

INTEGRATED SECURITY FUNCTIONS

- Firewall, IPSec VPN
- Secure Shell (SSH) Protocol
- Protection of Intrusion, DDoS and Attack
- Authentication, Authorization, Accounting (AAA)
- TACACS+ Authentication Protocol

INTEGRATED VPN FUNCTION

- GRE, VPDN Application of L2TP/PPTP and MPLS

RICH SOFTWARE FEATURES

- Unified DNOS Network Platform
- All DRO Series Routers Run on Advanced DNOS
- Perfect IPv6 Protocol Solution
- Support the IPv4 and IPv6 Protocol Stacks
- Provide Rich Migration Solutions from IPv4 to IPv6
- Creative Virtual Router Function (VRF)
- Support of MPLS*

PERFECT QOS POLICIES

- Extra High Precision of Bandwidth Control
- Supports 2-Level QoS Functions
- DNOS QoS Technology Controls the Rate Between 8k and 100M Using QoS Queue Mechanism and 2-Level QoS Technology

HIGH PERFORMANCE

- Adopts Flow Technology while Enabling QoS, ACL, NAT & PBR
- Advanced MPC RISC CPU & Bus Technology with Low Delay High Data Processing Capacity & High Port Density For High Speed Network

Reliable Multi-Services Router



Overview

The DRO20 series routers are a new generation of network products developed by D-Link for industry branch offices and large and middle sized enterprises. With an advanced software structure and hardware platform, the DRO provides an integrated solution for the enterprise edge network with minimum investment.

Integrated with rich network applications, such as routing, switching, voice, security, transmission, and video, the DRO20 series routers are capable of customized requirements of different application environments. The software provides rich features such as VoIP, VPN, IPv6, MVRF, MPLS and multicast, as well as backup solutions and QoS mechanisms allowing for data, video, and voice access services.

The DRO20 series adopts a modular structure, featuring high performance, rich fixed interfaces, high security and manageability and multi-services. It offers hardware encryption for high-speed and secure encryption and decryption.

The DRO20 series has high density network/voice modules with complete functions which are suitable for many applications. The RISC network processor with 64-bit microprocessor technology dedicated for telecommunication is adopted in the DRO. It uses DNOS, an operating system developed by D-Link that supports VoIP, IP multicast and rich QoS features. This platform offers cost-effective network solutions for small and medium-sized companies.

Multiservice Integration

INTEGRATED ROUTING AND SWITCHING

Routing and switching are integrated into the DRO20 series. The L2 Ethernet switching modules can be flexibly extended to support rich L2 and L3 switching features, fully meeting the demands for integrated routing and switching networking.

INTEGRATED VOICE AND VIDEO FUNCTIONS

The DRO20 series further provides several IP phone modules, including FXS and FXO, supporting the standard SIP and H.323 protocol suites and GK interface and are thus able to intercommunicate with such VoIP equipment as from Cisco, AudioCodec and Motorola. It furthermore supports IGMP, PIM-DM, DVMRP, and PIM-SM multicast protocols for video applications.

INTEGRATED SECURITY FUNCTIONS

The built-in encryption engine performs the encryption and decryption. This greatly improves the encryption and decryption performance and meets the encryption needs for large volumes of data in order to ensure a high performance in forwarding and encryption synchronization while saving the interface slots and decreasing the purchasing cost of users.

Fully Modular Design, Easy and Flexible

The DRO20-24 provides two fixed 10/100M fast Ethernet ports, two NMX module slots and four SIC module slots.

It supports a broad range of high-density network/voice modules that deliver varied functions and provide more combinations.

Complete Separation of Management and Data Transfer

The DNOS adopts the advanced V-CPU design idea. The CPU resources are divided into management and data transfer resources which can be automatically allocated between the two resources according to the busy condition, so that the management applications like CLI, SNMP, telnet and routing protocols are not affected during the packet attacks and data transfer of any densities.

Multi-Service Linear Rate Concurrence

The DRO20 series integrates a brand new hardware structure and modularized software system that is able to provide service of data, security, voice, video and high level applications for customers in order to satisfy their internet application status and trend without any impact on data transfer performance.

The DRO20 series of routers also adopts flow table technology, which means that while enabling applications such as QoS, ACL, NAT, PBR, the router uses per entry matching for the first packet and uses then flow table matching for the following packets of the same flow. This processing mechanism enables a mutual performance of 100 ACL/PBR and 300 ACL/PBR. It also utilizes advanced MPC RISC CPU and bus technology with low delay to guarantee high data processing capacity.

*Available in future firmware versions



All information in this section is relevant to all members of the D-Link DRO20 series router family, unless otherwise stated.

TECHNICAL SPECIFICATIONS

PERFORMANCE

- Forwarding Capacity up to 300 Kpps
- Backplane Bandwidth 8 Gbps
- Flash 512 M (default)
- SDRAM 128M (default)

INTERCONNECT PROTOCOLS

Encapsulation protocols

- Ethernet
- 802.1Q
- HDLC
- PPP
- MP
- X.25
- Frame Relay
- LAPB
- SLIP
- ATM
- SDH

Routing protocols

- Static
- RIPv1/v2
- OSPF
- BGP
- ISIS
- PBR
- IPv6

IP applications

- Ping
- Trace
- NTP
- Telnet
- SSH
- DNS client/DNS static
- UDP helper
- DHCP server/DHCP relay
- SMTP

QOS

Congestion management

- FIFO
- PQ
- CQ
- WFQ
- CBWFQ
- LLQ
- RTPQ

Congestion avoidance

- RED
- WRED

Traffic supervision

- CAR

Traffic shaping

- GTS

Link efficiency

- CTCP
- CRTP

MULTICAST & SECURITY

IGMPv1/v2/v3

PIM-SM

PIM-DM

Firewall

- Packet filtering
- State inspection
- Attack defense
- Content filtering
- Traffic control

Data encryption standard

- 3DES
- AES

Authentication

- Local authentication
- Radius authentication
- TACACS+ authentication

ACL

Routing protocol authentication

- OSPF MD5 authentication
- RIPv2 MD5 authentication
- BGP4 MD5 authentication

MAINTENANCE AND AVAILABILITY

Network management

- SNMP v1/v2/v3
- Standard MIB
- RMON MIB
- Private MIB
- Traffic management
- SYSLOG

User management

- Console login
- AUX login
- Telnet (VTY)
- SSH login

Availability

- Modular software design
- VRRP protocol
- Backup
- DLDP

VPN

- IPSec
- GRE
- PPTP/L2TP

ORDER INFORMATION

MODEL	DESCRIPTION
DRO20-24	DRO20-04 Router Host, 2*FE ports, 1*Console port, 1*AUX ports, 2*NMX slots, 4*SIC slots
INTERFACE MODULE	
SIC-2FXS	2-Port FXS Voice SIC Module
SIC-2FXO	2-Port FXO Voice SIC Module
SIC-1CE1	1-Port Channelized E1 SIC Module
SIC-1HS	1-Port High-speed Synchronous Serial SIC Module
SIC-1B-U	1-Port ISDN SIC Module (U Interface)
SIC-1B-S/T	1-Port ISDN SIC Module (S/T Interface)
SIC-1E1-F	1-Port Non-channelized SIC Module (E1-F)
SIC-4ESW	4-Port 10/100BASE-TX L2 Switch SIC Module
NMX-2GEH	2*10/100/1000 BASE-TX Ports and 2*SFP Ports, NMX Module, without SFP Module
NMX-4E1/CE1H	4-Port E1/CE1 NMX Module
NMX-8E1/CE1H	8-Port E1/CE1 NMX Module
NMX-24ESW	24-Port 10/100BASE-TX L2 Switch NMX Module
INTERFACE ACCESSORIES	
CAB-V.35DTE/POS26-34PM/3m	V.35DTE Cable/POS26-V.35
CAB-V.35DCE/POS26-34PF/3m	V.35DCE Cable/POS26-V.35
CAB-V.35DTE-V.35DCE/POS26	V.35DTE-V.35DCE Cable-1meter Specially for Network Lab (Both POS26 Terminal)
CAB-V.24DTE/POS26-DB25M/3m	232DTE Cable/POS26-DB25
CAB-V.24DCE/POS26-DB25F/3m	232DCE Cable/POS26-DB25
CAB-E1 balanced/DB9M-RJ45F/120 ohm/3m	E1 balanced Cable/RJ45 Female-120Ω-3meter, DB9M Cable Connect RJ45 Female
CAB-E1 unbalanced/DB9M-2*BNC/75 ohm/3m	E1 Cable-3m, DB9 Male Connect BNC*2 (75ohm)
CAB-E1 balanced/DB9M-RJ45M/120 ohm/3m	E1 Cable-3m, DB9 Male Connect RJ45 (120ohm)
CAB-E1 unbalanced/DB25M-8*BNC/75 ohm/3m	E1 Cable-3m, DB25 Male Connect BNC*8 (75ohm)
CAB-E1 balanced/DB25M-4*RJ45M/120 ohm/3m	E1 Cable-3m, DB25 Male Connect RJ45 *4 (120ohm)
Mini-GBIC-SX	1000BASE-SX SFP Transceiver MM (850nm, 550m, LC)
Mini-GBIC-LX	1000BASE-LX SFP Transceiver SM (1310nm, 10km, LC)
Mini-GBIC-LH	1000BASE-LH SFP Transceiver SM (1310nm, 40km, LC)
Mini-GBIC-ZX50	1000BASE-ZX SFP Transceiver SM (1550nm, 50km, LC)
Mini-GBIC-ZX80	1000BASE-ZX SFP Transceiver, SM (1550nm, 80km, LC)

* Please get in contact with your D-Link Representative for the complete order information