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) \(^1\) implemented to handle keys, however this specification uses its own <sign/> 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 <sign/> element qualified by the 'urn:xmpp:pubsub-signing:openpgp:0' namespace. This element MUST contain a Base64 encoded (RFC 4648 \(^2\)) OpenPGP message as specified in RFC 4880 \(^3\) which MUST contain a detached signature as defined in RFC 4880 \(^4\) § 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" node=urn:xmpp:pubsub-attachments:1;node=urn:xmpp:pubsub-attachments:1;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">iQQzBAABCaAdFiEEyTMos/ZmE+iKYkAzB0kY9CIFAmNaomUAcgkQAzNxk0kY9CJQcAv9HjIrzIhtmWVw2IoHBuGy7hUFP+CR4K1GHQ842/vjPSHwo5qfVgVEUK3Llw8kXawQZ4SJeS2dm1KUjujuZ+SLB1SKEeap3KfhdT9XyA20U4tkWwVl2cyBIyE3jRx0YFh5YmJ00oZr0oyMiobwaMaG+Yam1BdYjz0o2Nw/9ledMrwO652u4hLgpmSpIJI1TOjmy5crfEHM45ERYDgbaB/loaHxje+8occ1l78xChoz7xCQlWVYyHARvotEbYRimY78s2Ozae+uG/8wQZmeLnrwCrzDIjE4W4Mb1OwUC1QcApNoW81r1Lcb+ZfNNGMeEHSS4qMfri3WL6WovM2IR8O97/1DkgFiyAY44CVZVZT+xhE64pMM</sign>
          </signature>
        </attachments>
      </item>
    </items>
  </pubsub>
</iq>
```

\(^1\)XEP-0373: OpenPGP for XMPP [https://xmpp.org/extensions/xep-0373.html].
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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5 IANA Considerations
TODO

6 XMPP Registrar Considerations
TODO

7 XML Schema
TODO

8 Acknowledgements
Thanks to NLnet foundation/NGI0 Discovery for funding.