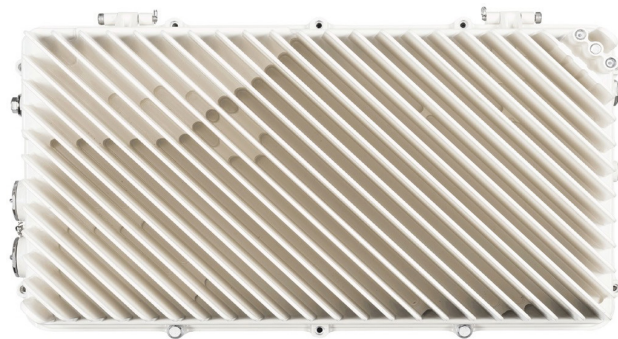


The **Entra SF-4X Access Node** is a sealed remote optical line terminal (R-OLT) with four 10 Gb/s Ethernet Passive Optical Network (EPON) ports and up to four 10 Gb/s Ethernet uplinks. With support for DOCSIS® Provisioning over EPON (DPoE™), the SF-4X Access Node provides cable operators with a fiber to the home (FTTH) solution and is an essential component of the Entra unified cable access solution.

Entra SF-4X Access Node is a passively cooled R-OLT with four 10 Gb/s EPON ports, four 10 Gb/s Ethernet uplink ports and integrated line terminal (LT) cards.

The SF-4X Access Node is managed by the Gainspeed Access Controller as part of the Nokia virtualized Distributed Access Architecture (vDAA).

Sealed in a hardened clamshell enclosure, the node is designed to be placed in an outside plant managed by a multiple system operator (MSO) and is suitable for directly exposed or pedestal outdoor installations.

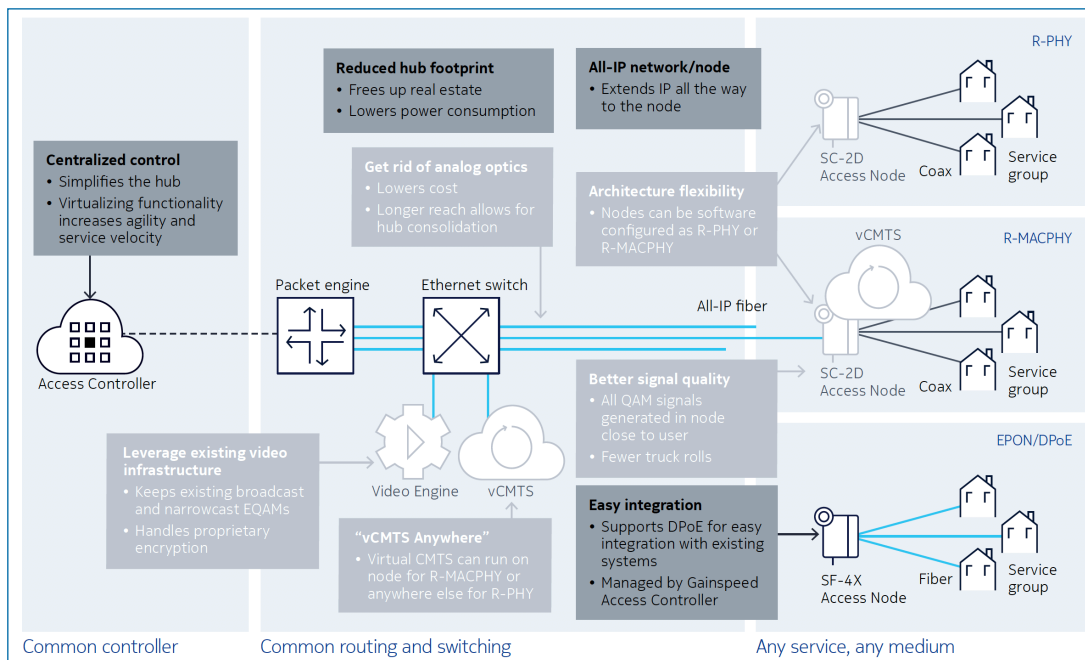


Entra SF-4X Access Node

Highlights

- 4 ports of 10 Gb/s EPON
- Up to 4 ports of 10 Gb/s Ethernet uplinks
- Supports DPoE
- Integrates into a unified cable access solution and vDAA
- Field-replaceable components including optical and power supply modules
- Hardened for an outside plant (OSP) enclosure and line powered with strand and pedestal mount options
- Easily managed by the Gainspeed Access Controller as part of the Nokia unified cable access solution
- Support for DPoE enables easy integration with existing networks and systems
- High downstream and upstream capacity enables delivery of symmetrical Gb/s services
- Point-to-multipoint architecture reduces fiber costs
- Outstanding suitability for commercial services, multiple dwelling units (MDUs), hybrid fiber- coaxial (HFC) black spot infill, long lines and network spurs

Unified cable access solution



SF-4X Access Node Technical Specifications

Physical

Height: 297 mm (11.7 in)
 Width: 506 mm (19.9 in)
 Depth: 238 mm (9.4 in)
 Weight: 17.73 kg (39.1 lb)

Operating Environment

Temperature: -40°C to 60°C (-40°F to 140°F)
 Relative humidity: 5% to 95%, non-condensing
 Altitude: -60 m to 4000 m (-196.9 ft to 13,123.4 ft)

Storage Environment

Temperature: -40°C to 70°C (-40°F to 158°F)
 Relative humidity: 5% to 95%, non-condensing
 Altitude: -60 m to 4000 m (-196.9 ft to 13,123.4 ft)

Installation

Horizontal strand or pedestal mounting

Power Requirements

44 V to 100 V AC, nominal 90/60 V AC quasi-square wave
 75 W typical, 85 W maximum
 Coax line powered using either left or right power port and a pin connector with 5/8-24 housing

Interfaces

4 ports of 10 Gb/s EPON for subscriber access
 4 ports of 10 Gb/s for uplinks

Supported XFP optical modules for PON

Turbo EPON
 10 G EPON Type 4

Supported SFP+ optical modules for uplinks

ER, LR, BX-U, BX-D, ZR
 Coarse wavelength division multiplexing (CWDM): ZR
 Dense wavelength division multiplexing (DWDM): ZR, optical Ethernet ZR

Reliability

Mean time between failure (MTBF): 69,185 hr at 60°C (140°F) and 271,951 hr at 25°C (77°F) per Telcordia SR-332 Issue 3 methodology

Regulatory, industry and standards compliances

Emissions: FCC CFR 47 Part 15b (Class B)
 Immunity:
 - RS: IEC 61000-4-3 Level 3 (10 V/m)
 - CS: IEC 61000-4-6 Level 3 (10 V)
 - ESD: IEC 61000-4-2 Level 4 (8 kV contact/15 kV air)
 - Surge: IEC 61000-4-5 Level 2 (1 kV) line to line and Level 3 (2 kV) line to ground
 Safety: UL/CSA 60950-1/UL 60950-22
 IP rating: IP-67 rated