

# Mozilla - CA Program

Case Information			
Case Number	0000275	Case Record Type	CA Owner/Root Inclusion Request
CA Owner/Certificate Name	Microsoft Corporation	Request Status	Information Verification In Process

Additional Case Information	
Subject	Include Microsoft Roots
Case Reason	

Bugzilla Information	
Link to Bugzilla Bug	<a href="https://bugzilla.mozilla.org/show_bug.cgi?id=1448093">https://bugzilla.mozilla.org/show_bug.cgi?id=1448093</a>

General information about CA's associated organization			
CA Email Alias 1	certificateauthority@microsoft.com		
CA Email Alias 2			
Company Website	<a href="https://www.microsoft.com/pkiops/docs/repository.htm">https://www.microsoft.com/pkiops/docs/repository.htm</a>	Verified?	Verified
Organizational Type	Public Corporation	Verified?	Verified
Organizational Type (Others)		Verified?	Not Applicable
Geographic Focus	Global	Verified?	Verified
Primary Market / Customer Base	End User Products, Enterprise Products and Services, Cloud Services	Verified?	Verified
Impact to Mozilla Users	Essential trust anchors for one of the major underlying operating systems.	Verified?	Verified

Required and Recommended Practices			
Recommended Practices	<a href="https://wiki.mozilla.org/CA/Required_or_Recommended_Practices">https://wiki.mozilla.org/CA/Required_or_Recommended_Practices</a>	Recommended Practices Statement	I have reviewed Mozilla's lists of Required and Recommended Practices, and confirm that we follow those practices, with exceptions and clarifications noted in the text box below.
CA's Response to Recommended Practices	<ol style="list-style-type: none"> <li>Publicly Available CP and CPS: CP/CPS section 1.5.4               <ol style="list-style-type: none"> <li>Revision Table, updated annually: CP/CPS section 1.2.1</li> <li>CAA Domains listed in CP/CPS: CPS section 4.2.4 <a href="https://www.microsoft.com">microsoft.com</a></li> </ol> </li> <li>Audit Criteria: CPS section 8</li> <li>Revocation of Compromised Certificates: CPS section 4.9.1</li> <li>Verifying Domain Name Ownership: CPS section 3.2.2.4</li> <li>Verifying Email Address Control: N/A</li> <li>DNS names go in SAN:               <p>NEED:  <a href="https://wiki.mozilla.org/CA/Required_or_Recommended_Practices#DNS_names_go_in_SAN">https://wiki.mozilla.org/CA/Required_or_Recommended_Practices#DNS names go in SAN</a>                CPS is not clear about this.                section 3.1.1: "The Subject Alternative Name (SAN) MAY be used."                and section 7.1.4.2.1. Subject Alternative Name Extension</p> </li> </ol>	Verified?	Need Response From CA

No Stipulation

- 7. OCSP: CPS section 4.9.9, 4.9.10
- OCSP SHALL NOT respond "Good" for unissued certs: CPS section 4.9.10
- 8. Network Security Controls: CPS section 6.7

## Forbidden and Potentially Problematic Practices

<b>Potentially Problematic Practices</b>	<a href="https://wiki.mozilla.org/CA/Forbidden_or_Problematic_Practices">https://wiki.mozilla.org/CA/Forbidden_or_Problematic_Practices</a>	<b>Problematic Practices Statement</b>	I have reviewed Mozilla's lists of Forbidden and Potentially Problematic Practices, and confirm that we do not do those practices, with exceptions and clarifications noted in the text box below.
<b>CA's Response to Problematic Practices</b>	<ol style="list-style-type: none"><li>1. Long-lived Certificates: CPS section 6.3.2</li><li>2. Non-Standard Email Address Prefixes for Domain Ownership Validation: CPS section 3.2.2.4</li><li>3. Issuing End Entity Certificates Directly From Roots: CP/CPS section 6.1.7</li><li>4. Distributing Generated Private Keys in PKCS#12 Files: CPS section 3.2.1</li><li>5. Certificates Referencing Local Names or Private IP Addresses: NEED: Update CPS to clarify what is/isn't allowed in regards to IP Addresses CPS currently says: "3.2.2.5 Authentication for an IP Address No Stipulation" Reference: <a href="https://wiki.mozilla.org/CA/Forbidden_or_Problematic_Practices#Certificates_Referencing_Local_Names_or_Private_IP_Addresses">https://wiki.mozilla.org/CA/Forbidden_or_Problematic_Practices#Certificates_Referencing_Local_Names_or_Private_IP_Addresses</a>  NEED: Also CPS currently says: "3.2.2.6 Wildcard Domain Validation No Stipulation" That is insufficient as well. Need to indicate if allowed, and what domain and other validation is performed for wildcard domains. (needs to be in line with BRs)</li><li>6. Issuing SSL Certificates for .int Domains: CPS section 3.2.2.4</li><li>7. OCSP Responses Signed by a Certificate Under a Different Root: CPS section 4.9.9</li><li>8. Issuance of SHA-1 Certificates: CPS section 6.1.5</li><li>9. Delegation of Domain / Email Validation to Third Parties: CPS 1.3.2</li></ol>	<b>Verified?</b>	Need Response From CA

## Root Case Record # 1

### Root Case Information

<b>Root Certificate Name</b>	Microsoft EV RSA Root Certificate Authority 2017	<b>Root Case No</b>	R00000541
<b>Request Status</b>	Information Verification In Process	<b>Case Number</b>	00000275

### Certificate Data

<b>Certificate Issuer Common Name</b>	Microsoft EV RSA Root Certificate Authority 2017
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O From Issuer Field	Microsoft Corporation
OU From Issuer Field	
Valid From	2017 Jul 26
Valid To	2042 Jul 26
Certificate Serial Number	19FCEB6DF7CF57844184BDD9E0228E98
Subject	CN=Microsoft EV RSA Root Certificate Authority 2017; OU=; O=Microsoft Corporation; C=US
Signature Hash Algorithm	SHA384WithRSA
Public Key Algorithm	RSA 4096 bits
SHA-1 Fingerprint	3AD38A39CE4E88DCDF46995E969FC339D0799858
SHA-256 Fingerprint	DFB3C314740596AD5FB97960EF62AD7C1FCCEEAD16E74054652D1032E6F140EF
Subject + SPKI SHA256	7EA74459FF5C26C9D622652B7624424A0B3BA61702495674DB178A92A3C5EEC6
Certificate Version	3

### Technical Information about Root Certificate

Certificate Summary	This "Microsoft EV RSA Root Certificate Authority 2017" is only used for EV TLS/SSL certs.	Verified?	Verified
Root Certificate Download URL	<a href="http://www.microsoft.com/pkiops/certs/Microsoft%20EV%20RSA%20Root%20Certificate%20Authority%202017.crt">http://www.microsoft.com/pkiops/certs/Microsoft%20EV%20RSA%20Root%20Certificate%20Authority%202017.crt</a>	Verified?	Verified
CRL URL(s)	<a href="http://www.microsoft.com/pkiops/crl/Microsoft%20EV%20RSA%20Root%20Certificate%20Authority%202017.crl">http://www.microsoft.com/pkiops/crl/Microsoft%20EV%20RSA%20Root%20Certificate%20Authority%202017.crl</a> <a href="http://www.microsoft.com/pkiops/crl/Microsoft%20TLS%20EV%20Issuing%20CA%2001.crl">http://www.microsoft.com/pkiops/crl/Microsoft%20TLS%20EV%20Issuing%20CA%2001.crl</a>	Verified?	Verified
OCSP URL(s)	<a href="http://ocsp.msocsp.com">http://ocsp.msocsp.com</a>	Verified?	Verified
Mozilla Trust Bits	Websites	Verified?	Verified
SSL Validation Type	EV	Verified?	Verified
Mozilla EV Policy OID(s)	2.23.140.1.1	Verified?	Verified
Root Stores Included In	Microsoft	Verified?	Verified
Mozilla Applied Constraints		Verified?	Not Applicable

### Test Websites or Example Cert

Test Website - Valid	<a href="https://actrsaevroot2017.pki.microsoft.com/">https://actrsaevroot2017.pki.microsoft.com/</a>	Verified?	Need Response From CA
Test Website - Expired	<a href="https://exprsaevroot2017.pki.microsoft.com/">https://exprsaevroot2017.pki.microsoft.com/</a>		
Test Website - Revoked	<a href="https://rvkrsaevroot2017.pki.microsoft.com/">https://rvkrsaevroot2017.pki.microsoft.com/</a>		
Example Cert			
Test Notes	NEED: SSL cert for the revoked test website needs to be revoked and in the CRL.		

### Test Results (When Requesting the SSL/TLS Trust Bit)

Revocation Tested	NEED: Fix errors listed here: <a href="https://certificate.revocationcheck.com/actrsaevroot2017.pki.microsoft.com">https://certificate.revocationcheck.com/actrsaevroot2017.pki.microsoft.com</a>	Verified?	Need Response From CA
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<b>CA/Browser Forum Lint Test</b>	NEED: The CA MUST check that they are not issuing certificates that violate any of the CA/Browser Forum Baseline Requirements (BRs). BR Lint Test: <a href="https://github.com/awslabs/certlint">https://github.com/awslabs/certlint</a>	Verified?	Need Response From CA
<b>Test Website Lint Test</b>	NEED: The CA MUST check that they are not issuing certificates that violate any of the X.509 rules. X.509 Lint Test: <a href="https://github.com/kroeckx/x509lint">https://github.com/kroeckx/x509lint</a>	Verified?	Need Response From CA
<b>EV Tested</b>	NEED: If EV treatment is being requested, then provide successful output from EV Testing as described here <a href="https://wiki.mozilla.org/PSM:EV_Testing_Easy_Version">https://wiki.mozilla.org/PSM:EV_Testing_Easy_Version</a>	Verified?	Need Response From CA

### CA Hierarchy Information

<b>CA Hierarchy</b>	NEED: A description of the PKI hierarchy rooted at or otherwise associated with this root CA certificate. And a list of all of the subordinate CAs that are signed by this root. Our preference is that this information be provided in the CPS.	Verified?	Need Response From CA
<b>Externally Operated SubCAs</b>	CPS 1.3.1 Certification Authorities: Microsoft PKI Services operates as the Root CA and administers all CA functions within its PKI hierarchy.	Verified?	Verified
<b>Cross Signing</b>	None, and none planned	Verified?	Verified
<b>Technical Constraint on 3rd party Issuer</b>	CPS 1.3.2 Registration Authorities: No RA functions are delegated to third parties by Microsoft PKI Services	Verified?	Verified

### Verification Policies and Practices

<b>Policy Documentation</b>	Documents are in English.  Microsoft's CP applies to both their external (publicly trusted) CA operations as well as their internal (not publicly trusted) CA operations.  The Microsoft PKI Services CPS (Microsoft_PKI_Services_CPS) is for the external (publicly trusted) CA operations, so is the one governing this root certificate.  The Microsoft PKI Services Corporate CPS (Microsoft_PKI_Services_Corporate-CPS) governs the private PKI of Microsoft PKI Services, so not relevant to this root certificate.	Verified?	Verified
<b>CA Document Repository</b>	<a href="https://www.microsoft.com/pkiops/docs/repository.htm">https://www.microsoft.com/pkiops/docs/repository.htm</a>	Verified?	Verified
<b>CP Doc Language</b>	English		
<b>CP</b>	<a href="https://pkirepositorysite.azurewebsites.net/pkiops/Docs/Content/policy/Microsoft_PKI_Services_CP_v3.1.1.pdf">https://pkirepositorysite.azurewebsites.net/pkiops/Docs/Content/policy/Microsoft_PKI_Services_CP_v3.1.1.pdf</a>	Verified?	Verified
<b>CP Doc Language</b>	English		
<b>CPS</b>	<a href="https://pkirepositorysite.azurewebsites.net/pkiops/Docs/Content/policy/Microsoft_PKI_Services_CPS_v3.1.1.pdf">https://pkirepositorysite.azurewebsites.net/pkiops/Docs/Content/policy/Microsoft_PKI_Services_CPS_v3.1.1.pdf</a>	Verified?	Need Response From CA

**Other Relevant Documents** NEED: Update the Microsoft PKI Services CPS to bind that CPS to the root certificates that it applies to. **Verified?** Need Response From CA

Previous Audit Statements:

Root Generation 7/26/2017  
<https://bug1448093.bmoattachments.org/attachment.cgi?id=8986854>

WebTrust CA 8/4/2017  
 Audit Period: 5/1/2016 - 4/30/2017  
[www.cpacanada.ca/GenericHandlers/AptifyAttachmentHandler.ashx?AttachmentID=221185](http://www.cpacanada.ca/GenericHandlers/AptifyAttachmentHandler.ashx?AttachmentID=221185)

<b>Auditor</b>	<u>BDO International Limited</u>	<b>Verified?</b>	Verified
<b>Auditor Location</b>	<u>United States</u>	<b>Verified?</b>	Verified
<b>Standard Audit</b>	<a href="https://bugzilla.mozilla.org/attachment.cgi?id=9009197">https://bugzilla.mozilla.org/attachment.cgi?id=9009197</a>	<b>Verified?</b>	Verified
<b>Standard Audit Type</b>	WebTrust	<b>Verified?</b>	Verified
<b>Standard Audit Statement Date</b>	8/10/2018	<b>Verified?</b>	Verified
<b>BR Audit</b>	NEED: If requesting Websites trust bit, then also need a BR audit as per Mozilla's Root Store Policy.	<b>Verified?</b>	Need Response From CA
<b>BR Audit Type</b>		<b>Verified?</b>	Need Response From CA
<b>BR Audit Statement Date</b>		<b>Verified?</b>	Need Response From CA
<b>EV SSL Audit</b>	NEED: If requesting EV treatment, then also need an EV audit as per Mozilla's Root Store Policy.	<b>Verified?</b>	Need Response From CA
<b>EV SSL Audit Type</b>		<b>Verified?</b>	Need Response From CA
<b>EV SSL Audit Statement Date</b>		<b>Verified?</b>	Need Response From CA
<b>BR Commitment to Comply</b>	CP/CPS section 1.1	<b>Verified?</b>	Verified
<b>BR Self Assessment</b>	<a href="https://bugzilla.mozilla.org/attachment.cgi?id=8989260">https://bugzilla.mozilla.org/attachment.cgi?id=8989260</a>	<b>Verified?</b>	Verified
<b>SSL Verification Procedures</b>	CPS section 3.2.2.4	<b>Verified?</b>	Verified
<b>EV SSL Verification Procedures</b>	CPS section 3.2.2, 3.2.5	<b>Verified?</b>	Verified
<b>Organization Verification Procedures</b>	CPS section 3.2.2, 3.2.5	<b>Verified?</b>	Verified
<b>Email Address Verification Procedures</b>	Not requesting Email trust bit for this root.	<b>Verified?</b>	Not Applicable
<b>Code Signing Subscriber Verification Pro</b>	Mozilla is no longer accepting requests to enable the Code Signing trust bit.	<b>Verified?</b>	Not Applicable
<b>Multi-Factor Authentication</b>	CP/CPS section 6.5.1	<b>Verified?</b>	Verified
<b>Network Security</b>	CPS section 6.7	<b>Verified?</b>	Verified

## Root Case Record # 2

### Root Case Information

<b>Root Certificate Name</b>	Microsoft RSA Root Certificate Authority 2017	<b>Root Case No</b>	R00000631
<b>Request Status</b>	Information Verification In Process	<b>Case Number</b>	00000275

## Certificate Data

<b>Certificate Issuer Common Name</b>	Microsoft RSA Root Certificate Authority 2017
<b>O From Issuer Field</b>	Microsoft Corporation
<b>OU From Issuer Field</b>	
<b>Valid From</b>	2017 Jul 26
<b>Valid To</b>	2042 Jul 26
<b>Certificate Serial Number</b>	29C87039F4DBFDB94DBCDA6CA792836B
<b>Subject</b>	CN=Microsoft RSA Root Certificate Authority 2017; OU=; O=Microsoft Corporation; C=US
<b>Signature Hash Algorithm</b>	SHA384WithRSA
<b>Public Key Algorithm</b>	RSA 4096 bits
<b>SHA-1 Fingerprint</b>	EE68C3E94AB5D55EB9395116424E25B0CADD9009
<b>SHA-256 Fingerprint</b>	ECDD47B5ACBFA328211E1BFF54ADEAC95E6991E3C1D50E27B527E903208040A1
<b>Subject + SPKI SHA256</b>	7904CC524E3A275B5B36C516E4C4507E92C0E93FA3382139279A064E25DE5D3F
<b>Certificate Version</b>	3

## Technical Information about Root Certificate

<b>Certificate Summary</b>	This "Microsoft RSA Root Certificate Authority 2017" is only used for non-EV TLS/SSL certs.	<b>Verified?</b>	Verified
<b>Root Certificate Download URL</b>	<a href="http://www.microsoft.com/pkiops/certs/Microsoft%20RSA%20Root%20Certificate%20Authority%202017.crt">http://www.microsoft.com/pkiops/certs/Microsoft%20RSA%20Root%20Certificate%20Authority%202017.crt</a>	<b>Verified?</b>	Verified
<b>CRL URL(s)</b>	<a href="http://www.microsoft.com/pkiops/crl/Microsoft%20RSA%20Root%20Certificate%20Authority%202017.crl">http://www.microsoft.com/pkiops/crl/Microsoft%20RSA%20Root%20Certificate%20Authority%202017.crl</a> <a href="http://www.microsoft.com/pkiops/crl/Microsoft%20TLS%20Issuing%20CA%20001.crl">http://www.microsoft.com/pkiops/crl/Microsoft%20TLS%20Issuing%20CA%20001.crl</a>	<b>Verified?</b>	Verified
<b>OCSP URL(s)</b>	<a href="http://ocsp.msocsp.com">http://ocsp.msocsp.com</a>	<b>Verified?</b>	Verified
<b>Mozilla Trust Bits</b>	Websites	<b>Verified?</b>	Verified
<b>SSL Validation Type</b>	DV; OV	<b>Verified?</b>	Verified
<b>Mozilla EV Policy OID(s)</b>	Not EV	<b>Verified?</b>	Not Applicable
<b>Root Stores Included In</b>	Microsoft	<b>Verified?</b>	Verified
<b>Mozilla Applied Constraints</b>		<b>Verified?</b>	Not Applicable

## Test Websites or Example Cert

<b>Test Website - Valid</b>	<a href="https://actrsaroot2017.pki.microsoft.com/">https://actrsaroot2017.pki.microsoft.com/</a>	<b>Verified?</b>	Need Response From CA
<b>Test Website - Expired</b>	<a href="https://exprsaroot2017.pki.microsoft.com/">https://exprsaroot2017.pki.microsoft.com/</a>		
<b>Test Website - Revoked</b>	<a href="https://rvkrsaroot2017.pki.microsoft.com/">https://rvkrsaroot2017.pki.microsoft.com/</a>		
<b>Example Cert</b>			
<b>Test Notes</b>	NEED: SSL cert for the revoked test website must be revoked and in CRL.		

## Test Results (When Requesting the SSL/TLS Trust Bit)

<b>Revocation Tested</b>	NEED: Fix errors listed here:	<b>Verified?</b>	Need Response From CA
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<https://certificate.revocationcheck.com/actrsaroot2017.pki.microsoft.com>

<b>CA/Browser Forum Lint Test</b>	NEED: The CA MUST check that they are not issuing certificates that violate any of the CA/Browser Forum Baseline Requirements (BRs). BR Lint Test: <a href="https://github.com/awslabs/certlint">https://github.com/awslabs/certlint</a>	Verified?	Need Response From CA
<b>Test Website Lint Test</b>	NEED: The CA MUST check that they are not issuing certificates that violate any of the X.509 rules. X.509 Lint Test: <a href="https://github.com/kroeckx/x509lint">https://github.com/kroeckx/x509lint</a>	Verified?	Need Response From CA
<b>EV Tested</b>	N/A	Verified?	Not Applicable

### CA Hierarchy Information

<b>CA Hierarchy</b>	NEED: A description of the PKI hierarchy rooted at or otherwise associated with this root CA certificate. And a list of all of the subordinate CAs that are signed by this root. Our preference is that this information be provided in the CPS.	Verified?	Need Response From CA
<b>Externally Operated SubCAs</b>	CPS 1.3.1 Certification Authorities: Microsoft PKI Services operates as the Root CA and administers all CA functions within its PKI hierarchy.	Verified?	Verified
<b>Cross Signing</b>	None, and none planned	Verified?	Verified
<b>Technical Constraint on 3rd party Issuer</b>	CPS 1.3.2 Registration Authorities: No RA functions are delegated to third parties by Microsoft PKI Services	Verified?	Verified

### Verification Policies and Practices

<b>Policy Documentation</b>	Documents are in English.  Microsoft's CP applies to both their external (publicly trusted) CA operations as well as their internal (not publicly trusted) CA operations.  The Microsoft PKI Services CPS (Microsoft_PKI_Services_CPS) is for the external (publicly trusted) CA operations, so is the one governing this root certificate.  The Microsoft PKI Services Corporate CPS (Microsoft_PKI_Services_Corporate-CPS) governs the private PKI of Microsoft PKI Services, so not relevant to this root certificate.	Verified?	Verified
<b>CA Document Repository</b>	<a href="https://www.microsoft.com/pkiops/docs/repository.htm">https://www.microsoft.com/pkiops/docs/repository.htm</a>	Verified?	Verified
<b>CP Doc Language</b>	English		
<b>CP</b>	<a href="https://pkirepositorysite.azurewebsites.net/pkiops/Docs/Content/policy/Microsoft_PKI_Services_CP_v3.1.1.pdf">https://pkirepositorysite.azurewebsites.net/pkiops/Docs/Content/policy/Microsoft_PKI_Services_CP_v3.1.1.pdf</a>	Verified?	Verified
<b>CP Doc Language</b>	English		
<b>CPS</b>	<a href="https://pkirepositorysite.azurewebsites.net/pkiops/Docs/Content/policy/Microsoft_PKI_Services_CPS_v3.1.1.pdf">https://pkirepositorysite.azurewebsites.net/pkiops/Docs/Content/policy/Microsoft_PKI_Services_CPS_v3.1.1.pdf</a>	Verified?	Need Response From CA
<b>Other Relevant Documents</b>	NEED: Update the Microsoft PKI Services CPS to bind that CPS to the root certificates that it applies to.	Verified?	Need Response From CA

Previous Audit Statements:

Root Generation 7/26/2017  
<https://bug1448093.bmoattachments.org/attachment.cgi?id=8986854>

WebTrust CA 8/4/2017  
 Audit Period: 5/1/2016 - 4/30/2017  
[www.cpacanada.ca/GenericHandlers/AptifyAttachmentHandler.ashx?AttachmentID=221185](http://www.cpacanada.ca/GenericHandlers/AptifyAttachmentHandler.ashx?AttachmentID=221185)

Auditor	BDO International Limited	Verified?	Verified
Auditor Location	United States	Verified?	Verified
Standard Audit	<a href="https://bugzilla.mozilla.org/attachment.cgi?id=9009197">https://bugzilla.mozilla.org/attachment.cgi?id=9009197</a>	Verified?	Verified
Standard Audit Type	WebTrust	Verified?	Verified
Standard Audit Statement Date	8/10/2018	Verified?	Verified
BR Audit	NEED: If requesting Websites trust bit, then also need a BR audit as per Mozilla's Root Store Policy.	Verified?	Need Response From CA
BR Audit Type		Verified?	Need Response From CA
BR Audit Statement Date		Verified?	Need Response From CA
EV SSL Audit		Verified?	Not Applicable
EV SSL Audit Type		Verified?	Not Applicable
EV SSL Audit Statement Date		Verified?	Not Applicable
BR Commitment to Comply	CP/CPS section 1.1	Verified?	Verified
BR Self Assessment	<a href="https://bugzilla.mozilla.org/attachment.cgi?id=8989260">https://bugzilla.mozilla.org/attachment.cgi?id=8989260</a>	Verified?	Verified
SSL Verification Procedures	CPS section 3.2.2.4	Verified?	Verified
EV SSL Verification Procedures		Verified?	Not Applicable
Organization Verification Procedures	CPS section 3.2.2, 3.2.5	Verified?	Verified
Email Address Verification Procedures	Not requesting Email trust bit for this root.	Verified?	Not Applicable
Code Signing Subscriber Verification Pro	Mozilla is no longer accepting requests to enable the Code Signing trust bit.	Verified?	Not Applicable
Multi-Factor Authentication	CP/CPS section 6.5.1	Verified?	Verified
Network Security	CPS section 6.7	Verified?	Verified

## Root Case Record # 3

### Root Case Information

Root Certificate Name	Microsoft EV ECC Root Certificate Authority 2017	Root Case No	R00000632
Request Status	Information Verification In Process	Case Number	00000275

### Certificate Data

Certificate Issuer	Microsoft EV ECC Root Certificate Authority 2017
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<b>Common Name</b>	
O From Issuer Field	Microsoft Corporation
<b>OU From Issuer Field</b>	
Valid From	2017 Jul 26
Valid To	2042 Jul 26
Certificate Serial Number	3FDCCC3B5BDCD29844CADF59D1D2EB1C
Subject	CN=Microsoft EV ECC Root Certificate Authority 2017; OU=; O=Microsoft Corporation; C=US
Signature Hash Algorithm	ecdsaWithSHA384
Public Key Algorithm	EC secp384r1
SHA-1 Fingerprint	B8095F5A89FB47A7017ED794DD4F611E27830E27
SHA-256 Fingerprint	6AEA30BC02CA85AFCFEC2F65F60881893C926925FD0704BD8ADA3F0F6EDDB699
Subject + SPKI SHA256	4AA5CBF2A4CA58965C469BBC7376DEB08AAB1A00EFAA96733B9F669801B3D7C9
Certificate Version	3

### Technical Information about Root Certificate

Certificate Summary	This "Microsoft EV ECC Root Certificate Authority 2017" is only used for EV TLS/SSL certs.	Verified?	Verified
Root Certificate Download URL	<a href="http://www.microsoft.com/pkiops/certs/Microsoft%20EV%20ECC%20Root%20Certificate%20Authority%202017.crt">http://www.microsoft.com/pkiops/certs/Microsoft%20EV%20ECC%20Root%20Certificate%20Authority%202017.crt</a>	Verified?	Verified
CRL URL(s)	<a href="http://www.microsoft.com/pkiops/crl/Microsoft%20EV%20ECC%20Root%20Certificate%20Authority%202017.crl">http://www.microsoft.com/pkiops/crl/Microsoft%20EV%20ECC%20Root%20Certificate%20Authority%202017.crl</a> <a href="http://www.microsoft.com/pkiops/crl/Microsoft%20TLS%20ECC%20EV%20Issuing%20CA%2001.crl">http://www.microsoft.com/pkiops/crl/Microsoft%20TLS%20ECC%20EV%20Issuing%20CA%2001.crl</a>	Verified?	Verified
OCSP URL(s)	<a href="http://ocsp.msocsp.com">http://ocsp.msocsp.com</a>	Verified?	Verified
Mozilla Trust Bits	Websites	Verified?	Verified
SSL Validation Type	EV	Verified?	Verified
Mozilla EV Policy OID(s)	2.23.140.1.1	Verified?	Verified
Root Stores Included In	Microsoft	Verified?	Verified
Mozilla Applied Constraints		Verified?	Not Applicable

### Test Websites or Example Cert

Test Website - Valid	<a href="https://actecceevroot2017.pki.microsoft.com/">https://actecceevroot2017.pki.microsoft.com/</a>	Verified?	Need Response From CA
Test Website - Expired	<a href="https://expecceevroot2017.pki.microsoft.com/">https://expecceevroot2017.pki.microsoft.com/</a>		
Test Website - Revoked	<a href="https://rvkeceevroot2017.pki.microsoft.com/">https://rvkeceevroot2017.pki.microsoft.com/</a>		
<b>Example Cert</b>			
Test Notes	NEED: SSL cert for the revoked test website needs to be revoked and in the CRL.		

### Test Results (When Requesting the SSL/TLS Trust Bit)

Revocation Tested	NEED: Fix errors listed here: <a href="https://certificate.revocationcheck.com/actecceevroot2017.pki.microsoft.com">https://certificate.revocationcheck.com/actecceevroot2017.pki.microsoft.com</a>	Verified?	Need Response From CA
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<b>CA/Browser Forum Lint Test</b>	NEED: The CA MUST check that they are not issuing certificates that violate any of the CA/Browser Forum Baseline Requirements (BRs). BR Lint Test: <a href="https://github.com/aws-labs/certlint">https://github.com/aws-labs/certlint</a>	Verified?	Need Response From CA
<b>Test Website Lint Test</b>	NEED: The CA MUST check that they are not issuing certificates that violate any of the X.509 rules. X.509 Lint Test: <a href="https://github.com/kroeckx/x509lint">https://github.com/kroeckx/x509lint</a>	Verified?	Need Response From CA
<b>EV Tested</b>	NEED: If EV treatment is being requested, then provide successful output from EV Testing as described here <a href="https://wiki.mozilla.org/PSM:EV_Testing_Easy_Version">https://wiki.mozilla.org/PSM:EV_Testing_Easy_Version</a>	Verified?	Need Response From CA

### CA Hierarchy Information

<b>CA Hierarchy</b>	NEED: A description of the PKI hierarchy rooted at or otherwise associated with this root CA certificate. And a list of all of the subordinate CAs that are signed by this root. Our preference is that this information be provided in the CPS.	Verified?	Need Response From CA
<b>Externally Operated SubCAs</b>	CPS 1.3.1 Certification Authorities: Microsoft PKI Services operates as the Root CA and administers all CA functions within its PKI hierarchy.	Verified?	Verified
<b>Cross Signing</b>	None, and none planned	Verified?	Verified
<b>Technical Constraint on 3rd party Issuer</b>	CPS 1.3.2 Registration Authorities: No RA functions are delegated to third parties by Microsoft PKI Services	Verified?	Verified

### Verification Policies and Practices

<b>Policy Documentation</b>	Documents are in English.  Microsoft's CP applies to both their external (publicly trusted) CA operations as well as their internal (not publicly trusted) CA operations.  The Microsoft PKI Services CPS (Microsoft_PKI_Services_CPS) is for the external (publicly trusted) CA operations, so is the one governing this root certificate.  The Microsoft PKI Services Corporate CPS (Microsoft_PKI_Services_Corporate-CPS) governs the private PKI of Microsoft PKI Services, so not relevant to this root certificate.	Verified?	Verified
<b>CA Document Repository</b>	<a href="https://www.microsoft.com/pkiops/docs/repository.htm">https://www.microsoft.com/pkiops/docs/repository.htm</a>	Verified?	Verified
<b>CP Doc Language</b>	English		
<b>CP</b>	<a href="https://pkirepositorysite.azurewebsites.net/pkiops/Docs/Content/policy/Microsoft_PKI_Services_CP_v3.1.1.pdf">https://pkirepositorysite.azurewebsites.net/pkiops/Docs/Content/policy/Microsoft_PKI_Services_CP_v3.1.1.pdf</a>	Verified?	Verified
<b>CP Doc Language</b>	English		
<b>CPS</b>	<a href="https://pkirepositorysite.azurewebsites.net/pkiops/Docs/Content/policy/Microsoft_PKI_Services_CPS_v3.1.1.pdf">https://pkirepositorysite.azurewebsites.net/pkiops/Docs/Content/policy/Microsoft_PKI_Services_CPS_v3.1.1.pdf</a>	Verified?	Need Response From CA

**Other Relevant Documents**    NEED: Update the Microsoft PKI Services CPS to bind that CPS to the root certificates that it applies to.    **Verified?**    Need Response From CA

Previous Audit Statements:

Root Generation 7/26/2017  
<https://bug1448093.bmoattachments.org/attachment.cgi?id=8986854>

WebTrust CA 8/4/2017  
 Audit Period: 5/1/2016 - 4/30/2017  
[www.cpacanada.ca/GenericHandlers/AptifyAttachmentHandler.ashx?AttachmentID=221185](http://www.cpacanada.ca/GenericHandlers/AptifyAttachmentHandler.ashx?AttachmentID=221185)

<b>Auditor</b>	<u>BDO International Limited</u>	<b>Verified?</b>	Verified
<b>Auditor Location</b>	<u>United States</u>	<b>Verified?</b>	Verified
<b>Standard Audit</b>	<a href="https://bugzilla.mozilla.org/attachment.cgi?id=9009197">https://bugzilla.mozilla.org/attachment.cgi?id=9009197</a>	<b>Verified?</b>	Verified
<b>Standard Audit Type</b>	WebTrust	<b>Verified?</b>	Verified
<b>Standard Audit Statement Date</b>	8/10/2018	<b>Verified?</b>	Verified
<b>BR Audit</b>	NEED: If requesting Websites trust bit, then also need a BR audit as per Mozilla's Root Store Policy.	<b>Verified?</b>	Need Response From CA
<b>BR Audit Type</b>		<b>Verified?</b>	Need Response From CA
<b>BR Audit Statement Date</b>		<b>Verified?</b>	Need Response From CA
<b>EV SSL Audit</b>	NEED: If requesting EV treatment, then also need an EV audit as per Mozilla's Root Store Policy.	<b>Verified?</b>	Need Response From CA
<b>EV SSL Audit Type</b>		<b>Verified?</b>	Need Response From CA
<b>EV SSL Audit Statement Date</b>		<b>Verified?</b>	Need Response From CA
<b>BR Commitment to Comply</b>	CP/CPS section 1.1	<b>Verified?</b>	Verified
<b>BR Self Assessment</b>	<a href="https://bugzilla.mozilla.org/attachment.cgi?id=8989260">https://bugzilla.mozilla.org/attachment.cgi?id=8989260</a>	<b>Verified?</b>	Verified
<b>SSL Verification Procedures</b>	CPS section 3.2.2.4	<b>Verified?</b>	Verified
<b>EV SSL Verification Procedures</b>	CPS section 3.2.2, 3.2.5	<b>Verified?</b>	Verified
<b>Organization Verification Procedures</b>	CPS section 3.2.2, 3.2.5	<b>Verified?</b>	Verified
<b>Email Address Verification Procedures</b>	Not requesting Email trust bit for this root.	<b>Verified?</b>	Not Applicable
<b>Code Signing Subscriber Verification Pro</b>	Mozilla is no longer accepting requests to enable the Code Signing trust bit.	<b>Verified?</b>	Not Applicable
<b>Multi-Factor Authentication</b>	CP/CPS section 6.5.1	<b>Verified?</b>	Verified
<b>Network Security</b>	CPS section 6.7	<b>Verified?</b>	Verified

## Root Case Record # 4

### Root Case Information

<b>Root Certificate Name</b>	Microsoft ECC Root Certificate Authority 2017	<b>Root Case No</b>	R00000633
<b>Request Status</b>	Information Verification In Process	<b>Case Number</b>	00000275

## Certificate Data

<b>Certificate Issuer Common Name</b>	Microsoft ECC Root Certificate Authority 2017
<b>O From Issuer Field</b>	Microsoft Corporation
<b>OU From Issuer Field</b>	
<b>Valid From</b>	2017 Jul 26
<b>Valid To</b>	2042 Jul 26
<b>Certificate Serial Number</b>	71767E8D58E4FC9649C63EFBCF3ABDA7
<b>Subject</b>	CN=Microsoft ECC Root Certificate Authority 2017; OU=; O=Microsoft Corporation; C=US
<b>Signature Hash Algorithm</b>	ecdsaWithSHA384
<b>Public Key Algorithm</b>	EC secp384r1
<b>SHA-1 Fingerprint</b>	7CA9013D43721551E987380B3EAE4B442DC037EA
<b>SHA-256 Fingerprint</b>	FEA1884AB3AEA6D0DBEDBE4B9CD9FEC8655116300A86A856488FC488BB4B44D2
<b>Subject + SPKI SHA256</b>	1638A5943D83C3B0FF3C2D17DAA93034408105E29B4F6D74735A7BE95497860A
<b>Certificate Version</b>	3

## Technical Information about Root Certificate

<b>Certificate Summary</b>	This "Microsoft ECC Root Certificate Authority 2017" is only used for non-EV TLS/SSL certs.	<b>Verified?</b>	Verified
<b>Root Certificate Download URL</b>	<a href="http://www.microsoft.com/pkiops/certs/Microsoft%20ECC%20Root%20Certificate%20Authority%202017.crt">http://www.microsoft.com/pkiops/certs/Microsoft%20ECC%20Root%20Certificate%20Authority%202017.crt</a>	<b>Verified?</b>	Verified
<b>CRL URL(s)</b>	<a href="http://www.microsoft.com/pkiops/crl/Microsoft%20ECC%20Root%20Certificate%20Authority%202017.crl">http://www.microsoft.com/pkiops/crl/Microsoft%20ECC%20Root%20Certificate%20Authority%202017.crl</a> <a href="http://www.microsoft.com/pkiops/crl/Microsoft%20TLS%20ECC%20Issuing%20CA%2001.crl">http://www.microsoft.com/pkiops/crl/Microsoft%20TLS%20ECC%20Issuing%20CA%2001.crl</a>	<b>Verified?</b>	Verified
<b>OCSP URL(s)</b>	<a href="http://ocsp.msocsp.com">http://ocsp.msocsp.com</a>	<b>Verified?</b>	Verified
<b>Mozilla Trust Bits</b>	Websites	<b>Verified?</b>	Verified
<b>SSL Validation Type</b>	DV; OV	<b>Verified?</b>	Verified
<b>Mozilla EV Policy OID(s)</b>	Not EV	<b>Verified?</b>	Verified
<b>Root Stores Included In</b>	Microsoft	<b>Verified?</b>	Verified
<b>Mozilla Applied Constraints</b>		<b>Verified?</b>	Not Applicable

## Test Websites or Example Cert

<b>Test Website - Valid</b>	<a href="https://acteccroot2017.pki.microsoft.com/">https://acteccroot2017.pki.microsoft.com/</a>	<b>Verified?</b>	Need Response From CA
<b>Test Website - Expired</b>	<a href="https://expeccroot2017.pki.microsoft.com/">https://expeccroot2017.pki.microsoft.com/</a>		
<b>Test Website - Revoked</b>	<a href="https://rvkeccroot2017.pki.microsoft.com/">https://rvkeccroot2017.pki.microsoft.com/</a>		
<b>Example Cert</b>			
<b>Test Notes</b>	NEED: SSL cert for the revoked test website must be revoked and in CRL.		

## Test Results (When Requesting the SSL/TLS Trust Bit)

<b>Revocation Tested</b>	NEED: Fix errors listed here:	<b>Verified?</b>	Need Response From CA
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<https://certificate.revocationcheck.com/acteccroot2017.pki.microsoft.com>

<b>CA/Browser Forum Lint Test</b>	NEED: The CA MUST check that they are not issuing certificates that violate any of the CA/Browser Forum Baseline Requirements (BRs). BR Lint Test: <a href="https://github.com/aws-labs/certlint">https://github.com/aws-labs/certlint</a>	Verified?	Need Response From CA
<b>Test Website Lint Test</b>	NEED: The CA MUST check that they are not issuing certificates that violate any of the X.509 rules. X.509 Lint Test: <a href="https://github.com/kroeckx/x509lint">https://github.com/kroeckx/x509lint</a>	Verified?	Need Response From CA
<b>EV Tested</b>	N/A	Verified?	Not Applicable

### CA Hierarchy Information

<b>CA Hierarchy</b>	NEED: A description of the PKI hierarchy rooted at or otherwise associated with this root CA certificate. And a list of all of the subordinate CAs that are signed by this root. Our preference is that this information be provided in the CPS.	Verified?	Need Response From CA
<b>Externally Operated SubCAs</b>	CPS 1.3.1 Certification Authorities: Microsoft PKI Services operates as the Root CA and administers all CA functions within its PKI hierarchy.	Verified?	Verified
<b>Cross Signing</b>	None, and none planned	Verified?	Verified
<b>Technical Constraint on 3rd party Issuer</b>	CPS 1.3.2 Registration Authorities: No RA functions are delegated to third parties by Microsoft PKI Services	Verified?	Verified

### Verification Policies and Practices

<b>Policy Documentation</b>	Documents are in English.  Microsoft's CP applies to both their external (publicly trusted) CA operations as well as their internal (not publicly trusted) CA operations.  The Microsoft PKI Services CPS (Microsoft_PKI_Services_CPS) is for the external (publicly trusted) CA operations, so is the one governing this root certificate.  The Microsoft PKI Services Corporate CPS (Microsoft_PKI_Services_Corporate-CPS) governs the private PKI of Microsoft PKI Services, so not relevant to this root certificate.	Verified?	Verified
<b>CA Document Repository</b>	<a href="https://www.microsoft.com/pkiops/docs/repository.htm">https://www.microsoft.com/pkiops/docs/repository.htm</a>	Verified?	Verified
<b>CP Doc Language</b>	English		
<b>CP</b>	<a href="https://pkirepositorysite.azurewebsites.net/pkiops/Docs/Content/policy/Microsoft_PKI_Services_CP_v3.1.1.pdf">https://pkirepositorysite.azurewebsites.net/pkiops/Docs/Content/policy/Microsoft_PKI_Services_CP_v3.1.1.pdf</a>	Verified?	Verified
<b>CP Doc Language</b>	English		
<b>CPS</b>	<a href="https://pkirepositorysite.azurewebsites.net/pkiops/Docs/Content/policy/Microsoft_PKI_Services_CPS_v3.1.1.pdf">https://pkirepositorysite.azurewebsites.net/pkiops/Docs/Content/policy/Microsoft_PKI_Services_CPS_v3.1.1.pdf</a>	Verified?	Need Response From CA
<b>Other Relevant Documents</b>	NEED: Update the Microsoft PKI Services CPS to bind that CPS to the root certificates that it applies to.	Verified?	Need Response From CA

Previous Audit Statements:

Root Generation 7/26/2017  
<https://bug1448093.bmoattachments.org/attachment.cgi?id=8986854>

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[www.cpacanada.ca/GenericHandlers/AptifyAttachmentHandler.ashx?AttachmentID=221185](http://www.cpacanada.ca/GenericHandlers/AptifyAttachmentHandler.ashx?AttachmentID=221185)

<b>Auditor</b>	<u>BDO International Limited</u>	<b>Verified?</b>	Verified
<b>Auditor Location</b>	<u>United States</u>	<b>Verified?</b>	Verified
<b>Standard Audit</b>	<u>https://bugzilla.mozilla.org/attachment.cgi?id=9009197</u>	<b>Verified?</b>	Verified
<b>Standard Audit Type</b>	WebTrust	<b>Verified?</b>	Verified
<b>Standard Audit Statement Date</b>	8/10/2018	<b>Verified?</b>	Verified
<b>BR Audit</b>	NEED: If requesting Websites trust bit, then also need a BR audit as per Mozilla's Root Store Policy.	<b>Verified?</b>	Need Response From CA
<b>BR Audit Type</b>		<b>Verified?</b>	Need Response From CA
<b>BR Audit Statement Date</b>		<b>Verified?</b>	Need Response From CA
<b>EV SSL Audit</b>		<b>Verified?</b>	Not Applicable
<b>EV SSL Audit Type</b>		<b>Verified?</b>	Not Applicable
<b>EV SSL Audit Statement Date</b>		<b>Verified?</b>	Not Applicable
<b>BR Commitment to Comply</b>	CP/CPS section 1.1	<b>Verified?</b>	Verified
<b>BR Self Assessment</b>	<u>https://bugzilla.mozilla.org/attachment.cgi?id=8989260</u>	<b>Verified?</b>	Verified
<b>SSL Verification Procedures</b>	CPS section 3.2.2.4	<b>Verified?</b>	Verified
<b>EV SSL Verification Procedures</b>		<b>Verified?</b>	Not Applicable
<b>Organization Verification Procedures</b>	CPS section 3.2.2, 3.2.5	<b>Verified?</b>	Verified
<b>Email Address Verification Procedures</b>	Not requesting Email trust bit for this root.	<b>Verified?</b>	Not Applicable
<b>Code Signing Subscriber Verification Pro</b>	Mozilla is no longer accepting requests to enable the Code Signing trust bit.	<b>Verified?</b>	Not Applicable
<b>Multi-Factor Authentication</b>	CP/CPS section 6.5.1	<b>Verified?</b>	Verified
<b>Network Security</b>	CPS section 6.7	<b>Verified?</b>	Verified