

Recommendations of Unique Local Addresses Usages

[draft-ietf-v6ops-ula-usage-recommendations-02](#)

Bing Liu(speaker), Sheng Jiang

IETF 89@London, Mar 2014

To restate the scope of the draft

This draft is to	This draft is NOT to
Provide guidance for people who considering using ULAs	Persuade everyone to use ULAs in their networks
Analysis pros/cons of possible use cases and give operational considerations	Make a decision for the administrators (since situations varied)
Recommend several uses cases in which ULAs are mostly considered beneficial	To deny/obsolete some use cases as “NOT recommended”
Eliminate the misunderstanding that ULAs are intentionally binding with NAT (ULA!=RFC1918v6)	Deny/judge the NAT use case.
Give guidance/recommendations based on discussion consensus and some real deployment among our community	A collection/report of current real deployment use cases

Question to the WG

- Maybe it's better to change the title to **“~~Recommendations~~ Guidance of Unique Local Addresses Usages” ??**

Application of the recommended use cases

- Used in isolated network:
 - there hasn't been report of real deployment, but I think the use case is pretty obvious reasonable
- Used along with GUA
 - Used along with GUA in one network: reported in the mailing list ULAs are used for internal-only servers.
 - Used along with GUA in one host: lab test, and also reported in the mailing list (in someone's homenet for years)
- Use as private routing
 - also reported in the mailing list, the case is for private tunneling to IPv4 networks
- Use as identifier: Apple's BTMM is using it.

- Used as NAT64 prefixes:
 - It was firstly reported by one operator
 - Unfortunately, when they upgraded the networks to 464xlat, since the CPEs have IPv4, then ULAs don't work since the RFC6724 prefer IPv4 over ULA.
 - The issue has been clearly explained in the document
 - Still worth to be recommended in IPv6-only environment

Updates since last meeting-1

- We had two volunteers reviewing the draft (Lee Howard & Jen Linkova, thank you very much!)
- Updates according to the reviews
 - In home network scenarios, clarify the ULAs provide benefit when the home network contains multiple-segment
 - Add some DNS operational considerations in ULA+GUA case.
 - Clarify updating default address selection table is not scalable and might not suitable for home networks
 - Add some security considerations regarding with NPTv6
 - Other minor changes

Updates since last meeting-2

- We also had not a few helpful comments in the mailing list. Thank you all.
- Main updates according to the comments
 - Added some considerations on avoid the ULA+IPv4 failover issue. (by Christopher Palmer)
 - Configuring scoped (ULA prefixes only) routes on hosts
 - Not advertise IPv6 default route when there's no IPv6 internet connectivity
 - Added some consideration to clearly describe the DNS split operation when ULAs are used internal only along with GUA. (by Brian Carpenter, Fred Baker, George Michaelson .etc.)
 - Deleted some un form description regarding with the ULAs used in operators. (by Tim Chown)
 - Other minor updates

Comments?

WGLC?

Thank you!

leo.liubing@huawei.com

jiangsheng@huawei.com

IETF89@London