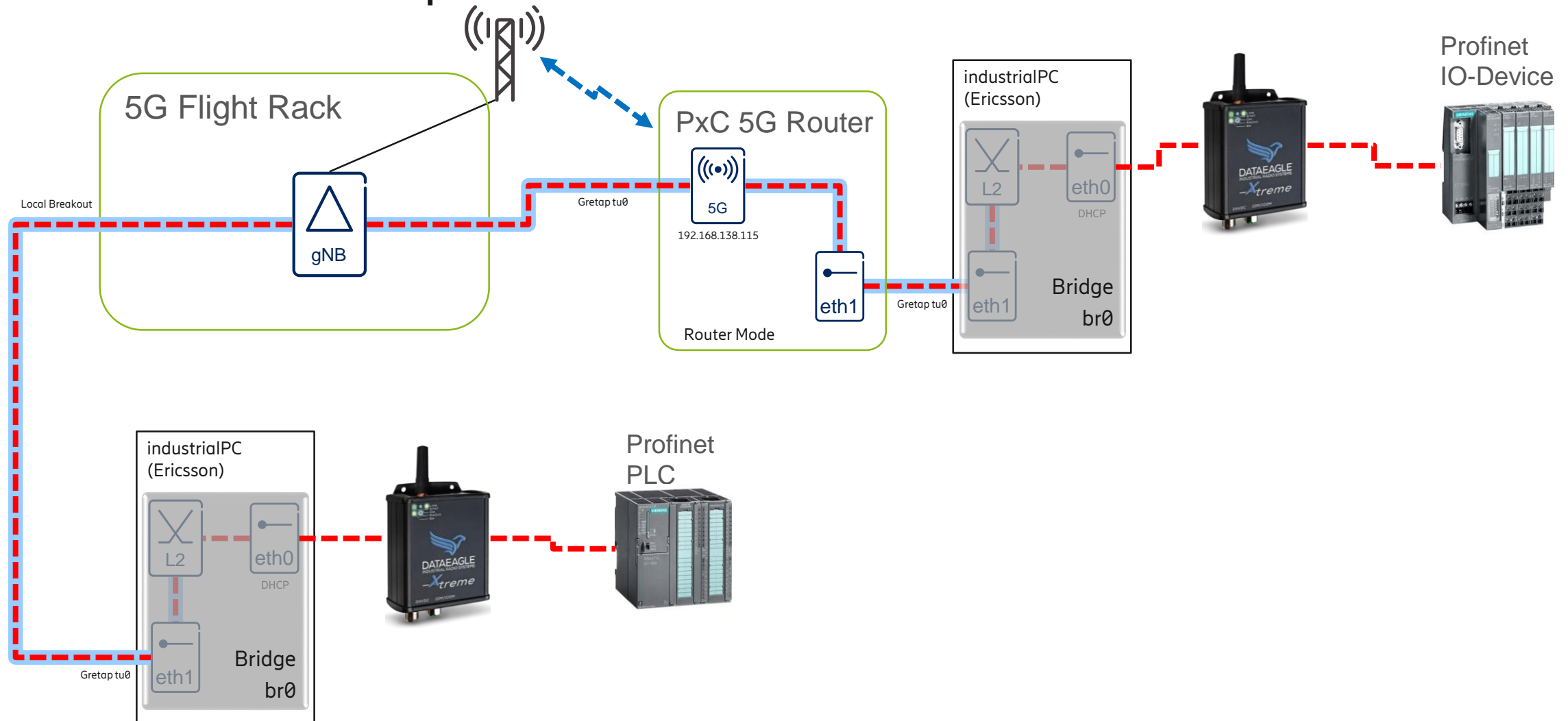


# Schildknecht ProfiNet DX-Time measurement in Campus Network at IPT



A detailed evaluation of industrial field bus performance using wireless transmission technology.

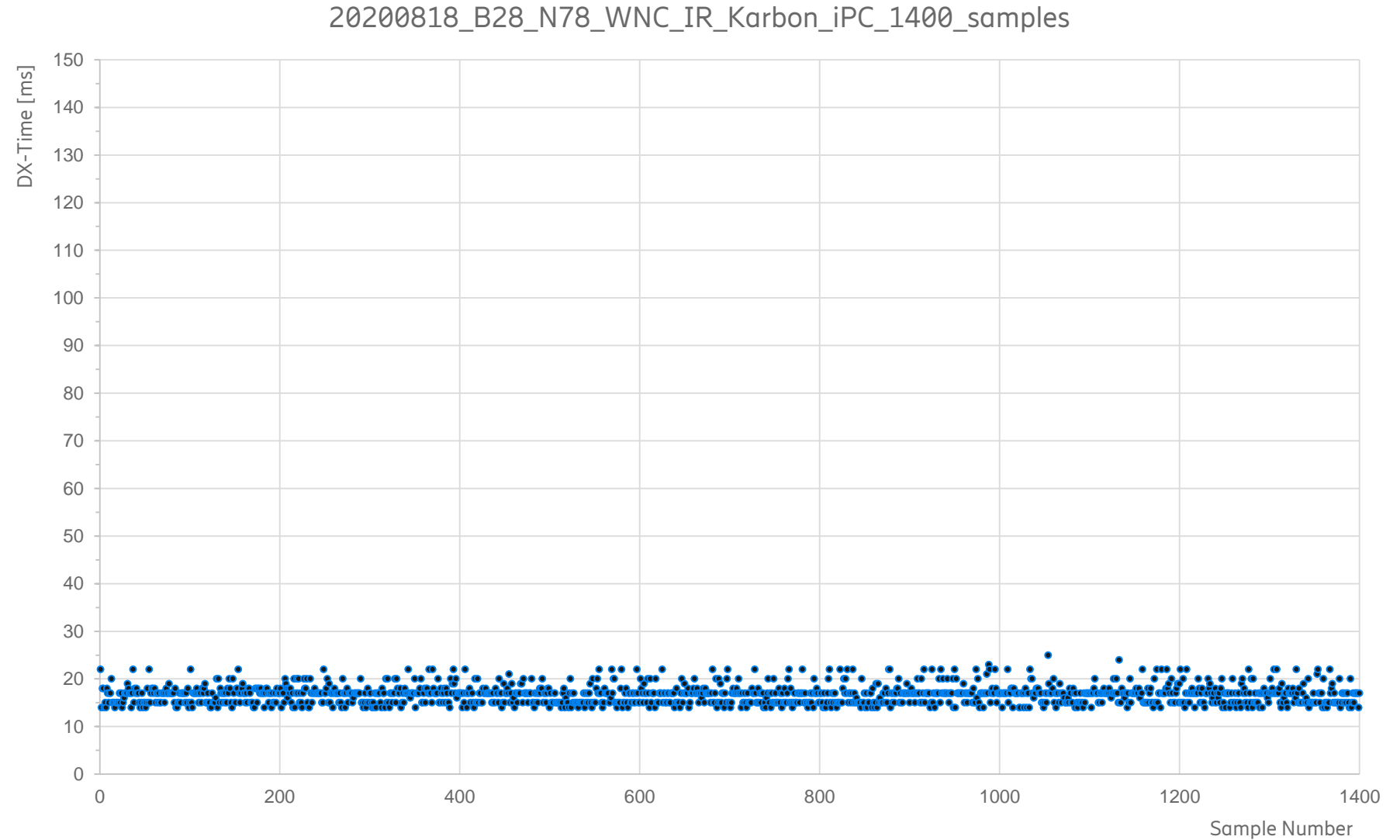
# Schildknecht Profinet Analysis UE to local Breakout – Setup 1



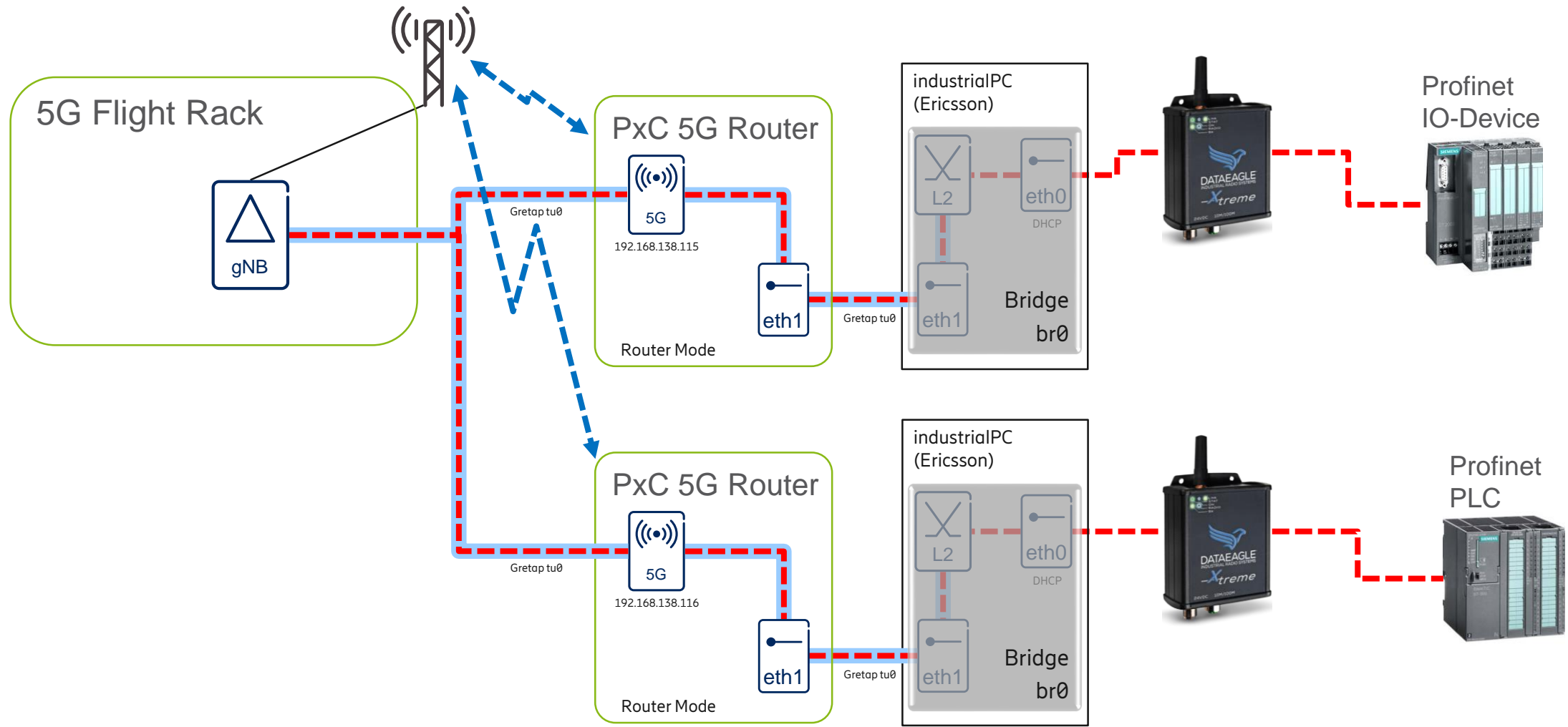
# Testcase 1.1 – Campus Network @ IPT



- Profinet Traffic only
- 1400 samples
- Min: 14 ms
- Avg: 16,6 ms
- Max: 25 ms



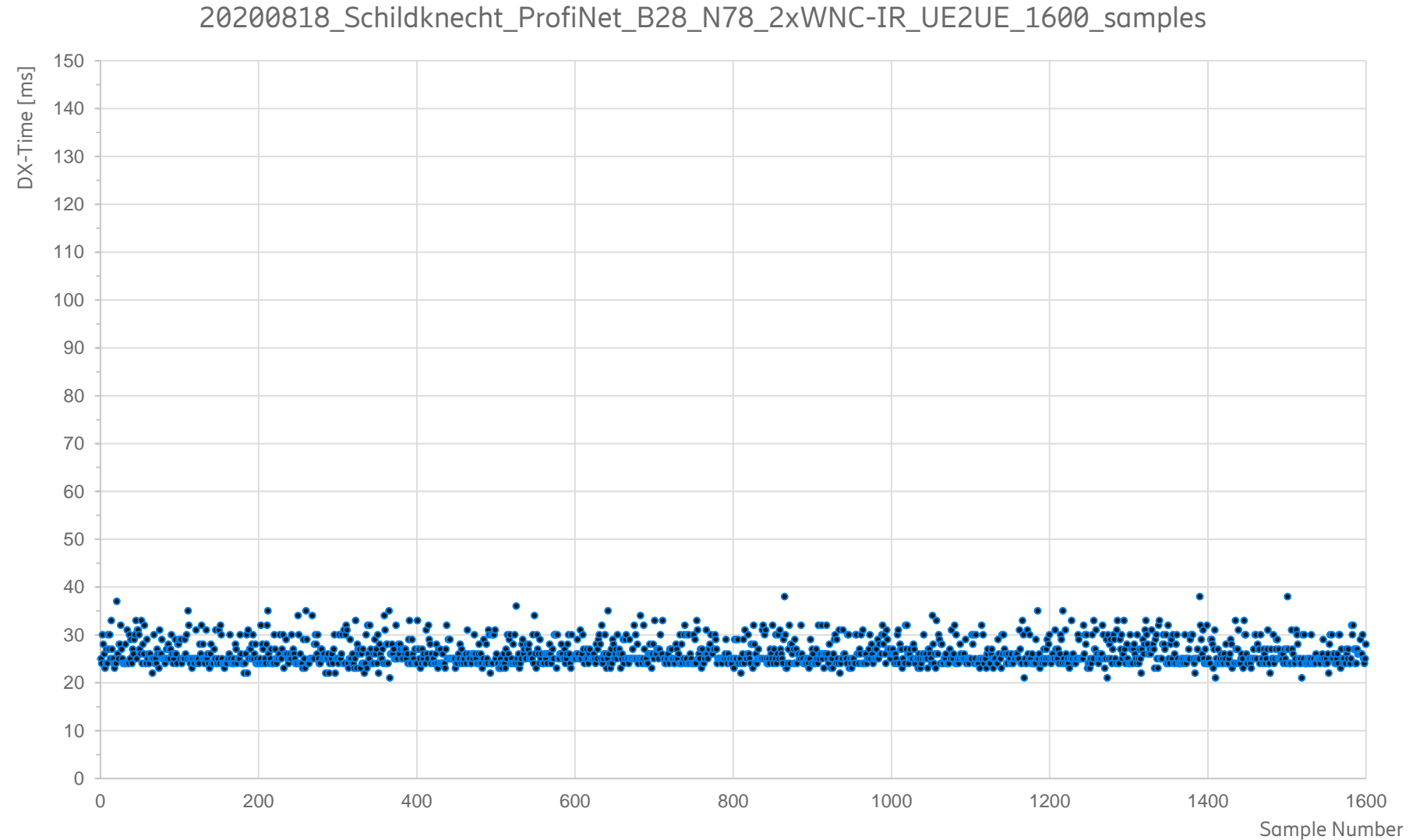
# Schildknecht Profinet Analysis UE2UE— Setup 2



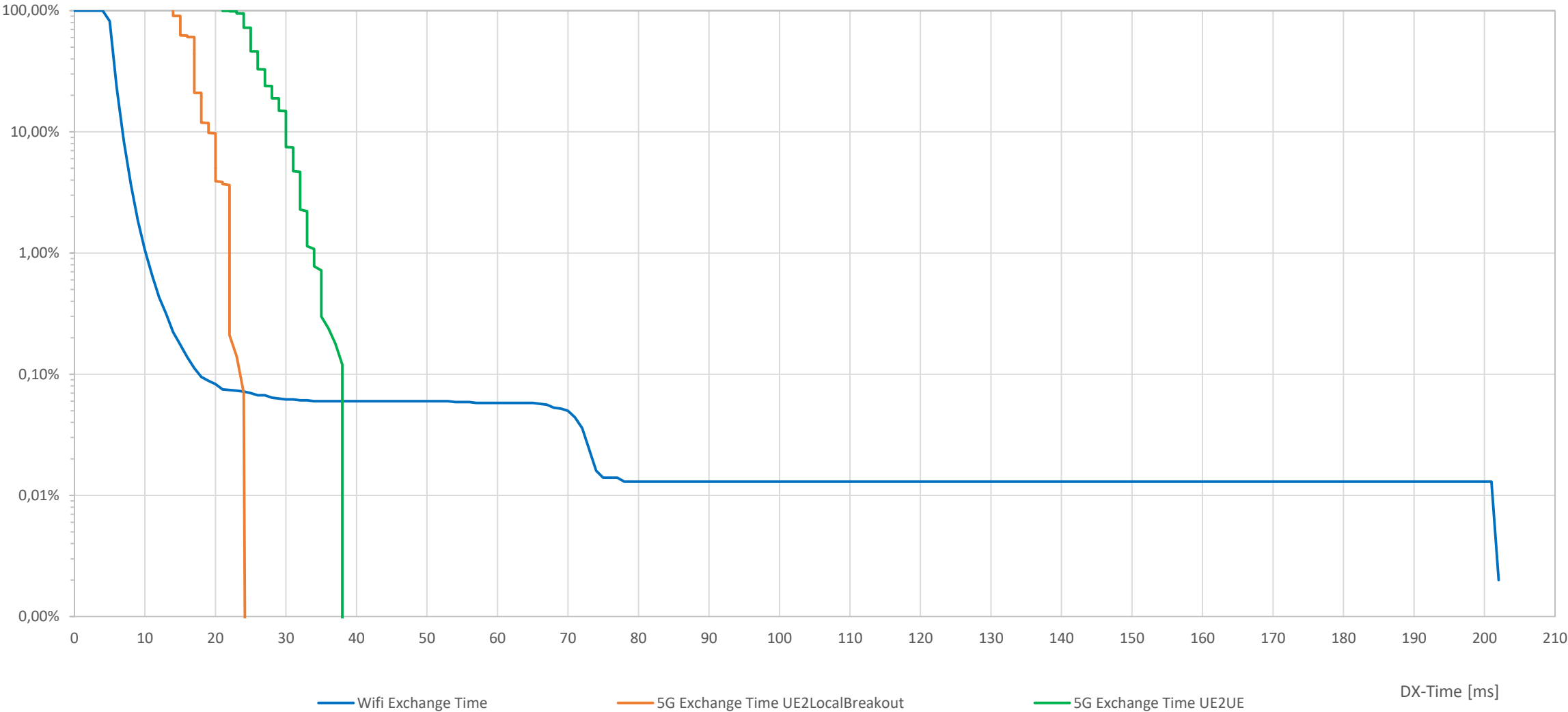
# Testcase 2.1 – Campus Network @ IPT



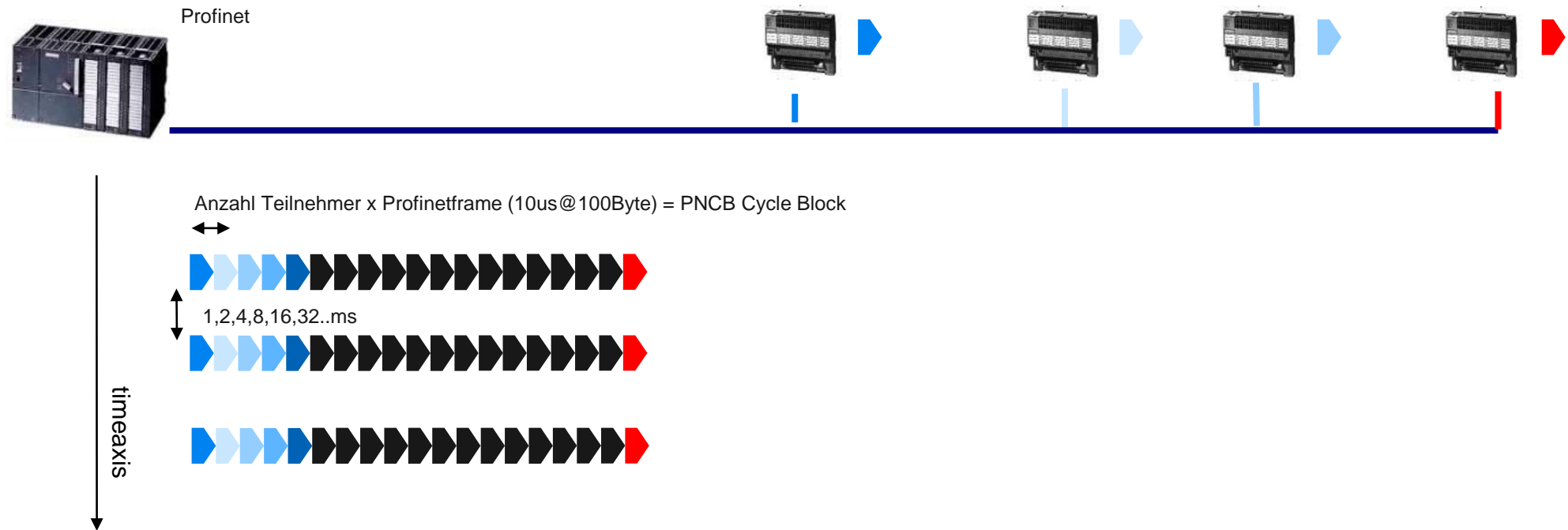
- Profinet Traffic only
- 1600 samples
- Min: 21 ms
- Avg: 26.2 ms
- Max: 38 ms



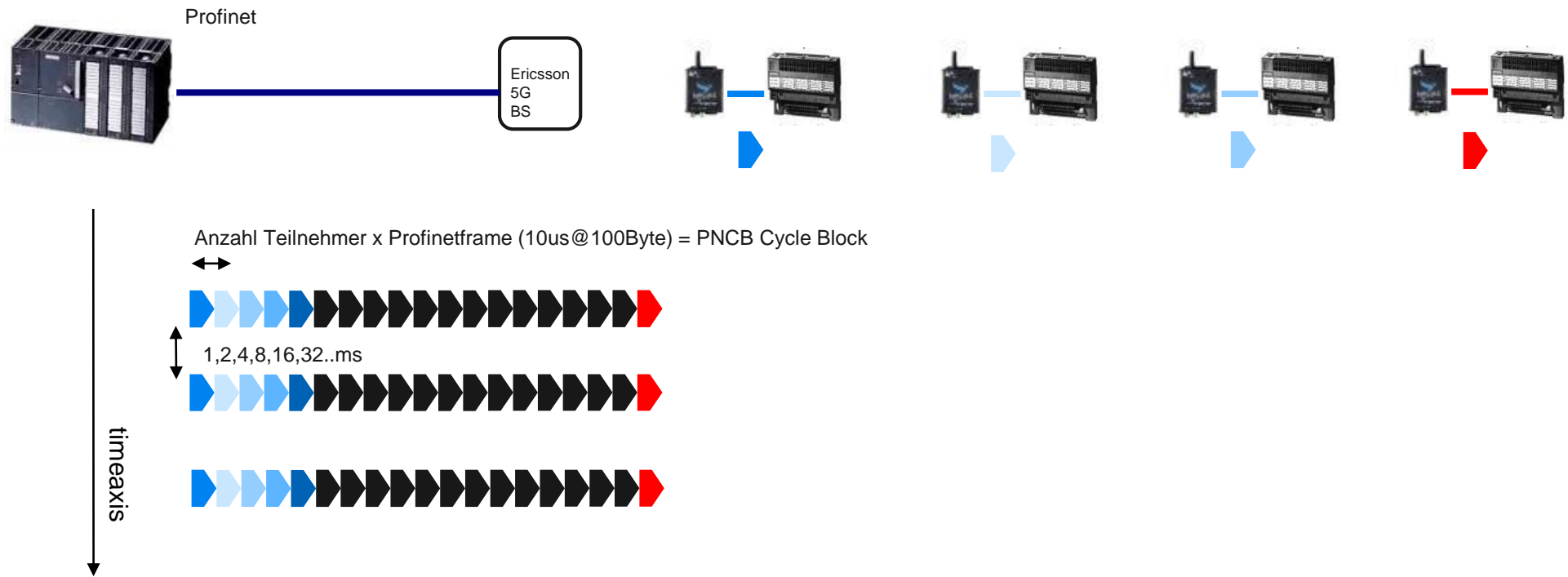
# Complementary Cumulative Distribution Function – Data Exchange Time Comparisson



# Buskommunikation über Profinet

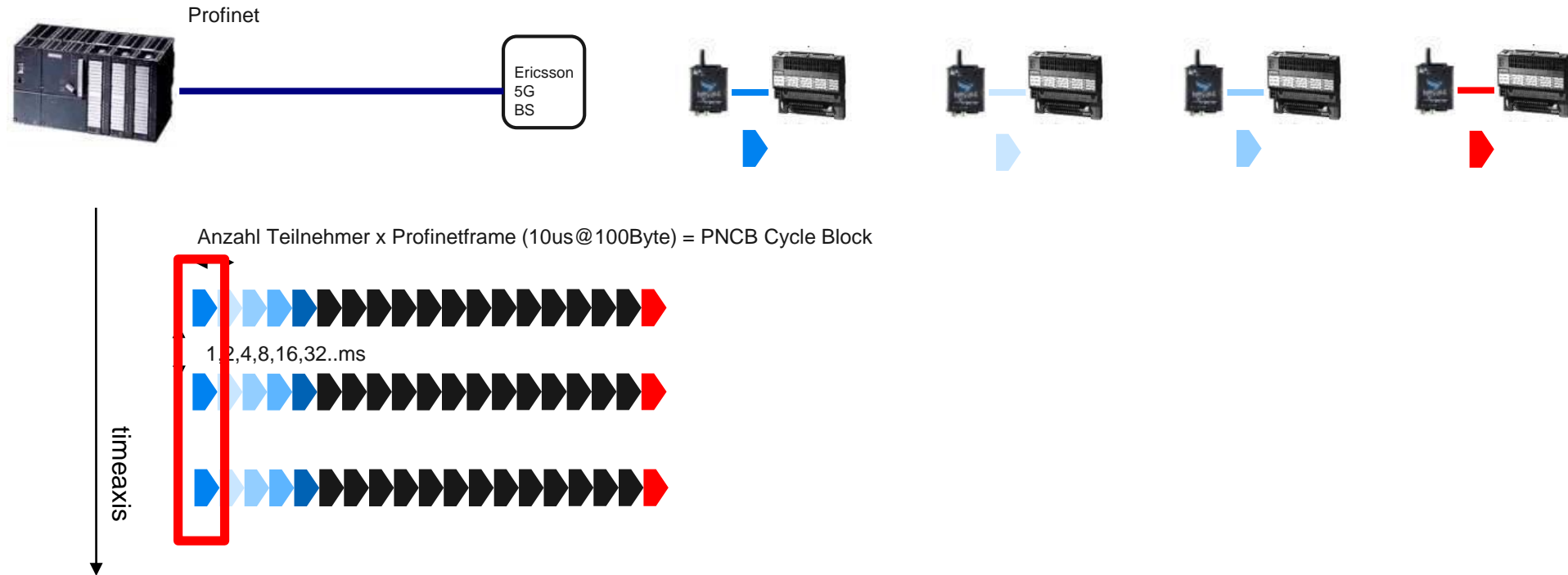


# Buskommunikation Profinet über 5G





# Buskommunikation Profinet über 5G



# Results and Next Step



- Result
  - Setup works from UE to UE using GRE tunneling
  - Very low and predictable Jitter in 5G
- Optional: Next Steps
  - Setup with multiple GRE tunnels was tested previously from UEs to local Breakout, could also be tested for multiple UEs and end devices
  - Further testing with the same setup in URLLC testbed at Fraunhofer IPT
- Prerequisites:
  - UE2UE traffic must be enabled

