



XMPP

XEP-0387: XMPP Compliance Suites 2018

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This document defines XMPP protocol compliance levels.

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1 Introduction

The [XMPP Standards Foundation \(XSF\)](#) ¹ 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 RFC 6120: Extensible Messag- ing and Presence Protocol (XMPP): Core < http://tools.ietf.org/html/rfc6120 > RFC 7622 RFC 7622: Extensible Messag- ing and Presence Protocol (XMPP): Address Format < http://tools.ietf.org/html/rfc7622 >

¹The 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 RFC 7590: Use of Transport Layer Security (TLS) in the Extensible Messag- ing and Presence Proto- col (XMPP) <http://tools.ietf.org/html/rfc7590> SRV records for XMPP over TLS (XEP-0368) XEP- 0368: SRV records for XMPP over TLS <https://xmpp.org/extensions/xep-0368.html>.Server support means having the ability to accept direct TLS connec- tions. Service Discovery (XEP-0030) XEP-0030: Service Discovery <https://xmpp.org/extensions/xep-0030.html>.</p>
Feature discovery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>Service Discovery (XEP-0030) XEP-0030: Service Discovery <https://xmpp.org/extensions/xep-0030.html>.</p>

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) XEP-0115: Entity Capabilities < https://xmpp.org/extensions/x0115.html >.
Server Extensibility	<input type="checkbox"/>	N/A	<input type="checkbox"/>	N/A	Jabber Component Protocol (XEP-0114) XEP-0114: Jabber Component Protocol < https://xmpp.org/extensions/x0114.html >.

Feature	Core Server	Core Client	Advanced Server	Advanced Client	Providers
Event publishing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> While 'Personal Eventing Protocol' does not require all the features of 'Publish-Subscribe' to be available on the users' JIDs, and nor does this suite, it is desirable for this to be the case and it is expected that this will a requirement of future Compliance Suites.	<input type="checkbox"/>	Personal Eventing Protocol (XEP-0163) XEP-0163: Personal Eventing Protocol < https://xmpp.org/extensions/x0163.html >.

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. If claiming compliance using such an addition, the necessary components/-modules/-plugins MUST be detailed.	<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. If claiming compliance using such an addition, the necessary components/-modules/-plugins MUST be detailed.	<input type="checkbox"/> Only one of the recommended providers must be implemented for compliance.	RFC 7395 RFC 7395: An Extensible Messaging and Presence Protocol (XMPP) Subprotocol for Web-Socket -<http://tools.ietf.org/html/rfc7395> XMPP Over BOSH (XEP-0206) XEP-0206: XMPP Over BOSH <https://xmpp.org/extensions/0206.html> . (See also: BOSH (XEP-0124) XEP-0124: Bidirectional-streams Over Synchronous HTTP <https://xmpp.org/extensions/0124.html> .)

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 RFC 6121: Ex- ten- sible Mes- sag- ing and Pres- ence Pro- to- col (XMPP): In- stant Mes- sag- ing and Pres- ence < http://tools.ietf.org/html/

Feature	Core Server	Core Client	Advanced Server	Advanced Client	Providers
User Avatars	N/A	<input type="checkbox"/> Not re- quired for com- mand line or ter- minal based inter- faces. While 'User Avatars' is more mod- ern, 'vCard- Based Avatars' is more widely de- ployed. Al- though it is sug- gested that to max- imise inter- oper- ability with exist- ing soft- ware a client fully sup- ports both it is suffi- cient to claim	N/A	<input type="checkbox"/> Not re- quired for com- mand line or ter- minal based inter- faces. While 'User Avatars' is more mod- ern, 'vCard- Based Avatars' is more widely de- ployed. Al- though it is sug- gested that to max- imise inter- oper- ability with exist- ing soft- ware a client fully sup- ports both it is suffi- cient to claim	User Avatar (XEP- 0084) XEP- 0084: User Avatar < https://xmpp.org/extensions/0084.html >.vCard- Based Avatars (XEP- 0153) XEP- 0153: vCard- Based Avatars < https://xmpp.org/extensions/0153.html >.

Feature	Core Server	Core Client	Advanced Server	Advanced Client	Providers
vcard-temp	<input type="checkbox"/>	<input type="checkbox"/> Not re-quired for com-mand line or ter-minal based inter-faces.	<input type="checkbox"/>	<input type="checkbox"/> Not re-quired for com-mand line or ter-minal based inter-faces.	vcard-temp (XEP-0054) XEP-0054: vcard-temp < https://xmpp.org/extensions/0054.html >.
Outbound Message Synchronization	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Message Car-bons (XEP-0280) XEP-0280: Mes-sage Car-bons < https://xmpp.org/extensions/0280.html >.
User Blocking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Blocking Com-mand (XEP-0191) XEP-0191: Block-ing Com-mand < https://xmpp.org/extensions/0191.html >.

Feature	Core Server	Core Client	Advanced Server	Advanced Client	Providers
Group Chat	<p>Support can be enabled via an external component or an internal server module/plugin. If claiming compliance using such an addition, the necessary components/modules/plugins MUST be detailed.</p>	<p>Support for the Entity Use Cases and Occupant Use Cases is REQUIRED; support for the remaining use cases is RECOMMENDED.</p>	<p>Support can be enabled via an external component or an internal server module/plugin. If claiming compliance using such an addition, the necessary components/modules/plugins MUST be detailed.</p>	<p>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 <https://xmpp.org/extensions/0045.html>. Implementation 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) <https://xmpp.org/extensions/0369.html>. Instead, Direct MUC</p>

Feature	Core Server	Core Client	Advanced Server	Advanced Client	Providers
Bookmarks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Support can be en- abled via an exter- nal com- po- nent or an inter- nal server mod- ule/- plu- gin. If claim- ing com- pli- ance using such an addi- tion, the nec- essary com- po- nents/- mod- ules/- plu- gins MUST be de- tailed.	<input type="checkbox"/>	Bookmark Stor- age (XEP- 0048) XEP- 0048: Book- mark Stor- age < https://xmpp.org/extensions/0048.html >.

Feature	Core Server	Core Client	Advanced Server	Advanced Client	Providers
Persistent Storage of Private Data via PubSub	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Support can be en- abled via an exter- nal com- po- nent or an inter- nal server mod- ule/- plu- gin. If claim- ing com- pli- ance using such an addi- tion, the nec- essary com- po- nents/- mod- ules/- plu- gins MUST be de- tailed.	<input type="checkbox"/>	Best Prac- tices for Per- sis- tent Stor- age of Pri- vate Data via Publish- Subscribe (XEP- 0223) XEP- 0223: Best Prac- tices for Per- sis- tent Stor- age of Pri- vate Data via Publish- Subscribe < https://xmpp.org/extensions/0223.html >.

Feature	Core Server	Core Client	Advanced Server	Advanced Client	Providers
Private XML Storage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Support can be enabled via an external component or an internal server module/plugin. If claiming compliance using such an addition, the necessary components/modules/plugins MUST be detailed.	<input type="checkbox"/>	Private XML Storage (XEP-0049) XEP-0049: Private XML Storage < https://xmpp.org/extensions/0049.html >.

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 Man- age- ment (XEP- 0198) XEP- 0198: Stream Man- age- ment < https://xmpp.org/extensions/0198.html >.
Stanza Acknowledgements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Stream Man- age- ment (XEP- 0198) XEP- 0198: Stream Man- age- ment < https://xmpp.org/extensions/0198.html >.

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 Man- age- ment (XEP- 0313) XEP- 0313: Mes- sage Archive Man- age- ment < https://xmpp.org/extensions/0313.html >.
Chat States	N/A	<input type="checkbox"/>	N/A	<input type="checkbox"/>	Chat State Noti- fica- tions (XEP- 0085) XEP- 0085: Chat State Noti- fica- tions < https://xmpp.org/extensions/0085.html >.

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 Man- agement (XEP- 0198) XEP- 0198: Stream Man- agement < https://xmpp.org/extensions/0198.html >.
Stanza Acknowledgements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Stream Man- agement (XEP- 0198) XEP- 0198: Stream Man- agement < https://xmpp.org/extensions/0198.html >.
Client State Indication	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Client State In- dication (XEP- 0352) XEP- 0352: Client State In- dication < https://xmpp.org/extensions/0352.html >.

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. If claiming compliance using such an addition, the necessary components/-modules/-plugins MUST be detailed.	<input type="checkbox"/>	Push Notifications (XEP-0357) XEP-0357: Push Notifications < https://xmpp.org/extensions/0357.html >.

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 \(IANA\)](#)².

6 XMPP Registrar Considerations

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

7 Acknowledgements

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²The 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/>>.

³The 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/>>.