



# XMPP

## XEP-0435: Reminders

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This specification provides a way to set up reminders.

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## 1 Introduction

It is sometimes useful, while reading some conversations, to be reminded about it at some point in the future. This specification proposes a mechanism to allow clients to set up such reminders.

## 2 Glossary

**Reminder** An automatically generated message addressed to an entity sent at a given time. Its goal is to remind the creating entity about something.

## 3 Requirements

This protocol requires handling of dates and times, as such it conforms to [XMPP Date and Time Profiles \(XEP-0082\)](#)<sup>1</sup>.

## 4 Discovering support

An entity may wish to discover if a service supports the Reminders feature; in order to do so, it sends a service discovery information query to the server..

Listing 1: Client requests information about a server

```
<iq from='juliet@capulet.net/balcony'
  id='disco1'
  to='capulet.net'
  type='get'>
  <query xmlns='http://jabber.org/protocol/disco#info' />
</iq>
```

If the server supports the Reminders feature, it MUST specify the 'urn:xmpp:reminders:0' feature in its service discovery information features as specified in [Service Discovery \(XEP-0030\)](#)<sup>2</sup>

Listing 2: Server advertises support for reminders

```
<iq to='juliet@capulet.net/balcony' id='disco1' from='capulet.net'
  type='result'>
  <query xmlns='http://jabber.org/protocol/disco#info'>...

  <feature var='urn:xmpp:reminders:0' />...
```

---

<sup>1</sup>XEP-0082: XMPP Date and Time Profiles <<https://xmpp.org/extensions/xep-0082.html>>.

<sup>2</sup>XEP-0030: Service Discovery <<https://xmpp.org/extensions/xep-0030.html>>.

```

    </query>
</iq>

```

## 5 Use Cases

For end users, this provides a way to be reminded about stuff while being in a conversation, without the need to leave it and go to some calendar application or similar and create a full event there. By setting a reminder, a user will be notified by the server at whatever given time the reminder is created with and with whatever the description was set for such a reminder.

### 5.1 Creating a reminder

A user wants to create a new reminder. For creating a reminder, an entity MUST send an IQ stanza with the 'type' attribute with a value of "set" and a direct <reminder/> child qualified by the "urn:xmpp:reminders:0" namespace.

Listing 3: User creates a new reminder

```

<iq from='juliet@capulet.net/balcony'
    to='capulet.net'
    id='abc123'
    type='set'>
  <reminder xmlns='urn:xmpp:reminders:0'>
    <date>2020-02-19T23:41:00Z</date>
    <text xml:lang='en'>Please go sleep before it's too late</text>
  </reminder>
</iq>

```

Listing 4: Server acknowledges the reminder creation

```

<iq id='abc123'
    to='juliet@capulet.net/balcony'
    from='capulet.net'
    type='result'>
  <reminder xmlns='urn:xmpp:reminders:0' id='d414cec2-5369-11ea-9455-8
    b8d265047d9'>
    <date>2020-02-19T23:41:00Z</date>
    <text xml:lang='en'>Please go sleep before it's too late</text>
  </reminder>
</iq>

```

Whenever the reminder's data sent by a client is not complete or in an invalid format, the server MUST send an error stanza of type 'modify' and a 'bad-request' condition.

Listing 5: Server sends a bad-request error response

```

<iq id='bad1'
  to='capulet.net'
  from='juliet@capulet.net/balcony'
  type='set'>
  <reminder xmlns='urn:xmpp:reminders:0'>
    <date>Tomorrow at noon</date>
    <text xml:lang='en'>Lunch at Romeo's</text>
  </reminder>
</iq>

<iq_id='bad1'
  to='juliet@capulet.net/balcony'
  from='capulet.net'
  type='error'>
  <error_type='modify'>
  <bad-request xmlns='urn:ietf:params:xml:ns:xmpp-stanzas' />
</error>
</iq>

```

In the event of a client trying to set a reminder in the past, the server MUST send an error stanza of type 'modify' and a 'gone' condition.

Listing 6: Server sends a gone error response

```

<iq id='bad2'
  to='capulet.net'
  from='juliet@capulet.net/balcony'
  type='set'>
  <reminder xmlns='urn:xmpp:reminders:0'>
    <date>2000-01-01T00:00:00Z</date>
    <text xml:lang='en'>New Year's party</text>
  </reminder>
</iq>

<iq_id='bad2'
  to='juliet@capulet.net/balcony'
  from='capulet.net'
  type='error'>
  <error_type='modify'>
  <gone xmlns='urn:ietf:params:xml:ns:xmpp-stanzas' />
</error>
</iq>

```

## 5.2 Server sends a reminder

Whenever the time for a reminder arrives, the server MUST send a message with the reminder to the creating entity.

Listing 7: Server sends a reminder

```
<message from='capulet.net' to='juliet@capulet.net/balcony' id='
  reminder1'>
  <reminder xmlns='urn:xmpp:reminders:0' id='d414cec2-5369-11ea-9455-8
    b8d265047d9'>
    <date timezone='UTC'>2020-02-19T23:41:00Z</date>
    <text xml:lang='en'>Please go sleep before it's too late</text>
  </reminder>
</message>
```

After sending a reminder, the server MAY choose to delete it from its storage.

### 5.3 Client cancels a reminder

There may be the case where a user wants to cancel an already set reminder. To do so, the client MUST send an IQ stanza of type 'set' with a 'reminder' child containing the 'id' attribute of the reminder to be deleted, without any additional child.

Listing 8: Client deletes a reminder

```
<iq id='abc2'
  from='juliet@capulet.net/balcony'
  to='capulet.net'
  type='set'>
  <reminder xmlns='urn:xmpp:reminders:0' id='d414cec2-5369-11ea-9455-8
    b8d265047d9' />
</iq>
```

Listing 9: Server acknowledges a reminder deletion

```
<iq id='abc2'
  to='juliet@capulet.net/balcony'
  from='capulet.net'
  type='result'>
  <reminder xmlns='urn:xmpp:reminders:0' id='d414cec2-5369-11ea-9455-8
    b8d265047d9' />
</iq>
```

## 6 Internationalization Considerations

As stated in the requirements, the 'date' element MUST contain a valid [XMPP Date and Time Profiles \(XEP-0082\)](#)<sup>3</sup> DateTime value.

<sup>3</sup>XEP-0082: XMPP Date and Time Profiles <<https://xmpp.org/extensions/xep-0082.html>>.

## 7 Security Considerations

This document introduces no additional security considerations above and beyond those defined in the documents on which it depends.

## 8 IANA Considerations

No interaction with the [Internet Assigned Numbers Authority \(IANA\)](#)<sup>4</sup> is required as a result of this document.

## 9 XMPP Registrar Considerations

This specification defines the following XML namespace:

- urn:xmpp:reminders:0

Upon advancement of this specification from a status of Experimental to a status of Draft, the [XMPP Registrar](#)<sup>5</sup> shall add the foregoing namespace to the registry located at [<https://xmpp.org/registrar/namespaces.html>](https://xmpp.org/registrar/namespaces.html), as described in Section 4 of [XMPP Registrar Function \(XEP-0053\)](#)<sup>6</sup>.

## 10 XML Schema

TODO

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<sup>4</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>5</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>6</sup>XEP-0053: XMPP Registrar Function [<https://xmpp.org/extensions/xep-0053.html>](https://xmpp.org/extensions/xep-0053.html).