PQ of the CP

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Conspicuous Disclosure

- In the X.509 PKI world, it is quite common to embed pointers into the CertificatePolicy extension as a PolicyQualifier
  - The IETF's RPKI Certificate Policy (CP) covers the RPKI as a whole
  - Each CA can have a Certification Practices Statement

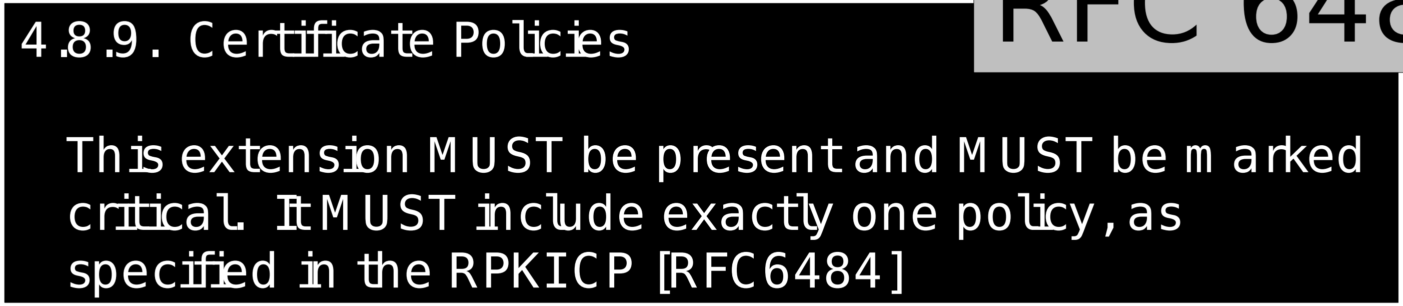
AOL’s CPS Pointer

```
SEQUENCE {
  OBJECT IDENTIFIER certificatePolicies (2 5 29 32)
  OCTET STRING, encapsulates {
    SEQUENCE {
      SEQUENCE {
        OBJECT IDENTIFIER '1 3 6 1 4 1 1066 1 1000 1 0 2 2’
         # aol specific OID
        SEQUENCE {
          SEQUENCE {
            OBJECT IDENTIFIER cps (1 3 6 1 5 5 7 2 1)
            IA5String
              'http://pki-info.aol.com/AOLMSPKI/index.html'
                # aol specific URI for their CPS
          } } } } } }
```

Digicert’s CPS Pointer

```
SEQUENCE {
  OBJECT IDENTIFIER certificatePolicies (2 5 29 32)
  OCTET STRING, encapsulates {
    SEQUENCE {
      SEQUENCE {
        OBJECT IDENTIFIER '2 16 840 1 114412 1 3 0 1’
        SEQUENCE {
          SEQUENCE {
            OBJECT IDENTIFIER cps (1 3 6 1 5 5 7 2 1)
            IA5String
             'http://www.digicert.com/ssl-cps-repository.htm’}
          SEQUENCE {
            OBJECT IDENTIFIER unotice (1 3 6 1 5 5 7 2 2)
            SEQUENCE { BMPString 'Any use of this
              Certificate constitutes acceptance of
              the DigiCert CP/CPS and the Relying Party
              Agreement which limit liability and are
              incorporated herein by reference.’ } } } } } } }
```

Just One Problem



```
4.8.9. Certificate Policies

   This extension MUST be present and MUST be marked
   critical. It MUST include exactly one policy, as
   specified in the RPKI CP [RFC6484]
```

RFC 6487

- RFC 6487 is ambiguous on PolicyQualifiers
- Required one line fix to two of the validators
- A specification update is needed
  - Coming soon