Broadband Anyhaul

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Nokia proprieta



Nokia proprietary

Data rates

- Capacity
- Reliability

- Low latency
- Device density
- Cost

Massive Machine Type Communication 'For Everything'

Expanding Use Cases on the Path to 5G

New services and industry segments drive mobile layer innovati

Enhanced Mobile Broadband 'Unlimited Experience'



Ultra Reliable Low Latency

Communications 'Instant Action'



5G Split Radio Base-Station architecture

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• "gNodeB" base station is decomposed into CU, DU and RU



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Throughput / Capacity aspects How dense can you go?



Running mobile anyhaul on top of FTTH networks

Scale

Unparalleled scalability to add PON evolutions on the same fiber plant

10G PON, TWDM PON and 25G PON

Reach

Leverage FTTH's existing footprint for radio cell densification

FTTH is 10x more dense

than 5G

It's a huge leap for MNO but a small step for FTTH

Economics

Faster network monetization. Lowest cost to connect radio

cells

Passive Optical Network (PON)



FTTH/PON for mobile transport

Connecting radio cells to existing Passive Optical Networks (PON) at the lowest TCO

FTTH networks are in close proximity to areas where mobile demands are the greatest





Mobile FTTCell (Mobile services)







Eliminate the need for parallel and dedicated networks for mobile transport.



Edge Cloud-RAN architectures – future > 2020



PON-based Mobile transport requirements toward 5G readiness



Throughput



 5G Symmetrical 10Gb/s Midhaul bitrates with XGS-PON. Higer rates for Fronthaul being developed

Availability



 PON Type-B protection meets the targets

Low latency



- Hierarchical QoS for back- and mid- haul solutions
- 5G : packet based fronthaul

Time sync



• 5G : Frequency and time sync supported in PON





Nokia Broadband Anyhaul

- Accelerate 5G deployments
- Intelligently monetize and operationalize operator networks
- Combine fixed and wireless assets
- Crucial to the 5G business case

