



**RIPE NCC**  
RIPE NETWORK COORDINATION CENTRE

# IPv6 on Mobile networks BCOP

Helping mobile operators



# IPv6 is moving fast on mobile networks

- Lack of guidance for operators
- RIPE NCC ER Team identified the issue some time ago

# Structured approach



- Built a list of operators
- Contacted some of them

# Findings



**Quite uniform distribution of issues**

# Preparation work



- Proof of concept
- Receiving your allocation from the RIPE NCC
  - Considering subnet size per user
  - Checking RIPE-690

# Vendor support



- Handsets
  - Android
  - Apple
  
- Infrastructure
  - Cisco
  - Huawei
  - Ericsson
  - ZTE

# APNs



- Single
- Multiple
  - IPv4-only APN for older headsets
  - Gamers on dedicated APN

# Implementation scenarios



- Dual-Stack
- NAT64
- 464XLAT



# Billing



- Not all software supports IPv6
  - Chances are, IPv6 data will not be billed
- Upgrade or modifications required

# Roaming



- A network will most likely have roaming users with IPv6
- Then billing issues might rise

# Filtering



- Filtering software needs to be updated
- Legal issues might rise
  - No compliance with local laws/regulations

# Document status



- Document structure set
- Most of the content still needs to be written
- Maybe doing a “document sprint” here at the RIPE Meeting

# Next steps



- Talk to more operators to identify smaller issues
- More work on the document and make it public for review



# Questions



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