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iTN8800-A

The iTN8800-A is the latest multi-service and high-capacity packet access device launched by Raisecom. It uses IP MPLS technology as the core, provides multiple interfaces, such as 100GE, 25GE, 10GE, GE/FE, and supports unified management with Raisecom terminal devices, and comprehensive access and unified bearing of mobile data backhaul service, government and enterprise digital private line service, Internet and cloud private line service, and high-definition video surveillance service.

iTN8800-A

Key features >>

- Small size: 5U high, standard 19-inch rack device, suitable for 300-mm high cabinets
- Large capacity: 300G packet switching capability, which supports up to two 100GE or sixteen 25GE interfaces
- Abundant service capabilities: 10GE, GE, and FE interfaces, up to 96 ways of GE optical access
- Complete L2 & L3 technology
- IPv4 and IPv6 dual stacks
- MCC and power supply 1 + 1 protection, rich service protection capabilities, sub-50ms protection switching
- SyncE and IEEE 1588v2 high precision clock synchronization
- Long-term evolution of new technologies

Application scenarios >>

Figure 1 Comprehensive access of mobile backhaul and enterprise-government services
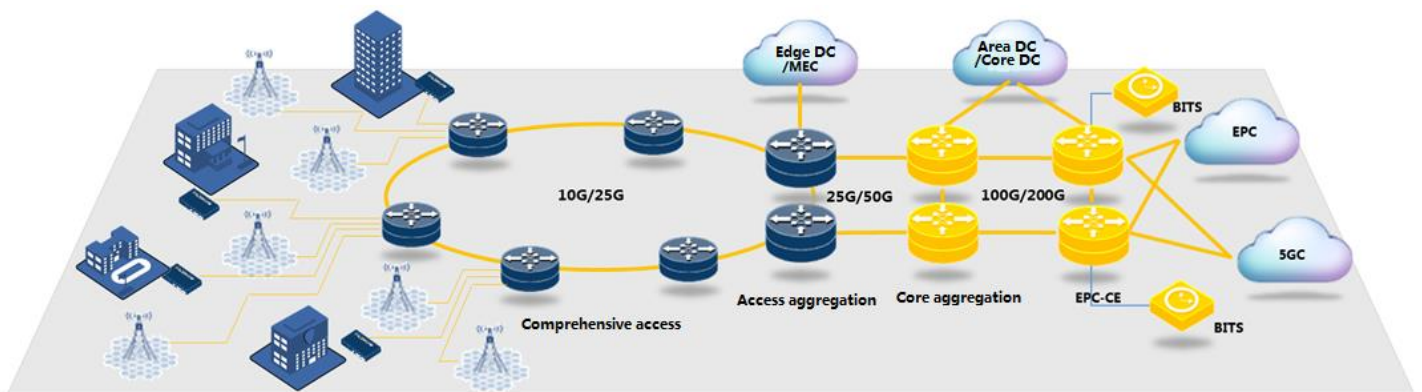
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Scenario 1: comprehensive access of mobile backhaul and government-enterprise services

The iTN8800-A can be deployed in the comprehensive service access machine rooms or access offices, and provides differentiated solutions according to different 5G scenarios of carriers. It can also work together with iTN series access devices and terminal devices to provide flexible access solutions for private line users:

➢ High-density 10GE and 25GE interfaces, adapt to various deployment scenarios, such as large concentration and small concentration

➢ 10G/25G access ring established initially, which can be smoothly upgraded to 50G/100G in the future to meet new service needs

➢ SyncE and IEEE 1588v2 high precision clock synchronization

➢ Flexibly realizing the differentiated bearer of L3 VPN and L2 VPN and comprehensively accessing base station and private line services

➢ Seamless integration with packet bearer networks through dynamic protocols

➢ Docking with the integrated network management platform to achieve fast end-to-end service provisioning and fine quality monitoring of services

➢ Rich forms of terminal devices, flexible and controllable investment, and differentiated solutions to meet users' multi-service needs

Figure 2 Small and medium-sized MPLS private network
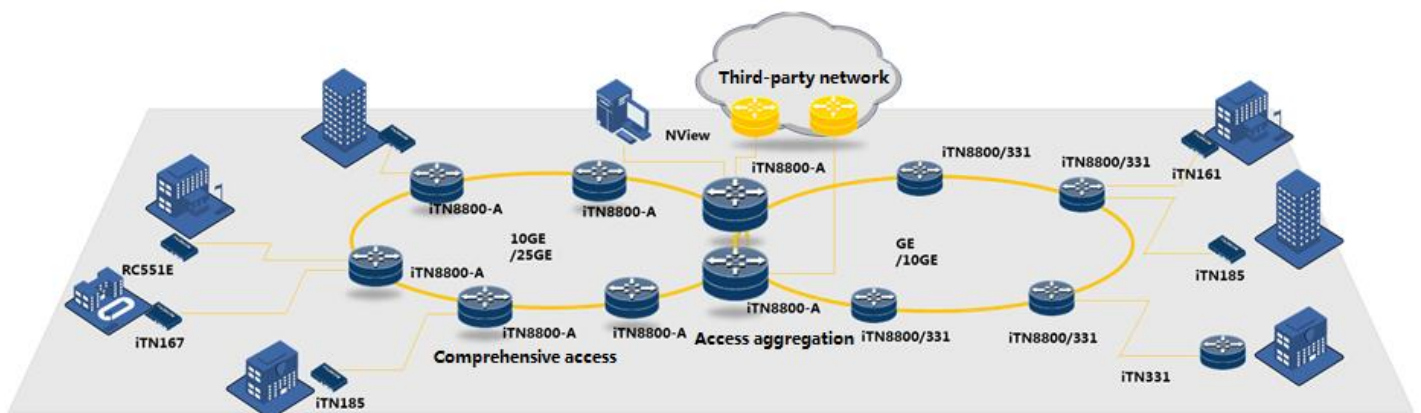
Scenario 2: small and medium-sized MPLS private network

The iTN8800-A can be used as a high-capacity aggregation device and works together with iTN series access and remote devices to provide customers with end-to-end packet private network (such as public security monitoring network, government affairs network, and education network) solutions:

➢ Unified network management, fast end-to-end service provisioning, fine quality monitoring and operation and maintenance of services

➢ Layer 3 technology interconnection at the bottom layer of the device, which naturally blocks loops and supports network self-healing

➢ Hierarchical carrier-grade protection to ensure senseless protection switching

➢ Auto online, hierarchical monitoring, alarm hierarchical reporting, and rapid maintenance and troubleshooting

➢ Rich form of terminal devices, differentiated solutions, flexible and controllable investment

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Key features >>

Switching capability	300 Gbit/s
Slots	2 MCC slots and 15 service card slots
Dimensions (W × D × H)	442 mm × 220 mm × 222.3 mm
Height (U)	5U
Interface type	100GE, 25GE, 10GE, GE, and FE
Interface density	• Two 100GE interfaces, sixteen 25GE interfaces, or forty-four 10GE interfaces • 96 GE/FE interfaces
L2 features	• IEEE802.1q, IEEE 802.3ad, IEEE 802.1ab, and mirroring • IEEE 802.3ah, IEEE 802.1ag, ITU-T Y.1731, and IETF RFC2544
L3 features	• Complete IPv4 routing protocols, including OSPF, IS-IS, BGP4, and static routes • Complete IPv6 routing protocols, including OSPFv3, IS-ISv6, BGP4+, and static routes • Dynamic and static ARP, DHCP
MPLS features	• LDP and L2VPN (VPWS/VPLS) • MPLS/BGP L3VPN
QoS	• DiffServ mode based on traffic classification, and traffic classification based on VLAN, 802.1p, and VLAN+802.1p • WRED and CAR rate limiting (RFC2697, RFC2698, RFC4115, and MEF10) • Interface-based traffic shaping and 8 priority queues for each interface • SP, WRR, DRR, SP+WRR, and SP+DRR scheduling modes; MPLS QoS and MPLS H-QoS
OAM	• IEEE 802.3ah, IEEE 802.1ag, and ITU-T Y.1731 • BFD for IP/RSVP/LDP/LSP/PW/VRRP/OSPF/ISIS/BGP
Reliability	• LAG/LACP, active/standby Trunk, G.8031, G.8032, and VRRP • TE FRR, TE-Hot standby, LSP1:1, and PW redundancy
Clock synchronization	• SyncE • IEEE 1588v2
Power requirement	DC: -48 V (-40 to -57 V)
Entire power consumption	< 800 W
Environmental requirements	• Operating temperature: -5 to 45°C • Related humidity (long term): 10%–90% RH (indoor, non-condensing)

Ordering information >>

iTN8800-A-DC	iTN8800-A chassis, including a fan and 2 DC power supplies

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iTN8800-A-NXU	iTN8800-A network management switching card, which supports device management, clock management, and network management communication, packet service processing, and 1+1 hot backup of active/standby network management switching card
iTN8800-A-RC1	With one 100GE interface
iTN8800-A-RK4	With four 25GE interfaces
iTN8800-A-RX4	With four 10GE interfaces
iTN8800-A-RG8	With eight GE interfaces