AMN6300 40-Gbit/s Extender System

Hiroyuki Nakano, Dr. Eng. Atsushi Shibata Masaru Yamaguchi OVERVIEW: Due to the spreading use of broadband services, Internet traffic is continuously increasing. For the coming next-generation network era, the demand for ultra-high-capacity transmission for both Metro Access Networks and enterprise networks is rapidly increasing. The AMN6300 40-Gbit/s extender system achieves long-distance transmission by extending the transmission length from 2 km to a maximum of 40 km at the highest hierarchical bitrate of 40 Gbit/s.

FEATURES OF AMN6300 40-GBIT/S EXTENDER SYSTEM

(1) Extends the 2-km transmission length to 40 km Previously, the maximum transmission length between 40-Gbit/s routers was 2 km, but the AMN6300 realizes a transmission length of 40 km. This product is equipped with the optical amplifier and dispersion compensator that 40-km transmission requires, so the user does not have to add them to the system. This keeps hardware cost down and facilitates network administration. Furthermore, the forward error correction function provides high-quality transmission performance.

(2) Remote monitoring and loop-back testing functions

Line failures can be isolated quickly by remote control using a standard protocol and functions for remote monitoring of the device state and loop-back, which is difficult on networks configured with conventional routers only. The system monitoring function makes it possible to maintain and manage the equipment without having to visit the premises by remote monitoring of the equipment alarms and performance data. In addition, the 40-Gbit/s main signal loop-back test function allows confirmation of normal transmission between systems.

(3) Compact hardware to save space

This system can be installed in a standard 19-inch rack together with existing routers and other

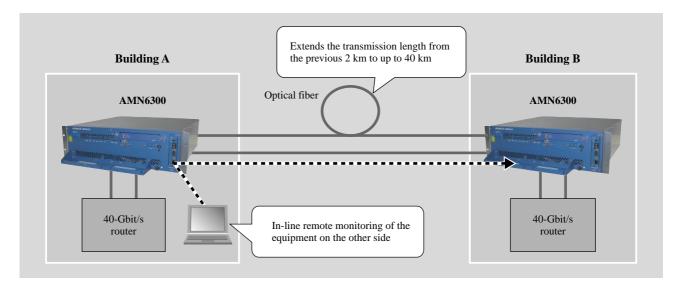


Fig. 1—Example of System Configuration Using AMN6300. The AMN6300 extends the 2-km interface on a 40-Gbit/s router to provide the optical fiber transmission length of up to 40 km.

modules ensure reliability.

(4) Selectable power supply to match user needs

Either the DC-48-V power supply of a communication center installation or the ordinary AC-100-V/200-V power supply for a user premises installation can be selected.

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