

INDEPENDENT ASSURANCE REPORT

To the management of Verizon Terremark NV ("Verizon Terremark")

Scope

We have been engaged, in a reasonable assurance engagement, to report on Verizon Terremark management's assertion that, for its Certification Authority (CA) operations at Culliganlaan 2E, Diegem (Belgium), as of October 26, 2018 for its CAs as enumerated in Appendix B, Verizon Terremark has:

- ▶ Disclosed its SSL certificate lifecycle management business practices in the applicable versions of the Certificate Practice Statement and Certificate Policy, as stipulated in Appendix A, including its commitment to provide SSL certificates in conformity with the CA/Browser Forum Requirements on the Verizon Terremark website, and provided such services in accordance with its disclosed practices
- ▶ Suitably designed, and placed into operation, 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 principles 1.4, 1.6 and 4.4.4 of the [WebTrust Principles and Criteria for Certification Authorities - SSL Baseline with Network Security v2.2](#).

Certification authority's responsibilities

Verizon Terremark's management is responsible for its assertion, including the fairness of its presentation, and the provision of its described services in accordance with principles 1.4, 1.6 and 4.4.4 of the [WebTrust Principles and Criteria for Certification Authorities - SSL Baseline with Network Security v2.2](#).

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 Verizon Terremark'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 Verizon Terremark's network and certificate system security to meet the requirements set forth by the CA/Browser Forum;
2. evaluating the suitability of the design of the controls; and

3. performing such other procedures as we considered necessary in the circumstances.

We did not perform procedures to determine the operating effectiveness of controls for any period. Accordingly, we express no opinion on the operating effectiveness of any aspects of Verizon Terremark's controls, individually or in the aggregate.

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

Suitability of controls

The suitability of the design of the controls at Verizon Terremark 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 suitability of the design of the controls at individual subscriber and relying party locations.

Inherent limitations

Because of the nature and inherent limitations of controls, Verizon Terremark'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, as of October 26, 2018, Verizon Terremark management's assertion, as referred to above, is fairly stated, in all material respects, in accordance with principles 1.4, 1.6 and 4.4.4 of the [WebTrust Principles and Criteria for Certification Authorities - SSL Baseline with Network Security v2.2](#).

This report does not include any representation as to the quality of Verizon Terremark's services beyond those covered by with principles 1.4, 1.6 and 4.4.4 of the [WebTrust Principles and Criteria for Certification Authorities - SSL Baseline with Network Security v2.2](#), nor the suitability of any of Verizon Terremark's services for any customer's intended purpose.

Ernst & Young Bedrijfsrevisoren BCVBA
Diegem, Belgium



Christel Weymeersch, Partner
October 26, 2018

Appendix A - Certification Practice Statements and Certificate Policies in Scope

Certificate Policies	Begin Effective Date
Version 2.11	October 2, 2018

Certification Practice Statements	Begin Effective Date
Version 5.12	October 2, 2018

Appendix B - In-Scope CAs

OV SSL Issuing CAs		
#	Subject	SHA
1	C=NL, L=Amsterdam, O=Verizon Enterprise Solutions, OU=Cybertrust, CN=Verizon Akamai SureServer CA G14-SHA1	9c:fb:49:f8:52:05:72:fd:a3:43:69:8b:c0:43:07:c8:56:b4:f1:81:9b:1d:73:4b:cd:40:aa:c8:f1:e1:6c:2d
2	C=NL, L=Amsterdam, O=Verizon Enterprise Solutions, OU=Cybertrust, CN=Verizon Akamai SureServer CA G14-SHA2	73:73:d2:19:b4:25:47:e4:1b:cb:75:2b:cb:cb:e9:3f:59:2f:f6:f9:9c:34:0c:e5:7b:73:d3:8c:3e:c0:ba:98
3	CN=Verizon Public SureServer CA G14-SHA1, OU=Cybertrust, O=Verizon Enterprise Solutions, L=Amsterdam, C=NL	e3:78:e4:39:73:6c:19:6b:47:29:42:fe:7f:bf:a1:e1:78:cc:7b:8a:f0:c1:c8:6a:b6:88:e2:d0:39:78:24:32
4	CN=Verizon Public SureServer CA G14-SHA2, OU=Cybertrust, O=Verizon Enterprise Solutions, L=Amsterdam, C=NL	67:5c:1c:5d:bb:08:e9:fa:2c:81:7b:86:d5:fc:89:68:10:34:9a:2f:47:dd:64:93:8a:2b:ac:a6:49:97:c8:bb
5	CN=Cybertrust Public SureServer SV CA, O=Cybertrust Inc	48:29:e6:06:69:1f:5e:55:b4:48:58:7d:5c:09:99:b0:da:5d:d3:1c:12:73:e3:57:38:cb:92:e5:3c:d7:88:e1
6	CN=Verizon Global Issuing CA, OU=Cybertrust, O=Verizon Enterprise Solutions, L=Amsterdam, C=NL	cf:58:df:be:c6:68:2f:eb:ba:a4:26:c9:2a:5a:ab:92:29:a1:2d:bd:1c:71:bf:0f:b0:3f:7f:eb:76:99:5f:9a

Verizon Terremark Management's Assertion

Verizon Terremark NV ("Verizon Terremark") operates the Certification Authority (CA) services known as the CAs as disclosed in appendix B and provides SSL CA services.

Verizon Terremark management has assessed its disclosures of its certificate practices and controls over its SSL CA services.

Based on that assessment, in providing its SSL and non-SSL Certification Authority (CA) services at Culliganlaan 2E, Diegem (Belgium), as of October 26, 2018, Verizon Terremark has:

- Disclosed its SSL certificate lifecycle management business practices in the applicable versions of the Certificate Practice Statement and Certificate Policy, as stipulated in Appendix A, including its commitment to provide SSL certificates in conformity with the CA/Browser Forum Requirements on the Verizon Terremark website, and provided such services in accordance with its disclosed practices
- Suitably designed, and placed into operation, 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 principles 1.4, 1.6 and 4.4.4 of the [WebTrust Principles and Criteria for Certification Authorities - SSL Baseline with Network Security v2.2](#).

Verizon Terremark
Diegem, Belgium



Signed by: **Tim Brophy**
Function: **Director, Risk Management & Compliance**
October 26, 2018

Appendix A - Certification Practice Statements and Certificate Policies in Scope

Certificate Policies	Begin Effective Date
Version 2.11	October 2, 2018

Certification Practice Statements	Begin Effective Date
Version 5.12	October 2, 2018

Appendix B - In-Scope CAs

OV SSL Issuing CAs		
#	Subject	SHA
1	C=NL, L=Amsterdam, O=Verizon Enterprise Solutions, OU=Cybertrust, CN=Verizon Akamai SureServer CA G14-SHA1	9c:fb:49:f8:52:05:72:fd:a3:43:69:8b:c0:43:07:c8:56:b4:f1:81:9b:1d:73:4b:cd:40:aa:c8:f1:e1:6c:2d
2	C=NL, L=Amsterdam, O=Verizon Enterprise Solutions, OU=Cybertrust, CN=Verizon Akamai SureServer CA G14-SHA2	73:73:d2:19:b4:25:47:e4:1b:cb:75:2b:cb:cb:e9:3f:59:2f:f6:f9:9c:34:0c:e5:7b:73:d3:8c:3e:c0:ba:98
3	CN=Verizon Public SureServer CA G14-SHA1, OU=Cybertrust, O=Verizon Enterprise Solutions, L=Amsterdam, C=NL	e3:78:e4:39:73:6c:19:6b:47:29:42:fe:7f:bf:a1:e1:78:cc:7b:8a:f0:c1:c8:6a:b6:88:e2:d0:39:78:24:32
4	CN=Verizon Public SureServer CA G14-SHA2, OU=Cybertrust, O=Verizon Enterprise Solutions, L=Amsterdam, C=NL	67:5c:1c:5d:bb:08:e9:fa:2c:81:7b:86:d5:fc:89:68:10:34:9a:2f:47:dd:64:93:8a:2b:ac:a6:49:97:c8:bb
5	CN=Cybertrust Public SureServer SV CA, O=Cybertrust Inc	48:29:e6:06:69:1f:5e:55:b4:48:58:7d:5c:09:99:b0:da:5d:d3:1c:12:73:e3:57:38:cb:92:e5:3c:d7:88:e1
6	CN=Verizon Global Issuing CA, OU=Cybertrust, O=Verizon Enterprise Solutions, L=Amsterdam, C=NL	cf:58:df:be:c6:68:2f:eb:ba:a4:26:c9:2a:5a:ab:92:29:a1:2d:bd:1c:71:bf:0f:b0:3f:7f:eb:76:99:5f:9a