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Request for Comments: 5131   Data Connection Ltd
Category: Standards Track   December 2007

                A MIB Textual Convention for Language Tags

Status of This Memo

   This document specifies an Internet standards track protocol for the
   Internet community, and requests discussion and suggestions for
   improvements. Please refer to the current edition of the "Internet
   Official Protocol Standards" (STD 1) for the standardization state
   and status of this protocol. Distribution of this memo is unlimited.

Abstract

   This MIB module defines a textual convention to represent BCP 47
   language tags. The intent is that this textual convention will be
   imported and used in MIB modules that would otherwise define their
   own representation.

Table of Contents

1. Introduction

    This memo defines a portion of the Management Information Base (MIB)
    for use with network management protocols in the Internet community.
    It defines a textual convention to represent BCP 47 [RFC4646]
    language tags.

    The LangTag TEXTUAL-CONVENTION defined by this RFC replaces the
    similar LanguageTag TEXTUAL-CONVENTION defined by RFC 2932 [RFC2932].

    The old LanguageTag TEXTUAL-CONVENTION is used by some existing MIB
    modules. New MIB modules should use the LangTag TEXTUAL-CONVENTION,
    which has been created (and is to be preferred) for the following
    reasons:

    o Its syntax description is current, and is more comprehensive.

    o It is short enough to use as an index object without subtyping,
       yet is of adequate length to represent any language tag in
       practice.

    o It is provided in a dedicated MIB module to simplify module
       dependencies.

    It is not possible to apply changes in syntax and length to an
    existing textual convention. This is why the creation of a new
    textual convention with a new name was necessary.

2. Terminology

    The 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 [RFC2119].

3. The Internet-Standard Management Framework

    For a detailed overview of the documents that describe the current
    Internet-Standard Management Framework, please refer to section 7 of
    RFC 3410 [RFC3410].

    Managed objects are accessed via a virtual information store, termed
    the Management Information Base or MIB. MIB objects are generally
    accessed through the Simple Network Management Protocol (SNMP).
    Objects in the MIB are defined using the mechanisms defined in the
    Structure of Management Information (SMI). This memo specifies a MIB
    module that is compliant to the SMIv2, which is described in STD 58,
    RFC 2578 [RFC2578], STD 58, RFC 2579 [RFC2579] and STD 58, RFC 2580
    [RFC2580].

4. Definitions

LANGTAG-TC-MIB DEFINITIONS ::= BEGIN

IMPORTS
    MODULE-IDENTITY, mib-2   FROM SNMPv2-SMI   -- [RFC2578]
    TEXTUAL-CONVENTION   FROM SNMPv2-TC;   -- [RFC2579]

langTagTcMIB MODULE-IDENTITY
    LAST-UPDATED "200711090000Z" -- 9 November 2007
    ORGANIZATION "IETF Operations and Management (OPS) Area"
    CONTACT-INFO "EMail: ops-area@ietf.org
                  Home page: http://www.ops.ietf.org/"
    DESCRIPTION
            "This MIB module defines a textual convention for
            representing BCP 47 language tags."
    REVISION   "200711090000Z" -- 9 November 2007
    DESCRIPTION
            "Initial revision, published as RFC 5131.

            Copyright (C) The IETF Trust (2007). This version of this
            MIB module is part of RFC 5131; see the RFC itself for full
            legal notices."
    ::= { mib-2 165 }

LangTag ::= TEXTUAL-CONVENTION
    DISPLAY-HINT "1a"
    STATUS   current
    DESCRIPTION
            "A language tag, constructed in accordance with BCP 47.

            Only lowercase characters are allowed. The purpose of this
            restriction is to provide unique language tags for use as
            indexes. BCP 47 recommends case conventions for user
            interfaces, but objects using this TEXTUAL-CONVENTION MUST
            use only lowercase.

            Values MUST be well-formed language tags, in conformance
            with the definition of well-formed tags in BCP 47. An
            implementation MAY further limit the values it accepts to
            those permitted by a 'validating' processor, as defined in
            BCP 47.

            In theory, BCP 47 language tags are of unlimited length.
            The language tag described in this TEXTUAL-CONVENTION is of
            limited length. The analysis of language tag lengths in BCP
            47 confirms that this limit will not pose a problem in
            practice. In particular, this length is greater than the

          minimum requirements set out in Section 4.3.1.

          A zero-length language tag is not a valid language tag.
          This can be used to express 'language tag absent' where
          required, for example, when used as an index field."
    REFERENCE "RFC 4646 BCP 47"
    SYNTAX   OCTET STRING (SIZE (0 | 2..63))

END

5. Security Considerations

   This MIB module does not define any management objects. Instead, it
   defines a textual convention that may be imported by other MIB
   modules and used for object definitions.

   Meaningful security considerations can only be written in the MIB
   modules that define management objects. This document therefore has
   no impact on the security of the Internet.

6. IANA Considerations

   LANGTAG-TC-MIB is rooted under the mib-2 subtree. IANA has assigned
   { mib-2 165 } to the LANGTAG-TC-MIB module specified in this
   document.

7. Acknowledgements

   This MIB module is a reworking of existing material from RFC 2932.

   This module was generated by editing together contributions from
   Randy Presuhn, Dan Romascanu, Bill Fenner, Juergen Schoenwaelder,
   Bert Wijnen, Doug Ewell, and Ira McDonald.

8. References

8.1. Normative References

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              Requirement Levels", BCP 14, RFC 2119, March 1997.

   [RFC2578] McCloghrie, K., Ed., Perkins, D., Ed., and J.
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   [RFC2579] McCloghrie, K., Ed., Perkins, D., Ed., and J.
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              April 1999.

   [RFC4646] Phillips, A. and M. Davis, "Tags for Identifying
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8.2. Informative References

   [RFC2932] McCloghrie, K., Farinacci, D., and D. Thaler, "IPv4
              Multicast Routing MIB", RFC 2932, October 2000.

   [RFC3410] Case, J., Mundy, R., Partain, D., and B. Stewart,
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