XEP-0476: Pubsub Signing: OpenPGP Profile

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2022-12-20
Version 0.1.0

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Specifies a pubsub signing profile for OpenPGP
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2 SIGNING A PUBSUB ITEM WITH OPENPGP

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 \(<\text{sign}/>\) 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 \(<\text{sign}/>\) element qualified by the 'urn:xmpp:pubsub-signing:openpgp:0' namespace. This element MUST contain a Base64 encoded (RFC 4648\(^2\) § 4) 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/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"/>
        <time stamp="2022-10-18T18:39:03Z"/>
        <signer>juliet@capulet.lit</signer>
        <sign xmlns="urn:xmpp:pubsub-signing:openpgp:0">
          iQGzBAABCAdFiEEyTOMos/ZmE//ikYkAzNxB0kY9CIFAmNaomUACgkJQZaaXNV0kY9CJQcAv9HjIrzIhtmWv2IoHBUgY7hUFP+CR4K1fQhBO42/
vjPSwo6qfVgaVEUK3Li0wXaw024SJeSZmdnVUjjuZ+SL1B1SKKEoap5KFhidT9XYA20U4tKwOwVI2cyBIWE3JRxD0YFh5YMJ0bZr0oyMiobwaMaG/
+Yaw1BdYjz08o2Nw/9ledMrwO652ud4hLGpmSpIJI1TOjmy5crfEHMA5ERYDgbaB/IoaHxje+8occ1I78xChozx7xCQLwVVyHARvouetEbYRimY78s2Ozae+uG/8wQZmeLnrwCrzDIjBek4WiMbiOWUC1QApNoW8lr1Icb+ZfNGMeENNShqMRfi3wL6W0ovM2IR8097/1DkgFiYAZ414CVV2Z+xxE64pMM</sign>
```


4 SECURITY CONSIDERATIONS

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>
```

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:

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.