DH-S7603 Switch

Product overview

DH-S7603 is based on a large platform, and supports a variety of Ethernet interfaces, including 1000M optical interfaces, 1000M electrical interfaces, 10G optical interfaces, which meet multi-level link bandwidth requirements of users. Complying with Restriction of Hazardous Substances (RoHS), DH-S7603 is an environment-friendly routing switch.

DH-S7603 supports main controller redundancy, and can be widely applied in multiple network environments, providing users with industry solutions that integrate security and switching components, wired components, and integrate active and passive components.

Highlight Features

· Rich layer 3 features

· Excellent manageability

· Support Intelligent Resilient Framework

· Comprehensive security control policies

· Support hot swapping for all components

· High-performance IPv4/IPv6 service capabilities

· Hardware level encryption technology MACsec

· Meets the need of different port density and performance requirements

· Chassis type 19" industry box

Functions

Virtualization Technologies - IRF2

IRF2 can virtualize up to four DH-S7603 into one logical IRF fabric. IRF2 delivers the following benefits:

● High Availability (HA) - Provide data backup and non-stop forwarding on the control plane and data plane. This improves availability, performance, eliminates single-point failures and ensures service continuity.

● Distribution - Multi-chassis link aggregation to enable load sharing and backup over multiple uplinks, improving redundancy and link utilization.

● Easy Management - A single IP address to manage the whole IRF fabric, which simplifies device and topology management, improving operating efficiency, and lowering network maintenance cost.

Abundant QoS Features

● DH-S7603 offers abundant QoS features, including: Packet filtering based on packet header fields from layer 2 through layer 4, including source MAC, destination MAC, source IP, destination IP, TCP/UDP port number, protocol type, and VLAN.

● Flexible queuing and scheduling algorithms configured on a per-port or per-queue basis, including strict priority (SP), weighted round robin (WRR), and SP+WRR. Port mirroring in both outbound and inbound directions for network monitoring and troubleshooting.

Outstanding Management Capacity

● The switch provides a variety of management features and is easy to manage. It offers the following device management features:

● Provides multiple management interfaces, including the console port, micro USB port, and out-of-band management Ethernet port.

● To help customers gain visibility into network application traffic, the switch provides a variety of traffic monitoring and analytic tools, including local port mirroring and layer 2 remote port mirroring. With these tools, customers can specify multiple monitor ports and collect network traffic data to evaluate network health status, create traffic analysis reports, perform traffic engineering, and optimize resource allocation.

Technical specifications

Hardware Feature

Total Number of Slots	5
Number of Line Card Slots	3
Number of MPU Slots	2
Hot Swapping	YES
Console Port	1 × RJ45 console port 1 × Micro-USB port
Power Supply	Two powers included Supports dual power 100-240V AC 50-60 Hz (Internal)
Power Consumption	Idling: 7.5W Full load: 490W
Operating Temperature	0°C to 45°C (32°F to 113°F)
Operating Humidity	5%RH–95%RH
Storage Temperature	﹣40°C to 70°C (–40°F to 158°F)
Redundancy	Redundant MPUs, power modules, and fan trays
Thunder proof	Common mode: 2kVDifferential mode: 1kV
Net Weight	20.2 kg (44.53 lb)
Gross Weight	26.65 kg (26.68 lb)
Product Dimensions	216 mm × 436 mm × 420 mm (8.50" × 17.17" × 16.54")
Packaging Dimensions	650 mm × 590 mm × 375 mm (25.59" × 23.23" × 14.76")

Performance

Layer	Layer 3
Managed	Yes
Switching Capacity	19.2 Tbps
Packet Forwarding Rate	1440 Mpps
Packet Buffer Memory	24 Mbit
Jumbo Frame	10000 Byte
VLAN Number	4094 Entries

Software specifications

Ethernet	IEEE 802.1P (CoS priority)IEEE 802.1Q IEEE 802.1ad (QinQ), selective QinQ and VLAN mapping DLDP LLDP Static MAC configuration Limited MAC learning Port mirroring and traffic mirroring Port aggregation, port isolation, and port mirroring IEEE 802.1D (STP)/802.1w (RSTP)/802.1s (MSTP)IEEE 802.3ad (dynamic link aggregation), static port aggregation, and multi-chassis link aggregation RRPP (Rapid Ring Protection Protocol)Jumbo frame Super VLAN PVLAN Multicast VLAN+MCE
Routing	Static routing, RIP, OSPF, IS-IS, and BGP4IPv4/IPv6 ECMPVRRPIPv4/IPv6 Policy-based routingIPv4/IPv6 Routing policyIPv6 static routing, RIPng, OSPFv3, IS-ISv6, and BGP4+VRRPv3Pingv6, Tenetv6, FTPv6, TFTPv6, DNSv6, and ICMPv6

DHCP	DHCP client, DHCP snooping, DHCP snooping option82, DHCP relay, DHCP server DHCP auto-config
IP routing	12K IPV4 routing entries Static routingRIPv1/v2 and RIPngOSPFv1/v2/v3BGP and BGP4+ for IPv6IS-ISVRRP/VRRPv3
Mirroring	Flow mirroring, N:4 port mirroring Local port mirroring and remote port mirroring
Multicast	PIM-DM, PIM-SM, PIM-SSM, MSDP, MBGP, and Any-RPIGMP V1/V2/V3 and IGMP V1/V2/V3 snoopingPIM6-DM, PIM6-SM, and PIM6-SSMMLD V1/V2 and MLD V1/V2 snooping Multicast policies and multicast QoS
IRF	IRF2Distributed device management, distributed link aggregation, and distributed resilient routing Stacking through standard Ethernet interfaces Local device stacking and remote device stacking
Security	Hierarchical user management and password protection AAA authentication RADIUS authenticationHWTACACSSSH2.0Port isolation802.1X authentication, centralized MAC authentication Port security IP source guard HTTPs Hierarchical user management and password protection802.1X authentication and centralized MAC address authentication Guest VLAN Portal authentication DHCP snooping Dynamic ARP detection BPDU guard and root guard uRPFIP/Port/MAC binding Plaintext authentication and MD5 authentication for OSPF and RIPv2 packets Public Key Infrastructure (PKI)
ACL/QoS	Standard and extended ACLs Ingress and egress ACLs VLAN ACLs Global ACLs Diff-Serv QoS SP, WRR, SP+WRR, CBWFQ Traffic shaping Congestion avoidance Priority marking and remarking802.1p, TOS, DSCP, and EXP priority mapping
System Management	Loading and upgrading through XModem/FTP/TFTPSNMP v1/v2/v3sFlowRMONNTP clocks Fault alarm and automatic fault recovery System logs Device status monitoring mechanism, including the CPU engine, backplane, chips and other key components
Network Management	Command line interface (CLI) configuration Telnet remote configuration Configuration via console port SNMP v1/v2/v3 Web network management System log Power, fan, temperature alarm
HA	1+1 redundancy for key components such as MPUs 1+1 redundancy for power modules Passive backplane Hot swapping for all components Real-time data backup on active/standby MPUs CPU protection VRRP Hot patching Ethernet OAM (802.1ag and 802.3ah)RRPP/ERPS VCT Smart-Link ISSU
Other Protocols	IEEE 802.3u, IEEE 802.3i, IEEE 802.3z, IEEE 802.3x, IEEE 802.3ae RFC793 (TCP), RFC2131 (DHCP), RFC791 (IP), RFC768 (UDP), RFC783, RFC1350 (TFTP), and RFC 3376

Ordering Information

Product ID	Product Description
S76-24GT4XFSC	24-port Gigabit Ethernet electrical interface (RJ45) + 4-port 10 Gigabit Ethernet optical interface module (SFP+, LC)
S76-24GF4XFSA	24-port Gigabit Ethernet optical port (SFP, LC) + 4-port 10 Gigabit Ethernet optical interface module (SFP+, LC)
S76-48GTSA	48-port Gigabit Ethernet electrical interface module (RJ45)
S76-48GFSA	48-port Gigabit Ethernet Optical Interface Module (SFP, LC)
S76-24GT20GF4XFSC	24-port Gigabit Ethernet electrical interface (RJ45) + 20-port Gigabit Ethernet optical port (SFP, LC) + 4-port 10 Gigabit Ethernet optical interface module (SFP+, LC)
S76-16XFSF	16 port 10 Gigabit Ethernet optical interface module (SFP+, LC)