

# NGFI line rates

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**IEEE 1914.1**  
**Next Generation Fronthaul Interface**  
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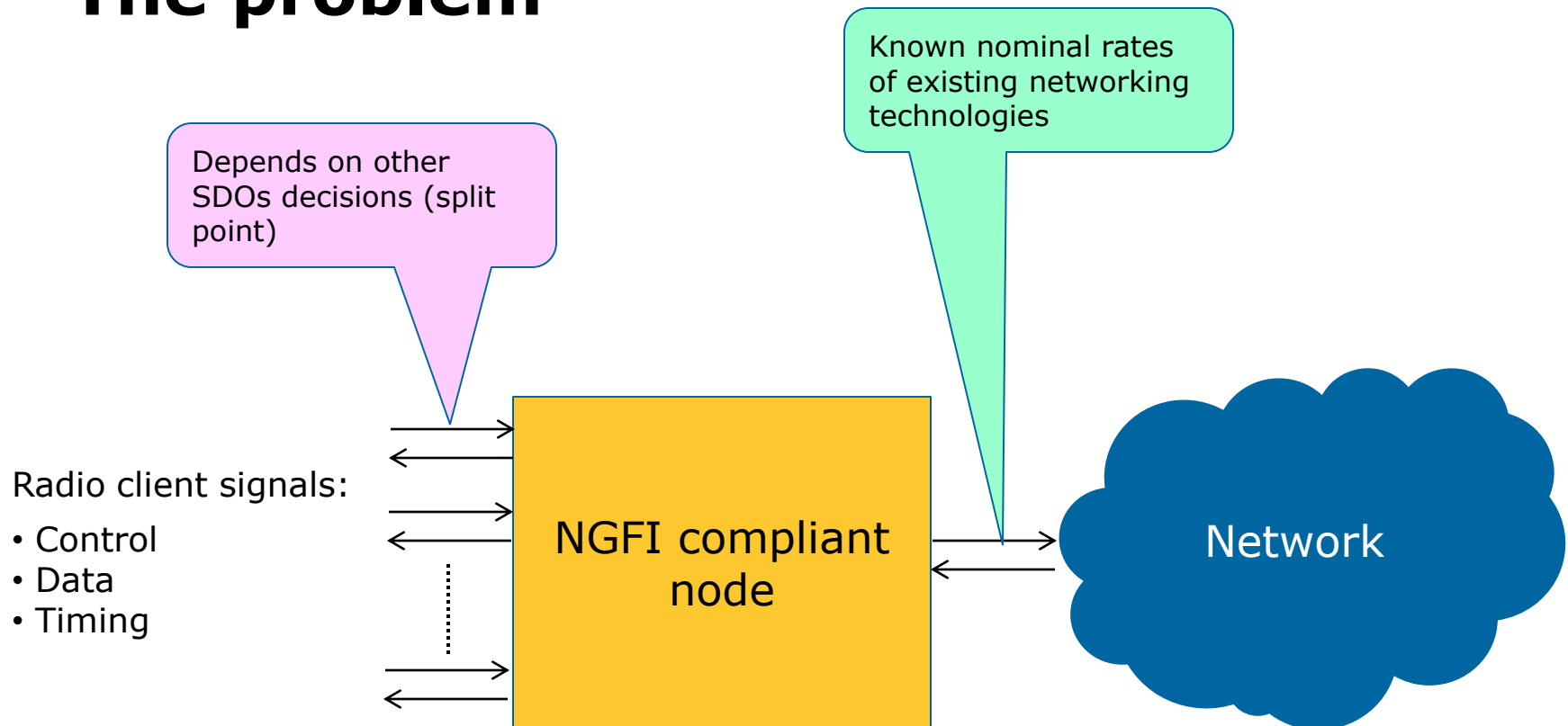
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# Introduction

- During the last IEEE 1914 meetings we have been discussing the NGFI client side rates.
  - These rates are strongly dependent on the functional split between the antenna site and the controller side.
  - Unfortunately our work in this area depends on other SDOs to advance
- The line side rate of a NGFI compliant node seems to be less impacted by the actual split, since the assumption is that NGFI will use existent network technologies to carry the radio connections.
- Defining the required (or optional) line rates will enable other SDOs to verify their networking technology supports NGFI rates.

# The problem



# Discussion

- Two networking technologies that support electronic multiplexing are widely deployed: Ethernet and OTN
- Ethernet:
  - Standard nominal rates relevant to NGFI:
    - 1G
    - 10G
    - 25G
    - 100G
    - 400G
    - FlexE – nx100G
  - Other rates being standardized:
    - 2.5G
    - 5G
    - 50G
  - Note that 2.5G and 5G are targeted for wifi hot spots connection to central units over existing copper. It does not seem it will become a networking interface.

# Discussion - continued

- OTN:
  - Standard nominal rates relevant to NGFI:
    - OTU1 – 2.5G
    - OTU2 – 10G
    - OTU3 – 40G
    - OTU4 – 100G
    - OTUC4 – 400G
    - FlexO – nx100G
  - OTU3 is not very popular
- Rates less than 10G seems to be too low to carry NGFI signals multiplexed with any other service.
- Rates higher than 100G seem to be an overkill for NGFI.
- The sweet spot: 10G – 100G

# Proposal

- Agree on the line side nominal rates:
  - 10G
  - 25G
  - 50G
  - 100G
- If agreed, forward the decision to the relevant SDOs.



## Motion #\_\_\_

- Agree that the line side rates for NGFI compliant nodes are: 10G, 25G, 50G and 100G.
- Mover: Leon Bruckman
- Secunder:
- Yes: \_\_\_ No: \_\_\_ Abstain: \_\_\_ (Technical motion needs  $\geq 2/3$ )

## Motion #\_\_\_

- Inform SG15 Q11 the line rates agreed by IEEE 1914.1 for NGFI nodes.
- Mover: Leon Bruckman
- Seconder:
- Yes: \_\_\_ No: \_\_\_ Abstain: \_\_\_ (Not technical motion needs  $\geq 1/2$ )