4G

5G

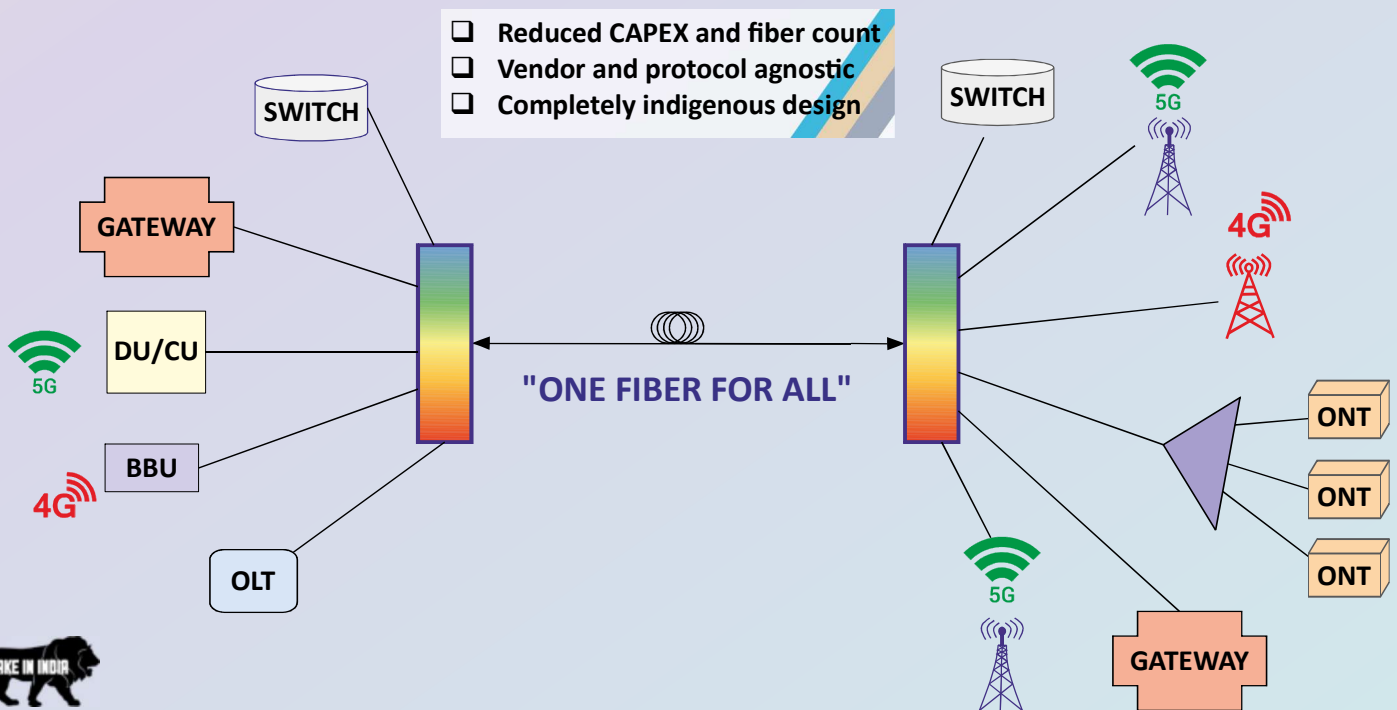# Mobile Fronthaul System

The rapid rate of adoption of technologies like 4G, 5G, xPON, and many more has led to massive increase in the bandwidth requirements of optical transport network. Existing 4G, 5G networks have special requirements in terms of latency, protocol standards, data rates, bandwidth, etc. Laying extra fibers to cater to these network requirements will lead to significant CAPEX and difficulty in fiber management and network monitoring.

C-DOT's Fronthaul System is suitable solution for the above challenges. Based on proven WDM-PON technology, it is easy to install, flexible, scalable, power efficient, O-RAN compliant and will lead to significant reduction in fiber count.

System Features

- Based on Active WDM - PON technology and compliant to O-RAN group specifications (O-RAN.WG9.WDM.0-R003-v03.00)
- Support for hybrid 4G/5G Fronthaul Network having standard interfaces like CPRI, eCPRI, Ethernet, etc.
- No latency addition & transparent carrying of traffic
- Multi-channel with speed upto 25G per channel

- Maximum reach up to 10 km
- Easy to Deploy
- Integrated GPON for control and management as well as FTTx services
- Scalable and bandwidth flexibility
- C-DOT's EMS/LCT has provision for Remote monitoring and management
- Temperature (deg C): Operating (0 to 50)
  Storage (-5 to 60)

☐ Reduced CAPEX and fiber count
☐ Vendor and protocol agnostic
☐ Completely indigenous design

SWITCH

SWITCH

5G

GATEWAY

4G

DU/CU

5G

"ONE FIBER FOR ALL"

ONT

BBU

ONT

4G

ONT

OLT

5G

GATEWAY

CFHS-DU Specs

✻ **Co-located with DU (or BBU)**

✻ **Supports 6 Grey/Colour channels per system. High bandwidth upto 25G supported per channel**

✻ **Power Consumption : 170W**

✻ **−48 V DC or 220V AC with external AC-DC adaptor**

✻ **Works in non-AC environment**
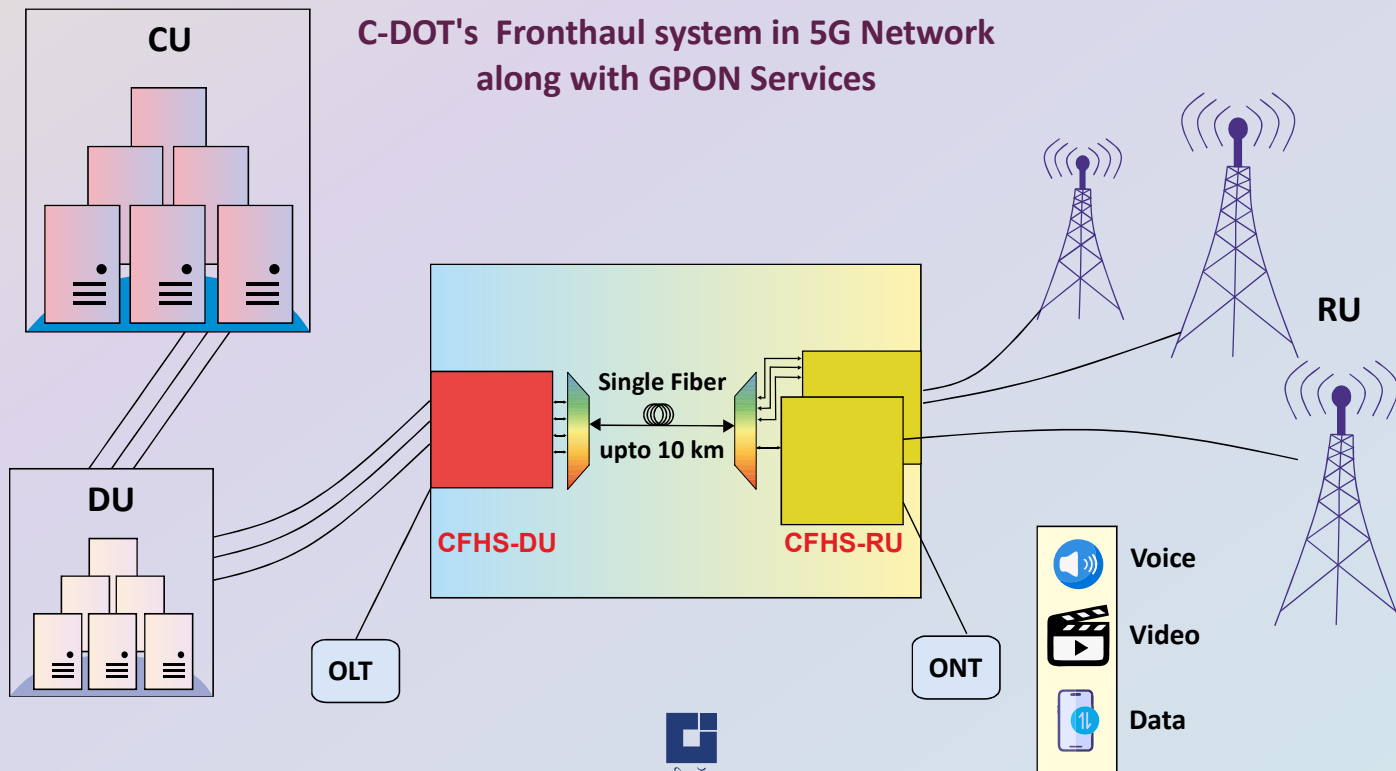
✻ **Also comprises GPON-OLT**

CFHS-RU Specs

✻ **Co-Located with RU (Radio Unit) at the radio site**

✻ **Supports 3 Grey/Colour channels per system. High bandwidth upto 25G supported per channel**

✻ **Power Consumption : 30W**

✻ **-48 V DC or 220V AC with external AC-DC adaptor**

✻ **Works in non-AC environment**

✻ **Also supports GPON for control and management**

CFHS-PASSIVE Specs

✻ **Comprises of passives like Mux-DeMux (C-Band), WDM Coupler, Splitter**

C-DOT's Fronthaul system in 5G Network along with GPON Services

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