

Network Working Group
Internet-Draft
Expires: December 3, 2003

P. Saint-Andre
Jabber Software Foundation
J. Hildebrand
Jabber, Inc.
June 04, 2003

Resourceprep: A Stringprep Profile for Resource Identifiers in XMPP
draft-ietf-xmpp-resourceprep-03

Status of this Memo

This document is an Internet-Draft and is in full conformance with all provisions of [Section 10 of RFC2026](#).

Internet-Drafts are working documents of the Internet Engineering Task Force (IETF), its areas, and its working groups. Note that other groups may also distribute working documents as Internet-Drafts.

Internet-Drafts are draft documents valid for a maximum of six months and may be updated, replaced, or obsoleted by other documents at any time. It is inappropriate to use Internet-Drafts as reference material or to cite them other than as "work in progress."

The list of current Internet-Drafts can be accessed at <http://www.ietf.org/ietf/lid-abstracts.txt>.

The list of Internet-Draft Shadow Directories can be accessed at <http://www.ietf.org/shadow.html>.

This Internet-Draft will expire on December 3, 2003.

Copyright Notice

Copyright (C) The Internet Society (2003). All Rights Reserved.

Abstract

This document defines a stringprep profile for resource identifiers in the Extensible Messaging and Presence Protocol (XMPP).

Internet-Draft

Resourceprep

June 2003

Table of Contents

1.	Introduction	3
1.1	Terminology	3
1.2	Discussion Venue	3
1.3	Intellectual Property Notice	3
2.	Character Repertoire	5
3.	Mapping	6
4.	Normalization	7
5.	Prohibited Output	8
6.	Bidirectional Characters	9
7.	Security Considerations	10
8.	IANA Considerations	11
	Normative References	12
	Authors' Addresses	12
A.	Revision History	13
A.1	Changes from draft-ietf-xmpp-resourceprep-02	13
A.2	Changes from draft-ietf-xmpp-resourceprep-01	13
A.3	Changes from draft-ietf-xmpp-resourceprep-00	13
	Intellectual Property and Copyright Statements	14

Internet-Draft

Resourceprep

June 2003

1. Introduction

This document, which defines a profile of stringprep ([RFC 3454 \[1\]](#)), specifies processing rules that will enable users to enter internationalized resource identifiers in XMPP (see XMPP Core [\[2\]](#)) and have the highest chance of getting the content of the strings correct. These processing rules are intended only for XMPP resource identifiers (which are often associated with session names), and are not intended for arbitrary text.

This profile defines the following, as required by [RFC 3454 \[1\]](#):

- o The intended applicability of the profile: internationalized resource identifiers within XMPP
- o The character repertoire that is the input and output to stringprep: Unicode 3.2, specified in [section 2](#)
- o The mappings used: specified in [section 3](#)
- o The Unicode normalization used: specified in [section 4](#)
- o The characters that are prohibited as output: specified in [section 5](#)
- o Bidirectional character handling: specified in [section 6](#)

1.1 Terminology

This document inherits the terminology defined in XMPP Core [\[2\]](#).

The capitalized key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in [RFC](#)

[2119](#) [3].

[1.2](#) Discussion Venue

The authors welcome discussion and comments related to the topics presented in this document. The preferred forum is the <xmppwg@jabber.org> mailing list, for which archives and subscription information are available at <<http://www.jabber.org/cgi-bin/mailman/listinfo/xmppwg/>>.

[1.3](#) Intellectual Property Notice

This document is in full compliance with all provisions of [Section 10](#)

Saint-Andre & Hildebrand

Expires December 3, 2003

[Page 3]

Internet-Draft

Resourceprep

June 2003

of [RFC 2026](#). Parts of this specification use the term "jabber" for identifying namespaces and other protocol syntax. Jabber[tm] is a registered trademark of Jabber, Inc. Jabber, Inc. grants permission to the IETF for use of the Jabber trademark in association with this specification and its successors, if any.

2. Character Repertoire

This profile uses Unicode 3.2 with the list of unassigned code points being Table A.1, both defined in [Appendix A of RFC 3454](#) [1].

[3](#). Mapping

This profile specifies mapping using the following tables from [RFC 3454](#) [1]:

Table B.1

[4](#). Normalization

This profile specifies using Unicode normalization form KC, as described in [RFC 3454](#) [1].

5. Prohibited Output

This profile specifies prohibiting use of the following tables from [RFC 3454](#) [1].

Table C.1.2

Table C.2.1

Table C.2.2

Table C.3

Table C.4

Table C.5

Table C.6

Table C.7

Table C.8

Table C.9

Internet-Draft

Resourceprep

June 2003

6. Bidirectional Characters

This profile specifies checking bidirectional strings as described in [section 6 of RFC 3454](#) [1].

7. Security Considerations

The Unicode and ISO/IEC 10646 repertoires have many characters that look similar. In many cases, users of security protocols might do visual matching, such as when comparing the names of trusted third parties. Because it is impossible to map similar-looking characters without a great deal of context such as knowing the fonts used, stringprep does nothing to map similar-looking characters together nor to prohibit some characters because they look like others.

A resource identifier can be employed as one part of an entity's address in XMPP. One common usage is as the name for an instant messaging user's active session; another is as the nickname of a user in a multi-user chat room; and many other kinds of entities could use resource identifiers as part of their addresses. The security of such services could be compromised based on different interpretations of the internationalized resource identifier; for example, a user could attempt to initiate multiple sessions with the same name, or a user could send a message to someone other than the intended recipient in a multi-user chat room.

Internet-Draft

Resourceprep

June 2003

8. IANA Considerations

This is a profile of stringprep. If and when it becomes an RFC, it should be registered in the stringprep profile registry maintained by the IANA [\[4\]](#).

Name of this profile:

Resourceprep

RFC in which the profile is defined:

This document

Indicator whether or not this is the newest version of the profile:

This is the first version of Resourceprep

Internet-Draft

Resourceprep

June 2003

Normative References

- [1] Hoffman, P. and M. Blanchet, "Preparation of Internationalized Strings ("stringprep")", [RFC 3454](#), December 2002.
- [2] Saint-Andre, P. and J. Miller, "XMPP Core", [draft-ietf-xmpp-core-13](#) (work in progress), June 2003.
- [3] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", [BCP 14](#), [RFC 2119](#), March 1997.
- [4] Internet Assigned Numbers Authority, "Internet Assigned Numbers Authority", January 1998, <<http://www.iana.org/>>.

Authors' Addresses

Peter Saint-Andre
Jabber Software Foundation

E-Mail: stpeter@jabber.org

URI: <http://www.jabber.org/people/stpeter.php>

Joe Hildebrand
Jabber, Inc.

EMail: jhildebrand@jabber.com

URI: <http://www.jabber.org/people/hildjj.php>

Saint-Andre & Hildebrand Expires December 3, 2003 [Page 12]

Internet-Draft Resourceprep June 2003

[Appendix A](#). Revision History

Note to RFC Editor: please remove this entire appendix, and the corresponding entries in the table of contents, prior to publication.

[A.1](#) Changes from [draft-ietf-xmpp-resourceprep-02](#)

- o Provided additional examples of resource identifier usage.
- o Made several small editorial changes.

[A.2](#) Changes from [draft-ietf-xmpp-resourceprep-01](#)

- o Made small editorial changes to address RFC Editor requirements.

A.3 Changes from [draft-ietf-xmpp-resourceprep-00](#)

- o Clarified references to Unicode 3.2 and unassigned code points.
- o Corrected normalization routine.
- o Removed reference to section B.2 of [RFC 3454](#) (no case folding required).

Intellectual Property Statement

The IETF takes no position regarding the validity or scope of any intellectual property or other rights that might be claimed to pertain to the implementation or use of the technology described in this document or the extent to which any license under such rights might or might not be available; neither does it represent that it has made any effort to identify any such rights. Information on the

IETF's procedures with respect to rights in standards-track and standards-related documentation can be found in [BCP-11](#). Copies of claims of rights made available for publication and any assurances of licenses to be made available, or the result of an attempt made to obtain a general license or permission for the use of such proprietary rights by implementors or users of this specification can be obtained from the IETF Secretariat.

The IETF invites any interested party to bring to its attention any copyrights, patents or patent applications, or other proprietary rights which may cover technology that may be required to practice this standard. Please address the information to the IETF Executive Director.

Full Copyright Statement

Copyright (C) The Internet Society (2003). All Rights Reserved.

This document and translations of it may be copied and furnished to others, and derivative works that comment on or otherwise explain it or assist in its implementation may be prepared, copied, published and distributed, in whole or in part, without restriction of any kind, provided that the above copyright notice and this paragraph are included on all such copies and derivative works. However, this document itself may not be modified in any way, such as by removing the copyright notice or references to the Internet Society or other Internet organizations, except as needed for the purpose of developing Internet standards in which case the procedures for copyrights defined in the Internet Standards process must be followed, or as required to translate it into languages other than English.

The limited permissions granted above are perpetual and will not be revoked by the Internet Society or its successors or assignees.

This document and the information contained herein is provided on an "AS IS" basis and THE INTERNET SOCIETY AND THE INTERNET ENGINEERING TASK FORCE DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTY THAT THE USE OF THE INFORMATION

MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Acknowledgement

Funding for the RFC Editor function is currently provided by the Internet Society.