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### REPORT OF THE INDEPENDENT ACCOUNTANT

To the management of Amazon Trust Services, LLC ("ATS"):

#### Scope

We have examined ATS management's <u>assertion</u> that for its Certification Authority ("CA") operations in Washington and Virginia, in the United States of America, for its CAs as enumerated in <u>Attachment B</u>, ATS has:

- disclosed its extended validation SSL ("EV SSL") certificate lifecycle management business
  practices in the applicable versions of its Amazon Trust Services Certificate Practice
  Statement ("CPS") and Amazon Trust Services Certificate Policy ("CP") enumerated in
  <u>Attachment A</u>, including its commitment to provide EV SSL certificates in conformity with
  the CA/Browser Forum Guidelines on the ATS <u>repository</u>, 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 is established and protected throughout their lifecycles; and
  - EV SSL subscriber information is properly authenticated

throughout the period January 16, 2023 to January 15, 2024, based on the <u>WebTrust Principles</u> and <u>Criteria for Certification Authorities - Extended Validation SSL v1.7.8</u>.

#### Certification Authority's Responsibilities

ATS' management is responsible for its assertion, including the fairness of its presentation, and the provision of its described services in accordance the <u>WebTrust Principles and Criteria for</u> <u>Certification Authorities - Extended Validation SSL v1.7.8</u>.

#### Independent Accountant's Responsibilities

Our responsibility is to express an opinion on ATS 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. 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.

We are required to be independent and to meet our other ethical responsibilities in accordance with relevant ethical requirements relating to the engagement.

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The relative effectiveness and significance of specific controls at ATS 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. Our examination did not extend to controls at individual subscriber and relying party locations and we have not evaluated the effectiveness of such controls.

#### 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 unauthorized 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.

#### Independent Accountant's Opinion

In our opinion management's assertion, as referred to above, is fairly stated, in all material respects.

This report does not include any representation as to the quality of ATS' services other than its CA services in various locations in Washington and Virginia, in the United States of America, nor the suitability of any of ATS' services for any customer's intended purpose.

#### Other Matter

Without modifying our opinion, we noted the following other matters during our procedures:

|   | Matter Topic           | Matter Description   |
|---|------------------------|--|
| 1 | CA Certificate Content | Amazon Trust Services disclosed in Mozilla Bug <u>#1743943</u><br>that revocation of one of the misissued CA certificates<br>was delayed beyond the required timeline. |
|   |                        | This Mozilla Bug was closed as of June 2, 2023.  |

While the ATS assertion notes all issues disclosed on Bugzilla from January 16, 2023 through the date of this report, we have only noted those instances relevant to the CAs enumerated in <u>Attachment B</u> and applicable to the <u>WebTrust Principles and Criteria for Certification Authorities</u> - <u>Extended Validation SSL v1.7.8</u>.



#### Use of the WebTrust seal

ATS' 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.

# BDO USA

April 8, 2024



# ATTACHMENT A - CERTIFICATION PRACTICE STATEMENT AND CERTIFICATE POLICY VERSIONS IN-SCOPE

| Policy Name   | Version | Effective Date  |
|---|---------|-----------------|
| Amazon Trust Services Certificate Policy                | 1.0.13  | July 28, 2023   |
| Amazon Trust Services Certificate Policy                | 1.0.12  | August 29, 2022 |
| Amazon Trust Services Certification Practices Statement | 1.0.14  | July 28, 2023   |
| Amazon Trust Services Certification Practices Statement | 1.0.13  | August 29, 2022 |



### ATTACHMENT B - IN-SCOPE CAs

| Root CA Certificates   |  |  |            |            |
|--|--|--|------------|------------|
| Subject DN   | SHA2 Thumbprint  | SPKI SHA256  | Valid From | Valid To   |
| CN = Amazon Root CA 1<br>O = Amazon<br>C = US  | 8ECDE6884F3D87B1125BA31AC3FCB13D7016DE7F57CC904FE1CB97C6AE98196E | FBE3018031F9586BCBF417<br>27E417B7D1C45C2F47F93B<br>E372A17B96B50757D5A2 | 5/25/2015  | 1/16/2038  |
| CN = Amazon Root CA 2<br>O = Amazon<br>C = US  | 1BA5B2AA8C65401A82960118F80BEC4F62304D83CEC4713A19C39C011EA46DB4 | 7F4296FC5B6A4E3B35D3C3<br>69623E364AB1AF381D8FA7<br>121533C9D6C633EA2461 | 5/25/2015  | 5/25/2040  |
| CN = Amazon Root CA 3<br>O = Amazon<br>C = US  | 18CE6CFE7BF14E60B2E347B8DFE868CB31D02EBB3ADA271569F50343B46DB3A4 | 36ABC32656ACFC645C61B7<br>1613C4BF21C787F5CABBEE<br>48348D58597803D7ABC9 | 5/25/2015  | 5/25/2040  |
| CN = Amazon Root CA 4<br>O = Amazon<br>C = US  | E35D28419ED02025CFA69038CD623962458DA5C695FBDEA3C22B0BFB25897092 | F7ECDED5C66047D28ED64<br>66B543C40E0743ABE81D10<br>9254DCF845D4C2C7853C5 | 5/25/2015  | 5/25/2040  |
| CN = Starfield Services<br>Root Certificate<br>Authority - G2 <sup>1</sup><br>O = Starfield<br>Technologies, Inc.<br>L = Scottsdale<br>S = Arizona<br>C = US | 568D6905A2C88708A4B3025190EDCFEDB1974A606A13C6E5290FCB2AE63EDAB5 | 2B071C59A0A0AE76B0EAD<br>B2BAD23BAD4580B69C360<br>1B630C2EAF0613AFA83F92 | 8/31/2009  | 12/31/2037 |

| Cross-Signed CA Certificates                  |  |  |            |            |  |  |
|---|--|--|------------|------------|--|--|
| Subject DN                                    | SHA2 Thumbprint  | SPKI SHA256  | Valid From | Valid To   |  |  |
| CN = Amazon Root CA 1<br>O = Amazon<br>C = US | 87DCD4DC74640A322CD205552506D1BE64F12596258096544986B4850BC72706 | FBE3018031F9586BCBF417<br>27E417B7D1C45C2F47F93B<br>E372A17B96B50757D5A2 | 5/25/2015  | 12/31/2037 |  |  |
|   | 391220705B75BCF3ED3CD4B3631213F569D2CF8226101E170799A5354AB12861 |  | 10/21/2015 | 12/31/2037 |  |  |

<sup>&</sup>lt;sup>1</sup> ATS assumed operation of this Root CA on June 10, 2015. Starfield Technologies operated this CA prior to June 10, 2015 and was responsible for its key generation.



| Cross-Signed CA Certificates                  |  |  |            |            |  |
|---|--|--|------------|------------|--|
| Subject DN                                    | SHA2 Thumbprint  | SPKI SHA256  | Valid From | Valid To   |  |
| CN = Amazon Root CA 2<br>O = Amazon<br>C = US | 8B358466D66126312120645A5875A6A57E3C81D98476A967604244254EAC00F0 | 7F4296FC5B6A4E3B35D3C3<br>69623E364AB1AF381D8FA7<br>121533C9D6C633EA2461 | 5/25/2015  | 12/31/2037 |  |
| CN = Amazon Root CA 3<br>O = Amazon<br>C = US | 40C826FDB22BA32A2F9DB4F94770F72B8B1DA9C8FFDA7B11E6F27AF245C89B5E | 36ABC32656ACFC645C61B7<br>1613C4BF21C787F5CABBEE<br>48348D58597803D7ABC9 | 5/25/2015  | 12/31/2037 |  |
| CN = Amazon Root CA 4<br>O = Amazon<br>C = US | 543D9B7FC2A6471CD84FCA52C2CF6159DF83EBFCD88D8B08B5AF3F88737F52E6 | F7ECDED5C66047D28ED64<br>66B543C40E0743ABE81D10<br>9254DCF845D4C2C7853C5 | 5/25/2015  | 12/31/2037 |  |

| Intermediate CA Certificates <sup>2</sup>                |  |  |            |            |  |
|--|--|--|------------|------------|--|
| Subject DN   | SHA2 Thumbprint  | SPKI SHA256  | Valid From | Valid To   |  |
| CN = Amazon<br>OU = Server CA 0A<br>O = Amazon<br>C = US | DFCC775C644DB4A33AD71293433F463C8E31057CE22CB267F9D31A0353F4FC2F | B58539ECAA13921CCDB80<br>D38D34875FDE6471C5A159<br>D9BEEF2FA6F99983BD611 | 10/21/2015 | 10/18/2025 |  |
| CN = Amazon<br>OU = Server CA 1A<br>O = Amazon<br>C = US | 39C763A9CF19D923F977D23626AB890449A444AB8B795C815EF1EF81FEBC1E38 | 64BB5BD80311FA3F53BD99<br>404CAB8762AD6E048447D0<br>A97F219FCECA1661F37C | 10/21/2015 | 10/18/2025 |  |
| CN = Amazon<br>OU = Server CA 2A<br>O = Amazon<br>C = US | 72130E3B28900349214617F4D6F3FB85D08475EE78BF095C59458A14D1828866 | 1BDA5AFFF83781380BF708<br>198F9F7D2DB1E067F14BB9<br>EA7BAE70AAC0B0305E7B | 10/21/2015 | 10/18/2025 |  |
| CN = Amazon<br>OU = Server CA 3A<br>O = Amazon<br>C = US | 205154B777EDC55A5146585A5E54E054A70BE4AAD3B85D02318DA27BF807ADF1 | 7C53B5DF79135D9AF6195E<br>F6BB73AB98C2C89950B892<br>B192DFFD784DB925A41C | 10/21/2015 | 10/18/2025 |  |
| CN = Amazon<br>OU = Server CA 4A<br>O = Amazon<br>C = US | 7BED29276ACBED9F176F38BBA3A67CE5815B5CBF1522C7BB59ECD86B09E16ED2 | 17708DFF2B7FAEC9CB1B52<br>15EBB2421D97B0543C936F<br>AC9D6E02B92F20E5C707 | 10/21/2015 | 10/18/2025 |  |

 $<sup>^{2}</sup>$  ATS revoked all the Intermediate CA certificates in this table on May 24, 2023.



#### AMAZON TRUST SERVICES, LLC MANAGEMENT'S ASSERTION

Amazon Trust Services, LLC ("ATS") operates the Certification Authority ("CA") services for its CAs enumerated in <u>Attachment B</u>, and provides Extended Validation SSL ("EV SSL") Certification Authority ("CA") services.

The management of ATS is responsible for establishing and maintaining effective controls over its EV SSL CA operations, including its EV SSL CA business practices disclosure on its <u>repository</u>, EV SSL key lifecycle management controls, and EV 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 ATS' CA operations. Furthermore, because of changes in conditions, the effectiveness of controls may vary over time.

ATS management has assessed its disclosures of its certificate practices and controls over its EV SSL CA services. Based on that assessment, in ATS management's opinion, in providing its EV SSL CA services in Washington and Virginia, in the United States of America, ATS has:

- disclosed its EV SSL certificate lifecycle management business practices in the applicable versions of its Amazon Trust Services Certificate Practice Statement ("CPS") and Amazon Trust Services Certificate Policy ("CP") enumerated in <u>Attachment A</u>, including its commitment to provide EV SSL certificates in conformity with the CA/Browser Forum Requirements on the ATS <u>repository</u>, 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 is established and protected throughout their lifecycles; and
  - EV SSL subscriber information is properly authenticated

throughout the period January 16, 2023 to January 15, 2024, based on the <u>WebTrust Principles</u> and Criteria for Certification Authorities - Extended Validation SSL v1.7.8.

During the examination period, ATS did not issue any EV TLS subscriber certificates.

ATS has disclosed the following matters publicly on Mozilla's Bugzilla platform. These matters were included below due to being open during the period January 16, 2023, through the date of this report:

| Bug ID         | Summary   | Opened    | Closed   | Resolution |
|----------------|---|-----------|----------|------------|
| <u>1743943</u> | Amazon Trust Services - Delayed<br>Revocation of Subordinate CA | 12/1/2021 | 6/2/2023 | Fixed      |

Jonathan Koyolchyk

Jonathan Kozolchyk Vice President Amazon Trust Services, LLC

April 8, 2024

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|---|---------|-----------------|
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| Amazon Trust Services Certificate Policy                | 1.0.12  | August 29, 2022 |
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| Amazon Trust Services Certification Practices Statement | 1.0.13  | August 29, 2022 |

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|--|--|--|------------|------------|--|--|
| Subject DN   | SHA2 Thumbprint  | SPKI SHA256  | Valid From | Valid To   |  |  |
| CN = Amazon Root CA 1<br>O = Amazon<br>C = US  | 8ECDE6884F3D87B1125BA31AC3FCB13D7016DE7F57CC904FE1CB97C6AE98196E | FBE3018031F9586BCBF417<br>27E417B7D1C45C2F47F93B<br>E372A17B96B50757D5A2 | 5/25/2015  | 1/16/2038  |  |  |
| CN = Amazon Root CA 2<br>O = Amazon<br>C = US  | 1BA5B2AA8C65401A82960118F80BEC4F62304D83CEC4713A19C39C011EA46DB4 | 7F4296FC5B6A4E3B35D3C3<br>69623E364AB1AF381D8FA7<br>121533C9D6C633EA2461 | 5/25/2015  | 5/25/2040  |  |  |
| CN = Amazon Root CA 3<br>O = Amazon<br>C = US  | 18CE6CFE7BF14E60B2E347B8DFE868CB31D02EBB3ADA271569F50343B46DB3A4 | 36ABC32656ACFC645C61B7<br>1613C4BF21C787F5CABBEE<br>48348D58597803D7ABC9 | 5/25/2015  | 5/25/2040  |  |  |
| CN = Amazon Root CA 4<br>O = Amazon<br>C = US  | E35D28419ED02025CFA69038CD623962458DA5C695FBDEA3C22B0BFB25897092 | F7ECDED5C66047D28ED64<br>66B543C40E0743ABE81D10<br>9254DCF845D4C2C7853C5 | 5/25/2015  | 5/25/2040  |  |  |
| CN = Starfield Services<br>Root Certificate<br>Authority - G2 <sup>1</sup><br>O = Starfield<br>Technologies, Inc.<br>L = Scottsdale<br>S = Arizona<br>C = US | 568D6905A2C88708A4B3025190EDCFEDB1974A606A13C6E5290FCB2AE63EDAB5 | 2B071C59A0A0AE76B0EAD<br>B2BAD23BAD4580B69C360<br>1B630C2EAF0613AFA83F92 | 8/31/2009  | 12/31/2037 |  |  |

| Cross-Signed CA Certificates                  |  |  |            |            |  |
|---|--|--|------------|------------|--|
| Subject DN                                    | SHA2 Thumbprint  | SPKI SHA256  | Valid From | Valid To   |  |
| CN = Amazon Root CA 1<br>O = Amazon<br>C = US | 87DCD4DC74640A322CD205552506D1BE64F12596258096544986B4850BC72706 | FBE3018031F9586BCBF417<br>27E417B7D1C45C2F47F93B<br>E372A17B96B50757D5A2 | 5/25/2015  | 12/31/2037 |  |
|   | 391220705B75BCF3ED3CD4B3631213F569D2CF8226101E170799A5354AB12861 | -  | 10/21/2015 | 12/31/2037 |  |
| CN = Amazon Root CA 2<br>O = Amazon<br>C = US | 8B358466D66126312120645A5875A6A57E3C81D98476A967604244254EAC00F0 | 7F4296FC5B6A4E3B35D3C3<br>69623E364AB1AF381D8FA7<br>121533C9D6C633EA2461 | 5/25/2015  | 12/31/2037 |  |
| CN = Amazon Root CA 3<br>O = Amazon<br>C = US | 40C826FDB22BA32A2F9DB4F94770F72B8B1DA9C8FFDA7B11E6F27AF245C89B5E | 36ABC32656ACFC645C61B7<br>1613C4BF21C787F5CABBEE<br>48348D58597803D7ABC9 | 5/25/2015  | 12/31/2037 |  |

<sup>&</sup>lt;sup>1</sup> ATS assumed operation of this Root CA on June 10, 2015. Starfield Technologies operated this CA prior to June 10, 2015 and was responsible for its key generation.

| Cross-Signed CA Certificates                  |  |  |            |            |  |  |
|---|--|--|------------|------------|--|--|
| Subject DN                                    | SHA2 Thumbprint  | SPKI SHA256  | Valid From | Valid To   |  |  |
| CN = Amazon Root CA 4<br>O = Amazon<br>C = US | 543D9B7FC2A6471CD84FCA52C2CF6159DF83EBFCD88D8B08B5AF3F88737F52E6 | F7ECDED5C66047D28ED64<br>66B543C40E0743ABE81D10<br>9254DCF845D4C2C7853C5 | 5/25/2015  | 12/31/2037 |  |  |

| Intermediate CA Certi                                    | Intermediate CA Certificates <sup>2</sup>                        |  |            |            |  |  |
|--|--|--|------------|------------|--|--|
| Subject DN   | SHA2 Thumbprint  | SPKI SHA256  | Valid From | Valid To   |  |  |
| CN = Amazon<br>OU = Server CA 0A<br>O = Amazon<br>C = US | DFCC775C644DB4A33AD71293433F463C8E31057CE22CB267F9D31A0353F4FC2F | B58539ECAA13921CCDB80<br>D38D34875FDE6471C5A159<br>D9BEEF2FA6F99983BD611 | 10/21/2015 | 10/18/2025 |  |  |
| CN = Amazon<br>OU = Server CA 1A<br>O = Amazon<br>C = US | 39C763A9CF19D923F977D23626AB890449A444AB8B795C815EF1EF81FEBC1E38 | 64BB5BD80311FA3F53BD99<br>404CAB8762AD6E048447D0<br>A97F219FCECA1661F37C | 10/21/2015 | 10/18/2025 |  |  |
| CN = Amazon<br>OU = Server CA 2A<br>O = Amazon<br>C = US | 72130E3B28900349214617F4D6F3FB85D08475EE78BF095C59458A14D1828866 | 1BDA5AFFF83781380BF708<br>198F9F7D2DB1E067F14BB9<br>EA7BAE70AAC0B0305E7B | 10/21/2015 | 10/18/2025 |  |  |
| CN = Amazon<br>OU = Server CA 3A<br>O = Amazon<br>C = US | 205154B777EDC55A5146585A5E54E054A70BE4AAD3B85D02318DA27BF807ADF1 | 7C53B5DF79135D9AF6195E<br>F6BB73AB98C2C89950B892<br>B192DFFD784DB925A41C | 10/21/2015 | 10/18/2025 |  |  |
| CN = Amazon<br>OU = Server CA 4A<br>O = Amazon<br>C = US | 7BED29276ACBED9F176F38BBA3A67CE5815B5CBF1522C7BB59ECD86B09E16ED2 | 17708DFF2B7FAEC9CB1B52<br>15EBB2421D97B0543C936F<br>AC9D6E02B92F20E5C707 | 10/21/2015 | 10/18/2025 |  |  |

 $<sup>^2</sup>$  ATS revoked all the Intermediate CA certificates in this table on May 24, 2023.