



XMPP

XEP-0462: PubSub Type Filtering

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This specification provides a way to filter PubSub nodes in a disco query.

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1 Introduction

Implementations have been able to declare a `pubsub#type` attribute on PubSub nodes for about as long as [Publish-Subscribe \(XEP-0060\)](#)¹ has existed. This attribute doesn't seem to be widely used in the community though, maybe due to the vagueness of its description, that has recently changed, or the lack of features associated with it.

This specification provides a way for implementations to allow filtering on this attribute when discovering nodes on a PubSub service.

Filtering is particularly useful for example combined with [Microblogging Over XMPP \(XEP-0277\)](#)² and comment nodes that are created on the same service. When listing content nodes of a service, one may want to filter out comment nodes.

2 Requirements

- Allow querying only a subset of nodes in a disco items request, in the form of include/exclude

3 Use Cases

3.1 Discovering support

A service implementing this specification **MUST** advertize through [Service Discovery \(XEP-0030\)](#)³ a `urn:xmpp:pubsub-filter:0` feature.

3.2 Sending a disco request

While requesting `disco#items` on a PubSub service, an entity might want to only get nodes of certain `pubsub#type`. To do so, it may add a filter child of namespace `urn:xmpp:pubsub-filter:0` to the query element, containing a [Data Forms \(XEP-0004\)](#)⁴ form with `FORM_TYPE` set to `urn:xmpp:pubsub-filter:0` and an `included-types` or `excluded-types` list-multi type field containing the various types it wants to filter.

When `included-types` is specified, a PubSub service **MUST** return nodes of matching `pubsub#type` in its response.

When `excluded-types` is specified, a PubSub service **MUST** return every node but those of matching `pubsub#types` in its response.

Both `included` and `excluded` fields **MAY** contain an empty value to designate nodes with an empty `pubsub#type`.

¹XEP-0060: Publish-Subscribe <<https://xmpp.org/extensions/xep-0060.html>>.

²XEP-0277: Microblogging over XMPP <<https://xmpp.org/extensions/xep-0277.html>>.

³XEP-0030: Service Discovery <<https://xmpp.org/extensions/xep-0030.html>>.

⁴XEP-0004: Data Forms <<https://xmpp.org/extensions/xep-0004.html>>.

Listing 1: Requesting disco#items with only nodes of the following types, including empty ones

```
<iq type='get'
  from='rosa@com.int/desktop'
  to='news.common.social'
  id='disco1'>
  <query xmlns='http://jabber.org/protocol/disco#items'>
    <filter xmlns='urn:xmpp:pubsub-filter:0'>
      <x xmlns='jabber:x:data' type='submit'>
        <field var='FORM_TYPE' type='hidden'>
          <value>urn:xmpp:pubsub-filter:0</value>
        </field>
        <field type='list-multi' var='included-types'>
          <value>urn:xmpp:microblog:0</value>
          <value/>
        </field>
      </x>
    </filter>
  </query>
</iq>
```

If both the included and excluded fields are specified, a service MUST return an error of type modify containing a bad-request element in the urn:ietf:params:xml:ns:xmpp-stanzas namespace.

Listing 2: Error returned when a requesting entity includes both fields

```
<iq type='error'
  from='news.com.int'
  to='peter@commons.social/desktop'
  id='error1'>
  <error type='modify'>
    <bad-request xmlns='urn:ietf:params:xml:ns:xmpp-stanzas' />
  </error>
</iq>
```

4 IANA Considerations

None.

5 XMPP Registrar Considerations

None.

6 XML Schema

6.1 urn:xmpp:pubsub-filter:0

```
<xs:schema
  xmlns:xs='http://www.w3.org/2001/XMLSchema'
  xmlns:xdata='jabber:x:data'
  targetNamespace='urn:xmpp:pubsub-filter:0'
  xmlns='urn:xmpp:pubsub-filter:0'
  elementFormDefault='qualified'>

  <xs:annotation>
    <xs:documentation>
      The protocol documented by this schema is defined in
      XEP-XXXX: http://xmpp.org/extensions/xep-xxxx.html
    </xs:documentation>
  </xs:annotation>

  <xs:element name='filter'>
    <xs:complexType>
      <xs:choice xmlns:xdata='jabber:x:data'>
        <xs:element ref='xdata:x'/>
      </xs:choice>
    </xs:complexType>
  </xs:element>
</xs:schema>
```