



iTN8800-E

The iTN8800-E is a multi-service and large-capacity packet access device recently launched by Raisecom. The device uses IP MPLS technology as the core, provides multiple interfaces, such as 100GE, 25GE, 10GE, GE/FE, supports unified management with Raisecom rich terminal devices, and implements comprehensive access and unified bearer of multiple services, such as mobile data backhaul, enterprise digital private line, Internet and cloud private line, and high-definition video monitoring.

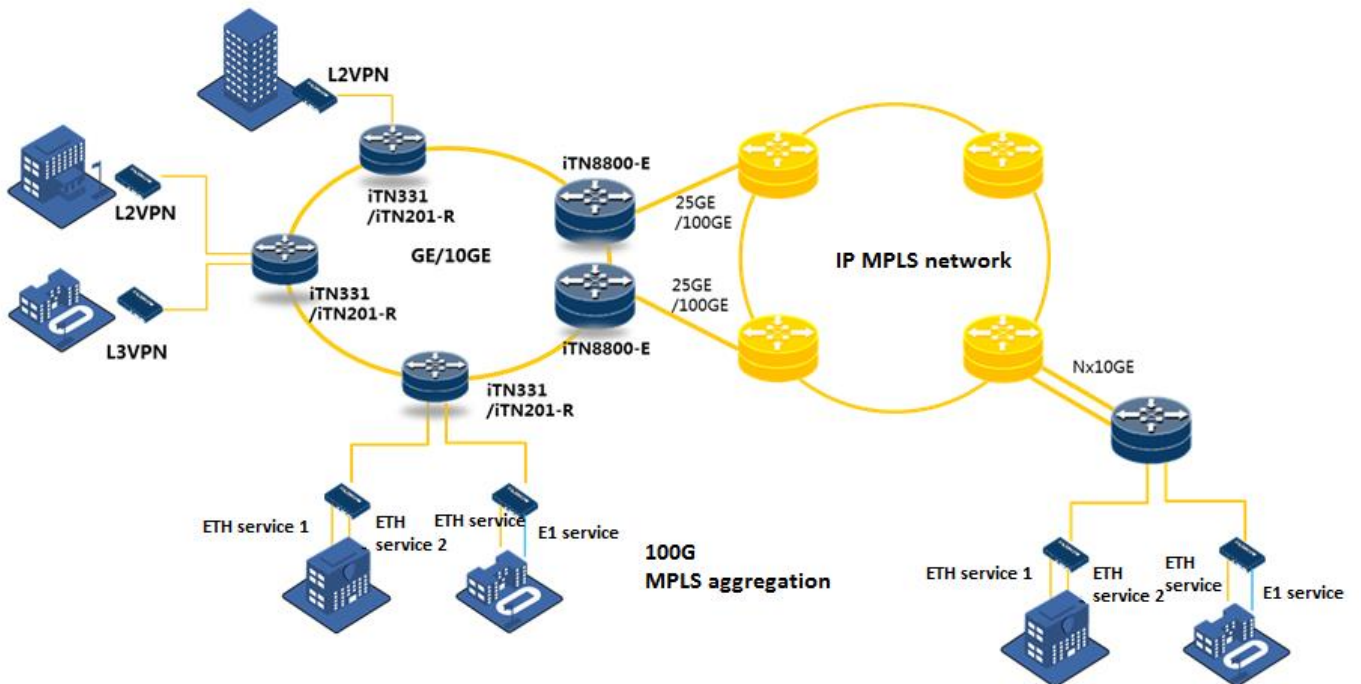


Features >>

- Small size: 3U high, standard 19-inch rack-mounted device, suitable for 300mm deep cabinets
- 1+1 protection of the main control card and power supply, rich service protection capabilities, and sub-50ms protection switching time
- Large capacity: 360G packet switching capability, up to two 100GE or eight 25GE interfaces
- Rich service capabilities: 10GE, GE/FE, E1, and other service interfaces
- Complete L2 & L3 technology, IPv4 and IPv6 dual stack
- WDM, flexible networking
- SyncE and IEEE 1588v2 high-precision clock synchronization
- Long-term evolution of new technologies, such as SDN and EVPN

Application scenario >>

Figure 1 Integrated access and aggregation of multiple services

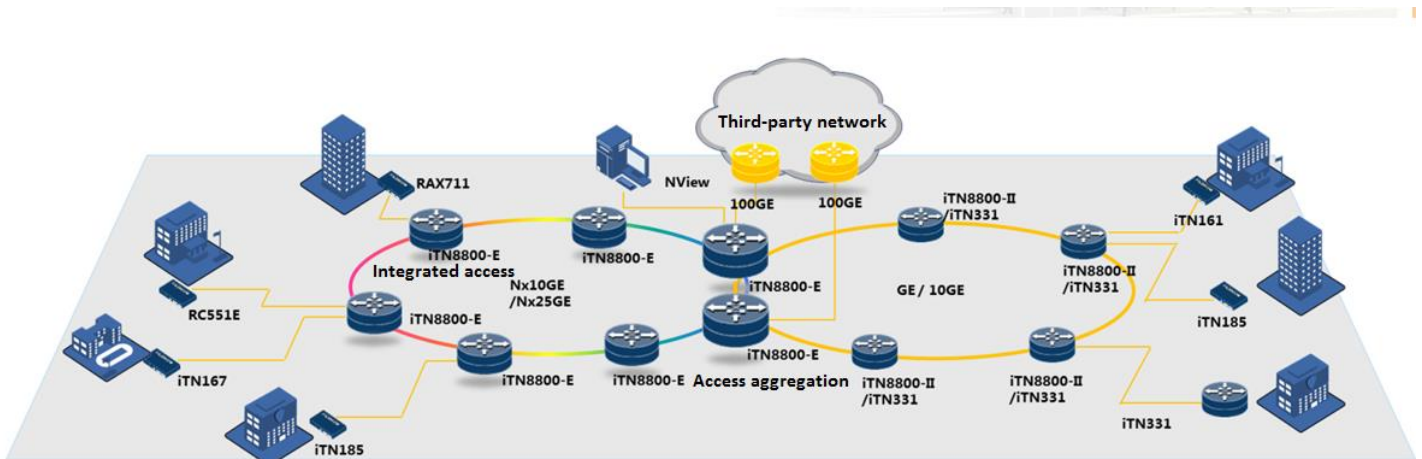


Scenario 1: Integrated access and aggregation of multiple services

The iTN8800-E can be deployed in the integrated service access machine room or access office station, relying on the core network planning, and implement single-point service aggregation or local access layer networking according to different application scenarios. At the same time, the iTN8800-E can also work together with the iTN series access and terminal devices to provide users with flexible access solutions.

- Provide high-density GE/FE, 10GE, CES E1 interfaces to meet various service scenarios.
- In the initial stage of the access ring, the GE/10GE network can be established, which can be smoothly upgraded to the 25G/100G network in the future to meet the needs of service development.
- Multiple 10GE interfaces can be bound for accessing the upper-layer network to realize service aggregation and access while ensuring reliability.
- It can flexibly realize the differentiated bearer of L3 VPN and L2 VPN, and integrate multiple services.
- It can be managed uniformly through its own network management platform, or it can be connected to a third-party network management platform to achieve fast end-to-end service provisioning and fine-tuned monitoring of service quality.
- Support various forms of terminal devices. Provide users with flexible and controllable investment, and differentiated solutions to meet the multi-service needs.

Figure 2 Small and medium-sized IP MPLS private network



Scenario 2: Small and medium-sized IP MPLS private network

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

- WDM can be added to achieve smooth expansion of ring network capacity.
- The bottom layer of the device adopts L3 technology interconnection, which naturally blocks loops and supports network self-healing.
- Provide hierarchical carrier-grade protection to ensure user-unaware service protection switching.
- Support device auto-online, hierarchical device monitoring and alarm reporting, which makes maintenance and troubleshooting fast.
- Support abundant forms of terminal devices. Provide differentiated solutions, and flexible and controllable investment.
- Support unified network management, fast end-to-end service provisioning, and refined service quality monitoring and OAM.

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Key features >>

Parameter	Description
Switching capacity	360 Gbit/s
Slots	2 MCC slots and 10 service slots
Dimensions (W × D × H)	444 mm × 220 mm × 133 mm
Height (U)	3U
Interface type	<ul style="list-style-type: none"> 100GE, 25GE, 10GE, and GE/FE E1 (to be supported in later versions)
Interface density	<ul style="list-style-type: none"> Two 100GE interfaces, eight 25GE interfaces, or thirty-two 10GE interfaces Sixteen 10GE interfaces + Forty-eight GE/FE interfaces
L2 features	<ul style="list-style-type: none"> IEEE 802.1q, IEEE 802.3ad, IEEE 802.1ab, port mirroring, and so on IEEE 802.3ah, IEEE 802.1ag, ITU-T Y.1731, and IETF RFC2544
L3 features	<ul style="list-style-type: none"> Complete IPv4 routing protocols, including OSPF, IS-IS, BGP4, and static route protocol Complete IPv6 routing protocols, including OSPFv3, IS-ISv6, BGP4+, and static route protocol IPv6 and IPv4 dual stacks Dynamic and static ARP, and DHCP
MPLS features	<ul style="list-style-type: none"> LDP and L2VPN (VPWS/VPLS) MPLS/BGP L3VPN
QoS	<ul style="list-style-type: none"> DiffServ mode based on traffic class, and traffic classification based on VLAN, IEEE 802.1p, or VLAN+IEEE 802.1p WRED and CAR rate limiting (RFC2697, RFC2698, RFC4115, and MEF10) Traffic shaping based on interface and 8 priority queues on each interface SP, WRR, DRR, SP+WRR, and SP+DRR scheduling modes, and MPLS QoS and MPLS H-QoS
OAM	<ul style="list-style-type: none"> IEEE 802.3ah, IEEE 802.1ag, and ITU-T Y.1731 BFD for IP/RSVP/LDP/LSP/PW/RRRP/OSPF/ISIS/BGP
Network reliability	<ul style="list-style-type: none"> LAG/LACP, master/slave Trunk, G.8032, and VRRP TE FRR, TE hot standby, LSP1:1, and PW redundancy
Clock synchronization	<ul style="list-style-type: none"> SyncE IEEE 1588v2
Power supply	DC: -48 V (-40 to -57 V)
Overall power consumption	< 300 W
Environment	<ul style="list-style-type: none"> Operating temperature: -5 to 45°C Relative humidity (long term): 10%–90% RH (indoor, non-condensing)

Ordering information>>

iTN8800-E-DC	iTN8800-E chassis, including the fan and 2 DC power supplies
iTN8800-E-NXU	iTN8800-E network management switching card, supporting device management, clock management, and

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network management communication, supporting processing PS services, supporting 1+1 hot backup for master/slave network management switching cards

iTN8800-A-RC1	1-interface 100G Ethernet service card
iTN8800-A-RK4	4-interface 25G Ethernet service card
iTN8800-A-RX4	4-interface 10G Ethernet service card
iTN8800-A-RG8	8-interface GE service card

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