Data Sheet HTPS5800-24G4GC

HTPS-5800-24G4GC - 24Port POE Gigabit Layer 2+ Managed Switch with 4 Combo SFP Ports

Product Appearance:

Product Overview:

HTPS-5800-24G4GCis a L2+ managed PoE fiber switch, which is equipped with 8* 10/100/1000M RJ45 ports and 4*100/1000M Combo SFP fiber slot ports. Port 1-24 can support IEEE802.3af/at PoE standard, built-in 400W power supply, fan less design. HTPS-5800-24G4GCsupports software-based IPv4/IPv6 static routing, spanning tree, DHCP and other management functions, can meet various requirements of CCTV surveillance, wireless AP , VoIP and other SMB projects.

Rich PoE Management Function

Being the managed PoE switches for CCTV surveillance, wireless and VoIP networks, HTPS-5800-24G4GCfeature the following special PoE management functions:
- PoE PD-alive check
- Scheduled power rebooting
- PoE schedule
- PoE usage monitoring
- Soft-reboot PoE Non-stop
- PoE port power feeding priority

Smart PoE PD-Alive Check
HTPS-5800-24G4GCcan be configured to monitor connected PD status in real time. Once the PD stops working and responding, HTPS-5800-24G4GCwill resume the PoE port power and bring the PD back to work. They will greatly enhance the network reliability through the PoE port resetting the PD's power source and reducing administrator management burden.

Highlights:

- Support L2+ Switching features including 802.1Q VLAN, Mirroring, Port isolation, IGMP Snooping, DHCP Snooping, LLDP, POE+ management, IP Source Guard, ARP inspection, ACLs etc.
- Support spanning tree STP (802.1D) and RSTP (802.1W) and MSTP (802.1s).
- Support enhanced management through WEB, CLI, TELNET, SSH, SNMP.
- Support cable diagnosis and SFP DDM.
- Support PoE management, like PoE schedule, PoE PD-alive.
- Support G.8032 quick ring protocol. Self-recovery time <20ms.
- Support IEEE1588 v2, transparent clock(TC)
- Support DDM, SFP digital diagnostics monitoring
- Support IPV4 and IPV6 static routing functions
- Support memory and CPU monitoring
- 4KV surge protection, 6KV contact/8KV air protection

Hardware Specification:

Model	HTPS-5800-24G4GC
Copper Ports	24-10/100/1000BASE-T RJ45 auto-MDI/MDI-X ports
Combo Interfaces	4x 100/1000BASE-X Combo SFP ; Supports 100/1000Mbps dual mode and DDM
Fiber Ports	4-100/1000BASE-X SFP interfaces, supports 100/1000Mbps dual mode
PoE Ports	1~24-802.3af/802.3at PoE Injector Ports
Console Ports	1 x RS-232-to-RJ45 serial port (115200, 8, N, 1)
Switch Architecture	Store-and-Forward
Switch Fabric	56/128Gbps/non-blocking
Throughput	41.69Mpps @64 bytes
Address Table	16K entries
Share Data Buffer	4 Mb
Jumbo Frame	9600 Bytes
SDRAM	1Gb
Flash Memory	128Mb
Flow Control	IEEE 802.3x pause frame for full-duplex Back pressure for half-duplex
Reset Button	>2 sec.: Factory default and reset
Power Supply	100~240V AC, 50/60Hz, 4A (max.)
Power Consumption	Max. 400 watts/1122 BTU
PoE Standards	IEEE 802.3af Power over Ethernet/PSE IEEE 802.3at Power over Ethernet Plus/PSE
PoE Power Supply Type	Per Port 52V DC, 300mA. Max. 15.4 watts (IEEE 802.3af) Per Port 52V DC, 600mA. Max. 30 watts (IEEE 802.3at)

LED Indicators	Power: Green
	Solid on- power work normal, off- power disconnected
	System: Green
	Blink -work normally, solid on- soft work abnormal, fast Blink – soft upgrade
	PoE: Yellow
	Solid on- PoE work normally, Off- PoE doesn't work, Blink - PoE overload
	10/100/1000T RJ45 Interfaces (Port 1 to Port24): 1000 LNK/ACT (Green)
	Blink - port connected with data transmission; Solid on- port connected without data transmission
	100/1000Mbps SFP Interfaces (Port 22 to Port 24): Green
	Blink - port connected with data transmission; Solid on- port connected without data transmission
EMC	Surge Immunity：4KV Per: IEC61000-4-5
	ESD Protection：ESD Level 4 Per: IEC61000-4-2
	EFT Level 4 Per: IEC61000-4-4
Dimension	440x290x44.5mm
Weight	4.5kg
Working Temperature	-10 ℃to 45℃
Storage Temperature	-20℃ to 70 ℃
MTBF	50,000hrs

Layer 2 functions:

Port configuration	Auto-negotiation Flow Control Port Mirror: TX/RX/BOTH; Many-to-1 monitor CPU Mirror Traffic statistics
Link Aggregation	Static link aggregation LACP（Dynamic Trunk/Static Trunk） Algorith based on Source/Destination MAC Algorithm based on Source/Destination IP
MAC Table	Aging Time Static MAC address Dynamic MAC address management
VLAN	4094 Active VLANs 4094 VID 802.1Q Tag VLAN Port VLAN Protocol VLAN MAC VLAN Voice VLAN 802.1ad Q-in-Q tunneling Private VLAN (Protected port) GARP/GVRP
ACL	256ACLs L2, L3 e L4 Time-based ACL IP ACL MAC ACL MAC-IP ACL User-Defined ACL ICMPv6
Spanning tree	802.1D Spanning Tree Protocol (STP) 802.1w Rapid Spanning Tree Protocol (RSTP)

	802.1s Multiple Spanning Tree Protocol (MSTP) Loop Guard Root Guard TC-BPDU Guard BPDU Guard BPDU Filter
Ring Protection	<20ms G.8032 ERPS Ring Fast Ring
Multicast	256 groups IGMP v1/v2/v3 Snooping, Fast Leave MLD Snooping Multicast VLAN IGMP filter MVR Multicast Routing
QOS	8 mapping IDs to 8 level priority queues CoS port-based CoS 802.1p-based CoS DSCP-based Scheduling algorithms SP, WRR, SP+WRR Storm Control (Broadcast, Multicast, Unknown Unicast) Bandwidth control per port SWRR, DWRR for Scheduling Flow Redirect Precedence TOS Rate Limiting（Ingress/Egress） Stri Priority
Security Features	Port Security MAC address filter ARP Association (Manual, ARP scanning, DHCP snooping) ARP Protection AAA DAI DoS (Denial of Service) Classification of packages based on: End.MAC, IP End, TCP / UDP Ports,

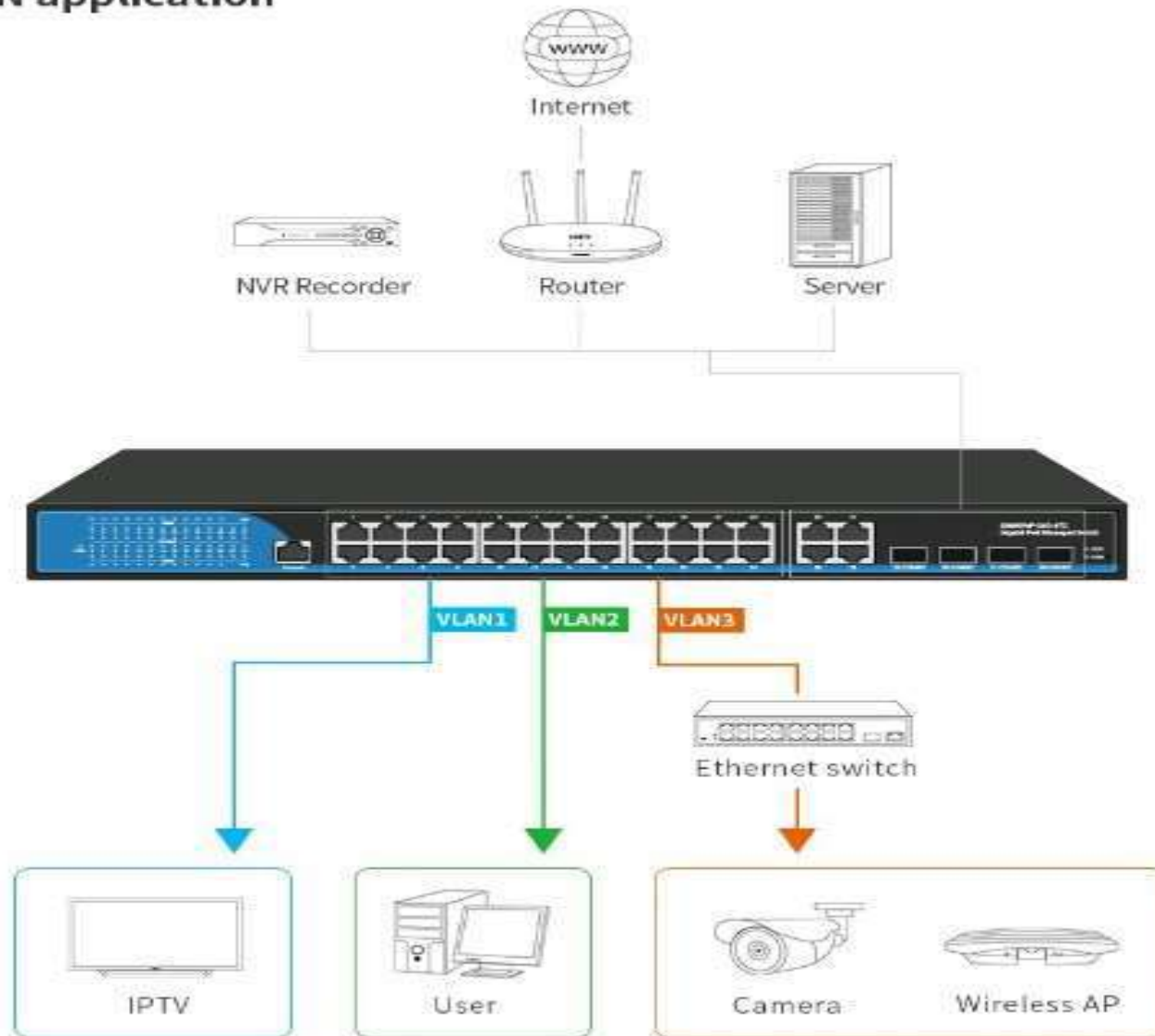|	
	Protocol Type; 802.1x Authentication (port-based e MAC-based) TACACS/TACACS+ Authentication RADIUS Authentication DHCP Filter Guest VLAN SSLv2/SSLv3/TLSv1 SSHv1/SSHv2 Restriction of WEB access based on: IP Address, And. MAC and Port; Port Isolation Loopback detection
Management	SNMP v1/v2c/v3 with Full Private MIBs RMON 4 groups WEB (HTTP/HTTPS) CLI (Telnet, Console, SSHv1/v2) Firmware upgrade via console/web/TFTP Configuration Backup/Reload Dual Firmware LLDP Configuration Export/Import CDP Aware OAM (IEEE802.3ah) CFM (IEEE802.1ag) SFlow
Synchronization, IEEE1588	Support IEEE1588v2 transparent clock
Other Features	DNS Client DHCP Relay DHCP Client DHCP Snooping DHCP Option 66 DHCP Option 67 DHCP Option 82 NTP/SNTP Client UPNP UDLD

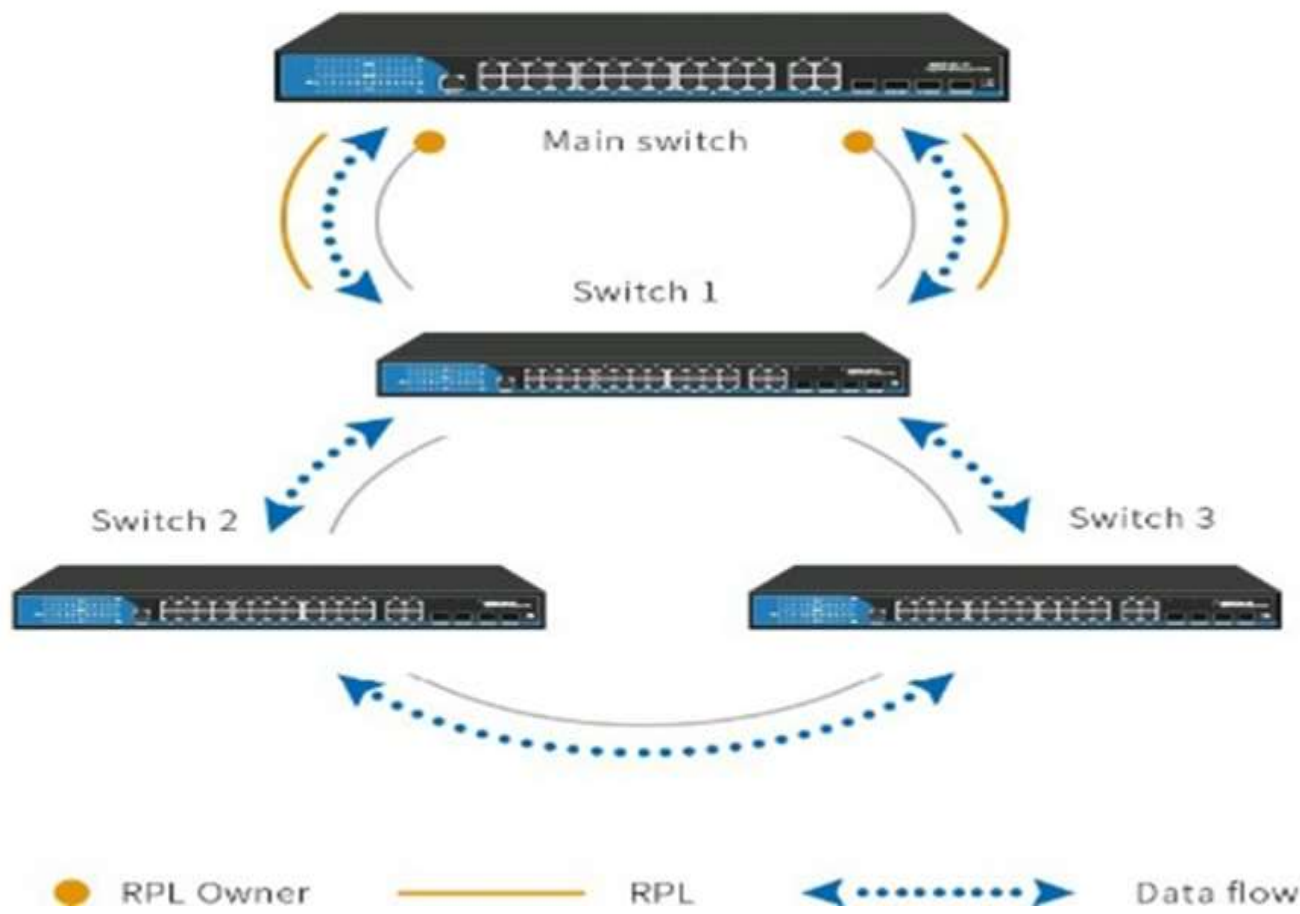| PoE management | Total PoE power budget control |
	Per port PoE function enable/disable
	PoE admin-mode control
	PoE port power feeding priority
	Per PoE port power limitation
	PD classification detection
	PD alive check
	PoE schedule
	Soft-reboot PoE Non-stop
Maintenance	Cable Diagnostics
	Ping
	SFP DDM (Digital Diagnostics Monitoring)
	Thermal protection
	System log (Local and Remote)
	Memory and CPU Monitoring

Layer 3 functions:

Static Routing	IPv4 Unicast: Static Routing(Software Base)
	IPv6 Unicast: Static Routing(Software Base)
IPV6	IPv6 neighbor discovery (ND)
	Path maximum transmission unit (MTU) discovery
	Internet Control Message Protocol (ICMP) version 6
	TCPv6/UDPv6
	Ping6
	Telnet(v6)
	Http/Https
	Interface IPV6
	ACL IPV6

1.VLAN application

2.Loop network application

Main switch

Switch 1

Switch 2   Switch 3

● RPL Owner ——————— RPL ◀•••••••••▶ Data flow

Digital Diagnostic Monitor (DDM)

8AM → ☀ → **5PM**

PoE Switch

Power on	Power on	Power on	Power on
6 Watts	6 Watts	12 Watts	12 Watts

Total consumption: 36 watts/hr

5PM → ☾ → **8AM**

PoE Switch

Power off	Power off	Power off	Power on
6 Watts	6 Watts	12 Watts	12 Watts

Save 24 watts/hr during off-business hours

* Total Saved = 10800 watts/month
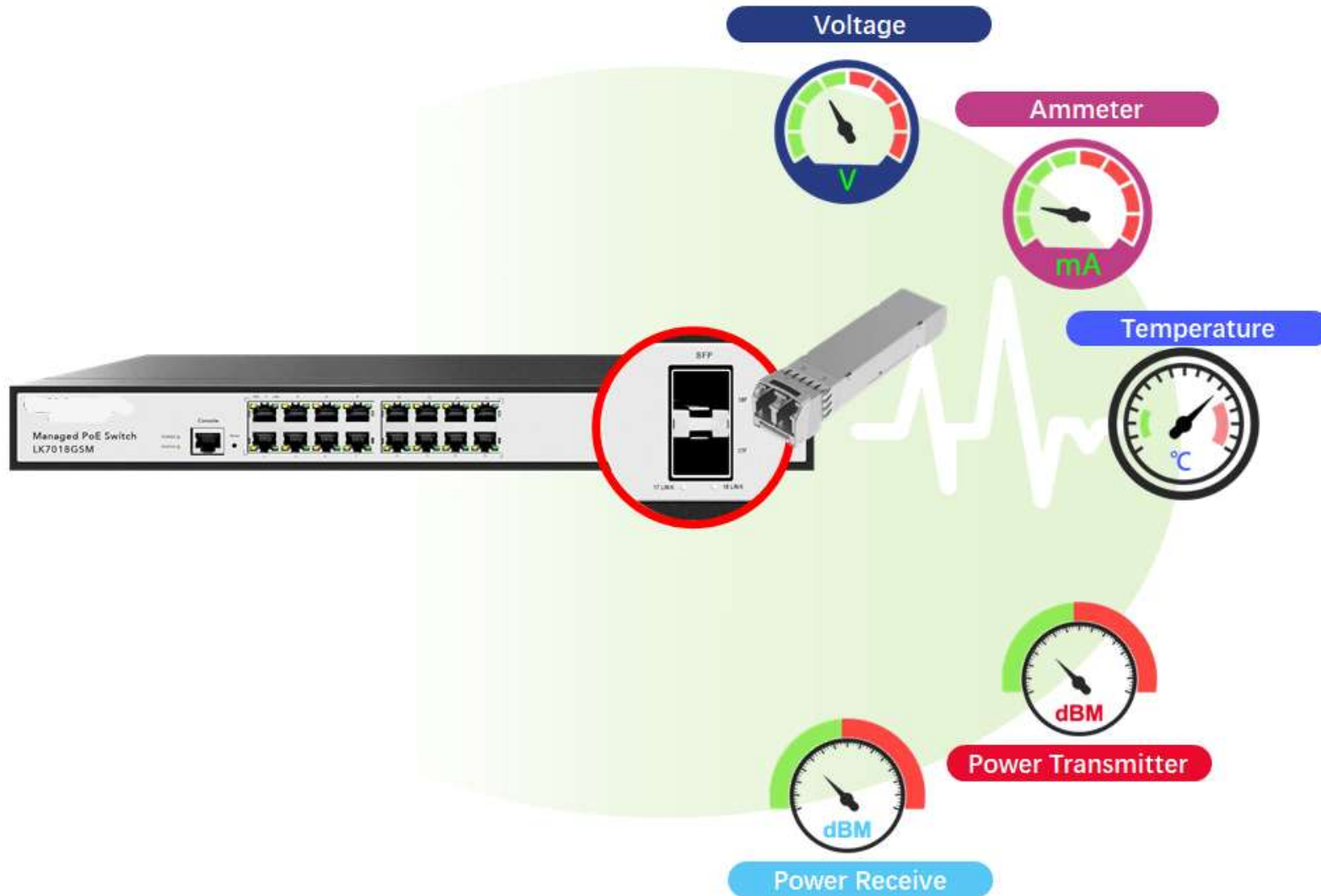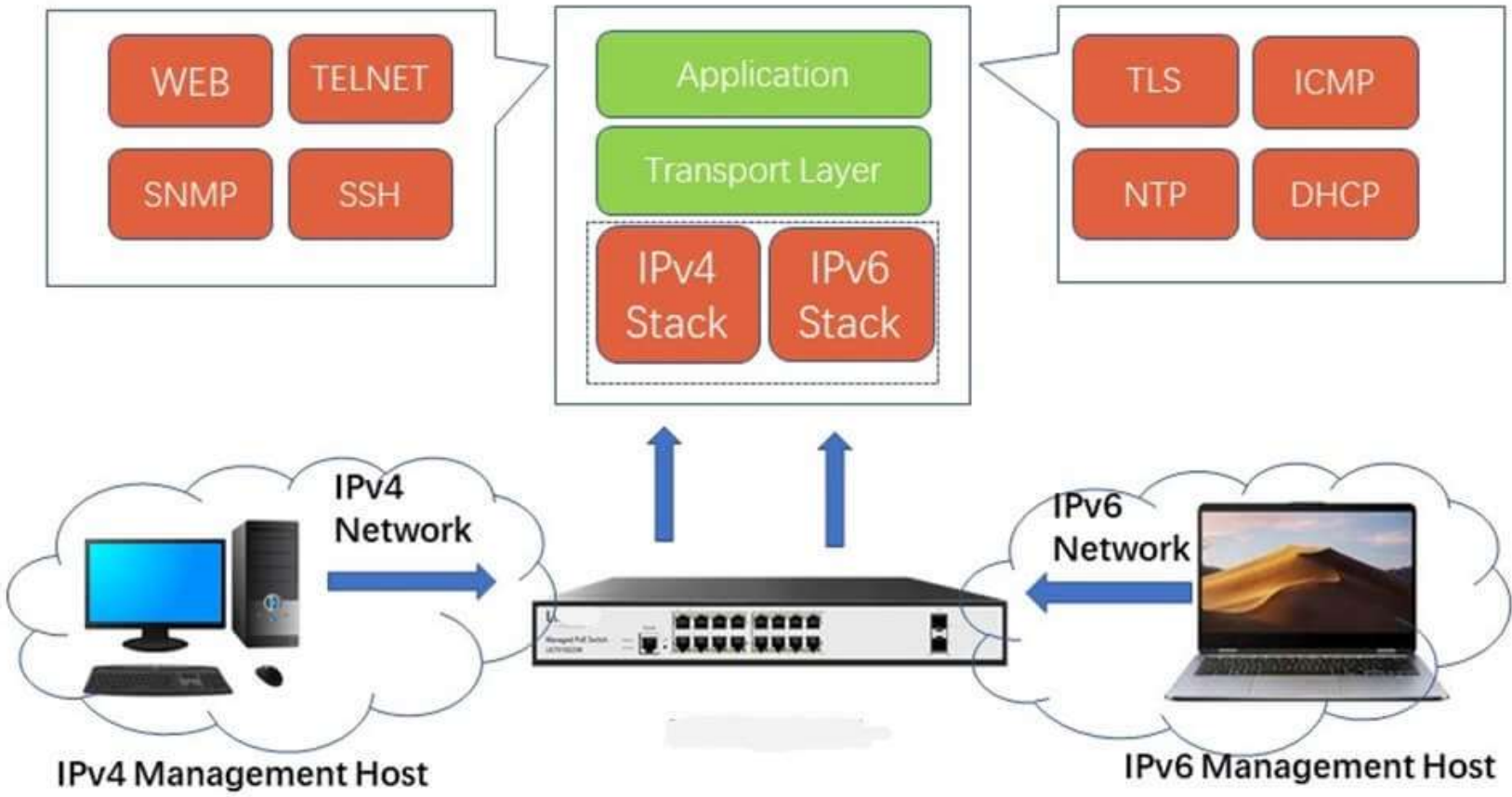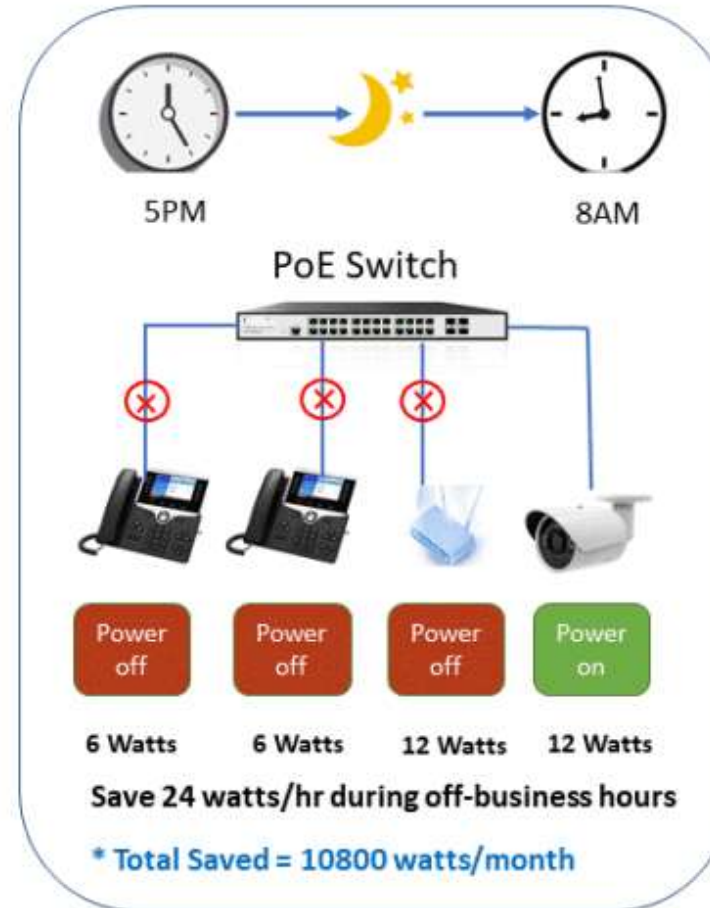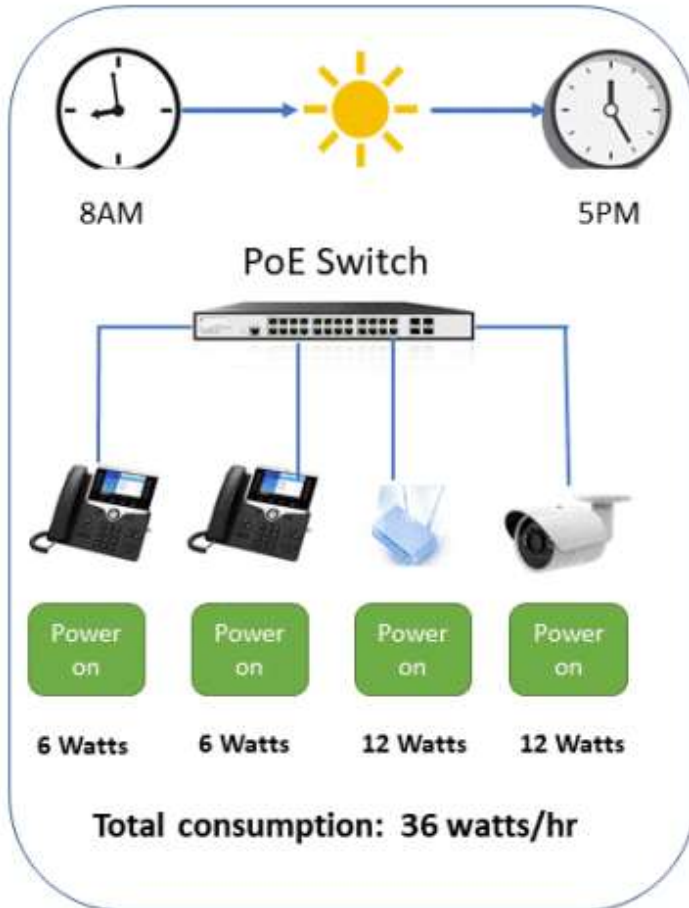
_____ 1000 BASE-T UTP With PoE

Solution Diagram: