



# XMPP

## XEP-0428: Fallback Indication

Dave Cridland

<mailto:dave@hellopando.com>

<xmpp:dwd@dave.cridland.net>

2020-03-03

Version 0.1.1

Status	Type	Short Name
Deferred	Standards Track	fallback

This specification proposes a mechanism by which message bodies can be marked as being purely for fallback purposes, and therefore to be ignored by intermediaries and anything that understands the remainder of the message.

# Legal

## Copyright

This XMPP Extension Protocol is copyright © 1999 – 2020 by the [XMPP Standards Foundation](#) (XSF).

## Permissions

Permission is hereby granted, free of charge, to any person obtaining a copy of this specification (the "Specification"), to make use of the Specification without restriction, including without limitation the rights to implement the Specification in a software program, deploy the Specification in a network service, and copy, modify, merge, publish, translate, distribute, sublicense, or sell copies of the Specification, and to permit persons to whom the Specification is furnished to do so, subject to the condition that the foregoing copyright notice and this permission notice shall be included in all copies or substantial portions of the Specification. Unless separate permission is granted, modified works that are redistributed shall not contain misleading information regarding the authors, title, number, or publisher of the Specification, and shall not claim endorsement of the modified works by the authors, any organization or project to which the authors belong, or the XMPP Standards Foundation.

## Warranty

## NOTE WELL: This Specification is provided on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. ##

## Liability

In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall the XMPP Standards Foundation or any author of this Specification be liable for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising from, out of, or in connection with the Specification or the implementation, deployment, or other use of the Specification (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if the XMPP Standards Foundation or such author has been advised of the possibility of such damages.

## Conformance

This XMPP Extension Protocol has been contributed in full conformance with the XSF's Intellectual Property Rights Policy (a copy of which can be found at <https://xmpp.org/about/xsf/ipr-policy>) or obtained by writing to XMPP Standards Foundation, P.O. Box 787, Parker, CO 80134 USA).

# Contents

<b>1</b>	<b>Introduction</b>	<b>1</b>
<b>2</b>	<b>Overview</b>	<b>1</b>
2.1	Discovering Support . . . . .	1
2.2	Fallback Indicator . . . . .	1
2.3	Alternatives . . . . .	2
<b>3</b>	<b>Schema</b>	<b>2</b>
<b>4</b>	<b>Security Considerations</b>	<b>2</b>
<b>5</b>	<b>IANA Considerations</b>	<b>2</b>
<b>6</b>	<b>XMPP Registrar Considerations</b>	<b>2</b>
<b>7</b>	<b>Acknowledgements</b>	<b>3</b>

## 1 Introduction

A common and convenient practise for new extensions is to supply a fallback body. This provides immediate backwards compatibility for naive clients, since - not understanding the new protocol - they will gracefully degrade to displaying the body as an instant message.

By way of example, a recent Reactions proposal suggested including the emoji as a `<body/>` element, so that existing clients would simply display it as a normal message.

The downside of this approach is that servers and other intermediaries treat the presence of a `<body/>` as being an indicator that a message is indeed an instant message. They will then treat it this way for archival purposes, etc, which might not be appropriate.

This specification tackles the problem by providing an element to be used as a hint that the supplied `<body/>` and `<subject/>` elements are only for fallback purposes, and the message SHOULD be treated as if they were not present for most purposes.

## 2 Overview

### 2.1 Discovering Support

Support for this protocol MAY be advertised by the Service Discovery protocol defined in [Service Discovery \(XEP-0030\)](#)<sup>1</sup> using a feature of `urn:xmpp:fallback:0`. Note that lack of support will result in the desired fallback behaviour.

### 2.2 Fallback Indicator

The fallback indicator is an element `<fallback/>` qualified by the `urn:xmpp:fallback:0` namespace. It has no attributes, content, or child elements.

```
<message from="alice@example.org" to="bob@example.net" type="chat">
  <fallback xmlns="urn:xmpp:fallback:0"/>
  <encrypted xmlns="urn:example:crypto">Abobql jvyv rire qrpelcg bhe
    fhcre-frperg zrffntr!</encrypted>
  <body>This message is encrypted.</body>
</message>
```

Receiving the above message, a naive client will naturally display only the `<body/>` element text, but a client or server which supports this specification will know this is merely a fallback placeholder, and to ignore (and not display) the content therein.

---

<sup>1</sup>XEP-0030: Service Discovery <<https://xmpp.org/extensions/xep-0030.html>>.

### 2.3 Alternatives

- [Message Processing Hints \(XEP-0334\)](#)<sup>2</sup> was considered, and would probably be ideal - servers often examine these elements and alter behaviour accordingly, but the specification was rejected by Council.
- Placing fallback elements within the <fallback/> element would shift the onus from server to client, but this is likely to be less useful.

## 3 Schema

```
<?xml version="1.0" encoding="UTF-8"?>
<xs:schema attributeFormDefault="unqualified" elementFormDefault="
  qualified" targetNamespace="urn:xmpp:fallback:0" xmlns:xs="http://
  www.w3.org/2001/XMLSchema">
  <xs:element name="fallback">
    <xs:complexType/>
  </xs:element>
</xs:schema>
```

## 4 Security Considerations

This specification allows messages with a body (and real message content therein) to be treated by a server as if that body text does not exist. Servers MAY, particularly in a secure setting, wish to archive copies of the message even if they ordinarily would not archive a message with no body.

## 5 IANA Considerations

This XEP requires no interaction with the [Internet Assigned Numbers Authority \(IANA\)](#)<sup>3</sup>.

## 6 XMPP Registrar Considerations

None.

---

<sup>2</sup>XEP-0334: Message Processing Hints <<https://xmpp.org/extensions/xep-0334.html>>.

<sup>3</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/>>.

## 7 Acknowledgements

The author wishes to share any credit with many members of the community.