



XMPP

XEP-0306: Extensible Status Conditions for Multi-User Chat

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This document defines an extensible format for status conditions in Multi-User Chat, similar to the error format used in the core of XMPP.

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Contents

| | | |
|----------|--------------------------------------|----------|
| 1 | Introduction | 1 |
| 2 | Format | 1 |
| 3 | Mapping of Existing Codes | 2 |
| 4 | Security Considerations | 3 |
| 5 | IANA Considerations | 3 |
| 6 | XMPP Registrar Considerations | 3 |
| 6.1 | Protocol Namespaces | 3 |
| 6.2 | Protocol Versioning | 3 |
| 6.3 | MUC Status Codes Registry | 3 |
| 7 | XML Schema | 4 |
| 8 | Acknowledgements | 5 |

1 Introduction

Traditionally, [Multi-User Chat \(XEP-0045\)](#)¹ has used numerical status codes similar to those used in HTTP and SMTP. Numerical codes were deprecated in the core of XMPP by [RFC 3920](#)² and are no longer even defined in the core schemas provided in [RFC 6120](#)³ (see also [Error Condition Mappings \(XEP-0086\)](#)⁴). In an effort to modernize the Multi-User Chat (MUC) protocol, this document defines an extensible format for status conditions in MUC.

2 Format

XML elements describing status conditions defined by this specification SHALL be qualified by the 'urn:xmpp:muc:conditions:1' namespace.

The structure is as follows:

```
<status xmlns='http://jabber.org/protocol/muc#user'>
  <DEFINED-CONDITION>
    [<text xml:lang='langcode'>OPTIONAL descriptive text</text>]
    [OPTIONAL application-specific condition element]
  </DEFINED-CONDITION>
  [<DEFINED-CONDITION/>]
  [OPTIONAL application-specific condition element or elements]
</status>
```

That is, any <status/> element qualified by the existing <http://jabber.org/protocol/muc#user> namespace (from XEP-0045) MAY contain one or more condition elements defined in this document (each of which MAY contain a human-readable <text/> element and MAY contain an application-specific condition element) and MAY contain one or more application-specific condition elements.

An example follows.

Listing 1: Service Sends New Occupant's Presence to New Occupant

```
<presence
  from='coven@chat.shakespeare.lit/thirdwitch'
  id='n13mt3l'
  to='hag66@shakespeare.lit/pda'>
  <x xmlns='http://jabber.org/protocol/muc#user'>
    <item affiliation='member' role='participant'>
      <status code='100'>
        <realjid-public xmlns='urn:xmpp:muc:conditions:1' />
      </status>
    </item>
  </x>
</presence>
```

¹XEP-0045: Multi-User Chat <<https://xmpp.org/extensions/xep-0045.html>>.

²RFC 3920: Extensible Messaging and Presence Protocol (XMPP): Core <<http://tools.ietf.org/html/rfc3920>>.

³RFC 6120: Extensible Messaging and Presence Protocol (XMPP): Core <<http://tools.ietf.org/html/rfc6120>>.

⁴XEP-0086: Error Condition Mappings <<https://xmpp.org/extensions/xep-0086.html>>.

```

</status>
<status code='110'>
  <self-presence xmlns='urn:xmpp:muc:conditions:1' />
</status>
</x>
</presence>

```

3 Mapping of Existing Codes

The following table maps the existing numerical status codes (registered with the [XMPP Registrar](https://xmpp.org/registrars/mucstatus.html)⁵ at <<https://xmpp.org/registrars/mucstatus.html>>) to XML elements.

| Code | Element |
|------|--------------------------|
| 100 | <realjid-public/> |
| 101 | <affiliation-changed/> |
| 102 | <unavailable-shown/> |
| 103 | <unavailable-not-shown/> |
| 104 | <configuration-changed/> |
| 110 | <self-presence/> |
| 170 | <logging-enabled/> |
| 171 | <logging-disabled/> |
| 172 | <non-anonymous/> |
| 173 | <semi-anonymous/> |
| 174 | <fully-anonymous/> |
| 201 | <room-created/> |
| 210 | <nick-assigned/> |
| 301 | <banned/> |
| 303 | <new-nick/> |
| 307 | <kicked/> |
| 321 | <removed-affiliation/> |
| 322 | <removed-membership/> |
| 332 | <removed-shutdown/> |

⁵The XMPP Registrar maintains a list of reserved protocol namespaces as well as registries of parameters used in the context of XMPP extension protocols approved by the XMPP Standards Foundation. For further information, see <<https://xmpp.org/registrars/>>.

4 Security Considerations

The security considerations of XEP-0045 apply.

5 IANA Considerations

This document requires no interaction with the [Internet Assigned Numbers Authority \(IANA\)](#)⁶.

6 XMPP Registrar Considerations

6.1 Protocol Namespaces

This specification defines the following XML namespace:

- `urn:xmpp:muc:conditions:1`

Upon advancement of this specification from a status of Experimental to a status of Draft, the [XMPP Registrar](#)⁷ shall add the foregoing namespace to the registry located at `<https://xmpp.org/registrar/namespaces.html>`, as described in Section 4 of [XMPP Registrar Function \(XEP-0053\)](#)⁸.

6.2 Protocol Versioning

If the protocol defined in this specification undergoes a revision that is not fully backwards-compatible with an older version, the XMPP Registrar shall increment the protocol version number found at the end of the XML namespaces defined herein, as described in Section 4 of XEP-0053.

6.3 MUC Status Codes Registry

The XMPP Registrar is requested to add the elements defined in this specification to the existing registry for MUC status codes at `<https://xmpp.org/registrar/mucstatus.html>`.

⁶The Internet Assigned Numbers Authority (IANA) is the central coordinator for the assignment of unique parameter values for Internet protocols, such as port numbers and URI schemes. For further information, see `<http://www.iana.org/>`.

⁷The XMPP Registrar maintains a list of reserved protocol namespaces as well as registries of parameters used in the context of XMPP extension protocols approved by the XMPP Standards Foundation. For further information, see `<https://xmpp.org/registrar/>`.

⁸XEP-0053: XMPP Registrar Function `<https://xmpp.org/extensions/xep-0053.html>`.

7 XML Schema

```
<?xml version='1.0' encoding='UTF-8'?>

<xs:schema
  xmlns:xs='http://www.w3.org/2001/XMLSchema'
  targetNamespace='urn:xmpp:muc:conditions:1'
  xmlns='urn:xmpp:muc:conditions:1'
  elementFormDefault='qualified'>

  <xs:element name='affiliation-changed' type='MucStatusType'/>
  <xs:element name='banned' type='MucStatusType'/>
  <xs:element name='configuration-changed' type='MucStatusType'/>
  <xs:element name='fully-anonymous' type='MucStatusType'/>
  <xs:element name='kicked' type='MucStatusType'/>
  <xs:element name='logging-disabled' type='MucStatusType'/>
  <xs:element name='logging-enabled' type='MucStatusType'/>
  <xs:element name='new-nick' type='MucStatusType'/>
  <xs:element name='nick-assigned' type='MucStatusType'/>
  <xs:element name='non-anonymous' type='MucStatusType'/>
  <xs:element name='realjid-public' type='MucStatusType'/>
  <xs:element name='removed-affiliation' type='MucStatusType'/>
  <xs:element name='removed-membership' type='MucStatusType'/>
  <xs:element name='removed-shutdown' type='MucStatusType'/>
  <xs:element name='room-created' type='MucStatusType'/>
  <xs:element name='self-presence' type='MucStatusType'/>
  <xs:element name='semi-anonymous' type='MucStatusType'/>
  <xs:element name='unavailable-not-shown' type='MucStatusType'/>
  <xs:element name='unavailable-shown' type='MucStatusType'/>

  <xs:complexType name='MucStatusType'>
    <xs:sequence>
      <xs:element ref='text'/>
      <xs:any namespace='##other' minOccurs='0' maxOccurs='unbounded'
        processContents='lax'/>
    </xs:sequence>
  </xs:complexType>
</xs:schema>

<xs:element name='text'>
  <xs:complexType>
    <xs:simpleContent>
      <xs:extension base='xs:string'>
        <xs:attribute ref='xml:lang' use='optional'/>
      </xs:extension>
    </xs:simpleContent>
  </xs:complexType>
</xs:element>
```

8 Acknowledgements

Thanks to Dave Cridland and Ralph Meijer for their feedback.