#### Overview

HOS, launched by HONDAO, is a switch operating system, which is also an unified software platform used by all HONDAO switches. HOS has experienced through commercial application test over 10 years. Its advanced modular flexible architecture offers good hardware decoupling capability. HONDAO constantly iterates and releases an updated versions every quarter to fix bugs or update features, ensuring better adaptation to an ever-changing network environment.

# keywords

- Accumulating and iterating over a span of 10 years.
- An unified Software Platform.

EB-Basic license MS- Advanced license

- Being verified in the extensive commercial network environment.
- The features are modularized, which allows for pruning, and the code can be easily ported for the same reason.

O-support

X- nonsupport

## Features List table

Tips for reading:

Гуре	Sub Type	Feature	Description	ЕВ	MS	Remark
			Ethernet interface operating modes(full duplex, half duplex, and auto-negotiation)	0	0	
Ethernet pasic features	Ethernet	Interface	Ethernet interface operating rates	$\bigcirc$	$\bigcirc$	
icatures			Jumbo Frame	$\bigcirc$	$\bigcirc$	
			port-xconnect	$\bigcirc$	$\bigcirc$	
		Flow-control	Flow-control tx/rx	$\bigcirc$	$\bigcirc$	

Type	Sub Type	Feature	Description	EB	MS Remark
		Q.	Port based storm-control	$\bigcirc$	$\bigcirc$
		Storm-control	VLAN based storm-control	$\bigcirc$	0
		Port-block	Port-block(know/unknown unicas know/unknown multicast/broadcast)	t O	0
	Ethernet	Port-isolate	L2/L3/All Port-isolate	$\bigcirc$	$\bigcirc$
			Uni-direction isolate	$\bigcirc$	$\bigcirc$
		Tunnel L2 Protocol	CFM/DOTIX/SLOW-PROTO/STP L2 Protocol Tunnel(support Store-and-forward	8	8
		F 1 1	Cut-through	$\bigcirc$	$\bigcirc$
		Forward mode VLAN Access	Access/Trunk	$\bigcirc$	$\bigcirc$
		mode	Default VLAN	$\bigcirc$	$\bigcirc$
		VLAN Classification	VLAN Classification(port based/mac based/IP based/protocol based)	$\circ$	0
Ethernet			Basic QinQ	$\bigcirc$	$\bigcirc$
basic features	VLAN	QinQ	Selective QinQ	$\bigcirc$	$\bigcirc$
			VLAN Mapping(1:1 VLAN Translation)	$\bigcirc$	0
		VLAN Statistics	VLAN Statistics	$\bigcirc$	$\bigcirc$
		Private VLAN	Private VLAN	0	$\bigcirc$
		Voice VLAN	Voice VLAN	$\bigcirc$	$\bigcirc$
		Guest VLAN	Guest VLAN	$\bigcirc$	0
			Automatic learning and aging of MAC addresses	$\bigcirc$	0
		MAC Address	Hardware Learning	$\bigcirc$	$\bigcirc$
	MAC	Table	Static and dynamic MAC address entries	$\bigcirc$	0
	MINC		Blackhole MAC	$\bigcirc$	$\bigcirc$
		MAC Flapping detect	MAC Flapping detect	$\bigcirc$	$\circ$
		Port Bridge	Port Bridge	$\bigcirc$	0

Type	Sub Type	Feature	Description	ЕВ	MS	Remark
			Static-LAG & LACP	0	$\bigcirc$	
			LAG load balance(SLB)	$\bigcirc$	$\bigcirc$	
Ethernet			LAG load balance(DLB)	$\bigcirc$	$\bigcirc$	
basic features	LAG	Link aggregation	LAG load balance(RR)	$\bigcirc$	$\bigcirc$	
			LAG Self-healing	$\bigcirc$	$\bigcirc$	
			Link aggregation weighting	$\bigcirc$	$\bigcirc$	
		STP	Spanning-Tree Protocol	$\bigcirc$	$\bigcirc$	
	xSTP	RSTP	Rapid Spanning-Tree Protocol	$\bigcirc$	$\bigcirc$	
		MSTP	Multi-instance Spanning-Tree Protocol	$\bigcirc$	$\bigcirc$	
		Protocol	BPDU Filter/Guard	$\bigcirc$	$\bigcirc$	
Ethernet		Spanning-Tree	Root Guard	$\bigcirc$	$\bigcirc$	
Ring		Protection	Loop Guard	$\bigcirc$	$\bigcirc$	
protection features			Anti TC-BPDU attack	$\bigcirc$	$\bigcirc$	
			Single ERPS ring	$\bigcirc$	$\bigcirc$	
			tangent ERPS rings	$\bigcirc$	$\bigcirc$	
	ERPS	ERPS	intersecting ERPS rings	$\bigcirc$	$\bigcirc$	
			compatible with RRPP	$\bigcirc$	$\bigcirc$	
	Loop back Detect	Loop back Detect	Loop back detection	$\bigcirc$	$\bigcirc$	
			IGMPv1/v2/v3 Snooping	$\bigcirc$	$\bigcirc$	
Layer2	Layer2	IGMP Snooping	Fast leave	0	$\bigcirc$	
Multicast	Multicast		Static IGMP snooping group	$\bigcirc$	$\bigcirc$	
		MVR	MVR(Multicast VLAN Registration)	$\bigcirc$	$\bigcirc$	

Туре	Sub Type	Feature	Description	EB M	S Remark
			Static and dynamic ARP entries	O C	)
		ARP	Aging of ARP entries	0 0	)
	ARP		Gratuitous ARP	0 0	)
		A DD provi	basic ARP-Proxy	0 0	)
		ARP proxy	local ARP-Proxy	0 0	)
			IPv4 Static Routes	0 0	)
			Black hole Routes	0 0	)
		IPv4 Static	co-work with IP SLA	0 0	)
		Routes	VRF(Virtual Routing and	$\circ$	)
			Forwarding)		
			uRPF check	0 0	)
		RIP	RIPv1/v2	0 0	)
		OSPFv2	OSPFv2	Х	)
		IS-IS	IS-IS	Х	)
IPv4	IPv4 Unicast	BGP	IBGP	Х	)
Forwarding	Routing		EBGP	ХС	)
	Routing	Route policy	Route-map	$\circ$	)
			IPv4 prefix-list	0 0	)
		PBR	PBR(Policy-based Routing)	$\circ$	)
			ICMP redirect	$\circ$	)
		ICMP	ICMP unreachable	$\circ$	)
			ECMP(SLB)	$\circ$	)
		ECMD	ECMP(DLB)	0 0	)
		ECMP	ECMP(RR)	0 0	)
			ECMP Self-healing	O C	)
			IGMPv1/v2/v3	0 0	)
		IGMP	IGMP-Proxy	0 0	)
	IPv4		IGMP SSM Mapping	0.0	)
	Multicast Routing	PIM	PIM-SM	Х	)
	Kouling	PIM	PIM-DM	XC	)

Type	Sub Type	Feature	Description	ЕВ	MS	Remark
	IPv6 Basic	ICMPv6	ICMPv6	X	0	
	Protocol	NDP	NDP	X	$\bigcirc$	
	IPv6	IPv6 Static Routes	IPv6 Static Routes	X	$\bigcirc$	
	Unicast	RIPng	RIPng	X	$\bigcirc$	
	Routing	OSPFv3	OSPFv3	X	$\bigcirc$	
		IS-IS	IS-IS	X	$\bigcirc$	
		MLD v1/v2	MLD v1/v2	X	$\bigcirc$	
IPv6 Forwarding	IPv6. Multicast	MLD v1/v2 Snooping	MLD v1/v2 Snooping	X	$\circ$	
	Routing	MVR6	MVR6	X	$\bigcirc$	
		PIM-SM v6	PIM-SM v6	X	$\bigcirc$	
		Punneyer IPv4	IPv6 over IPv4 Tunnel	X	$\circ$	
	IP Tunnel	6to4 Tunnel	6to4 Tunnel	X	$\bigcirc$	
		ISATAP Tunnel	ISATAP Tunnel	X	$\bigcirc$	
			DHCPv6 Relay	X	$\bigcirc$	
	Service	DITCI VO	DHCPv6 Snooping	X	$\bigcirc$	
	5011100	IPv6 Prefix List	IPv6 Prefix-list	X	$\bigcirc$	
	DED	DED	BFD for Static route	X	$\bigcirc$	
	BFD	BFD	BFD for OSPFv2	X	$\bigcirc$	
			BFD for VRRP/Track	X	$\bigcirc$	
			BFD for PBR	X	$\bigcirc$	
reliability			VRRP	$\bigcirc$	$\bigcirc$	
Device	VRRP	VRRP	Two le for VDDD	$\bigcirc$	$\bigcirc$	
features			Track for VRRP multi-instance			
			load balance	$\bigcirc$	$\bigcirc$	
	Smart Link	Smart Link	Multi-Link	$\bigcirc$	$\bigcirc$	
	MLAG	MLAG	Monitor-link	$\bigcirc$	$\bigcirc$	
			MLAG basic	$\bigcirc$	$\bigcirc$	
			MLAG orphan Port	$\bigcirc$	$\bigcirc$	

Туре	Sub Type	Feature	Description	EB	MS	Remark
		EFM (802.3ah)	Auto detection	X	$\bigcirc$	
	EFM		Network fault detection	X	$\bigcirc$	
	ELIM		Network fault handle	X	$\bigcirc$	
Ethernet OAM			remote loop back	X	$\bigcirc$	
Ethernet OAM			Hardware CCM detect	X	$\bigcirc$	
	CFM	CFM (802.1ag)	MAC Ping	X	$\bigcirc$	
			MAC Trace	X	$\bigcirc$	
	Y.1731	Y.1731	Latency and Jitter measure	X	$\bigcirc$	
			Power supply on-spot detection	$\bigcirc$	$\bigcirc$	
		System Power management	Power supply capability detection	$\bigcirc$	$\bigcirc$	
		J	Power capability auto	$\bigcirc$	$\bigcirc$	
	РоЕ	-	configuration (PSE)  Legacy PD detection	$\overline{}$	$\overline{\bigcirc}$	
PoE			PD max power management	$\bigcirc$	$\bigcirc$	
features		Power Supply	PD priority management	$\frac{\circ}{\circ}$		
Toutares		Management Management	Power Supply Task Plan			
		2,	management(Not ready)	$\bigcirc$	$\bigcirc$	
			PD Mandatory power supply	$\bigcirc$	$\bigcirc$	
			PSE log	$\bigcirc$	$\bigcirc$	
		operations management	PSE Chipset temperature inquire	$\bigcirc$	$\bigcirc$	
			PSE firmware update	$\bigcirc$	$\bigcirc$	
			Traffic classification based on			
			COS/DSCP (simple classification) Traffic classification based on ACL	<u>( )</u>	<u> </u>	
QoS features	QoS	Traffic classification	( complex classification)	$\bigcup$	$\bigcup$	
leatures		CIASSIIICALION	Traffic classification based on inner header of the tunnel packets	$\bigcirc$	$\bigcirc$	

Туре	Sub Type	Feature	Description	ЕВ	MS	Remark
			Queue scheduling	$\bigcirc$	0	
		Traffic behaviors	Remark the priority fields(COS/DSCP) of the packet based on ACL	0	$\bigcirc$	
			Remark the priority fields(COS/DSCP) of the packet based on Table Map	$\bigcirc$	0	
			Flow redirection	$\bigcirc$	$\bigcirc$	
			Flow mirror	$\bigcirc$	$\bigcirc$	
		Traffic policing	Traffic policing based on direction(in/out) of Port	$\bigcirc$	$\bigcirc$	
			Traffic policing based on direction(in/out) of VLAN	$\bigcirc$	$\bigcirc$	
			Traffic policing based on direction(in/out) of flow	$\bigcirc$	$\bigcirc$	
			Traffic policing based on direction(in/out) of aggregated flow	0	0	
QoS features	QoS	Traffic shaping	Queue based traffic shaping	$\bigcirc$	$\bigcirc$	
			Port based traffic shaping	$\bigcirc$	$\bigcirc$	
		Congestion management	SP(Strict Priority)scheduling C	) (		
			WDRR(Weighted Deficit Round Robin)scheduling	$\bigcirc$	$\circ$	Not currently supported on SerdesX platform
			SP + WDRR mixed scheduling	$\bigcirc$	$\bigcirc$	Not available on SerdesX platform
		Congestion	TD(Tail Drop)	$\bigcirc$	$\bigcirc$	
		avoidance	WRED(Weighted Random Early Detection)	$\bigcirc$	$\bigcirc$	
		Traffic statistics	Packet counts and bytes statistics based on traffic classification	$\bigcirc$	$\circ$	
			Packet counts and bytes statistics based on the color after traffic policing	$\circ$	0	

Conter   Post							
Packet counts and bytes statistics    Packet counts and bytes statistics   Packet counts and bytes statistics	Type	Sub Type	Feature	Description	EB	MS	Remark
QoS features       QoS exertes (congestion notification)       ECN tags based on Tail Drop (congestion notification)       available of SerdesX platform         VARP       Vare Virtual gateway       VARP (Virtual-ARP)       O         VARP subnet       VARP subnet       O         Manual configure VxLAN tunnel       VxLAN distributed gateway       O         VxLAN active-active access       O         Interconnect across Data Deader       O         Centers based on VxLAN       Edit DSCP in VxLan outer header         BGP EVPN       X         Support to enable/disable overlay split horizon per-VNI       O         GRE Tunnel       ORE Tunnel       O         NVGRE Tunnel       ORE Tunnel       O         DCB       DCBX       LLDP support DCBX TLV       O         SCurity and and an anagement management manageme				packet counts and bytes	$\circ$	$\circ$	
Pata Center  Tunnel  Tunnel  Tunnel  Data Center  Data Center Based on VxLAN  Edit DSCP in VxLan outer header  BGP EVPN X OOO  Support to enable/disable overlay split horizon per-VNI  GRE Tunnel GRE Tunnel OOO  NVGRE Tunnel NVGRE Tunnel OOO  DCBX LLDP support DCBX TLV OOO  PFC PFC OOO  SSHV1/v2  SSHV1/v2  RADIUS RADIUS  TACAS+ TACAS+ OOO  DOOR  VXLAN active-active access OOO  Centers based on VxLAN  Edit DSCP in VxLan outer OOO  Data Cent	_	QoS	congestion	ECN tags based on Tail Drop	$\bigcirc$	$\bigcirc$	available on SerdesX
VARP Virtual gateway  VARP subnet  VARP subnet  Amual configure VxLAN tunnel  VxLAN distributed gateway  VxLAN active-active access Interconnect across Data Centers based on VxLAN Edit DSCP in VxLan outer header  BGP EVPN X Support to enable/disable overlay split horizon per-VNI  GRE Tunnel NVGRE Tunnel NVGRE Tunnel OCBNEVE Tunnel  DCB  DCBX LLDP support DCBX TLV  PFC PFC SSHv1/v2  RSA Key generation  RADIUS RADIUS RADIUS RADIUS  RADIUS  RADIUS  RADIUS  RADIUS  RADIUS  RADIUS  RADIUS  RADIUS  RADIUS  RADIUS  RADIUS  RADIUS  RADIUS  TACAS+  TACAS+   Manual configure VxLAN  Centers based NXLAN  Edit DSCP in VxLan outer OCHECKS  OCHECKS  OCHECKS  OCHECKS  CHANGE  OCHECKS				ECN tags based on WRED	$\bigcirc$	$\bigcirc$	
VARP subnet  VARP subnet  Manual configure VxLAN tunnel  VxLAN distributed gateway  VxLAN active-active access  Interconnect across Data Centers based on VxLAN Edit DSCP in VxLan outer header  BGP EVPN  X  Support to enable/disable overlay split horizon per-VNI  GRE Tunnel  ROBE Tunnel  NVGRE Tunnel  NVGRE Tunnel  O  DCB  DCBX  LLDP support DCBX TLV  PFC  PFC  SSHv1/v2  SSH  RADIUS  RADIUS  RADIUS  RADIUS  RADIUS  RADIUS  TACAS+  TACAS+  TACAS+  TACAS+  NVLAN  Sutport VxLAN  Centers based on VxLAN  Edit DSCP in VxLan outer header  O  VxLAN active-active access  O  NVALAN active-active access  O  SVALAN  Edit DSCP in VxLan outer header  O  Centers based on VxLAN  Edit DSCP in VxLan outer header  O  Support to enable/disable overlay split horizon per-VNI  GRE Tunnel  O  Support to enable/disable O  Support to enable/di		VADD	Virtual cotovicy	VARP(Virtual-ARP)	$\bigcirc$	$\bigcirc$	
Data Center  Tunnel  VxLAN distributed gateway  VxLAN active-active access  Interconnect across Data Centers based on VxLAN  Edit DSCP in VxLan outer header  BGP EVPN  Support to enable/disable overlay split horizon per-VNI  GRE Tunnel  GENEVE Tunnel  DCB  DCB  DCBX  DCBX  DCBX  DCBX  DCBX  DCBX  DCBX  DCBX  DCBX  SSHv1/v2  RADIUS  RADIUS  RADIUS  RADIUS  RADIUS  RADIUS  TACAS+  TACAS+  TACAS+  DCB  VxLAN distributed gateway  Centers based on VxLAN  Edit DSCP in VxLan outer  header  BGP EVPN  X O  Support to enable/disable overlay split horizon per-VNI  Support		VARP	virtuai gateway	VARP subnet	$\bigcirc$	$\bigcirc$	
Data Center  Tunnel  Tunnel  Tunnel  Data Center  Tunnel  Tunnel  Data Center  Tunnel					$\circ$	$\bigcirc$	
Data Center  Tunnel  T				VxLAN distributed gateway	$\bigcirc$	$\bigcirc$	
Data Center  Tunnel  T				VxLAN active-active access	$\bigcirc$	$\bigcirc$	
Center    header		Tunnel	VxLAN		$\bigcirc$	$\bigcirc$	
BGP EVPN X   Support to enable/disable overlay split horizon per-VNI  GRE Tunnel GRE Tunnel					$\bigcirc$	$\bigcirc$	
Overlay split horizon per-VNI  GRE Tunnel GRE Tunnel  NVGRE Tunnel  O  NVGRE Tunnel  GENEVE Tunnel  GENEVE Tunnel  O  DCB  DCBX  LLDP support DCBX TLV  PFC  PFC  PFC  SSHv1/v2  RSA Key generation  RADIUS  RADIUS  RADIUS  TACAS+  TACAS+  TACAS+  O  O  O  O  O  O  O  O  O  O  O  O  O				BGP EVPN	X	$\bigcirc$	
GRE Tunnel GRE Tunnel O  NVGRE Tunnel NVGRE Tunnel O  GENEVE Tunnel GENEVE Tunnel O  DCB  DCBX  LLDP support DCBX TLV O  PFC  PFC  SSHv1/v2  RSA Key generation O  RADIUS  RADIUS  RADIUS  TACAS+  TACAS+  TACAS+  O  O  O  O  O  O  O  O  O  O  O  O  O					$\bigcirc$	$\bigcirc$	
GENEVE Tunnel GENEVE Tunnel   O  DCB  DCBX  LLDP support DCBX TLV  PFC  PFC  SSHV1/v2  SSH  RSA Key generation  RADIUS  RADIUS  TACAS+  TACAS+			GRE Tunnel		$\bigcirc$	$\bigcirc$	
DCB  DCBX  LLDP support DCBX TLV  PFC  PFC  O  SSH  Security and System manageme nt  No security and manageme nt  No security and manageme nt  Security nt  No support DCBX TLV  SSH  SSH  RSA Key generation  RADIUS  RADIUS  RADIUS  TACAS+  TACAS+  TACAS+  TACAS+  O  O  O  O  O  O  O  O  O  O  O  O  O			NVGRE Tunnel	NVGRE Tunnel	$\bigcirc$	$\bigcirc$	
PFC PFC O O  Security and System manageme Security nt Security TACAS+ TACAS+ O O  TACAS+ TACAS+ O O			GENEVE Tunnel	GENEVE Tunnel	$\bigcirc$	$\bigcirc$	
PFC PFC O O  SSH Security and System manageme Security nt Security TACAS+ TACAS+ O O		DCD	DCBX	LLDP support DCBX TLV	$\bigcirc$	$\bigcirc$	
Security and System manageme nt Security nt Security ACAS+ TACAS+ Security Security National System Security National Sys		DCD	PFC	PFC	$\bigcirc$	$\bigcirc$	
Security and System manageme Security nt Security National System Security National System Nat	Security			SSHv1/v2	$\bigcirc$	$\bigcirc$	
manageme Security nt Security TACAS+ TACAS+ O O			SSH	RSA Key generation	$\bigcirc$	$\bigcirc$	
nt TACAS+ TACAS+ O O			RADIUS	RADIUS	$\bigcirc$	$\bigcirc$	
AAA Authentication		Security	TACAS+	TACAS+	$\bigcirc$	$\bigcirc$	
			AAA	Authentication	$\bigcirc$	$\bigcirc$	

Type	Sub Type	Feature	Description	ЕВ	MS Remark
			Authorization	$\bigcirc$	$\bigcirc$
			Accounting	$\bigcirc$	$\bigcirc$
			Port based dot1x	$\bigcirc$	$\bigcirc$
		Dot1x	MAC based dot1x	$\bigcirc$	$\bigcirc$
			Guest VLAN	$\bigcirc$	$\bigcirc$
			MAC/IP ACL	$\bigcirc$	$\bigcirc$
			Basic Mode ACL	0	$\bigcirc$
			Port-group ACL	$\bigcirc$	$\bigcirc$
		ACL	VLAN-group ACL	$\bigcirc$	$\bigcirc$
			IPv6 ACL	$\bigcirc$	$\bigcirc$
			ACL UDF	0	$\bigcirc$
			Time Range	$\bigcirc$	$\bigcirc$
		ARP Inspection	ARP Inspection	$\bigcirc$	0
		IP Source Guard	IP Source Guard	$\bigcirc$	$\bigcirc$
		Port Security	Limitation on MAC address learning on interface	$\bigcirc$	$\bigcirc$
Security	System Security	ecurity VLAN Security	Limitation on MAC address learning on VLAN	$\bigcirc$	0
and manageme			Black list/wihte list	$\bigcirc$	$\bigcirc$
nt		Policy (COPP)	Rate limit	$\bigcirc$	$\bigcirc$
		CPU Traffic Limit	CPU Traffic Limit	$\bigcirc$	$\bigcirc$
		Prevent DDOS attack	Prevent DDOS attack (ICMP Flood/Smurf/Fraggle/LAND/SYN Flood)	$\bigcirc$	$\bigcirc$
		Login filter	Telnet/SSH ACL filtering	$\bigcirc$	0
		Logiii iiitei	Telnet/SSH IPv6 ACL filtering	$\bigcirc$	$\bigcirc$
		MAC Security	MacSec(802.1AE)	$\bigcirc$	$\circ$
		Link-Flapping detection	Link-Flapping detection	$\bigcirc$	$\bigcirc$
	Network		DHCP Server	$\bigcirc$	0
	Managen	n DHCP	DHCP Relay	0	$\bigcirc$
	ent		DHCP Snooping	$\overline{\bigcirc}$	0

Type Sub Type Feature Description EB MS Remark  RMON RMON							
SFlow sFlow v4/v5 ODHCP Client ODHCP Option82 ODHCP OPTION8 SFlow v4/v5 ODHCP ODHCP OPTION8 SFlow v4/v5 ODHCP ODHCP OPTION8 SFlow v4/v5 ODHCP OPTION8 SFlow v4/v5 ODHCP ODTION8 SFlow v4/v5 O	Type	Sub Type	Feature	Description	ЕВ	MS	Remark
DHCP (Steint DHCP Option82 DHCP Option82 DHCP Option252 DHCP Optio			RMON	RMON	$\bigcirc$	$\bigcirc$	
DHCP DHCP Option82			sFlow	sFlow v4/v5	$\bigcirc$	$\bigcirc$	
RMON RMON				DHCP Client	$\bigcirc$	$\bigcirc$	
RMON RMON			DHCP	DHCP Option82	$\bigcirc$	$\bigcirc$	
SFlow   SFlow v4/v5   O     IP SLA   IP SLA   IP SLA   O     IPFIX   IPFIX   IPFIX   O     EFD   Elephant Flow Detection   O     NTP   NTP(Network Time Protocol)   O     TC (Support P2P/E2E \)   Ethernet/Udp Transport   O     Err-disable   Err-disable detection and recovery   O     Err-disable detection and recovery				DHCP Option252	$\bigcirc$	$\bigcirc$	
PSLA IP SLA O O IPFIX IPFIX IPFIX O O O IPFIX IPFIX IPFIX IPFIX O O O IPFIX IPFIX IPFIX O O O O O O O O O O O O O O O O O O O			RMON	RMON	$\bigcirc$	$\bigcirc$	
PFIX   IPFIX   IPFIX   Color			sFlow	sFlow v4/v5	$\bigcirc$	$\bigcirc$	
EFD Elephant Flow Detection \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \			IP SLA	IP SLA	$\bigcirc$	$\bigcirc$	
NTP NTP(Network Time Protocol)    TC (Support P2P/E2E \ Ethermet/Udp Transport)    PTP (IEEE 1588)    BC/OC(Support OneStep/TwoStep \ Requestresponse/Peer-delay   Ethermet/Udp Transport)    Err-disable    Err-disable			IPFIX	IPFIX	$\bigcirc$	$\bigcirc$	
Terminal Services and configuration  Terminal service  Management interface  Management interface  Management interface  Management interface  Management interface  Management SNMP  TC (Support P2P/E2E \ Ethernet/Udp Transport)  BC/OC(Support OneStep/TwoStep \ Request-response/Peer-delay Ethernet/Udp Transport)  Err-disable Err-disable detection and recovery  DNS Static DNS Client   Configurations through CLI (Command Line Interface)  (Command Line Interface)  Help Banner configuration  (Console Terminal service)  Terminal service  In-band management interface and configuration  Out-band management interface and configuration  Management based on  Network management based on			EFD	Elephant Flow Detection	$\bigcirc$	$\bigcirc$	
Ethernet/Udp Transport )  PTP (IEEE 1588 )BC/OC(Support OneStep/TwoStep \ Requestresponse/Peer-delay Ethernet/Udp Transport)  Err-disable Err-disable detection and recovery  DNS Static DNS Client			NTP	NTP(Network Time Protocol)	$\bigcirc$	$\bigcirc$	
Configuration and maintena nce  Terminal Services  A proper delay Ethernet/Udp Transport)  Err-disable Err-disable detection and recovery  DNS Static DNS Client  LLDP LLDP  Command Line Interface)  Help Banner configuration  Help information in English  Terminal service  Management interface  And configuration  Network management based on  Network management based on				TC (Support P2P/E2E \	$\sim$		
Configuration and maintenance  Terminal Services and maintenance  Terminal Services  A command Line Interface  Help Banner configuration  Help information in English  Terminal service  Terminal Service  Help information in English  Terminal service  Terminal service  Management interface  And configuration  Metwork management based on  Network management based on				Ethernet/Udp Transport)	$\bigcirc$	$\bigcirc$	
Configuration and maintena nce  Terminal Services and configuration  Terminal Services and configuration  Management interface and configuration  Management SNMP  Terminal Services and configuration  Terminal service interface and configuration  Network management based on interface and configuration interface and configuration  Network management based on interface and configuration int			PTP (IEEE 1588)	)BC/OC(Support OneStep/TwoStep、Request-	$\bigcirc$		
Configuration and maintena nce  Terminal Services  DNS  Static DNS Client  LLDP  LLDP  Command Line Interface  (Command Line Interface)  Help  information  Help information in English  Terminal service  Management interface  Management interface  Management interface  Management service  Management interface  Management interface  Management service  Management interface  And configuration  Out-band management interface  and configuration  Management based on  Network management based on				response/Peer-delay	O	O	
ation and maintena nice    DNS   Static DNS Chent	G G	Terminal	Err-disable		$\bigcirc$	$\bigcirc$	
maintena nce    Command Line   Configurations through CLI     Interface   (Command Line Interface)     Help   Banner configuration   Omega	_	JELVILES	DNS	Static DNS Client	$\bigcirc$	$\bigcirc$	
Interface (Command Line Interface)  Help Banner configuration O Help information in English  Terminal service Vty Terminal service O Tonsole Terminal service O In-band management interface  Management interface and configuration Out-band management interface and configuration  Manageme SNMP  Network management based on O  Network management based on O			-		$\bigcirc$	$\bigcirc$	
Help information Help information in English  Terminal service Vty Terminal service  Console Terminal service  In-band management interface  Management interface  Out-band management interface and configuration  Out-band management interface and configuration  Out-band management interface and configuration	nce				$\bigcirc$	$\bigcirc$	
Terminal service    Vty Terminal service   O   O			Help	_ :	0	$\bigcirc$	
Terminal service  Console Terminal service  In-band management interface  Management interface  and configuration  Out-band management interface and configuration  Manageme SNMP  Network management based on			information	Help information in English	$\bigcirc$	$\bigcirc$	
Console Terminal service  In-band management interface  Management interface  and configuration  Out-band management interface and configuration  Manageme SNMP  Network management based on			Terminal service	Vty Terminal service	$\bigcirc$	$\bigcirc$	
Management interface and configuration  Out-band management interface and configuration  Manageme SNMP  Network management based on O			Terrimiar service	Console Terminal service	$\bigcirc$	$\bigcirc$	
Manageme SNMP  and configuration  Out-band management interface and configuration  Network management based on				In-band management interface	$\bigcirc$	$\bigcirc$	
Manageme SNMP  Network management based on O			_	and configuration Out hand management interface			
Manageme SNMP Network management based on O			merace			$\bigcirc$	
		Managama	SNMP				
III SINIVII VI/VZC/VJ					$\bigcirc$	$\bigcirc$	
		111		DINIVII VIIVZUVJ			

Type	Sub Type	Feature	Description	ЕВ	MS	Remark
		SNMP	Public and private MIB	$\bigcirc$	$\bigcirc$	
			Public and private Trap	$\bigcirc$	$\bigcirc$	
		WEB	Configuration and management based on WEB UI	$\bigcirc$	$\bigcirc$	
		RPC-API	Configuration and management based on RPC-API	$\bigcirc$	$\bigcirc$	
		Smart Config	Smart Config(Automatically configuration when system start)	$\bigcirc$	$\bigcirc$	
	Configuration	system profile configuration	change the system specifications by choose different STM Profiles	$\bigcirc$	$\bigcirc$	
	Management	Restore factory default configuration	Restore factory default configuration	$\bigcirc$	$\circ$	
	File System	File system	File system(support directory and file management)	0	0	
		Upload and download	Upload and download files through FTP or TFTP	$\bigcirc$	$\bigcirc$	
			Upload and download files through Xmodem	$\bigcirc$	$\bigcirc$	
Configuration on and maintenan	1	Debug	per-module Debug features	$\bigcirc$	$\bigcirc$	
ce			ICMP Debug	$\bigcirc$	$\bigcirc$	
		ВНМ	Software process monitor: BHM(Beat Heart Monitor)	$\bigcirc$	$\bigcirc$	
	Dahuaaina		Hardware Watch Dog	$\bigcirc$	$\bigcirc$	
	Debugging And		CPU usage display and alarm	$\bigcirc$	$\bigcirc$	
	Maintenance		Memory usage display and alarm	$\bigcirc$	$\bigcirc$	
		Log & alarm	Device temperature, PSU, FAN, status display and alarm		$\bigcirc$	
			User operation logs Management of logs, alarms, and debugging information	8	8	

Туре	Sub Type	Feature	Description	EB	MS	Remark
		VCT	VCT(Virtual Cable Test)	$\bigcirc$	$\bigcirc$	
		system diagnostics	Detailed Diagnostic- information collection	$\bigcirc$	0	
			Manual reboot	0	$\bigcirc$	
		Reboot	Schedule Reboot	$\bigcirc$	$\bigcirc$	
		2.00000	Reboot Information logging	$\bigcirc$	0	
			Ping	$\bigcirc$	$\bigcirc$	
		network diagnostics	IPv6 Ping	0	$\bigcirc$	
		diagnostics	Trace route	$\bigcirc$	$\bigcirc$	
			Port mirror	$\bigcirc$	$\bigcirc$	
			Flow mirror	$\bigcirc$	$\bigcirc$	
		mirror	Remote mirror	$\bigcirc$	$\bigcirc$	
			Multi-destination mirror(m:n)	$\bigcirc$	$\bigcirc$	
			Use CPU as mirror source	$\bigcirc$	$\bigcirc$	
			Use CPU as mirror destination and analyze packet	$\bigcirc$	$\bigcirc$	
			ERSPAN	$\bigcirc$	$\bigcirc$	
Configuratio n and	Debugging And	CPU statistics	To CPU/From CPU packets statistics	$\bigcirc$	$\bigcirc$	
maintenance	Maintenance	L2 Ping	layer2 network connectivity detection - L2Ping (MAC Ping/Trace)	$\circ$	0	
		UDLD	UDLD(Unidirectional Link Detection)	$\bigcirc$	$\bigcirc$	
		unidirectional	unidirectional forwarding of the fiber	$\bigcirc$	0	
			port loop back	$\bigcirc$	$\bigcirc$	
		Loop back	hardware loop back(internal/external)	$\bigcirc$	$\bigcirc$	
		System time	Time configuration	$\bigcirc$	$\bigcirc$	
			Timezone	$\bigcirc$	$\bigcirc$	

Type	Sub Type	Feature	Description	EB	MS	Remark
Configuratio n and maintenance	Software	System software upgrate	Update via TFTP	$\bigcirc$	$\bigcirc$	
	upgrate	Uboot upgrate	Uboot upgrate	$\bigcirc$	$\bigcirc$	

## Supported MIB

- · RFC 1155 SMI
- · RFC 1157 SNMPv1
- · RFC 1212, RFC 1213, RFC 1215 MIB-II, Ethernet-Like MIB and TRAPs
- · RFC 1493 Bridge MIB
- · RFC 1643 Ethernet MIB
- · RFC 1657 BGP-4 MIB
- · RFC 1724 RIPv2 MIB
- · RFC 1850 OSPFv2 MIB
- · RFC 1905 RFC 1907 SNMP v2c, SMIv2 and Revised MIB-II
- · RFC 2011 SNMPv2 for Internet Protocol using SMIv2
- · RFC 2012 SNMPv2 for transmission control protocol using SMIv2
- · RFC 2013 SNMPv2 for user datagram protocol suing SMIv2
- · RFC 2096 IPv4 Forwarding Table MIB
- · RFC 2287 System Application Packages MIB
- · RFC 2570-2575 SNMPv3, user based security, encryption and authentication
- · RFC 2576 Coexistence between SNMP Version 1, Version 2 and and Version 3
- · RFC 2578 SNMP Structure of Management Information MIB
- · RFC 2579 SNMP Textual Conventions for SMIv2
- · RFC 2665 Ethernet-like interface MIB
- · RFC 2819 RMON MIB
- · RFC 2863 Interface Group MIB
- · RFC 2863 Interface MIB
- · RFC 3413 SNMP Application MIB
- · RFC 3414 User-based Security model for SNMPv3
- · RFC 3415 View-based Access Control Model for SNMP
- · RFC 4188 STP and Extensions MIB

#### Supported MIB (continue)

- · RFC 4363 Definitions of Managed Objects for Bridges with Traffic Classes, Multicast Filtering, and VLAN extensions
- · Draft blumenthal aes usm 08
- · Draft reeder snmpv3 usm 3desede -00
- · Draft-ietf-idmr-igmp-mib-13

#### Supported RFC

- · RFC 826 ARP
- · RFC 854 Telnet client and server
- · RFC 894 IP over Ethernet
- · RFC 906 TFTP Bootstrap
- · RFC 1027 Proxy ARP
- · RFC 1058 RIP v1
- · RFC 1112 IGMP v1
- · RFC 1122 Host Requirements
- · RFC 1195 Use of OSI IS-IS for Routing in TCP/IP and Dual Environments (TCP/IP transport only)
- · RFC 1492 TACACS+RFC 1519 CIDR
- · RFC 1587 OSPF NSSA Option
- · RFC 1591 DNS
- · RFC 1812 Requirements for IP Version 4 Routers
- · RFC 2030 SNTP, Simple Network Time Protocol
- · RFC 2068 HTTP server
- · RFC 2080 RIPng for IPv6
- · RFC 2131 BOOTP/DHCP relay agent and DHCP server
- · RFC 2138 RADIUS Authentication
- · RFC 2139 RADIUS Accounting
- · RFC 2154 OSPF w/Digital Signatures (password, MD-5)
- · RFC 2236 IGMP v2
- · RFC 2267 Network Ingress Filtering
- · RFC 2328 OSPF v2 (edge-mode)

## Supported RFC (continue )

- · RFC 2338 VRRP
- · RFC 2362 PIM-SM (edge-mode)
- · RFC 2370 OSPF Opaque LSA Option
- · RFC 2453 RIP v2
- · RFC 2460 Internet Protocol, Version 6 (IPv6) Specification
- · RFC 2461 Neighbor Discovery for IP Version 6 (IPv6)
- · RFC 2463 Internet Control Message Protocol (ICMPv6) for the Internet Protocol Version 6 (IPv6) Specification
- · RFC 2464 Transmission of IPv6 Packets over Ethernet Networks
- · RFC 2474 DiffServ Precedence, including 12 queues/port
- · RFC 2475 DiffServ Core and Edge Router Functions
- · RFC 2526 Reserved IPv6 Subnet Anycast Addresses
- · RFC 2597 DiffServ Assured Forwarding (AF)
- · RFC 2598 DiffServ Expedited Forwarding (EF)
- RFC 2740 OSPF for IPv6
- · RFC 3176 sFlow
- RFC 3376 IGMP v3