

EZDRM CPIX Keys Guide

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Version 1.0

Introduction

The base CPIX.aspx URL for EZDRM is shown below:

<https://cpix.ezdrm.com/KeyGenerator/cpix.aspx>

Here is an example of the URL with parameters defined:

<https://cpix.ezdrm.com/KeyGenerator/cpix.aspx?k=KeyID&u=username&p=password&c=resourceName>

The following is the XML return for the test URL above (values returned are defined in the next sections):

This XML file does not appear to have any style information associated with it. The document tree is shown below.

```
<?xml version="1.0" encoding="utf-8" ?>
<cpix:CPIX xmlns:cpix="urn:dashif:org:cpix" xmlns:ds="http://www.w3.org/2000/09/xmldsig#" xmlns:pskc="urn:ietf:params:xml:ns:keyprov:pskc" xmlns:xenc="http://www.w3.org/2001/04/xmenc#"
xmlns: xsi="http://www.w3.org/2001/XMLSchema-instance">
  <cpix:ContentKeyList>
    <cpix:ContentKey kid="eb0b7a53-ab54-4804-826c-5989a99f6287" id="indy-test-004" explicitIV="K6RKUU7XVAH8ft9gJ486g==">
      <cpix:Data>
        <pskc:Secret>
          <pskc:PlainValue>NSS6UskV8Rq8uHYmbsDMcQ==</pskc:PlainValue>
        </pskc:Secret>
      </cpix:Data>
    </cpix:ContentKey>
  </cpix:ContentKeyList>
  <cpix:DRMSysmList>
    <cpix:DRMSysm kid="eb0b7a53-ab54-4804-826c-5989a99f6287" systemId="edef8ba9-79d6-4ace-a3c8-27dcd51d21ed">
      <cpix:PSSH>
        AAAAdnBzc2gAAAAA7e+LqXnhS6jyCfc1R0h7QAAAFYIARIQ6wt6UEtUSAScBfM3qZ9Ihx0Ibw92alRvbmU1nnsia21kIjoiInd0NlU2dFVTQWVYkZtSnFa0wIodz09IiuidhJHY2tzIjpbIINEI119KgJTRA==
      </cpix:PSSH>
      <cpix:ContentProtectionData>
        <cpix:DRMSysm>
          <cpix:DRMSysm kid="eb0b7a53-ab54-4804-826c-5989a99f6287" systemId="9a04f079-9840-4286-ab92-e65be0885f95">
            <cpix:PSSH>
              AAACcH8zc2gAAAAAngTweZhaQoarkuZb4Ihf1QAALBQAAGAAQAABAEYCpABXAFIATQBIAEUAQBEAEUAUgAgAHgAbQ8sAG4AaA9ACIAaAB0AHQAaAA6AC8ALwzAGHAAaB1AG0AYQ8zAC4AbQBpAGHAcgBVAHIAbwBmAHQALgBjAG8AbQAvAEQAUGBNAC8AMlgAwADAANh
            </cpix:PSSH>
            <cpix:ContentProtectionData>
              PG1zcHI6CHjvP1VBSUFQVVBQVFR0R0Fhd0J0QUVQWmQkZBRUVBUkFCRkF6SUF3QUI0QUcwQWJ3BQNVBSE1BUFFBwUFH20FKQIwQhBQ9nQXZBQzhhY3dCakFH20FwUJ0QUdFQWV3QXVBRzBBYVFCakFISUF1d0J0QUc4QVpncQjBBQzRBWkdCdkFHIEFhd0J0FQ
            </cpix:ContentProtectionData>
          </cpix:DRMSysm>
        </cpix:DRMSysmList>
      </cpix:DRMSysm>
    </cpix:DRMSysmList>
  </cpix:CPIX>
```

CPIX Parameters

The CPIX parameters are as follows using the sample URL below:

<https://cpix.ezdrm.com/KeyGenerator/cpix.aspx?k=ebXXXXXX-abXX-4XX4-8X6c-XXXXaXXfXXXX&u=username&p=password&c=resourceName&m=1>

Parameter	Description
k=	Key ID value (client generated) in GUID format
u=	Username
p=	Password
c=	Content Resource ID (such as a stream name or media asset name)
"m" value not provided	Default (returns all available keys)
m=0	Default (returns all available keys)
m=1	MPEG-DASH (PlayReady & Widevine)
m=2	HLS (FairPlay)

Widevine/PlayReady MPEG-DASH (m=1)

The sample URL for MPEG-DASH for Widevine and PlayReady is as follows:
<https://cpix.ezdrm.com/KeyGenerator/cpix.aspx?k=ebXXXXXX-abXX-4XX4-8X6c-XXXXaXXfXXXX&u=username&p=password&c=resourcename&m=1>

Key Value Definitions

Here are the descriptions of the key values returned by EZDRM:

cpix:ContentKeyList

- kid** – Key ID in GUID format
- pskc:Secret** – the Secret Content Encryption Key in Base 64 generated by EZDRM and returned as a plain value

DRM System List

- kid** – Key ID in GUID format
- systemId** – Widevine System ID
- cpix:PSSH** – Widevine PSSH value
- kid** – Key ID in GUID format
- systemId** – PlayReady System ID
- cpix:PSSH** – PSSH Value
- ContentProtectionData** – the MS Pro Header

XML Return

This XML file does not appear to have any style information associated with it. The document tree is shown below.

```

<cpix:CPix xmlns:cpix="urn:dashif:org:cpix" xmlns:ds="http://www.w3.org/2000/09/xmldsig#" xmlns:pskc="urn:ietf:params:xml:ns:keyprov:pskc" xmlns:xenc="http://www.w3.org/2001/04/xmlenc#"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <cpix:ContentKeyList>
    <cpix:ContentKey kid="eb0b7a53-ab54-4804-826c-5989a99f6287">
      <cpix:Data>
        <pskc:Secret>
          <pskc:PlainValue>MS56UskV8Rq8uHybSDHcQ==</pskc:PlainValue>
        </pskc:Secret>
      </cpix:Data>
    </cpix:ContentKey>
  </cpix:ContentKeyList>
  <cpix:DRMSystemList>
    <cpix:DRMSystem kid="eb0b7a53-ab54-4804-826c-5989a99f6287" systemId="edef8ba9-79d6-4ace-a3c8-27dc51d21ed">
      <cpix:PSSH>
        AAAdmZc2gAAAAA7e+LqXmI5s6jyCfc1R0h7QAAAFYIARIQ6wt6U6tUSAScBfMjQ9IhxoIbw92alRvbmUjHns1a2k1TjJoInnd0N1U2dFVTVQVMDYkZT5nFa0hLod209IiwiJHJvY2t1IjpbT1NET119kgJTRA==
      </cpix:PSSH>
      <cpix:ContentProtectionData/>
    </cpix:DRMSystem>
    <cpix:DRMSystem kid="eb0b7a53-ab54-4804-826c-5989a99f6287" systemId="9a04f079-9840-4286-ab92-e65be0885f95">
      <cpix:PSSH>
        AAACcH8zc2gAAAAmTweZhaQoarKuZb4Ihf1QAAA1BQAgAAQAABEYCPABXAFIATQBIAEUAQBEAEUAUgAgHgabQBSAG4AcwA9ACTIaaBB0AHQcAA6AC8ALuBzAGHAAaB1AG0AYQbzAC4ABQ6PaGIAcgvAHIAbw8MAHQALg8JAG8ABQAvAEQUAgBNACBAHGAwADAAH
      </cpix:PSSH>
      <cpix:ContentProtectionData>
        PGIzCHl6CHjP1VSSUJFRQUVQVFC0R0Fq0Fw03TQULwQVNBQKZBRUVBUKFCRkFG5UF3QUT0QUcWj0NjQvB5E1BUFFBauHF20FkQUTuQUH9Qu9nQXZ8QzhBY3dCakFHZ0FauUj0QLdFQWl3QXVBRzR6VYVcAkFISUF1d036Quc4QVpnQJRBQzR6WxdCdkFHIEFFHd03FQU
      </cpix:ContentProtectionData>
    </cpix:DRMSystem>
  </cpix:DRMSystemList>
</cpix:CPix>

```

Apple FairPlay DRM for HLS (m=2)

The sample URL for HLS for Apple FairPlay is as follows:

<https://cpix.ezdrm.com/KeyGenerator/cpix.aspx?k=ebXXXXXX-abXX-4XX4-86c-XXXXaXXfXXXX&u=username&p=password&c=resourcename&m=2>

Key Value Definitions

Here are the descriptions of the key values returned by EZDRM:

cpix:ContentKeyList

kid – Key ID in GUID format

explicitIV – Apple FairPlay Explicit IV value

Secret – the Secret Content Encryption Key in Base 64 generated by EZDRM and returned as a plain value

DRM System List

kid – Key ID in GUID format

systemId – Apple FairPlay System value

URIExtXKey – the Apple FairPlay URI Ext Key value

XML Return

This XML file does not appear to have any style information associated with it. The document tree is shown below.

```

<?xml version="1.0" encoding="utf-8" standalone="no" ?>
<cpix:CPIX xmlns:cpix="urn:dashif:org:cpix" xmlns:ds="http://www.w3.org/2000/09/xmldsig#" xmlns:pskce="urn:ietf:params:xml:ns:keyprov:psk" xmlns:xenc="http://www.w3.org/2001/04/xmenc#" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <cpix:ContentKeyList>
    <cpix:ContentKey kid="eb0b7a53-ab54-4804-826c-5989a99f6287" id="indy-test-004" explicitIV="E2Q5w8/pBLB/NFhLPpy81A**">
      <cpix:Data>
        <pskce:Secret>
          <xenc:PlainTextValue>MSS6UkV8Rq8uHYmbSDVcQ=</pskce:PlainTextValue>
        </pskce:Secret>
      </cpix:Data>
    </cpix:ContentKey>
  </cpix:ContentKeyList>
  <cpix:DRMSystemList>
    <cpix:DRMSystem kid="eb0b7a53-ab54-4804-826c-5989a99f6287" systemId="94ce86fb-07ff-4f43-adb8-93d2fa968ca2">
      <cpix:URIExtXKey>
        <xenc:PlainTextValue>6ZHDtLmNvbs87HTUxZGI2NGYtNThmly08%E5LTKSHzUty23HMvSODk2WRJ
      </cpix:URIExtXKey>
    </cpix:DRMSystem>
  </cpix:DRMSystemList>
</cpix:CPIX>

```

Default CPIX.aspx (m=0 // no m value)

When no “m” value is provided, the default XML file is sent with all available key values.

Key Value Definitions

Here are the descriptions of the key values returned by EZDRM:

cpiX:ContentKeyList

kid – Key ID in GUID format

explicitIV – Apple FairPlay Explicit IV value

pskc:Secret – the Secret Content Encryption Key in Base 64 generated by EZDRM and returned as a plain value

DRM System List

kid – Key ID in GUID format

systemId – Widevine System ID

cpiX:PSSH – Widevine PSSH value

kid – Key ID in GUID format

systemId – PlayReady System ID

cpiX:PSSH – PSSH Value

ContentProtectionData – the MS Pro Header

kid – Key ID in GUID format

systemId – Apple FairPlay System value

URIExtXKey – the Apple FairPlay URI Ext Key value

Below is an example of the default XML return:

This XML file does not appear to have any style information associated with it. The document tree is shown below.

```
<?xml version="1.0" encoding="utf-8" standalone="no" ?>
<CPIX xmlns:cpiX="urn:dashif:org:cpiX" xmlns:ds="http://www.w3.org/2000/09/xmldsig#" xmlns:pskc="urn:ietf:params:xml:sec:keyprov:pskc" xmlns:xenc="http://www.w3.org/2001/04/xmenc#" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <ContentKeyList>
    <ContentKey kid="eb0b7a53-ab54-4804-826c-5989a99f6287" id="indy-test-004" explicitIV="K6RKKVU7XVAH8ft9gJ486g==">
      <Data>
        <pskc:Secret>
          <pskc:PlainValue>NSS6Usv8RqUuHmbSDHcQ==</pskc:PlainValue>
        </pskc:Secret>
      </Data>
    </ContentKey>
  </ContentKeyList>
  <DRMSysList>
    <DRMSysSystem kid="eb0b7a53-ab54-4804-826c-5989a99f6287" systemId="edef8ba9-79d6-4ace-a3c8-27dcd51d21ed">
      <PSSH>
        AAAAdnBzc2gAAAAA7e+LqXniS56jYcfc1R0h7QAAAFYIARIQ6ut6U6tUSASCBfm7q29ihxoIzb92aiRvbmUjIhns1a21KtJoiNnd0N1U2dFVTQNDYkZtSnFaQwLodz09Iiwdh3Hy2tzJjpb1INE119kg3TRA==
      </PSSH>
      <ContentProtectionData/>
    </DRMSysSystem>
    <DRMSysSystem kid="eb0b7a53-ab54-4804-826c-5989a99f6287" systemId="9a04f079-9840-4286-ab92-e65be0885f95">
      <PSSH>
        ABAQCH8z2gAAAAAmgTweZhaQoarkzBz4IhF1QAAA1BQAgaAAQAQBAEYCPABXAFIATQBIAEUQQBEAEUAUgAgHgbQsAG4Acu9ACIAaAB0AHQAcAA6ACBALwBzAGHAAAB1AG0AYQsAC4ABQsPaGPAcBvAHM1AbwBmAHQALgBfJAG8AbQA+vAEQUgB1ACBAHAgwADAANw
      </PSSH>
      <ContentProtectionData>
        R61zCHi6CH3VP1VBSUFQUBQVCR0FqD0Fw03TQUUwQVh0KZBRUwBUKFCRkFGSUF3QU10QCwQj3BQnVSE1BFFuBafUH20FkQIwQUH9QnQXZBQz2hBY3dCakFHZ0FauUJ0QudFQ#i3QXVBRz8BYVFCakFISUF1d076QC4QVpnQJ8BQzRBWxKdckFHFIEF#07FQU
      </ContentProtectionData>
    </DRMSysSystem>
    <DRMSysSystem kid="eb0b7a53-ab54-4804-826c-5989a99f6287" systemId="94ce86fb-07ff-4f43-adb8-93d2fa968ca2">
      <URIExtXKey>
        C2tK018vZn8Lw6Z3TLmVbS87NDhKNDASyJctnVky00Zu3LW1Z2TtHdg2vz1100gyMz1
      </URIExtXKey>
    </DRMSysSystem>
  </DRMSysList>
</CPIX>
```

Additional Information

For additional questions and comments please contact: sales@ezdrm.com