

ZXR10 Intelligent Integrated Multi-Service Router: ZSR Series

-Complicated Network, Simple Choice

Overview

On the basis of rich experience in R&D and manufacturing of the carrier-class communication products, ZTE design a manufactured router ZXR10 ZSR series. The router has modular structure and it can provide multiple types of service interfaces. It combines the high-speed network processing technology with the effective software technology, which realizes the rapid routing policy. As the basic ISP platform providing integrated services, it is preferred for building up networks such as convergence, access and enterprise networks.

ZXR10 ZSR is a series of mid-range/entry-level routers to provide various integrated solutions to help connecting remote organizations, mobile users, extranets of partners, or as managed CPE by service providers for various networking solutions. With types of products in 1800, 2800 and 3800 series, ZXR10 ZSR series can satisfy the requirements of different types of networking.



Figure1. ZXR10 ZSR Router

Features

Rich Interface Modules

ZXR10 ZSR provides rich interface types and interface rates, from low-speed asynchronous serial to POS and Ethernet, from 300bps V.24 to 1000M Ethernet. It supports wireless access solutions by ADSL and 3G. It helps users to implement the convergence of narrowband and broadband.

| Type | Interface module |
|----------|---|
| POS | 1×OC-3c/STM-1c POS |
| | 1×OC-3/STM-1 Channelized POS |
| Ethernet | 1×10/100/1000M |
| | 1-port 1000M SFP optical electrical |
| | 2/4-port 10Base-T/100Base-TX |
| | 1× 100M optical +4×100M electrical |
| WAN | 8×100base-TX L2 Service |
| | 1/2/4/8×E1 |
| | 1/2/4/8×E1 Channelized |
| | 1/2/4×T1 Channelized/Non-channelized |
| | 4×Serial High-speed Synchronous/ Asynchronous |
| | 1-port ADSL interface 3G WWAN (USB inserted) |

Industry standard protocols

ZXR10 ZSR series support industry standard protocols. These protocols are given below:

| Industry standard protocols |
|--------------------------------------|
| PPP, MPPP, VLAN, HDLC, X.25 and FR |
| IP, ICMP, ARP, V-Switch |
| TCP and UDP |
| RIP v1/v2, OSPF v2, BGP4 and IS-ISv4 |
| IGMP, PIM-SM |
| MPLS L3 VPN, VPLS, VPWS |
| GRE, IPSec |
| NAT, ACL, URPF, PBR and Load sharing |
| SNMP v1/v2/v3, RMON v1 and NTP |
| Telnet, FTP, TFTP, LFTP |
| OSPFv4, IS-ISv6 and BGP4+ |
| IPv6 NAT-PT, 6in4 and 4in6 tunnel |

Hardware Encryption Engine

With embedded hardware-based encryption acceleration engine, ZXR10 ZSR provides users with high-performance IPsec data encryption feature at low cost. Specifically designed for the data forwarding engine, the embedded hardware encryption accelerated engine enables ZXR10 ZSR to offer users with efficient IPsec encryption. In addition, it also supports RSA and DH public key generation algorithms, as well as MD5, SHA-1, HMAC-MD5, HMAC-SHA-1 signature algorithms. So it can fully guarantee information security for government and financial institutions etc.

Various VPN Access

ZXR10 ZSR supports traditional L2TP, GRE and IPsec VPN access, MPLS-based L2/L3 VPN, VPLS and VPWS. For conventional leased lines, ZSR builds L2 virtual circuits in IP/MPLS network to transport them transparently.

Customer Benefits

Multi-Service Platform Bears Multiple Services Perfectly and Saves Operator's Equipment Investment

ZSR surpasses functions of router itself (by integrating functions of multiple devices of access router, Ethernet switch, VPN safety gateway, and firewall into one platform) as a high-level network integrated application platform. It provides users with a comprehensive communication platform oriented to next generation service application, integrating functions of routing, switching, data, video, security, high QoS guarantee and service application. It implements secure and reliable user access based on various ways and integration of various services. Additional intelligent application modules can be added to implement more simple configuration and deployment, more flexible service management, and more rich service application. It can effectively save user's investment greatly.

Energy Saving and Emission Reduction, Reduce OpEx

With the most advanced design philosophy and architecture, ZSR owing to its least power consumption and noise is awarded as the model in saving energy and reducing emission in the industry. As a result, it reduces operator's maintenance costs greatly.

Diversified WAN, Guaranteed Network

WAN is very important to the normal operation of an enterprise, so any unexpected breakdown may dispel development opportunities. As a result, link and operation maintenance become even more critical when the network breaks down. However, 3G WWAN infrastructure is usually provided by independent device, so the backup wireless link orienting to the remote site can avoid connection failure. In this way, it enhances the overall local ring redundancy and guarantees the permanency of WAN connection. ZSR has rich WAN interface types, e.g. POS, E1/CE1, serial port and 3GWWAN, so it can meet users' current and future demands.

Product Architecture

Facing the access layer of enterprise and carrier networks, ZXR10 ZSR separates the main processor baseboard, processor sub-card and line interface module completely for realizing the real modular structure to satisfy various customer requirements. ZSR products can be configured to routers of different models according to performance of the processor sub-card chassis structure and power supply.

Depending on forwarding capacity, the types and numbers of built-in interfaces and slots, ZXR10 ZSR router can be categorized into 1800/2800/3800 series, in order to satisfy users' different networking requirements. All the line interface modules are universal for all series.

ZXR10 ZSR advanced V-BUS architecture ensures real-time wire-speed concurrency of multiple services and solves system performance bottleneck of traditional router caused by single bus. High-performance RISC processor provides powerful drive to network service processing. Large-capacity USB store card via USB2.0 module expands system storage. Fixed Ethernet ports in chassis decrease customers' original CapEx.

Technical Specification

| Specifications | 1809 | 1822E | 2842 | 3844 | 3884 |
|------------------------|--|------------|------------|--------------------|--------------------|
| Console port | 1 | 1 | 1 | 1 | 1 |
| AUX port | 0 | 1 | 1 | 1 | 1 |
| service slot | Fixed Box | 2 | 4 | 4 | 8 |
| Fixed Ethernet | 1GE+8FE | 2GE COMBO | 2GE COMBO | 2GE COMBO+2FE | 2GE COMBO+2FE |
| USB2.0 | 0 | 2 | 2 | 2 | 2 |
| Flash | 16MB | 64MB | 64MB | 64MB | 64MB |
| SDRAM | 128M | 512MB | 512MB/1GB | 512MB/1GB (2GB) | 512MB/1GB (2GB) |
| Forwarding | 150kpps | 200kpps | 220kpps | 400kpps | 600kpps |
| Dimension (W×H×D)mm | 360×44×287 | 442×44×320 | 442×86×420 | 442×86×420 | 442×130×420 |
| Weight | 3kg | <5kg | <10kg | <10kg | <15kg |
| Power | <25W | <45W | <110W | <120W | <180W |
| Input module | AC | AC/DC | AC/DC | AC/DC | AC/DC |
| Dissipation | 284Btu/h | 511Btu/h | 887Btu/h | 887Btu/h | 1790Btu/h |
| Noise | <20dB | <38.5dB | <37.7dB | <37.7dB | <44.7dB |
| MTBF/MTTR | 20000/0.5h | 20000/0.5h | 20000/0.5h | 20000/0.5h | 20000/0.5h |
| Compliance | Essential protection requirements of the low voltage directive 2006/95/EC Electron magnetic Compatibility Directive 2004/108/EC EN60950-1:2001(1st edition) + A11:2004 EN300 286 v.1.3.3(04-2005) EN55022:1998/A1:2000 EN61000-3-2:1995/A14:2000 EN61000-3-3:1995/A1:2001 RoHS FCC | | | | |

China

NO. 55, Hi-tech Road
South, ShenZhen, P.R.China
Tel: +86-755-26770000
Postcode: 518057

West Europe

114 rue galliéni, 92100Boulo
gne Billancourt, France
Tel: +33 (0)1707 25 700

North America

Paseo de la Reforma 404,
Floor 13 Col, Juarez, Cuauhte
moc, Mexico, D.F.
Tel: +52 55 52072786
Fax: +52 55 52070020

South Africa

Block D, Lincoln Wood office
park, woodland drive, Wood
mead, JHB, SA
Tel: +27-11-6565093
Fax: +27-11- 6565087

For more information about ZTE office, please visit website http://www.zte.com.cn/en/about/global_sales_offices/

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