

Inter-Domain Routing Working Group  
Internet-Draft  
Intended status: Standards Track  
Expires: July 27, 2014

J. Haas  
Juniper Networks  
January 23, 2014

Definitions of Textual Conventions for the Management of the Fourth  
Version of Border Gateway Protocol (BGP-4)  
draft-ietf-idr-bgp4-mibv2-tc-mib-05

## Abstract

This memo defines a portion of the Management Information Base (MIB) which defines Textual Conventions for the management of BGP-4. The intent is that these textual conventions will be used in BGP-related MIB modules that would otherwise define their own representations.

## Status of This Memo

This Internet-Draft is submitted in full conformance with the provisions of [BCP 78](#) and [BCP 79](#).

Internet-Drafts are working documents of the Internet Engineering Task Force (IETF). Note that other groups may also distribute working documents as Internet-Drafts. The list of current Internet-Drafts is at <http://datatracker.ietf.org/drafts/current/>.

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."

This Internet-Draft will expire on July 27, 2014.

## Copyright Notice

Copyright (c) 2014 IETF Trust and the persons identified as the document authors. All rights reserved.

This document is subject to [BCP 78](#) and the IETF Trust's Legal Provisions Relating to IETF Documents (<http://trustee.ietf.org/license-info>) in effect on the date of publication of this document. Please review these documents carefully, as they describe your rights and restrictions with respect to this document. Code Components extracted from this document must include Simplified BSD License text as described in Section 4.e of the Trust Legal Provisions and are provided without warranty as described in the Simplified BSD License.

Internet-Draft

BGP-4 MIB, Version 2

January 2014

## Table of Contents

<a href="#">1.</a>	Introduction . . . . .	<a href="#">3</a>
<a href="#">2.</a>	The Internet-Standard Management Framework . . . . .	<a href="#">3</a>
<a href="#">3.</a>	Definitions . . . . .	<a href="#">3</a>
<a href="#">4.</a>	Security Considerations . . . . .	<a href="#">5</a>
<a href="#">5.</a>	IANA Considerations . . . . .	<a href="#">5</a>
<a href="#">6.</a>	References . . . . .	<a href="#">5</a>
<a href="#">6.1.</a>	Normative References . . . . .	<a href="#">5</a>
<a href="#">6.2.</a>	Informative References . . . . .	<a href="#">5</a>

Internet-Draft

BGP-4 MIB, Version 2

January 2014

## 1. Introduction

This memo defines a portion of the Management Information Base (MIB) which defines Textual Conventions for the management of BGP-4. The intent is that these textual conventions will be used in BGP-related MIB modules that would otherwise define their own representations.

See the BGP-4 specification [[RFC4271](#)] and Multiprotocol Extensions for BGP-4 [[RFC4760](#)] for an introduction to the concepts these textual conventions cover.

## 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

```
BGP4V2-TC-MIB DEFINITIONS ::= BEGIN
```

```
IMPORTS
```

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

```
    bgp4V2TC MODULE-IDENTITY
```

```
        LAST-UPDATED "201401230000Z"
```

ORGANIZATION "IETF IDR Working Group"  
CONTACT-INFO "E-mail: idr@ietf.org"

DESCRIPTION

"Textual conventions for BGP-4.

Copyright (C) The IETF Trust (2014). This  
version of this MIB module is part of RFC XXX;  
see the RFC itself for full legal notices."

-- RFC Editor - replace XXX with RFC number

REVISION "201401230000Z"

Haas

Expires July 27, 2014

[Page 3]

---

Internet-Draft

BGP-4 MIB, Version 2

January 2014

DESCRIPTION

"Initial version."

::= { mib-2 XXX }

--

-- Textual Conventions

--

Bgp4V2IdentifierTC ::= TEXTUAL-CONVENTION

DISPLAY-HINT "1d."

STATUS current

DESCRIPTION

"The representation of a BGP Identifier. BGP Identifiers  
are presented in the received network byte order.

The BGP Identifier is displayed as if it is an IP address,  
even if it would be an illegal one."

REFERENCE

"[RFC 4273, Section 4.2](#)"

SYNTAX OCTET STRING(SIZE (4))

Bgp4V2AddressFamilyIdentifierTC ::= TEXTUAL-CONVENTION

STATUS current

DESCRIPTION

"The representation of a BGP AFI. The value of this object  
should be restricted to be between the values of 0 and  
65535."

REFERENCE

"[RFC 4760, Section 3](#)"

```
SYNTAX INTEGER {  
    ipv4(1),  
    ipv6(2)  
}
```

Bgp4V2SubsequentAddressFamilyIdentifierTC ::= TEXTUAL-CONVENTION

STATUS current

DESCRIPTION

"The representation of a BGP SAFI"

REFERENCE

"[RFC 4760, Section 3](#). The value of this object should be restricted to be between the values of 0 and 255."

```
SYNTAX INTEGER {  
    unicast(1),  
    multicast(2),  
    mpls(4)  
}
```

END

Haas

Expires July 27, 2014

[Page 4]

---

Internet-Draft

BGP-4 MIB, Version 2

January 2014

#### [4.](#) Security Considerations

This module does not define any management objects. Instead, it defines a set of textual conventions which may be used by other modules which use the BGP-4 protocol to define management objects. Meaningful security considerations can only be written in the MIB modules that define management objects. Therefore, this document has no impact on the security of the Internet.

#### [5.](#) IANA Considerations

IANA is requested to assign this MIB module an OID under mib-2.

#### [6.](#) References

##### [6.1.](#) Normative References

- [RFC2578] McCloghrie, K., Ed., Perkins, D., Ed., and J. Schoenwaelder, Ed., "Structure of Management Information Version 2 (SMIv2)", STD 58, [RFC 2578](#), April 1999.
- [RFC2579] McCloghrie, K., Ed., Perkins, D., Ed., and J.

Schoenwaelder, Ed., "Textual Conventions for SMIV2",  
STD 58, [RFC 2579](#), April 1999.

[RFC2580] McCloghrie, K., Perkins, D., and J. Schoenwaelder,  
"Conformance Statements for SMIV2", STD 58, [RFC 2580](#),  
April 1999.

[RFC4271] Rekhter, Y., Li, T., and S. Hares, "A Border Gateway  
Protocol 4 (BGP-4)", [RFC 4271](#), January 2006.

[RFC4760] Bates, T., Chandra, R., Katz, D., and Y. Rekhter,  
"Multiprotocol Extensions for BGP-4", [RFC 4760](#),  
January 2007.

## [6.2.](#) Informative References

[RFC3410] Case, J., Mundy, R., Partain, D., and B. Stewart,  
"Introduction and Applicability Statements for Internet-  
Standard Management Framework", [RFC 3410](#), December 2002.

Haas

Expires July 27, 2014

[Page 5]

---

Internet-Draft

BGP-4 MIB, Version 2

January 2014

### Author's Address

Jeffrey Haas  
Juniper Networks

E-Mail: [jhaas@juniper.net](mailto:jhaas@juniper.net)

