Language Tag MIB
draft-mcwalter-langtag-mib-00.txt

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Abstract

This MIB module defines a textual convention to represent BCP 47 [RFC4646] language tags. The intent is that this textual convention will be imported and used in MIB modules that would otherwise define their own representation.
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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.

This document is part of work in progress to obsolete RFC 2932 [RFC2932]. RFC 2932 defined a LanguageTag textual convention, but did so at an inappropriately scope; namely in a MIB module specific to IPv4 multicast routing.

This draft aims to correct the structure of the MIB by placing this textual convention in a dedicated module that can be included without other dependencies.

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].

2. 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].

3. Definitions

LANGTAG-MIB DEFINITIONS ::= BEGIN

IMPORTS
  MODULE-IDENTITY, mib-2 FROM SNMPv2-SMI
  TEXTUAL-CONVENTION FROM SNMPv2-TC;

langTagMIB MODULE-IDENTITY
  LAST-UPDATED "200611130000Z" -- 13 November 2006
  ORGANIZATION "IETF Operations and Management Area"
  CONTACT-INFO "EMail: ops-area@ietf.org"
  DESCRIPTION

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"This MIB module defines a textual conventions for representing BCP 47 language tags."

REVISION     "200611130000Z" -- 13 November 2006

DESCRIPTION
"Initial revision, published as RFC yyyy.

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-- RFC Ed.: replace yyyy with actual RFC number & remove this note
 ::= { mib-2 XXX }
-- RFC Ed.: replace XXX with IANA-assigned number & remove this note

LanguageTag ::= TEXTUAL-CONVENTION
    DISPLAY-HINT "100a"
    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. This language tag is of limited length. The analysis of language tag lengths in BCP 47 confirms that this limit will not pose a problem in practice."

REFERENCE "RFC 4646 BCP 47"
SYNTAX    OCTET STRING (SIZE (1..100))

END

4. Security Considerations

Whenever using limited-size arrays to implement objects such as those defined by this MIB module, implementers are encouraged to check length and bounds on input and memory in order to avoid introducing
buffer overflow vulnerabilities."

SNMP versions prior to SNMPv3 did not include adequate security. Even if the network itself is secure (for example by using IPSec), even then, there is no control as to who on the secure network is allowed to access and GET/SET (read/change/create/delete) the objects in this MIB module.

It is RECOMMENDED that implementers consider the security features as provided by the SNMPv3 framework (see [RFC3410], section 8), including full support for the SNMPv3 cryptographic mechanisms (for authentication and privacy).

Further, deployment of SNMP versions prior to SNMPv3 is NOT RECOMMENDED. Instead, it is RECOMMENDED to deploy SNMPv3 and to enable cryptographic security. It is then a customer/operator responsibility to ensure that the SNMP entity giving access to an instance of this MIB module is properly configured to give access to the objects only to those principals (users) that have legitimate rights to indeed GET or SET (change/create/delete) them.

5. IANA Considerations

LANGTAG-MIB should be rooted under the mib-2 subtree. IANA is requested to assign { mib-2 XXX } to the LANGTAG-MIB module specified in this document.

6. Notes to the RFC editor

This document should be published simultaneously with IPMCAST-MIB [I-D.ietf-mboned-ip-mcast-mib].

This is because LANGTAG-MIB replaces the LanguageTag textual convention that is already present in RFC 2932, which will be obsoleted by the publication of IPMCAST-MIB.

Normative references between LANGTAG-MIB and IPMCAST-MIB confirm this interdependency in publishing schedule. After publication has occurred, there shall be no dependence from LANGTAG-MIB to IPMCAST-MIB. The normative reference from this draft to IPMCAST-MIB should be removed at that time. The normative reference from IPMCAST-MIB to this draft should remain.

7. Acknowledgements

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

This module was generated by editing together suggestions from Randy McWalter.
8. References

8.1 Normative References


Note from RFC Editor: announcement message (11/05) said this doc should be published at same time as <draft-ietf-ltru-matching> because together they obsolete bcp 47. <draft-ietf-ltru-matching> is not here yet.


8.2 Informative References


[RFC3410] Case, J., Mundy, R., Partain, D., and B. Stewart, "Introduction and Applicability Statements for Internet-


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Acknowledgment

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