	0B:33:92:12:D7:CF:F1:7A:2C:59:E3:56:69:B5:8E:77:35:01:33:75:0 A:78:DA:94:04:77:0E:DD:47:0D:EF:76
C = GlobalSign R6 Admin CA - SHA256 - G3 O = GlobalSign nv-sa C = BE	C5:B6:79:10:69:58:15:2F:83:FB:58:86:DD:C4:1F:07:85:19:3E:F6:7 C:69:75:BE:3E:50:9F:17:F2:9B:7A:86
C = Liberty University External Issuing CA 01 O = Liberty University L = Lynchburg S = VA C = US	CA:00:5A:A7:5E:33:59:4B:D1:DE:DC:58:4E:1E:74:E5:19:8E:BB:1D :E8:89:29:ED:4F:3E:2E:9F:FC:E3:87:3B
C = Prodrive Technologies B.V. OV SSL Issuing CA O = Prodrive Technologies B.V. OU = IT Services L = Son S = Noord-Brabant C = NL	39:8B:14:99:CE:00:A2:5F:61:CA:C3:D8:BE:E5:71:60:18:80:82:3E:F 2:88:BE:97:72:A4:D1:33:98:42:25:95
CN = AlphaSSL CA - G2 O = AlphaSSL	1D:CA:65:B8:6A:57:33:6B:A5:AF:B7:21:4A:36:F7:D6:ED:E6:98:EB: 4F:03:38:7C:B3:AD:6B:BD:3A:93:BA:B6
CN = AlphaSSL CA - SHA256 - G2 O = GlobalSign nv-sa C = BE	EE:79:36:43:19:94:74:ED:60:EF:DC:8C:CD:E4:D3:74:45:92:16:83: 59:3A:A7:51:BB:F8:EE:49:1A:39:1E:97
CN = AlphaSSL CA - SHA256 - G2 O = GlobalSign nv-sa C = BE	5A:81:7E:AD:A4:AD:78:73:4E:BB:2C:F6:74:35:2D:97:F4:35:22:90: C4:0E:AF:10:E7:64:B1:EA:C0:75:B0:E6
CN = AlphaSSL CA - SHA256 - G3 O = GlobalSign nv-sa C = BE	4C:01:3B:88:54:68:9C:B6:62:6C:C0:87:B4:D4:FC:CA:45:10:4E:2D: 73:BF:AD:F3:3A:69:79:ED:12:4B:78:37
CN = Beame.io CA 1 O = Beame.io Ltd L = Tel Aviv-Jaffa S = Tel Aviv C = IL	43:26:39:13:B4:83:EB:6F:0B:02:05:40:F8:F7:BE:0A:1D:7C:9C:E7:6 5:2F:E0:FB:47:43:D7:21:33:93:55:1C



CN = Beame.io CA 2 O = Beame.io Ltd L = Tel Aviv-Jaffa S = Tel Aviv C = IL	CF:6E:6B:82:C9:97:CB:5C:C1:A5:50:66:AF:5F:60:CA:AC:77:59:4E: B1:06:FB:4D:49:8B:C5:0E:CD:EB:8A:3A
CN = Crown Prince Court CA O = Crown Prince Court L = Abu Dhabi S = Abu Dhabi C = AE	A0:13:3B:E5:B1:4E:02:31:0A:2D:4B:EA:B6:01:09:4F:11:94:EE:8B: D6:FD:29:DD:FE:7B:93:47:46:7C:2E:EC
CN = Crown Prince Court CA O = Crown Prince Court L = Abu Dhabi S = Abu Dhabi C = AE	BF:5E:DF:BE:EB:85:99:9C:51:69:CB:F3:F4:DB:63:B6:79:AD:2E:1E :22:72:FC:37:95:F9:F9:92:1E:6D:04:87
CN = DPDHL TLS SHA2 CA I3 O = Deutsche Post L = Bonn S = Nordrhein-Westfalen C = DE	BE:44:1E:EA:2B:79:50:00:C1:C1:33:AD:C3:2B:CE:6F:8D:3D:20:1D :A7:13:F4:53:3A:E0:F6:A2:AC:96:28:8E
CN = DPDHL TLS SHA2 CA I3 O = Deutsche Post L = Bonn S = Nordrhein-Westfalen C = DE	5A:40:55:35:C1:12:A0:A8:1A:F0:D2:AC:CA:3C:3F:9B:C1:A6:77:58: 6C:DB:C6:33:CB:4F:5F:77:8E:1A:35:50
CN = DPDHL TLS SHA2 CA I3 O = Deutsche Post L = Bonn S = Nordrhein-Westfalen C = DE	23:A7:47:04:D7:7A:03:CF:D3:FF:19:E6:2C:50:08:48:21:4E:6C:60:F D:2A:AE:F7:DC:E7:A8:F9:EE:9F:92:32
CN = DPDHL TLS SHA2 CA I3 O = Deutsche Post L = Bonn S = Nordrhein-Westfalen C = DE	1C:94:2A:22:A0:16:A1:E5:55:9D:AE:77:EC:5C:E8:67:1F:98:AE:0B: A4:AC:2D:C2:59:41:8E:8E:1E:9F:94:AD
CN = DPDHL TLS SHA2 CA I3 O = Deutsche Post L = Bonn S = Nordrhein-Westfalen C = DE	25:BA:CC:40:A5:39:2B:82:AA:DE:A0:49:03:90:5A:46:71:21:F2:82:2 0:E6:F2:F7:E0:FE:98:2A:AF:C1:4F:A6



CN = GlobalSign 4096 Administration CA O = GlobalSign nv-sa C = BE	18:1B:85:15:19:D2:F1:C3:FE:BA:51:18:FF:49:D0:B6:4E:3C:4D:56:7 3:D6:2A:C6:47:1C:44:69:52:2D:3A:E6
CN = GlobalSign CloudSSL CA - SHA256 - G3 O = GlobalSign nv-sa C = BE	4B:73:34:E1:D8:99:98:22:BA:FA:8F:F6:88:81:25:38:9B:18:A4:E5:A B:26:FF:A6:24:C7:F6:8F:DC:81:F0:CB
CN = GlobalSign CloudSSL CA - SHA256 - G3 O = GlobalSign nv-sa C = BE	C2:E4:23:6D:B1:B7:57:B5:1B:77:92:13:88:EF:A8:23:E6:A6:00:FD:4 B:DA:30:B6:3A:B7:78:86:F2:56:18:B7
CN = GlobalSign CloudSSL CA - SHA256 - G3 O = GlobalSign nv-sa C = BE	E1:55:EB:F9:63:34:E7:9A:E2:E2:87:D5:5C:FC:91:85:DE:24:93:5A: 65:3F:13:C5:BA:05:AF:F8:18:77:1B:C6
CN = GlobalSign CloudSSL CA - SHA256 - G3 O = GlobalSign nv-sa C = BE	E0:C2:EB:D1:F6:BA:D4:FE:AA:E3:1A:31:07:E6:9A:BE:E9:02:DB:38 :B9:DF:BE:33:F0:57:0B:DA:34:94:C2:0A
CN = GlobalSign Domain Validation CA - G2 O = GlobalSign nv-sa C = BE	E8:7E:A2:BE:D6:C6:20:3B:2C:55:B0:0F:E4:9D:28:76:FB:A6:47:02: 10:5A:EB:74:8B:86:5A:91:8B:5C:7D:27
CN = GlobalSign Domain Validation CA - G2 O = GlobalSign nv-sa C = BE	4E:15:3A:58:88:77:68:8F:1A:0C:10:3A:08:4C:2E:DB:3A:D1:D8:C4: 80:CF:03:D8:AB:6F:ED:47:D9:20:43:70
CN = GlobalSign Domain Validation CA - G2 O = GlobalSign nv-sa C = BE	BA:0E:2B:6B:F2:C9:8E:D2:C3:B1:C1:C0:8A:1B:BD:CA:F9:27:0A:C 5:28:A3:19:43:01:DD:2A:0B:6B:67:B9:B3
CN = GlobalSign Domain Validation CA - SHA256 - G2 O = GlobalSign nv-sa C = BE	BF:DF:4C:F3:F1:43:AD:0D:B9:12:D8:AB:3A:7C:12:F6:17:B9:EA:60: CE:8B:1F:4E:44:F7:42:70:FB:21:B1:9B
CN = GlobalSign Domain Validation CA - SHA256 - G3 O = GlobalSign nv-sa C = BE	09:BC:1B:13:7C:03:12:39:EF:78:86:73:E9:4E:B1:7F:5F:3E:CA:B0:7 D:3A:DB:FB:48:5E:75:AB:FA:AF:3B:9A
CN = GlobalSign EC Administration CA2 O = GlobalSign nv-sa C = BE	C8:83:B3:EC:C6:AC:0D:EE:75:CD:D5:85:E7:3A:20:92:87:BC:0C:9 F:9D:79:D4:88:86:0F:63:E2:EA:8A:7D:2C



CN = GlobalSign ECC384 EV SSL CA - G3 O = GlobalSign nv-sa C = BE	15:54:91:87:49:03:14:F5:17:76:41:F0:BE:B3:26:34:AA:12:30:EB:2C :F2:C2:8A:D9:C7:39:14:FB:18:AB:A0
CN = GlobalSign ECC384 SSL CA - G3 O = GlobalSign nv-sa C = BE	DC:6C:44:AC:8A:3C:D5:C3:45:12:73:F4:43:15:26:B2:EF:66:60:62: EE:76:32:58:A9:28:F6:0B:D0:8E:39:FE
CN = GlobalSign Extended Validation CA - SHA256 - G2 O = GlobalSign nv-sa C = BE	24:F9:1C:07:05:A0:A5:33:86:41:B3:65:FB:0D:9D:97:09:B5:62:97:C F:F1:85:7E:73:C0:2C:16:36:D4:86:AA
CN = GlobalSign Extended Validation CA - SHA256 - G3 O = GlobalSign nv-sa C = BE	AE:D5:DD:9A:53:39:68:5D:FB:02:9F:6D:89:A1:43:35:A9:65:12:C3: CA:CC:52:B2:99:4A:F8:B6:B3:7F:A4:D2
CN = GlobalSign Organization Validation CA - G2 O = GlobalSign nv-sa C = BE	A6:64:22:C4:E4:49:D4:65:CB:02:3A:7F:C7:63:3D:E8:ED:18:16:98:5 C:A4:10:93:FC:96:B3:66:3E:D7:A4:3B
CN = GlobalSign Organization Validation CA - G2 O = GlobalSign nv-sa C = BE	08:2B:24:30:47:BF:00:F5:84:40:1F:53:8B:50:4B:AE:9E:C0:60:E0:0 7:FF:F2:8B:15:9C:08:41:70:68:65:4E
CN = GlobalSign Organization Validation CA - G2 O = GlobalSign nv-sa C = BE	A6:23:3E:CB:77:05:3F:72:93:7E:89:43:72:A6:01:ED:3A:BE:A9:0C: C3:B5:D8:95:12:72:0B:F3:FF:CB:DC:9D
CN = GlobalSign Organization Validation CA - SHA256 - G2 O = GlobalSign nv-sa C = BE	74:EF:33:5E:5E:18:78:83:07:FB:9D:89:CB:70:4B:EC:11:2A:BD:23: 48:7D:BF:F4:1C:4D:ED:50:70:F2:41:D9
CN = GlobalSign Organization Validation CA - SHA256 - G3 O = GlobalSign nv-sa C = BE	69:9D:54:B7:48:2A:5D:32:93:31:EA:04:15:CC:2E:DC:D6:0F:DA:01: D1:9E:71:D0:54:19:6B:CE:06:77:73:5C
CN = GlobalSign O = GlobalSign OU = GlobalSign Root CA - R3	FD:FC:65:60:B0:9C:23:7F:46:8B:81:30:EB:90:99:6F:F8:5F:A1:3F:A 2:66:23:9B:8D:58:63:79:8D:6A:B8:98



CN = GlobalSign O = GlobalSign OU = GlobalSign Root CA - R3	52:D6:00:74:D5:D0:E6:5F:08:0C:A3:CD:6A:31:BC:94:76:2F:26:58:3 A:0A:99:A4:13:5A:CA:F9:4A:69:1D:A9
CN = GlobalSign O = GlobalSign OU = GlobalSign Root CA - R3	C9:4F:ED:DA:4E:86:08:90:85:80:BC:7F:87:B4:34:E0:3B:B2:62:E4: 2F:64:C6:38:20:A8:F5:0F:B1:7C:1C:EC
CN = ICPEdu O = Rede Nacional de Ensino e Pesquisa - RNP OU = Gerencia de Servicos (GSer) L = Rio de Janeiro S = Rio de Janeiro C = BR	EA:CB:A6:C9:65:98:B4:A4:1F:D5:3D:69:AB:9E:D9:FB:BB:13:81:15: 4C:45:34:56:72:0C:17:4F:FE:57:6D:1D
CN = NSW-DEC-ISS-CA1 O = NSW Department of Education and Communities L = Sydney S = NSW C = AU	FE:13:A3:85:20:62:DF:49:0F:8F:0D:ED:4D:B4:13:8D:2B:60:9A:79: D4:ED:E4:31:05:EC:6D:89:5A:D6:F7:B6
CN = NSW-DEC-ISS-CA1 O = NSW Department of Education and Communities L = Sydney S = NSW C = AU	C7:68:21:31:79:F8:07:1B:FA:B3:94:15:B3:C0:91:12:97:C2:34:6E:41 :1E:20:0A:B6:79:12:94:8E:4C:99:D7
CN = Soluti CA - DV O = SOLUTI - SOLUCOES EM NEGOCIOS INTELIGENTES S/A L = Goiânia S = Goiás C = BR	A7:4F:FF:F5:28:47:19:05:38:50:73:AD:F3:99:70:19:B2:6F:4F:AF:24 :BC:E9:10:2A:27:2E:7A:44:84:E4:BC
CN = Soluti CA - EV O = SOLUTI - SOLUCOES EM NEGOCIOS INTELIGENTES S/A L = Goiânia S = Goiás C = BR	BB:17:0B:39:78:4D:02:78:43:25:CE:A9:38:D9:23:14:C6:17:DD:E8:0 8:C8:67:E3:3E:2A:D1:61:D5:4B:3E:8A



CN = Soluti CA - OV O = SOLUTI - SOLUCOES EM NEGOCIOS INTELIGENTES S/A L = Goiânia S = Goiás C = BR	E6:E9:29:C8:45:6C:01:4E:8D:A7:33:AC:E4:E9:81:45:52:27:2B:81:1 7:60:50:A1:3E:A4:5A:82:32:00:B1:4B
CN = Southern Company External Issuing CA 1 O = Southern Company Services, Inc. L = Atlanta S = GA C = US	FB:95:3C:4F:C0:04:58:46:D0:24:91:C8:EC:CF:38:7B:A3:43:47:C1: 7A:BB:0E:A6:D5:9F:6D:E4:D2:F1:EA:04
CN = Trusted Root CA G2 O = GlobalSign nv-sa OU = Trusted Root C = BE	6E:32:A3:5B:59:9E:90:87:BB:1A:B3:5C:E7:30:22:EC:2E:26:AF:34: BE:38:89:19:41:9C:95:70:0C:D8:E7:FB
CN = Trusted Root CA SHA256 G2 O = GlobalSign nv-sa OU = Trusted Root C = BE	01:FD:73:EF:5E:70:F5:26:FC:9C:11:F6:5F:E2:EE:6F:71:25:B3:69:3 9:49:22:7F:FD:8E:45:9E:58:3C:45:8A
CN = Virginia Tech Global Qualified Server CA O = Virginia Polytechnic Institute and State University OU = Global Qualified Server CA L = Blacksburg S = Virginia C = US	B7:9E:63:78:23:6B:F5:B6:F0:C2:77:EC:C0:80:62:7E:F3:FE:28:71:2 8:1A:60:AC:42:7B:DB:6F:6A:E4:F7:94
CN = Virginia Tech Global Qualified Server CA O = Virginia Polytechnic Institute and State University OU = Global Qualified Server CA L = Blacksburg S = Virginia C = US	D4:D0:31:41:EC:A4:19:0D:93:BC:EE:47:81:AF:6F:2F:DF:0F:65:34: A1:1B:ED:CC:F0:61:4F:4D:4B:17:57:53