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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 SSL Certification Authority Services Based on the WebTrust Principles and Criteria for Certification Authorities – SSL Baseline with Network Security v2.2 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 SSL certificate lifecycle management business practices in its:
 - ▶ [Certificate Policy/Certification Practice Statement, version 4.25](#), dated December 7, 2018 for the QuoVadis Root CA, QuoVadis Root CA 1 G3, QuoVadis Root CA 3, and QuoVadis Root CA 3 G3; and
 - ▶ [Certificate Policy/Certification Practice Statement, version 2.5](#), dated December 7, 2018 for the QuoVadis Root CA 2, QuoVadis Root CA 2 G3, in the QuoVadis Root CA2,

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 SSL certificates it manages is established and protected throughout their lifecycles; and
 - ▶ SSL subscriber information is properly authenticated (for the registration activities performed by QuoVadis),
- ▶ 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 Version 2.2](#).

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

¹ Appendix A amended as of September 13, 2019 to include Section II - CAs for which no SSL/TLS certificates were issued during 2018.



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.

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 – 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.

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 – SSL Baseline with Network Security v2.2 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, Section II,
as to which the date is September 13, 2019



Management's Assertion Regarding the Effectiveness of Its Controls
Over the SSL Certification Authority Services
Based on the WebTrust Principles and Criteria for Certification Authorities – SSL Baseline with
Network Security v2.2

29 March 2019

We, as the management of QuoVadis Limited (QuoVadis), are responsible for operating the 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 SSL Baseline Requirements and Network Security 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 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 SSL certificate lifecycle management business practices in its:
 - [QuoVadis Certificate Policy/Certification Practice Statement, version 4.25](#), dated December 7, 2018 for the QuoVadis Root CA, QuoVadis Root CA 1 G3, QuoVadis Root CA 3, and QuoVadis Root CA 3 G3; and
 - [QuoVadis Root CA2 Certificate Policy/Certification Practice Statement, version 2.5](#), dated December 7, 2018 for the QuoVadis Root CA 2, QuoVadis Root CA 2 G3,

including its commitment to provide SSL certificates in conformity with the 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 SSL certificates it manages was established and protected throughout their lifecycles; and
 - SSL subscriber information was properly authenticated (for the registration activities performed by QuoVadis,
- 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,
- 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



for the Root CA(s) and [Subordinate CA(s)] in scope for SSL Baseline Requirements and Network Security Requirements at [Appendix A](#), based on the WebTrust Principles and Criteria for Certification Authorities - SSL Baseline with Network Security v2.2.

Very truly yours,

A handwritten signature in black ink that reads "Anthony Nagel".

Anthony Nagel
Director
QuoVadis Limited



Appendix A to Assertion of Management

Section I - CAs for which SSL/TLS certificates were issued during 2018			
Distinguished name	Subject Key Identifier	Certificate Serial Number	SHA-256 Fingerprint
CN = QuoVadis Root Certification Authority OU = Root Certification Authority O = QuoVadis Limited C = BM	8b4b6dedd329b90619ec3939a9f097846acbefdf	3ab6508b	A45EDE3BBBF09C8AE15C72EFC07268D693A21C996FD51E67CA079460FD6D8873
CN = QuoVadis Root CA 1 G3 O = QuoVadis Limited C = BM	a397d6f35ea210e1ab459f3c17643cee01709ccc	78585f2ead2c194be3370735341328b596d46593	8A866FD1B276B57E578E921C65828A2BED58E9F2F288054134B7F1F4BFC9CC74
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	8FE4FBOAF93A4D0D67DB0BEBB23E37C71BF325DCBCDD240EA04DAF58B47E1840
CN = QuoVadis Root CA 3 O = QuoVadis Limited C = BM	f2c013e082433efbee2f673296355cddb8cb02d0	05c6	18F1FC7F205DF8ADDDEB7FE007DD57E3AF375A9C4D8D73546BF4F1FED1E18D35
CN = QuoVadis Root CA 3 G3 O = QuoVadis Limited C = BM	c617d0bca8ea0243f21b06995d2b9020b9d79ce4	2ef59b0228a7db7affd5a3a9eabd03a0cf126a1d	88EF81DE202EB018452E43F864725CEA5FBD1FC2D9D205730709C5D8B8690F46
CN = Bayerische SSL-CA-2016-01 O = Freistaat Bayern S = Bayern C = DE	3ed3c0a9b12400cdaea3436d35c2f31a80a59b49	6c508d1fb1e365278309f895997fe98b6ee1853a	D852DE5D098086DFE9A6F3D728D5261865587C489DE675753D272374A5D6E9FC
CN = Bayerische SSL-CA-2016-01	3ed3c0a9b12400cdaea3436d35c2f31a80a59b49	074d7e05edf8885cdacb24f039fa40629aadfff8	E8CA72ECB9885C24EA29DE0EAC97704278D2A1E59B66666D327FBOCC6BDD912F



O = Freistaat Bayern S = Bayern C = DE			
CN = Bayerische SSL-CA-2016-01 O = Freistaat Bayern S = Bayern C = DE	3ed3c0a9b12400cdaea3436d35c2f31a80a59b49	169b62744e8c7c77388baa8bd8f10ad414212d26	4874758D6563E0433B1EDCEE7CCC5D9C2AAD8EBA12BCB0704454BB4EF8EAF799
CN = Bayerische SSL-CA-2016-02 O = Freistaat Bayern S = Bayern C = DE	e2ca581718e443f3b5a36d8d88ed5c5c3af67f5c	05f4a334090f7b1ae83677d4766bfd32a71e0851	806A2AA77EDBD3C76D8FD066DFB5CC3310F359B0102CE92C0FAEC16AA43FFFOA
CN = Bayerische SSL-CA-2016-02 O = Freistaat Bayern S = Bayern C = DE	e2ca581718e443f3b5a36d8d88ed5c5c3af67f5c	5a93afd305df3cd0531dc0e329cf42a4e99d3	33CD537E009DB9C758A568435C06706F9F01138054E20B9DDC93E0397138AA6B
CN = Bayerische SSL-CA-2016-02 O = Freistaat Bayern S = Bayern C = DE	e2ca581718e443f3b5a36d8d88ed5c5c3af67f5c	301afac8acb6d1ab342eb39e684bd912d9f1ddce	FF1DD21F1A5DOB452CD969CF4AA553835CABE0293C6C7B009F145AA202C02C8B
CN = Bayerische SSL-CA-2017-01 O = Freistaat Bayern S = Bayern C = DE	4b4946614500fd6bb60cee b6cb04a1bc12e1c44e	15722c4538cde50e6cbf4f48f521c25bec9b5a5e	3BF1E41503C7F023D0D4CAFFBE8E51262C2C7310BC6D96E8CC8D143A600AEE80
CN = Bayerische SSL-CA-2017-01 O = Freistaat Bayern S = Bayern C = DE	4b4946614500fd6bb60cee b6cb04a1bc12e1c44e	055bdf5cae52faa69f1e167af9e466a114e177ab	B39627401441CEB42FF6C7F983E0F2A9230D1877403C9F40965C8757CEBFD7D6



CN = Bayerische SSL-CA-2017-01 O = Freistaat Bayern S = Bayern C = DE	4b4946614500fd6bb60cee b6cb04a1bc12e1c44e	6eb571b1aee67f603cdc59fe8 b638dd6c6e88e36	8D9CFD98F52B1C2C6F4E9CED3D1D995927EFB 0D5638FBDF08834D0F72CA29118
CN = Bayerische SSL-CA-2017-02 O = Freistaat Bayern S = Bayern C = DE	a9974bcd86da0bcab61cdd 283ca1c80895bc3587	107820596210c5bfc0092ce2a bca189079766e06	0AB115DE9D126A3D4EA10DDF0863CC9D89567 44EB7B4CCDAB7E57D6A06E58518
CN = Bayerische SSL-CA-2017-02 O = Freistaat Bayern S = Bayern C = DE	a9974bcd86da0bcab61cdd 283ca1c80895bc3587	4823e5da20b8401683cc5d7dc 21d3520dd690bc1	7B85F6D0859B240A3363374A1181E01202104 7DCED2352A841F6E55B5D077EA5
CN = Bayerische SSL-CA-2017-02 O = Freistaat Bayern S = Bayern C = DE	a9974bcd86da0bcab61cdd 283ca1c80895bc3587	78105ef8412c61f3b91d09275 705beb5f510a29dd	425202D4BBFDA9B799D0F7AA927D944F42CCA 4237C2FC19875B9075DEB35A621
CN = HydrantID EV SSL ICA G1 O = HydrantID (Avalanche Cloud Corporation) C = US	54753e33d17d142e4b7009 c4ac5d4ad1833978b5	5bfd1bb152d106baa6d6d17e 73c561f0dd9c8ca	80FDE428212AF0CA0AC531EEE6ED2DF3D3C2A 4557DFCE857070FC947922E9B24
CN = HydrantID SSL ICA G2 O = HydrantID (Avalanche Cloud Corporation) C = US	986ab62d2ebfa7aa9ff6f7 d609afd58b57f98ab7	7517167783d0437eb556c3579 46e4563b8ebd3ac	9C6D08933201407FBF2B12540B67CC0E4C966 6F132E1504762A717CBAE8F3FD6
CN = QuoVadis Enterprise Trust CA 1 G3 O = QuoVadis Limited C = BM	6c26bd605529294e663207 a0ff638b835a4b34c6	0ad86fa335b93ef48c8e3bf77 d4c63143643adb9	0531C86F785958939FDC539924D395D1EFA40 9364E6827D3AB9876311FFB27B0



CN = QuoVadis Enterprise Trust CA 2 G3 O = QuoVadis Limited C = BM	64e3058b26bef335f59f311208f8e4169c2aa862	5eeeb44a70e18e63c9898f202cbac164914edc05	174E1DE77C8D93C68ECD2BD2EA6E191B584DB850277A834AAC898B7C80A91C70
CN = QuoVadis Enterprise Trust CA 3 G3 O = QuoVadis Limited C = BM	f01660229835892f86fccd9871c0d63556d3a47	0c2163a44924ffb7fcdb675acdcaee7208cca95a	DA5462526A0C2E9852A86186B025390158759CDCA6AE21F09F713CA6ACCDD1F1
CN = QuoVadis Europe SSL CA G1 O = QuoVadis Trustlink BVBA C = BE	42d38773e19ed33e5cfeb070bbcade21ba247936	4db89836333b16bc441d5f4fc60bc67dcff0bd28	DC8B2DEE50DD478AB135CAC269CEA68851557A9129ABCD98DF5213B23DBFB3CD
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 Global SSL ICA G2 O = QuoVadis Limited C = BM	911962ad5b17a730fbf0de3925b1bd8cb9b85127	48982de2a92cb339e1c8f933358275d3e4f88255	A4879ECOF36CF84B6F2ED87AE57EE3B94A0785C6862238CD45481084D152EB18
CN = QuoVadis Global SSL ICA G3 O = QuoVadis Limited C = BM	b31289b5a94b35bc1500f080e9d87887f1137c76	7ed6e79cc9ad81c4c8193ef95d4428770e341317	CAB9C12DBDE3AD5D2BC0201B54B18BE209CD5E146AAA085ABBDF241B096DFF47
CN = QuoVadis Grid ICA G2 O = QuoVadis Limited C = BM	b75d7582972cb2fb6efe1c1950e02b6fe4dfba30	10b62f345a61eb6184a7b106c8057e9453e207d5	74CE8C1631EF9F38E7A4197DA3F5474DBC34F001F2967C25B5999562BCC8C9D4
CN = QuoVadis Grid ICA OU = Issuing Certification Authority	9d89b2e458fc3a4e9239cc56bb552596c64581f5	421fd45f	53007E9E70DC1FFF21FC813649F5DAF5FCE3A244DE6B43D691B10DDA262DC0B7



O = QuoVadis Limited C = BM			
CN = QuoVadis Qualified Web ICA G1 O = QuoVadis Trustlink B.V. 2.5.4.97 = NTRNL-30237459 C = NL	04bb04d79dd87d1cd9e4f0 54bd8c3cb632de7634	4984b32ba495d0c61de34bcf1 4d3a35aee508644	C02D8A30ED69B2F864ED8FB1A63A3E7255288 920CA294BDCA30F63898FB9195C
CN = QuoVadis QVRCA1G1 SSL ICA O = QuoVadis Limited C = BM	fc3bec3d39029acb4d15bb 44f36448c1cbd11a2e	760bdb66c0c72c1590385851c 8835f226dbcf063	9058D5065F8F3E9A63AAFE5CE89A764470B0D EF9DCF3B9EC7D0587FAB88FEBA0
CN = QuoVadis QVRCA1G3 SSL ICA O = QuoVadis Limited C = BM	20060d424ba4d9d3287027 63bc4c694621811d3c	749e30fc6c0fd3c59e91b5085 ef613b10acef9af	51587C867BF66F35ECE554A08E0A41C13B8BB D9B59D262D204A70309A672BEE6
CN = QuoVadis QVRCA3G1 SSL ICA O = QuoVadis Limited C = BM	dd71689a74dced0924f1fe 74a7d24c5fc07bcc91	1af6d97a8ff0b28deaac01a52 4c87a6f32e79df6	8D99217FF82D60E4DF59BE8A1121625CDFFC4 F22F21E1263A1DF06D2DC0B540E
CN = QuoVadis QVRCA3G3 SSL ICA O = QuoVadis Limited C = BM	4e49f1e4740b9834123ae5 b1557dc49272b5afa4	454304f0e63f6011f2a246e0c 684caa4f7288876	764A0D84D5552CD5872C73464F37F02175CDA 70588102B13ADA2A0199FC403E9
CN = Bayerische SSL-CA-2018- 01 O = Freistaat Bayern S = Bayern C = DE	f43ec1cc0cd908aca968b3 788dbb2e3aa24737ba	44915f9e749ae3af4f9b67f6f f1c82b45f444bbf	52B63D1BD08E83BDC723D7B1FE962CEC1806E 7F53F76F2C70858CA35293A1DC1
CN = Bayerische SSL-CA-2018- 01 O = Freistaat Bayern S = Bayern C = DE	f43ec1cc0cd908aca968b3 788dbb2e3aa24737ba	22559aace2195a18cf8e40489 6b94132a8dc4ccf	C84AE01ECD202DAFBEEE1F0E679646DE8CCD6 53D7846718A3B5F4E129324298A



CN = Bayerische SSL-CA-2018-01 O = Freistaat Bayern S = Bayern C = DE	f43ec1cc0cd908aca968b3788dbb2e3aa24737ba	5dced5064c9e3513c0524ad49972fbc5d37e7713	0F751035C18E1D392E9CC557C57E94A55D12FBB086F26A4529E2613625BFD13C
CN = VR IDENT EV SSL CA 2018 OU = VR IDENT O = Fiducia & GAD IT AG C = DE	9f3452e10d1604133a3aec1ffeaa5524917afb6d	6fa3cc76e393d62826d9be57ad26cdd5ac91603d	BF39A4241F42D522368944B3DC53ED9EAA5AC7735E242E0627C0DD5BBA714484
CN = VR IDENT SSL CA 2018 OU = VR IDENT O = Fiducia & GAD IT AG C = DE	88062932e2f1ef76bfc522c5549c1767282d6c16	43a90e0f1875301023583e27e8fb80b9edc64b0e	502C7A870341D7BE67DB26DBFACF9647AFD89A854BF8812FA4EF70C356EC13E5
Section II - CAs for which no SSL/TLS certificates were issued during 2018			
Distinguished name	Subject Key Identifier	Certificate Serial Number	SHA-256 Fingerprint
CN = HIN Health Info Net CA O = Health Info Net AG C = CH	41b9bc131524d964aca0ae7720463bfa5640d62a	0a29	479F4E101F380691201A34CBADBC09E5F0523B35EE3839EB4B14332481EF8463
CN = HydrantID Client ICA O = HydrantID (Avalanche Cloud Corporation) C = US	7c3687827bdfdc6bfe681e5f4004ca8047e604e39	5654d76a669e0eb418daf62cc1196b39b480e899	2EEE91CC892A16CCB7320CDED2AE4948C052345D6B24E214C24EB93932D10DD9
CN = QuoVadis Belgium Issuing CA G1 O = QuoVadis Trustlink BVBA C = BE	f80f651c7a6319aabf446fa6491221f37a5de30d	6acaf5c985274c5027ba29283006d6e4c4f15a9b	27EBACD86DD3BF86143DA4342861031A57CF3FA414D40A86E669C3F4F1D8CF24
CN = QuoVadis Belgium Issuing CA G2 O = QuoVadis Trustlink BVBA 2.5.4.97 = NTRBE-0537698318 C = BE	87c9bc3197127a73bb7ec03d4551b401259551ab	40f6065343c04cb671e9c8250e90ebd58dd86e55	D90B40132306D1094608B1B9A2F6A9E23B45FE121FEF514A1C9DF70A815AD95C



CN = QuoVadis EIDI -V CA G1 OU = Issuing Certification Authority O = QuoVadis Trustlink Switzerland Ltd. C = CH	45ada2c0bb3adac86fe549d948c5a8f6db0fa4c7	1387500c423dd8187e315b36686765216f2b9035	393E95D3AE5233A04FEFE058BA8F445132D30E4362D5F7259061392716B34D2C
CN = QuoVadis EU Issuing Certification Authority OU = Issuing Certification Authority O = QuoVadis Limited, Bermuda C = NL	14b43d59ccee494a64825a12ccbb2bb9847af44	421fd4ce	EC50E7E17D3802811C8B6567148CED68BBB1BD79EDDC61DBD298CEA5BA0FB862
CN = QuoVadis EU Issuing Certification Authority G2 OU = Issuing Certification Authority O = QuoVadis Trustlink B.V. C = NL	e0f80ef9d4b5f27f4923b6c379c7a3351f867a88	2018702e0e3f979bdc163037d03bb6d27d5c4b22	EC3F940A48EF7CBCEA4142F735A5DF2976DB38183D9033C76B78E25F8F53EB5B
CN = QuoVadis EU Issuing Certification Authority G3 O = QuoVadis Trustlink B.V. C = NL	42a8e9bb1ea79ed1ec7208b16ec7d1296ab550c0	375b8adb585dd26543ec430b8700530c7e10fd9e	ADFFFA6FD0809A54A9F0B31FD25F74BF7F2D7AE11C80FD99DAA0FB603A65CDOE
CN = QuoVadis EU Issuing Certification Authority G4 O = QuoVadis Trustlink B.V. 2.5.4.97 = NTRNL-30237459 C = NL	f2e0ed2c039c636c38652ac7e45f4a3a4b678d88	1588bb1a8ab4171349888c596f21e39f1e18ce3e	ODD818228990D83FCE9F9DCA7B5CC44ED318EDD16399987EA893877EA52DE11E
CN = QuoVadis Internal CA G1 O = QuoVadis Limited C = BM	ec70e04c4e9729159cc6fcc4a9ab2f852c3b0ce4	6e3e67e28cd49bf0011c75679c15c72d3804d1de	6B8973A0DBADA29988C5DC06CBCEF049BE770604F8A7436D817FAC3A9710F481
CN = QuoVadis Issuing CA 3 G3 O = QuoVadis Limited C = BM	13f241f48d394447059dfbabc65a350c1e96ef5e	1d9c5b8a40a58a16fed4f336724d120c467cfd2	C12DD0347COD4AA25D3986E0499740C5363A6B7EC32A49C5D18B9D56B075E368



CN = QuoVadis Issuing CA G3 OU = Issuing Certification Authority O = QuoVadis Limited C = BM	8d8facbb589437ac692fe1f116a9ed394b80b634	421fd5b3	15CE38976716DCB35AA7B35FC168EBBB3BC2E C4696A8C795FC5C48457140E0A7
CN = QuoVadis Issuing CA G4 O = QuoVadis Limited C = BM	f3341211f18cc6f6b2a7b4994b708aca60a1cb45	69b2d1ccf02e20dcc95c62894f7f9e5f5fc057bf	DA3BC81005FDBB853D681A7E942661AEBA237 89211525EAF52221F28514C09CB
CN = QuoVadis Personal Signing Service CA G1 O = QuoVadis Trustlink Switzerland Ltd. C = CH	f3ff239fdb3d9b995007093c0130c251eafc42d2	689db6c7841e4b5b09a8184ef3fd79193b118247	F94C931373F850FF3D7DB5FB20AC04EC2F812 CAEC9BD17E32DB6DCAE2269104D
CN = QuoVadis SuisseID Advanced CA OU = Issuing Certification Authority O = QuoVadis Trustlink Switzerland Ltd. C = CH	d5337b2f7aeb59b1cfd64965031f146743a3709e	421fd595	5DDAB0A802D83893AC0EDF9B30A620411B1A7 4A8B7D411A6A7AD7DC46EB1C8C8
CN = QuoVadis SuisseID Qualified CA OU = Issuing Certification Authority O = QuoVadis Trustlink Switzerland Ltd. C = CH	cb60b070e75895f5975925f6bc206d948c446e9f	421fd596	5B7017B80F97C621AF1163B04BEBAFD2F932A 42B85F4B9FEC71B38609F564922
CN = QuoVadis Swiss Advanced CA G2 O = QuoVadis Trustlink Switzerland Ltd. C = CH	a0206d6d495dba4a85d37720b27ab88b0eedd59d	6a280af346232831c95b42c29d24c4a82cc335e3	5044F65E1042CD380B0B9997E4283358F0DEE F7873DA72EFDB6F02474AE37EBE



CN = QuoVadis Swiss Advanced CA OU = Issuing Certification Authority O = QuoVadis Trustlink Switzerland Ltd. C = CH	c697ff081067722c4cafe7 ef5e61fafb00b20ab7	421fd59f	235C96A2E2DA557B904E90F3A0CAA57EABB4B DB5F401969DA8C282F60839568F
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Appendix B

	Disclosure	Relevant WebTrust Criteria	Publicly Disclosed Link
1	QuoVadis disclosed that a Technically Constrained external subordinate CA operated by Freistaat Bayern had issued a TLS Subscriber Certificate with the keyCertSign and cRLSign bits set in the Key Usage extension.	WebTrust Principles and Criteria for Certification Authorities - SSL Baseline with Network Security Version 2.2, Principle 2 (SSL Service Integrity)	Bugzilla Link
2	In January 2019, QuoVadis disclosed previously addressed issues in 2018 certificate issuance: <ul style="list-style-type: none"> 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 - SSL Baseline with Network Security Version 2.2, Principle 2 (SSL Service Integrity)	Bugzilla Link
3	In January 2019, QuoVadis disclosed previously addressed issues in 2018 certificate issuance at external subCAs. <ul style="list-style-type: none"> A. VR IDENT: Erroneous ISO country code 	WebTrust Principles and Criteria for Certification Authorities - SSL Baseline with Network Security Version 2.2, Principle 2 (SSL Service Integrity)	Bugzilla Link This link also includes QuoVadis' disclosures related to other problem certificates related to: <ul style="list-style-type: none"> • Siemens - Undergoes its own ETSI audit • Freistaat Bayern - Disclosed above in row 1. • BIT - Technically constrained Subordinate CA that has ceased issuance and moved to Managed PKI. • DarkMatter - Undergoes its own WebTrust audit