XEP-0476: Pubsub Signing: OpenPGP Profile

Jérôme Poisson
mailto:goffi@goffi.org
xmpp:goffi@jabber.fr

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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 <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 § 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

```xml
<iq xmlns="jabber:client" from="juliet@capulet.lit/chamber" to="juliet@capulet.lit" id="signature_1" type="set">
  <pubsub xmlns="http://jabber.org/protocol/pubsub">
    <items node="urn:xmpp:pubsub-signing:openpgp:0">
      <item id="juliet@capulet.lit">
        <attachments xmlns="urn:xmpp:pubsub-signing:openpgp:0">
          <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">
              iQGzBAAABCAdFiEeYTOwMs/ZmE/
i+yKaZxNxB0KfY9CIFAmNaomUACgkJQzNxB0KbY9CJqAcav9HjIirzIhtmWw/2IoHBugY7hUFyP+/cR4K1wiB8Y3c4sV\nsHwo5qfVgaVfKlUlww8s8wOZ4Sze7mdl1KUjuZ+SL1B1SKEeap3K6hidT9XYa20UtWmWvOvI2cyBIWE3JRXd0YFh5Y5YMJo0ZrOoyMiobwaMaGQ+
+Yaw1Bdyzj0802Ng/9
ledMrw652Ud4hLGpmSpIJI1NT0jmy5crfhEHMA5ERYDgbgaB/
loaHxje+8occ1I78xChoz7xCQlwVVyYHARvuotEbyRimY78s20zae+
+U/G/8wQZmeLnrwCrzDj14kEVW4Mb0WUClQCpNoW81rlLcb+ZfNGMeNSSHqMRRf13wL6WovM2IR8097/1DkgFiyAYA414CVY2ZT+
xx64pMM</sign>
          </sign>
        </attachments>
      </item>
    </items>
  </pubsub>
</iq>
```

4 SECURITY CONSIDERATIONS

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) \(^5\) information request:

Listing 2: Service Discovery information request

```
<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

```
<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) \(^6\) 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.