With reference from honorable directions regarding detail specifications of the network switch which is fit in our network is as below.

This switch requires to provide dynamic Layer 3 routing, allowing you to segment your network into workgroups and communicate across VLANs without degrading application performance. **Offered** Network Switches Brand must be at least in Challenger's category in Gartner Magic Quadrant for 2021-24-port 10/100/1000BaseT, 4 x 10G SFP/SFP+ (All ports enabled, no license requirement). **provide true stacking capability**

S. No	Futures	Requirements	
	Switching capacity and forwarding rate All switches are wire speed and nonblocking	Capacity in Millions of Packets per Second (mpps) (64-byte packets)	Switching Capacity in Gigabits per Second (Gbps)
		41.66	56
Layer 2 Support			
	Spanning Tree Protocol	Standard 802.1d Spanning Tree support Fast convergence using 802.1w (Rapid Spanning Tree (RSTP)), enabled by default Multiple Spanning Tree instances using 802.1s (MSTP); 8 instances are supported Per-VLAN Spanning Tree Plus (PVST+) and Rapid PVST+ (RPVST+); 126 instances are supported	
	Port grouping/link aggregation	Support for IEEE 802.3ad Link Aggregation Control Protocol (LACP) Up to 8 groups Up to 8 ports per group with 16 candidate ports for each (dynamic) 802.3ad link aggregation	
	VLAN	Support for up to 4,094 VLANs simultaneously Port-based and 802.1Q tag-based VLANs; MAC-based VLAN; protocol-based VLAN; IP subnet-based VLAN	
	Voice VLAN	Voice traffic is automatically assigned to a voice-specific VLAN and treated with appropriate levels of QoS. Voice Services Discovery Protocol (VSDP) delivers network wide zero-touch deployment of voice endpoints and call	

		control devices
	Selective Q-in-Q	Selective Q-in-Q is an enhancement to the basic Q-in-Q feature and provides, per edge interface, multiple mappings of different C-VLANs to separate S-VLANs Selective Q-in-Q also allows configuring of Ethertype (Tag Protocol Identifier [TPID]) of the S-VLAN tag Layer 2 protocol tunneling over Q-in-Q is also supported
	Unidirectional Link Detection (UDLD)	UDLD monitors physical connection to detect unidirectional links caused by incorrect wiring or cable/port faults to prevent forwarding loops and black holing of traffic in switched networks
	nternet Group Management Protocol (IGMP) versions 1, 2, and 3 snooping	IGMP limits bandwidth-intensive multicast traffic to only the requesters; supports 2K multicast groups (source-specific multicasting is also supported)
	Head-of-Line (HOL) blocking	HOL blocking prevention
	Loopback Detection	Loopback detection provides protection against loops by transmitting loop protocol packets out of ports on which loop protection has been enabled. It operates independently of STP
Layer 3 Support		
	IPv4 routing	Wirespeed routing of IPv4 packets Up to 990 static routes and up to 128 IP interfaces
	Layer 3 Interface	Configuration of Layer 3 interface on physical port, Link Aggregation (LAG), VLAN interface, or loopback interface
	Classless Interdomain Routing (CIDR)	Support for classless interdomain routing
	RIP v2	Support for Routing Information Protocol version 2 for dynamic routing
	Policy-Based Routing (PBR)	Flexible routing control to direct packets to different next hop based on IPv4 or IPv6 Access Control List (ACL)
	Hardware stacking	Up to 4 units in a stack
	Plug-and-play stacking configuration/management	Active/standby for resilient stack control Autonumbering Hot swap of units in stack Ring and chain stacking options, auto stacking port speed, flexible stacking port options
	Secure Shell (SSH) Protocol	SSH is a secure replacement for Telnet traffic. Secure

		Copy Protocol (SCP) also uses SSH. SSH v1 and v2 are supported
	Web-based authentication	Web-based authentication provides network admission control through web browser to any host devices and operating systems
	STP Bridge Protocol Data Unit (BPDU) Guard	A security mechanism to protect the network from invalid configurations. A port enabled for BPDU Guard is shut down if a BPDU message is received on that port. This avoids accidental topology loops
	STP Root Guard	This prevents edge devices not in the network administrator's control from becoming Spanning Tree Protocol root nodes
	IP Source Guard (IPSG)	When IP Source Guard is enabled at a port, the switch filters out IP packets received from the port if the source IP addresses of the packets have not been statically configured or dynamically learned from DHCP snooping. This prevents IP address spoofing.
	Private VLAN	Private VLAN provides security and isolation between switch ports, which helps ensure that users cannot snoop on other users' traffic; supports multiple uplinks
	Storm control	Broadcast, multicast, and unknown unicast
	DoS prevention	Denial-of-Service (DOS) attack prevention
	Multiple user privilege levels in CLI	Level 1, 7, and 15 privilege levels
	ACLs	Support for up to 1,024 rules
	Priority levels	8 hardware queues
	Scheduling	Strict priority and Weighted Round-Robin (WRR)
	Web user interface	Built-in switch configuration utility for easy browser-based device configuration (HTTP/HTTPS). Supports simple and advanced mode, configuration, wizards, customizable dashboard, system maintenance, monitoring, online help, and universal search
	SNMP	SNMP versions 1, 2c, and 3 with support for traps, and SNMP version 3 User-based Security Model (USM)
	Port mirroring	Traffic on a port can be mirrored to another port for analysis with a network analyzer or RMON probe. Up to 8 source ports can be mirrored to one destination port.
	VLAN mirroring	Traffic from a VLAN can be mirrored to a port for analysis with a network analyzer or RMON probe. Up to 8 source

		VLANs can be mirrored to one destination port.
	Energy Detect	Automatically turns power off on RJ-45 port when detecting link down. Active mode is resumed without loss of any packets when the switch detects the link up
	Cable length detection	Adjusts the signal strength based on the cable length. Reduces the power consumption for shorter cables.
	MAC table	16K addresses
	Advanced Network Features	Static routing, QoS, Voice/Guest VLAN, GVRP, MSTP, Time-based Access Control Lists, IPv6
	Advanced Network Features	Static routing, QoS, Voice/Guest VLAN, GVRP, MSTP, Time-based Access Control Lists, IPv6

Detail specs submitted for your ready refence.

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