

Network Working Group  
Internet-Draft  
Intended status: Standards Track  
Expires: November 3, 2016

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May 2, 2016

**IUTF8 Terminal Mode in Secure Shell (SSH)**  
**draft-sgtatham-secsh-iutf8-00**

Abstract

This document specifies a value for the widely used IUTF8 bit in the Secure Shell terminal modes encoding.

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## [1.](#) Introduction

The Secure Shell (SSH) connection protocol [[RFC4254](#)] provides an encoding for terminal modes, used in the "pty-req" channel request type.

A commonly used terminal mode is IUTF8, which indicates that the terminal driver should assume that terminal I/O uses the UTF-8 character encoding. This is typically used by the kernel's terminal driver on the server to decide how many bytes of input to treat as a single logical character during line editing.

SSH currently does not provide an encoding for IUTF8. This document specifies one.

## [2.](#) Conventions Used in this Document

The key phrases "SHOULD" and "MAY" in this document are to be interpreted as described in [[RFC2119](#)].

## [3.](#) New terminal mode

The opcode value 42 is defined for the IUTF8 terminal mode.

As [[RFC4254](#)] [section 8](#) specifies for all opcodes in the range 1 to 159, it is therefore followed by a single uint32 argument. The value 0 indicates that the IUTF8 mode is disabled, and the value 1 indicates that it is enabled.

As with all other encoded terminal modes, the client SHOULD transmit a value for this mode if it knows about one, and the server MAY ignore it.



#### 4. IANA Considerations

This document augments the "Encoding of Terminal Modes" list in [section 8 of \[RFC4254\]](#).

IANA is requested to update the SSH encoded terminal modes registry with the following additional entry:

opcode	mnemonic	description
-----	-----	-----
42	IUTF8	Terminal input and output is assumed to be encoded in UTF-8.

Figure 1

#### 5. Security Considerations

The security considerations of [\[RFC4254\]](#) apply. This additional terminal mode encoding is believed to have no security implications differing from the existing set of encoded terminal modes.

#### 6. Acknowledgements

FIXME: the author should add some more author names and/or acknowledgments in this section.

This document was written using the xml2rfc tool described in [\[RFC2629\]](#).

#### 7. References

##### 7.1. Normative References

- [RFC2119] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", [BCP 14](#), [RFC 2119](#), DOI 10.17487/RFC2119, March 1997, <<http://www.rfc-editor.org/info/rfc2119>>.
- [RFC4254] Ylonen, T. and C. Lonvick, Ed., "The Secure Shell (SSH) Connection Protocol", [RFC 4254](#), DOI 10.17487/RFC4254, January 2006, <<http://www.rfc-editor.org/info/rfc4254>>.

##### 7.2. Informative References

- [RFC2629] Rose, M., "Writing I-Ds and RFCs using XML", [RFC 2629](#), DOI 10.17487/RFC2629, June 1999, <<http://www.rfc-editor.org/info/rfc2629>>.



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