

# Best Current Operational Practice for operators:

## IPv6 Prefix Assignment for end-customers – persistent vs non-persistent and what size to choose

...known as...

**RIPE-690 :)**

Jan Žorž

[zorz@isoc.org](mailto:zorz@isoc.org)

# RIPE BCOP TF and IPv6 WG

- Work ~~nearly~~ done!
  - <https://www.sinog.si/docs/draft-IPv6pd-BCOP-v7.pdf>
  - <https://www.ripe.net/ripe/mail/archives/bcop/2017-March/000159.html>
  - 1<sup>st</sup> draft on March 27<sup>th</sup> 2017
  - Reached consensus in RIPE BCOP TF
  - Reached consensus in RIPE IPv6 WG (on 04.Sep.2017 😊 )
  - Published as RIPE-690 on 16<sup>th</sup> October 2017

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# Executive Summary

- Making wrong choices when designing your IPv6 network will sooner or later have negative implications ...
  - **IPv6 is not the same as IPv4.** In IPv6 you assign a short prefix to each end-customer site, so they are able to have as many subnets (/64s) as they need.
  - It is **strongly discouraged** to assign prefixes longer than /56. If you want a simple addressing plan, /48 for each end-customer.
  - In order to facilitate troubleshooting and have a future proof network, you should consider **numbering the WAN links using GUAs.**
  - Non-persistent prefixes are considered harmful in IPv6 as you can't avoid issues that may be caused by simple end-customer power outages, so assigning **persistent prefixes is a safer and simpler approach.**

# Authors:

- Andrew Alston
- Gert Doering
- Jan Žorž
- Jen Linkova
- Jordi Palet
- Kevin Meynell
- Lee Howard
- Luis Balbinot
- Mark Townsley
- Primož Dražumerič
- Sander Steffann

# ACK's

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# THNX!

Big thnx to everyone for suggestions,  
comments and contribution – co-chairs and  
WG!

# Future work and ideas

- Operators say: “Mail server on IPv6? No, thnx!”
- Anti-spam mechanisms? IP reputation?
- How to survive on IPv6 when it comes to incoming email server and protecting from the spam?
- So how about writing a BCOP document that describes the solutions and best current practice on the above topic?



# Future work and idea

Anyone in the room has operational experience with this topic and is willing to join the team of co-authors?

Any takers? 😊

# Questions? Suggestions? Ideas?

Thanks!

<https://www.ripe.net/publications/docs/ripe-690>