DCN Europe

Switch to
a New Generation

ETHERNET SWITCHES
S4600 SERIES

- S4600-10P-SI
- S4600-10P-P-SI (R2)
- S4600-28P-SI (R3)
- S4600-28P-P-SI (R3.5)
- S4600-52P-SI (R2)

Network Security

Advanced Management

Network Protection

IPTV Support

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NETWORK SECURITY

- IP Source Guard provides Layer 2 source IP address filtering to prevent spoofing of an unauthorized host uses authorized hosts IP address. This feature uses dynamic DHCP Snooping and a static input of the source IP address.
- The S4600 series support DHCP Snooping which prevent attacks with using an illegal DHCP server by setting trusted ports and unused ports. By enabling DHCP Snooping Binding and DHCP option 82, you can combine modules such as dot1x and ARP DAI or independently implement user access control.
- Access control list (ACL) can be used to restrict access to sensitive network resources by filtering packets and forwarding according to established rules. The user-defined ACL provides more flexible access control for users.
- The S4600 series supports much more L2 security features such as ARP protection, ARP scanning and other ARP and MAC security technologies to protect network security and reliability.

ADVANCED MANAGEMENT

- Advanced administration of DCN switches. Network solutions configured via the well-known command line interface (CLI) or the easy-to-use Web-based graphical interface.
- Network traffic monitoring using sFlow or SNMP protocols.

NETWORK PROTECTION

- The S4600 series supports 4 Gigabit ports as an uplink, which can work as redundant links working with various ring protection functions, effectively increasing the scalability and network performance.
- G.8032 (ERPS) with a 50ms network structure switching time provides protection in the event of a connection failure and re-recovery of L2 layer traffic in ring topology. The S4600 series supports G.8032 v2 and can be implemented in a variety of complex network topologies, including single ring, tangential ring, and intersecting rings.
- The multiple spanning tree protocol (MSTP) allows the introduction of many logical network topologies - instances to which multiple VLANs can be assigned - resulting in redundant and stable Ethernet transmission.
- MRPP is a authorial DCN protocol offering ring protection. Compared to the STP protocol, it has faster convergence (50ms), a simple algorithm and a lower cost of system resources used, which improve network reliability.

IPTV SUPPORT

- Multicast VLAN Register (MVR) enables efficient distribution of multicast streams for IPTV Layer 2 and reduces the bandwidth consumed by this traffic. If hosts in multiple VLANs request the same multicast stream, it is distributed to specific VLANs.
- The S4600 series offers use of the IGMP Snooping function, which prevents flooding, thus transmitting multicast traffic only to the associated ports.
- By using IGMP Proxy configuration cooperating with IGMP Snooping, IGMP communication in the network is reduced.

S4600	10P-SI	10P-P-SI(R2)	28P-SI (R3)	28P-P-SI (R3.5)	52P-SI(R2)
Switch classification					
Layer 2	✓	✓	✓	✓	✓
Connectivity					
10/100/1000Base-T (RJ45)	8	–	24	–	48
10/100/1000Base-T (RJ45) with PoE	–	8	–	24	–
100/1000Base-X (SFP) [1]	2	2	4	4	4
Console port – RS-232 (RJ45)	✓	✓	✓	✓	✓
Port USB	–	–	✓	✓	–
Performance					
Switch fabric speed	20 Gb/s	20 Gb/s	56 Gb/s	56 Gb/s	104 Gb/s
Forwarding rate	14,88 Mp/s	14,88 Mp/s	41,66 Mp/s	41,66 Mp/s	77,38 Mp/s
Packet buffer	0,5 MB	0,5 MB	1,5 MB	1,5 MB	1,5 MB
Jumbo frame	10 K	10 K	12 K	12 K	12 K
Mac address table [2]	8 K	8 K	16 K	16 K	16 K
Multicast MAC address table	500	500	4 K	4 K	2 K
ACL table	1,4 K	1,4 K	512	512	2 K
Nomber of vlan interfaces (IP)	16	16	16	16	16
CPU clock	500 MHz	500 MHz	800 MHz	800 MHz	700 MHz
Flash memory	32 MB	32 MB	32 MB	32 MB	32 MB
RAM memory	128 MB	128 MB	256 MB	256 MB	128 MB
Resilience and avvailability					
IEEE 802.1D STP/802.1w RSTP/802.1s MSTP	✓	✓	✓	✓	✓
IEEE 802.3ad LACP	✓	✓	✓	✓	✓
Virtual Cable Testing	✓	✓	✓	✓	✓
DDM	✓	✓	✓	✓	✓
LLDP / LLDP-MED	✓	✓	✓	✓	✓
Loop guard	✓	✓	✓	✓	✓
ERPS (ITU-T G.8032)	✓	✓	✓	✓	✓
MRPP	✓	✓	✓	✓	✓
ULPP	✓	✓	✓	✓	✓
Traffic control					
IEEE 802.3x Full duplex & Flow control	✓	✓	✓	✓	✓
802.1Q VLANs	4 K	4 K	4 K	4 K	4 K
Port-based VLAN	✓	✓	✓	✓	✓
Protocol-based VLAN	✓	✓	✓	✓	✓
IP subnet based VLAN	✓	✓	✓	✓	✓
Voice VLAN	✓	✓	✓	✓	✓
Mac VLAN	✓	✓	✓	✓	✓
LACP algorithm of source/destination IP (load balance)	✓	✓	✓	✓	✓
GVRP	✓	✓	✓	✓	✓
802.1ad Vlan Stacking (QinQ)	✓	✓	✓	✓	✓
Selective QinQ	✓	✓	–	–	✓
Flexible QinQ	✓	✓	✓	✓	✓
Security					
Layer 2 MAC filtering	✓	✓	✓	✓	✓
BPDU Tunnel	✓	✓	✓	✓	✓
BPDU Guard	✓	✓	✓	✓	✓
Login authentication and authorization by RADIUS and TACACS+	✓	✓	✓	✓	✓
TACACS+ accounting/ auditing	✓	✓	✓	✓	✓
SSH v1/v2	✓	✓	✓	✓	✓
DHCP/DHCPv6 snooping	✓	✓	✓	✓	✓
IP/IPv6 Source Guard	✓	✓	✓	✓	✓
Port security	✓	✓	✓	✓	✓
IEEE 802.1x port-based / mac-based	✓	✓	✓	✓	✓
QoS					
802.1p Priority Queues per Port	8	8	8	8	8
802.1p Queuing method	✓	✓	✓	✓	✓
Trusted COS/TOS/IP Precedence/DSCP/Port number	✓	✓	✓	✓	✓
Broadcast Storm Control	✓	✓	✓	✓	✓
Rate Limiting, port based	✓	✓	✓	✓	✓
Strict priority	✓	✓	✓	✓	✓
Weighted Round Robin	✓	✓	✓	✓	✓
Weighted Deficit Round Robin	✓	✓	✓	✓	✓
Strict priority in Weighted Round Robin	✓	✓	✓	✓	✓

[1] - For 28P-SI (R3), 28P-P-SI (R3) models, 100Mbps bandwidth cannot be set

[2] - MAC address Table shared for unicast and multicast (in 1:1 ratio)

S4600	10P-SI	10P-P-SI (R2)	28P-SI (R3)	28P-P-SI (R3.5)	52P-SI(R2)
L2/L3 - Multicast					
Multicast VLAN	✓	✓	✓	✓	✓
IGMP v1,v2, v3	✓	✓	✓	✓	✓
IGMP Query	✓	✓	✓	✓	✓
IGMP Snooping (v1,v2,v3)	✓	✓	✓	✓	✓
IGMP Snooping Fast Leave(v2,v3)	✓	✓	✓	✓	✓
IPv6 MLD v1/v2 Snooping	✓	✓	✓	✓	✓
Routing					
Static routing IPv4 / IPv6	–	–	✓	✓	–
Layer 3 IPv6					
IPv4/IPv6 Dual Protocol Stack	✓	✓	✓	✓	✓
IPv6 address	✓	✓	✓	✓	✓
Manageability					
GUI (Web)	✓	✓	✓	✓	✓
Telnet / SSH	✓	✓	✓	✓	✓
SNMP v1/V2c/v3	✓	✓	✓	✓	✓
TFTP/FTP	✓	✓	✓	✓	✓
Configuration backup and restore	✓	✓	✓	✓	✓
Multilevel CLI	✓	✓	✓	✓	✓
DHCP Client/Relay/Server	✓	✓	✓	✓	✓
DHCP relay per VLAN	✓	✓	✓	✓	✓
DHCP option 43/60/82	✓	✓	✓	✓	✓
DHCPv6 option 37/38	✓	✓	✓	✓	✓
DHCPv6 Relay/Server	✓	✓	✓	✓	✓
SNTP / NTP	✓	✓	✓	✓	✓
sFlow	–	–	✓	✓	✓
Port Mirroring per IP/TCP/UDP	✓	✓	✓	✓	✓
RSPAN	✓	✓	✓	✓	✓
IEEE 802.3ah EFM	✓	✓	✓	✓	✓
IEEE 802.1ag CFM	✓	✓	✓	✓	✓
MIB					
RFC1066 – TCP/IP-based MIB	✓	✓	✓	✓	✓
RFC1213, 1157 – SNMPv2c/v3 MIB	✓	✓	✓	✓	✓
RFC1493 – bridge MIB	✓	✓	✓	✓	✓
RFC2674 – bridge MIB extension	✓	✓	✓	✓	✓
RFC1643 – ethernet MIB	✓	✓	✓	✓	✓
RFC1757 – RMON group 1,2,3,9	✓	✓	✓	✓	✓
RFC2925 – Remote Management MIB	✓	✓	✓	✓	✓
RFC2233 – SMIv2 MIB	✓	✓	✓	✓	✓
Physical					
Dimensions (Width x Height x Depth)	250 mm x 44 mm x 180 mm	340 mm x 44 mm x 200 mm	440 mm x 44 mm x 220 mm	440 mm x 44 mm x 300 mm	440 mm x 44 mm x 240 mm
Operating temperature	0 °C ~ 50 °C	0 °C ~ 50 °C	0 °C ~ 50 °C	0 °C ~ 50 °C	0 °C ~ 50 °C
Working humidity	10% - 90% (no condensation)	10% - 90% (no condensation)	10% - 90% (no condensation)	10% - 90% (no condensation)	10% - 90% (no condensation)
Cooling	passive	passive	passive	active FAN's: 3	active FAN's: 1
Electrical					
PoE standards	–	IEEE 802.3at IEEE 802.3af	–	IEEE 802.3at IEEE 802.3af	–
PoE power budget	–	124W	–	370W	–
Power supply	230V AC	230V AC	230V AC	230V AC	230V AC
Power consumption	≤ 20W	≤ 150W	≤ 20W	≤ 450W	≤ 40W