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INDEPENDENT ASSURANCE REPORT

To the management of eMudhra Technologies Limited ("emSign PKI"):

Scope

We have been engaged, in a reasonable assurance engagement, to report on emSign PKI management's assertion that for its Certification Authority (CA) operations at Bangalore and Chennai, India throughout the period 1 June 2024 to 31 May 2025 for its CAs as enumerated in **Appendix A(i)**, emSign PKI has:

- disclosed its S/MIME certificate lifecycle management business practices in applicable versions of its Certification Practice Statements as enumerated in **Appendix B** including its commitment to provide S/MIME certificates in conformity with the CA/Browser Forum Requirements on the emSign PKI 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 S/MIME certificates it manages is established and protected throughout their lifecycles; and
  o S/MIME subscriber information is properly authenticated (for the registration activities performed by emSign PKI)

- maintained effective controls to provide reasonable assurance that:
  o logical and physical access to CA systems and data is restricted to authorised individuals;
  o the continuity of key and certificate management operations is maintained; and
  o CA systems development, maintenance, and operations are properly authorised and performed to maintain CA systems integrity

in accordance with the WebTrust Principles and Criteria for Certification Authorities – S/MIME Certificate v1.0.3.

The CAs enumerated in **Appendix A(ii)** did not issue any S/MIME certificate for the audit period.

Certification authority's responsibilities

emSign PKI's management is responsible for its assertion, including the fairness of its presentation, and the provision of its described services in accordance with the WebTrust Principles and Criteria for Certification Authorities – S/MIME Certificates v1.0.3.

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 Management (ISQM) 1, *Quality Management for Firms that Perform Audits or Reviews of Financial Statements, or Other Assurance or Related Services Engagements* 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.

Practitioner'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 emSign PKI's S/MIME certificate lifecycle management business practices, including its relevant controls over the issuance, renewal, and revocation of S/MIME certificates;
(2) selectively testing transactions executed in accordance with disclosed S/MIME 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.

The relative effectiveness and significance of specific controls at emSign PKI and their effect on assessments of control risk for subscribers and relying parties are dependent on their interaction with the controls, and other factor 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.

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Inherent limitations

There are inherent limitations in the effectiveness of any system of internal control, including the possibility of human error and the circumvention of controls. For example, because of their nature, controls may not prevent, or detect unauthorised access to systems and information, or failure to comply with internal and external policies or requirements. Also, the projection to the future of any conclusions based on our findings is subject to the risk that controls may become ineffective.

Opinion

In our opinion, throughout the period 1 June 2024 to 31 May 2025, emSign PKI management's assertion, as referred to above, is fairly stated, in all material respects, in accordance with the WebTrust Principles and Criteria for Certification Authorities – S/MIME Certificates v1.0.3.

This report does not include any representation as to the quality of emSign PKI's services beyond those covered by the WebTrust Principles and Criteria for Certification Authorities – S/MIME Certificates v1.0.3, nor the suitability of any of emSign PKI's services for any customer's intended purpose.

Use of the WebTrust seal

emSign PKI's use of the WebTrust for Certification Authorities – S/MIME Certificates 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 Consulting Sdn. Bhd.
Kuala Lumpur, Malaysia
19 August 2025

Appendix A(i):
List of Root and Subordinate CAs in Scope:

No.	Common Name	Certificate Serial No.	SHA-256 Fingerprint
1	**emSign Root CA - G1**	31F5E4620C6C58EDD6D8	40F6AF0346A99AA1CD1D55 5A4E9CCE62C7F9634603EE 406615833DC8C8D00367
2	emSign SMIME CA - G1	00AB98D0B97A5D695A	BA9E8A1FCC4154B094BE73 4035ECA7E54E9F5619D511 B265750EEB982E2C6D06
3	emSign Root SMIME CA - G1	0091685541577A36E8AE09 ADEBE4CFAF	A65160E9770D70D8ACE8EC 3670A7B4EF1F87F4F507B1 CE3D6FC623ADED0694C1
4	**emSign ECC Root CA - G3**	3CF607A968700EDA8B84	86A1ECBA089C4A8D3BBE2 734C612BA341D813E043CF 9E8A862CD5C57A36BBE6B
5	emSign ECC SMIME CA - G3	0E906BB2267EC0FF	F5B3E914CDE2954F65464F A8E9D69F0492622B3C2AC2 43987B11CBBF1B451307
6	emSign Root SMIME CA - G3	00B33EBCAC96AC83A823E2 7786D76B6D8	B4CEEBA48EF8CCC6090F6D 2A62A85DBB51C5A106A7D C7EC5408270020F91C222
7	**emSign Root SMIME CA - G1**	0C974F5F068B868F52FC0C F7E5544F51	47911BC8F32A11B029E0BB 10A348B459404B87731B87 0A2F3FA97B4705DC4C25
8	emSign SMIME CA - G1	00FE04E642637D4020947D 6C5F4E0BD0	B9E2588E93B5E53617B842 E6ED34854EE46BA3D6721E C45DC650CE4439F514BE
9	**emSign Root SMIME CA - G3**	009F4F5FF84A1A6DC2C83C 0EF9B7031F	F76A0D440C418DC5B362BE 8E11E0A5D06023F4396093 E4F455827BF55153D8A4
10	emSign SMIME CA - G3	13BCE369D10F5CA4408D91 B84155CB	30444F40CAC26FFF497B1C D00DDF4D81453A8A176272 CC34ABE35FD564602B1B

Appendix A(ii):
List of Root and Subordinate CAs in Scope:

No.	Common Name	Certificate Serial No.	SHA-256 Fingerprint
1	emSign Class 1 CA - G1	00D59B7C9B36A2D44922EA	CF6D0333D0BE2C69A42D45 3960DEE9E109D9E8843EA3 061A1671D6EAF85EB7D8
2	emSign Class 2 CA - G1	3C5BDA55C0A236A744CD	63A8369DC824A42BC7AE6E E5D26AAFD32DF4AF677CA 18B941B7A57E33B1E3559
3	emSign Class 3 CA - G1	00A08870825A326BED9611	42DA1C562F80E46DA7A321 244EFC23D0FAA9FEBBB7AA 0377D96B42D9E88AB200
4	emSign Device CA - G1	0465835247364A904A8E	4C9198B673550858799AD2 744CC083C1BA0027E77D3B 8FD6D56CF53620D099E2
5	emSign ECC Class 1 CA - G3	00FB1E21982EB1B55C5925	ABA6A65DCE8955BAF0685 AB88809B7699C174496EF9 EE991533251494F43CE10

No.	Common Name	Certificate Serial No.	SHA-256 Fingerprint
6	emSign ECC Class 2 CA - G3	23E1BA02DFF3E900EDDD	4E9B731567177E1776A96D66D9120B3DEB28B800937EA4662565B3EF5EC8000B
7	emSign ECC Class 3 CA - G3	00B8EB258324DB08ACC2F5	7066A0F42F530E0DB5AFEE72A3B04DE614E7D2305C67D12C756BB215E37CB975
8	emSign ECC Device CA - G3	00876282A8FD758C391EC3	70B9BA595412CF8614B76747FD683CCA2759F42642164834FBEFDD88505C4F1C
9	**emSign Root CA - C1**	00AECF00BAC4CF32F843B2	125609AA301DA0A249B97A8239CB6A34216F44DCAC9F3954B14292F2E8C8608F
10	emSign Class 1 CA - C1	7E065336C075C7998B63	0EF7B863FAABC384A694FF632DAAF9BD31CED23E9246559A59ECD7472754CCE6
11	emSign Class 2 CA - C1	1A5C82DEDCBC6A153030	05B30B3FC44F8575334BD812EF9FA8A52A75743E19BC35A5BE3912ECA62C4669
12	emSign Class 3 CA - C1	00B474F64D86392189496E	69B0DD09B98F36A9CC7BD7FFE8A00DCD319A5FC947C9C8AF72C92894D8E81092
13	emSign Device CA - C1	00B19BE3081E2D97B5BFCB	D034B18751BEE10AAAF94C2F14350D3F654E5B934D0DDA592B31E58187A48952
14	Soft-Net Secure Signing CA - C1	4D3A149CFA144F9E3115	CCEC157DA0F0BD58E3E8B584054FE0C44F04B4DD8C97B75B788D9140B05142F7
15	**emSign ECC Root CA - C3**	7B71B68256B8127C9CA8	BC4D809B15189D78DB3E1D8CF4F9726A795DA1643CA5F1358E1DDB0EDC0D7EB3
16	emSign ECC Class 1 CA - C3	00BD6A0796AB3F8955521E	FAD2E98649F1C606150F55269EBC035AEA22FFAC131DE64BA6900C75D8447B7E
17	emSign ECC Class 2 CA - C3	00D1142766698BFCDEDA02	DB4591F878F6672F5B70733A66AD7C9537B97E6F0AF5CA49AAB8ECB2CE02F86B
18	emSign ECC Class 3 CA - C3	3D12A1CF78258D580854	5A9A03F2D3FE589BE63CDA11820A9F25F074C92034F51C047D34226D252EC025
19	emSign ECC Device CA - C3	00D9365F15842A1D0689C3	3D4511D0A80AA949A6D99B253A173471797C4459187A6329E736C37CB5493E46

Appendix B – Certification Practice Statement in Scope

Certification Practice Statement	Begin Effective Date	End Effective Date
Version 1.14	30 August 2023	16 June 2024
Version 1.15	17 June 2024	4 September 2024
Version 1.16	5 September 2024	29 November 2024
Version 1.17	30 November 2024	13 March 2025
Version 1.18	14 March 2025	5 June 2025
Version 1.19	6 June 2025	7 July 2025
Version 1.20	8 July 2025	-

EMSIGN PKI'S MANAGEMENT ASSERTION

eMudhra Technologies Limited ("emSign PKI") operates the Certification Authority (CA) services known as enumerated in Appendix A(i) and provides S/MIME CA services.

The management of emSign PKI is responsible for establishing and maintaining effective controls over its S/MIME operations, including its S/MIME CA business practices disclosure on its repository, S/MIME key lifecycle management controls, and S/MIME 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 emSign PKI's CA operations. Furthermore, because of changes in conditions, the effectiveness of controls may vary over time.

emSign PKI management has assessed its disclosures of its certificate practices and controls over its S/MIME CA services. Based on that assessment, in providing its S/MIME CA services at Bangalore and Chennai, India, throughout the period 01 June 2024 to 31 May 2025, emSign PKI has:

- Disclosed its S/MIME certificate lifecycle management business practices in applicable versions of its Certification Practice Statements as enumerated in Appendix B, including its commitment to provide S/MIME certificates in conformity with the CA/Browser Forum Requirements on the emSign PKI website, and provided such services in accordance with its disclosed practices;

- Maintained effective controls to provide reasonable assurance that:
  - The integrity of keys and S/MIME certificates it manages is established and protected throughout their lifecycles; and
  - S/MIME subscriber information is properly authenticated (for the registration activities performed by emSign PKI);

- Maintained effected 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

in accordance with the WebTrust Principles and Criteria for Certification Authorities – S/MIME Certificates v1.0.3.

The CAs enumerated in Appendix A(ii) are not used for S/MIME certificate services although technically capable of such issuance. The management has put in place internal controls to prevent S/MIME issuance under these CAs.

Venu Madhava

Signed by Venu Madhava
Date: 2025.08.19
11:03:01

Venu Madhava,
Director.
18 August 2025.

eMudhra Technologies Limited

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CIN - U72200KA2012PLC065153

Appendix A(i) – List of Root and Subordinate CAs in Scope

No.	Common Name	Certificate Serial No.	SHA-256 Fingerprint
1	**emSign Root CA - G1**	31F5E4620C6C58EDD6D8	40F6AF0346A99AA1CD1D555A4E9CCE62C7F96 34603EE406615833DC8C8D00367
2	emSign SMIME CA - G1	00AB98D0B97A5D695A	BA9E8A1FCC4154B094BE734035ECA7E54E9F5 619D511B265750EEB982E2C6D06
3	emSign Root SMIME CA - G1	0091685541577A36E8AE0 9ADEBE4CFAF	A65160E9770D70D8ACE8EC3670A7B4EF1F87F 4F507B1CE3D6FC623ADED0694C1
4	**emSign ECC Root CA - G3**	3CF607A968700EDA8B84	86A1ECBA089C4A8D3BBE2734C612BA341D813 E043CF9E8A862CD5C57A36BBE6B
5	emSign ECC SMIME CA - G3	0E906BB2267EC0FF	F5B3E914CDE2954F65464FA8E9D69F0492622 B3C2AC243987B11CBBF1B451307
6	emSign Root SMIME CA - G3	00B33EBCAC96AC83A823E 2786D76B6D8	B4CEEBA48EF8CCC6090F6D2A62A85DBB51C5 A106A7DC7EC5408270020F91C222
7	**emSign Root SMIME CA - G1**	0C974F5F068B868F52FC0 CF7E5544F51	47911BC8F32A11B029E0BB10A348B459404B8 7731B870A2F3FA97B4705DC4C25
8	emSign SMIME CA - G1	00FE04E642637D4020947 D6C5F4E0BD0	B9E2588E93B5E53617B842E6ED34854EE46BA3 D6721EC45DC650CE4439F514BE
9	**emSign Root SMIME CA - G3**	009F4F5FF84A1A6DC2C83 C0EF9B7031F	F76A0D440C418DC5B362BE8E11E0A5D06023F 4396093E4F455827BF55153D8A4
10	emSign SMIME CA - G3	13BCE369D10F5CA4408D9 1B84155CB	30444F40CAC26FFF497B1CD00DDF4D81453A8 A176272CC34ABE35FD564602B1B

Appendix A(ii) - List of Root and Subordinate CAs in Scope

No	Common Name	Certificate Serial No.	SHA-256 Fingerprint
1	emSign Class 1 CA - G1	00D59B7C9B36A2 D44922EA	CF6D0333D0BE2C69A42D453960DEE9E109D9E8843E A3061A1671D6EAF85EB7D8
2	emSign Class 2 CA - G1	3C5BDA55C0A236 A744CD	63A8369DC824A42BC7AE6EE5D26AAFD32DF4AF677 CA18B941B7A57E33B1E3559
3	emSign Class 3 CA - G1	00A08870825A32 6BED9611	42DA1C562F80E46DA7A321244EFC23D0FAA9FEBBB 7AA0377D96B42D9E88AB200
4	emSign Device CA - G1	0465835247364A 904A8E	4C9198B673550858799AD2744CC083C1BA0027E77D 3B8FD6D56CF53620D099E2
5	emSign ECC Class 1 CA - G3	00FB1E21982EB1 B55C5925	ABA6A65DCE8955BAF0685AB88809B7699C174496EF 9EE991533251494F43CE10
6	emSign ECC Class 2 CA - G3	23E1BA02DFF3E9 00EDDD	4E9B731567177E1776A96D66D9120B3DEB28B80093 7EA4662565B3EF5EC8000B
7	emSign ECC Class 3 CA - G3	00B8EB258324DB 08ACC2F5	7066A0F42F530E0DB5AFEE72A3B04DE614E7D2305C 67D12C756BB215E37CB975
8	emSign ECC Device CA - G3	00876282A8FD75 8C391EC3	70B9BA595412CF8614B76747FD683CCA2759F42642 164834FBEFDD88505C4F1C
9	**emSign Root CA - C1**	00AECF00BAC4CF 32F843B2	125609AA301DA0A249B97A8239CB6A34216F44DCA C9F3954B14292F2E8C8608F
10	emSign Class 1 CA - C1	7E065336C075C7 998B63	0EF7B863FAABC384A694FF632DAAF9BD31CED23E9 246559A59ECD7472754CCE6
11	emSign Class 2 CA - C1	1A5C82DEDCBC6 A153030	05B30B3FC44F8575334BD812EF9FA8A52A75743E19 BC35A5BE3912ECA62C4669
12	emSign Class 3 CA - C1	00B474F64D8639 2189496E	69B0DD09B98F36A9CC7BD7FFE8A00DCD319A5FC94 7C9C8AF72C92894D8E81092
13	emSign Device CA - C1	00B19BE3081E2D 97B5BFCB	D034B18751BEE10AAAF94C2F14350D3F654E5B934D 0DDA592B31E58187A48952

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CIN - U72200KA2012PLC065153

No	Common Name	Certificate Serial No.	SHA-256 Fingerprint
14	Soft-Net Secure Signing CA - C1	4D3A149CFA144F 9E3115	CCEC157DA0F0BD58E3E8B584054FE0C44F04B4DD8 C97B75B788D9140B05142F7
15	**emSign ECC Root CA - C3**	7B71B68256B812 7C9CA8	BC4D809B15189D78DB3E1D8CF4F9726A795DA1643 CA5F1358E1DDB0EDC0D7EB3
16	emSign ECC Class 1 CA - C3	00BD6A0796AB3F 8955521E	FAD2E98649F1C606150F55269EBC035AEA22FFAC13 1DE64BA6900C75D8447B7E
17	emSign ECC Class 2 CA - C3	00D1142766698B FCDEDA02	DB4591F878F6672F5B70733A66AD7C9537B97E6F0A F5CA49AAB8ECB2CE02F86B
18	emSign ECC Class 3 CA - C3	3D12A1CF78258D 580854	5A9A03F2D3FE589BE63CDA11820A9F25F074C92034 F51C047D34226D252EC025
19	emSign ECC Device CA - C3	00D9365F15842A 1D0689C3	3D4511D0A80AA949A6D99B253A173471797C445918 7A6329E736C37CB5493E46

Appendix B – Certification Practice Statements in Scope

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