

#### **BGP LARGE**

# COMMUNITY



https://tools.ietf.org/html/draft-heitz-idr-large-community-08



## NINE years ago at LINX 57

http://thomas.mangin.com/data/pdf/LINX 57- Mangin - Leak presentation.pdf

### Still relevant today ...

Among other things, recommend "community filtering"

- tags routes on eBGP inbound (from transit, peer, etc)
- filter on eBGP outbound (no transit routes for peer)

## But only if you have a 16 bits ASN

Otherwise sorry: you are doomed...
And you have have been since RFC 4893 in 2007...
TEN years ago

## Previous attempts to fix the issue (and feature creep)

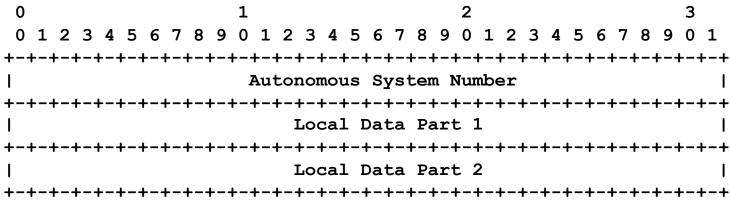


Name	Year	Code	Method	Usable size	Document
RFC 1997	1996	8	Opaque	32 bits	5 pages
RFC 4360	2006	16	Structure	48 bits (64-16)	12 pages
RFC 5668	2009	16	Structure	48 bits	5 pages (define RFC 4360)
drah-lange-flexible-bgp-communities	2002-2010	TBD	TLV	BIG	21 pages
draft-raszuk-wide-bgp-communities	2015-2016	TBD	TLV	BIG	26 pages

Complex, no consensus never implemented

## draft-ietf-idr-large-community-08

Like RFC 1997 .. but larger and **SIMPLE** (from 6, to 8 and now 9 pages) 96bits space (3x 32 bits)



Started September 2016
IANA allocated attribute code 32

Another draft proposing how to use the space draft-snijders-grow-large-communities-usage-00









#### **Mail Archive**

#### [ldr] One week extension to WGLC for draft-ietf-idr-large-community

"John G. Scudder" <jgs@juniper.net> | Mon, 14 November 2016 09:11 UTC | Show header

Hi All,

We originally WGLC'd -03. The document is now at -08 as a result of WGLC, RTG-DIR and Document Shepherd review comments. Most of the changes are editorial but there are a couple that rise beyond that level, and I would like to call the WG's attention to them. The ones I've identified are:

## COMMUNITIES Implementations ..

Vendor	Software	Status	Details		
Arista	EOS	Planned	Feature Requested BUG169446		
Cisco	IOS XR	✓ Done!	Engineering Release		
cz.nic	BIRD	✓ Done!	BIRD 1.6.3 (commit)		
ExaBGP	ExaBGP	✓ Done! FIRST OSS IMPLEMENTATION	PR482 COMPLETE patch by JOB		
Juniper	Junos OS	Planned	Second Half 2017		
MikroTik	RouterOS	Won't Implement Until RFC	Feature Requested 2016090522001073		
Nokia	SR OS	Planned	Third Quarter 2017		
OpenBSD	OpenBGPD	✓ Done!	OpenBSD 6.1 (commit)		
OSRG	GoBGP	✓ Done!	PR1094		
rtbrick	Fullstack	Planned	December 2016		
Quagga	Quagga	✓ Done!	Patch Provided for 1.1.0 875		
VyOS	Vy0S	Requested	Feature Requested T143		



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#### **Job Snijders**

Yesterday at 11:29 · Amsterdam, Netherlands · &

Eating my own dog food is paying off again. I slapped a Large BGP Community on our home LAN prefix earlier this week. Marlien commented today "hey, i cant reach this and this website".

It appears that Huawei routers (at least NE40E with VRP 8.100) are entirely ignoring route announcements which have a Large BGP Community path attribute attached.

Not propagating an unknown optional transitive path attribute is one thing, but outright dropping the entire route is a whole other... See more



13 Comments



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## Credits:

http://largebgpcommunities.net/all you need to know is there!

## Thank you:



https://github.com/pierky/bgp-large-communities-playground

And everyone who supported the draft on the IETF mailing list (You know who you are – beers are on me Tuesday)