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Report of Independent Accountants

To the Management of QuoVadis Limited

We have examined the accompanying assertion made by the management of QuoVadis Limited (QuoVadis) titled Management's Assertion Regarding the Effectiveness of Its Controls Over the Extended Validation (EV) SSL Certification Authority Services Based on the WebTrust Principles and Criteria for Certification Authorities – Extended Validation SSL v1.6.2 that provides its Certification Authority (CA) services at Bermuda, the Netherlands, Switzerland, the United Kingdom, Belgium and Germany, throughout the period 1 January 2018 to 31 December 2018 for CAs as enumerated in Appendix A[1], QuoVadis has:

- Disclosed its EV SSL Certificate practices and procedures in its Certificate Policy/Certification Practice Statement, version 2.5, dated December 7, 2018 for the QuoVadis Root CA 2, QuoVadis Root CA 2 G3, and the issuing CAs listed in Appendix A to Assertion of Management in accordance with the WebTrust Principles and Criteria for Certification Authorities - Extended Validation SSL Version 1.6.2

including its commitment to provide SSL certificates in conformity with the CA/Browser Forum Requirements, and provided such services in accordance with its disclosed practices

- Maintained effective controls to provide reasonable assurance that:
  - The integrity of keys and EV SSL certificates it manages was established and protected throughout their life cycles; and
  - EV SSL Subscriber information was properly collected, authenticated for the registration activities performed by QuoVadis and Registration Authorities,
- 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

based on the WebTrust Principles and Criteria for Certification Authorities – Extended Validation SSL v1.6.2.

QuoVadis management is responsible for its assertion and for specifying the aforementioned Criteria. Our responsibility is to express an opinion on management's assertion based on our examination.

Our examination was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants (AICPA). Those standards require that we plan and perform the examination to obtain reasonable assurance about whether management's assertion is fairly stated, in all material respects. An examination involves performing procedures to obtain evidence about management's assertion. The nature, timing, and extent of the procedures selected depend on our judgment, including an assessment of the risks of material misstatement of management's assertion, 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.

[1]Appendix A amended as of September 23, 2019 to include "VR IDENT EV SSL CA 2018" ICA.

Building a better working world

QuoVadis Management has disclosed to us the attached comments (Appendix B) that have been posted publicly in the online forums of the CA/Browser Forum, as well as the online forums of individual internet browsers that comprise the CA/Browser Forum. We have considered the nature of these comments in determining the nature, timing and extent of our procedures.

The relative effectiveness and significance of specific controls at QuoVadis 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.

Our examination was not conducted for the purpose of evaluating QuoVadis' cybersecurity risk management program. Accordingly, we do not express an opinion or any other form of assurance on its cybersecurity risk management program.

There are inherent limitations in the effectiveness of any system of internal control, including the possibility of human error and the circumvention of controls. Because of inherent limitations in its internal control, QuoVadis may achieve reasonable, but not absolute assurance that all security events are prevented and, for those controls may provide reasonable, but not absolute assurance that its commitments and system requirements are achieved. 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.

Examples of inherent limitations of internal controls related to security include (a) vulnerabilities in information technology components as a result of design by their manufacturer or developer; (b) breakdown of internal control at a vendor or business partner; and (c) persistent attackers with the resources to use advanced technical means and sophisticated social engineering techniques specifically targeting the entity. Furthermore, the projection of any evaluations of effectiveness to future periods is subject to the risk that controls may become inadequate because of changes in conditions, that the degree of compliance with such controls may deteriorate, or that changes made to the system or controls, or the failure to make needed changes to the system or controls, may alter the validity of such evaluations.

In our opinion, QuoVadis' management's assertion referred to above is fairly stated, in all material respects, based on the aforementioned criteria.

QuoVadis' use of the WebTrust for Certification Authorities – Extended Validation SSL 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.

This report does not include any representation as to the quality of QuoVadis' CA services beyond those covered by the WebTrust Principles and Criteria for Certification Authorities - Extended Validation SSL Version 1.6.2 criteria, or the suitability of any of QuoVadis' services for any customer's intended purpose.

Ernst & Young LLP

29 March 2019, except for Appendix A,
as to which the date is September 23, 2019

Management's Assertion Regarding the Effectiveness of Its Controls
Over the Extended Validation SSL Certification Authority Services
Based on the WebTrust Principles and Criteria for Certification Authorities – Extended Validation SSL v1.6.2

29 March 2019

We, as the management of QuoVadis Limited (QuoVadis), are responsible for operating the Extended Validation (EV) SSL Certification Authority (CA) services at Bermuda, the Netherlands, Switzerland, the United Kingdom, Belgium and Germany, for the Root CA(s) and Subordinate CA (s) in scope for EV SSL Certificates Requirements listed at Appendix A.

Controls have inherent limitations, including the possibility of human error and the circumvention or overriding of controls. Accordingly, even effective controls can provide only reasonable assurance with respect to QuoVadis' CA operations. Furthermore, because of changes in conditions, the effectiveness of controls may vary over time.

Management of QuoVadis has assessed the disclosures of its certificate practices and controls over its EV SSL CA services. Based on that assessment, in providing its SSL Certification Authority (CA) services at Bermuda, the Netherlands, Switzerland, the United Kingdom, Belgium and Germany throughout the period from 1 January 2018 through 31 December 2018, QuoVadis has:

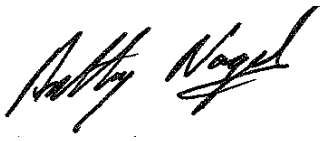
- Disclosed its EV SSL Certificate practices and procedures, and its commitment to provide EV SSL Certificates in conformity with the applicable CA/Browser Forum Guidelines for the QuoVadis Root CA 2, QuoVadis Root CA 2 G3, in the QuoVadis Root CA2 Certificate Policy/Certification Practice Statement, version 2.5, dated December 7, 2018

including its commitment to provide EV SSL certificates in conformity with the applicable CA/Browser Forum Requirements on the QuoVadis' website, and provided such services in accordance with its disclosed practices

- Maintained effective controls to provide reasonable assurance that:
    - The integrity of keys and EV SSL certificates it manages was established and protected throughout their life cycles; and
    - EV SSL Subscriber information was properly collected, authenticated for the registration activities performed by QuoVadis and Registration Authorities,
- Maintained effective controls to provide reasonable assurance that:
    - Logical and physical access to CA systems and data was restricted to authorized individuals;
    - The continuity of key and certificate management operations was maintained; and
    - CA systems development, maintenance, and operations are properly authorized and performed to maintain CA systems integrity

for the QuoVadis Root CA 2, QuoVadis Root CA 2 G3, and the issuing CAs listed in Appendix A in accordance with the WebTrust Principles and Criteria for Certification Authorities - Extended Validation SSL Version 1.6.2.

Very truly yours,



Anthony Nagel
Director
QuoVadis Limited

Appendix A to Assertion of Management

Distinguished name	Subject Key Identifier	Certificate Serial Number	SHA-256 Fingerprint
CN = QuoVadis Root CA 2 O = QuoVadis Limited C = BM	1a8462bc484c332504d4eed0f603c41946d1946b	0509	85A0DD7DD720ADB7FF05F83D542B209DC7FF4528F7D677B18389FEA5E5C49E86
CN = QuoVadis Root CA 2 G3 O = QuoVadis Limited C = BM	ede76f765abf60ec495bc6a577bb7216719bc43d	445734245b81899b35f2ceb82b3b5ba726f07528	8FE4FB0AF93A4D0D67DB0BEBB23E37C71BF325DCBCDD240EA04DAF58B47E1840
CN = HydrantID EV SSL ICA G1 O = HydrantID (Avalanche Cloud Corporation) C = US	54753e33d17d142e4b7009c4ac5d4ad1833978b5	5bfdd1bb152d106baa6d6d17e73c561f0dd9c8ca	80FDE428212AF0CA0AC531EEE6ED2DF3D3C2A4557DFCE857070FC947922E9B24
CN = QuoVadis EV SSL ICA G1 O = QuoVadis Limited C = BM	555886ceba7c764e9913a90fd36c9fc2f5d33ce3	73da5afa23d93fba842e0a20f401c9d86e24fc5d	3FE8BE392A08684B99F497E618C7DDF5A02A4289BF9D08E595045931BFBA814F
CN = QuoVadis EV SSL ICA G3 O = QuoVadis Limited C = BM	e58454d090499f38baf2c9e12a08c54e9fa0483f	524fc1f16e34d1702b84a13fb042bbcc7c3c9032	F18442BEDF70B4D15211356C72B659332BED03FFD3BBA7AFAAABE6DE9D723002
CN = QuoVadis Qualified Web ICA G1 O = QuoVadis Trustlink B.V. 2.5.4.97 = NTRNL-30237459 C = NL	04bb04d79dd87d1cd9e4f054bd8c3cb632de7634	4984b32ba495d0c61de34bcf14d3a35aee508644	C02D8A30ED69B2F864ED8FB1A63A3E7255288920CA294BDCA30F63898FB9195C
CN = VR IDENT EV SSL CA 2018 OU = VR IDENT O = Fiducia & GAD IT AG C = DE	9f3452e10d1604133a3aec1ffeaa5524917afbd6	6fa3cc76e393d62826d9be57ad26cdd5ac91603d	BF39A4241F42D522368944B3DC53ED9EAA5AC7735E242E0627C0DD5BBA714484

Appendix B

	Disclosure	Relevant WebTrust Criteria	Publicly Disclosed Link
1	In January 2019, QuoVadis disclosed previously addressed issues in 2018 certificate issuance: A. IP addresses in SAN dnsName fields B. Too many characters in Subject fields C. PrintableString contains invalid character	WebTrust Principles and Criteria for Certification Authorities – Extended Validation SSL v1.6.2, Principle 2 (EV SSL Service Integrity)	Bugzilla Link
2	In January 2019, QuoVadis disclosed previously addressed issues in 2018 certificate issuance at external subCAs. A. VR IDENT: Erroneous ISO country code	WebTrust Principles and Criteria for Certification Authorities – Extended Validation SSL v1.6.2, Principle 2 (EV SSL Service Integrity)	Bugzilla Link This link also includes QuoVadis' disclosures related to other problem certificates related to: • Siemens – Undergoes its own ETSI audit • Freistaat Bayern - Disclosed in QuoVadis' Baseline SSL report • BIT – Technically constrained Subordinate CA that has ceased issuance and moved to Managed PKI. • DarkMatter – Undergoes its own WebTrust audit