XEP-0476: Pubsub Signing: OpenPGP Profile

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Specifies a pubsub signing profile for OpenPGP
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1 Introduction

This XMPP extension protocol specifies a profile of Pubsub Signing to use OpenPGP for signature.

2 Signing a Pubsub Item With OpenPGP

Signing an item with OpenPGP requires to have OpenPGP for XMPP (XEP-0373) implemented to handle keys, however this specification uses its own &lt;sign/&gt; element because it uses wrapper element from Pubsub Signing XEP, and signed data MUST NOT be included with the signature.

To sign an element, a client process as explained in XEP-0XXX § Signing a Pubsub Item where the "signing profile" element used is a &lt;sign/&gt; element qualified by the 'urn:xmpp:pubsub-signing:openpgp:0' namespace. This element MUST contain a Base64 encoded (RFC 4648 § 4) OpenPGP message as specified in RFC 4880 which MUST contain a detached signature as defined in RFC 4880 § 11.4 of the signed data as specified in XEP-0XXX § Signing a Pubsub Item.

Listing 1: Juliet Publishes Her Signature as an Attachment With OpenPGP Signing Profile

```
<iq xmlns="jabber:client" from="juliet@capulet.lit/chamber" to="juliet@capulet.lit">
  <pubsub xmlns="http://jabber.org/protocol/pubsub">
    <items node="urn:xmpp:pubsub-attachments:1/xmpp:juliet@capulet.lit;node=urn%3Axmpp%3Amicroblog%3A0;item=random-thoughts-12bd">
      <item id="juliet@capulet.lit">
        <attachments xmlns="urn:xmpp:pubsub-attachments:1">
          <signature xmlns="urn:xmpp:pubsub-signing:openpgp:0">
            <time stamp="2022-10-18T18:39:03Z"/>
            <signer>juliet@capulet.lit</signer>
            <sign xmlns="urn:xmpp:pubsub-signing:openpgp:0">1QGzBAABCADfEiEeyTOMos/ZmE/ikYkAzNxbQTY9CIFAmNaomUACgkJAaZxN8kY9CJQCcAv9HjiIrzIhtmWv2IoHBUgY7hUFP+CR4K1GHBQ84/ vjPShwo5qfVgaVEUK3Lw8kXawOZ45JeSZmd1KUjjuZ+ SLB1SKKoeap3KfhidT9XYA20U4tkW0wVI2cyBIWE3JRzD0YFh5YJMJOaZr0oyMiobwaMaG +Yaw1BdYzj08o2Nw/9 ledMrw0652ud4hlgpmSpIJI1T0jmy5cfrfEHMA5ERYDbGbaB/ loaHxje+8occ1l78xChoz7xCQLwVvYhHARvuotEbYRimY7s2Ozae+ uG/8wQZmeLnrwCrzDjBekW4Mbh0WUC1qCpiN0w81r1Lcb+ ZfNGMeEINSSHqMrFi3wL6WoovM2R8097/1DkgFiYAZ414CSV2ZT+ xx64pMM</sign>
          </signature>
        </attachments>
      </item>
    </items>
  </pubsub>
</iq>
```

2RFC 4648: The Base16, Base32, and Base64 Data Encodings &lt;http://tools.ietf.org/html/rfc4648&gt;.
3 Discovering Support

If a client supports the protocol specified in this XEP, it MUST advertise it by including the "urn:xmpp:pubsub-signing:openpgp:0" discovery feature in response to a Service Discovery (XEP-0030) information request:

Listing 2: Service Discovery information request

```xml
<iq type='get'
    from='juliet@example.org/chamber'
    to='romeo@example.org/orchard'
    id='disco1'>
    <query xmlns='http://jabber.org/protocol/disco#info'/>
</iq>
```

Listing 3: Service Discovery information response

```xml
<iq type='result'
    from='romeo@example.org/orchard'
    to='juliet@example.org/chamber'
    id='disco1'>
    <query xmlns='http://jabber.org/protocol/disco#info'>
        ...
        <feature var='urn:xmpp:pubsub-signing:openpgp:0'/>
        ...
    </query>
</iq>
```

4 Security Considerations

Security considerations of OpenPGP for XMPP (XEP-0373) and XEP-0XXX apply.

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8 Acknowledgements

Thanks to NLnet foundation/NGI0 Discovery for funding.