



# XMPP

## XEP-0387: XMPP Compliance Suites 2018

Sam Whited

<mailto:sam@samwhited.com>

<xmpp:sam@samwhited.com>

<https://blog.samwhited.com/>

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This document defines XMPP protocol compliance levels.

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## 1 Introduction

The [XMPP Standards Foundation \(XSF\)](#)<sup>1</sup> defines protocol suites for the purpose of compliance testing and software certification. This document specifies compliance levels for XMPP clients and servers; it is hoped that this document will advance the state of the art, and provide guidance and eventual certification to XMPP client and server authors. Unless explicitly noted, support for the listed specifications is REQUIRED for compliance purposes. A feature is considered supported if all comma separated feature providers listed in the "Providers" column are implemented (unless otherwise noted).

## 2 Compliance Levels

### 2.1 Core Compliance Suite

| Feature       | Core Server              | Core Client              | Advanced Server          | Advanced Client          | Providers   |
|---------------|--------------------------|--------------------------|--------------------------|--------------------------|---|
| Core features | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | RFC 6120<br>RFC 6120:<br>Extensible<br>Messag-<br>ing and<br>Presence<br>Protocol<br>(XMPP):<br>Core<br>< <a href="http://tools.ietf.org/html/rfc6120">http://tools.ietf.org/html/rfc6120</a> ><br>RFC 7622<br>RFC 7622:<br>Extensible<br>Messag-<br>ing and<br>Presence<br>Protocol<br>(XMPP):<br>Address<br>Format<br>< <a href="http://tools.ietf.org/html/rfc7622">http://tools.ietf.org/html/rfc7622</a> > |

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<sup>1</sup>The XMPP Standards Foundation (XSF) is an independent, non-profit membership organization that develops open extensions to the IETF's Extensible Messaging and Presence Protocol (XMPP). For further information, see <<https://xmpp.org/about/xmpp-standards-foundation>>.

| Feature           | Core Server              | Core Client              | Advanced Server          | Advanced Client          | Providers   |
|-------------------|--------------------------|--------------------------|--------------------------|--------------------------|---|
| TLS               | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <p>RFC 7590<br/>                     RFC 7590:<br/>                     Use of<br/>                     Transport<br/>                     Layer<br/>                     Security<br/>                     (TLS) in the<br/>                     Extensible<br/>                     Messag-<br/>                     ing and<br/>                     Presence<br/>                     Proto-<br/>                     col (XMPP)<br/>                     &lt;<a href="http://tools.ietf.org/html/rfc7590">http://tools.ietf.org/html/rfc7590</a>&gt;<br/>                     SRV<br/>                     records<br/>                     for XMPP<br/>                     over TLS<br/>                     (XEP-0368)<br/>                     XEP-<br/>                     0368: SRV<br/>                     records<br/>                     for XMPP<br/>                     over TLS<br/>                     &lt;<a href="https://xmpp.org/extensions/xep-0368.html">https://xmpp.org/extensions/xep-0368.html</a>&gt;.Server<br/>                     support<br/>                     means<br/>                     having<br/>                     the ability<br/>                     to accept<br/>                     direct TLS<br/>                     connec-<br/>                     tions.<br/>                     Service<br/>                     Discovery<br/>                     (XEP-0030)<br/>                     XEP-0030:<br/>                     Service<br/>                     Discovery<br/>                     &lt;<a href="https://xmpp.org/extensions/xep-0030.html">https://xmpp.org/extensions/xep-0030.html</a>&gt;.</p> |
| Feature discovery | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |   |

| Feature              | Core Server              | Core Client              | Advanced Server          | Advanced Client          | Providers   |
|----------------------|--------------------------|--------------------------|--------------------------|--------------------------|---|
| Feature broadcasts   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Entity Capabilities (XEP-0115)<br>XEP-0115: Entity Capabilities<br>< <a href="https://xmpp.org/extensions/x0115.html">https://xmpp.org/extensions/x0115.html</a> >.               |
| Server Extensibility | <input type="checkbox"/> | N/A                      | <input type="checkbox"/> | N/A                      | Jabber Component Protocol (XEP-0114)<br>XEP-0114: Jabber Component Protocol<br>< <a href="https://xmpp.org/extensions/x0114.html">https://xmpp.org/extensions/x0114.html</a> >.   |
| Event publishing     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Personal Eventing Protocol (XEP-0163)<br>XEP-0163: Personal Eventing Protocol<br>< <a href="https://xmpp.org/extensions/x0163.html">https://xmpp.org/extensions/x0163.html</a> >. |

## 2.2 Web Compliance Suite

To be considered XMPP web compliant, all features from the core compliance suite must be met, as well as all features in this suite.

| Feature                   | Core Server  | Core Client  | Advanced Server  | Advanced Client  | Providers   |
|---------------------------|--|--|--|--|---|
| Web Connection Mechanisms | <input type="checkbox"/> Support can be enabled via an external component or an internal server module/plugin. | <input type="checkbox"/> Only one of the recommended providers must be implemented for compliance. | <input type="checkbox"/> Support can be enabled via an external component or an internal server module/plugin. | <input type="checkbox"/> Only one of the recommended providers must be implemented for compliance. | RFC 7395<br>RFC 7395:<br>An Extensible Messaging and Presence Protocol (XMPP) Subprotocol for Web-Socket<br>< <a href="http://tools.ietf.org/html/rfc7395">http://tools.ietf.org/html/rfc7395</a> ><br>XMPP Over BOSH (XEP-0206)<br>XEP-0206: XMPP Over BOSH<br>< <a href="https://xmpp.org/extensions/0206.html">https://xmpp.org/extensions/0206.html</a> >. (See also: BOSH (XEP-0124)<br>XEP-0124: Bidirectional-streams Over Synchronous HTTP<br>< <a href="https://xmpp.org/extensions/0124.html">https://xmpp.org/extensions/0124.html</a> >.) |

### 2.3 IM Compliance Suite

To be considered XMPP IM compliant, all features from the core compliance suite must be met, as well as all features in this suite.

| Feature       | Core Server              | Core Client  | Advanced Server          | Advanced Client  | Providers  |
|---------------|--------------------------|--|--------------------------|--|--|
| Core features | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/>   | RFC 6121<br>RFC 6121: Extensible Messaging and Presence Protocol (XMPP): Instant Messaging and Presence<br>< <a href="http://tools.ietf.org/html/rfc6121">http://tools.ietf.org/html/rfc6121</a> > |
| User Avatars  | N/A                      | <input type="checkbox"/> Not required for command line or terminal based interfaces. | N/A                      | <input type="checkbox"/> Not required for command line or terminal based interfaces. | User Avatar (XEP-0084): XEP-0084: User Avatar<br>< <a href="https://xmpp.org/extensions/0084.html">https://xmpp.org/extensions/0084.html</a> >.  |



| Feature                          | Core Server              | Core Client              | Advanced Server          | Advanced Client          | Providers   |
|----------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|---|
| Outbound Message Synchronization | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Message Carbons (XEP-0280) XEP-0280: Message Carbons < <a href="https://xmpp.org/extensions/0280.html">https://xmpp.org/extensions/0280.html</a> >.   |
| User Blocking                    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Blocking Command (XEP-0191) XEP-0191: Blocking Command < <a href="https://xmpp.org/extensions/0191.html">https://xmpp.org/extensions/0191.html</a> >. |

| Feature    | Core Server  | Core Client   | Advanced Server  | Advanced Client   | Providers  |
|------------|--|---|--|---|--|
| Group Chat | <p><input type="checkbox"/>Support can be enabled via an external component or an internal server module/plugin.</p> | <p><input type="checkbox"/>Support for the Entity Use Cases and Occupant Use Cases is REQUIRED; support for the remaining use cases is RECOMMENDED.</p> | <p><input type="checkbox"/>Support can be enabled via an external component or an internal server module/plugin.</p> | <p><input type="checkbox"/>Support for the Entity Use Cases and Occupant Use Cases is REQUIRED; support for the remaining use cases is RECOMMENDED.</p> | <p>Multi-User Chat (XEP-0045) XEP-0045: Multi-User Chat &lt;<a href="https://xmpp.org/extensions/0045.html">https://xmpp.org/extensions/0045.html</a>&gt;. Implementations should take note that future versions of these compliance suites may rely on Mediated Information eXchange (MIX) (XEP-0369) XEP-0369: Mediated Information eXchange (MIX) &lt;<a href="https://xmpp.org/extensions/0369.html">https://xmpp.org/extensions/0369.html</a>&gt;. instead., Direct MUC Invitations (XEP-0249) XEP-</p> |

| Feature                 | Core Server              | Core Client              | Advanced Server  | Advanced Client          | Providers   |
|-------------------------|--------------------------|--------------------------|--|--------------------------|---|
| Bookmarks               | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Support can be enabled via an external component or an internal server module/plugin. | <input type="checkbox"/> | Bookmark Storage (XEP-0048) XEP-0048: Bookmark Storage < <a href="https://xmpp.org/extensions/0048.html">https://xmpp.org/extensions/0048.html</a> >.   |
| Session Resumption      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/> | Stream Management (XEP-0198) XEP-0198: Stream Management < <a href="https://xmpp.org/extensions/0198.html">https://xmpp.org/extensions/0198.html</a> >. |
| Stanza Acknowledgements | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/> | Stream Management (XEP-0198) XEP-0198: Stream Management < <a href="https://xmpp.org/extensions/0198.html">https://xmpp.org/extensions/0198.html</a> >. |

| Feature                     | Core Server              | Core Client              | Advanced Server          | Advanced Client          | Providers   |
|-----------------------------|--------------------------|--------------------------|--------------------------|--------------------------|---|
| History Storage / Retrieval | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Message Archive Management (XEP-0313) XEP-0313: Message Archive Management < <a href="https://xmpp.org/extensions/0313.html">https://xmpp.org/extensions/0313.html</a> >. |
| Chat States                 | N/A                      | <input type="checkbox"/> | N/A                      | <input type="checkbox"/> | Chat State Notifications (XEP-0085) XEP-0085: Chat State Notifications < <a href="https://xmpp.org/extensions/0085.html">https://xmpp.org/extensions/0085.html</a> >.     |

## 2.4 Mobile Compliance Suite

To be considered XMPP mobile compliant, all features from the core compliance suite must be met, as well as all features in this suite.

| Feature                 | Core Server              | Core Client              | Advanced Server          | Advanced Client          | Providers   |
|-------------------------|--------------------------|--------------------------|--------------------------|--------------------------|---|
| Session Resumption      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Stream Management (XEP-0198) XEP-0198: Stream Management < <a href="https://xmpp.org/extensions/0198.html">https://xmpp.org/extensions/0198.html</a> >.             |
| Stanza Acknowledgements | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Stream Management (XEP-0198) XEP-0198: Stream Management < <a href="https://xmpp.org/extensions/0198.html">https://xmpp.org/extensions/0198.html</a> >.             |
| Client State Indication | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Client State Indication (XEP-0352) XEP-0352: Client State Indication < <a href="https://xmpp.org/extensions/0352.html">https://xmpp.org/extensions/0352.html</a> >. |

| Feature                        | Core Server              | Core Client              | Advanced Server  | Advanced Client          | Providers   |
|--------------------------------|--------------------------|--------------------------|--|--------------------------|---|
| Third Party Push Notifications | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Support can be enabled via an external component or an internal server module/plugin. | <input type="checkbox"/> | Push Notifications (XEP-0357) XEP-0357: Push Notifications < <a href="https://xmpp.org/extensions/0357.html">https://xmpp.org/extensions/0357.html</a> >. |

### 3 Implementation Notes

Some of the protocol specifications referenced herein have their own dependencies; developers need to consult the relevant specifications for further information.

### 4 Security Considerations

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

### 5 IANA Considerations

This document requires no interaction with the [Internet Assigned Numbers Authority \(IANA\)](http://www.iana.org/)<sup>2</sup>.

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<sup>2</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/>.

## 6 XMPP Registrar Considerations

This document requires no interaction with the [XMPP Registrar](#)<sup>3</sup>.

## 7 Acknowledgements

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<sup>3</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/>.