Virtual Optical Access
to Support 6G Backbones with Next-generation Optical Technology

Vision of Optical Access Network after 2030

- **Flexible Optical Access Technology**
  - Optimal control according to the required quantity
  - PtP/PtMP mode switching
  - Rate switching (25Gbps/100Gbps/400Gbps)
  - Variable wavelength
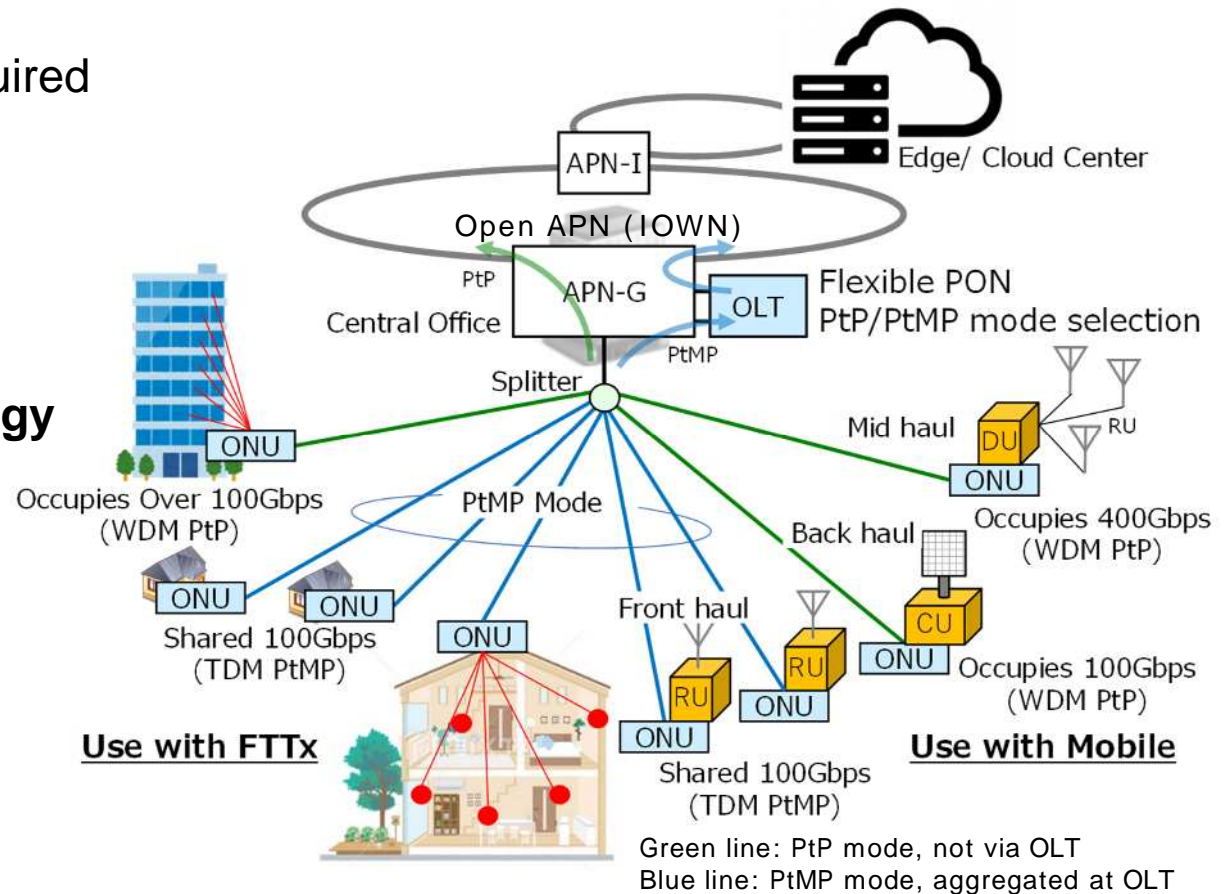- **OSS-based slice allocation Technology**
  - Management integration through virtualization/ abstraction
  - Share of logical network functions Providing slices (G.sup.74)
- **Multi-DBA Technology**
  - DBA control for each slices is realized High quality logical network
- **AI resource prediction Technology**
  - Optimization of network resources by predicting user conditions (mobility, traffic, etc.)

Green line: PtP mode, not via OLT
Blue line: PtMP mode, aggregated at OLT

Vision of Optical access network after 2030

Virtual Optical Access
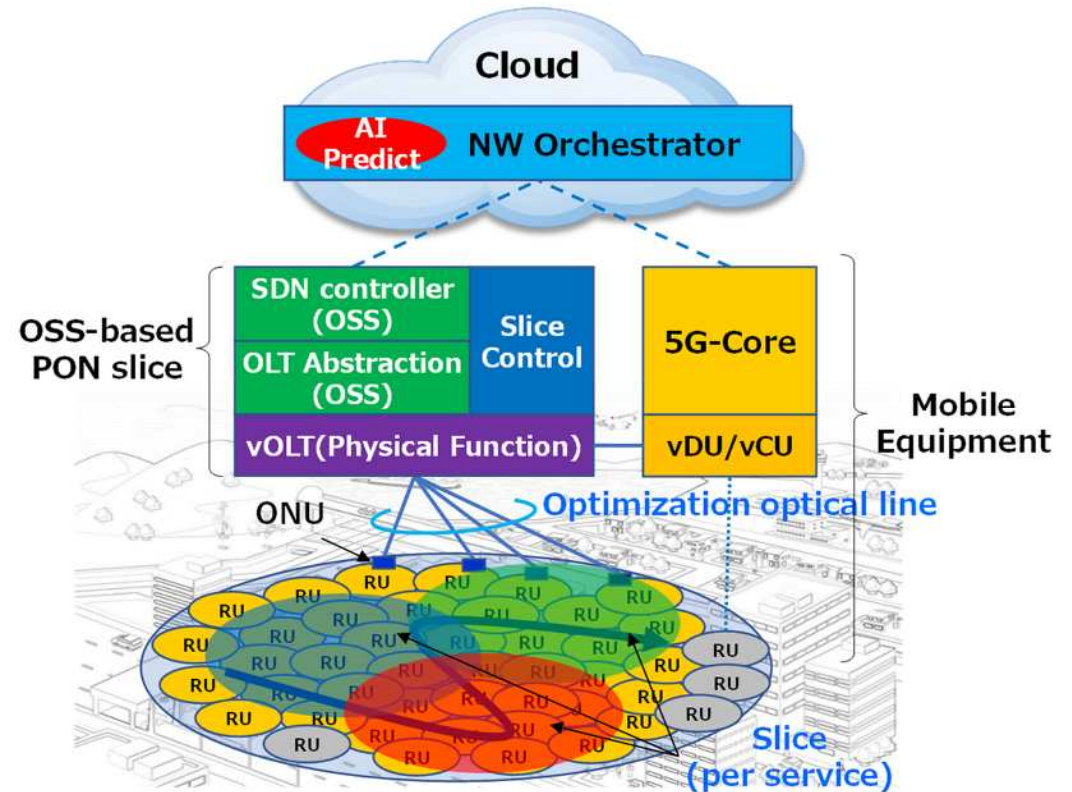## to Support 6G Backbones with Next-generation Optical Technology

Open-Source Software based PON Slicing

● **Mobile system with virtual PON (slice)**

 In the vast number of base station operations in 5G/6G, AI predicts user conditions and efficiently operates the resources required for mobile base stations and optical transmission equipment to achieve comfort and low power consumption.

● **OSS-based slice allocation Technology**

 Advanced IoT services (automatic driving control, remote control of factories, etc.) can be provided.

Low power consumption Optical access network