KMIP Symmetric Key Lifecycle Profile Version 1.0

OASIS Standard

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Specification URIs

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http://docs.oasis-open.org/kmip/kmip-sym-key-profile/v1.0/os/kmip-sym-key-profile-v1.0-os.pdf

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http://docs.oasis-open.org/kmip/kmip-sym-key-profile/v1.0/csprd01/kmip-sym-key-profile-v1.0-csprd01.doc (Authoritative)
http://docs.oasis-open.org/kmip/kmip-sym-key-profile/v1.0/csprd01/kmip-sym-key-profile-v1.0-csprd01.html
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Latest version:

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http://docs.oasis-open.org/kmip/kmip-sym-key-profile/v1.0/kmip-sym-key-profile-v1.0.html
http://docs.oasis-open.org/kmip/kmip-sym-key-profile/v1.0/kmip-sym-key-profile-v1.0.pdf

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Related work:

This specification is related to:

- *Key Management Interoperability Protocol Profiles Version 1.0.* Edited by Robert Griffin and Subhash Sankuratripati. Latest version: http://docs.oasis-open.org/kmip/profiles/v1.0/kmip-profiles-1.0.html.
- *Key Management Interoperability Protocol Profiles Version 1.1*. Edited by Robert Griffin and Subhash Sankuratripati. Latest version: http://docs.oasis-open.org/kmip/profiles/v1.1/kmip-profiles-v1.1.html.
- *Key Management Interoperability Protocol Profiles Version 1.2*. Edited by Tim Hudson and Robert Lockhart. Latest version: http://docs.oasis-open.org/kmip/profiles/v1.2/kmip-profiles-v1.2.html.

- *Key Management Interoperability Protocol Specification Version 1.1*. Edited by Robert Haas and Indra Fitzgerald. Latest version: http://docs.oasis-open.org/kmip/spec/v1.1/kmip-spec-v1.1.html.
- *Key Management Interoperability Protocol Specification Version 1.2*. Edited by Kiran Thota and Kelley Burgin. Latest version: http://docs.oasis-open.org/kmip/spec/v1.2/kmip-spec-v1.2.html.
- *Key Management Interoperability Protocol Test Cases Version 1.2*. Edited by Tim Hudson and Faisal Faruqui. Latest version: http://docs.oasis-open.org/kmip/testcases/v1.2/kmip-testcases-v1.2.html.
- *Key Management Interoperability Protocol Usage Guide Version 1.2*. Edited by Indra Fitzgerald and Judith Furlong. Latest version: http://docs.oasis-open.org/kmip/ug/v1.2/kmip-ug-v1.2.html.

Abstract:

Describes a profile for a KMIP server performing symmetric key lifecycle operations based on requests received from a KMIP client.

Status:

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1 Introduction

For normative definition of the elements of KMIP see the KMIP Specification [KMIP-SPEC] and the KMIP Profiles [KMIP-PROF].

This profile defines the necessary KMIP functionality that a KMIP server conforming to this profile SHALL support in order to interoperate in conformance with this profile.

1.1 Terminology

The key words “MUST”, “MUST NOT”, “REQUIRED”, “SHALL”, “SHALL NOT”, “SHOULD”, “SHOULD NOT”, “RECOMMENDED”, “MAY”, and “OPTIONAL” in this document are to be interpreted as described in **[RFC2119]**.

1.2 Normative References

[RFC2119]	Bradner, S., “Key words for use in RFCs to Indicate Requirement Levels”, BCP 14, RFC 2119, March 1997. http://www.ietf.org/rfc/rfc2119.txt.
[KMIP-ENCODE]	*KMIP Additional Message Encodings Version 1.0.* Edited by Tim Hudson. Latest version: http://docs.oasis-open.org/kmip/kmip-addtl-msg-enc/v1.0/kmip-addtl-msg-enc-v1.0.doc.
[KMIP-SPEC]	One or more of [KMIP-SPEC-1_0], [KMIP-SPEC-1_1], [KMIP-SPEC-1_2]
[KMIP-SPEC-1_0]	*Key Management Interoperability Protocol Specification Version 1.0* http://docs.oasis-open.org/kmip/spec/v1.0/os/kmip-spec-1.0-os.doc OASIS Standard, October 2010.
[KMIP-SPEC-1_1]	*Key Management Interoperability Protocol Specification Version 1.1.* http://docs.oasis-open.org/kmip/spec/v1.1/os/kmip-spec-v1.1-os.doc OASIS Standard. 24 January 2013.
[KMIP-SPEC-1_2]	*Key Management Interoperability Protocol Specification Version 1.2.* Edited by Kiran Thota and Kelley Burgin. Latest version: http://docs.oasis-open.org/kmip/spec/v1.2/kmip-spec-v1.2.doc.
[KMIP-PROF]	One or more of [KMIP-PROF-1_0], [KMIP-PROF-1_1], [KMIP-PROF-1_2]
[KMIP-PROF-1_0]	*Key Management Interoperability Protocol Profiles Version 1.0*. http://docs.oasis-open.org/kmip/profiles/v1.0/os/kmip-profiles-1.0-os.doc OASIS Standard. 1 October 2010.
[KMIP-PROF-1_1]	*Key Management Interoperability Protocol Profiles Version 1.1*. http://docs.oasis-open.org/kmip/profiles/v1.1/os/kmip-profiles-v1.1-os.doc OASIS Standard 01. 24 January 2013.
[KMIP-PROF-1_2]	*Key Management Interoperability Protocol Profiles Version 1.2*. Edited by Tim Hudson and Robert Lockhart. Latest version: http://docs.oasis-open.org/kmip/profiles/v1.2/kmip-profiles-v1.2.doc.

2 Symmetric Key Lifecycle Profile

The Symmetric Key Lifecycle Profile is a KMIP server performing symmetric key lifecycle operations based on requests received from a KMIP client.

2.1 Authentication Suite

Implementations conformant to this profile SHALL support at least one of the Authentication Suites defined within section 3 of [KMIP-PROF. The establishment of the trust relationship between the KMIP client and the KMIP server is the same as the defined base profiles.

2.2 Symmetric Key Lifecycle - Client

KMIP clients conformant to this profile under [KMIP-SPEC-1_0]:

1. SHALL conform to the [KMIP-SPEC-1_0]

KMIP clients conformant to this profile under [KMIP-SPEC-1_1]:

2. SHALL conform to the *Baseline Client Clause* (section 5.12) of [KMIP-PROF-1_1]

KMIP clients conformant to this profile under [KMIP-SPEC-1_2]:

3. SHALL conform to the *Baseline Client* (section 5.2) of [KMIP-PROF-1_2]

KMIP clients conformant to this profile:

4. MAY support any clause within [KMIP-SPEC] provided it does not conflict with any other clause within this section 2.2
5. MAY support extensions outside the scope of this standard (e.g., vendor extensions, conformance clauses) that do not contradict any KMIP requirements.

2.3 Symmetric Key Lifecycle - Server

KMIP servers conformant to this profile under [KMIP-SPEC-1_0]:

1. SHALL conform to the [KMIP-SPEC-1_0]

KMIP clients conformant to this profile under [KMIP-SPEC-1_1]:

2. SHALL conform to the *Baseline Server Clause* of [KMIP-PROF-1_1]

KMIP clients conformant to this profile under [KMIP-SPEC-1_2]:

3. SHALL conform to the *Baseline Server*of [KMIP-PROF-1_2]

KMIP servers conformant to this profile:

4. SHALL conform to the KMIP Baseline Server profile in [KMIP-PROF] and [KMIP-SPEC] and
5. SHALL support the following *Objects* [KMIP-SPEC]
    a. *Symmetric Key* [KMIP-SPEC]
    b. *Key Format Type* [KMIP-SPEC]
6. SHALL support the following *Attributes* [KMIP-SPEC]
    a. *Cryptographic Algorithm* [KMIP-SPEC]
    b. *Object Type* [KMIP-SPEC]
    c. *Process Start Date* [KMIP-SPEC]
    d. *Protect Stop Date* [KMIP-SPEC]
7. SHALL support the following *Client-to-Server* [KMIP-SPEC] operations:
    a. *Create* [KMIP-SPEC]

8. SHALL support the following *Message Encoding* [KMIP-SPEC]:
    a. *Cryptographic Algorithm* [KMIP-SPEC]with values:
        i. 3DES
        ii. AES
    b. *Object Type* [KMIP-SPEC] with value:
        iii. Symmetric Key
    c. *Key Format Type* [KMIP-SPEC] with value:
        iv. Raw
        v. Transparent Symmetric Key
9. MAY support any clause within [KMIP-SPEC] provided it does not conflict with any other clause within this section 2.3
10. MAY support extensions outside the scope of this standard (e.g., vendor extensions, conformance clauses) that do not contradict any KMIP requirements.

3 Symmetric Key Lifecycle Profile - Test Cases

The test cases define a number of request-response pairs for KMIP operations. Each test case is provided in the XML format specified in [KMIP-ENCODE] intended to be both human-readable and usable by automated tools. The time sequence (starting from 0) for each request-response pair is noted and line numbers are provided for ease of cross-reference for a given test sequence.

Each test case has a unique label (the section name) which includes indication of mandatory (-M-) or optional (-O-) status and the protocol version major and minor numbers as part of the identifier.

The test cases may depend on a specific configuration of a KMIP client and server being configured in a manner consistent with the test case assumptions.

Where possible the flow of unique identifiers between tests, the date-time values, and other dynamic items are indicated using symbolic identifiers – in actual request and response messages these dynamic values will be filled in with valid values.

Note: the values for the returned items and the custom attributes are illustrative. Actual values from a real client or server system may vary as specified in section 4.7.

3.1 Mandatory Test Cases KMIP v1.0

3.1.1 SKLC-M-1-10

Create, GetAttributes, Destroy

```
      # TIME 0
0001  <RequestMessage>
0002    <RequestHeader>
0003      <ProtocolVersion>
0004        <ProtocolVersionMajor type="Integer" value="1"/>
0005        <ProtocolVersionMinor type="Integer" value="0"/>
0006      </ProtocolVersion>
0007      <BatchCount type="Integer" value="1"/>
0008    </RequestHeader>
0009    <BatchItem>
0010      <Operation type="Enumeration" value="Create"/>
0011      <RequestPayload>
0012        <ObjectType type="Enumeration" value="SymmetricKey"/>
0013        <TemplateAttribute>
0014          <Attribute>
0015            <AttributeName type="TextString" value="Cryptographic
      Algorithm"/>
0016            <AttributeValue type="Enumeration" value="AES"/>
0017          </Attribute>
0018          <Attribute>
0019            <AttributeName type="TextString" value="Cryptographic
      Length"/>
0020            <AttributeValue type="Integer" value="256"/>
0021          </Attribute>
0022          <Attribute>
0023            <AttributeName type="TextString" value="Cryptographic
      Usage Mask"/>
0024            <AttributeValue type="Integer" value="Encrypt Decrypt"/>
0025          </Attribute>
0026          <Attribute>
0027            <AttributeName type="TextString" value="Name"/>
0028            <AttributeValue>
```

```
0029              <NameValue type="TextString" value="SKLC-M-1-10"/>
0030              <NameType type="Enumeration"
      value="UninterpretedTextString"/>
0031            </AttributeValue>
0032          </Attribute>
0033        </TemplateAttribute>
0034      </RequestPayload>
0035    </BatchItem>
0036  </RequestMessage>
0037  <ResponseMessage>
0038    <ResponseHeader>
0039      <ProtocolVersion>
0040        <ProtocolVersionMajor type="Integer" value="1"/>
0041        <ProtocolVersionMinor type="Integer" value="0"/>
0042      </ProtocolVersion>
0043      <TimeStamp type="DateTime" value="2012-04-27T08:12:24+00:00"/>
0044      <BatchCount type="Integer" value="1"/>
0045    </ResponseHeader>
0046    <BatchItem>
0047      <Operation type="Enumeration" value="Create"/>
0048      <ResultStatus type="Enumeration" value="Success"/>
0049      <ResponsePayload>
0050        <ObjectType type="Enumeration" value="SymmetricKey"/>
0051        <UniqueIdentifier type="TextString"
      value="$UNIQUE_IDENTIFIER_0"/>
0052      </ResponsePayload>
0053    </BatchItem>
0054  </ResponseMessage>
      # TIME 1
0055  <RequestMessage>
0056    <RequestHeader>
0057      <ProtocolVersion>
0058        <ProtocolVersionMajor type="Integer" value="1"/>
0059        <ProtocolVersionMinor type="Integer" value="0"/>
0060      </ProtocolVersion>
0061      <BatchCount type="Integer" value="1"/>
0062    </RequestHeader>
0063    <BatchItem>
0064      <Operation type="Enumeration" value="GetAttributes"/>
0065      <RequestPayload>
0066        <UniqueIdentifier type="TextString"
      value="$UNIQUE_IDENTIFIER_0"/>
0067        <AttributeName type="TextString" value="State"/>
0068        <AttributeName type="TextString" value="Cryptographic Usage
      Mask"/>
0069        <AttributeName type="TextString" value="Unique Identifier"/>
0070        <AttributeName type="TextString" value="Object Type"/>
0071        <AttributeName type="TextString" value="Cryptographic
      Algorithm"/>
0072        <AttributeName type="TextString" value="Cryptographic
      Length"/>
0073        <AttributeName type="TextString" value="Digest"/>
0074        <AttributeName type="TextString" value="Initial Date"/>
0075        <AttributeName type="TextString" value="Last Change Date"/>
0076        <AttributeName type="TextString" value="Activation Date"/>
0077      </RequestPayload>
0078    </BatchItem>
0079  </RequestMessage>
```

```
0080 <ResponseMessage>
0081   <ResponseHeader>
0082     <ProtocolVersion>
0083       <ProtocolVersionMajor type="Integer" value="1"/>
0084       <ProtocolVersionMinor type="Integer" value="0"/>
0085     </ProtocolVersion>
0086     <TimeStamp type="DateTime" value="2012-04-27T08:12:24+00:00"/>
0087     <BatchCount type="Integer" value="1"/>
0088   </ResponseHeader>
0089   <BatchItem>
0090     <Operation type="Enumeration" value="GetAttributes"/>
0091     <ResultStatus type="Enumeration" value="Success"/>
0092     <ResponsePayload>
0093       <UniqueIdentifier type="TextString"
       value="$UNIQUE_IDENTIFIER_0"/>
0094       <Attribute>
0095         <AttributeName type="TextString" value="State"/>
0096         <AttributeValue type="Enumeration" value="PreActive"/>
0097       </Attribute>
0098       <Attribute>
0099         <AttributeName type="TextString" value="Cryptographic Usage
       Mask"/>
0100         <AttributeValue type="Integer" value="Decrypt Encrypt"/>
0101       </Attribute>
0102       <Attribute>
0103         <AttributeName type="TextString" value="Unique Identifier"/>
0104         <AttributeValue type="TextString"
       value="$UNIQUE_IDENTIFIER_0"/>
0105       </Attribute>
0106       <Attribute>
0107         <AttributeName type="TextString" value="Object Type"/>
0108         <AttributeValue type="Enumeration" value="SymmetricKey"/>
0109       </Attribute>
0110       <Attribute>
0111         <AttributeName type="TextString" value="Cryptographic
       Algorithm"/>
0112         <AttributeValue type="Enumeration" value="AES"/>
0113       </Attribute>
0114       <Attribute>
0115         <AttributeName type="TextString" value="Cryptographic
       Length"/>
0116         <AttributeValue type="Integer" value="256"/>
0117       </Attribute>
0118       <Attribute>
0119         <AttributeName type="TextString" value="Digest"/>
0120         <AttributeValue>
0121           <HashingAlgorithm type="Enumeration" value="SHA_256"/>
0122           <DigestValue type="ByteString"
       value="bc12861408b8ac72cdb3b2748ad342b7dc519bd109046a1b931fdaed73591
       f29"/>
0123         </AttributeValue>
0124       </Attribute>
0125       <Attribute>
0126         <AttributeName type="TextString" value="Initial Date"/>
0127         <AttributeValue type="DateTime" value="2013-01-
       10T23:33:21+00:00"/>
0128       </Attribute>
0129       <Attribute>
```

```
0130          <AttributeName type="TextString" value="Last Change Date"/>
0131          <AttributeValue type="DateTime" value="2013-01-
      10T23:33:21+00:00"/>
0132        </Attribute>
0133      </ResponsePayload>
0134    </BatchItem>
0135  </ResponseMessage>
```

```
      # TIME 2
0136  <RequestMessage>
0137    <RequestHeader>
0138      <ProtocolVersion>
0139        <ProtocolVersionMajor type="Integer" value="1"/>
0140        <ProtocolVersionMinor type="Integer" value="0"/>
0141      </ProtocolVersion>
0142      <BatchCount type="Integer" value="1"/>
0143    </RequestHeader>
0144    <BatchItem>
0145      <Operation type="Enumeration" value="Destroy"/>
0146      <RequestPayload>
0147        <UniqueIdentifier type="TextString"
      value="$UNIQUE_IDENTIFIER_0"/>
0148      </RequestPayload>
0149    </BatchItem>
0150  </RequestMessage>
```

```
0151  <ResponseMessage>
0152    <ResponseHeader>
0153      <ProtocolVersion>
0154        <ProtocolVersionMajor type="Integer" value="1"/>
0155        <ProtocolVersionMinor type="Integer" value="0"/>
0156      </ProtocolVersion>
0157      <TimeStamp type="DateTime" value="2012-04-27T08:12:25+00:00"/>
0158      <BatchCount type="Integer" value="1"/>
0159    </ResponseHeader>
0160    <BatchItem>
0161      <Operation type="Enumeration" value="Destroy"/>
0162      <ResultStatus type="Enumeration" value="Success"/>
0163      <ResponsePayload>
0164        <UniqueIdentifier type="TextString"
      value="$UNIQUE_IDENTIFIER_0"/>
0165      </ResponsePayload>
0166    </BatchItem>
0167  </ResponseMessage>
```

105

106 3.1.2 SKLC-M-2-10

107 Create, GetAttributes, Activate, GetAttributes, Destroy, Revoke, GetAttributes, Destroy

```
      # TIME 0
0001  <RequestMessage>
0002    <RequestHeader>
0003      <ProtocolVersion>
0004        <ProtocolVersionMajor type="Integer" value="1"/>
0005        <ProtocolVersionMinor type="Integer" value="0"/>
0006      </ProtocolVersion>
0007      <BatchCount type="Integer" value="1"/>
0008    </RequestHeader>
0009    <BatchItem>
```

```
0010      <Operation type="Enumeration" value="Create"/>
0011      <RequestPayload>
0012        <ObjectType type="Enumeration" value="SymmetricKey"/>
0013        <TemplateAttribute>
0014          <Attribute>
0015            <AttributeName type="TextString" value="Cryptographic
          Algorithm"/>
0016            <AttributeValue type="Enumeration" value="AES"/>
0017          </Attribute>
0018          <Attribute>
0019            <AttributeName type="TextString" value="Cryptographic
          Length"/>
0020            <AttributeValue type="Integer" value="256"/>
0021          </Attribute>
0022          <Attribute>
0023            <AttributeName type="TextString" value="Cryptographic
          Usage Mask"/>
0024            <AttributeValue type="Integer" value="Encrypt Decrypt"/>
0025          </Attribute>
0026          <Attribute>
0027            <AttributeName type="TextString" value="Name"/>
0028            <AttributeValue>
0029              <NameValue type="TextString" value="SKLC-M-2-10"/>
0030              <NameType type="Enumeration"
          value="UninterpretedTextString"/>
0031            </AttributeValue>
0032          </Attribute>
0033        </TemplateAttribute>
0034      </RequestPayload>
0035    </BatchItem>
0036  </RequestMessage>
```

```
0037  <ResponseMessage>
0038    <ResponseHeader>
0039      <ProtocolVersion>
0040        <ProtocolVersionMajor type="Integer" value="1"/>
0041        <ProtocolVersionMinor type="Integer" value="0"/>
0042      </ProtocolVersion>
0043      <TimeStamp type="DateTime" value="2012-04-27T08:12:24+00:00"/>
0044      <BatchCount type="Integer" value="1"/>
0045    </ResponseHeader>
0046    <BatchItem>
0047      <Operation type="Enumeration" value="Create"/>
0048      <ResultStatus type="Enumeration" value="Success"/>
0049      <ResponsePayload>
0050        <ObjectType type="Enumeration" value="SymmetricKey"/>
0051        <UniqueIdentifier type="TextString"
          value="$UNIQUE_IDENTIFIER_0"/>
0052      </ResponsePayload>
0053    </BatchItem>
0054  </ResponseMessage>
```

```
      # TIME 1
0055  <RequestMessage>
0056    <RequestHeader>
0057      <ProtocolVersion>
0058        <ProtocolVersionMajor type="Integer" value="1"/>
0059        <ProtocolVersionMinor type="Integer" value="0"/>
0060      </ProtocolVersion>
0061      <BatchCount type="Integer" value="1"/>
```

```
0062    </RequestHeader>
0063    <BatchItem>
0064      <Operation type="Enumeration" value="GetAttributes"/>
0065      <RequestPayload>
0066        <UniqueIdentifier type="TextString"
        value="$UNIQUE_IDENTIFIER_0"/>
0067        <AttributeName type="TextString" value="State"/>
0068        <AttributeName type="TextString" value="Cryptographic Usage
        Mask"/>
0069        <AttributeName type="TextString" value="Unique Identifier"/>
0070        <AttributeName type="TextString" value="Object Type"/>
0071        <AttributeName type="TextString" value="Cryptographic
        Algorithm"/>
0072        <AttributeName type="TextString" value="Cryptographic
        Length"/>
0073        <AttributeName type="TextString" value="Digest"/>
0074        <AttributeName type="TextString" value="Initial Date"/>
0075        <AttributeName type="TextString" value="Last Change Date"/>
0076      </RequestPayload>
0077    </BatchItem>
0078  </RequestMessage>
```

```
0079  <ResponseMessage>
0080    <ResponseHeader>
0081      <ProtocolVersion>
0082        <ProtocolVersionMajor type="Integer" value="1"/>
0083        <ProtocolVersionMinor type="Integer" value="0"/>
0084      </ProtocolVersion>
0085      <TimeStamp type="DateTime" value="2012-04-27T08:12:24+00:00"/>
0086      <BatchCount type="Integer" value="1"/>
0087    </ResponseHeader>
0088    <BatchItem>
0089      <Operation type="Enumeration" value="GetAttributes"/>
0090      <ResultStatus type="Enumeration" value="Success"/>
0091      <ResponsePayload>
0092        <UniqueIdentifier type="TextString"
        value="$UNIQUE_IDENTIFIER_0"/>
0093        <Attribute>
0094          <AttributeName type="TextString" value="State"/>
0095          <AttributeValue type="Enumeration" value="PreActive"/>
0096        </Attribute>
0097        <Attribute>
0098          <AttributeName type="TextString" value="Cryptographic Usage
        Mask"/>
0099          <AttributeValue type="Integer" value="Decrypt Encrypt"/>
0100        </Attribute>
0101        <Attribute>
0102          <AttributeName type="TextString" value="Unique Identifier"/>
0103          <AttributeValue type="TextString"
        value="$UNIQUE_IDENTIFIER_0"/>
0104        </Attribute>
0105        <Attribute>
0106          <AttributeName type="TextString" value="Object Type"/>
0107          <AttributeValue type="Enumeration" value="SymmetricKey"/>
0108        </Attribute>
0109        <Attribute>
0110          <AttributeName type="TextString" value="Cryptographic
        Algorithm"/>
0111          <AttributeValue type="Enumeration" value="AES"/>
```

```
0112        </Attribute>
0113        <Attribute>
0114          <AttributeName type="TextString" value="Cryptographic
      Length"/>
0115          <AttributeValue type="Integer" value="256"/>
0116        </Attribute>
0117        <Attribute>
0118          <AttributeName type="TextString" value="Digest"/>
0119          <AttributeValue>
0120            <HashingAlgorithm type="Enumeration" value="SHA_256"/>
0121            <DigestValue type="ByteString"
      value="bc12861408b8ac72cdb3b2748ad342b7dc519bd109046a1b931fdaed73591
      f29"/>
0122          </AttributeValue>
0123        </Attribute>
0124        <Attribute>
0125          <AttributeName type="TextString" value="Initial Date"/>
0126          <AttributeValue type="DateTime" value="2013-01-
      10T23:33:21+00:00"/>
0127        </Attribute>
0128        <Attribute>
0129          <AttributeName type="TextString" value="Last Change Date"/>
0130          <AttributeValue type="DateTime" value="2013-01-
      10T23:33:21+00:00"/>
0131        </Attribute>
0132      </ResponsePayload>
0133    </BatchItem>
0134  </ResponseMessage>
```

```
      # TIME 2
0135  <RequestMessage>
0136    <RequestHeader>
0137      <ProtocolVersion>
0138        <ProtocolVersionMajor type="Integer" value="1"/>
0139        <ProtocolVersionMinor type="Integer" value="0"/>
0140      </ProtocolVersion>
0141      <BatchCount type="Integer" value="1"/>
0142    </RequestHeader>
0143    <BatchItem>
0144      <Operation type="Enumeration" value="Activate"/>
0145      <RequestPayload>
0146        <UniqueIdentifier type="TextString"
      value="$UNIQUE_IDENTIFIER_0"/>
0147      </RequestPayload>
0148    </BatchItem>
0149  </RequestMessage>
```

```
0150  <ResponseMessage>
0151    <ResponseHeader>
0152      <ProtocolVersion>
0153        <ProtocolVersionMajor type="Integer" value="1"/>
0154        <ProtocolVersionMinor type="Integer" value="0"/>
0155      </ProtocolVersion>
0156      <TimeStamp type="DateTime" value="2012-04-27T08:12:24+00:00"/>
0157      <BatchCount type="Integer" value="1"/>
0158    </ResponseHeader>
0159    <BatchItem>
0160      <Operation type="Enumeration" value="Activate"/>
0161      <ResultStatus type="Enumeration" value="Success"/>
0162      <ResponsePayload>
```

```
      <UniqueIdentifier type="TextString"
value="$UNIQUE_IDENTIFIER_0"/>
    </ResponsePayload>
  </BatchItem>
</ResponseMessage>
```

```
# TIME 3
<RequestMessage>
  <RequestHeader>
    <ProtocolVersion>
      <ProtocolVersionMajor type="Integer" value="1"/>
      <ProtocolVersionMinor type="Integer" value="0"/>
    </ProtocolVersion>
    <BatchCount type="Integer" value="1"/>
  </RequestHeader>
  <BatchItem>
    <Operation type="Enumeration" value="GetAttributes"/>
    <RequestPayload>
      <UniqueIdentifier type="TextString"
value="$UNIQUE_IDENTIFIER_0"/>
      <AttributeName type="TextString" value="State"/>
      <AttributeName type="TextString" value="Activation Date"/>
      <AttributeName type="TextString" value="Deactivation Date"/>
    </RequestPayload>
  </BatchItem>
</RequestMessage>
```

```
<ResponseMessage>
  <ResponseHeader>
    <ProtocolVersion>
      <ProtocolVersionMajor type="Integer" value="1"/>
      <ProtocolVersionMinor type="Integer" value="0"/>
    </ProtocolVersion>
    <TimeStamp type="DateTime" value="2012-04-27T08:12:24+00:00"/>
    <BatchCount type="Integer" value="1"/>
  </ResponseHeader>
  <BatchItem>
    <Operation type="Enumeration" value="GetAttributes"/>
    <ResultStatus type="Enumeration" value="Success"/>
    <ResponsePayload>
      <UniqueIdentifier type="TextString"
value="$UNIQUE_IDENTIFIER_0"/>
      <Attribute>
        <AttributeName type="TextString" value="State"/>
        <AttributeValue type="Enumeration" value="Active"/>
      </Attribute>
      <Attribute>
        <AttributeName type="TextString" value="Activation Date"/>
        <AttributeValue type="DateTime" value="2013-01-
10T23:36:01+00:00"/>
      </Attribute>
    </ResponsePayload>
  </BatchItem>
</ResponseMessage>
```

```
# TIME 4
<RequestMessage>
  <RequestHeader>
    <ProtocolVersion>
      <ProtocolVersionMajor type="Integer" value="1"/>
      <ProtocolVersionMinor type="Integer" value="0"/>
```

```
0215      </ProtocolVersion>
0216      <BatchCount type="Integer" value="1"/>
0217    </RequestHeader>
0218    <BatchItem>
0219      <Operation type="Enumeration" value="Destroy"/>
0220      <RequestPayload>
0221        <UniqueIdentifier type="TextString"
value="$UNIQUE_IDENTIFIER_0"/>
0222      </RequestPayload>
0223    </BatchItem>
0224  </RequestMessage>
```

```
0225  <ResponseMessage>
0226    <ResponseHeader>
0227      <ProtocolVersion>
0228        <ProtocolVersionMajor type="Integer" value="1"/>
0229        <ProtocolVersionMinor type="Integer" value="0"/>
0230      </ProtocolVersion>
0231      <TimeStamp type="DateTime" value="2012-04-27T08:12:25+00:00"/>
0232      <BatchCount type="Integer" value="1"/>
0233    </ResponseHeader>
0234    <BatchItem>
0235      <Operation type="Enumeration" value="Destroy"/>
0236      <ResultStatus type="Enumeration" value="OperationFailed"/>
0237      <ResultReason type="Enumeration" value="PermissionDenied"/>
0238      <ResultMessage type="TextString" value="DENIED"/>
0239    </BatchItem>
0240  </ResponseMessage>
```

```
      # TIME 5
0241  <RequestMessage>
0242    <RequestHeader>
0243      <ProtocolVersion>
0244        <ProtocolVersionMajor type="Integer" value="1"/>
0245        <ProtocolVersionMinor type="Integer" value="0"/>
0246      </ProtocolVersion>
0247      <BatchCount type="Integer" value="1"/>
0248    </RequestHeader>
0249    <BatchItem>
0250      <Operation type="Enumeration" value="Revoke"/>
0251      <RequestPayload>
0252        <UniqueIdentifier type="TextString"
value="$UNIQUE_IDENTIFIER_0"/>
0253        <RevocationReason>
0254          <RevocationReasonCode type="Enumeration"
value="KeyCompromise"/>
0255        </RevocationReason>
0256        <CompromiseOccurrenceDate type="DateTime" value="1970-01-
01T00:00:06+00:00"/>
0257      </RequestPayload>
0258    </BatchItem>
0259  </RequestMessage>
```

```
0260  <ResponseMessage>
0261    <ResponseHeader>
0262      <ProtocolVersion>
0263        <ProtocolVersionMajor type="Integer" value="1"/>
0264        <ProtocolVersionMinor type="Integer" value="0"/>
0265      </ProtocolVersion>
0266      <TimeStamp type="DateTime" value="2012-04-27T08:12:24+00:00"/>
0267      <BatchCount type="Integer" value="1"/>
```

```
0268    </ResponseHeader>
0269    <BatchItem>
0270      <Operation type="Enumeration" value="Revoke"/>
0271      <ResultStatus type="Enumeration" value="Success"/>
0272      <ResponsePayload>
0273        <UniqueIdentifier type="TextString"
        value="$UNIQUE_IDENTIFIER_0"/>
0274      </ResponsePayload>
0275    </BatchItem>
0276  </ResponseMessage>
```

```
        # TIME 6
0277  <RequestMessage>
0278    <RequestHeader>
0279      <ProtocolVersion>
0280        <ProtocolVersionMajor type="Integer" value="1"/>
0281        <ProtocolVersionMinor type="Integer" value="0"/>
0282      </ProtocolVersion>
0283      <BatchCount type="Integer" value="1"/>
0284    </RequestHeader>
0285    <BatchItem>
0286      <Operation type="Enumeration" value="GetAttributes"/>
0287      <RequestPayload>
0288        <UniqueIdentifier type="TextString"
        value="$UNIQUE_IDENTIFIER_0"/>
0289        <AttributeName type="TextString" value="State"/>
0290      </RequestPayload>
0291    </BatchItem>
0292  </RequestMessage>
```

```
0293  <ResponseMessage>
0294    <ResponseHeader>
0295      <ProtocolVersion>
0296        <ProtocolVersionMajor type="Integer" value="1"/>
0297        <ProtocolVersionMinor type="Integer" value="0"/>
0298      </ProtocolVersion>
0299      <TimeStamp type="DateTime" value="2012-04-27T08:12:24+00:00"/>
0300      <BatchCount type="Integer" value="1"/>
0301    </ResponseHeader>
0302    <BatchItem>
0303      <Operation type="Enumeration" value="GetAttributes"/>
0304      <ResultStatus type="Enumeration" value="Success"/>
0305      <ResponsePayload>
0306        <UniqueIdentifier type="TextString"
        value="$UNIQUE_IDENTIFIER_0"/>
0307        <Attribute>
0308          <AttributeName type="TextString" value="State"/>
0309          <AttributeValue type="Enumeration" value="Compromised"/>
0310        </Attribute>
0311      </ResponsePayload>
0312    </BatchItem>
0313  </ResponseMessage>
```

```
        # TIME 7
0314  <RequestMessage>
0315    <RequestHeader>
0316      <ProtocolVersion>
0317        <ProtocolVersionMajor type="Integer" value="1"/>
0318        <ProtocolVersionMinor type="Integer" value="0"/>
0319      </ProtocolVersion>
0320      <BatchCount type="Integer" value="1"/>
```

```
0321    </RequestHeader>
0322    <BatchItem>
0323      <Operation type="Enumeration" value="Destroy"/>
0324      <RequestPayload>
0325        <UniqueIdentifier type="TextString"
        value="$UNIQUE_IDENTIFIER_0"/>
0326      </RequestPayload>
0327    </BatchItem>
0328  </RequestMessage>
```

```
0329  <ResponseMessage>
0330    <ResponseHeader>
0331      <ProtocolVersion>
0332        <ProtocolVersionMajor type="Integer" value="1"/>
0333        <ProtocolVersionMinor type="Integer" value="0"/>
0334      </ProtocolVersion>
0335      <TimeStamp type="DateTime" value="2012-04-27T08:12:25+00:00"/>
0336      <BatchCount type="Integer" value="1"/>
0337    </ResponseHeader>
0338    <BatchItem>
0339      <Operation type="Enumeration" value="Destroy"/>
0340      <ResultStatus type="Enumeration" value="Success"/>
0341      <ResponsePayload>
0342        <UniqueIdentifier type="TextString"
        value="$UNIQUE_IDENTIFIER_0"/>
0343      </ResponsePayload>
0344    </BatchItem>
0345  </ResponseMessage>
```

108

109 ### 3.1.3 SKLC-M-3-10

110 Create, GetAttributes, Activate, GetAttributes, Destroy, Revoke, GetAttributes, Destroy

```
      # TIME 0
0001  <RequestMessage>
0002    <RequestHeader>
0003      <ProtocolVersion>
0004        <ProtocolVersionMajor type="Integer" value="1"/>
0005        <ProtocolVersionMinor type="Integer" value="0"/>
0006      </ProtocolVersion>
0007      <BatchCount type="Integer" value="1"/>
0008    </RequestHeader>
0009    <BatchItem>
0010      <Operation type="Enumeration" value="Create"/>
0011      <RequestPayload>
0012        <ObjectType type="Enumeration" value="SymmetricKey"/>
0013        <TemplateAttribute>
0014          <Attribute>
0015            <AttributeName type="TextString" value="Cryptographic
        Algorithm"/>
0016            <AttributeValue type="Enumeration" value="AES"/>
0017          </Attribute>
0018          <Attribute>
0019            <AttributeName type="TextString" value="Cryptographic
        Length"/>
0020            <AttributeValue type="Integer" value="256"/>
0021          </Attribute>
0022          <Attribute>
```

```
0023            <AttributeName type="TextString" value="Cryptographic
    Usage Mask"/>
0024            <AttributeValue type="Integer" value="Encrypt Decrypt"/>
0025          </Attribute>
0026          <Attribute>
0027            <AttributeName type="TextString" value="Name"/>
0028            <AttributeValue>
0029              <NameValue type="TextString" value="SKLC-M-3-10"/>
0030              <NameType type="Enumeration"
    value="UninterpretedTextString"/>
0031            </AttributeValue>
0032          </Attribute>
0033        </TemplateAttribute>
0034      </RequestPayload>
0035    </BatchItem>
0036  </RequestMessage>
```

```
0037  <ResponseMessage>
0038    <ResponseHeader>
0039      <ProtocolVersion>
0040        <ProtocolVersionMajor type="Integer" value="1"/>
0041        <ProtocolVersionMinor type="Integer" value="0"/>
0042      </ProtocolVersion>
0043      <TimeStamp type="DateTime" value="2012-04-27T08:12:24+00:00"/>
0044      <BatchCount type="Integer" value="1"/>
0045    </ResponseHeader>
0046    <BatchItem>
0047      <Operation type="Enumeration" value="Create"/>
0048      <ResultStatus type="Enumeration" value="Success"/>
0049      <ResponsePayload>
0050        <ObjectType type="Enumeration" value="SymmetricKey"/>
0051        <UniqueIdentifier type="TextString"
    value="$UNIQUE_IDENTIFIER_0"/>
0052      </ResponsePayload>
0053    </BatchItem>
0054  </ResponseMessage>
```

```
      # TIME 1
0055  <RequestMessage>
0056    <RequestHeader>
0057      <ProtocolVersion>
0058        <ProtocolVersionMajor type="Integer" value="1"/>
0059        <ProtocolVersionMinor type="Integer" value="0"/>
0060      </ProtocolVersion>
0061      <BatchCount type="Integer" value="1"/>
0062    </RequestHeader>
0063    <BatchItem>
0064      <Operation type="Enumeration" value="GetAttributes"/>
0065      <RequestPayload>
0066        <UniqueIdentifier type="TextString"
    value="$UNIQUE_IDENTIFIER_0"/>
0067        <AttributeName type="TextString" value="State"/>
0068        <AttributeName type="TextString" value="Cryptographic Usage
    Mask"/>
0069        <AttributeName type="TextString" value="Unique Identifier"/>
0070        <AttributeName type="TextString" value="Object Type"/>
0071        <AttributeName type="TextString" value="Cryptographic
    Algorithm"/>
0072        <AttributeName type="TextString" value="Cryptographic
    Length"/>
```

```
      <AttributeName type="TextString" value="Digest"/>
      <AttributeName type="TextString" value="Initial Date"/>
      <AttributeName type="TextString" value="Last Change Date"/>
    </RequestPayload>
  </BatchItem>
</RequestMessage>
```

```
<ResponseMessage>
  <ResponseHeader>
    <ProtocolVersion>
      <ProtocolVersionMajor type="Integer" value="1"/>
      <ProtocolVersionMinor type="Integer" value="0"/>
    </ProtocolVersion>
    <TimeStamp type="DateTime" value="2012-04-27T08:12:24+00:00"/>
    <BatchCount type="Integer" value="1"/>
  </ResponseHeader>
  <BatchItem>
    <Operation type="Enumeration" value="GetAttributes"/>
    <ResultStatus type="Enumeration" value="Success"/>
    <ResponsePayload>
      <UniqueIdentifier type="TextString"
value="$UNIQUE_IDENTIFIER_0"/>
      <Attribute>
        <AttributeName type="TextString" value="State"/>
        <AttributeValue type="Enumeration" value="PreActive"/>
      </Attribute>
      <Attribute>
        <AttributeName type="TextString" value="Cryptographic Usage
Mask"/>
        <AttributeValue type="Integer" value="Decrypt Encrypt"/>
      </Attribute>
      <Attribute>
        <AttributeName type="TextString" value="Unique Identifier"/>
        <AttributeValue type="TextString"
value="$UNIQUE IDENTIFIER 0"/>
      </Attribute>
      <Attribute>
        <AttributeName type="TextString" value="Object Type"/>
        <AttributeValue type="Enumeration" value="SymmetricKey"/>
      </Attribute>
      <Attribute>
        <AttributeName type="TextString" value="Cryptographic
Algorithm"/>
        <AttributeValue type="Enumeration" value="AES"/>
      </Attribute>
      <Attribute>
        <AttributeName type="TextString" value="Cryptographic
Length"/>
        <AttributeValue type="Integer" value="256"/>
      </Attribute>
      <Attribute>
        <AttributeName type="TextString" value="Digest"/>
        <AttributeValue>
          <HashingAlgorithm type="Enumeration" value="SHA_256"/>
          <DigestValue type="ByteString"
value="bc12861408b8ac72cdb3b2748ad342b7dc519bd109046a1b931fdaed73591
f29"/>
        </AttributeValue>
      </Attribute>
```

```
0124        <Attribute>
0125          <AttributeName type="TextString" value="Initial Date"/>
0126          <AttributeValue type="DateTime" value="2013-01-
      10T23:33:21+00:00"/>
0127        </Attribute>
0128        <Attribute>
0129          <AttributeName type="TextString" value="Last Change Date"/>
0130          <AttributeValue type="DateTime" value="2013-01-
      10T23:33:21+00:00"/>
0131        </Attribute>
0132      </ResponsePayload>
0133    </BatchItem>
0134  </ResponseMessage>
```

```
      # TIME 2
0135  <RequestMessage>
0136    <RequestHeader>
0137      <ProtocolVersion>
0138        <ProtocolVersionMajor type="Integer" value="1"/>
0139        <ProtocolVersionMinor type="Integer" value="0"/>
0140      </ProtocolVersion>
0141      <BatchCount type="Integer" value="1"/>
0142    </RequestHeader>
0143    <BatchItem>
0144      <Operation type="Enumeration" value="Activate"/>
0145      <RequestPayload>
0146        <UniqueIdentifier type="TextString"
      value="$UNIQUE_IDENTIFIER_0"/>
0147      </RequestPayload>
0148    </BatchItem>
0149  </RequestMessage>
```

```
0150  <ResponseMessage>
0151    <ResponseHeader>
0152      <ProtocolVersion>
0153        <ProtocolVersionMajor type="Integer" value="1"/>
0154        <ProtocolVersionMinor type="Integer" value="0"/>
0155      </ProtocolVersion>
0156      <TimeStamp type="DateTime" value="2012-04-27T08:12:24+00:00"/>
0157      <BatchCount type="Integer" value="1"/>
0158    </ResponseHeader>
0159    <BatchItem>
0160      <Operation type="Enumeration" value="Activate"/>
0161      <ResultStatus type="Enumeration" value="Success"/>
0162      <ResponsePayload>
0163        <UniqueIdentifier type="TextString"
      value="$UNIQUE_IDENTIFIER_0"/>
0164      </ResponsePayload>
0165    </BatchItem>
0166  </ResponseMessage>
```

```
      # TIME 3
0167  <RequestMessage>
0168    <RequestHeader>
0169      <ProtocolVersion>
0170        <ProtocolVersionMajor type="Integer" value="1"/>
0171        <ProtocolVersionMinor type="Integer" value="0"/>
0172      </ProtocolVersion>
0173      <BatchCount type="Integer" value="1"/>
0174    </RequestHeader>
0175    <BatchItem>
```

```
0176      <Operation type="Enumeration" value="GetAttributes"/>
0177      <RequestPayload>
0178        <UniqueIdentifier type="TextString"
          value="$UNIQUE_IDENTIFIER_0"/>
0179        <AttributeName type="TextString" value="State"/>
0180        <AttributeName type="TextString" value="Activation Date"/>
0181        <AttributeName type="TextString" value="Deactivation Date"/>
0182      </RequestPayload>
0183    </BatchItem>
0184  </RequestMessage>
```

```
0185  <ResponseMessage>
0186    <ResponseHeader>
0187      <ProtocolVersion>
0188        <ProtocolVersionMajor type="Integer" value="1"/>
0189        <ProtocolVersionMinor type="Integer" value="0"/>
0190      </ProtocolVersion>
0191      <TimeStamp type="DateTime" value="2012-04-27T08:12:24+00:00"/>
0192      <BatchCount type="Integer" value="1"/>
0193    </ResponseHeader>
0194    <BatchItem>
0195      <Operation type="Enumeration" value="GetAttributes"/>
0196      <ResultStatus type="Enumeration" value="Success"/>
0197      <ResponsePayload>
0198        <UniqueIdentifier type="TextString"
          value="$UNIQUE_IDENTIFIER_0"/>
0199        <Attribute>
0200          <AttributeName type="TextString" value="State"/>
0201          <AttributeValue type="Enumeration" value="Active"/>
0202        </Attribute>
0203        <Attribute>
0204          <AttributeName type="TextString" value="Activation Date"/>
0205          <AttributeValue type="DateTime" value="2013-01-
          10T23:36:01+00:00"/>
0206        </Attribute>
0207      </ResponsePayload>
0208    </BatchItem>
0209  </ResponseMessage>
```

```
          # TIME 4
0210  <RequestMessage>
0211    <RequestHeader>
0212      <ProtocolVersion>
0213        <ProtocolVersionMajor type="Integer" value="1"/>
0214        <ProtocolVersionMinor type="Integer" value="0"/>
0215      </ProtocolVersion>
0216      <BatchCount type="Integer" value="1"/>
0217    </RequestHeader>
0218    <BatchItem>
0219      <Operation type="Enumeration" value="ModifyAttribute"/>
0220      <UniqueBatchItemID type="ByteString" value="0752c951bb9926cc"/>
0221      <RequestPayload>
0222        <UniqueIdentifier type="TextString"
          value="$UNIQUE_IDENTIFIER_0"/>
0223        <Attribute>
0224          <AttributeName type="TextString" value="Activation Date"/>
0225          <AttributeValue type="DateTime" value="$NOW"/>
0226        </Attribute>
0227      </RequestPayload>
0228    </BatchItem>
```

```
0229 </RequestMessage>
0230 <ResponseMessage>
0231   <ResponseHeader>
0232     <ProtocolVersion>
0233       <ProtocolVersionMajor type="Integer" value="1"/>
0234       <ProtocolVersionMinor type="Integer" value="0"/>
0235     </ProtocolVersion>
0236     <TimeStamp type="DateTime" value="2012-04-27T08:12:25+00:00"/>
0237     <BatchCount type="Integer" value="1"/>
0238   </ResponseHeader>
0239   <BatchItem>
0240     <Operation type="Enumeration" value="ModifyAttribute"/>
0241     <UniqueBatchItemID type="ByteString" value="0752c951bb9926cc"/>
0242     <ResultStatus type="Enumeration" value="OperationFailed"/>
0243     <ResultReason type="Enumeration" value="PermissionDenied"/>
0244     <ResultMessage type="TextString" value="DENIED"/>
0245   </BatchItem>
0246 </ResponseMessage>
     # TIME 5
0247 <RequestMessage>
0248   <RequestHeader>
0249     <ProtocolVersion>
0250       <ProtocolVersionMajor type="Integer" value="1"/>
0251       <ProtocolVersionMinor type="Integer" value="0"/>
0252     </ProtocolVersion>
0253     <BatchCount type="Integer" value="1"/>
0254   </RequestHeader>
0255   <BatchItem>
0256     <Operation type="Enumeration" value="Revoke"/>
0257     <RequestPayload>
0258       <UniqueIdentifier type="TextString"
     value="$UNIQUE_IDENTIFIER_0"/>
0259       <RevocationReason>
0260         <RevocationReasonCode type="Enumeration"
     value="KeyCompromise"/>
0261       </RevocationReason>
0262       <CompromiseOccurrenceDate type="DateTime" value="1970-01-
     01T00:00:06+00:00"/>
0263     </RequestPayload>
0264   </BatchItem>
0265 </RequestMessage>
0266 <ResponseMessage>
0267   <ResponseHeader>
0268     <ProtocolVersion>
0269       <ProtocolVersionMajor type="Integer" value="1"/>
0270       <ProtocolVersionMinor type="Integer" value="0"/>
0271     </ProtocolVersion>
0272     <TimeStamp type="DateTime" value="2012-04-27T08:12:24+00:00"/>
0273     <BatchCount type="Integer" value="1"/>
0274   </ResponseHeader>
0275   <BatchItem>
0276     <Operation type="Enumeration" value="Revoke"/>
0277     <ResultStatus type="Enumeration" value="Success"/>
0278     <ResponsePayload>
0279       <UniqueIdentifier type="TextString"
     value="$UNIQUE_IDENTIFIER_0"/>
0280     </ResponsePayload>
0281   </BatchItem>
```

```
</ResponseMessage>
# TIME 6
<RequestMessage>
  <RequestHeader>
    <ProtocolVersion>
      <ProtocolVersionMajor type="Integer" value="1"/>
      <ProtocolVersionMinor type="Integer" value="0"/>
    </ProtocolVersion>
    <BatchCount type="Integer" value="1"/>
  </RequestHeader>
  <BatchItem>
    <Operation type="Enumeration" value="GetAttributes"/>
    <RequestPayload>
      <UniqueIdentifier type="TextString"
value="$UNIQUE_IDENTIFIER_0"/>
      <AttributeName type="TextString" value="State"/>
    </RequestPayload>
  </BatchItem>
</RequestMessage>
<ResponseMessage>
  <ResponseHeader>
    <ProtocolVersion>
      <ProtocolVersionMajor type="Integer" value="1"/>
      <ProtocolVersionMinor type="Integer" value="0"/>
    </ProtocolVersion>
    <TimeStamp type="DateTime" value="2012-04-27T08:12:24+00:00"/>
    <BatchCount type="Integer" value="1"/>
  </ResponseHeader>
  <BatchItem>
    <Operation type="Enumeration" value="GetAttributes"/>
    <ResultStatus type="Enumeration" value="Success"/>
    <ResponsePayload>
      <UniqueIdentifier type="TextString"
value="$UNIQUE_IDENTIFIER_0"/>
      <Attribute>
        <AttributeName type="TextString" value="State"/>
        <AttributeValue type="Enumeration" value="Compromised"/>
      </Attribute>
    </ResponsePayload>
  </BatchItem>
</ResponseMessage>
# TIME 7
<RequestMessage>
  <RequestHeader>
    <ProtocolVersion>
      <ProtocolVersionMajor type="Integer" value="1"/>
      <ProtocolVersionMinor type="Integer" value="0"/>
    </ProtocolVersion>
    <BatchCount type="Integer" value="1"/>
  </RequestHeader>
  <BatchItem>
    <Operation type="Enumeration" value="Destroy"/>
    <RequestPayload>
      <UniqueIdentifier type="TextString"
value="$UNIQUE_IDENTIFIER_0"/>
    </RequestPayload>
  </BatchItem>
</RequestMessage>
```

```
0335 <ResponseMessage>
0336   <ResponseHeader>
0337     <ProtocolVersion>
0338       <ProtocolVersionMajor type="Integer" value="1"/>
0339       <ProtocolVersionMinor type="Integer" value="0"/>
0340     </ProtocolVersion>
0341     <TimeStamp type="DateTime" value="2012-04-27T08:12:25+00:00"/>
0342     <BatchCount type="Integer" value="1"/>
0343   </ResponseHeader>
0344   <BatchItem>
0345     <Operation type="Enumeration" value="Destroy"/>
0346     <ResultStatus type="Enumeration" value="Success"/>
0347     <ResponsePayload>
0348       <UniqueIdentifier type="TextString"
      value="$UNIQUE_IDENTIFIER_0"/>
0349     </ResponsePayload>
0350   </BatchItem>
0351 </ResponseMessage>
```

111

112 3.2 Mandatory Test Cases KMIP v1.1

113 3.2.1 SKLC-M-1-11

114 Create, GetAttributes, Destroy

```
     # TIME 0
0001 <RequestMessage>
0002   <RequestHeader>
0003     <ProtocolVersion>
0004       <ProtocolVersionMajor type="Integer" value="1"/>
0005       <ProtocolVersionMinor type="Integer" value="1"/>
0006     </ProtocolVersion>
0007     <BatchCount type="Integer" value="1"/>
0008   </RequestHeader>
0009   <BatchItem>
0010     <Operation type="Enumeration" value="Create"/>
0011     <RequestPayload>
0012       <ObjectType type="Enumeration" value="SymmetricKey"/>
0013       <TemplateAttribute>
0014         <Attribute>
0015           <AttributeName type="TextString" value="Cryptographic
      Algorithm"/>
0016           <AttributeValue type="Enumeration" value="AES"/>
0017         </Attribute>
0018         <Attribute>
0019           <AttributeName type="TextString" value="Cryptographic
      Length"/>
0020           <AttributeValue type="Integer" value="256"/>
0021         </Attribute>
0022         <Attribute>
0023           <AttributeName type="TextString" value="Cryptographic
      Usage Mask"/>
0024           <AttributeValue type="Integer" value="Encrypt Decrypt"/>
0025         </Attribute>
0026         <Attribute>
0027           <AttributeName type="TextString" value="Name"/>
0028           <AttributeValue>
```

```
0029              <NameValue type="TextString" value="SKLC-M-1-11"/>
0030              <NameType type="Enumeration"
value="UninterpretedTextString"/>
0031            </AttributeValue>
0032          </Attribute>
0033        </TemplateAttribute>
0034      </RequestPayload>
0035    </BatchItem>
0036  </RequestMessage>
0037  <ResponseMessage>
0038    <ResponseHeader>
0039      <ProtocolVersion>
0040        <ProtocolVersionMajor type="Integer" value="1"/>
0041        <ProtocolVersionMinor type="Integer" value="1"/>
0042      </ProtocolVersion>
0043      <TimeStamp type="DateTime" value="2012-04-27T08:12:24+00:00"/>
0044      <BatchCount type="Integer" value="1"/>
0045    </ResponseHeader>
0046    <BatchItem>
0047      <Operation type="Enumeration" value="Create"/>
0048      <ResultStatus type="Enumeration" value="Success"/>
0049      <ResponsePayload>
0050        <ObjectType type="Enumeration" value="SymmetricKey"/>
0051        <UniqueIdentifier type="TextString"
value="$UNIQUE_IDENTIFIER_0"/>
0052      </ResponsePayload>
0053    </BatchItem>
0054  </ResponseMessage>
      # TIME 1
0055  <RequestMessage>
0056    <RequestHeader>
0057      <ProtocolVersion>
0058        <ProtocolVersionMajor type="Integer" value="1"/>
0059        <ProtocolVersionMinor type="Integer" value="1"/>
0060      </ProtocolVersion>
0061      <BatchCount type="Integer" value="1"/>
0062    </RequestHeader>
0063    <BatchItem>
0064      <Operation type="Enumeration" value="GetAttributes"/>
0065      <RequestPayload>
0066        <UniqueIdentifier type="TextString"
value="$UNIQUE_IDENTIFIER_0"/>
0067        <AttributeName type="TextString" value="State"/>
0068        <AttributeName type="TextString" value="Cryptographic Usage
Mask"/>
0069        <AttributeName type="TextString" value="Unique Identifier"/>
0070        <AttributeName type="TextString" value="Object Type"/>
0071        <AttributeName type="TextString" value="Cryptographic
Algorithm"/>
0072        <AttributeName type="TextString" value="Cryptographic
Length"/>
0073        <AttributeName type="TextString" value="Digest"/>
0074        <AttributeName type="TextString" value="Initial Date"/>
0075        <AttributeName type="TextString" value="Last Change Date"/>
0076        <AttributeName type="TextString" value="Activation Date"/>
0077      </RequestPayload>
0078    </BatchItem>
0079  </RequestMessage>
```

```
0080 <ResponseMessage>
0081   <ResponseHeader>
0082     <ProtocolVersion>
0083       <ProtocolVersionMajor type="Integer" value="1"/>
0084       <ProtocolVersionMinor type="Integer" value="1"/>
0085     </ProtocolVersion>
0086     <TimeStamp type="DateTime" value="2012-04-27T08:12:24+00:00"/>
0087     <BatchCount type="Integer" value="1"/>
0088   </ResponseHeader>
0089   <BatchItem>
0090     <Operation type="Enumeration" value="GetAttributes"/>
0091     <ResultStatus type="Enumeration" value="Success"/>
0092     <ResponsePayload>
0093       <UniqueIdentifier type="TextString"
       value="$UNIQUE_IDENTIFIER_0"/>
0094       <Attribute>
0095         <AttributeName type="TextString" value="State"/>
0096         <AttributeValue type="Enumeration" value="PreActive"/>
0097       </Attribute>
0098       <Attribute>
0099         <AttributeName type="TextString" value="Cryptographic Usage
       Mask"/>
0100         <AttributeValue type="Integer" value="Decrypt Encrypt"/>
0101       </Attribute>
0102       <Attribute>
0103         <AttributeName type="TextString" value="Unique Identifier"/>
0104         <AttributeValue type="TextString"
       value="$UNIQUE_IDENTIFIER_0"/>
0105       </Attribute>
0106       <Attribute>
0107         <AttributeName type="TextString" value="Object Type"/>
0108         <AttributeValue type="Enumeration" value="SymmetricKey"/>
0109       </Attribute>
0110       <Attribute>
0111         <AttributeName type="TextString" value="Cryptographic
       Algorithm"/>
0112         <AttributeValue type="Enumeration" value="AES"/>
0113       </Attribute>
0114       <Attribute>
0115         <AttributeName type="TextString" value="Cryptographic
       Length"/>
0116         <AttributeValue type="Integer" value="256"/>
0117       </Attribute>
0118       <Attribute>
0119         <AttributeName type="TextString" value="Digest"/>
0120         <AttributeValue>
0121           <HashingAlgorithm type="Enumeration" value="SHA_256"/>
0122           <DigestValue type="ByteString"
       value="bc12861408b8ac72cdb3b2748ad342b7dc519bd109046a1b931fdaed73591
       f29"/>
0123           <KeyFormatType type="Enumeration" value="Raw"/>
0124         </AttributeValue>
0125       </Attribute>
0126       <Attribute>
0127         <AttributeName type="TextString" value="Initial Date"/>
0128         <AttributeValue type="DateTime" value="2013-01-
       10T23:33:21+00:00"/>
0129       </Attribute>
```

```
0130        <Attribute>
0131          <AttributeName type="TextString" value="Last Change Date"/>
0132          <AttributeValue type="DateTime" value="2013-01-
      10T23:33:21+00:00"/>
0133        </Attribute>
0134      </ResponsePayload>
0135    </BatchItem>
0136  </ResponseMessage>
```

```
      # TIME 2
0137  <RequestMessage>
0138    <RequestHeader>
0139      <ProtocolVersion>
0140        <ProtocolVersionMajor type="Integer" value="1"/>
0141        <ProtocolVersionMinor type="Integer" value="1"/>
0142      </ProtocolVersion>
0143      <BatchCount type="Integer" value="1"/>
0144    </RequestHeader>
0145    <BatchItem>
0146      <Operation type="Enumeration" value="Destroy"/>
0147      <RequestPayload>
0148        <UniqueIdentifier type="TextString"
      value="$UNIQUE_IDENTIFIER_0"/>
0149      </RequestPayload>
0150    </BatchItem>
0151  </RequestMessage>
```

```
0152  <ResponseMessage>
0153    <ResponseHeader>
0154      <ProtocolVersion>
0155        <ProtocolVersionMajor type="Integer" value="1"/>
0156        <ProtocolVersionMinor type="Integer" value="1"/>
0157      </ProtocolVersion>
0158      <TimeStamp type="DateTime" value="2012-04-27T08:12:25+00:00"/>
0159      <BatchCount type="Integer" value="1"/>
0160    </ResponseHeader>
0161    <BatchItem>
0162      <Operation type="Enumeration" value="Destroy"/>
0163      <ResultStatus type="Enumeration" value="Success"/>
0164      <ResponsePayload>
0165        <UniqueIdentifier type="TextString"
      value="$UNIQUE_IDENTIFIER_0"/>
0166      </ResponsePayload>
0167    </BatchItem>
0168  </ResponseMessage>
```

115

116 ### 3.2.2 SKLC-M-2-11

117 Create, GetAttributes, Activate, GetAttributes, Destroy, Revoke, GetAttributes, Destroy

```
      # TIME 0
0001  <RequestMessage>
0002    <RequestHeader>
0003      <ProtocolVersion>
0004        <ProtocolVersionMajor type="Integer" value="1"/>
0005        <ProtocolVersionMinor type="Integer" value="1"/>
0006      </ProtocolVersion>
0007      <BatchCount type="Integer" value="1"/>
0008    </RequestHeader>
```

```
0009    <BatchItem>
0010      <Operation type="Enumeration" value="Create"/>
0011      <RequestPayload>
0012        <ObjectType type="Enumeration" value="SymmetricKey"/>
0013        <TemplateAttribute>
0014          <Attribute>
0015            <AttributeName type="TextString" value="Cryptographic
      Algorithm"/>
0016            <AttributeValue type="Enumeration" value="AES"/>
0017          </Attribute>
0018          <Attribute>
0019            <AttributeName type="TextString" value="Cryptographic
      Length"/>
0020            <AttributeValue type="Integer" value="256"/>
0021          </Attribute>
0022          <Attribute>
0023            <AttributeName type="TextString" value="Cryptographic
      Usage Mask"/>
0024            <AttributeValue type="Integer" value="Encrypt Decrypt"/>
0025          </Attribute>
0026          <Attribute>
0027            <AttributeName type="TextString" value="Name"/>
0028            <AttributeValue>
0029              <NameValue type="TextString" value="SKLC-M-2-11"/>
0030              <NameType type="Enumeration"
      value="UninterpretedTextString"/>
0031            </AttributeValue>
0032          </Attribute>
0033        </TemplateAttribute>
0034      </RequestPayload>
0035    </BatchItem>
0036  </RequestMessage>
```

```
0037  <ResponseMessage>
0038    <ResponseHeader>
0039      <ProtocolVersion>
0040        <ProtocolVersionMajor type="Integer" value="1"/>
0041        <ProtocolVersionMinor type="Integer" value="1"/>
0042      </ProtocolVersion>
0043      <TimeStamp type="DateTime" value="2012-04-27T08:12:24+00:00"/>
0044      <BatchCount type="Integer" value="1"/>
0045    </ResponseHeader>
0046    <BatchItem>
0047      <Operation type="Enumeration" value="Create"/>
0048      <ResultStatus type="Enumeration" value="Success"/>
0049      <ResponsePayload>
0050        <ObjectType type="Enumeration" value="SymmetricKey"/>
0051        <UniqueIdentifier type="TextString"
      value="$UNIQUE_IDENTIFIER_0"/>
0052      </ResponsePayload>
0053    </BatchItem>
0054  </ResponseMessage>
```

```
      # TIME 1
0055  <RequestMessage>
0056    <RequestHeader>
0057      <ProtocolVersion>
0058        <ProtocolVersionMajor type="Integer" value="1"/>
0059        <ProtocolVersionMinor type="Integer" value="1"/>
0060      </ProtocolVersion>
```

```
0061      <BatchCount type="Integer" value="1"/>
0062    </RequestHeader>
0063    <BatchItem>
0064      <Operation type="Enumeration" value="GetAttributes"/>
0065      <RequestPayload>
0066        <UniqueIdentifier type="TextString"
          value="$UNIQUE_IDENTIFIER_0"/>
0067        <AttributeName type="TextString" value="State"/>
0068        <AttributeName type="TextString" value="Cryptographic Usage
          Mask"/>
0069        <AttributeName type="TextString" value="Unique Identifier"/>
0070        <AttributeName type="TextString" value="Object Type"/>
0071        <AttributeName type="TextString" value="Cryptographic
          Algorithm"/>
0072        <AttributeName type="TextString" value="Cryptographic
          Length"/>
0073        <AttributeName type="TextString" value="Digest"/>
0074        <AttributeName type="TextString" value="Initial Date"/>
0075        <AttributeName type="TextString" value="Last Change Date"/>
0076      </RequestPayload>
0077    </BatchItem>
0078  </RequestMessage>
```

```
0079  <ResponseMessage>
0080    <ResponseHeader>
0081      <ProtocolVersion>
0082        <ProtocolVersionMajor type="Integer" value="1"/>
0083        <ProtocolVersionMinor type="Integer" value="1"/>
0084      </ProtocolVersion>
0085      <TimeStamp type="DateTime" value="2012-04-27T08:12:24+00:00"/>
0086      <BatchCount type="Integer" value="1"/>
0087    </ResponseHeader>
0088    <BatchItem>
0089      <Operation type="Enumeration" value="GetAttributes"/>
0090      <ResultStatus type="Enumeration" value="Success"/>
0091      <ResponsePayload>
0092        <UniqueIdentifier type="TextString"
          value="$UNIQUE_IDENTIFIER_0"/>
0093        <Attribute>
0094          <AttributeName type="TextString" value="State"/>
0095          <AttributeValue type="Enumeration" value="PreActive"/>
0096        </Attribute>
0097        <Attribute>
0098          <AttributeName type="TextString" value="Cryptographic Usage
          Mask"/>
0099          <AttributeValue type="Integer" value="Decrypt Encrypt"/>
0100        </Attribute>
0101        <Attribute>
0102          <AttributeName type="TextString" value="Unique Identifier"/>
0103          <AttributeValue type="TextString"
          value="$UNIQUE_IDENTIFIER_0"/>
0104        </Attribute>
0105        <Attribute>
0106          <AttributeName type="TextString" value="Object Type"/>
0107          <AttributeValue type="Enumeration" value="SymmetricKey"/>
0108        </Attribute>
0109        <Attribute>
0110          <AttributeName type="TextString" value="Cryptographic
          Algorithm"/>
```

```
0111          <AttributeValue type="Enumeration" value="AES"/>
0112        </Attribute>
0113        <Attribute>
0114          <AttributeName type="TextString" value="Cryptographic
      Length"/>
0115          <AttributeValue type="Integer" value="256"/>
0116        </Attribute>
0117        <Attribute>
0118          <AttributeName type="TextString" value="Digest"/>
0119          <AttributeValue>
0120            <HashingAlgorithm type="Enumeration" value="SHA_256"/>
0121            <DigestValue type="ByteString"
      value="bc12861408b8ac72cdb3b2748ad342b7dc519bd109046a1b931fdaed73591
      f29"/>
0122            <KeyFormatType type="Enumeration" value="Raw"/>
0123          </AttributeValue>
0124        </Attribute>
0125        <Attribute>
0126          <AttributeName type="TextString" value="Initial Date"/>
0127          <AttributeValue type="DateTime" value="2013-01-
      10T23:33:21+00:00"/>
0128        </Attribute>
0129        <Attribute>
0130          <AttributeName type="TextString" value="Last Change Date"/>
0131          <AttributeValue type="DateTime" value="2013-01-
      10T23:33:21+00:00"/>
0132        </Attribute>
0133      </ResponsePayload>
0134    </BatchItem>
0135  </ResponseMessage>
```

```
      # TIME 2
0136  <RequestMessage>
0137    <RequestHeader>
0138      <ProtocolVersion>
0139        <ProtocolVersionMajor type="Integer" value="1"/>
0140        <ProtocolVersionMinor type="Integer" value="1"/>
0141      </ProtocolVersion>
0142      <BatchCount type="Integer" value="1"/>
0143    </RequestHeader>
0144    <BatchItem>
0145      <Operation type="Enumeration" value="Activate"/>
0146      <RequestPayload>
0147        <UniqueIdentifier type="TextString"
      value="$UNIQUE_IDENTIFIER_0"/>
0148      </RequestPayload>
0149    </BatchItem>
0150  </RequestMessage>
```

```
0151  <ResponseMessage>
0152    <ResponseHeader>
0153      <ProtocolVersion>
0154        <ProtocolVersionMajor type="Integer" value="1"/>
0155        <ProtocolVersionMinor type="Integer" value="1"/>
0156      </ProtocolVersion>
0157      <TimeStamp type="DateTime" value="2012-04-27T08:12:24+00:00"/>
0158      <BatchCount type="Integer" value="1"/>
0159    </ResponseHeader>
0160    <BatchItem>
0161      <Operation type="Enumeration" value="Activate"/>
```

```
    <ResultStatus type="Enumeration" value="Success"/>
    <ResponsePayload>
      <UniqueIdentifier type="TextString"
value="$UNIQUE_IDENTIFIER_0"/>
    </ResponsePayload>
  </BatchItem>
</ResponseMessage>
```

```
# TIME 3
<RequestMessage>
  <RequestHeader>
    <ProtocolVersion>
      <ProtocolVersionMajor type="Integer" value="1"/>
      <ProtocolVersionMinor type="Integer" value="1"/>
    </ProtocolVersion>
    <BatchCount type="Integer" value="1"/>
  </RequestHeader>
  <BatchItem>
    <Operation type="Enumeration" value="GetAttributes"/>
    <RequestPayload>
      <UniqueIdentifier type="TextString"
value="$UNIQUE_IDENTIFIER_0"/>
      <AttributeName type="TextString" value="State"/>
      <AttributeName type="TextString" value="Activation Date"/>
      <AttributeName type="TextString" value="Deactivation Date"/>
    </RequestPayload>
  </BatchItem>
</RequestMessage>
```

```
<ResponseMessage>
  <ResponseHeader>
    <ProtocolVersion>
      <ProtocolVersionMajor type="Integer" value="1"/>
      <ProtocolVersionMinor type="Integer" value="1"/>
    </ProtocolVersion>
    <TimeStamp type="DateTime" value="2012-04-27T08:12:24+00:00"/>
    <BatchCount type="Integer" value="1"/>
  </ResponseHeader>
  <BatchItem>
    <Operation type="Enumeration" value="GetAttributes"/>
    <ResultStatus type="Enumeration" value="Success"/>
    <ResponsePayload>
      <UniqueIdentifier type="TextString"
value="$UNIQUE_IDENTIFIER_0"/>
      <Attribute>
        <AttributeName type="TextString" value="State"/>
        <AttributeValue type="Enumeration" value="Active"/>
      </Attribute>
      <Attribute>
        <AttributeName type="TextString" value="Activation Date"/>
        <AttributeValue type="DateTime" value="2013-01-
10T23:36:01+00:00"/>
      </Attribute>
    </ResponsePayload>
  </BatchItem>
</ResponseMessage>
```

```
# TIME 4
<RequestMessage>
  <RequestHeader>
    <ProtocolVersion>
```

```
      <ProtocolVersionMajor type="Integer" value="1"/>
      <ProtocolVersionMinor type="Integer" value="1"/>
    </ProtocolVersion>
    <BatchCount type="Integer" value="1"/>
  </RequestHeader>
  <BatchItem>
    <Operation type="Enumeration" value="Destroy"/>
    <RequestPayload>
      <UniqueIdentifier type="TextString"
value="$UNIQUE_IDENTIFIER_0"/>
    </RequestPayload>
  </BatchItem>
</RequestMessage>
```

```
<ResponseMessage>
  <ResponseHeader>
    <ProtocolVersion>
      <ProtocolVersionMajor type="Integer" value="1"/>
      <ProtocolVersionMinor type="Integer" value="1"/>
    </ProtocolVersion>
    <TimeStamp type="DateTime" value="2012-04-27T08:12:25+00:00"/>
    <BatchCount type="Integer" value="1"/>
  </ResponseHeader>
  <BatchItem>
    <Operation type="Enumeration" value="Destroy"/>
    <ResultStatus type="Enumeration" value="OperationFailed"/>
    <ResultReason type="Enumeration" value="PermissionDenied"/>
    <ResultMessage type="TextString" value="DENIED"/>
  </BatchItem>
</ResponseMessage>
```

```
# TIME 5
<RequestMessage>
  <RequestHeader>
    <ProtocolVersion>
      <ProtocolVersionMajor type="Integer" value="1"/>
      <ProtocolVersionMinor type="Integer" value="1"/>
    </ProtocolVersion>
    <BatchCount type="Integer" value="1"/>
  </RequestHeader>
  <BatchItem>
    <Operation type="Enumeration" value="Revoke"/>
    <RequestPayload>
      <UniqueIdentifier type="TextString"
value="$UNIQUE_IDENTIFIER_0"/>
      <RevocationReason>
        <RevocationReasonCode type="Enumeration"
value="KeyCompromise"/>
      </RevocationReason>
      <CompromiseOccurrenceDate type="DateTime" value="1970-01-
01T00:00:06+00:00"/>
    </RequestPayload>
  </BatchItem>
</RequestMessage>
```

```
<ResponseMessage>
  <ResponseHeader>
    <ProtocolVersion>
      <ProtocolVersionMajor type="Integer" value="1"/>
      <ProtocolVersionMinor type="Integer" value="1"/>
    </ProtocolVersion>
```

```
      <TimeStamp type="DateTime" value="2012-04-27T08:12:24+00:00"/>
      <BatchCount type="Integer" value="1"/>
    </ResponseHeader>
    <BatchItem>
      <Operation type="Enumeration" value="Revoke"/>
      <ResultStatus type="Enumeration" value="Success"/>
      <ResponsePayload>
        <UniqueIdentifier type="TextString"
value="$UNIQUE_IDENTIFIER_0"/>
      </ResponsePayload>
    </BatchItem>
</ResponseMessage>
```

```
# TIME 6
<RequestMessage>
  <RequestHeader>
    <ProtocolVersion>
      <ProtocolVersionMajor type="Integer" value="1"/>
      <ProtocolVersionMinor type="Integer" value="1"/>
    </ProtocolVersion>
    <BatchCount type="Integer" value="1"/>
  </RequestHeader>
  <BatchItem>
    <Operation type="Enumeration" value="GetAttributes"/>
    <RequestPayload>
      <UniqueIdentifier type="TextString"
value="$UNIQUE_IDENTIFIER_0"/>
      <AttributeName type="TextString" value="State"/>
    </RequestPayload>
  </BatchItem>
</RequestMessage>
```

```
<ResponseMessage>
  <ResponseHeader>
    <ProtocolVersion>
      <ProtocolVersionMajor type="Integer" value="1"/>
      <ProtocolVersionMinor type="Integer" value="1"/>
    </ProtocolVersion>
    <TimeStamp type="DateTime" value="2012-04-27T08:12:24+00:00"/>
    <BatchCount type="Integer" value="1"/>
  </ResponseHeader>
  <BatchItem>
    <Operation type="Enumeration" value="GetAttributes"/>
    <ResultStatus type="Enumeration" value="Success"/>
    <ResponsePayload>
      <UniqueIdentifier type="TextString"
value="$UNIQUE_IDENTIFIER_0"/>
      <Attribute>
        <AttributeName type="TextString" value="State"/>
        <AttributeValue type="Enumeration" value="Compromised"/>
      </Attribute>
    </ResponsePayload>
  </BatchItem>
</ResponseMessage>
```

```
# TIME 7
<RequestMessage>
  <RequestHeader>
    <ProtocolVersion>
      <ProtocolVersionMajor type="Integer" value="1"/>
      <ProtocolVersionMinor type="Integer" value="1"/>
```

```
0320      </ProtocolVersion>
0321      <BatchCount type="Integer" value="1"/>
0322    </RequestHeader>
0323    <BatchItem>
0324      <Operation type="Enumeration" value="Destroy"/>
0325      <RequestPayload>
0326        <UniqueIdentifier type="TextString"
          value="$UNIQUE_IDENTIFIER_0"/>
0327      </RequestPayload>
0328    </BatchItem>
0329  </RequestMessage>
```

```
0330  <ResponseMessage>
0331    <ResponseHeader>
0332      <ProtocolVersion>
0333        <ProtocolVersionMajor type="Integer" value="1"/>
0334        <ProtocolVersionMinor type="Integer" value="1"/>
0335      </ProtocolVersion>
0336      <TimeStamp type="DateTime" value="2012-04-27T08:12:25+00:00"/>
0337      <BatchCount type="Integer" value="1"/>
0338    </ResponseHeader>
0339    <BatchItem>
0340      <Operation type="Enumeration" value="Destroy"/>
0341      <ResultStatus type="Enumeration" value="Success"/>
0342      <ResponsePayload>
0343        <UniqueIdentifier type="TextString"
          value="$UNIQUE_IDENTIFIER_0"/>
0344      </ResponsePayload>
0345    </BatchItem>
0346  </ResponseMessage>
```

118

119 3.2.3 SKLC-M-3-11

120 Create, GetAttributes, Activate, GetAttributes, Destroy, Revoke, GetAttributes, Destroy

```
      # TIME 0
0001  <RequestMessage>
0002    <RequestHeader>
0003      <ProtocolVersion>
0004        <ProtocolVersionMajor type="Integer" value="1"/>
0005        <ProtocolVersionMinor type="Integer" value="1"/>
0006      </ProtocolVersion>
0007      <BatchCount type="Integer" value="1"/>
0008    </RequestHeader>
0009    <BatchItem>
0010      <Operation type="Enumeration" value="Create"/>
0011      <RequestPayload>
0012        <ObjectType type="Enumeration" value="SymmetricKey"/>
0013        <TemplateAttribute>
0014          <Attribute>
0015            <AttributeName type="TextString" value="Cryptographic
          Algorithm"/>
0016            <AttributeValue type="Enumeration" value="AES"/>
0017          </Attribute>
0018          <Attribute>
0019            <AttributeName type="TextString" value="Cryptographic
          Length"/>
0020            <AttributeValue type="Integer" value="256"/>
```

```
0021          </Attribute>
0022          <Attribute>
0023            <AttributeName type="TextString" value="Cryptographic
      Usage Mask"/>
0024            <AttributeValue type="Integer" value="Encrypt Decrypt"/>
0025          </Attribute>
0026          <Attribute>
0027            <AttributeName type="TextString" value="Name"/>
0028            <AttributeValue>
0029              <NameValue type="TextString" value="SKLC-M-3-11"/>
0030              <NameType type="Enumeration"
      value="UninterpretedTextString"/>
0031            </AttributeValue>
0032          </Attribute>
0033        </TemplateAttribute>
0034      </RequestPayload>
0035    </BatchItem>
0036  </RequestMessage>
```

```
0037  <ResponseMessage>
0038    <ResponseHeader>
0039      <ProtocolVersion>
0040        <ProtocolVersionMajor type="Integer" value="1"/>
0041        <ProtocolVersionMinor type="Integer" value="1"/>
0042      </ProtocolVersion>
0043      <TimeStamp type="DateTime" value="2012-04-27T08:12:24+00:00"/>
0044      <BatchCount type="Integer" value="1"/>
0045    </ResponseHeader>
0046    <BatchItem>
0047      <Operation type="Enumeration" value="Create"/>
0048      <ResultStatus type="Enumeration" value="Success"/>
0049      <ResponsePayload>
0050        <ObjectType type="Enumeration" value="SymmetricKey"/>
0051        <UniqueIdentifier type="TextString"
      value="$UNIQUE IDENTIFIER 0"/>
0052      </ResponsePayload>
0053    </BatchItem>
0054  </ResponseMessage>
```

```
      # TIME 1
0055  <RequestMessage>
0056    <RequestHeader>
0057      <ProtocolVersion>
0058        <ProtocolVersionMajor type="Integer" value="1"/>
0059        <ProtocolVersionMinor type="Integer" value="1"/>
0060      </ProtocolVersion>
0061      <BatchCount type="Integer" value="1"/>
0062    </RequestHeader>
0063    <BatchItem>
0064      <Operation type="Enumeration" value="GetAttributes"/>
0065      <RequestPayload>
0066        <UniqueIdentifier type="TextString"
      value="$UNIQUE_IDENTIFIER_0"/>
0067        <AttributeName type="TextString" value="State"/>
0068        <AttributeName type="TextString" value="Cryptographic Usage
      Mask"/>
0069        <AttributeName type="TextString" value="Unique Identifier"/>
0070        <AttributeName type="TextString" value="Object Type"/>
0071        <AttributeName type="TextString" value="Cryptographic
      Algorithm"/>
```

```
0072        <AttributeName type="TextString" value="Cryptographic
    Length"/>
0073        <AttributeName type="TextString" value="Digest"/>
0074        <AttributeName type="TextString" value="Initial Date"/>
0075        <AttributeName type="TextString" value="Last Change Date"/>
0076      </RequestPayload>
0077    </BatchItem>
0078  </RequestMessage>
0079  <ResponseMessage>
0080    <ResponseHeader>
0081      <ProtocolVersion>
0082        <ProtocolVersionMajor type="Integer" value="1"/>
0083        <ProtocolVersionMinor type="Integer" value="1"/>
0084      </ProtocolVersion>
0085      <TimeStamp type="DateTime" value="2012-04-27T08:12:24+00:00"/>
0086      <BatchCount type="Integer" value="1"/>
0087    </ResponseHeader>
0088    <BatchItem>
0089      <Operation type="Enumeration" value="GetAttributes"/>
0090      <ResultStatus type="Enumeration" value="Success"/>
0091      <ResponsePayload>
0092        <UniqueIdentifier type="TextString"
    value="$UNIQUE_IDENTIFIER_0"/>
0093        <Attribute>
0094          <AttributeName type="TextString" value="State"/>
0095          <AttributeValue type="Enumeration" value="PreActive"/>
0096        </Attribute>
0097        <Attribute>
0098          <AttributeName type="TextString" value="Cryptographic Usage
    Mask"/>
0099          <AttributeValue type="Integer" value="Decrypt Encrypt"/>
0100        </Attribute>
0101        <Attribute>
0102          <AttributeName type="TextString" value="Unique Identifier"/>
0103          <AttributeValue type="TextString"
    value="$UNIQUE_IDENTIFIER_0"/>
0104        </Attribute>
0105        <Attribute>
0106          <AttributeName type="TextString" value="Object Type"/>
0107          <AttributeValue type="Enumeration" value="SymmetricKey"/>
0108        </Attribute>
0109        <Attribute>
0110          <AttributeName type="TextString" value="Cryptographic
    Algorithm"/>
0111          <AttributeValue type="Enumeration" value="AES"/>
0112        </Attribute>
0113        <Attribute>
0114          <AttributeName type="TextString" value="Cryptographic
    Length"/>
0115          <AttributeValue type="Integer" value="256"/>
0116        </Attribute>
0117        <Attribute>
0118          <AttributeName type="TextString" value="Digest"/>
0119          <AttributeValue>
0120            <HashingAlgorithm type="Enumeration" value="SHA_256"/>
0121            <DigestValue type="ByteString"
    value="bc12861408b8ac72cdb3b2748ad342b7dc519bd109046a1b931fdaed73591
    f29"/>
```

```
0122            <KeyFormatType type="Enumeration" value="Raw"/>
0123          </AttributeValue>
0124        </Attribute>
0125        <Attribute>
0126          <AttributeName type="TextString" value="Initial Date"/>
0127          <AttributeValue type="DateTime" value="2013-01-
      10T23:33:21+00:00"/>
0128        </Attribute>
0129        <Attribute>
0130          <AttributeName type="TextString" value="Last Change Date"/>
0131          <AttributeValue type="DateTime" value="2013-01-
      10T23:33:21+00:00"/>
0132        </Attribute>
0133      </ResponsePayload>
0134    </BatchItem>
0135  </ResponseMessage>
```

```
      # TIME 2
0136  <RequestMessage>
0137    <RequestHeader>
0138      <ProtocolVersion>
0139        <ProtocolVersionMajor type="Integer" value="1"/>
0140        <ProtocolVersionMinor type="Integer" value="1"/>
0141      </ProtocolVersion>
0142      <BatchCount type="Integer" value="1"/>
0143    </RequestHeader>
0144    <BatchItem>
0145      <Operation type="Enumeration" value="Activate"/>
0146      <RequestPayload>
0147        <UniqueIdentifier type="TextString"
      value="$UNIQUE_IDENTIFIER_0"/>
0148      </RequestPayload>
0149    </BatchItem>
0150  </RequestMessage>
```

```
0151  <ResponseMessage>
0152    <ResponseHeader>
0153      <ProtocolVersion>
0154        <ProtocolVersionMajor type="Integer" value="1"/>
0155        <ProtocolVersionMinor type="Integer" value="1"/>
0156      </ProtocolVersion>
0157      <TimeStamp type="DateTime" value="2012-04-27T08:12:24+00:00"/>
0158      <BatchCount type="Integer" value="1"/>
0159    </ResponseHeader>
0160    <BatchItem>
0161      <Operation type="Enumeration" value="Activate"/>
0162      <ResultStatus type="Enumeration" value="Success"/>
0163      <ResponsePayload>
0164        <UniqueIdentifier type="TextString"
      value="$UNIQUE_IDENTIFIER_0"/>
0165      </ResponsePayload>
0166    </BatchItem>
0167  </ResponseMessage>
```

```
      # TIME 3
0168  <RequestMessage>
0169    <RequestHeader>
0170      <ProtocolVersion>
0171        <ProtocolVersionMajor type="Integer" value="1"/>
0172        <ProtocolVersionMinor type="Integer" value="1"/>
0173      </ProtocolVersion>
```

```
0174        <BatchCount type="Integer" value="1"/>
0175      </RequestHeader>
0176      <BatchItem>
0177        <Operation type="Enumeration" value="GetAttributes"/>
0178        <RequestPayload>
0179          <UniqueIdentifier type="TextString"
      value="$UNIQUE_IDENTIFIER_0"/>
0180          <AttributeName type="TextString" value="State"/>
0181          <AttributeName type="TextString" value="Activation Date"/>
0182          <AttributeName type="TextString" value="Deactivation Date"/>
0183        </RequestPayload>
0184      </BatchItem>
0185    </RequestMessage>
0186    <ResponseMessage>
0187      <ResponseHeader>
0188        <ProtocolVersion>
0189          <ProtocolVersionMajor type="Integer" value="1"/>
0190          <ProtocolVersionMinor type="Integer" value="1"/>
0191        </ProtocolVersion>
0192        <TimeStamp type="DateTime" value="2012-04-27T08:12:24+00:00"/>
0193        <BatchCount type="Integer" value="1"/>
0194      </ResponseHeader>
0195      <BatchItem>
0196        <Operation type="Enumeration" value="GetAttributes"/>
0197        <ResultStatus type="Enumeration" value="Success"/>
0198        <ResponsePayload>
0199          <UniqueIdentifier type="TextString"
      value="$UNIQUE_IDENTIFIER_0"/>
0200          <Attribute>
0201            <AttributeName type="TextString" value="State"/>
0202            <AttributeValue type="Enumeration" value="Active"/>
0203          </Attribute>
0204          <Attribute>
0205            <AttributeName type="TextString" value="Activation Date"/>
0206            <AttributeValue type="DateTime" value="2013-01-
      10T23:36:01+00:00"/>
0207          </Attribute>
0208        </ResponsePayload>
0209      </BatchItem>
0210    </ResponseMessage>
        # TIME 4
0211    <RequestMessage>
0212      <RequestHeader>
0213        <ProtocolVersion>
0214          <ProtocolVersionMajor type="Integer" value="1"/>
0215          <ProtocolVersionMinor type="Integer" value="1"/>
0216        </ProtocolVersion>
0217        <BatchCount type="Integer" value="1"/>
0218      </RequestHeader>
0219      <BatchItem>
0220        <Operation type="Enumeration" value="ModifyAttribute"/>
0221        <UniqueBatchItemID type="ByteString" value="0752c951bb9926cc"/>
0222        <RequestPayload>
0223          <UniqueIdentifier type="TextString"
      value="$UNIQUE_IDENTIFIER_0"/>
0224          <Attribute>
0225            <AttributeName type="TextString" value="Activation Date"/>
0226            <AttributeValue type="DateTime" value="$NOW"/>
```

```
0227        </Attribute>
0228      </RequestPayload>
0229    </BatchItem>
0230  </RequestMessage>
0231  <ResponseMessage>
0232    <ResponseHeader>
0233      <ProtocolVersion>
0234        <ProtocolVersionMajor type="Integer" value="1"/>
0235        <ProtocolVersionMinor type="Integer" value="1"/>
0236      </ProtocolVersion>
0237      <TimeStamp type="DateTime" value="2012-04-27T08:12:25+00:00"/>
0238      <BatchCount type="Integer" value="1"/>
0239    </ResponseHeader>
0240    <BatchItem>
0241      <Operation type="Enumeration" value="ModifyAttribute"/>
0242      <UniqueBatchItemID type="ByteString" value="0752c951bb9926cc"/>
0243      <ResultStatus type="Enumeration" value="OperationFailed"/>
0244      <ResultReason type="Enumeration" value="PermissionDenied"/>
0245      <ResultMessage type="TextString" value="DENIED"/>
0246    </BatchItem>
0247  </ResponseMessage>
      # TIME 5
0248  <RequestMessage>
0249    <RequestHeader>
0250      <ProtocolVersion>
0251        <ProtocolVersionMajor type="Integer" value="1"/>
0252        <ProtocolVersionMinor type="Integer" value="1"/>
0253      </ProtocolVersion>
0254      <BatchCount type="Integer" value="1"/>
0255    </RequestHeader>
0256    <BatchItem>
0257      <Operation type="Enumeration" value="Revoke"/>
0258      <RequestPayload>
0259        <UniqueIdentifier type="TextString"
      value="$UNIQUE_IDENTIFIER_0"/>
0260        <RevocationReason>
0261          <RevocationReasonCode type="Enumeration"
      value="KeyCompromise"/>
0262        </RevocationReason>
0263        <CompromiseOccurrenceDate type="DateTime" value="1970-01-
      01T00:00:06+00:00"/>
0264      </RequestPayload>
0265    </BatchItem>
0266  </RequestMessage>
0267  <ResponseMessage>
0268    <ResponseHeader>
0269      <ProtocolVersion>
0270        <ProtocolVersionMajor type="Integer" value="1"/>
0271        <ProtocolVersionMinor type="Integer" value="1"/>
0272      </ProtocolVersion>
0273      <TimeStamp type="DateTime" value="2012-04-27T08:12:24+00:00"/>
0274      <BatchCount type="Integer" value="1"/>
0275    </ResponseHeader>
0276    <BatchItem>
0277      <Operation type="Enumeration" value="Revoke"/>
0278      <ResultStatus type="Enumeration" value="Success"/>
0279      <ResponsePayload>
0280        <UniqueIdentifier type="TextString"
```

```
value="$UNIQUE_IDENTIFIER_0"/>
    </ResponsePayload>
  </BatchItem>
</ResponseMessage>
```

```
# TIME 6
<RequestMessage>
  <RequestHeader>
    <ProtocolVersion>
      <ProtocolVersionMajor type="Integer" value="1"/>
      <ProtocolVersionMinor type="Integer" value="1"/>
    </ProtocolVersion>
    <BatchCount type="Integer" value="1"/>
  </RequestHeader>
  <BatchItem>
    <Operation type="Enumeration" value="GetAttributes"/>
    <RequestPayload>
      <UniqueIdentifier type="TextString"
value="$UNIQUE_IDENTIFIER_0"/>
      <AttributeName type="TextString" value="State"/>
    </RequestPayload>
  </BatchItem>
</RequestMessage>
```

```
<ResponseMessage>
  <ResponseHeader>
    <ProtocolVersion>
      <ProtocolVersionMajor type="Integer" value="1"/>
      <ProtocolVersionMinor type="Integer" value="1"/>
    </ProtocolVersion>
    <TimeStamp type="DateTime" value="2012-04-27T08:12:24+00:00"/>
    <BatchCount type="Integer" value="1"/>
  </ResponseHeader>
  <BatchItem>
    <Operation type="Enumeration" value="GetAttributes"/>
    <ResultStatus type="Enumeration" value="Success"/>
    <ResponsePayload>
      <UniqueIdentifier type="TextString"
value="$UNIQUE_IDENTIFIER_0"/>
      <Attribute>
        <AttributeName type="TextString" value="State"/>
        <AttributeValue type="Enumeration" value="Compromised"/>
      </Attribute>
    </ResponsePayload>
  </BatchItem>
</ResponseMessage>
```

```
# TIME 7
<RequestMessage>
  <RequestHeader>
    <ProtocolVersion>
      <ProtocolVersionMajor type="Integer" value="1"/>
      <ProtocolVersionMinor type="Integer" value="1"/>
    </ProtocolVersion>
    <BatchCount type="Integer" value="1"/>
  </RequestHeader>
  <BatchItem>
    <Operation type="Enumeration" value="Destroy"/>
    <RequestPayload>
      <UniqueIdentifier type="TextString"
value="$UNIQUE_IDENTIFIER_0"/>
```

```
0333      </RequestPayload>
0334    </BatchItem>
0335  </RequestMessage>
```

```
0336  <ResponseMessage>
0337    <ResponseHeader>
0338      <ProtocolVersion>
0339        <ProtocolVersionMajor type="Integer" value="1"/>
0340        <ProtocolVersionMinor type="Integer" value="1"/>
0341      </ProtocolVersion>
0342      <TimeStamp type="DateTime" value="2012-04-27T08:12:25+00:00"/>
0343      <BatchCount type="Integer" value="1"/>
0344    </ResponseHeader>
0345    <BatchItem>
0346      <Operation type="Enumeration" value="Destroy"/>
0347      <ResultStatus type="Enumeration" value="Success"/>
0348      <ResponsePayload>
0349        <UniqueIdentifier type="TextString"
      value="$UNIQUE_IDENTIFIER_0"/>
0350      </ResponsePayload>
0351    </BatchItem>
0352  </ResponseMessage>
```

121

122 3.3 Mandatory Test Cases KMIP v1.2

123 3.3.1 SKLC-M-1-12

124 Create, GetAttributes, Destroy

```
      # TIME 0
0001  <RequestMessage>
0002    <RequestHeader>
0003      <ProtocolVersion>
0004        <ProtocolVersionMajor type="Integer" value="1"/>
0005        <ProtocolVersionMinor type="Integer" value="2"/>
0006      </ProtocolVersion>
0007      <BatchCount type="Integer" value="1"/>
0008    </RequestHeader>
0009    <BatchItem>
0010      <Operation type="Enumeration" value="Create"/>
0011      <RequestPayload>
0012        <ObjectType type="Enumeration" value="SymmetricKey"/>
0013        <TemplateAttribute>
0014          <Attribute>
0015            <AttributeName type="TextString" value="Cryptographic
      Algorithm"/>
0016            <AttributeValue type="Enumeration" value="AES"/>
0017          </Attribute>
0018          <Attribute>
0019            <AttributeName type="TextString" value="Cryptographic
      Length"/>
0020            <AttributeValue type="Integer" value="256"/>
0021          </Attribute>
0022          <Attribute>
0023            <AttributeName type="TextString" value="Cryptographic
      Usage Mask"/>
0024            <AttributeValue type="Integer" value="Encrypt Decrypt"/>
0025          </Attribute>
```

```
0026          <Attribute>
0027            <AttributeName type="TextString" value="Name"/>
0028            <AttributeValue>
0029              <NameValue type="TextString" value="SKLC-M-1-12"/>
0030              <NameType type="Enumeration"
      value="UninterpretedTextString"/>
0031            </AttributeValue>
0032          </Attribute>
0033        </TemplateAttribute>
0034      </RequestPayload>
0035    </BatchItem>
0036  </RequestMessage>
0037  <ResponseMessage>
0038    <ResponseHeader>
0039      <ProtocolVersion>
0040        <ProtocolVersionMajor type="Integer" value="1"/>
0041        <ProtocolVersionMinor type="Integer" value="2"/>
0042      </ProtocolVersion>
0043      <TimeStamp type="DateTime" value="2012-04-27T08:12:24+00:00"/>
0044      <BatchCount type="Integer" value="1"/>
0045    </ResponseHeader>
0046    <BatchItem>
0047      <Operation type="Enumeration" value="Create"/>
0048      <ResultStatus type="Enumeration" value="Success"/>
0049      <ResponsePayload>
0050        <ObjectType type="Enumeration" value="SymmetricKey"/>
0051        <UniqueIdentifier type="TextString"
      value="$UNIQUE_IDENTIFIER_0"/>
0052      </ResponsePayload>
0053    </BatchItem>
0054  </ResponseMessage>
      # TIME 1
0055  <RequestMessage>
0056    <RequestHeader>
0057      <ProtocolVersion>
0058        <ProtocolVersionMajor type="Integer" value="1"/>
0059        <ProtocolVersionMinor type="Integer" value="2"/>
0060      </ProtocolVersion>
0061      <BatchCount type="Integer" value="1"/>
0062    </RequestHeader>
0063    <BatchItem>
0064      <Operation type="Enumeration" value="GetAttributes"/>
0065      <RequestPayload>
0066        <UniqueIdentifier type="TextString"
      value="$UNIQUE_IDENTIFIER_0"/>
0067        <AttributeName type="TextString" value="State"/>
0068        <AttributeName type="TextString" value="Cryptographic Usage
      Mask"/>
0069        <AttributeName type="TextString" value="Unique Identifier"/>
0070        <AttributeName type="TextString" value="Object Type"/>
0071        <AttributeName type="TextString" value="Cryptographic
      Algorithm"/>
0072        <AttributeName type="TextString" value="Cryptographic
      Length"/>
0073        <AttributeName type="TextString" value="Digest"/>
0074        <AttributeName type="TextString" value="Initial Date"/>
0075        <AttributeName type="TextString" value="Last Change Date"/>
0076        <AttributeName type="TextString" value="Activation Date"/>
```

```
0077      </RequestPayload>
0078    </BatchItem>
0079  </RequestMessage>
0080  <ResponseMessage>
0081    <ResponseHeader>
0082      <ProtocolVersion>
0083        <ProtocolVersionMajor type="Integer" value="1"/>
0084        <ProtocolVersionMinor type="Integer" value="2"/>
0085      </ProtocolVersion>
0086      <TimeStamp type="DateTime" value="2012-04-27T08:12:24+00:00"/>
0087      <BatchCount type="Integer" value="1"/>
0088    </ResponseHeader>
0089    <BatchItem>
0090      <Operation type="Enumeration" value="GetAttributes"/>
0091      <ResultStatus type="Enumeration" value="Success"/>
0092      <ResponsePayload>
0093        <UniqueIdentifier type="TextString"
      value="$UNIQUE_IDENTIFIER_0"/>
0094        <Attribute>
0095          <AttributeName type="TextString" value="State"/>
0096          <AttributeValue type="Enumeration" value="PreActive"/>
0097        </Attribute>
0098        <Attribute>
0099          <AttributeName type="TextString" value="Cryptographic Usage
      Mask"/>
0100          <AttributeValue type="Integer" value="Decrypt Encrypt"/>
0101        </Attribute>
0102        <Attribute>
0103          <AttributeName type="TextString" value="Unique Identifier"/>
0104          <AttributeValue type="TextString"
      value="$UNIQUE_IDENTIFIER_0"/>
0105        </Attribute>
0106        <Attribute>
0107          <AttributeName type="TextString" value="Object Type"/>
0108          <AttributeValue type="Enumeration" value="SymmetricKey"/>
0109        </Attribute>
0110        <Attribute>
0111          <AttributeName type="TextString" value="Cryptographic
      Algorithm"/>
0112          <AttributeValue type="Enumeration" value="AES"/>
0113        </Attribute>
0114        <Attribute>
0115          <AttributeName type="TextString" value="Cryptographic
      Length"/>
0116          <AttributeValue type="Integer" value="256"/>
0117        </Attribute>
0118        <Attribute>
0119          <AttributeName type="TextString" value="Digest"/>
0120          <AttributeValue>
0121            <HashingAlgorithm type="Enumeration" value="SHA_256"/>
0122            <DigestValue type="ByteString"
      value="bc12861408b8ac72cdb3b2748ad342b7dc519bd109046a1b931fdaed73591
      f29"/>
0123            <KeyFormatType type="Enumeration" value="Raw"/>
0124          </AttributeValue>
0125        </Attribute>
0126        <Attribute>
0127          <AttributeName type="TextString" value="Initial Date"/>
```

```
0128          <AttributeValue type="DateTime" value="2013-01-
      10T23:33:21+00:00"/>
0129        </Attribute>
0130        <Attribute>
0131          <AttributeName type="TextString" value="Last Change Date"/>
0132          <AttributeValue type="DateTime" value="2013-01-
      10T23:33:21+00:00"/>
0133        </Attribute>
0134      </ResponsePayload>
0135    </BatchItem>
0136  </ResponseMessage>
```

```
      # TIME 2
0137  <RequestMessage>
0138    <RequestHeader>
0139      <ProtocolVersion>
0140        <ProtocolVersionMajor type="Integer" value="1"/>
0141        <ProtocolVersionMinor type="Integer" value="2"/>
0142      </ProtocolVersion>
0143      <BatchCount type="Integer" value="1"/>
0144    </RequestHeader>
0145    <BatchItem>
0146      <Operation type="Enumeration" value="Destroy"/>
0147      <RequestPayload>
0148        <UniqueIdentifier type="TextString"
      value="$UNIQUE_IDENTIFIER_0"/>
0149      </RequestPayload>
0150    </BatchItem>
0151  </RequestMessage>
```

```
0152  <ResponseMessage>
0153    <ResponseHeader>
0154      <ProtocolVersion>
0155        <ProtocolVersionMajor type="Integer" value="1"/>
0156        <ProtocolVersionMinor type="Integer" value="2"/>
0157      </ProtocolVersion>
0158      <TimeStamp type="DateTime" value="2012-04-27T08:12:25+00:00"/>
0159      <BatchCount type="Integer" value="1"/>
0160    </ResponseHeader>
0161    <BatchItem>
0162      <Operation type="Enumeration" value="Destroy"/>
0163      <ResultStatus type="Enumeration" value="Success"/>
0164      <ResponsePayload>
0165        <UniqueIdentifier type="TextString"
      value="$UNIQUE_IDENTIFIER_0"/>
0166      </ResponsePayload>
0167    </BatchItem>
0168  </ResponseMessage>
```

125

126 3.3.2 SKLC-M-2-12

127 Create, GetAttributes, Activate, GetAttributes, Destroy, Revoke, GetAttributes, Destroy

```
      # TIME 0
0001  <RequestMessage>
0002    <RequestHeader>
0003      <ProtocolVersion>
0004        <ProtocolVersionMajor type="Integer" value="1"/>
0005        <ProtocolVersionMinor type="Integer" value="2"/>
```

```
0006      </ProtocolVersion>
0007      <BatchCount type="Integer" value="1"/>
0008    </RequestHeader>
0009    <BatchItem>
0010      <Operation type="Enumeration" value="Create"/>
0011      <RequestPayload>
0012        <ObjectType type="Enumeration" value="SymmetricKey"/>
0013        <TemplateAttribute>
0014          <Attribute>
0015            <AttributeName type="TextString" value="Cryptographic
    Algorithm"/>
0016            <AttributeValue type="Enumeration" value="AES"/>
0017          </Attribute>
0018          <Attribute>
0019            <AttributeName type="TextString" value="Cryptographic
    Length"/>
0020            <AttributeValue type="Integer" value="256"/>
0021          </Attribute>
0022          <Attribute>
0023            <AttributeName type="TextString" value="Cryptographic
    Usage Mask"/>
0024            <AttributeValue type="Integer" value="Encrypt Decrypt"/>
0025          </Attribute>
0026          <Attribute>
0027            <AttributeName type="TextString" value="Name"/>
0028            <AttributeValue>
0029              <NameValue type="TextString" value="SKLC-M-2-12"/>
0030              <NameType type="Enumeration"
    value="UninterpretedTextString"/>
0031            </AttributeValue>
0032          </Attribute>
0033        </TemplateAttribute>
0034      </RequestPayload>
0035    </BatchItem>
0036  </RequestMessage>
```

```
0037  <ResponseMessage>
0038    <ResponseHeader>
0039      <ProtocolVersion>
0040        <ProtocolVersionMajor type="Integer" value="1"/>
0041        <ProtocolVersionMinor type="Integer" value="2"/>
0042      </ProtocolVersion>
0043      <TimeStamp type="DateTime" value="2012-04-27T08:12:24+00:00"/>
0044      <BatchCount type="Integer" value="1"/>
0045    </ResponseHeader>
0046    <BatchItem>
0047      <Operation type="Enumeration" value="Create"/>
0048      <ResultStatus type="Enumeration" value="Success"/>
0049      <ResponsePayload>
0050        <ObjectType type="Enumeration" value="SymmetricKey"/>
0051        <UniqueIdentifier type="TextString"
    value="$UNIQUE_IDENTIFIER_0"/>
0052      </ResponsePayload>
0053    </BatchItem>
0054  </ResponseMessage>
```

```
      # TIME 1
0055  <RequestMessage>
0056    <RequestHeader>
0057      <ProtocolVersion>
```

```
0058        <ProtocolVersionMajor type="Integer" value="1"/>
0059        <ProtocolVersionMinor type="Integer" value="2"/>
0060      </ProtocolVersion>
0061      <BatchCount type="Integer" value="1"/>
0062    </RequestHeader>
0063    <BatchItem>
0064      <Operation type="Enumeration" value="GetAttributes"/>
0065      <RequestPayload>
0066        <UniqueIdentifier type="TextString"
          value="$UNIQUE_IDENTIFIER_0"/>
0067        <AttributeName type="TextString" value="State"/>
0068        <AttributeName type="TextString" value="Cryptographic Usage
          Mask"/>
0069        <AttributeName type="TextString" value="Unique Identifier"/>
0070        <AttributeName type="TextString" value="Object Type"/>
0071        <AttributeName type="TextString" value="Cryptographic
          Algorithm"/>
0072        <AttributeName type="TextString" value="Cryptographic
          Length"/>
0073        <AttributeName type="TextString" value="Digest"/>
0074        <AttributeName type="TextString" value="Initial Date"/>
0075        <AttributeName type="TextString" value="Last Change Date"/>
0076      </RequestPayload>
0077    </BatchItem>
0078  </RequestMessage>
```

```
0079  <ResponseMessage>
0080    <ResponseHeader>
0081      <ProtocolVersion>
0082        <ProtocolVersionMajor type="Integer" value="1"/>
0083        <ProtocolVersionMinor type="Integer" value="2"/>
0084      </ProtocolVersion>
0085      <TimeStamp type="DateTime" value="2012-04-27T08:12:24+00:00"/>
0086      <BatchCount type="Integer" value="1"/>
0087    </ResponseHeader>
0088    <BatchItem>
0089      <Operation type="Enumeration" value="GetAttributes"/>
0090      <ResultStatus type="Enumeration" value="Success"/>
0091      <ResponsePayload>
0092        <UniqueIdentifier type="TextString"
          value="$UNIQUE_IDENTIFIER_0"/>
0093        <Attribute>
0094          <AttributeName type="TextString" value="State"/>
0095          <AttributeValue type="Enumeration" value="PreActive"/>
0096        </Attribute>
0097        <Attribute>
0098          <AttributeName type="TextString" value="Cryptographic Usage
          Mask"/>
0099          <AttributeValue type="Integer" value="Decrypt Encrypt"/>
0100        </Attribute>
0101        <Attribute>
0102          <AttributeName type="TextString" value="Unique Identifier"/>
0103          <AttributeValue type="TextString"
          value="$UNIQUE_IDENTIFIER_0"/>
0104        </Attribute>
0105        <Attribute>
0106          <AttributeName type="TextString" value="Object Type"/>
0107          <AttributeValue type="Enumeration" value="SymmetricKey"/>
0108        </Attribute>
```

```
0109        <Attribute>
0110          <AttributeName type="TextString" value="Cryptographic
      Algorithm"/>
0111          <AttributeValue type="Enumeration" value="AES"/>
0112        </Attribute>
0113        <Attribute>
0114          <AttributeName type="TextString" value="Cryptographic
      Length"/>
0115          <AttributeValue type="Integer" value="256"/>
0116        </Attribute>
0117        <Attribute>
0118          <AttributeName type="TextString" value="Digest"/>
0119          <AttributeValue>
0120            <HashingAlgorithm type="Enumeration" value="SHA_256"/>
0121            <DigestValue type="ByteString"
      value="bc12861408b8ac72cdb3b2748ad342b7dc519bd109046a1b931fdaed73591
      f29"/>
0122            <KeyFormatType type="Enumeration" value="Raw"/>
0123          </AttributeValue>
0124        </Attribute>
0125        <Attribute>
0126          <AttributeName type="TextString" value="Initial Date"/>
0127          <AttributeValue type="DateTime" value="2013-01-
      10T23:33:21+00:00"/>
0128        </Attribute>
0129        <Attribute>
0130          <AttributeName type="TextString" value="Last Change Date"/>
0131          <AttributeValue type="DateTime" value="2013-01-
      10T23:33:21+00:00"/>
0132        </Attribute>
0133      </ResponsePayload>
0134    </BatchItem>
0135  </ResponseMessage>
```

```
      # TIME 2
0136  <RequestMessage>
0137    <RequestHeader>
0138      <ProtocolVersion>
0139        <ProtocolVersionMajor type="Integer" value="1"/>
0140        <ProtocolVersionMinor type="Integer" value="2"/>
0141      </ProtocolVersion>
0142      <BatchCount type="Integer" value="1"/>
0143    </RequestHeader>
0144    <BatchItem>
0145      <Operation type="Enumeration" value="Activate"/>
0146      <RequestPayload>
0147        <UniqueIdentifier type="TextString"
      value="$UNIQUE_IDENTIFIER_0"/>
0148      </RequestPayload>
0149    </BatchItem>
0150  </RequestMessage>
```

```
0151  <ResponseMessage>
0152    <ResponseHeader>
0153      <ProtocolVersion>
0154        <ProtocolVersionMajor type="Integer" value="1"/>
0155        <ProtocolVersionMinor type="Integer" value="2"/>
0156      </ProtocolVersion>
0157      <TimeStamp type="DateTime" value="2012-04-27T08:12:24+00:00"/>
0158      <BatchCount type="Integer" value="1"/>
```

```
0159    </ResponseHeader>
0160    <BatchItem>
0161      <Operation type="Enumeration" value="Activate"/>
0162      <ResultStatus type="Enumeration" value="Success"/>
0163      <ResponsePayload>
0164        <UniqueIdentifier type="TextString"
        value="$UNIQUE_IDENTIFIER_0"/>
0165      </ResponsePayload>
0166    </BatchItem>
0167  </ResponseMessage>
```

```
        # TIME 3
0168  <RequestMessage>
0169    <RequestHeader>
0170      <ProtocolVersion>
0171        <ProtocolVersionMajor type="Integer" value="1"/>
0172        <ProtocolVersionMinor type="Integer" value="2"/>
0173      </ProtocolVersion>
0174      <BatchCount type="Integer" value="1"/>
0175    </RequestHeader>
0176    <BatchItem>
0177      <Operation type="Enumeration" value="GetAttributes"/>
0178      <RequestPayload>
0179        <UniqueIdentifier type="TextString"
        value="$UNIQUE_IDENTIFIER_0"/>
0180        <AttributeName type="TextString" value="State"/>
0181        <AttributeName type="TextString" value="Activation Date"/>
0182        <AttributeName type="TextString" value="Deactivation Date"/>
0183      </RequestPayload>
0184    </BatchItem>
0185  </RequestMessage>
```

```
0186  <ResponseMessage>
0187    <ResponseHeader>
0188      <ProtocolVersion>
0189        <ProtocolVersionMajor type="Integer" value="1"/>
0190        <ProtocolVersionMinor type="Integer" value="2"/>
0191      </ProtocolVersion>
0192      <TimeStamp type="DateTime" value="2012-04-27T08:12:24+00:00"/>
0193      <BatchCount type="Integer" value="1"/>
0194    </ResponseHeader>
0195    <BatchItem>
0196      <Operation type="Enumeration" value="GetAttributes"/>
0197      <ResultStatus type="Enumeration" value="Success"/>
0198      <ResponsePayload>
0199        <UniqueIdentifier type="TextString"
        value="$UNIQUE_IDENTIFIER_0"/>
0200        <Attribute>
0201          <AttributeName type="TextString" value="State"/>
0202          <AttributeValue type="Enumeration" value="Active"/>
0203        </Attribute>
0204        <Attribute>
0205          <AttributeName type="TextString" value="Activation Date"/>
0206          <AttributeValue type="DateTime" value="2013-01-
        10T23:36:01+00:00"/>
0207        </Attribute>
0208      </ResponsePayload>
0209    </BatchItem>
0210  </ResponseMessage>
```

```
        # TIME 4
```

```
<RequestMessage>
  <RequestHeader>
    <ProtocolVersion>
      <ProtocolVersionMajor type="Integer" value="1"/>
      <ProtocolVersionMinor type="Integer" value="2"/>
    </ProtocolVersion>
    <BatchCount type="Integer" value="1"/>
  </RequestHeader>
  <BatchItem>
    <Operation type="Enumeration" value="Destroy"/>
    <RequestPayload>
      <UniqueIdentifier type="TextString"
value="$UNIQUE_IDENTIFIER_0"/>
    </RequestPayload>
  </BatchItem>
</RequestMessage>
```

```
<ResponseMessage>
  <ResponseHeader>
    <ProtocolVersion>
      <ProtocolVersionMajor type="Integer" value="1"/>
      <ProtocolVersionMinor type="Integer" value="2"/>
    </ProtocolVersion>
    <TimeStamp type="DateTime" value="2012-04-27T08:12:25+00:00"/>
    <BatchCount type="Integer" value="1"/>
  </ResponseHeader>
  <BatchItem>
    <Operation type="Enumeration" value="Destroy"/>
    <ResultStatus type="Enumeration" value="OperationFailed"/>
    <ResultReason type="Enumeration" value="PermissionDenied"/>
    <ResultMessage type="TextString" value="DENIED"/>
  </BatchItem>
</ResponseMessage>
```

```
# TIME 5
<RequestMessage>
  <RequestHeader>
    <ProtocolVersion>
      <ProtocolVersionMajor type="Integer" value="1"/>
      <ProtocolVersionMinor type="Integer" value="2"/>
    </ProtocolVersion>
    <BatchCount type="Integer" value="1"/>
  </RequestHeader>
  <BatchItem>
    <Operation type="Enumeration" value="Revoke"/>
    <RequestPayload>
      <UniqueIdentifier type="TextString"
value="$UNIQUE_IDENTIFIER_0"/>
      <RevocationReason>
        <RevocationReasonCode type="Enumeration"
value="KeyCompromise"/>
      </RevocationReason>
      <CompromiseOccurrenceDate type="DateTime" value="1970-01-
01T00:00:06+00:00"/>
    </RequestPayload>
  </BatchItem>
</RequestMessage>
```

```
<ResponseMessage>
  <ResponseHeader>
    <ProtocolVersion>
```

```
0264        <ProtocolVersionMajor type="Integer" value="1"/>
0265        <ProtocolVersionMinor type="Integer" value="2"/>
0266      </ProtocolVersion>
0267      <TimeStamp type="DateTime" value="2012-04-27T08:12:24+00:00"/>
0268      <BatchCount type="Integer" value="1"/>
0269    </ResponseHeader>
0270    <BatchItem>
0271      <Operation type="Enumeration" value="Revoke"/>
0272      <ResultStatus type="Enumeration" value="Success"/>
0273      <ResponsePayload>
0274        <UniqueIdentifier type="TextString"
      value="$UNIQUE IDENTIFIER 0"/>
0275      </ResponsePayload>
0276    </BatchItem>
0277  </ResponseMessage>
```

```
      # TIME 6
0278  <RequestMessage>
0279    <RequestHeader>
0280      <ProtocolVersion>
0281        <ProtocolVersionMajor type="Integer" value="1"/>
0282        <ProtocolVersionMinor type="Integer" value="2"/>
0283      </ProtocolVersion>
0284      <BatchCount type="Integer" value="1"/>
0285    </RequestHeader>
0286    <BatchItem>
0287      <Operation type="Enumeration" value="GetAttributes"/>
0288      <RequestPayload>
0289        <UniqueIdentifier type="TextString"
      value="$UNIQUE_IDENTIFIER_0"/>
0290        <AttributeName type="TextString" value="State"/>
0291      </RequestPayload>
0292    </BatchItem>
0293  </RequestMessage>
```

```
0294  <ResponseMessage>
0295    <ResponseHeader>
0296      <ProtocolVersion>
0297        <ProtocolVersionMajor type="Integer" value="1"/>
0298        <ProtocolVersionMinor type="Integer" value="2"/>
0299      </ProtocolVersion>
0300      <TimeStamp type="DateTime" value="2012-04-27T08:12:24+00:00"/>
0301      <BatchCount type="Integer" value="1"/>
0302    </ResponseHeader>
0303    <BatchItem>
0304      <Operation type="Enumeration" value="GetAttributes"/>
0305      <ResultStatus type="Enumeration" value="Success"/>
0306      <ResponsePayload>
0307        <UniqueIdentifier type="TextString"
      value="$UNIQUE_IDENTIFIER_0"/>
0308        <Attribute>
0309          <AttributeName type="TextString" value="State"/>
0310          <AttributeValue type="Enumeration" value="Compromised"/>
0311        </Attribute>
0312      </ResponsePayload>
0313    </BatchItem>
0314  </ResponseMessage>
```

```
      # TIME 7
0315  <RequestMessage>
0316    <RequestHeader>
```

```
0317      <ProtocolVersion>
0318        <ProtocolVersionMajor type="Integer" value="1"/>
0319        <ProtocolVersionMinor type="Integer" value="2"/>
0320      </ProtocolVersion>
0321      <BatchCount type="Integer" value="1"/>
0322    </RequestHeader>
0323    <BatchItem>
0324      <Operation type="Enumeration" value="Destroy"/>
0325      <RequestPayload>
0326        <UniqueIdentifier type="TextString"
        value="$UNIQUE_IDENTIFIER_0"/>
0327      </RequestPayload>
0328    </BatchItem>
0329  </RequestMessage>
```

```
0330  <ResponseMessage>
0331    <ResponseHeader>
0332      <ProtocolVersion>
0333        <ProtocolVersionMajor type="Integer" value="1"/>
0334        <ProtocolVersionMinor type="Integer" value="2"/>
0335      </ProtocolVersion>
0336      <TimeStamp type="DateTime" value="2012-04-27T08:12:25+00:00"/>
0337      <BatchCount type="Integer" value="1"/>
0338    </ResponseHeader>
0339    <BatchItem>
0340      <Operation type="Enumeration" value="Destroy"/>
0341      <ResultStatus type="Enumeration" value="Success"/>
0342      <ResponsePayload>
0343        <UniqueIdentifier type="TextString"
        value="$UNIQUE_IDENTIFIER_0"/>
0344      </ResponsePayload>
0345    </BatchItem>
0346  </ResponseMessage>
```

128

129 3.3.3 SKLC-M-3-12

130 Create, GetAttributes, Activate, GetAttributes, Destroy, Revoke, GetAttributes, Destroy

```
      # TIME 0
0001  <RequestMessage>
0002    <RequestHeader>
0003      <ProtocolVersion>
0004        <ProtocolVersionMajor type="Integer" value="1"/>
0005        <ProtocolVersionMinor type="Integer" value="2"/>
0006      </ProtocolVersion>
0007      <BatchCount type="Integer" value="1"/>
0008    </RequestHeader>
0009    <BatchItem>
0010      <Operation type="Enumeration" value="Create"/>
0011      <RequestPayload>
0012        <ObjectType type="Enumeration" value="SymmetricKey"/>
0013        <TemplateAttribute>
0014          <Attribute>
0015            <AttributeName type="TextString" value="Cryptographic
        Algorithm"/>
0016            <AttributeValue type="Enumeration" value="AES"/>
0017          </Attribute>
0018          <Attribute>
```

```
0019            <AttributeName type="TextString" value="Cryptographic
    Length"/>
0020            <AttributeValue type="Integer" value="256"/>
0021          </Attribute>
0022          <Attribute>
0023            <AttributeName type="TextString" value="Cryptographic
    Usage Mask"/>
0024            <AttributeValue type="Integer" value="Encrypt Decrypt"/>
0025          </Attribute>
0026          <Attribute>
0027            <AttributeName type="TextString" value="Name"/>
0028            <AttributeValue>
0029              <NameValue type="TextString" value="SKLC-M-3-12"/>
0030              <NameType type="Enumeration"
    value="UninterpretedTextString"/>
0031            </AttributeValue>
0032          </Attribute>
0033        </TemplateAttribute>
0034      </RequestPayload>
0035    </BatchItem>
0036  </RequestMessage>
```

```
0037  <ResponseMessage>
0038    <ResponseHeader>
0039      <ProtocolVersion>
0040        <ProtocolVersionMajor type="Integer" value="1"/>
0041        <ProtocolVersionMinor type="Integer" value="2"/>
0042      </ProtocolVersion>
0043      <TimeStamp type="DateTime" value="2012-04-27T08:12:24+00:00"/>
0044      <BatchCount type="Integer" value="1"/>
0045    </ResponseHeader>
0046    <BatchItem>
0047      <Operation type="Enumeration" value="Create"/>
0048      <ResultStatus type="Enumeration" value="Success"/>
0049      <ResponsePayload>
0050        <ObjectType type="Enumeration" value="SymmetricKey"/>
0051        <UniqueIdentifier type="TextString"
    value="$UNIQUE_IDENTIFIER_0"/>
0052      </ResponsePayload>
0053    </BatchItem>
0054  </ResponseMessage>
```

```
      # TIME 1
0055  <RequestMessage>
0056    <RequestHeader>
0057      <ProtocolVersion>
0058        <ProtocolVersionMajor type="Integer" value="1"/>
0059        <ProtocolVersionMinor type="Integer" value="2"/>
0060      </ProtocolVersion>
0061      <BatchCount type="Integer" value="1"/>
0062    </RequestHeader>
0063    <BatchItem>
0064      <Operation type="Enumeration" value="GetAttributes"/>
0065      <RequestPayload>
0066        <UniqueIdentifier type="TextString"
    value="$UNIQUE_IDENTIFIER_0"/>
0067        <AttributeName type="TextString" value="State"/>
0068        <AttributeName type="TextString" value="Cryptographic Usage
    Mask"/>
0069        <AttributeName type="TextString" value="Unique Identifier"/>
```

```
0070        <AttributeName type="TextString" value="Object Type"/>
0071        <AttributeName type="TextString" value="Cryptographic
      Algorithm"/>
0072        <AttributeName type="TextString" value="Cryptographic
      Length"/>
0073        <AttributeName type="TextString" value="Digest"/>
0074        <AttributeName type="TextString" value="Initial Date"/>
0075        <AttributeName type="TextString" value="Last Change Date"/>
0076      </RequestPayload>
0077    </BatchItem>
0078  </RequestMessage>
0079  <ResponseMessage>
0080    <ResponseHeader>
0081      <ProtocolVersion>
0082        <ProtocolVersionMajor type="Integer" value="1"/>
0083        <ProtocolVersionMinor type="Integer" value="2"/>
0084      </ProtocolVersion>
0085      <TimeStamp type="DateTime" value="2012-04-27T08:12:24+00:00"/>
0086      <BatchCount type="Integer" value="1"/>
0087    </ResponseHeader>
0088    <BatchItem>
0089      <Operation type="Enumeration" value="GetAttributes"/>
0090      <ResultStatus type="Enumeration" value="Success"/>
0091      <ResponsePayload>
0092        <UniqueIdentifier type="TextString"
      value="$UNIQUE_IDENTIFIER_0"/>
0093        <Attribute>
0094          <AttributeName type="TextString" value="State"/>
0095          <AttributeValue type="Enumeration" value="PreActive"/>
0096        </Attribute>
0097        <Attribute>
0098          <AttributeName type="TextString" value="Cryptographic Usage
      Mask"/>
0099          <AttributeValue type="Integer" value="Decrypt Encrypt"/>
0100        </Attribute>
0101        <Attribute>
0102          <AttributeName type="TextString" value="Unique Identifier"/>
0103          <AttributeValue type="TextString"
      value="$UNIQUE_IDENTIFIER_0"/>
0104        </Attribute>
0105        <Attribute>
0106          <AttributeName type="TextString" value="Object Type"/>
0107          <AttributeValue type="Enumeration" value="SymmetricKey"/>
0108        </Attribute>
0109        <Attribute>
0110          <AttributeName type="TextString" value="Cryptographic
      Algorithm"/>
0111          <AttributeValue type="Enumeration" value="AES"/>
0112        </Attribute>
0113        <Attribute>
0114          <AttributeName type="TextString" value="Cryptographic
      Length"/>
0115          <AttributeValue type="Integer" value="256"/>
0116        </Attribute>
0117        <Attribute>
0118          <AttributeName type="TextString" value="Digest"/>
0119          <AttributeValue>
0120            <HashingAlgorithm type="Enumeration" value="SHA_256"/>
```

```
0121            <DigestValue type="ByteString"
value="bc12861408b8ac72cdb3b2748ad342b7dc519bd109046a1b931fdaed73591
f29"/>
0122            <KeyFormatType type="Enumeration" value="Raw"/>
0123          </AttributeValue>
0124        </Attribute>
0125        <Attribute>
0126          <AttributeName type="TextString" value="Initial Date"/>
0127          <AttributeValue type="DateTime" value="2013-01-
10T23:33:21+00:00"/>
0128        </Attribute>
0129        <Attribute>
0130          <AttributeName type="TextString" value="Last Change Date"/>
0131          <AttributeValue type="DateTime" value="2013-01-
10T23:33:21+00:00"/>
0132        </Attribute>
0133      </ResponsePayload>
0134    </BatchItem>
0135  </ResponseMessage>
```

```
      # TIME 2
0136  <RequestMessage>
0137    <RequestHeader>
0138      <ProtocolVersion>
0139        <ProtocolVersionMajor type="Integer" value="1"/>
0140        <ProtocolVersionMinor type="Integer" value="2"/>
0141      </ProtocolVersion>
0142      <BatchCount type="Integer" value="1"/>
0143    </RequestHeader>
0144    <BatchItem>
0145      <Operation type="Enumeration" value="Activate"/>
0146      <RequestPayload>
0147        <UniqueIdentifier type="TextString"
value="$UNIQUE_IDENTIFIER_0"/>
0148      </RequestPayload>
0149    </BatchItem>
0150  </RequestMessage>
```

```
0151  <ResponseMessage>
0152    <ResponseHeader>
0153      <ProtocolVersion>
0154        <ProtocolVersionMajor type="Integer" value="1"/>
0155        <ProtocolVersionMinor type="Integer" value="2"/>
0156      </ProtocolVersion>
0157      <TimeStamp type="DateTime" value="2012-04-27T08:12:24+00:00"/>
0158      <BatchCount type="Integer" value="1"/>
0159    </ResponseHeader>
0160    <BatchItem>
0161      <Operation type="Enumeration" value="Activate"/>
0162      <ResultStatus type="Enumeration" value="Success"/>
0163      <ResponsePayload>
0164        <UniqueIdentifier type="TextString"
value="$UNIQUE IDENTIFIER 0"/>
0165      </ResponsePayload>
0166    </BatchItem>
0167  </ResponseMessage>
```

```
      # TIME 3
0168  <RequestMessage>
0169    <RequestHeader>
0170      <ProtocolVersion>
```

```
0171        <ProtocolVersionMajor type="Integer" value="1"/>
0172        <ProtocolVersionMinor type="Integer" value="2"/>
0173      </ProtocolVersion>
0174      <BatchCount type="Integer" value="1"/>
0175    </RequestHeader>
0176    <BatchItem>
0177      <Operation type="Enumeration" value="GetAttributes"/>
0178      <RequestPayload>
0179        <UniqueIdentifier type="TextString"
value="$UNIQUE_IDENTIFIER_0"/>
0180        <AttributeName type="TextString" value="State"/>
0181        <AttributeName type="TextString" value="Activation Date"/>
0182        <AttributeName type="TextString" value="Deactivation Date"/>
0183      </RequestPayload>
0184    </BatchItem>
0185  </RequestMessage>
0186  <ResponseMessage>
0187    <ResponseHeader>
0188      <ProtocolVersion>
0189        <ProtocolVersionMajor type="Integer" value="1"/>
0190        <ProtocolVersionMinor type="Integer" value="2"/>
0191      </ProtocolVersion>
0192      <TimeStamp type="DateTime" value="2012-04-27T08:12:24+00:00"/>
0193      <BatchCount type="Integer" value="1"/>
0194    </ResponseHeader>
0195    <BatchItem>
0196      <Operation type="Enumeration" value="GetAttributes"/>
0197      <ResultStatus type="Enumeration" value="Success"/>
0198      <ResponsePayload>
0199        <UniqueIdentifier type="TextString"
value="$UNIQUE_IDENTIFIER_0"/>
0200        <Attribute>
0201          <AttributeName type="TextString" value="State"/>
0202          <AttributeValue type="Enumeration" value="Active"/>
0203        </Attribute>
0204        <Attribute>
0205          <AttributeName type="TextString" value="Activation Date"/>
0206          <AttributeValue type="DateTime" value="2013-01-
10T23:36:01+00:00"/>
0207        </Attribute>
0208      </ResponsePayload>
0209    </BatchItem>
0210  </ResponseMessage>
      # TIME 4
0211  <RequestMessage>
0212    <RequestHeader>
0213      <ProtocolVersion>
0214        <ProtocolVersionMajor type="Integer" value="1"/>
0215        <ProtocolVersionMinor type="Integer" value="2"/>
0216      </ProtocolVersion>
0217      <BatchCount type="Integer" value="1"/>
0218    </RequestHeader>
0219    <BatchItem>
0220      <Operation type="Enumeration" value="ModifyAttribute"/>
0221      <UniqueBatchItemID type="ByteString" value="0752c951bb9926cc"/>
0222      <RequestPayload>
0223        <UniqueIdentifier type="TextString"
value="$UNIQUE_IDENTIFIER_0"/>
```

```
      <Attribute>
        <AttributeName type="TextString" value="Activation Date"/>
        <AttributeValue type="DateTime" value="$NOW"/>
      </Attribute>
    </RequestPayload>
  </BatchItem>
</RequestMessage>
```

```
<ResponseMessage>
  <ResponseHeader>
    <ProtocolVersion>
      <ProtocolVersionMajor type="Integer" value="1"/>
      <ProtocolVersionMinor type="Integer" value="2"/>
    </ProtocolVersion>
    <TimeStamp type="DateTime" value="2012-04-27T08:12:25+00:00"/>
    <BatchCount type="Integer" value="1"/>
  </ResponseHeader>
  <BatchItem>
    <Operation type="Enumeration" value="ModifyAttribute"/>
    <UniqueBatchItemID type="ByteString" value="0752c951bb9926cc"/>
    <ResultStatus type="Enumeration" value="OperationFailed"/>
    <ResultReason type="Enumeration" value="PermissionDenied"/>
    <ResultMessage type="TextString" value="DENIED"/>
  </BatchItem>
</ResponseMessage>
```

```
# TIME 5
<RequestMessage>
  <RequestHeader>
    <ProtocolVersion>
      <ProtocolVersionMajor type="Integer" value="1"/>
      <ProtocolVersionMinor type="Integer" value="2"/>
    </ProtocolVersion>
    <BatchCount type="Integer" value="1"/>
  </RequestHeader>
  <BatchItem>
    <Operation type="Enumeration" value="Revoke"/>
    <RequestPayload>
      <UniqueIdentifier type="TextString"
value="$UNIQUE_IDENTIFIER_0"/>
      <RevocationReason>
        <RevocationReasonCode type="Enumeration"
value="KeyCompromise"/>
      </RevocationReason>
      <CompromiseOccurrenceDate type="DateTime" value="1970-01-
01T00:00:06+00:00"/>
    </RequestPayload>
  </BatchItem>
</RequestMessage>
```

```
<ResponseMessage>
  <ResponseHeader>
    <ProtocolVersion>
      <ProtocolVersionMajor type="Integer" value="1"/>
      <ProtocolVersionMinor type="Integer" value="2"/>
    </ProtocolVersion>
    <TimeStamp type="DateTime" value="2012-04-27T08:12:24+00:00"/>
    <BatchCount type="Integer" value="1"/>
  </ResponseHeader>
  <BatchItem>
    <Operation type="Enumeration" value="Revoke"/>
```

```
0278      <ResultStatus type="Enumeration" value="Success"/>
0279      <ResponsePayload>
0280        <UniqueIdentifier type="TextString"
          value="$UNIQUE_IDENTIFIER_0"/>
0281      </ResponsePayload>
0282    </BatchItem>
0283  </ResponseMessage>
```

```
          # TIME 6
0284  <RequestMessage>
0285    <RequestHeader>
0286      <ProtocolVersion>
0287        <ProtocolVersionMajor type="Integer" value="1"/>
0288        <ProtocolVersionMinor type="Integer" value="2"/>
0289      </ProtocolVersion>
0290      <BatchCount type="Integer" value="1"/>
0291    </RequestHeader>
0292    <BatchItem>
0293      <Operation type="Enumeration" value="GetAttributes"/>
0294      <RequestPayload>
0295        <UniqueIdentifier type="TextString"
          value="$UNIQUE_IDENTIFIER_0"/>
0296        <AttributeName type="TextString" value="State"/>
0297      </RequestPayload>
0298    </BatchItem>
0299  </RequestMessage>
```

```
0300  <ResponseMessage>
0301    <ResponseHeader>
0302      <ProtocolVersion>
0303        <ProtocolVersionMajor type="Integer" value="1"/>
0304        <ProtocolVersionMinor type="Integer" value="2"/>
0305      </ProtocolVersion>
0306      <TimeStamp type="DateTime" value="2012-04-27T08:12:24+00:00"/>
0307      <BatchCount type="Integer" value="1"/>
0308    </ResponseHeader>
0309    <BatchItem>
0310      <Operation type="Enumeration" value="GetAttributes"/>
0311      <ResultStatus type="Enumeration" value="Success"/>
0312      <ResponsePayload>
0313        <UniqueIdentifier type="TextString"
          value="$UNIQUE_IDENTIFIER_0"/>
0314        <Attribute>
0315          <AttributeName type="TextString" value="State"/>
0316          <AttributeValue type="Enumeration" value="Compromised"/>
0317        </Attribute>
0318      </ResponsePayload>
0319    </BatchItem>
0320  </ResponseMessage>
```

```
          # TIME 7
0321  <RequestMessage>
0322    <RequestHeader>
0323      <ProtocolVersion>
0324        <ProtocolVersionMajor type="Integer" value="1"/>
0325        <ProtocolVersionMinor type="Integer" value="2"/>
0326      </ProtocolVersion>
0327      <BatchCount type="Integer" value="1"/>
0328    </RequestHeader>
0329    <BatchItem>
0330      <Operation type="Enumeration" value="Destroy"/>
```

```
0331      <RequestPayload>
0332        <UniqueIdentifier type="TextString"
          value="$UNIQUE_IDENTIFIER_0"/>
0333      </RequestPayload>
0334    </BatchItem>
0335  </RequestMessage>
```

```
0336  <ResponseMessage>
0337    <ResponseHeader>
0338      <ProtocolVersion>
0339        <ProtocolVersionMajor type="Integer" value="1"/>
0340        <ProtocolVersionMinor type="Integer" value="2"/>
0341      </ProtocolVersion>
0342      <TimeStamp type="DateTime" value="2012-04-27T08:12:25+00:00"/>
0343      <BatchCount type="Integer" value="1"/>
0344    </ResponseHeader>
0345    <BatchItem>
0346      <Operation type="Enumeration" value="Destroy"/>
0347      <ResultStatus type="Enumeration" value="Success"/>
0348      <ResponsePayload>
0349        <UniqueIdentifier type="TextString"
          value="$UNIQUE_IDENTIFIER_0"/>
0350      </ResponsePayload>
0351    </BatchItem>
0352  </ResponseMessage>
```

131

132 3.4 Optional Test Cases KMIP v1.0

133 3.4.1 SKLC-O-1-10

134 Create, GetAttributes, Destroy, GetAttributes

```
      # TIME 0
0001  <RequestMessage>
0002    <RequestHeader>
0003      <ProtocolVersion>
0004        <ProtocolVersionMajor type="Integer" value="1"/>
0005        <ProtocolVersionMinor type="Integer" value="0"/>
0006      </ProtocolVersion>
0007      <BatchCount type="Integer" value="1"/>
0008    </RequestHeader>
0009    <BatchItem>
0010      <Operation type="Enumeration" value="Create"/>
0011      <RequestPayload>
0012        <ObjectType type="Enumeration" value="SymmetricKey"/>
0013        <TemplateAttribute>
0014          <Attribute>
0015            <AttributeName type="TextString" value="Cryptographic
          Algorithm"/>
0016            <AttributeValue type="Enumeration" value="AES"/>
0017          </Attribute>
0018          <Attribute>
0019            <AttributeName type="TextString" value="Cryptographic
          Length"/>
0020            <AttributeValue type="Integer" value="256"/>
0021          </Attribute>
0022          <Attribute>
0023            <AttributeName type="TextString" value="Cryptographic
```

```
      Usage Mask"/>
0024            <AttributeValue type="Integer" value="Encrypt Decrypt"/>
0025          </Attribute>
0026          <Attribute>
0027            <AttributeName type="TextString" value="Name"/>
0028            <AttributeValue>
0029              <NameValue type="TextString" value="SKLC-O-1-10"/>
0030              <NameType type="Enumeration"
      value="UninterpretedTextString"/>
0031            </AttributeValue>
0032          </Attribute>
0033        </TemplateAttribute>
0034      </RequestPayload>
0035    </BatchItem>
0036  </RequestMessage>
```

```
0037  <ResponseMessage>
0038    <ResponseHeader>
0039      <ProtocolVersion>
0040        <ProtocolVersionMajor type="Integer" value="1"/>
0041        <ProtocolVersionMinor type="Integer" value="0"/>
0042      </ProtocolVersion>
0043      <TimeStamp type="DateTime" value="2012-04-27T08:12:24+00:00"/>
0044      <BatchCount type="Integer" value="1"/>
0045    </ResponseHeader>
0046    <BatchItem>
0047      <Operation type="Enumeration" value="Create"/>
0048      <ResultStatus type="Enumeration" value="Success"/>
0049      <ResponsePayload>
0050        <ObjectType type="Enumeration" value="SymmetricKey"/>
0051        <UniqueIdentifier type="TextString"
      value="$UNIQUE_IDENTIFIER_0"/>
0052      </ResponsePayload>
0053    </BatchItem>
0054  </ResponseMessage>
```

```
      # TIME 1
0055  <RequestMessage>
0056    <RequestHeader>
0057      <ProtocolVersion>
0058        <ProtocolVersionMajor type="Integer" value="1"/>
0059        <ProtocolVersionMinor type="Integer" value="0"/>
0060      </ProtocolVersion>
0061      <BatchCount type="Integer" value="1"/>
0062    </RequestHeader>
0063    <BatchItem>
0064      <Operation type="Enumeration" value="GetAttributes"/>
0065      <RequestPayload>
0066        <UniqueIdentifier type="TextString"
      value="$UNIQUE_IDENTIFIER_0"/>
0067        <AttributeName type="TextString" value="State"/>
0068        <AttributeName type="TextString" value="Cryptographic Usage
      Mask"/>
0069        <AttributeName type="TextString" value="Unique Identifier"/>
0070        <AttributeName type="TextString" value="Object Type"/>
0071        <AttributeName type="TextString" value="Cryptographic
      Algorithm"/>
0072        <AttributeName type="TextString" value="Cryptographic
      Length"/>
0073        <AttributeName type="TextString" value="Digest"/>
```

```
0074        <AttributeName type="TextString" value="Initial Date"/>
0075        <AttributeName type="TextString" value="Last Change Date"/>
0076        <AttributeName type="TextString" value="Activation Date"/>
0077      </RequestPayload>
0078    </BatchItem>
0079  </RequestMessage>
0080  <ResponseMessage>
0081    <ResponseHeader>
0082      <ProtocolVersion>
0083        <ProtocolVersionMajor type="Integer" value="1"/>
0084        <ProtocolVersionMinor type="Integer" value="0"/>
0085      </ProtocolVersion>
0086      <TimeStamp type="DateTime" value="2012-04-27T08:12:24+00:00"/>
0087      <BatchCount type="Integer" value="1"/>
0088    </ResponseHeader>
0089    <BatchItem>
0090      <Operation type="Enumeration" value="GetAttributes"/>
0091      <ResultStatus type="Enumeration" value="Success"/>
0092      <ResponsePayload>
0093        <UniqueIdentifier type="TextString"
      value="$UNIQUE_IDENTIFIER_0"/>
0094        <Attribute>
0095          <AttributeName type="TextString" value="State"/>
0096          <AttributeValue type="Enumeration" value="PreActive"/>
0097        </Attribute>
0098        <Attribute>
0099          <AttributeName type="TextString" value="Cryptographic Usage
      Mask"/>
0100          <AttributeValue type="Integer" value="Decrypt Encrypt"/>
0101        </Attribute>
0102        <Attribute>
0103          <AttributeName type="TextString" value="Unique Identifier"/>
0104          <AttributeValue type="TextString"
      value="$UNIQUE IDENTIFIER 0"/>
0105        </Attribute>
0106        <Attribute>
0107          <AttributeName type="TextString" value="Object Type"/>
0108          <AttributeValue type="Enumeration" value="SymmetricKey"/>
0109        </Attribute>
0110        <Attribute>
0111          <AttributeName type="TextString" value="Cryptographic
      Algorithm"/>
0112          <AttributeValue type="Enumeration" value="AES"/>
0113        </Attribute>
0114        <Attribute>
0115          <AttributeName type="TextString" value="Cryptographic
      Length"/>
0116          <AttributeValue type="Integer" value="256"/>
0117        </Attribute>
0118        <Attribute>
0119          <AttributeName type="TextString" value="Digest"/>
0120          <AttributeValue>
0121            <HashingAlgorithm type="Enumeration" value="SHA_256"/>
0122            <DigestValue type="ByteString"
      value="bc12861408b8ac72cdb3b2748ad342b7dc519bd109046a1b931fdaed73591
      f29"/>
0123          </AttributeValue>
0124        </Attribute>
```

```
0125        <Attribute>
0126          <AttributeName type="TextString" value="Initial Date"/>
0127          <AttributeValue type="DateTime" value="2013-01-
      10T23:33:21+00:00"/>
0128        </Attribute>
0129        <Attribute>
0130          <AttributeName type="TextString" value="Last Change Date"/>
0131          <AttributeValue type="DateTime" value="2013-01-
      10T23:33:21+00:00"/>
0132        </Attribute>
0133      </ResponsePayload>
0134    </BatchItem>
0135  </ResponseMessage>
```

```
      # TIME 2
0136  <RequestMessage>
0137    <RequestHeader>
0138      <ProtocolVersion>
0139        <ProtocolVersionMajor type="Integer" value="1"/>
0140        <ProtocolVersionMinor type="Integer" value="0"/>
0141      </ProtocolVersion>
0142      <BatchCount type="Integer" value="1"/>
0143    </RequestHeader>
0144    <BatchItem>
0145      <Operation type="Enumeration" value="Destroy"/>
0146      <RequestPayload>
0147        <UniqueIdentifier type="TextString"
      value="$UNIQUE_IDENTIFIER_0"/>
0148      </RequestPayload>
0149    </BatchItem>
0150  </RequestMessage>
```

```
0151  <ResponseMessage>
0152    <ResponseHeader>
0153      <ProtocolVersion>
0154        <ProtocolVersionMajor type="Integer" value="1"/>
0155        <ProtocolVersionMinor type="Integer" value="0"/>
0156      </ProtocolVersion>
0157      <TimeStamp type="DateTime" value="2012-04-27T08:12:25+00:00"/>
0158      <BatchCount type="Integer" value="1"/>
0159    </ResponseHeader>
0160    <BatchItem>
0161      <Operation type="Enumeration" value="Destroy"/>
0162      <ResultStatus type="Enumeration" value="Success"/>
0163      <ResponsePayload>
0164        <UniqueIdentifier type="TextString"
      value="$UNIQUE_IDENTIFIER_0"/>
0165      </ResponsePayload>
0166    </BatchItem>
0167  </ResponseMessage>
```

```
      # TIME 3
0168  <RequestMessage>
0169    <RequestHeader>
0170      <ProtocolVersion>
0171        <ProtocolVersionMajor type="Integer" value="1"/>
0172        <ProtocolVersionMinor type="Integer" value="0"/>
0173      </ProtocolVersion>
0174      <BatchCount type="Integer" value="1"/>
0175    </RequestHeader>
0176    <BatchItem>
```

```
0177      <Operation type="Enumeration" value="GetAttributes"/>
0178      <RequestPayload>
0179        <UniqueIdentifier type="TextString"
          value="$UNIQUE_IDENTIFIER_0"/>
0180      </RequestPayload>
0181    </BatchItem>
0182  </RequestMessage>
0183  <ResponseMessage>
0184    <ResponseHeader>
0185      <ProtocolVersion>
0186        <ProtocolVersionMajor type="Integer" value="1"/>
0187        <ProtocolVersionMinor type="Integer" value="0"/>
0188      </ProtocolVersion>
0189      <TimeStamp type="DateTime" value="2012-04-27T08:12:25+00:00"/>
0190      <BatchCount type="Integer" value="1"/>
0191    </ResponseHeader>
0192    <BatchItem>
0193      <Operation type="Enumeration" value="GetAttributes"/>
0194      <ResultStatus type="Enumeration" value="Success"/>
0195      <ResponsePayload>
0196        <UniqueIdentifier type="TextString"
          value="$UNIQUE_IDENTIFIER_0"/>
0197        <Attribute>
0198          <AttributeName type="TextString" value="Unique Identifier"/>
0199          <AttributeValue type="TextString"
          value="$UNIQUE_IDENTIFIER_0"/>
0200        </Attribute>
0201        <Attribute>
0202          <AttributeName type="TextString" value="Object Type"/>
0203          <AttributeValue type="Enumeration" value="SymmetricKey"/>
0204        </Attribute>
0205        <Attribute>
0206          <AttributeName type="TextString" value="Cryptographic
          Algorithm"/>
0207          <AttributeValue type="Enumeration" value="AES"/>
0208        </Attribute>
0209        <Attribute>
0210          <AttributeName type="TextString" value="Cryptographic
          Length"/>
0211          <AttributeValue type="Integer" value="256"/>
0212        </Attribute>
0213        <Attribute>
0214          <AttributeName type="TextString" value="Cryptographic Usage
          Mask"/>
0215          <AttributeValue type="Integer" value="Decrypt Encrypt"/>
0216        </Attribute>
0217        <Attribute>
0218          <AttributeName type="TextString" value="Destroy Date"/>
0219          <AttributeValue type="DateTime" value="2013-01-
          11T00:39:11+00:00"/>
0220        </Attribute>
0221        <Attribute>
0222          <AttributeName type="TextString" value="Digest"/>
0223          <AttributeValue>
0224            <HashingAlgorithm type="Enumeration" value="SHA_256"/>
0225            <DigestValue type="ByteString"
          value="bf60cac2a3f82e6added839c87b0bdbc386d6280c14c8f09ca96e098365f7
          fe3"/>
```

```
0226          </AttributeValue>
0227        </Attribute>
0228        <Attribute>
0229          <AttributeName type="TextString" value="Initial Date"/>
0230          <AttributeValue type="DateTime" value="2013-01-
      11T00:39:11+00:00"/>
0231        </Attribute>
0232        <Attribute>
0233          <AttributeName type="TextString" value="Last Change Date"/>
0234          <AttributeValue type="DateTime" value="2013-01-
      11T00:39:11+00:00"/>
0235        </Attribute>
0236        <Attribute>
0237          <AttributeName type="TextString" value="Lease Time"/>
0238          <AttributeValue type="Interval" value="3600"/>
0239        </Attribute>
0240        <Attribute>
0241          <AttributeName type="TextString" value="Name"/>
0242          <AttributeValue>
0243            <NameValue type="TextString" value="SKLC-O-1-10"/>
0244            <NameType type="Enumeration"
      value="UninterpretedTextString"/>
0245          </AttributeValue>
0246        </Attribute>
0247        <Attribute>
0248          <AttributeName type="TextString" value="State"/>
0249          <AttributeValue type="Enumeration" value="Destroyed"/>
0250        </Attribute>
0251      </ResponsePayload>
0252    </BatchItem>
0253  </ResponseMessage>
```

135

136 3.5 Optional Test Cases KMIP v1.1

137 3.5.1 SKLC-O-1-11

138 Create, GetAttributes, Destroy, GetAttributes

```
      # TIME 0
0001  <RequestMessage>
0002    <RequestHeader>
0003      <ProtocolVersion>
0004        <ProtocolVersionMajor type="Integer" value="1"/>
0005        <ProtocolVersionMinor type="Integer" value="1"/>
0006      </ProtocolVersion>
0007      <BatchCount type="Integer" value="1"/>
0008    </RequestHeader>
0009    <BatchItem>
0010      <Operation type="Enumeration" value="Create"/>
0011      <RequestPayload>
0012        <ObjectType type="Enumeration" value="SymmetricKey"/>
0013        <TemplateAttribute>
0014          <Attribute>
0015            <AttributeName type="TextString" value="Cryptographic
      Algorithm"/>
0016            <AttributeValue type="Enumeration" value="AES"/>
0017          </Attribute>
```

```
0018          <Attribute>
0019            <AttributeName type="TextString" value="Cryptographic
      Length"/>
0020            <AttributeValue type="Integer" value="256"/>
0021          </Attribute>
0022          <Attribute>
0023            <AttributeName type="TextString" value="Cryptographic
      Usage Mask"/>
0024            <AttributeValue type="Integer" value="Encrypt Decrypt"/>
0025          </Attribute>
0026          <Attribute>
0027            <AttributeName type="TextString" value="Name"/>
0028            <AttributeValue>
0029              <NameValue type="TextString" value="SKLC-O-1-11"/>
0030              <NameType type="Enumeration"
      value="UninterpretedTextString"/>
0031            </AttributeValue>
0032          </Attribute>
0033        </TemplateAttribute>
0034      </RequestPayload>
0035    </BatchItem>
0036  </RequestMessage>
```

```
0037  <ResponseMessage>
0038    <ResponseHeader>
0039      <ProtocolVersion>
0040        <ProtocolVersionMajor type="Integer" value="1"/>
0041        <ProtocolVersionMinor type="Integer" value="1"/>
0042      </ProtocolVersion>
0043      <TimeStamp type="DateTime" value="2012-04-27T08:12:24+00:00"/>
0044      <BatchCount type="Integer" value="1"/>
0045    </ResponseHeader>
0046    <BatchItem>
0047      <Operation type="Enumeration" value="Create"/>
0048      <ResultStatus type="Enumeration" value="Success"/>
0049      <ResponsePayload>
0050        <ObjectType type="Enumeration" value="SymmetricKey"/>
0051        <UniqueIdentifier type="TextString"
      value="$UNIQUE_IDENTIFIER_0"/>
0052      </ResponsePayload>
0053    </BatchItem>
0054  </ResponseMessage>
```

```
      # TIME 1
0055  <RequestMessage>
0056    <RequestHeader>
0057      <ProtocolVersion>
0058        <ProtocolVersionMajor type="Integer" value="1"/>
0059        <ProtocolVersionMinor type="Integer" value="1"/>
0060      </ProtocolVersion>
0061      <BatchCount type="Integer" value="1"/>
0062    </RequestHeader>
0063    <BatchItem>
0064      <Operation type="Enumeration" value="GetAttributes"/>
0065      <RequestPayload>
0066        <UniqueIdentifier type="TextString"
      value="$UNIQUE_IDENTIFIER_0"/>
0067        <AttributeName type="TextString" value="State"/>
0068        <AttributeName type="TextString" value="Cryptographic Usage
      Mask"/>
```

```
0069        <AttributeName type="TextString" value="Unique Identifier"/>
0070        <AttributeName type="TextString" value="Object Type"/>
0071        <AttributeName type="TextString" value="Cryptographic
      Algorithm"/>
0072        <AttributeName type="TextString" value="Cryptographic
      Length"/>
0073        <AttributeName type="TextString" value="Digest"/>
0074        <AttributeName type="TextString" value="Initial Date"/>
0075        <AttributeName type="TextString" value="Last Change Date"/>
0076        <AttributeName type="TextString" value="Activation Date"/>
0077      </RequestPayload>
0078    </BatchItem>
0079  </RequestMessage>
0080  <ResponseMessage>
0081    <ResponseHeader>
0082      <ProtocolVersion>
0083        <ProtocolVersionMajor type="Integer" value="1"/>
0084        <ProtocolVersionMinor type="Integer" value="1"/>
0085      </ProtocolVersion>
0086      <TimeStamp type="DateTime" value="2012-04-27T08:12:24+00:00"/>
0087      <BatchCount type="Integer" value="1"/>
0088    </ResponseHeader>
0089    <BatchItem>
0090      <Operation type="Enumeration" value="GetAttributes"/>
0091      <ResultStatus type="Enumeration" value="Success"/>
0092      <ResponsePayload>
0093        <UniqueIdentifier type="TextString"
      value="$UNIQUE_IDENTIFIER_0"/>
0094        <Attribute>
0095          <AttributeName type="TextString" value="State"/>
0096          <AttributeValue type="Enumeration" value="PreActive"/>
0097        </Attribute>
0098        <Attribute>
0099          <AttributeName type="TextString" value="Cryptographic Usage
      Mask"/>
0100          <AttributeValue type="Integer" value="Decrypt Encrypt"/>
0101        </Attribute>
0102        <Attribute>
0103          <AttributeName type="TextString" value="Unique Identifier"/>
0104          <AttributeValue type="TextString"
      value="$UNIQUE_IDENTIFIER_0"/>
0105        </Attribute>
0106        <Attribute>
0107          <AttributeName type="TextString" value="Object Type"/>
0108          <AttributeValue type="Enumeration" value="SymmetricKey"/>
0109        </Attribute>
0110        <Attribute>
0111          <AttributeName type="TextString" value="Cryptographic
      Algorithm"/>
0112          <AttributeValue type="Enumeration" value="AES"/>
0113        </Attribute>
0114        <Attribute>
0115          <AttributeName type="TextString" value="Cryptographic
      Length"/>
0116          <AttributeValue type="Integer" value="256"/>
0117        </Attribute>
0118        <Attribute>
0119          <AttributeName type="TextString" value="Digest"/>
```

```
0120          <AttributeValue>
0121            <HashingAlgorithm type="Enumeration" value="SHA_256"/>
0122            <DigestValue type="ByteString"
      value="bc12861408b8ac72cdb3b2748ad342b7dc519bd109046a1b931fdaed73591
      f29"/>
0123            <KeyFormatType type="Enumeration" value="Raw"/>
0124          </AttributeValue>
0125        </Attribute>
0126        <Attribute>
0127          <AttributeName type="TextString" value="Initial Date"/>
0128          <AttributeValue type="DateTime" value="2013-01-
      10T23:33:21+00:00"/>
0129        </Attribute>
0130        <Attribute>
0131          <AttributeName type="TextString" value="Last Change Date"/>
0132          <AttributeValue type="DateTime" value="2013-01-
      10T23:33:21+00:00"/>
0133        </Attribute>
0134      </ResponsePayload>
0135    </BatchItem>
0136  </ResponseMessage>
```

```
      # TIME 2
0137  <RequestMessage>
0138    <RequestHeader>
0139      <ProtocolVersion>
0140        <ProtocolVersionMajor type="Integer" value="1"/>
0141        <ProtocolVersionMinor type="Integer" value="1"/>
0142      </ProtocolVersion>
0143      <BatchCount type="Integer" value="1"/>
0144    </RequestHeader>
0145    <BatchItem>
0146      <Operation type="Enumeration" value="Destroy"/>
0147      <RequestPayload>
0148        <UniqueIdentifier type="TextString"
      value="$UNIQUE_IDENTIFIER_0"/>
0149      </RequestPayload>
0150    </BatchItem>
0151  </RequestMessage>
```

```
0152  <ResponseMessage>
0153    <ResponseHeader>
0154      <ProtocolVersion>
0155        <ProtocolVersionMajor type="Integer" value="1"/>
0156        <ProtocolVersionMinor type="Integer" value="1"/>
0157      </ProtocolVersion>
0158      <TimeStamp type="DateTime" value="2012-04-27T08:12:25+00:00"/>
0159      <BatchCount type="Integer" value="1"/>
0160    </ResponseHeader>
0161    <BatchItem>
0162      <Operation type="Enumeration" value="Destroy"/>
0163      <ResultStatus type="Enumeration" value="Success"/>
0164      <ResponsePayload>
0165        <UniqueIdentifier type="TextString"
      value="$UNIQUE_IDENTIFIER_0"/>
0166      </ResponsePayload>
0167    </BatchItem>
0168  </ResponseMessage>
```

```
      # TIME 3
0169  <RequestMessage>
```

```
  <RequestHeader>
    <ProtocolVersion>
      <ProtocolVersionMajor type="Integer" value="1"/>
      <ProtocolVersionMinor type="Integer" value="1"/>
    </ProtocolVersion>
    <BatchCount type="Integer" value="1"/>
  </RequestHeader>
  <BatchItem>
    <Operation type="Enumeration" value="GetAttributes"/>
    <RequestPayload>
      <UniqueIdentifier type="TextString"
value="$UNIQUE_IDENTIFIER_0"/>
    </RequestPayload>
  </BatchItem>
</RequestMessage>
```

```
<ResponseMessage>
  <ResponseHeader>
    <ProtocolVersion>
      <ProtocolVersionMajor type="Integer" value="1"/>
      <ProtocolVersionMinor type="Integer" value="1"/>
    </ProtocolVersion>
    <TimeStamp type="DateTime" value="2012-04-27T08:12:25+00:00"/>
    <BatchCount type="Integer" value="1"/>
  </ResponseHeader>
  <BatchItem>
    <Operation type="Enumeration" value="GetAttributes"/>
    <ResultStatus type="Enumeration" value="Success"/>
    <ResponsePayload>
      <UniqueIdentifier type="TextString"
value="$UNIQUE_IDENTIFIER_0"/>
      <Attribute>
        <AttributeName type="TextString" value="Unique Identifier"/>
        <AttributeValue type="TextString"
value="$UNIQUE IDENTIFIER 0"/>
      </Attribute>
      <Attribute>
        <AttributeName type="TextString" value="Object Type"/>
        <AttributeValue type="Enumeration" value="SymmetricKey"/>
      </Attribute>
      <Attribute>
        <AttributeName type="TextString" value="Cryptographic
Algorithm"/>
        <AttributeValue type="Enumeration" value="AES"/>
      </Attribute>
      <Attribute>
        <AttributeName type="TextString" value="Cryptographic
Length"/>
        <AttributeValue type="Integer" value="256"/>
      </Attribute>
      <Attribute>
        <AttributeName type="TextString" value="Cryptographic Usage
Mask"/>
        <AttributeValue type="Integer" value="Decrypt Encrypt"/>
      </Attribute>
      <Attribute>
        <AttributeName type="TextString" value="Destroy Date"/>
        <AttributeValue type="DateTime" value="2013-01-
11T00:39:11+00:00"/>
```

```
0221        </Attribute>
0222        <Attribute>
0223          <AttributeName type="TextString" value="Digest"/>
0224          <AttributeValue>
0225            <HashingAlgorithm type="Enumeration" value="SHA_256"/>
0226            <DigestValue type="ByteString"
      value="bf60cac2a3f82e6added839c87b0bdbc386d6280c14c8f09ca96e098365f7
      fe3"/>
0227            <KeyFormatType type="Enumeration" value="Raw"/>
0228          </AttributeValue>
0229        </Attribute>
0230        <Attribute>
0231          <AttributeName type="TextString" value="Fresh"/>
0232          <AttributeValue type="Boolean" value="true"/>
0233        </Attribute>
0234        <Attribute>
0235          <AttributeName type="TextString" value="Initial Date"/>
0236          <AttributeValue type="DateTime" value="2013-01-
      11T00:39:11+00:00"/>
0237        </Attribute>
0238        <Attribute>
0239          <AttributeName type="TextString" value="Last Change Date"/>
0240          <AttributeValue type="DateTime" value="2013-01-
      11T00:39:11+00:00"/>
0241        </Attribute>
0242        <Attribute>
0243          <AttributeName type="TextString" value="Lease Time"/>
0244          <AttributeValue type="Interval" value="3600"/>
0245        </Attribute>
0246        <Attribute>
0247          <AttributeName type="TextString" value="Name"/>
0248          <AttributeValue>
0249            <NameValue type="TextString" value="SKLC-O-1-11"/>
0250            <NameType type="Enumeration"
      value="UninterpretedTextString"/>
0251          </AttributeValue>
0252        </Attribute>
0253        <Attribute>
0254          <AttributeName type="TextString" value="State"/>
0255          <AttributeValue type="Enumeration" value="Destroyed"/>
0256        </Attribute>
0257      </ResponsePayload>
0258    </BatchItem>
0259  </ResponseMessage>
```

139

140

141 3.6 Optional Test Cases KMIP v1.2

142 3.6.1 SKLC-O-1-12

143 Create, GetAttributes, Destroy, GetAttributes

```
      # TIME 0
0001  <RequestMessage>
0002    <RequestHeader>
0003      <ProtocolVersion>
```

```
0004        <ProtocolVersionMajor type="Integer" value="1"/>
0005        <ProtocolVersionMinor type="Integer" value="2"/>
0006      </ProtocolVersion>
0007      <BatchCount type="Integer" value="1"/>
0008    </RequestHeader>
0009    <BatchItem>
0010      <Operation type="Enumeration" value="Create"/>
0011      <RequestPayload>
0012        <ObjectType type="Enumeration" value="SymmetricKey"/>
0013        <TemplateAttribute>
0014          <Attribute>
0015            <AttributeName type="TextString" value="Cryptographic
    Algorithm"/>
0016            <AttributeValue type="Enumeration" value="AES"/>
0017          </Attribute>
0018          <Attribute>
0019            <AttributeName type="TextString" value="Cryptographic
    Length"/>
0020            <AttributeValue type="Integer" value="256"/>
0021          </Attribute>
0022          <Attribute>
0023            <AttributeName type="TextString" value="Cryptographic
    Usage Mask"/>
0024            <AttributeValue type="Integer" value="Encrypt Decrypt"/>
0025          </Attribute>
0026          <Attribute>
0027            <AttributeName type="TextString" value="Name"/>
0028            <AttributeValue>
0029              <NameValue type="TextString" value="SKLC-O-1-12"/>
0030              <NameType type="Enumeration"
    value="UninterpretedTextString"/>
0031            </AttributeValue>
0032          </Attribute>
0033        </TemplateAttribute>
0034      </RequestPayload>
0035    </BatchItem>
0036  </RequestMessage>
```

```
0037  <ResponseMessage>
0038    <ResponseHeader>
0039      <ProtocolVersion>
0040        <ProtocolVersionMajor type="Integer" value="1"/>
0041        <ProtocolVersionMinor type="Integer" value="2"/>
0042      </ProtocolVersion>
0043      <TimeStamp type="DateTime" value="2012-04-27T08:12:24+00:00"/>
0044      <BatchCount type="Integer" value="1"/>
0045    </ResponseHeader>
0046    <BatchItem>
0047      <Operation type="Enumeration" value="Create"/>
0048      <ResultStatus type="Enumeration" value="Success"/>
0049      <ResponsePayload>
0050        <ObjectType type="Enumeration" value="SymmetricKey"/>
0051        <UniqueIdentifier type="TextString"
    value="$UNIQUE_IDENTIFIER_0"/>
0052      </ResponsePayload>
0053    </BatchItem>
0054  </ResponseMessage>
```

```
      # TIME 1
0055  <RequestMessage>
```

```
0056    <RequestHeader>
0057      <ProtocolVersion>
0058        <ProtocolVersionMajor type="Integer" value="1"/>
0059        <ProtocolVersionMinor type="Integer" value="2"/>
0060      </ProtocolVersion>
0061      <BatchCount type="Integer" value="1"/>
0062    </RequestHeader>
0063    <BatchItem>
0064      <Operation type="Enumeration" value="GetAttributes"/>
0065      <RequestPayload>
0066        <UniqueIdentifier type="TextString"
        value="$UNIQUE_IDENTIFIER_0"/>
0067        <AttributeName type="TextString" value="State"/>
0068        <AttributeName type="TextString" value="Cryptographic Usage
        Mask"/>
0069        <AttributeName type="TextString" value="Unique Identifier"/>
0070        <AttributeName type="TextString" value="Object Type"/>
0071        <AttributeName type="TextString" value="Cryptographic
        Algorithm"/>
0072        <AttributeName type="TextString" value="Cryptographic
        Length"/>
0073        <AttributeName type="TextString" value="Digest"/>
0074        <AttributeName type="TextString" value="Initial Date"/>
0075        <AttributeName type="TextString" value="Last Change Date"/>
0076        <AttributeName type="TextString" value="Activation Date"/>
0077      </RequestPayload>
0078    </BatchItem>
0079  </RequestMessage>
```

```
0080  <ResponseMessage>
0081    <ResponseHeader>
0082      <ProtocolVersion>
0083        <ProtocolVersionMajor type="Integer" value="1"/>
0084        <ProtocolVersionMinor type="Integer" value="2"/>
0085      </ProtocolVersion>
0086      <TimeStamp type="DateTime" value="2012-04-27T08:12:24+00:00"/>
0087      <BatchCount type="Integer" value="1"/>
0088    </ResponseHeader>
0089    <BatchItem>
0090      <Operation type="Enumeration" value="GetAttributes"/>
0091      <ResultStatus type="Enumeration" value="Success"/>
0092      <ResponsePayload>
0093        <UniqueIdentifier type="TextString"
        value="$UNIQUE_IDENTIFIER_0"/>
0094        <Attribute>
0095          <AttributeName type="TextString" value="State"/>
0096          <AttributeValue type="Enumeration" value="PreActive"/>
0097        </Attribute>
0098        <Attribute>
0099          <AttributeName type="TextString" value="Cryptographic Usage
        Mask"/>
0100          <AttributeValue type="Integer" value="Decrypt Encrypt"/>
0101        </Attribute>
0102        <Attribute>
0103          <AttributeName type="TextString" value="Unique Identifier"/>
0104          <AttributeValue type="TextString"
        value="$UNIQUE_IDENTIFIER_0"/>
0105        </Attribute>
0106        <Attribute>
```

```
0107          <AttributeName type="TextString" value="Object Type"/>
0108          <AttributeValue type="Enumeration" value="SymmetricKey"/>
0109        </Attribute>
0110        <Attribute>
0111          <AttributeName type="TextString" value="Cryptographic
      Algorithm"/>
0112          <AttributeValue type="Enumeration" value="AES"/>
0113        </Attribute>
0114        <Attribute>
0115          <AttributeName type="TextString" value="Cryptographic
      Length"/>
0116          <AttributeValue type="Integer" value="256"/>
0117        </Attribute>
0118        <Attribute>
0119          <AttributeName type="TextString" value="Digest"/>
0120          <AttributeValue>
0121            <HashingAlgorithm type="Enumeration" value="SHA_256"/>
0122            <DigestValue type="ByteString"
      value="bc12861408b8ac72cdb3b2748ad342b7dc519bd109046a1b931fdaed73591
      f29"/>
0123            <KeyFormatType type="Enumeration" value="Raw"/>
0124          </AttributeValue>
0125        </Attribute>
0126        <Attribute>
0127          <AttributeName type="TextString" value="Initial Date"/>
0128          <AttributeValue type="DateTime" value="2013-01-
      10T23:33:21+00:00"/>
0129        </Attribute>
0130        <Attribute>
0131          <AttributeName type="TextString" value="Last Change Date"/>
0132          <AttributeValue type="DateTime" value="2013-01-
      10T23:33:21+00:00"/>
0133        </Attribute>
0134      </ResponsePayload>
0135    </BatchItem>
0136  </ResponseMessage>
```

```
      # TIME 2
0137  <RequestMessage>
0138    <RequestHeader>
0139      <ProtocolVersion>
0140        <ProtocolVersionMajor type="Integer" value="1"/>
0141        <ProtocolVersionMinor type="Integer" value="2"/>
0142      </ProtocolVersion>
0143      <BatchCount type="Integer" value="1"/>
0144    </RequestHeader>
0145    <BatchItem>
0146      <Operation type="Enumeration" value="Destroy"/>
0147      <RequestPayload>
0148        <UniqueIdentifier type="TextString"
      value="$UNIQUE_IDENTIFIER_0"/>
0149      </RequestPayload>
0150    </BatchItem>
0151  </RequestMessage>
```

```
0152  <ResponseMessage>
0153    <ResponseHeader>
0154      <ProtocolVersion>
0155        <ProtocolVersionMajor type="Integer" value="1"/>
0156        <ProtocolVersionMinor type="Integer" value="2"/>
```

```
0157        </ProtocolVersion>
0158        <TimeStamp type="DateTime" value="2012-04-27T08:12:25+00:00"/>
0159        <BatchCount type="Integer" value="1"/>
0160      </ResponseHeader>
0161      <BatchItem>
0162        <Operation type="Enumeration" value="Destroy"/>
0163        <ResultStatus type="Enumeration" value="Success"/>
0164        <ResponsePayload>
0165          <UniqueIdentifier type="TextString"
      value="$UNIQUE_IDENTIFIER_0"/>
0166        </ResponsePayload>
0167      </BatchItem>
0168    </ResponseMessage>
```

```
      # TIME 3
0169  <RequestMessage>
0170    <RequestHeader>
0171      <ProtocolVersion>
0172        <ProtocolVersionMajor type="Integer" value="1"/>
0173        <ProtocolVersionMinor type="Integer" value="2"/>
0174      </ProtocolVersion>
0175      <BatchCount type="Integer" value="1"/>
0176    </RequestHeader>
0177    <BatchItem>
0178      <Operation type="Enumeration" value="GetAttributes"/>
0179      <RequestPayload>
0180        <UniqueIdentifier type="TextString"
      value="$UNIQUE_IDENTIFIER_0"/>
0181      </RequestPayload>
0182    </BatchItem>
0183  </RequestMessage>
```

```
0184  <ResponseMessage>
0185    <ResponseHeader>
0186      <ProtocolVersion>
0187        <ProtocolVersionMajor type="Integer" value="1"/>
0188        <ProtocolVersionMinor type="Integer" value="2"/>
0189      </ProtocolVersion>
0190      <TimeStamp type="DateTime" value="2012-04-27T08:12:25+00:00"/>
0191      <BatchCount type="Integer" value="1"/>
0192    </ResponseHeader>
0193    <BatchItem>
0194      <Operation type="Enumeration" value="GetAttributes"/>
0195      <ResultStatus type="Enumeration" value="Success"/>
0196      <ResponsePayload>
0197        <UniqueIdentifier type="TextString"
      value="$UNIQUE_IDENTIFIER_0"/>
0198        <Attribute>
0199          <AttributeName type="TextString" value="Unique Identifier"/>
0200          <AttributeValue type="TextString"
      value="$UNIQUE_IDENTIFIER_0"/>
0201        </Attribute>
0202        <Attribute>
0203          <AttributeName type="TextString" value="Object Type"/>
0204          <AttributeValue type="Enumeration" value="SymmetricKey"/>
0205        </Attribute>
0206        <Attribute>
0207          <AttributeName type="TextString" value="Cryptographic
      Algorithm"/>
0208          <AttributeValue type="Enumeration" value="AES"/>
```

```
0209        </Attribute>
0210        <Attribute>
0211          <AttributeName type="TextString" value="Cryptographic
      Length"/>
0212          <AttributeValue type="Integer" value="256"/>
0213        </Attribute>
0214        <Attribute>
0215          <AttributeName type="TextString" value="Cryptographic Usage
      Mask"/>
0216          <AttributeValue type="Integer" value="Decrypt Encrypt"/>
0217        </Attribute>
0218        <Attribute>
0219          <AttributeName type="TextString" value="Destroy Date"/>
0220          <AttributeValue type="DateTime" value="2013-01-
      11T00:39:11+00:00"/>
0221        </Attribute>
0222        <Attribute>
0223          <AttributeName type="TextString" value="Digest"/>
0224          <AttributeValue>
0225            <HashingAlgorithm type="Enumeration" value="SHA_256"/>
0226            <DigestValue type="ByteString"
      value="bf60cac2a3f82e6added839c87b0bdbc386d6280c14c8f09ca96e098365f7
      fe3"/>
0227            <KeyFormatType type="Enumeration" value="Raw"/>
0228          </AttributeValue>
0229        </Attribute>
0230        <Attribute>
0231          <AttributeName type="TextString" value="Fresh"/>
0232          <AttributeValue type="Boolean" value="true"/>
0233        </Attribute>
0234        <Attribute>
0235          <AttributeName type="TextString" value="Initial Date"/>
0236          <AttributeValue type="DateTime" value="2013-01-
      11T00:39:11+00:00"/>
0237        </Attribute>
0238        <Attribute>
0239          <AttributeName type="TextString" value="Last Change Date"/>
0240          <AttributeValue type="DateTime" value="2013-01-
      11T00:39:11+00:00"/>
0241        </Attribute>
0242        <Attribute>
0243          <AttributeName type="TextString" value="Lease Time"/>
0244          <AttributeValue type="Interval" value="3600"/>
0245        </Attribute>
0246        <Attribute>
0247          <AttributeName type="TextString" value="Name"/>
0248          <AttributeValue>
0249            <NameValue type="TextString" value="SKLC-O-1-12"/>
0250            <NameType type="Enumeration"
      value="UninterpretedTextString"/>
0251          </AttributeValue>
0252        </Attribute>
0253        <Attribute>
0254          <AttributeName type="TextString" value="Original Creation
      Date"/>
0255          <AttributeValue type="DateTime" value="2013-01-
      11T00:39:11+00:00"/>
0256        </Attribute>
```

```
      <Attribute>
        <AttributeName type="TextString" value="State"/>
        <AttributeValue type="Enumeration" value="Destroyed"/>
      </Attribute>
    </ResponsePayload>
  </BatchItem>
</ResponseMessage>
```

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4 Conformance

4.1 Symmetric Key Lifecycle Client KMIP v1.0 Profile Conformance

KMIP client implementations conformant to this profile:

1. SHALL support the Authentication Suite conditions (2.1) and;
2. SHALL support the Symmetric Key Lifecycle - Client conditions (2.2) and;
3. SHALL support all Mandatory Test Cases KMIP v1.0 (3.1).

4.2 Symmetric Key Lifecycle Client KMIP v1.1 Profile Conformance

KMIP client implementations conformant to this profile:

1. SHALL support the Authentication Suite conditions (2.1) and;
2. SHALL support the Symmetric Key Lifecycle - Client conditions (2.2) and;
3. SHALL support all Mandatory Test Cases KMIP v1.1 (3.2).

4.3 Symmetric Key Lifecycle Client KMIP v1.2 Profile Conformance

KMIP client implementations conformant to this profile:

1. SHALL support the Authentication Suite conditions (2.1) and;
2. SHALL support the Symmetric Key Lifecycle - Client conditions (2.2) and;
3. SHALL support all Mandatory Test Cases KMIP v1.2 (3.3).

4.4 Symmetric Key Lifecycle Server KMIP v1.0 Profile Conformance

KMIP server implementations conformant to this profile:

1. SHALL support the Authentication Suite conditions (2.1) and;
2. SHALL support the Symmetric Key Lifecycle - Server conditions (2.3) and;
3. SHALL support all Mandatory Test Cases KMIP v1.0 (3.1).

4.5 Symmetric Key Lifecycle Server KMIP v1.1 Profile Conformance

KMIP server implementations conformant to this profile:

1. SHALL support the Authentication Suite conditions (2.1) and;
2. SHALL support the Symmetric Key Lifecycle - Server conditions (2.3) and;
3. SHALL support all Mandatory Test Cases KMIP v1.1 (3.2).

4.6 Symmetric Key Lifecycle Server KMIP v1.2 Profile Conformance

KMIP server implementations conformant to this profile:

1. SHALL support the Authentication Suite conditions (2.1) and;
2. SHALL support the Symmetric Key Lifecycle - Server conditions (2.3) and;
3. SHALL support all Mandatory Test Cases KMIP v1.2 (3.3).

4.7 Permitted Test Case Variations

Whilst the test cases provided in this Profile define the allowed request and response content, some inherent variations MAY occur and are permitted within a successfully completed test case.

Each test case MAY include allowed variations in the description of the test case in addition to the variations noted in this section.

Other variations not explicitly noted in this Profile SHALL be deemed non-conformant.

4.7.1 Variable Items

An implementation conformant to this Profile MAY vary the following values:

1. UniqueIdentifier
2. PrivateKeyUniqueIdentifier
3. PublicKeyUniqueIdentifier
4. UniqueBatchItemIdentifier
5. AsynchronousCorrelationValue
6. TimeStamp
7. KeyValue / KeyMaterial including:
    a. key material content returned for managed cryptographic objects which are generated by the server
    b. wrapped versions of keys where the wrapping key is dynamic or the wrapping contains variable output for each wrap operation
8. For response containing the output of cryptographic operation in Data / SignatureData/ MACData / IVCounterNonce where:
    a. the managed object is generated by the server; or
    b. the operation inherently contains variable output
9. For the following DateTime attributes where the value is not specified in the request as a fixed DateTime value:
    a. ActivationDate
    b. ArchiveDate
    c. CompromiseDate
    d. CompromiseOccurrenceDate
    e. DeactivationDate
    f. DestroyDate
    g. InitialDate
    h. LastChangeDate
    i. ProtectStartDate
    j. ProcessStopDate
    k. ValidityDate
    l. OriginalCreationDate
10. LinkedObjectIdentifier
11. DigestValue
    a. For those managed cryptographic objects which are dynamically generated
12. KeyFormatType
    a. The key format type selected by the server when it creates managed objects
13. Digest
    a. The HashingAlgorithm selected by the server when it calculates the digest for a managed object for which it has access to the key material
    b. The Digest Value

14. Extensions reported in Query for ExtensionList and ExtensionMap
15. Application Namespaces reported in Query
16. Object Types reported in Query other than those noted as required in this profile
17. Operation Types reported in Query other than those noted as required in this profile (or any referenced profile documents)
18. For TextString attribute values containing test identifiers:
    a. Additional vendor or application prefixes
19. Additional attributes beyond those noted in the response

An implementation conformant to this Profile MAY allow the following response variations:

20. Object Group values – May or may not return one or more Object Group values not included in the requests
21. y-CustomAttributes – May or may not include additional server-specific associated attributes not included in requests
22. Message Extensions – May or may not include additional (non-critical) vendor extensions
23. TemplateAttribute – May or may not be included in responses where the Template Attribute response is noted as optional in [KMIP-SPEC]
24. AttributeIndex – May or may not include Attribute Index value where the Attribute Index value is 0 for Protocol Versions 1.1 and above.
25. ResultMessage – May or may not be included in responses and the value (if included) may vary from the text contained within the test case.
26. The list of Protocol Versions returned in a DiscoverVersion response may include additional protocol versions if the request has not specified a list of client supported Protocol Versions.
27. VendorIdentification - The value (if included) may vary from the text contained within the test case.

4.7.2 Variable behavior

An implementation conformant to this Profile SHALL allow variation of the following behavior:

1. A test may omit the clean-up requests and responses (containing Revoke and/or Destroy) at the end of the test provided there is a separate mechanism to remove the created objects during testing.
2. A test may omit the test identifiers if the client is unable to include them in requests. This includes the following attributes:
    a. Name; and
    b. x-ID
3. A test MAY perform requests with multiple batch items or as multiple requests with a single batch item provided the sequence of operations are equivalent
4. A request MAY contain an optional *Authentication* [KMIP_SPEC] structure within each request

Appendix A. Acknowledgments

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Participants:

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Appendix B. KMIP Specification Cross Reference

Reference Term	KMIP 1.0	KMIP 1.1	KMIP 1.2
1 Introduction			
Non-Normative References	1.3.	1.3.	1.3.
Normative References	1.2.	1.2.	1.2.
Terminology	1.1.	1.1.	1.1.
2 Objects			
Attribute	2.1.1.	2.1.1.	2.1.1.
Base Objects	2.1.	2.1.	2.1.
Certificate	2.2.1.	2.2.1.	2.2.1.
Credential	2.1.2.	2.1.2.	2.1.2.
Data	-	-	2.1.10.
Data Length	-	-	2.1.11.
Extension Information	-	2.1.9.	2.1.9.
Key Block	2.1.3.	2.1.3.	2.1.3.
Key Value	2.1.4.	2.1.4.	2.1.4.
Key Wrapping Data	2.1.5.	2.1.5.	2.1.5.
Key Wrapping Specification	2.1.6.	2.1.6.	2.1.6.
MAC Data	-	-	2.1.13.
Managed Objects	2.2.	2.2.	2.2.
Nonce	-	-	2.1.14.
Opaque Object	2.2.8.	2.2.8.	2.2.8.
PGP Key	-	-	2.2.9.
Private Key	2.2.4.	2.2.4.	2.2.4.
Public Key	2.2.3.	2.2.3.	2.2.3.
Secret Data	2.2.7.	2.2.7.	2.2.7.
Signature Data	-	-	2.1.12.
Split Key	2.2.5.	2.2.5.	2.2.5.
Symmetric Key	2.2.2.	2.2.2.	2.2.2.
Template	2.2.6.	2.2.6.	2.2.6.
Template-Attribute Structures	2.1.8.	2.1.8.	2.1.8.
Transparent DH Private Key	2.1.7.6.	2.1.7.6.	2.1.7.6.
Transparent DH Public Key	2.1.7.7.	2.1.7.7.	2.1.7.7.
Transparent DSA Private Key	2.1.7.2.	2.1.7.2.	2.1.7.2.
Transparent DSA Public Key	2.1.7.3.	2.1.7.3.	2.1.7.3.
Transparent ECDH Private Key	2.1.7.10.	2.1.7.10.	2.1.7.10.
Transparent ECDH Public Key	2.1.7.11.	2.1.7.11.	2.1.7.11.
Transparent ECDSA Private Key	2.1.7.8.	2.1.7.8.	2.1.7.8.
Transparent ECDSA Public Key	2.1.7.9.	2.1.7.9.	2.1.7.9.
Transparent ECMQV Private Key	2.1.7.12.	2.1.7.12.	2.1.7.12.
Transparent ECMQV Public Key	2.1.7.13.	2.1.7.13.	2.1.7.13.
Transparent Key Structures	2.1.7.	2.1.7.	2.1.7.
Transparent RSA Private Key	2.1.7.4.	2.1.7.4.	2.1.7.4.
Transparent RSA Public Key	2.1.7.5.	2.1.7.5.	2.1.7.5.
Transparent Symmetric Key	2.1.7.1.	2.1.7.1.	2.1.7.1.
3 Attributes			
Activation Date	3.19.	3.24.	3.24.
Alternative Name	-	-	3.40.
Application Specific Information	3.30.	3.36.	3.36.
Archive Date	3.27.	3.32.	3.32.

Reference Term	KMIP 1.0	KMIP 1.1	KMIP 1.2
Attributes	3	3	3
Certificate Identifier	3.9.	3.13.	3.13.
Certificate Issuer	3.11.	3.15.	3.15.
Certificate Length	-	3.9.	3.9.
Certificate Subject	3.10.	3.14.	3.14.
Certificate Type	3.8.	3.8.	3.8.
Compromise Date	3.25.	3.30.	3.30.
Compromise Occurrence Date	3.24.	3.29.	3.29.
Contact Information	3.31.	3.37.	3.37.
Cryptographic Algorithm	3.4.	3.4.	3.4.
Cryptographic Domain Parameters	3.7.	3.7.	3.7.
Cryptographic Length	3.5.	3.5.	3.5.
Cryptographic Parameters	3.6.	3.6.	3.6.
Custom Attribute	3.33.	3.39.	3.39.
Deactivation Date	3.22.	3.27.	3.27.
Default Operation Policy	3.13.2.	3.18.2.	3.18.2.
Default Operation Policy for Certificates and Public Key Objects	3.13.2.2.	3.18.2.2.	3.18.2.2.
Default Operation Policy for Secret Objects	3.13.2.1.	3.18.2.1.	3.18.2.1.
Default Operation Policy for Template Objects	3.13.2.3.	3.18.2.3.	3.18.2.3.
Destroy Date	3.23.	3.28.	3.28.
Digest	3.12.	3.17.	3.17.
Digital Signature Algorithm	-	3.16.	3.16.
Fresh	-	3.34.	3.34.
Initial Date	3.18.	3.23.	3.23.
Key Value Location	-	-	3.42.
Key Value Present	-	-	3.41.
Last Change Date	3.32.	3.38.	3.38.
Lease Time	3.15.	3.20.	3.20.
Link	3.29.	3.35.	3.35.
Name	3.2.	3.2.	3.2.
Object Group	3.28.	3.33.	3.33.
Object Type	3.3.	3.3.	3.3.
Operation Policy Name	3.13.	3.18.	3.18.
Operations outside of operation policy control	3.13.1.	3.18.1.	3.18.1.
Original Creation Date	-	-	3.43.
Process Start Date	3.20.	3.25.	3.25.
Protect Stop Date	3.21.	3.26.	3.26.
Revocation Reason	3.26.	3.31.	3.31.
State	3.17.	3.22.	3.22.
Unique Identifier	3.1.	3.1.	3.1.
Usage Limits	3.16.	3.21.	3.21.
X.509 Certificate Identifier	-	3.10.	3.10.
X.509 Certificate Issuer	-	3.12.	3.12.
X.509 Certificate Subject	-	3.11.	3.11.
4 Client-to-Server Operations			
Activate	4.18.	4.19.	4.19.
Add Attribute	4.13.	4.14.	4.14.
Archive	4.21.	4.22.	4.22.
Cancel	4.25.	4.27.	4.27.
Certify	4.6.	4.7.	4.7.
Check	4.9.	4.10.	4.10.
Create	4.1.	4.1.	4.1.
Create Key Pair	4.2.	4.2.	4.2.

Reference Term	KMIP 1.0	KMIP 1.1	KMIP 1.2
Create Split Key	-	-	4.38.
Decrypt	-	-	4.30.
Delete Attribute	4.15.	4.16.	4.16.
Derive Key	4.5.	4.6.	4.6.
Destroy	4.20.	4.21.	4.21.
Discover Versions	-	4.26.	4.26.
Encrypt	-	-	4.29.
Get	4.10.	4.11.	4.11.
Get Attribute List	4.12.	4.13.	4.13.
Get Attributes	4.11.	4.12.	4.12.
Get Usage Allocation	4.17.	4.18.	4.18.
Hash	-	-	4.37.
Join Split Key	-	-	4.39.
Locate	4.8.	4.9.	4.9.
MAC	-	-	4.33.
MAC Verify	-	-	4.34.
Modify Attribute	4.14.	4.15.	4.15.
Obtain Lease	4.16.	4.17.	4.17.
Poll	4.26.	4.28.	4.28.
Query	4.24.	4.25.	4.25.
Re-certify	4.7.	4.8.	4.8.
Recover	4.22.	4.23.	4.23.
Register	4.3.	4.3.	4.3.
Re-key	4.4.	4.4.	4.4.
Re-key Key Pair	-	4.5.	4.5.
Revoke	4.19.	4.20.	4.20.
RNG Retrieve	-	-	4.35.
RNG Seed	-	-	4.36.
Sign	-	-	4.31.
Signature Verify	-	-	4.32.
Validate	4.23.	4.24.	4.24.
5 Server-to-Client Operations			
Notify	5.1.	5.1.	5.1.
Put	5.2.	5.2.	5.2.
6 Message Contents			
Asynchronous Correlation Value	6.8.	6.8.	6.8.
Asynchronous Indicator	6.7.	6.7.	6.7.
Attestation Capable Indicator	-	-	6.17.
Batch Count	6.14.	6.14.	6.14.
Batch Error Continuation Option	6.13.	6.13.	6.13.
Batch Item	6.15.	6.15.	6.15.
Batch Order Option	6.12.	6.12.	6.12.
Maximum Response Size	6.3.	6.3.	6.3.
Message Extension	6.16.	6.16.	6.16.
Operation	6.2.	6.2.	6.2.
Protocol Version	6.1.	6.1.	6.1.
Result Message	6.11.	6.11.	6.11.
Result Reason	6.10.	6.10.	6.10.
Result Status	6.9.	6.9.	6.9.
Time Stamp	6.5.	6.5.	6.5.
Unique Batch Item ID	6.4.	6.4.	6.4.
7 Message Format			

Reference Term	KMIP 1.0	KMIP 1.1	KMIP 1.2
Message Structure	7.1.	7.1.	7.1.
Operations	7.2.	7.2.	7.2.
8 Authentication			
Authentication	8	8	8
9 Message Encoding			
Alternative Name Type Enumeration	-	-	9.1.3.2.34.
Attestation Type Enumeration	-	-	9.1.3.2.36.
Batch Error Continuation Option Enumeration	9.1.3.2.29.	9.1.3.2.30.	9.1.3.2.30.
Bit Masks	9.1.3.3.	9.1.3.3.	9.1.3.3.
Block Cipher Mode Enumeration	9.1.3.2.13.	9.1.3.2.14.	9.1.3.2.14.
Cancellation Result Enumeration	9.1.3.2.24.	9.1.3.2.25.	9.1.3.2.25.
Certificate Request Type Enumeration	9.1.3.2.21.	9.1.3.2.22.	9.1.3.2.22.
Certificate Type Enumeration	9.1.3.2.6.	9.1.3.2.6.	9.1.3.2.6.
Credential Type Enumeration	9.1.3.2.1.	9.1.3.2.1.	9.1.3.2.1.
Cryptographic Algorithm Enumeration	9.1.3.2.12.	9.1.3.2.13.	9.1.3.2.13.
Cryptographic Usage Mask	9.1.3.3.1.	9.1.3.3.1.	9.1.3.3.1.
Defined Values	9.1.3.	9.1.3.	9.1.3.
Derivation Method Enumeration	9.1.3.2.20.	9.1.3.2.21.	9.1.3.2.21.
Digital Signature Algorithm Enumeration	-	9.1.3.2.7.	9.1.3.2.7.
Encoding Option Enumeration	-	9.1.3.2.32.	9.1.3.2.32.
Enumerations	9.1.3.2.	9.1.3.2.	9.1.3.2.
Examples	9.1.2.	9.1.2.	9.1.2.
Hashing Algorithm Enumeration	9.1.3.2.15.	9.1.3.2.16.	9.1.3.2.16.
Item Length	9.1.1.3.	9.1.1.3.	9.1.1.3.
Item Tag	9.1.1.1.	9.1.1.1.	9.1.1.1.
Item Type	9.1.1.2.	9.1.1.2.	9.1.1.2.
Item Value	9.1.1.4.	9.1.1.4.	9.1.1.4.
Key Compression Type Enumeration	9.1.3.2.2.	9.1.3.2.2.	9.1.3.2.2.
Key Format Type Enumeration	9.1.3.2.3.	9.1.3.2.3.	9.1.3.2.3.
Key Role Type Enumeration	9.1.3.2.16.	9.1.3.2.17.	9.1.3.2.17.
Key Value Location Type Enumeration	-	-	9.1.3.2.35.
Link Type Enumeration	9.1.3.2.19.	9.1.3.2.20.	9.1.3.2.20.
Name Type Enumeration	9.1.3.2.10.	9.1.3.2.11.	9.1.3.2.11.
Object Group Member Enumeration	-	9.1.3.2.33.	9.1.3.2.33.
Object Type Enumeration	9.1.3.2.11.	9.1.3.2.12.	9.1.3.2.12.
Opaque Data Type Enumeration	9.1.3.2.9.	9.1.3.2.10.	9.1.3.2.10.
Operation Enumeration	9.1.3.2.26.	9.1.3.2.27.	9.1.3.2.27.
Padding Method Enumeration	9.1.3.2.14.	9.1.3.2.15.	9.1.3.2.15.
Put Function Enumeration	9.1.3.2.25.	9.1.3.2.26.	9.1.3.2.26.
Query Function Enumeration	9.1.3.2.23.	9.1.3.2.24.	9.1.3.2.24.
Recommended Curve Enumeration for ECDSA, ECDH, and ECMQV	9.1.3.2.5.	9.1.3.2.5.	9.1.3.2.5.
Result Reason Enumeration	9.1.3.2.28.	9.1.3.2.29.	9.1.3.2.29.
Result Status Enumeration	9.1.3.2.27.	9.1.3.2.28.	9.1.3.2.28.
Revocation Reason Code Enumeration	9.1.3.2.18.	9.1.3.2.19.	9.1.3.2.19.
Secret Data Type Enumeration	9.1.3.2.8.	9.1.3.2.9.	9.1.3.2.9.
Split Key Method Enumeration	9.1.3.2.7.	9.1.3.2.8.	9.1.3.2.8.
State Enumeration	9.1.3.2.17.	9.1.3.2.18.	9.1.3.2.18.
Storage Status Mask	9.1.3.3.2.	9.1.3.3.2.	9.1.3.3.2.
Tags	9.1.3.1.	9.1.3.1.	9.1.3.1.
TTLV Encoding	9.1.	9.1.	9.1.
TTLV Encoding Fields	9.1.1.	9.1.1.	9.1.1.
Usage Limits Unit Enumeration	9.1.3.2.30.	9.1.3.2.31.	9.1.3.2.31.

Reference Term	**KMIP 1.0**	**KMIP 1.1**	**KMIP 1.2**
Validity Indicator Enumeration	9.1.3.2.22.	9.1.3.2.23.	9.1.3.2.23.
Wrapping Method Enumeration	9.1.3.2.4.	9.1.3.2.4.	9.1.3.2.4.
XML Encoding	9.2.	-	-
10 Transport			
Transport	10	10	10
12 KMIP Server and Client Implementation Conformance			
Conformance clauses for a KMIP Server	12.1.	-	-
KMIP Client Implementation Conformance	-	12.2.	12.2.
KMIP Server Implementation Conformance	-	12.1.	12.1.

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Appendix C. Revision History

Revision	Date	Editor	Changes Made
wd01	26-June-2013	Tim Hudson / Bob Lockhart	Updated conformance wording style. Updated test case style. Included test cases for 1.0, 1.1 and 1.2. Applied new OASIS template.
wd02	6-August-2013	Tim Hudson / Bob Lockhart	Updated to include Permitted Test Case Variations and updated Test Cases based on July 2013 Interop
wd03	10-August-2013	Tim Hudson	Updated Permitted Test Case Variations and corrected Protect Stop Date typographic error in 2.2
wd03a	24-October-2013	Tim Hudson	Editorial update to include VendorIdentification in the list of allowed variations as per TC motion.
pr01update	11-June-2014	Tim Hudson	Updated following Public Review