

Accounts

- General
- Accounts
- Junk Mail
- Fonts & Colors
- Viewing
- Composing
- Signatures
- Rules

Description	Server Name	In Use By Account
	smtp.gmail.com	gih902 gmail
	smtp.gmail.com	Gmail - gih903
	mail.bigpond.com	BigPond Wireless Broadband...
	smtp.gmail.com	
APNIC	asmtplib.apnic.net	
APNIC-EXCHANGE	exch-smtp.apnic...	iCloud, gih@apnic.net
gmail outgoing	smtp.gmail.com	

+ -

Account Information Advanced

- Use default ports (25, 465, 587)
- Use custom port:
- Use Secure Sockets Layer (SSL)

Authentication: Password

User Name: gih

Password: ●●●●●●●●

Cancel OK



Wi-Fi

TCP/IP

DNS

WINS

802.1X

Proxies

Hardware

Configure IPv4: Using DHCP

IPv4 Address: 220.247.146.243

Renew DHCP Lease

Subnet Mask: 255.255.248.0

DHCP Client ID:

(If required)

Router: 220.247.144.1

Configure IPv6: Automatically

Router: fe80::20b:60ff:fea1:881b

IPv6 Address	Prefix...
2001:df9::4015:baf6:b1ff:fe1a:72af	64
2001:df9::4015:1430:8367:2073:5d0	64



Subject: test

From: Geoff Huston <gih@apnic.net>

test
--
Geoff Huston
Chief Scientist, APNIC
+61 7 3858 3100
gih@apnic.net

be made.

Select a different outgoing mail server from the list below or click Try Later to leave the message in your Outbox until it can be sent.

Sending from: Geoff Huston <gih@apnic.net>

- APNIC (Offline)
- APNIC-EXCHANGE (Offline)**
- gmail outgoing (Offline)
- mail.bigpond.com
- smtp.gmail.com:gih902@gmail.com
- smtp.gmail.com:gih903@gmail.co...
- smtp.gmail.com:gihsidr@gmail.co...

Edit SMTP Server List

Connection Doctor

? Edit Message Try Later Try With Selected Server

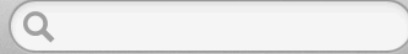
Signature #1



Status	Account Name	Account Type	Details
●	APNIC	SMTP	Connection and login to server succeeded.
●	APNIC-EXCHANGE	SMTP	Could not connect to this SMTP server. Check your network connection and that you entered the correct information in the Account preferences. Also verify that the server supports SSL. If it does not, deselect the "Use SSL" checkbox in the Advanced tab of Account preferences.
●	BigPond Wireless...	POP	Connection and login to server succeeded.
●	gih@apnic.net	IMAP	Connection and login to server succeeded.
●	gih902 gmail	Google IMAP	Connection and login to server succeeded.
●	Gmail - gih903	Google IMAP	Connection and login to server succeeded.



Show All



Wi-Fi

Location: Automatic

Wi-Fi | TCP/IP | DNS | WINS | 802.1X | Proxies | Hardware

Configure IPv4: Using DHCP

IPv4 Address: 220.247.146.243

Renew DHCP Lease

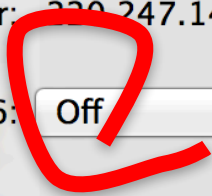
Subnet Mask: 255.255.248.0

DHCP Client ID:

(If required)

Router: 220.247.144.1

Configure IPv6: Off



Click the lock to prevent further changes.

Assist me...

Cancel

OK



Status	Account Name	Account Type	Details
●	APNIC	SMTP	Connection and login to server succeeded.
●	APNIC-EXCHANGE	SMTP	Connection and login to server succeeded.
●	BigPond Wireless...	POP	Connection and login to server succeeded.
●	gih@apnic.net	IMAP	Connection and login to server succeeded.
●	gih902 gmail	Google IMAP	Connection and login to server succeeded.
●	Gmail - gih903	Google IMAP	Connection and login to server succeeded.



1362012788.007246 IP6 2001:dd8:9:2::101:16.587 > 2001:df9::4015:1430:8367:2073:5d0.57100: Flags [P.], seq 1:97, ack 1, win 4320, options [nop,nop,TS val 508156037 ecr 889805948], length 96

0x0000: b8f6 b11a 72af 000b 60a1 881b 86dd 6000r...`.....`
0x0010: 0000 0080 0632 2001 0dd8 0009 0002 00002.....
0x0020: 0000 0101 0016 2001 0df9 0000 4015 1430@..0
0x0030: 8367 2073 05d0 024b df0c 6af0 c68b 23fc .g.s...K..j...#.
0x0040: 7ec3 8018 10e0 799a 0000 0101 080a 1e49 ~.....y.....l
0x0050: d885 3509 5c7c 3232 3020 4941 4d44 4132 ..5.\\|220.IAMDA2
0x0060: 2e6f 7267 2e61 706e 6963 2e6e 6574 204d .org.apnic.net.M
0x0070: 6963 726f 736f 6674 2045 534d 5450 204d icrosoft.ESMTP.M
0x0080: 4149 4c20 5365 7276 6963 6520 7265 6164 ALL.Service.read
0x0090: 7920 6174 2054 6875 2c20 3238 2046 6562 y.at.Thu.,28.Feb
0x00a0: 2032 3031 3320 3130 3a35 333a 3039 202b .2013.10:53:09.+
0x00b0: 3130 3030 0d0a1000..

1362012788.007437 IP6 2001:df9::4015:1430:8367:2073:5d0.57100 > 2001:dd8:9:2::101:16.587: Flags [.] , ack 97, win 8205, options [nop,nop,TS val 889806133 ecr 508156037], length 0

0x0000: 000b 60a1 881b b8f6 b11a 72af 86dd 6000 ..`.....r...`
0x0010: 0000 0020 0640 2001 0df9 0000 4015 1430@.....@..0
0x0020: 8367 2073 05d0 2001 0dd8 0009 0002 0000 .g.s.....
0x0030: 0000 0101 0016 df0c 024b 23fc 7ec3 6af0K#..~.j.
0x0040: c6eb 8010 200d bcca 0000 0101 080a 35095.
0x0050: 5d35 1e49 d885]5.l..

1362012788.019769 IP6 2001:df9::4015:1430:8367:2073:5d0.57100 > 2001:dd8:9:2::101:16.587: Flags [P.], seq 1:48, ack 97, win 8205, options [nop,nop,TS val 889806145 ecr 508156037], length 47

0x0000: 000b 60a1 881b b8f6 b11a 72af 86dd 6000 ..`.....r...`
0x0010: 0000 004f 0640 2001 0df9 0000 4015 1430 ...O.@.....@..0
0x0020: 8367 2073 05d0 2001 0dd8 0009 0002 0000 .g.s.....
0x0030: 0000 0101 0016 df0c 024b 23fc 7ec3 6af0K#..~.j.
0x0040: c6eb 8018 200d fa4d 0000 0101 080a 3509M.....5.
0x0050: 5d41 1e49 d885 4548 4c4f 205b 4950 7636 J.A.I..EHLO.[IPv6
0x0060: 3a32 3030 313a 6466 393a 3a34 3031 353a :2001:df9::4015:
0x0070: 3134 3330 3a38 3336 373a 3230 3733 3a35 1430:8367:2073:5
0x0080: 6430 5d0d 0ad0]..

1362012788.203943 IP6 2001:dd8:9:2::101:16.587 > 2001:df9::4015:1430:8367:2073:5d0.57100: Flags [.] , ack 48, win 4367, options [nop,nop,TS val 508156234 ecr 889806145], length 0

0x0000: b8f6 b11a 72af 000b 60a1 881b 86dd 6000r...`.....`
0x0010: 0000 0020 0632 2001 0dd8 0009 0002 00002.....
0x0020: 0000 0101 0016 2001 0df9 0000 4015 1430@..0
0x0030: 8367 2073 05d0 024b df0c 6af0 c6eb 23fc .g.s...K..j...#.
0x0040: 7ef2 8010 110f cac8 0000 0101 080a 1e49 ~.....l
0x0050: d94a 3509 5d41J5.JA

1362012788.204423 IP6 2001:dd8:9:2::101:16.587 > 2001:df9::4015:1430:8367:2073:5d0.57100: Flags [P.], seq 97:128, ack 48, win 4367, options [nop,nop,TS val 508156235 ecr 889806145], length 31

0x0000: b8f6 b11a 72af 000b 60a1 881b 86dd 6000r...`.....`
0x0010: 0000 003f 0632 2001 0dd8 0009 0002 0000 ...?.2.....
0x0020: 0000 0101 0016 2001 0df9 0000 4015 1430@..0
0x0030: 8367 2073 05d0 024b df0c 6af0 c6eb 23fc .g.s...K..j...#.
0x0040: 7ef2 8018 110f 0952 0000 0101 080a 1e49 ~.....R.....l
0x0050: d94b 3509 5d41 3530 3120 352e 352e 3420 .K5.JA501.5.5.4.
0x0060: 496e 7661 6c69 6420 646f 6d61 696e 206e Invalid.domain.n
0x0070: 616d 650d 0aame..

1362012788.204652 IP6 2001:df9::4015:1430:8367:2073:5d0.57100 > 2001:dd8:9:2::101:16.587: Flags [.] , ack 128, win 8203, options [nop,nop,TS val 889806328 ecr 508156235], length 0

0x0000: 000b 60a1 881b b8f6 b11a 72af 86dd 6000 ..`.....r...`
0x0010: 0000 0020 0640 2001 0df9 0000 4015 1430@.....@..0
0x0020: 8367 2073 05d0 2001 0dd8 0009 0002 0000 .g.s.....
0x0030: 0000 0101 0016 df0c 024b 23fc 7ef2 6af0K#..~.j.
0x0040: c70a 8010 200b baf5 0000 0101 080a 35095.
0x0050: 5df8 1e49 d94b].l.K

1362012788.205844 IP6 2001:df9::4015:1430:8367:2073:5d0.57100 > 2001:dd8:9:2::101:16.587: Flags [F.], seq 48, ack 128, win 8203, options [nop,nop,TS val 889806329 ecr 508156235], length 0

0x0000: 000b 60a1 881b b8f6 b11a 72af 86dd 6000 ..`.....r...`

1362012788.007246 IP6 2001:dd8:9:2::101:16.587 > 2001:df9::4015:1430:8367:2073:5d0.57100: Flags [P.], seq 1:97, ack 1, win 4320, options [nop,nop,TS val 508156037 ecr 889805948], length 96

0x0000: b8f6 b11a 72af 000b 60a1 881b 86dd 6000r...`.
0x0010: 0000 0080 0632 2001 0dd8 0009 0002 00002.....
0x0020: 0000 0101 0016 2001 0df9 0000 4015 1430@..0
0x0030: 8367 2073 05d0 024b df0c 6af0 c68b 23fc .g.s...K.j...#.
0x0040: 7ec3 8018 10e0 799a 0000 0101 080a 1e49 ~.....y.....l
0x0050: d885 3509 5c7c 3232 3020 4941 4d44 4132 ..5.|220.IAMDA2
0x0060: 2e6f 7267 2e61 706e 6963 2e6e 6574 204d .org.apnic.net.M
0x0070: 6963 726f 736f 6674 2045 534d 5450 204d icrosoft.ESMTP.M
0x0080: 4149 4c20 5365 7276 6963 6520 7265 6164 ALL.Service.read
0x0090: 7920 6174 2054 6875 2c20 3238 2046 6562 y.at.Thu.,28.Feb
0x00a0: 2032 3031 3320 3130 3a35 333a 3039 202b .2013.10:53:09.+
0x00b0: 3130 3030 0d0a1000..

1362012788.007437 IP6 2001:df9::4015:1430:8367:2073:5d0.57100 > 2001:dd8:9:2::101:16.587: Flags [.] , ack 97, win 8205, options [nop,nop,TS val 889806133 ecr 508156037], length 0

0x0000: 000b 60a1 881b b8f6 b11a 72af 86dd 6000 ..`.....r...`.
0x0010: 0000 0020 0640 2001 0df9 0000 4015 1430@.....@..0
0x0020: 8367 2073 05d0 2001 0dd8 0009 0002 0000 .g.s.....
0x0030: 0000 0101 0016 df0c 024b 23fc 7ec3 6af0K#..~.j.
0x0040: c6eb 8010 200d bcca 0000 0101 080a 35095.
0x0050: 5d35 1e49 d885]5.l..

1362012788.019769 IP6 2001:df9::4015:1430:8367:2073:5d0.57100 > 2001:dd8:9:2::101:16.587: Flags [P.], seq 1:48, ack 97, win 8205, options [nop,nop,TS val 889806145 ecr 508156037], length 47

0x0000: 000b 60a1 881b b8f6 b11a 72af 86dd 6000 ..`.....r...`.
0x0010: 0000 004f 0640 2001 0df9 0000 4015 1430 ...O.@.....@..0
0x0020: 8367 2073 05d0 2001 0dd8 0009 0002 0000 .g.s.....
0x0030: 0000 0101 0016 df0c 024b 23fc 7ec3 6af0K#..~.j.
0x0040: c6eb 8018 200d fa4d 0000 0101 080a 3509M.....5.
0x0050: 5d41 1e49 d885 4548 4c4f 205b 4950 7636 J.A.I..EHLO.[IPv6
0x0060: 3a32 3030 313a 6466 393a 3a34 3031 353a :2001:df9::4015:
0x0070: 3134 3330 3a38 3336 373a 3230 3733 3a35 1430:8367:2073:5
0x0080: 6430 5d0d 0ad0]..

1362012788.203943 IP6 2001:dd8:9:2::101:16.587 > 2001:df9::4015:1430:8367:2073:5d0.57100: Flags [.] , ack 48, win 4367, options [nop,nop,TS val 508156234 ecr 889806145], length 0

0x0000: b8f6 b11a 72af 000b 60a1 881b 86dd 6000r...`.
0x0010: 0000 0020 0632 2001 0dd8 0009 0002 00002.....
0x0020: 0000 0101 0016 2001 0df9 0000 4015 1430@..0
0x0030: 8367 2073 05d0 024b df0c 6af0 c6eb 23fc .g.s...K.j...#.
0x0040: 7ef2 8010 110f cac8 0000 0101 080a 1e49 ~.....l
0x0050: d94a 3509 5d41J5.JA

1362012788.204423 IP6 2001:dd8:9:2::101:16.587 > 2001:df9::4015:1430:8367:2073:5d0.57100: Flags [P.], seq 97:128, ack 48, win 4367, options [nop,nop,TS val 508156235 ecr 889806145], length 31

0x0000: b8f6 b11a 72af 000b 60a1 881b 86dd 6000r...`.
0x0010: 0000 003f 0632 2001 0dd8 0009 0002 0000 ...?2.....
0x0020: 0000 0101 0016 2001 0df9 0000 4015 1430@..0
0x0030: 8367 2073 05d0 024b df0c 6af0 c6eb 23fc .g.s...K.j...#.
0x0040: 7ef2 8018 110f 0952 0000 0101 080a 1e49R.....l
0x0050: d94b 3509 5d41 3530 3120 352e 352e 3420 .K5.JA501.5.5.4.
0x0060: 496e 7661 6c69 6420 646f 6d61 696e 206e Invalid.domain.n
0x0070: 616d 650d 0aame..

1362012788.204652 IP6 2001:df9::4015:1430:8367:2073:5d0.57100 > 2001:dd8:9:2::101:16.587: Flags [.] , ack 128, win 8203, options [nop,nop,TS val 889806328 ecr 508156235], length 0

0x0000: 000b 60a1 881b b8f6 b11a 72af 86dd 6000 ..`.....r...`.
0x0010: 0000 0020 0640 2001 0df9 0000 4015 1430@.....@..0
0x0020: 8367 2073 05d0 2001 0dd8 0009 0002 0000 .g.s.....
0x0030: 0000 0101 0016 df0c 024b 23fc 7ef2 6af0K#..~.j.
0x0040: c70a 8010 200b baf5 0000 0101 080a 35095.
0x0050: 5df8 1e49 d94b].l.K

1362012788.205844 IP6 2001:df9::4015:1430:8367:2073:5d0.57100 > 2001:dd8:9:2::101:16.587: Flags [F.], seq 48, ack 128, win 8203, options [nop,nop,TS val 889806329 ecr 508156235], length 0

0x0000: 000b 60a1 881b b8f6 b11a 72af 86dd 6000 ..`.....r...`.

```
$ telnet exch-v6only.rand.apnic.net 587
```

```
Trying 2001:dd8:9:2::101:16...
```

```
Connected to exch-v6only.rand.apnic.net.
```

```
Escape character is '^'].
```

```
220 IAMDA1.org.apnic.net Microsoft ESMTP MAIL Service ready at Thu, 28 Feb 2013 10:55:11 +1
```

```
EHLO [IPv6:2001:df9::4015:1430:8367:2073:5d0]
```

```
501 5.5.4 Invalid domain name
```

```
$ telnet exch-v6only.rand.apnic.net 587
Trying 2001:dd8:9:2::101:16...
Connected to exch-v6only.rand.apnic.net.
Escape character is '^]'.
EHLO [IPv6:2001:df9:0:4015:baf6:b1ff:fe1a:72af]
250-IAMDA1.org.apnic.net Hello [2001:dd8:9:2::101:249]
250-SIZE 30965760
250-PIPELINING
250-DSN
250-ENHANCEDSTATUSCODES
250-STARTTLS
250-X-ANONYMOUSTLS
250-AUTH GSSAPI NTLM
250-X-EXPS GSSAPI NTLM
250-8BITMIME
250-BINARYMIME
250-CHUNKING
250-XEXCH50
250-XRDST
250 XSHADOW
```

EHLO [IPv6:2001:df9::4015:1430:8367:2073:5d0]



EHLO [IPv6:2001:df9:0:4015:baf6:b1ff:fe1a:72af]



Wi-Fi

TCP/IP

DNS

WINS

802.1X

Proxies

Hardware

Configure IPv4: Using DHCP

IPv4 Address: 220.247.146.243

Renew DHCP Lease

Subnet Mask: 255.255.248.0

DHCP Client ID:

(If required)

Router: 220.247.144.1

Configure IPv6: Automatically

Router: fe80::20b:60ff:fea1:881b

IPv6 Address	Prefix...
2001:df9::4:15:baf6:b1ff:fe1a:72af	64
2001:df9::4:15:1430:8367:2073:5d0	64

PROPOSED STANDARD

Errata Exist

Internet Engineering Task Force (IETF)
Request for Comments: 5952
Updates: [4291](#)
Category: Standards Track
ISSN: 2070-1721

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August 2010

A Recommendation for IPv6 Address Text Representation

Abstract

As IPv6 deployment increases, there will be a dramatic increase in the need to use IPv6 addresses in text. While the IPv6 address architecture in [Section 2.2 of RFC 4291](#) describes a flexible model for text representation of an IPv6 address, this flexibility has been causing problems for operators, system engineers, and users. This document defines a canonical textual representation format. It does not define a format for internal storage, such as within an application or database. It is expected that the canonical format will be followed by humans and systems when representing IPv6

4.1. Handling Leading Zeros in a 16-Bit Field

Leading zeros **MUST** be suppressed. For example, 2001:0db8::0001 is not acceptable and must be represented as 2001:db8::1. A single 16-bit 0000 field **MUST** be represented as 0.

4.2. "::" Usage

4.2.1. Shorten as Much as Possible

The use of the symbol "::" **MUST** be used to its maximum capability. For example, 2001:db8:0:0:0:0:2:1 must be shortened to 2001:db8::2:1. Likewise, 2001:db8::0:1 is not acceptable, because the symbol "::" could have been used to produce a shorter representation 2001:db8::1.

4.2.2. Handling One 16-Bit 0 Field

The symbol "::" **MUST NOT** be used to shorten just one 16-bit 0 field. For example, the representation 2001:db8:0:1:1:1:1:1 is correct, but 2001:db8::1:1:1:1:1 is not correct.

4.2.3. Choice in Placement of "::"

When there is an alternative choice in the placement of a "::", the longest run of consecutive 16-bit 0 fields **MUST** be shortened (i.e., the sequence with three consecutive zero fields is shortened in 2001:0:0:1:0:0:0:1). When the length of the consecutive 16-bit 0 fields are equal (i.e., 2001:db8:0:0:1:0:0:1), the first sequence of zero bits **MUST** be shortened. For example, 2001:db8::1:0:0:1 is correct representation.



be liberal in what you accept and conservative in what you send



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[Robustness principle - Wikipedia, the free encyclopedia](#)

en.wikipedia.org/wiki/Robustness_principle

Be conservative in what you do, **be liberal in what you accept** from others (often reworded as "Be **conservative in what you send, liberal in what you accept**").

[Jon Postel - Wikipedia, the free encyclopedia](#)

en.wikipedia.org/wiki/Jon_Postel

... in its sending behavior, and liberal in its receiving behavior" (reworded in RFC 1122 as "**Be liberal in what you accept, and conservative in what you send**").

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