



XMPP

XEP-0051: Connection Transfer

Klaus Wolf

<mailto:wolf@bluehands.de>

<xmpp:klaus@jabber.bluehands.de>

Richard Dobson

<mailto:richard@dobson-i.net>

<xmpp:richard@dobson-i.net>

Florian Jensen

<mailto:florian@florianjensen.com>

<xmpp:admin@im.flosoft.biz>

2009-07-07

Version 0.2

Status	Type	Short Name
Deferred	Standards Track	N/A

This specification defines an XMPP protocol extension that enables a server to redirect connections from one connection manager or server node to another.

Legal

Copyright

This XMPP Extension Protocol is copyright © 1999 – 2017 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

1 Introduction	1
2 Connection Transfer Protocol	1
3 Security Considerations	2
4 IANA Considerations	2
5 XMPP Registrar Considerations	2
6 XML Schema	2

1 Introduction

Large XMPP deployments are often clustered. To enable more effective management of client connections to servers in the cluster, it would be useful if the server administrator could redirect XMPP traffic to another node of the cluster. This document describes a connection transfer mechanism for telling clients (or others) to reconnect to a different address.

The following scenarios seem likely:

1. A server needs to be shutdown for maintenance by an administrator but there are other servers available in the cluster and the administrator wants to cause the least disruption possible by having the users automatically reconnect to one of the other available servers.
2. Users of an XMPP cluster are hosted on particular servers but the server the user has connected to is not the appropriate server in the cluster, so the server redirects the user to connect to the correct server.
3. A new server is brought online in the cluster. To reduce the load on the other servers and to balance out the load, the other servers direct some of their users to connect to the new server.

2 Connection Transfer Protocol

The transfer packet is addressed to the user from the domain they are logged into, it contains the server address to connect to which can be domain name or ip address, it can also contain an optional port number. There is also the domain specified just in case they have to use a different domain name when they log in or to maintain the original domain.

Listing 1: Server tells client to connect to a different server in the cluster (by ip address)

```
<iq type='set' from='jabber.org' to='user@jabber.org'>
  <query xmlns='urn:xmpp:cxf'>
    <domain>jabber.org</domain>
    <server>123.123.123.122</server>
  </query>
</iq>
```

Listing 2: Server tells client to connect to a different server in the cluster (by domain name)

```
<iq type='set' from='jabber.org' to='user@jabber.org'>
  <query xmlns='urn:xmpp:cxf'>
    <domain>jabber.org</domain>
```

```
<server>server2.jabber.org</server>
</query>
</iq>
```

Listing 3: Server tells client to connect to a different server in the cluster (using a different port number)

```
<iq type='set' from='jabber.org' to='user@jabber.org'>
  <query xmlns='urn:xmpp:cxfr'>
    <domain>jabber.org</domain>
    <server>server3.jabber.org:6222</server>
  </query>
</iq>
```

Listing 4: Server tells client to simply reconnect

```
<iq type='set' from='jabber.org' to='user@jabber.org'>
  <query xmlns='urn:xmpp:cxfr'>
    <domain>jabber.org</domain>
    <server>jabber.org</server>
  </query>
</iq>
```

3 Security Considerations

To follow.

4 IANA Considerations

This document requires no action by the IANA.

5 XMPP Registrar Considerations

To follow.

6 XML Schema

To follow.