



# XMPP

## XEP-0492: Chat notification settings

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This document defines an XMPP protocol extension to synchronise per-chat notification settings across different clients.

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## 1 Introduction

”Notifications” are (usually) pop-up windows that appear in a visible area of the screen even when the emitting application is in the background, often triggering a sound alert. *Instant* messaging clients expectedly use notifications to inform users when they receive a message. Users may want to customise which conversations should trigger notifications and under which conditions. In practice, this is already implemented in many instant messaging clients, including XMPP clients. This specification proposes a mechanism to synchronise per-discussion notification settings across different XMPP clients.

## 2 Protocol

### 2.1 The notify element

Notification settings are represented by the <notify> element. This element **MUST** be a child of an element identifying a specific chat by its JID, such as a [PEP Native Bookmarks \(XEP-0402\)](#)<sup>1</sup> <extensions>.

This protocol specifies three children for the <notify> element, each corresponding to a notification setting: <always> <on-mention> and <never>.

Listing 1: Most basic example

```
<notify xmlns='urn:xmpp:notification-settings:0'>
  <never />
</notify>
```

### 2.2 Client types

One might want to choose different notification settings depending on the client type. In this case, a ”client-type” attribute can be added to the notification setting, using registered Service Discovery Identities.

Listing 2: An example of notification settings by client type

```
<notify xmlns='urn:xmpp:notification-settings:0'>
  <never client-type="pc" />
  <on-mention client-type="mobile" />
</notify>
```

---

<sup>1</sup>XEP-0402: PEP Native Bookmarks <<https://xmpp.org/extensions/xep-0402.html>>.

### 2.3 Advanced notification settings

Finally, clients can use this specification to synchronise finer-grained notification settings using custom namespaces.

Listing 3: An example of notification settings by client type

```
<notify xmlns='urn:xmpp:notification-settings:0'>
  <never client-type="pc" />
  <on-mention client-type="mobile" />
  <advanced>
    <custom-extension xmlns="custom:ns-1">
      <when day-of-week="monday">night-time-only</day-of-week>
      ...
    </custom-extension>
    <custom-extension-2 xmlns="custom:ns-2">
      <weather>raining</weather>
      ...
    </custom-extension-2>
  </advanced>
</notify>
```

## 3 Business Rules

Entities implementing this specification MUST NOT delete or alter the advanced notification settings they do not support when updating the notification settings for a given chat.

If there is more than one notification setting for a given chat, entities implementing this specification MUST specify which client type they apply to. The (notification setting, client-type) pairs MUST be unique.

Entities using advanced notification settings SHOULD attempt to provide the basic notification setting which is the closest to what they offer as a fallback for other entities.

The "on-mention" notification MAY rely on the user's nickname being spelled out in an incoming message in a group chat, but SHOULD rely on mechanisms to explicitly "ping" the user, such as a [Message Replies \(XEP-0461\)](#)<sup>2</sup> element referring a user's previous message or a specific mention, such as a [References \(XEP-0372\)](#)<sup>3</sup> mention.

In the absence of a notification settings for a given chat, "always" SHOULD be assumed for direct chats and private group chats, and "on-mention" for public group chats.

<sup>2</sup>XEP-0461: Message Replies <<https://xmpp.org/extensions/xep-0461.html>>.

<sup>3</sup>XEP-0372: References <<https://xmpp.org/extensions/xep-0372.html>>.

## 4 Security Considerations

See considerations in [PEP Native Bookmarks \(XEP-0402\)](#)<sup>4</sup>.

## 5 IANA Considerations

This document requires no interaction with the [Internet Assigned Numbers Authority \(IANA\)](#)<sup>5</sup>.

## 6 XMPP Registrar Considerations

### 6.1 Protocol Namespaces

This specification defines the following XML namespace:

- `urn:xmpp:notification-settings:0`

The [XMPP Registrar](#)<sup>6</sup> includes this namespace in the registry located at `<https://xmpp.org/registrar/namespaces.html>`, as described in Section 4 of [XMPP Registrar Function \(XEP-0053\)](#)<sup>7</sup>.

### 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.

## 7 XML Schema

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<sup>4</sup>XEP-0402: PEP Native Bookmarks `<https://xmpp.org/extensions/xep-0402.html>`.

<sup>5</sup>The 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/>`.

<sup>6</sup>The 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/>`.

<sup>7</sup>XEP-0053: XMPP Registrar Function `<https://xmpp.org/extensions/xep-0053.html>`.

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

<xs:schema
  xmlns:xs='http://www.w3.org/2001/XMLSchema'
  targetNamespace='urn:xmpp:notification-settings:0'
  xmlns='urn:xmpp:notification-settings:0'
  elementFormDefault='qualified'>

  <xs:annotation>
    <xs:documentation>
      The protocol documented by this schema is defined in
      XEP-0492: http://www.xmpp.org/extensions/xep-0492.html
    </xs:documentation>
  </xs:annotation>

  <xs:element name='notify'>
    <xs:complexType>
      <xs:attribute name='when' default='always'>
        <xs:restriction base='xs:NCName'>
          <xs:enumeration value='always' />
          <xs:enumeration value='never' />
          <xs:enumeration value='on-mention' />
        </xs:restriction>
      </xs:attribute>
    </xs:complexType>
  </xs:element>
</xs:schema>
```