Tel: 314-889-1100
Fax: 314-889-1101
www.bdo.com

101 S Hanley Rd, #800
St. Louis, MO 63105

REPORT OF INDEPENDENT ACCOUNTANT

To the Management of Microsoft Public Key Infrastructure ("PKI") Services, a service of Microsoft Corporation:

Scope

We have examined Microsoft PKI Services' management assertion that for its Certification Authority ("CA") operations in the United States of America and in Ireland, for its CAs as enumerated in Attachment B, Microsoft PKI Services has:

- disclosed its business, key lifecycle management, certificate lifecycle management, and CA environmental control practices in in the applicable versions of its Microsoft PKI Services Certificate Policy ("CP") and Microsoft PKI Services Corporation Certification Practice Statement ("CPS") enumerated in Attachment A

- maintained effective controls to provide reasonable assurance that:
  - Microsoft PKI Services' CPS is consistent with its CP; and
  - Microsoft PKI Services provides its services in accordance with its CP and CPS

- maintained effective controls to provide reasonable assurance that:
  - the integrity of keys and certificates it manages is established and protected throughout their lifecycles;
  - subscriber information is properly authenticated; and
  - subordinate CA certificate requests are accurate, authenticated, and approved

- 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

throughout the period May 1, 2021 to April 30, 2022, based on the WebTrust Principles and Criteria for Certification Authorities v2.2.1.

Microsoft PKI Services does not escrow its CA keys, does not provide subscriber key lifecycle management services, and does not provide certificate suspension services. Accordingly, our examination did not extend to controls that would address those criteria.

Certification Authority's Responsibilities

Microsoft PKI Services' 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 v2.2.1.

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Independent Accountant's Responsibilities

Our responsibility is to express an opinion on Microsoft PKI Services 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.

The relative effectiveness and significance of specific controls at Microsoft PKI Services 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 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.

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 Microsoft PKI Services' services other than its CA operations in the United States of America, and in Ireland, nor the suitability of any of Microsoft PKI Services' services for any customer's intended purpose.

BDO USA, LLP

June 17, 2022

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

Certificate Policy

Policy Name	Policy Version	Policy Date
Microsoft PKI Services Certificate Policy	Version 3.1.4	February 15, 2021
Microsoft PKI Services Certificate Policy	Version 3.1.5	February 15, 2022

Certification Practice Statement

Policy Name	Policy Version	Policy Date
Microsoft PKI Services Corporate Certificate Practice Statement	Version 3.1.4	July 28, 2020
Microsoft PKI Services Corporate Certificate Practice Statement	Version 3.1.5	October 19, 2021
Microsoft PKI Services Corporate Certificate Practice Statement	Version 3.1.6	January 19, 2022

ATTACHMENT B – IN-SCOPE CAs

Root CA Certificates			
Subject Common Name	**SHA2 Thumbprint**	**Valid From**	**Valid To**
Microsoft Supply Chain RSA Root CA 2022	23FFE2B8BDB9A1711515D4CFFDA04BC7F793D513C76C243F1020507D8669B7DB	2/17/2022	2/17/2047
Microsoft Supply Chain ECC Root CA 2022	638FE43CB69DCCF8D9265A254A9ACE5F6294AD21E8B6C94F7C8FB3673E9D5F23	2/17/2022	2/17/2047
Microsoft ESRP Root Certificate Authority 2017	688C6DC8E714FFB0AA7510203108ADB2B0FBEDD984EC7A0EC1156F9808603D8D	7/25/2017	7/25/2042
Microsoft Corporation Third Party Marketplace Root	2848361A9C1E32DF1D3E2ED6A7B9E67A525CF8A13B164F8006C9479578F746DE	10/5/2010	10/5/2035
Microsoft Surface Device Authentication Root CA 2014	09EC71FD906AE752F719D4E43ACA9779760C8BEDF49CD6B1253CDAA5ABDACF5C	3/20/2014	3/20/2029
Microsoft IEB Services ECC Root 2013	A1E021800C9FE32E5CC07022A391AC1C654F1D794CD5F4FD6F48203E275A82C4	4/18/2013	4/18/2038
Microsoft Services Partner Root	4EAC5578779EDA094585262381739418680 89D3E4974647A62F90C826E24DB80	8/24/2010	8/24/2035
Microsoft Code Verification Root	CA7791D5C9A1580DCDCAD31D0549FEA2043E229AA4F4932CFA056CA23EB8A950	11/1/2005	11/1/2025
Microsoft Services Federal Root 1	94B67F8C7767AC8D0E093534DD52398D0B3818CE3C02B09A010EF6EF007ED3A5	8/6/2010	8/6/2035
Microsoft RSA Devices Root CA 2021	8C2BB9144D4970C94FB8105CC5D860A58E2E675EB360FDD8C14B30833AAAEC1D	8/26/2021	8/26/2046
Microsoft IEB Services RSA Root 2013	437D53DAFA52B165BB2FC919F06BFC7DCA1AA4A95455D072E23602DF9EEB1C15	3/8/2013	3/8/2038
AP Root Certificate Authority 2014	88EFE5CC2FA5891C98DF8803B5975127C9811C8FC79D59CC51CE51FB5753F7ED	1/14/2014	1/14/2039
Microsoft ECC Services Root CA 2021	F836FDDDBC3A89EE8C6B3D6A2E0155B0A1A6BEDD4AB7B7BAE29C5817D799705A	8/27/2021	8/27/2046
Microsoft Mobile Root Certificate Authority 2015	A73E7102ED2897DC5DB7B2941591128A9E34769DC75577752D1AE09A908D3352	1/6/2015	1/6/2040
Azure Sphere Root Certificate Authority 2020	A18A6B15DA52BBFB6CD591219203BA304B60D56A67B82D1019F24EC041043D9A	2/27/2020	2/27/2040
Microsoft Android Platform Root CA 2021	601A970F3F2F5E256464F1424FE70DF8835A3A4CA441A7F2E804E4BE68058D8C	8/26/2021	8/26/2046
Azure Hardware Root Certificate Authority 2019	7306A1EA0F3ADF2FA90225C2CFE33968FA0393C54D9DFC7A5C815DAC0B32923F	7/3/2019	7/3/2044
Microsoft ECC Development Root Certificate Authority 2018	403F7ACC71E20ABE1E5499BDD979DE9FC8B56630A4F46C4393D657171B368C29	2/27/2018	2/27/2043

Root CA Certificates			
Subject Common Name	**SHA2 Thumbprint**	**Valid From**	**Valid To**
Microsoft RSA Services Root CA 2021	668F97D576E0FC56D3D57C09B88EA389FADC9F6E5CB86BEAA0FFDD6E9421F46C	8/26/2021	8/27/2046
Microsoft TPM Root Certificate Authority 2014	870C7A35CEAB3D59979F2C6A524042D404CB71518004350925FB2CED79A999DA	12/10/2014	12/10/2039
Microsoft ECC Devices Root Certificate Authority 2017	4C25971E3BDDE59D178F7A5EF62561E9E88EDD93C274DDAA522840CD4B4B517E	11/9/2017	11/9/2042
Microsoft Overlake Root Certificate Authority 2019	5400B611F6B21D90208219217D58040EF6D905357DE3D6FC270C42B62753ABD1	9/6/2019	9/6/2044
Microsoft Development Root Certificate Authority 2014	41668293CBB726868D5B6AD4B4EB8DC125C944B48F848DF736AF37E43007E26F	5/28/2014	5/28/2039

Intermediate CA Certificates			
Subject Common Name	**SHA2 Thumbprint**	**Valid From**	**Valid To**
Microsoft SCD Products RSA CA	9B1894F223D934CBD6575AF3C6E1F6096B9221A7DA132185F5A5CDC92235B5DC	2/17/2022	2/17/2042
Microsoft SCD Claimants RSA CA	1E92EC6F4C801736EE024905210C4CB95FE4E2A42F404BDB5CC772B12336A6D9	2/17/2022	2/17/2042
Microsoft SCD Systems RSA CA	BB716EC0D93E03B138DB3DFA71171BE599F82085C456058F7064BA8ED4FC1A3A	2/17/2022	2/17/2042
ESRP0 RSA PCA 2017	DF63D390A4D82A96EA6B75796E51F75554C3DC2ED0BCE198EEC2B31E131F0B08	8/2/2017	8/2/2032
ESRP2 RSA PCA 2017	2DDA32F6128A2837D2D999E8F8C0513BD4D4A9445EDBC50A4B392EED94762950	8/2/2017	8/2/2032
MR0 RSA PCA 2022	53C75CE9E61D17FC2B91BD486C271E09E66C692A9B400272C8358C584D9DE49E	4/21/2022	4/21/2037
MR1 RSA PCA 2022	7C9B1624FAF06C5C5B3DEFF926334CA371986AD9A81DADC5282678F59ECB455B	4/21/2022	4/21/2037
Microsoft Surface Services for Windows 8 Pro CA 2012	1B1837D51CDC79D8628161C6D8040579BDFDA4780BBECFDE2108F21AA806AB28	8/2/2012	8/2/2027
Microsoft Surface for Windows 8 Pro Firmware CA 2012	22E643EA81C5B72883759EF47A7D22EF25DBC76AE7DA79878D80F2B97BD4C495	11/8/2012	8/2/2027
Windows Phone KEK CA 2012	87B3C9F7E4C519581E0AD87F38E65D78C31C64568347F6C2F106B23E909DD87F	7/6/2012	7/6/2027
Microsoft Windows IoT KEK CA 2015	CF74CD44C2BB5EF55836290AE926C660F884BF11C342E0934226463380BF2468	2/26/2015	2/26/2030
Microsoft Surface Services for Windows RT CA 2012	E43F4CE85ABDDB8E41C0677935DEB60D0EF8F106C82339A450D6C99C67BF3371	7/18/2012	7/18/2027
Microsoft Surface SFF Firmware CA 2013	BAF41DF93531F48976A2A5B581A728C34BAE8ABE270B5C9F3D99D32DBD0ED4A1	6/5/2013	7/18/2027
Microsoft Surface for Windows RT CA 2012	4245D5684381CB28EE9208AB6B843AAEB8A26C5027411086C3C39DD7D0F3E52B	7/18/2012	7/18/2027
Microsoft Surface with Windows RT v2 Firmware CA 2013	2A3AA801885B9C5000EF39DA51BAAB773C5DD90216C4F422B4BDEC578B20D0DE	4/24/2013	7/18/2027
Microsoft Surface for RT Firmware CA 2012	9B29EF1744163306931F8417588F9C2E9DC206CEDC7EA48AA24CC6D16BB192A3	8/17/2012	7/18/2027
Microsoft Surface with Windows RT v2 Services Mobile CA 2013	0103D60A79694F040F90C1D326E5054216A5EACD9F59D988591C87735DFD70DE	4/24/2013	7/18/2027
Microsoft Surface with Windows RT v2 Boot ROM Fuse CA 2013	65296AFAC4FC9C25968F1EFC246AFA13F99B47B08EC5A80A92D81A06A5321FE3	4/2/2013	7/18/2027
Microsoft Surface with Windows RT v2 Platform Key CA 2013	F84BD4AA351FD7F76FC16A4822C371F4F01487CD255619299CFFCB6C93DE1F13	4/24/2013	7/18/2027
Microsoft Surface SFF Platform Key CA 2013	E3A2FB3C55A8B41E3AE415B6725A1BF8F874AFB02E846B2B2F21F75EB6636854	6/5/2013	7/18/2027
Microsoft Band Firmware Debug CA 2016	4F600A946C1345CEBC2A6BBF84B0F6990E2DD59E13596C35143ADA6BF312B927	3/30/2016	3/30/2031

Intermediate CA Certificates			
Subject Common Name	**SHA2 Thumbprint**	**Valid From**	**Valid To**
Microsoft HoloLens Firmware Debug CA 2018	8908A17FE5FD7CDEAE4891867995074538B9A3CB180BB4C1011221AE3F8B172E	5/15/2018	5/15/2033
Microsoft Windows IoT PCA 2015	974D20E4D194D5E1BC0BC7D85513C661C8B88807F4113CE2FCD0D14E8906C68D	2/26/2015	2/26/2030
Microsoft Pinewood Attestation PCA 2019	E1A2DB7A816B59E83F7001643464C27AC44FEE1E4B2BE0236BA6116F586B0BE4	1/3/2019	1/3/2034
Microsoft Pinewood Attestation CA 2019	F9A3780BCEE9DC65130612AD348756A07EE1AC6CCCD056CFFA30BDC17EAE599C	1/9/2019	1/3/2034
Microsoft Windows Group Edition KEK CA 2015	562068F4667DD2008772C131C5D40082E7B7379DE55DF47AB5732AB99E67AAEF	2/16/2015	2/16/2030
Microsoft Andromeda Attestation PCA 2017	34046EF5E08C14E01BE8883BFBE0E5C31A8E407B5B3B98C88F8A86C8D98C1235	11/1/2017	11/1/2032
Microsoft Andromeda Attestation CA 2017	483FA02B01171CF63DF9B6E1E586F3B0A8278526E7E8E91F6653F7A5243C599F	11/1/2017	11/1/2032
Microsoft OEM Custom CA 2014	B6181AB8E72E555556CB356AB7BCCB422BE87670085B0DC5C00C92986F414114	4/3/2014	4/3/2029
Microsoft Corporation KEK CA 2011	A1117F516A32CEFCBA3F2D1ACE10A87972FD6BBE8FE0D0B996E09E65D802A503	6/24/2011	6/24/2026
Microsoft Surface XSFF UEFI PK CA 2018	886D1FF04EE498C7A51F513A2103DA7380DF2546FE5B40476A2A06136AD4DD75	4/25/2018	4/25/2033
Microsoft Surface NFF Firmware CA 2015	B60898040C5C697CBD9F9AA838E02BB1EF28C6834A76EC1EEF67A89599E2E799	11/5/2015	11/5/2030
Microsoft Surface Accessories Windows Firmware CA 2013	555F969D2A362EB3E9CD48A269FAD9C366CC57971539020304574F2E3B17FE05	4/2/2013	4/2/2028
Microsoft Surface Common Services CA 2014	6A43F586AA13D87F78E3826B0325D5CB2E12F5B6CB2226691E8A05F13CD639FE	7/23/2014	7/23/2029
Microsoft Surface MoBB-1 CA 2014	1787A4FD58AF3D2195CDC239569AE0B30E5954D071EEB7CB08EE7D9A64302FE2	10/8/2014	7/23/2029
Microsoft Surface MoBB-1 Boot Core CA 2019	42EB0F72E199E88A9A5F5339D3F411856BEC2FF48D778A60CAB2AD9CD17401BB	3/6/2019	7/23/2029
Microsoft Surface XSFF Firmware CA 2018	544BA6F7DF5640A86238C760DAC327FA90861FFA0C62F830021D438DF3D6D2F7	4/25/2018	4/25/2033
Microsoft Surface FFF Firmware CA 2018	C721EF9F0C61D94C7C1DA07D11AB14BA32CC06247C5FF65559804EC91E7E4A63	11/6/2018	11/6/2033
Microsoft Atlas Attestation PCA 2020	87D60B58A4F2CF65954BC39D58872CF5DC84ADCFBB25CB97607FA94B7CB5569A	12/15/2020	12/15/2030
Microsoft Atlas Attestation CA 2020	468D949FE30207A1E11842F2579F152907BC3F872AC8C0231963C847E38B8BE4	12/15/2020	12/15/2030

Intermediate CA Certificates			
Subject Common Name	**SHA2 Thumbprint**	**Valid From**	**Valid To**
Microsoft Band Firmware CA 2015	D1C7F14C7EE6878CB9CC6D5E92F90B1B3082AA682BFE9754DDC5AFAACE8357D2	12/22/2015	12/22/2030
Microsoft Andromeda Firmware Debug CA 2017	12AA98347AC4200D4C58284E3C5DE1E6043057A31A04019739324DEFDB833CF7	11/22/2017	11/22/2032
Microsoft Andromeda Attestation PCA 2017	263E224894E76810D8ADBF53921BA1867324A7D79FCD36AF09AC187F64A762FC	9/21/2017	9/21/2032
Microsoft Andromeda Attestation CA 2017	358F6EF64AE7DF8E6799D2792A113E8E88EFBE526E16098E7BFE2A8CC86DD6F9	9/26/2017	9/21/2032
Microsoft SH2 Firmware Debug CA 2018	B83388988464019C52C5DF5B97C0EAB871738A59BCCC4F8B03436C6002F3EFB8	1/12/2018	1/12/2033
Microsoft SH2 Firmware CA 2018	F63633F3CECEE5002F980288C2CEDA6936D5CCA85A22B400682EA0D005FEE126	1/12/2018	1/12/2033
Microsoft HoloLens Attestation PCA 2018	34EBDCFAD4C02C3FF23A18B14A84E9D17773DD29EBAA85FF5769032C2EE11760	5/15/2018	5/15/2033
Microsoft HoloLens Attestation CA 2018	2233451158575160E97054D2F50B437F6F045C316258BDCC8E14150BC46722FC	6/6/2018	5/15/2033
Microsoft Surface FFF Firmware Debug CA 2018	F265325A8840D2C9F32EF52F757AA56B27AB83F23D63D467BA19BC4F070392E8	11/6/2018	11/6/2033
Microsoft Surface LFF 3 UEFI PK CA 2016	6E650A4C48F99AD47CFE63A078909EA46618D55A35C500B919D0CBA37399B1B1	5/18/2016	5/18/2031
Microsoft Devices OEM Code Sign CA 2018	4C12C4560AB4366838AA2412F1F5741C0C02972A99D1F82060E99A02AC246EC9	4/19/2018	4/19/2033
Linux Boot Loader Signing CA 2016	1289B875E55A0BB01597BE51C9ED95A3970F00D6861840094242932E02FCB901	9/29/2016	9/29/2031
Microsoft Surface LFF 3 Firmware Debug CA 2016	69DFBB22FEB8BDEE490AC203D23430CE6DCF70D32F975084BBFF5AA4B49BEF3A	5/18/2016	5/18/2031
Microsoft Corporation UEFI CA 2011	48E99B991F57FC52F76149599BFF0A58C47154229B9F8D603AC40D3500248507	6/27/2011	6/27/2026
Microsoft Corporation Third Party Marketplace PCA	B17E8201B128E1E74CC023510AB7EA03AC27DDE50D32D810EA1577758F1CC098	10/8/2010	10/8/2034
Microsoft Surface XLFF 2 UEFI PK CA 2016	4C7002E4A3C4D3F0F9E8CC141BDC4257BA3A73237FE13B6D433031F524B13153	5/9/2016	5/9/2031
Microsoft Surface Hub UEFI PK CA 2015	C9088BEAFD93D4FDF23502F7A942CE4A79609D236BAA9F4537E546AE44A5274B	2/16/2015	2/16/2030
Microsoft Universal Store OnePay PCA 2015	75AD0DC59DE9993BE5A64B03748E5F5CD309E89C6E6F153E25E2BA202F21D360	9/8/2015	9/8/2030
Microsoft Surface XSFF Firmware Debug CA 2018	264318C3E0125AA16C7F49BBBBA2344076CD680F3FDDE32ECF1DAEAFA0E5C0E4	4/25/2018	4/25/2033

Intermediate CA Certificates			
Subject Common Name	**SHA2 Thumbprint**	**Valid From**	**Valid To**
Microsoft Windows UEFI PK CA 2017	C209C7DA8FE8AB2B16BE32CB43CBE8F8D158FF572C943A9A6703E012B180DBFE	11/22/2017	11/22/2032
Microsoft XCloud PCA 2018	5370A2CD4C54A81031680E35E8FC8925B2709425F7F08F4FD63E0CE743AB178A	1/25/2018	1/25/2033
Microsoft Surface XLFF 2 Firmware Debug CA 2016	36FF80BCC75DF08022D70BC9FB322D42176761A0ABF6AC8E7C1FFF848DA60F79	5/9/2016	5/9/2031
Microsoft Surface LFF 3 Firmware CA 2016	79EC0FD85704624EA02EC27ED3973F0DDA05B588082EA3C4A8F35C81DC080328	5/18/2016	5/18/2031
Microsoft Surface Ganymede Attestation PCA 2017	706CC20D94950D1E8DAAD69DFBAAF02ECB22855C1045CC3FAE617D6FF02B74A1	3/31/2017	3/31/2032
Microsoft Surface Ganymede Attestation CA 2017	958C57AB822F88771ED4ADDEB0B8AF3E9A3A37DBF6C81E663D1380AF94242320	4/11/2017	3/31/2032
Microsoft Surface Services for Windows RT CA 2012	5F51A43F39F6D151BE718DC8456464ADE11F4D4C33B610AD9EDEC52D4BFF528B	6/17/2013	6/17/2028
Microsoft Surface for Windows RT EK Issuing CA 04	19DF338B05462BE48F4ABC385A7DFBFE10677A6E7C78AF18FA05F4C3EA4C2717	8/8/2013	5/8/2028
Microsoft Surface for Windows RT EK Issuing CA 03	E7CCB9BAA24B83CEDE6CB9D9AF1B2567082CAF43CC54B4D20BE97ABB26D8C2B6	8/8/2013	5/8/2028
Microsoft Surface for Windows RT EK Issuing CA 02	D7E09399BFA92E84000F299FA3597AC4823DD9C5319C37A6B680E62ACE4E07D6	8/8/2013	5/8/2028
Microsoft Surface SFF Attestation CA 2013	334700F29B2F542AFEA04E80F0D4D24BF3A5498E087F25F4F3012E74EFC45AE4	12/20/2013	6/17/2028
Microsoft Surface for Windows RT EK Issuing CA 01	B0E3B48CC492EED111CC6C291F4F205BE3101FD9555F99B189FF855BB98A75B5	8/8/2013	5/8/2028
Microsoft Surface NFF UEFI PK CA 2015	5BA637CB3BCD37501F2EACDF6C0666B729139A64A202CE275308ED22870C65EA	11/5/2015	11/5/2030
Microsoft Devices UEFI CA 2016	E30D58A85CCEDE5A4A419EEFABD8B629948BCB0E6BE19637C5911ADE9FE6BE00	2/11/2016	2/11/2031
Microsoft Atlas Firmware Debug CA 2020	65142EDADA234E3FF6DF875C5D2084F975DD18A464164BDF76579A4C9EB04200	12/15/2020	12/15/2030
Microsoft Surface XLFF 2 Firmware CA 2016	1D7CE201712FCC2A0C00DE8FA6EBB3A509F30D4C70FED88EE332D7E2042C3822	5/9/2016	5/9/2031
Microsoft Surface Hub Firmware CA 2015	809BC34F80154EB3F914D946C2C88E71954E86B021438E51AF79BFE6847F60B3	2/16/2015	2/16/2030
Microsoft Surface NFF Firmware Debug CA 2015	A7B31AC9D96CD8D3A680F6CB7854FB2365BE33B6986188F148DFDB3BCF55F8E5	12/16/2015	12/16/2030
Universal Store PCE ECC PCA 2015	BEE1DB74C3DC4CE1594AE2C98748C3D215C67808C230AA54AC3D59BC5C85ED01	1/20/2016	1/20/2031

Intermediate CA Certificates			
Subject Common Name	**SHA2 Thumbprint**	**Valid From**	**Valid To**
Microsoft Central Access Authentication ECC PCA 2015	6047A0D1A5AE7402945E17E75403DA7C44F953759154E64177F87C4D232BA017	6/23/2015	6/23/2030
343 Industries Section 3 Production CA 2017	F3BE668072D34F2D8AEA92AF677262A933927CFF95B829D144551885E1416120	5/16/2017	5/16/2032
Microsoft Codename 4x4 PCA 2017	ED12D01C4F7BCC3651E62FCE0603BABBF4DC52596423CACF02372139F3124FFC	9/12/2017	9/12/2037
Microsoft Central Access Authentication ECC PCA 2015	A16729B3A5E053E3D0D882B77D3056B4C1F35D6F25ABD691AF4EB02F8EFE9DA2	1/26/2016	1/26/2031
Universal Store PCE ECC PCA 2015	4337269B71342348BAAB55BCF518292913F26EF5EFC1F33DD65DFB08567B8464	10/7/2015	10/7/2030
Universal Store Onestore ECC PCA 2015	65FFCC0A0472816C9ED759FAB092F4CEC7241E06D08068DB4FC079562EC090F0	1/26/2016	1/26/2031
Universal Store Prod ECC PCA 2015	CF3C954F7BFF4FB928CFAEF06C0C79A79C9C3936760D13836433DA865997F223	9/1/2015	9/1/2030
343 Industries Section 3 Test CA 2017	0A3530FE9AD35CD73CFE255AC70EAF40892ADD08BB97998490CAEB1AC9B70062	5/16/2017	5/16/2032
Universal Store Onestore ECC PCA 2015	9DA92134CBC836AF09A523E3B4FD45C1B4D0A1FBD695B74D5137ED52921C7493	9/1/2015	9/1/2030
Microsoft Code Name 4x4 PCA 2017	5248DA95516914D4A1DAFE2AAC49FA53212E95421B7BFF0A807181075A8F971F	9/6/2017	9/6/2032
Universal Store Non-Prod ECC PCA 2015	7A4F009D3AA1E15DBDC2F27DB33E861A2F85200FF944C1804501D070FF84A9B8	9/1/2015	9/1/2030
Universal Store Prod ECC PCA 2015	614AB7FFB13680E467D0A045C7A3E2D2990A2D31C9D0FFD681DA7096A181F815	1/26/2016	1/26/2031
Universal Store Non-Prod ECC PCA 2015	95DAF6296A110D0A17041D04F76637F13B106BC93297008EF6CBF576EB630271	1/26/2016	1/26/2031
Microsoft RSD Software Ring 0 CA 2018	7473ED968DF2C2B094FFA30F0A20A570A2B4336D0222C27F1245D2C455DB6323	3/14/2018	3/14/2033
Microsoft Office Service Infrastructure TIP Issuing CA 2011	99FEC19B8ACBFF4FFA6B2601DF39AD51D4684A21EB745A80FF10A2784848C0FA	7/13/2011	7/13/2026
Windows Internal Build Tools PCA 2020	5B20334FE6B3F360F02E7B197D32656D1235353DC04BA19FA2619781EF59F715	2/5/2020	2/5/2035
Microsoft Office Service Infrastructure PR Issuing CA	E6F520FF3585577DEF6A1BB0BCB645518692908ED622850D9554F48CBEB554C1	5/17/2011	5/17/2026
CloudBuild Source Cache High Trust Intermediate CA 2016	D36303241ACBC33D786E6385C2831BA33E9B68CC27A86822F69BF9BBD14114D2	12/6/2016	12/6/2031

Intermediate CA Certificates			
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Microsoft Office Service Infrastructure Partner CA 2012	DF403466D46C5BF80F18D1D87B1AD3B08C697847D8FDB3A3F7993B63EABEB3D6	10/30/2012	10/30/2027
Microsoft Office Service Infrastructure China TIP Issuing CA2012	BD759C39DF5CA3954A6D007075B9F8A5168D4C090CF2FCE27E45AC045DCFE6EF	11/7/2012	11/7/2022
Microsoft Office Service Infrastructure China Issuing CA 2012	836375F4E806CEC201847E800775DF8623138B7E53CF5DA331B89886CA309D7B	11/7/2012	11/7/2022
Microsoft Office Service Infrastructure TIP PR Issuing CA 2011	31999F6A276A58F067335540DBC892CF0342E53C9E00C06E7C5411CA0AF7D5C7	5/18/2011	5/18/2026
Microsoft KMS CA 2011	AA0D15514BDD3D477326D81095E9D193C2EB5464E9D273B4C6FDF4DCC32D7CE0	5/13/2011	5/13/2026
CloudBuild Source Cache AP Classic Intermediate CA 2016	9DCC938B003601896DD6EBDA18887E3C3E77B5C679CA56DF492DEE95E90CA850	12/6/2016	12/6/2031
Microsoft KMS Issuing CA 2011	3B47914002579950DEF516682A41ABF116A2458EA58250FFBED9332FBCB19AB3	5/24/2011	5/24/2026
Microsoft RSD Software CA 2016	16DEB97064EEF93F485A92CADD5A3163655AB7C0C87A1ABFE79C88BF0E5686AD	12/6/2016	12/6/2031
Microsoft Office Service Infrastructure TIP INT Issuing CA	F92B7C9AFD91C57208F1F9D3DF98EA1920DA7796814B6460FC1210F4AB785567	6/1/2011	6/1/2026
Microsoft Office Service Infrastructure INT Issuing CA 2011	9DA2F35BD5CB1A083D022DCDE65FC3C1106236277BD66EA10D2F04007DBCAE7B	5/27/2011	5/27/2026
Microsoft Office Service Infrastructure Issuing CA 2011	8D4A3715E616B63369C9B1187240413248F00B452464B5E63AD3CC8CCCB502E0	7/13/2011	7/13/2026
Microsoft Exchange Services CA 2015	2E5661B50E76147999499DBD75B5C9B67201E9128AACA05BFA3AAFED6953C98C	6/16/2015	6/16/2030
Microsoft Services Federal PCA 1	4302542F996AF96870E27C0F1787703ABA63C949D0F700B80118734F55CF7807	8/12/2010	8/12/2025
Microsoft Surface AFF Firmware CA 2021	B433314F8CE412C5448B1D1391B5F3795813C6FAB9EE95595CB42393E47C17A4	8/27/2021	8/27/2036
Microsoft Surface LFF Firmware CA 2021	714D0615E87E2ED8883C953E049CEEBDAF7A3B6297F6C448EDE96A815B6A1E79	9/2/2021	9/2/2036
Microsoft Surface AFF Firmware Debug CA 2021	60244E11818FA412C8661BF78F0DED3012AD4F68A053B537341693525A2D192D	8/27/2021	8/27/2036
Microsoft Surface LFF UEFI PK CA 2021	142495463B57A164421F5490A30155A1241383734CAAD435C86841E2B1810761	9/2/2021	9/2/2036
Microsoft Surface AFF UEFI PK CA 2021	7E3EA53AD3B2EC1B35CDBEEBD224280315DFC7F39215484740D42570057DE969	8/27/2021	8/27/2036

Intermediate CA Certificates			
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Microsoft Surface LFF Firmware Debug CA 2021	2F0148C7BEA2DD6948F257DB555C505A4634A6AC6CAC0AA5F0A3D020775FC22D	9/2/2021	9/2/2036
Microsoft Surface NFF Firmware Debug CA 2021	74BDB78CE3E91977BCD0CA96647C58DBF8E59B9CAB018715829D4E21E710D33C	11/11/2021	11/11/2036
Microsoft Surface XLFF UEFI PK CA 2021	D5825915DFB03DB109218357B834D99FD9EF6C79D911FB8E664C5F45719B2B46	11/11/2021	11/11/2036
Microsoft Surface SH2 Firmware Debug CA 2022	7650E32E990915793F472122B7252458DB88E3E234A6F487E75BDD7C6FB34E4F	3/17/2022	3/17/2037
Microsoft Surface SH2 Firmware CA 2022	02386631E0FA6EB83AC2347019A29A79D365B16BFDE8F0113083FD7CEFDEFF5D	3/17/2022	3/17/2037
Microsoft Surface NFF Firmware CA 2021	487B28AB1621BF989F3C1BACCEF7AF13D430019C612934438096633EBD34193C	11/11/2021	11/11/2036
Microsoft Surface SH2 UEFI PK CA 2022	774283134AA63F6ED5EC73A2CEC297AF237646E413120698F53C38CCA285D2B0	3/17/2022	3/17/2037
Microsoft Surface NFF UEFI PK CA 2021	CACEFB4E3846923412319522593B8B355352D7AF161137887379F6035FED555B	11/11/2021	11/11/2036
Microsoft Surface XLFF Firmware Debug CA 2021	64FE4C81B4E5B675B8DA5EC928A8BDE9E9FAD07F671BCCE1BF3E4DC2E609ED90	11/11/2021	11/11/2036
Microsoft Surface XLFF Firmware CA 2021	B34B498FE955582594B3C34599D79C7D065F64CA503C85C2F8BDDE43D48B1114	11/11/2021	11/11/2036
Universal Store PCE RSA PCA 2016	EACF321B7E6ABF4B2ED36999F3F07AF2A16D01CB5149EB40C96FAEDACC9612F8	6/1/2016	6/1/2031
Xbox Services RSA PCA 2013	7D0BA2C9FF2747A63F6667ECB32B2EE8B85657E68E3B51EE539663A9C5877CD8	7/8/2013	7/8/2033
Universal Store Central Access Authentication RSA PCA 2016	BC9C02801930C9D0DDC443FE95B595A395213F9FC6F619D1054C02A35105FA28	6/1/2016	6/1/2031
Triton Accessory Authentication PCA 2013	7CA5FC48BFB9767FAC95F393A271BFE2449D59A9D965837D50FF15AD46781793	3/19/2013	3/19/2033
Poseidon Accessory Authentication PCA 2013	6F3B4AF8B38269075D72C11CA35953753889A1D1010A1E12EA3AEF666F81C0EF	3/8/2013	3/8/2033
Xbox Services RSA PCA 2013	9006DF0A538943D8E3997AD0E554D112DFC4F7DB05B6590D806694966E32DC15	4/16/2013	4/16/2033
Universal Store PROD RSA PCA 2017	EBF08C5CBDFAB006BFE6B3F51C4FB8CF2A93B8FDB62BCB9F32C34E0286105F79	6/1/2017	6/1/2032
Xbox Services RSA PCA 2013	418DE5CFEA76E704D8CE5AC3E226E3C0CCE8D96452833825EA52DB9276E1C924	5/16/2013	5/16/2033
Lumia Labeling CA	E5A067B80331CC1921E959E0D3577AAACDD6023C5976A44631602161929E521B	1/28/2015	1/28/2030
Phones UEFI CA 2016	DC127501A5470A4EB56B29940E08B04FE258595EB42CC7087D7738F5E50352BA	3/30/2016	3/30/2031

Intermediate CA Certificates			
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J2ME Manufacturer Domain CA 2015	C5C202F5C36DA600185EC9065D25450932C41C1EC6BD40B9E24A1CC3ED13F201	9/10/2015	9/10/2030
Microsoft VSMC PCA 2017	895FBD56AE079ED9FAB177432D298C0575A04B920E6DCAFD1B112163180EE538	9/26/2017	9/26/2032
Lumia Labeling CA	36FFEEE9AC26B7F3ECC154B65350A565FADA370E6BFCDD53AEBD2940A96301A0	2/4/2015	2/4/2030
J2ME Trusted Third Party Domain CA 2015	E8759CED3BA0520502896809571B5AE8DB981CBE5EF27D7A78F8C04F81D859E1	9/10/2015	9/10/2030
Microsoft Mobile PCA 2015	142D730CDA05127248C73E00B6CC1B75C344532F505E20DF42AAABB7B9EDEB7E	9/8/2015	9/8/2030
Microsoft Android Code Transparency and Upload PCA	26D402B0290B81D3E25AE5BFE2922C8AF78F8253DBC1F71C98B96BA542FC7B5E	8/27/2021	8/27/2041
Microsoft Android Play App PCA	4B8F34C97E05AECEB74CB5C98F36F6286FD8BF64A257AC3B325018D0DD09C079	8/27/2021	8/27/2041
Microsoft Overlake Celestial Peak EOC CA 02	ECCB8003956FCD3248E66132CBD0153FB5DF0EA1FEE10991F0E6549B5EC17A6E	12/19/2019	12/19/2031
Microsoft Overlake Celestial Peak AOC CA 01	CE3B70AD7DB6FC888C0A7C589B391B3722F05A9729E54748738C00934551B96C	10/14/2021	10/14/2034
Microsoft Cerberus EOC CA 01	C8022698A61031A773B5B020A8DFF63834A6A405DBCEF2A0D1AB774859E8AAE4	10/14/2021	10/14/2034
Microsoft Overlake Celestial Peak EOC CA 02	E2F816AABA9641F132DE4A949DAD8C5590F792B4C27B0D17F0E70B0AFAA75E17	10/14/2021	10/14/2034
Microsoft Overlake Celestial Peak EOC CA 01	47A97C9899659DD6FC5CDDA5F910C00C5C80FAB0813388E88ABA71757F748FE7	12/19/2019	12/19/2031
Microsoft Cerberus AOC CA 01	E50EA06004720D39C9B9DA993546FAE0755DB7C5ED8DA18B8F5CD3A9F6542AEA	11/13/2019	11/13/2031
Microsoft Overlake Celestial Peak EOC CA 01	218DAFFA758BBD21458D430FA73B2417CE15F27808C268838EAA75C06DB9DA89	10/14/2021	10/14/2034
Microsoft Overlake Celestial Peak AOC CA 02	1DE8A905A7E46681E8D2BC0CA1C9BA2D4AFB159D20BB3ECFB4E039FFA69103FC	10/14/2021	10/14/2034
Microsoft IoT Hardware AOC CA 01	50E68DF1565FAC8C29C9B5B99F6F674EE65FE06B12C19EC49BB2114AA6CF07FC	7/23/2020	7/23/2032
Microsoft Corsica EOC CA 01	10D7FFFC33013B74BAFAF8A02847909F6D144F643AF3B135D0974D9A09FA5ACD	11/13/2019	11/13/2031
Microsoft IoT Hardware AOC CA 02	BAB009727481D5A102A0F9D92AFBE35A154B3542CA2373142EA8B391D26FD964	7/23/2020	7/23/2032
Microsoft IoT Hardware EOC CA 02	3A1AB5E1682341C0C1149F420F7C6DBB811DFB7A12ED760BB851224202E60052	7/23/2020	7/23/2032
Microsoft Corsica AOC CA 02	2C4BD0808A66F2AB908C151AD5824FAB37C73E77997397F54AFB69B706CF7D27	11/13/2019	11/13/2031
Microsoft Cerberus AOC CA 02	F47977F79FA05075F6EDA341C110D2888ADEB551590B059541DE10A8F89B4BE8	10/14/2021	10/14/2034
Microsoft Corsica AOC CA 01	74B885A77CC6402EFBA497588160AC17E148010EBDB1866AAF5418C920E724FA	11/13/2019	11/13/2031
Microsoft IoT Hardware EOC CA 01	E862464637686C70F51D78506FA970D6C85A9DDEA822C5F320B04CEE2F782E31	7/23/2020	7/23/2032

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Microsoft Cerberus AOC CA 02	62611B1020D9878861921646DE463AFFDA7D1CE9DDFD950D04FDC593A58CC656	11/13/2019	11/13/2031
Microsoft Cerberus EOC CA 01	B610E3630261CBF06AE85E2F2F6A28ADA80465BED23F31EEEA68766D7216B2A0	11/13/2019	11/13/2031
Microsoft Overlake Celestial Peak AOC CA 01	61CCD5572CE0C9C5A5B7BE0837B1B5EAC3BD5AE79874A38BDFB796AD8E45B96D	1/17/2020	1/17/2032
Microsoft Overlake Celestial Peak AOC CA 02	854BEEC86E41081F3B5CB06FAD9E64BAE5DB0B58E9AD906AF7B5BD7D3B53737E	1/17/2020	1/17/2032
Microsoft Corsica EOC CA 02	387B537E349787D3C0C11D2DEF2AF8942FB520A473D6099AB97A8BA1CA2777C7	11/13/2019	11/13/2031
Microsoft Cerberus EOC CA 02	DCE64EF531BC0F481276B20F947F78CE64F2824B0E40C8D0EDB471B9188D58F1	10/14/2021	10/14/2034
Microsoft Cerberus AOC CA 01	D0E2A87127D14090781683B69C3D40C591B620583DEED27E00D2B0A8FC3246C5	10/14/2021	10/14/2034
Microsoft Cerberus EOC CA 02	8AFE1152EB160B6001A38FAB330F7C692068F87A521AD3D81ED8275653B6B8B5	11/13/2019	11/13/2031
Microsoft ECC Development PCA 2018	E37D50B7302A77D6A7BB2DC22525B9B732E8C10679C5B775BF3049D46FE8ECF3	3/1/2018	3/1/2033
M365 RSA Services Code Signing PCA	E33F679E29185FC6841AB8F121C6A6F08FDA6EC5C098541BC1C0F4A0A380D02C	9/2/2021	9/2/2036
Azure RSA Public Services Code Signing PCA	2488D112CC7BB801C4EDF718F56C161CDB700AFD73FEDC68BC7A097BDBB6BC00	9/2/2021	9/2/2036
Windows Hello Secure Devices PCA 2018	DBFC7BE1149785B5FD98A995B83184F51DE39E9B277BE287082F57514007C9C1	1/25/2018	1/25/2033
Windows Hello B5A8CEAC CA 2018	72EA4166FE93199D77784B728BAAAB03F852223940C1ADDE99B2D7CC9E8C0C95	1/31/2018	1/31/2028
Windows Hello 1767C8B4 CA 2018	A67A51F19E5E90D4A8CDD0641A02C36ADDA12BBCDCFDF374C64ADE7EB5073663	10/4/2018	10/4/2028
Windows Hello 19B92965 CA 2018	0E304378D8493AD6B5A1E20975F24226C3D49C7A141413E1B9728593F9FCC016	1/31/2018	1/31/2028
Windows Hello 7BB5EEFC CA 2018	5E2065CFD8964873B655E32B4D2E3AF7E1853ED4668A36011BB2359E9CF72964	1/31/2018	1/31/2028
Windows Hello 5CF190F8 CA 2018	E605D51BFB46BAD1B42F45A27F36FE2E6681E230BCAA6147E3B578340BD8998E	10/4/2018	10/4/2028
Windows Hello 73CA926A CA 2021	06AC0121450C4E5C7DCB9B4FB4F7A52C0C026CF545E5FFA95AD427FEC1D50566	12/9/2021	12/9/2030
Windows Hello 11B0C61D CA 2021	0CDBCDC8319C1D3638CF1340CFB970EE60BB52B346F3D5A4971329F3945001BF	12/9/2021	12/9/2030
Windows Hello 2096ADCC CA 2021	810C763FA29398D9ED3F85201B839CC450AEB0029284BC39030B33CD2532545B	12/9/2021	12/9/2030
Windows Hello 9F10CB1F CA 2021	32EEE36087C5D2D035A8A1F06376BD3ADA05F49FD13C9DBBEDD25EDDD0BBBDF0	12/9/2021	12/9/2030
Windows Hello 41738710 CA 2021	59EFBD857AD7AC3033F5E94C60D0298EAF50737057FF10D9CDAE373ADBE11E67	12/9/2021	12/9/2030
Microsoft ECC Surface Accessory Firmware CA 2018	FE56992B8657B72DA209FA002CF5B3509879109BB871ED44CE920FD29CF71FBB	6/14/2018	6/14/2033

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Microsoft ECC Third Party PCA 2019	9FF911EECE932777AED13656033E8CBFC1A7F9987A4FE4CC11C841FDE9F9E6EF	1/30/2019	1/30/2039
Microsoft Secure Launch ECC PCA 2017	8BCF976F5831DB386472F4FEB571733F852D884CBFC6DFB12C2FC82CC1D93F59	11/15/2017	11/15/2037
Microsoft Surface Silicon Partner PCA 2018	9B14BDBCFF12A71BC407B1FD7C37C36E2778B91E9C8C902DDE8D1ED6E174EA5F	3/8/2018	3/8/2033
Surface Factory CA 2018	4DD84211DCB0C8770EFC02F0168B39BD321E69644DF853ED74CF17607ABC3566	7/12/2018	3/7/2033
Microsoft Overlake OS Signing PCA 2019	7FD7ECE8A7C30B084AD5C2FD5B6042E2725EF966AAA6094EB3128A6CA6BDBC28	9/18/2019	9/18/2039
Microsoft Overlake Agent Signing PCA 2019	8B655BDDD8CE27BDBF8423AA2573324EF13D38BAA6F489E2770DAE1956E325B9	9/18/2019	9/18/2039
Microsoft Overlake STOS Signing PCA 2020	99F775C4B550EB5D645FBBE7394B53A2F7F5DB981D23DD1DC9CB9D152117684F	7/30/2020	7/30/2040
Microsoft Overlake Policy Signing PCA 2020	304007D9BF469978D727F046C6A67966EC03A6651ACF7B50EDD2DAFDDDC959D5	7/30/2020	7/30/2040
Microsoft Development PCA 2014	DBC90D98707DA5F9A7B5F7A0C7AEF1825611C250E435A16093C7E84BB75F98A4	5/28/2014	5/28/2029
Microsoft Mobile Development PCA 2014	1B07CB0F47425316288A57388FE75C5E361817B03D75D9C4472A379913327FE9	9/16/2014	9/16/2029

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MICROSOFT PUBLIC KEY INFRASTRUCTURE SERVICES MANAGEMENT'S ASSERTION

Microsoft Public Key Infrastructure ("PKI") Services operates the Certification Authority ("CA") services for the CAs enumerated in Attachment B, and provides the following CA services:

- Subscriber registration
- Certificate renewal
- Certificate rekey
- Certificate issuance
- Certificate distribution
- Certificate revocation
- Certificate validation
- Subordinate CA certification

The management of Microsoft PKI Services is responsible for establishing and maintaining effective controls over its CA operations, including its CA business practices disclosure on its repository, CA business practices management, CA environmental controls, CA key lifecycle management controls, certificate lifecycle management controls, and subordinate CA 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 Microsoft PKI Services CA operations. Furthermore, because of changes in conditions, the effectiveness of controls may vary over time.

Microsoft PKI Services' management has assessed its disclosures of its certificate practices and controls over its CA services. Based on that assessment, in Microsoft PKI Services management's opinion, in providing its CA services in the United States of America and in Ireland, Microsoft PKI Services has:

- disclosed its business, key lifecycle management, certificate lifecycle management, and CA environment control practices in the applicable versions of its Microsoft PKI Services Certificate Policy ("CP") and Microsoft PKI Services Corporate Certification Practice Statement ("CPS") enumerated in Attachment A

- maintained effective controls to provide reasonable assurance that:
  - Microsoft PKI Services' CPS is consistent with its CP; and
  - Microsoft PKI Services provides its services in accordance with its CP and CPS

- maintained effective controls to provide reasonable assurance that:
  - the integrity of keys and certificates it manages is established and protected throughout their lifecycles;
  - subscriber information is properly authenticated; and
  - subordinate CA certificate requests are accurate, authenticated, and approved

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- 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

throughout the period May 1, 2021 to April 30, 2022, based on the WebTrust Principles and Criteria for Certification Authorities v2.2.1, including the following:

CA Business Practices Disclosure
- Certification Practice Statement (CPS)
- Certificate Policy (CP)

CA Business Practices Management
- CPS Management
- CP Management
- CP and CPS Consistency

CA Environmental Controls
- Security Management
- Asset Classification and Management
- Personnel Security
- Physical and Environmental Security
- Operations Management
- System Access Management
- Systems Development, Maintenance, and Change Management
- Disaster Recovery, Backups, and Business Continuity Management
- Monitoring and Compliance
- Audit Logging

CA Key Lifecycle Management Controls
- CA Key Generation
- CA Key Storage, Backup, and Recovery
- CA Public Key Distribution
- CA Key Usage
- CA Key Archival
- CA Key Destruction
- CA Key Compromise
- CA Cryptographic Hardware Lifecycle Management
- CA Key Transportation
- CA Key Migration

Certificate Lifecycle Management Controls
- Subscriber Registration
- Certificate Renewal
- Certificate Rekey

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- Certificate Issuance
- Certificate Distribution
- Certificate Revocation
- Certificate Validation

Subordinate CA and Cross Certificate Lifecycle Management

- Subordinate CA Certificate and Cross Certificate Lifecycle Management

Microsoft PKI Services does not escrow CA keys, does not provide subscriber key lifecycle management services, and does not provide certificate suspension services. Accordingly, our assertion did not extend to controls that would address those criteria.

33F845FB21044B2
Raza Syed
DocuSigned By: Raza Syed

6/17/2022

Raza Syed
Distinguished Engineer, Product Release & Security Services

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Microsoft Corporation
One Microsoft Way
Redmond, WA 98052-6399

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

Certificate Policy

Policy Name	Policy Version	Policy Date
Microsoft PKI Services Certificate Policy	Version 3.1.4	February 15, 2021
Microsoft PKI Services Certificate Policy	Version 3.1.5	February 15, 2022

Certification Practice Statement

Policy Name	Policy Version	Policy Date
Microsoft PKI Services Corporate Certificate Practice Statement	Version 3.1.4	July 28, 2020
Microsoft PKI Services Corporate Certificate Practice Statement	Version 3.1.5	October 19, 2021
Microsoft PKI Services Corporate Certificate Practice Statement	Version 3.1.6	January 19, 2022

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ATTACHMENT B – IN-SCOPE CAs

Root CA Certificates			
Subject Common Name	**SHA2 Thumbprint**	**Valid From**	**Valid To**
Microsoft Supply Chain RSA Root CA 2022	23FFE2B8BDB9A1711515D4CFFDA04BC7F793D513C76C243F1020507D8669B7DB	2/17/2022	2/17/2047
Microsoft Supply Chain ECC Root CA 2022	638FE43CB69DCCF8D9265A254A9ACE5F6294AD21E8B6C94F7C8FB3673E9D5F23	2/17/2022	2/17/2047
Microsoft ESRP Root Certificate Authority 2017	688C6DC8E714FFB0AA7510203108ADB2B0FBEDD984EC7A0EC1156F9808603D8D	7/25/2017	7/25/2042
Microsoft Corporation Third Party Marketplace Root	2848361A9C1E32DF1D3E2ED6A7B9E67A525CF8A13B164F8006C9479578F746DE	10/5/2010	10/5/2035
Microsoft Surface Device Authentication Root CA 2014	09EC71FD906AE752F719D4E43ACA9779760C8BEDF49CD6B1253CDAA5ABDACF5C	3/20/2014	3/20/2029
Microsoft IEB Services ECC Root 2013	A1E021800C9FE32E5CC07022A391AC1C654F1D794CD5F4FD6F48203E275A82C4	4/18/2013	4/18/2038
Microsoft Services Partner Root	4EAC5578779EDA094585262381739418680 89D3E4974647A62F90C826E24DB80	8/24/2010	8/24/2035
Microsoft Code Verification Root	CA7791D5C9A1580DCDCAD31D0549FEA2043E229AA4F4932CFA056CA23EB8A950	11/1/2005	11/1/2025
Microsoft Services Federal Root 1	94B67F8C7767AC8D0E093534DD52398D0B3818CE3C02B09A010EF6EF007ED3A5	8/6/2010	8/6/2035
Microsoft RSA Devices Root CA 2021	8C2BB9144D4970C94FB8105CC5D860A58E2E675EB360FDD8C14B30833AAAEC1D	8/26/2021	8/26/2046
Microsoft IEB Services RSA Root 2013	437D53DAFA52B165BB2FC919F06BFC7DCA1AA4A95455D072E23602DF9EEB1C15	3/8/2013	3/8/2038
AP Root Certificate Authority 2014	88EFE5CC2FA5891C98DF8803B5975127C9811C8FC79D59CC51CE51FB5753F7ED	1/14/2014	1/14/2039
Microsoft ECC Services Root CA 2021	F836FDDDBC3A89EE8C6B3D6A2E0155B0A1A6BEDD4AB7B7BAE29C5817D799705A	8/27/2021	8/27/2046
Microsoft Mobile Root Certificate Authority 2015	A73E7102ED2897DC5DB7B2941591128A9E34769DC75577752D1AE09A908D3352	1/6/2015	1/6/2040
Azure Sphere Root Certificate Authority 2020	A18A6B15DA52BBFB6CD591219203BA304B60D56A67B82D1019F24EC041043D9A	2/27/2020	2/27/2040
Microsoft Android Platform Root CA 2021	601A970F3F2F5E256464F1424FE70DF8835A3A4CA441A7F2E804E4BE68058D8C	8/26/2021	8/26/2046
Azure Hardware Root Certificate Authority 2019	7306A1EA0F3ADF2FA90225C2CFE33968FA0393C54D9DFC7A5C815DAC0B32923F	7/3/2019	7/3/2044

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Subject Common Name	**SHA2 Thumbprint**	**Valid From**	**Valid To**
Microsoft ECC Development Root Certificate Authority 2018	403F7ACC71E20ABE1E5499BDD979DE9FC8B56630A4F46C4393D657171B368C29	2/27/2018	2/27/2043
Microsoft RSA Services Root CA 2021	668F97D576E0FC56D3D57C09B88EA389FADC9F6E5CB86BEAA0FFDD6E9421F46C	8/26/2021	8/27/2046
Microsoft TPM Root Certificate Authority 2014	870C7A35CEAB3D59979F2C6A524042D404CB71518004350925FB2CED79A999DA	12/10/2014	12/10/2039
Microsoft ECC Devices Root Certificate Authority 2017	4C25971E3BDDE59D178F7A5EF62561E9E88EDD93C274DDAA522840CD4B4B517E	11/9/2017	11/9/2042
Microsoft Overlake Root Certificate Authority 2019	5400B611F6B21D90208219217D58040EF6D905357DE3D6FC270C42B62753ABD1	9/6/2019	9/6/2044
Microsoft Development Root Certificate Authority 2014	41668293CBB726868D5B6AD4B4EB8DC125C944B48F848DF736AF37E43007E26F	5/28/2014	5/28/2039

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Subject Common Name	**SHA2 Thumbprint**	**Valid From**	**Valid To**
Microsoft SCD Products RSA CA	9B1894F223D934CBD6575AF3C6E1F6096B9221A7DA132185F5A5CDC92235B5DC	2/17/2022	2/17/2042
Microsoft SCD Claimants RSA CA	1E92EC6F4C801736EE024905210C4CB95FE4E2A42F404BDB5CC772B12336A6D9	2/17/2022	2/17/2042
Microsoft SCD Systems RSA CA	BB716EC0D93E03B138DB3DFA71171BE599F82085C456058F7064BA8ED4FC1A3A	2/17/2022	2/17/2042
ESRP0 RSA PCA 2017	DF63D390A4D82A96EA6B75796E51F75554C3DC2ED0BCE198EEC2B31E131F0B08	8/2/2017	8/2/2032
ESRP2 RSA PCA 2017	2DDA32F6128A2837D2D999E8F8C0513BD4D4A9445EDBC50A4B392EED94762950	8/2/2017	8/2/2032
MR0 RSA PCA 2022	53C75CE9E61D17FC2B91BD486C271E09E66C692A9B400272C8358C584D9DE49E	4/21/2022	4/21/2037
MR1 RSA PCA 2022	7C9B1624FAF06C5C5B3DEFF926334CA371986AD9A81DADC5282678F59ECB455B	4/21/2022	4/21/2037
Microsoft Surface Services for Windows 8 Pro CA 2012	1B1837D51CDC79D8628161C6D8040579BDFDA4780BBECFDE2108F21AA806AB28	8/2/2012	8/2/2027
Microsoft Surface for Windows 8 Pro Firmware CA 2012	22E643EA81C5B72883759EF47A7D22EF25DBC76AE7DA79878D80F2B97BD4C495	11/8/2012	8/2/2027
Windows Phone KEK CA 2012	87B3C9F7E4C519581E0AD87F38E65D78C31C64568347F6C2F106B23E909DD87F	7/6/2012	7/6/2027
Microsoft Windows IoT KEK CA 2015	CF74CD44C2BB5EF55836290AE926C660F884BF11C342E0934226463380BF2468	2/26/2015	2/26/2030
Microsoft Surface Services for Windows RT CA 2012	E43F4CE85ABDDB8E41C0677935DEB60D0EF8F106C82339A450D6C99C67BF3371	7/18/2012	7/18/2027
Microsoft Surface SFF Firmware CA 2013	BAF41DF93531F48976A2A5B581A728C34BAE8ABE270B5C9F3D99D32DBD0ED4A1	6/5/2013	7/18/2027
Microsoft Surface for Windows RT CA 2012	4245D5684381CB28EE9208AB6B843AAEB8A26C5027411086C3C39DD7D0F3E52B	7/18/2012	7/18/2027
Microsoft Surface with Windows RT v2 Firmware CA 2013	2A3AA801885B9C5000EF39DA51BAAB773C5DD90216C4F422B4BDEC578B20D0DE	4/24/2013	7/18/2027
Microsoft Surface for RT Firmware CA 2012	9B29EF1744163306931F8417588F9C2E9DC206CEDC7EA48AA24CC6D16BB192A3	8/17/2012	7/18/2027
Microsoft Surface with Windows RT v2 Services Mobile CA 2013	0103D60A79694F040F90C1D326E5054216A5EACD9F59D988591C87735DFD70DE	4/24/2013	7/18/2027
Microsoft Surface with Windows RT v2 Boot ROM Fuse CA 2013	65296AFAC4FC9C25968F1EFC246AFA13F99B47B08EC5A80A92D81A06A5321FE3	4/2/2013	7/18/2027
Microsoft Surface with Windows RT v2 Platform Key CA 2013	F84BD4AA351FD7F76FC16A4822C371F4F01487CD255619299CFFCB6C93DE1F13	4/24/2013	7/18/2027
Microsoft Surface SFF Platform Key CA 2013	E3A2FB3C55A8B41E3AE415B6725A1BF8F874AFB02E846B2B2F21F75EB6636854	6/5/2013	7/18/2027
Microsoft Band Firmware Debug CA 2016	4F600A946C1345CEBC2A6BBF84B0F6990E2DD59E13596C35143ADA6BF312B927	3/30/2016	3/30/2031

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Microsoft HoloLens Firmware Debug CA 2018	8908A17FE5FD7CDEAE4891867995074538B9A3CB180BB4C1011221AE3F8B172E	5/15/2018	5/15/2033
Microsoft Windows IoT PCA 2015	974D20E4D194D5E1BC0BC7D85513C661C8B88807F4113CE2FCD0D14E8906C68D	2/26/2015	2/26/2030
Microsoft Pinewood Attestation PCA 2019	E1A2DB7A816B59E83F7001643464C27AC44FEE1E4B2BE0236BA6116F586B0BE4	1/3/2019	1/3/2034
Microsoft Pinewood Attestation CA 2019	F9A3780BCEE9DC65130612AD348756A07EE1AC6CCCD056CFFA30BDC17EAE599C	1/9/2019	1/3/2034
Microsoft Windows Group Edition KEK CA 2015	562068F4667DD2008772C131C5D40082E7B7379DE55DF47AB5732AB99E67AAEF	2/16/2015	2/16/2030
Microsoft Andromeda Attestation PCA 2017	34046EF5E08C14E01BE8883BFBE0E5C31A8E407B5B3B98C88F8A86C8D98C1235	11/1/2017	11/1/2032
Microsoft Andromeda Attestation CA 2017	483FA02B01171CF63DF9B6E1E586F3B0A8278526E7E8E91F6653F7A5243C599F	11/1/2017	11/1/2032
Microsoft OEM Custom CA 2014	B6181AB8E72E555556CB356AB7BCCB422BE87670085B0DC5C00C92986F414114	4/3/2014	4/3/2029
Microsoft Corporation KEK CA 2011	A1117F516A32CEFCBA3F2D1ACE10A87972FD6BBE8FE0D0B996E09E65D802A503	6/24/2011	6/24/2026
Microsoft Surface XSFF UEFI PK CA 2018	886D1FF04EE498C7A51F513A2103DA7380DF2546FE5B40476A2A06136AD4DD75	4/25/2018	4/25/2033
Microsoft Surface NFF Firmware CA 2015	B60898040C5C697CBD9F9AA838E02BB1EF28C6834A76EC1EEF67A89599E2E799	11/5/2015	11/5/2030
Microsoft Surface Accessories Windows Firmware CA 2013	555F969D2A362EB3E9CD48A269FAD9C366CC57971539020304574F2E3B17FE05	4/2/2013	4/2/2028
Microsoft Surface Common Services CA 2014	6A43F586AA13D87F78E3826B0325D5CB2E12F5B6CB2226691E8A05F13CD639FE	7/23/2014	7/23/2029
Microsoft Surface MoBB-1 CA 2014	1787A4FD58AF3D2195CDC239569AE0B30E5954D071EEB7CB08EE7D9A64302FE2	10/8/2014	7/23/2029
Microsoft Surface MoBB-1 Boot Core CA 2019	42EB0F72E199E88A9A5F5339D3F411856BEC2FF48D778A60CAB2AD9CD17401BB	3/6/2019	7/23/2029
Microsoft Surface XSFF Firmware CA 2018	544BA6F7DF5640A86238C760DAC327FA90861FFA0C62F830021D438DF3D6D2F7	4/25/2018	4/25/2033
Microsoft Surface FFF Firmware CA 2018	C721EF9F0C61D94C7C1DA07D11AB14BA32CC06247C5FF65559804EC91E7E4A63	11/6/2018	11/6/2033
Microsoft Atlas Attestation PCA 2020	87D60B58A4F2CF65954BC39D58872CF5DC84ADCFBB25CB97607FA94B7CB5569A	12/15/2020	12/15/2030

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Microsoft Atlas Attestation CA 2020	468D949FE30207A1E11842F2579F152907BC3F872AC8C0231963C847E38B8BE4	12/15/2020	12/15/2030
Microsoft Band Firmware CA 2015	D1C7F14C7EE6878CB9CC6D5E92F90B1B3082AA682BFE9754DDC5AFAACE8357D2	12/22/2015	12/22/2030
Microsoft Andromeda Firmware Debug CA 2017	12AA98347AC4200D4C58284E3C5DE1E6043057A31A04019739324DEFDB833CF7	11/22/2017	11/22/2032
Microsoft Andromeda Attestation PCA 2017	263E224894E76810D8ADBF53921BA1867324A7D79FCD36AF09AC187F64A762FC	9/21/2017	9/21/2032
Microsoft Andromeda Attestation CA 2017	358F6EF64AE7DF8E6799D2792A113E8E88EFBE526E16098E7BFE2A8CC86DD6F9	9/26/2017	9/21/2032
Microsoft SH2 Firmware Debug CA 2018	B83388988464019C52C5DF5B97C0EAB871738A59BCCC4F8B03436C6002F3EFB8	1/12/2018	1/12/2033
Microsoft SH2 Firmware CA 2018	F63633F3CECEE5002F980288C2CEDA6936D5CCA85A22B400682EA0D005FEE126	1/12/2018	1/12/2033
Microsoft HoloLens Attestation PCA 2018	34EBDCFAD4C02C3FF23A18B14A84E9D17773DD29EBAA85FF5769032C2EE11760	5/15/2018	5/15/2033
Microsoft HoloLens Attestation CA 2018	223345115857516 0E97054D2F50B437F6F045C316258BDCC8E14150BC46722FC	6/6/2018	5/15/2033
Microsoft Surface FFF Firmware Debug CA 2018	F265325A8840D2C9F32EF52F757AA56B27AB83F23D63D467BA19BC4F070392E8	11/6/2018	11/6/2033
Microsoft Surface LFF 3 UEFI PK CA 2016	6E650A4C48F99AD47CFE63A078909EA46618D55A35C500B919D0CBA37399B1B1	5/18/2016	5/18/2031
Microsoft Devices OEM Code Sign CA 2018	4C12C4560AB4366838AA2412F1F5741C0C02972A99D1F82060E99A02AC246EC9	4/19/2018	4/19/2033
Linux Boot Loader Signing CA 2016	1289B875E55A0BB01597BE51C9ED95A3970F00D6861840094242932E02FCB901	9/29/2016	9/29/2031
Microsoft Surface LFF 3 Firmware Debug CA 2016	69DFBB22FEB8BDEE490AC203D23430CE6DCF70D32F975084BBFF5AA4B49BEF3A	5/18/2016	5/18/2031
Microsoft Corporation UEFI CA 2011	48E99B991F57FC52F76149599BFF0A58C47154229B9F8D603AC40D3500248507	6/27/2011	6/27/2026
Microsoft Corporation Third Party Marketplace PCA	B17E8201B128E1E74CC023510AB7EA03AC27DDE50D32D810EA1577758F1CC098	10/8/2010	10/8/2034
Microsoft Surface XLFF 2 UEFI PK CA 2016	4C7002E4A3C4D3F0F9E8CC141BDC4257BA3A73237FE13B6D433031F524B13153	5/9/2016	5/9/2031
Microsoft Surface Hub UEFI PK CA 2015	C9088BEAFD93D4FDF23502F7A942CE4A79609D236BAA9F4537E546AE44A5274B	2/16/2015	2/16/2030

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Microsoft Universal Store OnePay PCA 2015	75AD0DC59DE9993BE5A64B03748E5F5CD309E89C6E6F153E25E2BA202F21D360	9/8/2015	9/8/2030
Microsoft Surface XSFF Firmware Debug CA 2018	264318C3E0125AA16C7F49BBBBA2344076CD680F3FDDE32ECF1DAEAFA0E5C0E4	4/25/2018	4/25/2033
Microsoft Windows UEFI PK CA 2017	C209C7DA8FE8AB2B16BE32CB43CBE8F8D158FF572C943A9A6703E012B180DBFE	11/22/2017	11/22/2032
Microsoft XCloud PCA 2018	5370A2CD4C54A81031680E35E8FC8925B2709425F7F08F4FD63E0CE743AB178A	1/25/2018	1/25/2033
Microsoft Surface XLFF 2 Firmware Debug CA 2016	36FF80BCC75DF08022D70BC9FB322D42176761A0ABF6AC8E7C1FFF848DA60F79	5/9/2016	5/9/2031
Microsoft Surface LFF 3 Firmware CA 2016	79EC0FD85704624EA02EC27ED3973F0DDA05B588082EA3C4A8F35C81DC080328	5/18/2016	5/18/2031
Microsoft Surface Ganymede Attestation PCA 2017	706CC20D94950D1E8DAAD69DFBAAF02ECB22855C1045CC3FAE617D6FF02B74A1	3/31/2017	3/31/2032
Microsoft Surface Ganymede Attestation CA 2017	958C57AB822F88771ED4ADDEB0B8AF3E9A3A37DBF6C81E663D1380AF94242320	4/11/2017	3/31/2032
Microsoft Surface Services for Windows RT CA 2012	5F51A43F39F6D151BE718DC8456464ADE11F4D4C33B610AD9EDEC52D4BFF528B	6/17/2013	6/17/2028
Microsoft Surface for Windows RT EK Issuing CA 04	19DF338B05462BE48F4ABC385A7DFBFE10677A6E7C78AF18FA05F4C3EA4C2717	8/8/2013	5/8/2028
Microsoft Surface for Windows RT EK Issuing CA 03	E7CCB9BAA24B83CEDE6CB9D9AF1B2567082CAF43CC54B4D20BE97ABB26D8C2B6	8/8/2013	5/8/2028
Microsoft Surface for Windows RT EK Issuing CA 02	D7E09399BFA92E84000F299FA3597AC4823DD9C5319C37A6B680E62ACE4E07D6	8/8/2013	5/8/2028
Microsoft Surface SFF Attestation CA 2013	334700F29B2F542AFEA04E80F0D4D24BF3A5498E087F25F4F3012E74EFC45AE4	12/20/2013	6/17/2028
Microsoft Surface for Windows RT EK Issuing CA 01	B0E3B48CC492EED111CC6C291F4F205BE3101FD9555F99B189FF855BB98A75B5	8/8/2013	5/8/2028
Microsoft Surface NFF UEFI PK CA 2015	5BA637CB3BCD37501F2EACDF6C0666B729139A64A202CE275308ED22870C65EA	11/5/2015	11/5/2030
Microsoft Devices UEFI CA 2016	E30D58A85CCEDE5A4A419EEFABD8B629948BCB0E6BE19637C5911ADE9FE6BE00	2/11/2016	2/11/2031
Microsoft Atlas Firmware Debug CA 2020	65142EDADA234E3FF6DF875C5D2084F975DD18A464164BDF76579A4C9EB04200	12/15/2020	12/15/2030
Microsoft Surface XLFF 2 Firmware CA 2016	1D7CE201712FCC2A0C00DE8FA6EBB3A509F30D4C70FED88EE332D7E2042C3822	5/9/2016	5/9/2031

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Microsoft Surface Hub Firmware CA 2015	809BC34F80154EB3F914D946C2C88E71954E86B021438E51AF79BFE6847F60B3	2/16/2015	2/16/2030
Microsoft Surface NFF Firmware Debug CA 2015	A7B31AC9D96CD8D3A680F6CB7854FB2365BE33B6986188F148DFDB3BCF55F8E5	12/16/2015	12/16/2030
Universal Store PCE ECC PCA 2015	BEE1DB74C3DC4CE1594AE2C98748C3D215C67808C230AA54AC3D59BC5C85ED01	1/20/2016	1/20/2031
Microsoft Central Access Authentication ECC PCA 2015	6047A0D1A5AE7402945E17E75403DA7C44F953759154E64177F87C4D232BA017	6/23/2015	6/23/2030
343 Industries Section 3 Production CA 2017	F3BE668072D34F2D8AEA92AF677262A933927CFF95B829D144551885E1416120	5/16/2017	5/16/2032
Microsoft Codename 4x4 PCA 2017	ED12D01C4F7BCC3651E62FCE0603BABBF4DC52596423CACF02372139F3124FFC	9/12/2017	9/12/2037
Microsoft Central Access Authentication ECC PCA 2015	A16729B3A5E053E3D0D882B77D3056B4C1F35D6F25ABD691AF4EB02F8EFE9DA2	1/26/2016	1/26/2031
Universal Store PCE ECC PCA 2015	4337269B71342348BAAB55BCF518292913F26EF5EFC1F33DD65DFB08567B8464	10/7/2015	10/7/2030
Universal Store Onestore ECC PCA 2015	65FFCC0A0472816C9ED759FAB092F4CEC7241E06D08068DB4FC079562EC090F0	1/26/2016	1/26/2031
Universal Store Prod ECC PCA 2015	CF3C954F7BFF4FB928CFAEF06C0C79A79C9C3936760D13836433DA865997F223	9/1/2015	9/1/2030
343 Industries Section 3 Test CA 2017	0A3530FE9AD35CD73CFE255AC70EAF40892ADD08BB97998490CAEB1AC9B70062	5/16/2017	5/16/2032
Universal Store Onestore ECC PCA 2015	9DA92134CBC836AF09A523E3B4FD45C1B4D0A1FBD695B74D5137ED52921C7493	9/1/2015	9/1/2030
Microsoft Code Name 4x4 PCA 2017	5248DA95516914D4A1DAFE2AAC49FA53212E95421B7BFF0A807181075A8F971F	9/6/2017	9/6/2032
Universal Store Non-Prod ECC PCA 2015	7A4F009D3AA1E15DBDC2F27DB33E861A2F85200FF944C1804501D070FF84A9B8	9/1/2015	9/1/2030
Universal Store Prod ECC PCA 2015	614AB7FFB13680E467D0A045C7A3E2D2990A2D31C9D0FFD681DA7096A181F815	1/26/2016	1/26/2031
Universal Store Non-Prod ECC PCA 2015	95DAF6296A110D0A17041D04F76637F13B106BC93297008EF6CBF576EB630271	1/26/2016	1/26/2031
Microsoft RSD Software Ring 0 CA 2018	7473ED968DF2C2B094FFA30F0A20A570A2B4336D0222C27F1245D2C455DB6323	3/14/2018	3/14/2033

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Intermediate CA Certificates			
Subject Common Name	**SHA2 Thumbprint**	**Valid From**	**Valid To**
Microsoft Office Service Infrastructure TIP Issuing CA 2011	99FEC19B8ACBFF4FFA6B2601DF39AD51D4684A21EB745A80FF10A2784848C0FA	7/13/2011	7/13/2026
Windows Internal Build Tools PCA 2020	5B20334FE6B3F360F02E7B197D32656D1235353DC04BA19FA2619781EF59F715	2/5/2020	2/5/2035
Microsoft Office Service Infrastructure PR Issuing CA	E6F520FF3585577DEF6A1BB0BCB645518692908ED622850D9554F48CBEB554C1	5/17/2011	5/17/2026
CloudBuild Source Cache High Trust Intermediate CA 2016	D36303241ACBC33D786E6385C2831BA33E9B68CC27A86822F69BF9BBD14114D2	12/6/2016	12/6/2031
Microsoft Office Service Infrastructure Partner CA 2012	DF403466D46C5BF80F18D1D87B1AD3B08C697847D8FDB3A3F7993B63EABEB3D6	10/30/2012	10/30/2027
Microsoft Office Service Infrastructure China TIP Issuing CA2012	BD759C39DF5CA3954A6D007075B9F8A5168D4C090CF2FCE27E45AC045DCFE6EF	11/7/2012	11/7/2022
Microsoft Office Service Infrastructure China Issuing CA 2012	836375F4E806CEC201847E800775DF8623138B7E53CF5DA331B89886CA309D7B	11/7/2012	11/7/2022
Microsoft Office Service Infrastructure TIP PR Issuing CA 2011	31999F6A276A58F067335540DBC892CF0342E53C9E00C06E7C5411CA0AF7D5C7	5/18/2011	5/18/2026
Microsoft KMS CA 2011	AA0D15514BDD3D477326D81095E9D193C2EB5464E9D273B4C6FDF4DCC32D7CE0	5/13/2011	5/13/2026
CloudBuild Source Cache AP Classic Intermediate CA 2016	9DCC938B003601896DD6EBDA18887E3C3E77B5C679CA56DF492DEE95E90CA850	12/6/2016	12/6/2031
Microsoft KMS Issuing CA 2011	3B47914002579950DEF516682A41ABF116A2458EA58250FFBED9332FBCB19AB3	5/24/2011	5/24/2026
Microsoft RSD Software CA 2016	16DEB97064EEF93F485A92CADD5A3163655AB7C0C87A1ABFE79C88BF0E5686AD	12/6/2016	12/6/2031
Microsoft Office Service Infrastructure TIP INT Issuing CA	F92B7C9AFD91C57208F1F9D3DF98EA1920DA7796814B6460FC1210F4AB785567	6/1/2011	6/1/2026
Microsoft Office Service Infrastructure INT Issuing CA 2011	9DA2F35BD5CB1A083D022DCDE65FC3C1106236277BD66EA10D2F04007DBCAE7B	5/27/2011	5/27/2026
Microsoft Office Service Infrastructure Issuing CA 2011	8D4A3715E616B63369C9B1187240413248F00B452464B5E63AD3CC8CCCB502E0	7/13/2011	7/13/2026
Microsoft Exchange Services CA 2015	2E5661B50E76147999499DBD75B5C9B67201E9128AACA05BFA3AAFED6953C98C	6/16/2015	6/16/2030
Microsoft Services Federal PCA 1	4302542F996AF96870E27C0F1787703ABA63C949D0F700B80118734F55CF7807	8/12/2010	8/12/2025

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Microsoft Surface AFF Firmware CA 2021	B433314F8CE412C5448B1D1391B5F3795813C6FAB9EE95595CB42393E47C17A4	8/27/2021	8/27/2036
Microsoft Surface LFF Firmware CA 2021	714D0615E87E2ED8883C953E049CEEBDAF7A3B6297F6C448EDE96A815B6A1E79	9/2/2021	9/2/2036
Microsoft Surface AFF Firmware Debug CA 2021	60244E11818FA412C8661BF78F0DED3012AD4F68A053B537341693525A2D192D	8/27/2021	8/27/2036
Microsoft Surface LFF UEFI PK CA 2021	142495463B57A164421F5490A30155A1241383734CAAD435C86841E2B1810761	9/2/2021	9/2/2036
Microsoft Surface AFF UEFI PK CA 2021	7E3EA53AD3B2EC1B35CDBEEBD224280315DFC7F39215484740D42570057DE969	8/27/2021	8/27/2036
Microsoft Surface LFF Firmware Debug CA 2021	2F0148C7BEA2DD6948F257DB555C505A4634A6AC6CAC0AA5F0A3D020775FC22D	9/2/2021	9/2/2036
Microsoft Surface NFF Firmware Debug CA 2021	74BDB78CE3E91977BCD0CA96647C58DBF8E59B9CAB018715829D4E21E710D33C	11/11/2021	11/11/2036
Microsoft Surface XLFF UEFI PK CA 2021	D5825915DFB03DB109218357B834D99FD9EF6C79D911FB8E664C5F45719B2B46	11/11/2021	11/11/2036
Microsoft Surface SH2 Firmware Debug CA 2022	7650E32E990915793F472122B7252458DB88E3E234A6F487E75BDD7C6FB34E4F	3/17/2022	3/17/2037
Microsoft Surface SH2 Firmware CA 2022	02386631E0FA6EB83AC2347019A29A79D365B16BFDE8F0113083FD7CEFDEFF5D	3/17/2022	3/17/2037
Microsoft Surface NFF Firmware CA 2021	487B28AB1621BF989F3C1BACCEF7AF13D430019C612934438096633EBD34193C	11/11/2021	11/11/2036
Microsoft Surface SH2 UEFI PK CA 2022	774283134AA63F6ED5EC73A2CEC297AF237646E413120698F53C38CCA285D2B0	3/17/2022	3/17/2037
Microsoft Surface NFF UEFI PK CA 2021	CACEFB4E3846923412319522593B8B355352D7AF161137887379F6035FED555B	11/11/2021	11/11/2036
Microsoft Surface XLFF Firmware Debug CA 2021	64FE4C81B4E5B675B8DA5EC928A8BDE9E9FAD07F671BCCE1BF3E4DC2E609ED90	11/11/2021	11/11/2036
Microsoft Surface XLFF Firmware CA 2021	B34B498FE955582594B3C34599D79C7D065F64CA503C85C2F8BDDE43D48B1114	11/11/2021	11/11/2036
Universal Store PCE RSA PCA 2016	EACF321B7E6ABF4B2ED36999F3F07AF2A16D01CB5149EB40C96FAEDACC9612F8	6/1/2016	6/1/2031
Xbox Services RSA PCA 2013	7D0BA2C9FF2747A63F6667ECB32B2EE8B85657E68E3B51EE539663A9C5877CD8	7/8/2013	7/8/2033
Universal Store Central Access Authentication RSA PCA 2016	BC9C02801930C9D0DDC443FE95B595A395213F9FC6F619D1054C02A35105FA28	6/1/2016	6/1/2031

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Triton Accessory Authentication PCA 2013	7CA5FC48BFB9767FAC95F393A271BFE2449D59A9D965837D50FF15AD46781793	3/19/2013	3/19/2033
Poseidon Accessory Authentication PCA 2013	6F3B4AF8B38269075D72C11CA35953753889A1D1010A1E12EA3AEF666F81C0EF	3/8/2013	3/8/2033
Xbox Services RSA PCA 2013	9006DF0A538943D8E3997AD0E554D112DFC4F7DB05B6590D806694966E32DC15	4/16/2013	4/16/2033
Universal Store PROD RSA PCA 2017	EBF08C5CBDFAB006BFE6B3F51C4FB8CF2A93B8FDB62BCB9F32C34E0286105F79	6/1/2017	6/1/2032
Xbox Services RSA PCA 2013	418DE5CFEA76E704D8CE5AC3E226E3C0CCE8D96452833825EA52DB9276E1C924	5/16/2013	5/16/2033
Lumia Labeling CA	E5A067B80331CC1921E959E0D3577AAACDD6023C5976A44631602161929E521B	1/28/2015	1/28/2030
Phones UEFI CA 2016	DC127501A5470A4EB56B29940E08B04FE258595EB42CC7087D7738F5E50352BA	3/30/2016	3/30/2031
J2ME Manufacturer Domain CA 2015	C5C202F5C36DA600185EC9065D25450932C41C1EC6BD40B9E24A1CC3ED13F201	9/10/2015	9/10/2030
Microsoft VSMC PCA 2017	895FBD56AE079ED9FAB177432D298C0575A04B920E6DCAFD1B112163180EE538	9/26/2017	9/26/2032
Lumia Labeling CA	36FFEEE9AC26B7F3ECC154B65350A565FADA370E6BFCDD53AEBD2940A96301A0	2/4/2015	2/4/2030
J2ME Trusted Third Party Domain CA 2015	E8759CED3BA052050289680957 1B5AE8DB981CBE5EF27D7A78F8C04F81D859E1	9/10/2015	9/10/2030
Microsoft Mobile PCA 2015	142D730CDA05127248C73E00B6CC1B75C344532F505E20DF42AAABB7B9EDEB7E	9/8/2015	9/8/2030
Microsoft Android Code Transparency and Upload PCA	26D402B0290B81D3E25AE5BFE2922C8AF78F8253DBC1F71C98B96BA542FC7B5E	8/27/2021	8/27/2041
Microsoft Android Play App PCA	4B8F34C97E05AECEB74CB5C98F36F6286FD8BF64A257AC3B325018D0DD09C079	8/27/2021	8/27/2041
Microsoft Overlake Celestial Peak EOC CA 02	ECCB8003956FCD3248E66132CBD0153FB5DF0EA1FEE10991F0E6549B5EC17A6E	12/19/2019	12/19/2031
Microsoft Overlake Celestial Peak AOC CA 01	CE3B70AD7DB6FC888C0A7C589B391B3722F05A9729E54748738C00934551B96C	10/14/2021	10/14/2034
Microsoft Cerberus EOC CA 01	C8022698A61031A773B5B020A8DFF63834A6A405DBCEF2A0D1AB774859E8AAE4	10/14/2021	10/14/2034
Microsoft Overlake Celestial Peak EOC CA 02	E2F816AABA9641F132DE4A949DAD8C5590F792B4C27B0D17F0E70B0AFAA75E17	10/14/2021	10/14/2034
Microsoft Overlake Celestial Peak EOC CA 01	47A97C9899659DD6FC5CDDA5F910C00C5C80FAB0813388E88ABA71757F748FE7	12/19/2019	12/19/2031
Microsoft Cerberus AOC CA 01	E50EA06004720D39C9B9DA993546FAE0755DB7C5ED8DA18B8F5CD3A9F6542AEA	11/13/2019	11/13/2031
Microsoft Overlake Celestial Peak EOC CA 01	218DAFFA758BBD21458D430FA73B2417CE15F27808C268838EAA75C06DB9DA89	10/14/2021	10/14/2034
Microsoft Overlake Celestial Peak AOC CA 02	1DE8A905A7E46681E8D2BC0CA1C9BA2D4AFB159D20BB3ECFB4E039FFA69103FC	10/14/2021	10/14/2034

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Microsoft IoT Hardware AOC CA 01	50E68DF1565FAC8C29C9B5B99F6F674EE65FE06B12C19EC49BB2114AA6CF07FC	7/23/2020	7/23/2032
Microsoft Corsica EOC CA 01	10D7FFFC33013B74BAFAF8A02847909F6D144F643AF3B135D0974D9A09FA5ACD	11/13/2019	11/13/2031
Microsoft IoT Hardware AOC CA 02	BAB009727481D5A102A0F9D92AFBE35A154B3542CA2373142EA8B391D26FD964	7/23/2020	7/23/2032
Microsoft IoT Hardware EOC CA 02	3A1AB5E1682341C0C1149F420F7C6DBB811DFB7A12ED760BB851224202E60052	7/23/2020	7/23/2032
Microsoft Corsica AOC CA 02	2C4BD0808A66F2AB908C151AD5824FAB37C73E77997397F54AFB69B706CF7D27	11/13/2019	11/13/2031
Microsoft Cerberus AOC CA 02	F47977F79FA05075F6EDA341C110D2888ADEB551590B059541DE10A8F89B4BE8	10/14/2021	10/14/2034
Microsoft Corsica AOC CA 01	74B885A77CC6402EFBA497588160AC17E148010EBDB1866AAF5418C920E724FA	11/13/2019	11/13/2031
Microsoft IoT Hardware EOC CA 01	E862464637686C70F51D78506FA970D6C85A9DDEA822C5F320B04CEE2F782E31	7/23/2020	7/23/2032
Microsoft Cerberus AOC CA 02	62611B1020D9878861921646DE463AFFDA7D1CE9DDFD950D04FDC593A58CC656	11/13/2019	11/13/2031
Microsoft Cerberus EOC CA 01	B610E3630261CBF06AE85E2F2F6A28ADA80465BED23F31EEEA68766D7216B2A0	11/13/2019	11/13/2031
Microsoft Overlake Celestial Peak AOC CA 01	61CCD5572CE0C9C5A5B7BE0837B1B5EAC3BD5AE79874A38BDFB796AD8E45B96D	1/17/2020	1/17/2032
Microsoft Overlake Celestial Peak AOC CA 02	854BEEC86E41081F3B5CB06FAD9E64BAE5DB0B58E9AD906AF7B5BD7D3B53737E	1/17/2020	1/17/2032
Microsoft Corsica EOC CA 02	387B537E349787D3C0C11D2DEF2AF8942FB520A473D6099AB97A8BA1CA2777C7	11/13/2019	11/13/2031
Microsoft Cerberus EOC CA 02	DCE64EF531BC0F481276B20F947F78CE64F2824B0E40C8D0EDB471B9188D58F1	10/14/2021	10/14/2034
Microsoft Cerberus AOC CA 01	D0E2A87127D14090781683B69C3D40C591B620583DEED27E00D2B0A8FC3246C5	10/14/2021	10/14/2034
Microsoft Cerberus EOC CA 02	8AFE1152EB160B6001A38FAB330F7C692068F87A521AD3D81ED8275653B6B8B5	11/13/2019	11/13/2031
Microsoft ECC Development PCA 2018	E37D50B7302A77D6A7BB2DC22525B9B732E8C10679C5B775BF3049D46FE8ECF3	3/1/2018	3/1/2033
M365 RSA Services Code Signing PCA	E33F679E29185FC6841AB8F121C6A6F08FDA6EC5C098541BC1C0F4A0A380D02C	9/2/2021	9/2/2036
Azure RSA Public Services Code Signing PCA	2488D112CC7BB801C4EDF718F56C161CDB700AFD73FEDC68BC7A097BDBB6BC00	9/2/2021	9/2/2036
Windows Hello Secure Devices PCA 2018	DBFC7BE1149785B5FD98A995B83184F51DE39E9B277BE287082F57514007C9C1	1/25/2018	1/25/2033
Windows Hello B5A8CEAC CA 2018	72EA4166FE93199D77784B728BAAAB03F852223940C1ADDE99B2D7CC9E8C0C95	1/31/2018	1/31/2028
Windows Hello 1767C8B4 CA 2018	A67A51F19E5E90D4A8CDD0641A02C36ADDA12BBCDCFDF374C64ADE7EB5073663	10/4/2018	10/4/2028
Windows Hello 19B92965 CA 2018	0E304378D8493AD6B5A1E20975F24226C3D49C7A141413E1B9728593F9FCC016	1/31/2018	1/31/2028

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Windows Hello 7BB5EEFC CA 2018	5E2065CFD8964873B655E32B4D2E3AF7E1853ED4668A36011BB2359E9CF72964	1/31/2018	1/31/2028
Windows Hello 5CF190F8 CA 2018	E605D51BFB46BAD1B42F45A27F36FE2E6681E230BCAA6147E3B578340BD8998E	10/4/2018	10/4/2028
Windows Hello 73CA926A CA 2021	06AC0121450C4E5C7DCB9B4FB4F7A52C0C026CF545E5FFA95AD427FEC1D50566	12/9/2021	12/9/2030
Windows Hello 11B0C61D CA 2021	0CDBCDC8319C1D3638CF1340CFB970EE60BB52B346F3D5A4971329F3945001BF	12/9/2021	12/9/2030
Windows Hello 2096ADCC CA 2021	810C763FA29398D9ED3F85201B839CC450AEB0029284BC39030B33CD2532545B	12/9/2021	12/9/2030
Windows Hello 9F10CB1F CA 2021	32EEE36087C5D2D035A8A1F06376BD3ADA05F49FD13C9DBBEDD25EDDD0BBBDF0	12/9/2021	12/9/2030
Windows Hello 41738710 CA 2021	59EFBD857AD7AC3033F5E94C60D0298EAF50737057FF10D9CDAE373ADBE11E67	12/9/2021	12/9/2030
Microsoft ECC Surface Accessory Firmware CA 2018	FE56992B8657B72DA209FA002CF5B3509879109BB871ED44CE920FD29CF71FBB	6/14/2018	6/14/2033
Microsoft ECC Third Party PCA 2019	9FF911EECE932777AED13656033E8CBFC1A7F9987A4FE4CC11C841FDE9F9E6EF	1/30/2019	1/30/2039
Microsoft Secure Launch ECC PCA 2017	8BCF976F5831DB386472F4FEB571733F852D884CBFC6DFB12C2FC82CC1D93F59	11/15/2017	11/15/2037
Microsoft Surface Silicon Partner PCA 2018	9B14BDBCFF12A71BC407B1FD7C37C36E2778B91E9C8C902DDE8D1ED6E174EA5F	3/8/2018	3/8/2033
Surface Factory CA 2018	4DD84211DCB0C8770EFC02F0168B39BD321E69644DF853ED74CF17607ABC3566	7/12/2018	3/7/2033
Microsoft Overlake OS Signing PCA 2019	7FD7ECE8A7C30B084AD5C2FD5B6042E2725EF966AAA6094EB3128A6CA6BDBC28	9/18/2019	9/18/2039
Microsoft Overlake Agent Signing PCA 2019	8B655BDDD8CE27BDBF8423AA2573324EF13D38BAA6F489E2770DAE1956E325B9	9/18/2019	9/18/2039
Microsoft Overlake STOS Signing PCA 2020	99F775C4B550EB5D645FBBE7394B53A2F7F5DB981D23DD1DC9CB9D152117684F	7/30/2020	7/30/2040
Microsoft Overlake Policy Signing PCA 2020	304007D9BF469978D727F046C6A67966EC03A6651ACF7B50EDD2DAFDDDC959D5	7/30/2020	7/30/2040
Microsoft Development PCA 2014	DBC90D98707DA5F9A7B5F7A0C7AEF1825611C250E435A16093C7E84BB75F98A4	5/28/2014	5/28/2029
Microsoft Mobile Development PCA 2014	1B07CB0F47425316288A57388FE75C5E361817B03D75D9C4472A379913327FE9	9/16/2014	9/16/2029

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