



3rd FTTR Workshop Review

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Standardization

- ITU-T Q3/15 is actively developing FTTR systems using the layered network model, including P2MP, P2P fiber and free space optics
- ITU-T Q2/15 has a large inventory of optical systems, and parts of these can be reused. FTTR architecture could be different
- BBF has been developing User Services Platform and Quality Experience Delivered systems, and the interoperability program
- CCSA has an extensive program of FTTR standards, which is aligned with ITU-T work. About 7M FTTR users are expected by EOY'23
- ETSI F5G is working on architecture, generations, technologies, use cases, and PoC for the end-to-end network, including FTTR

Operators' views

- China Mobile: Operating a large FTTH network moving to 10G-PON. New services and Wi-Fi coordination are emerging. The interaction of the access PON and FTTR is being explored (i.e., OMCI reuse)
- China Telecom: Micro, Small, and Medium size enterprise customers a big application of FTTR. Installation methods need development (integrated power, aesthetic cables). There are multiple business modes for FTTR-B. G-PON, XG-PON, or both are visible scenarios. and real deployment cases are being worked out
- China Unicom: New video-oriented services (entertainment, remote work, etc.) are driving demands. FTTR is projected to have a significant market, and providing an integrated access+home service framework is important

Vendors' views

- Nokia: BW needs are growing, but still serviceable. FTTR motivated by coverage and BW. Maybe P2P for home, P2MP for enterprise.
- Futurewei: FTTR+Wi-Fi is a key aspect of this technology. Wi-Fi 8 is a good candidate; it can profit from FTTR coordination
- HHI: Some applications can use ultra-reliability or precise location services. FTTR+Wi-Fi evolution is similar to 4G – 5G evolution.
- ZTE: FTTR can benefit from the FTTH optical supply chain. P2MP has a cost advantage depending on SFU count, as well as other features
- YOFC: Indoor fiber technology has multiple cable designs (geometry for duct or surface installation). Unequal splitters are of interest
- ChipSemi: Home health care application could benefit from FTTR+mmWave network – a good combo of complementary capabilities