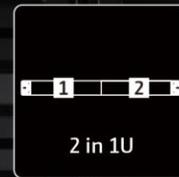
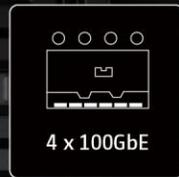
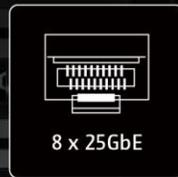


QNAP

QSW-M7308R-4X

Half-width Rackmount 100GbE Managed Switch,
cost-optimized for enterprise IT

100GbE
x
25GbE
Managed



This is a conceptual illustration. Please refer to the actual product for accuracy.

100GbE network speeds have become mainstream

According to the February 2023 report from Dell'Oro Group, 100GbE is poised to become the mainstream server network connection speed this year, surpassing the shipment volume of 25GbE within the next four years. By 2027, it is anticipated that higher port speeds will account for 44% of server market revenue. The report also predicts significant growth in the Smart NIC market, foreseeing a substantial increase in demand for the QSW-M7308-4X 100GbE network switch



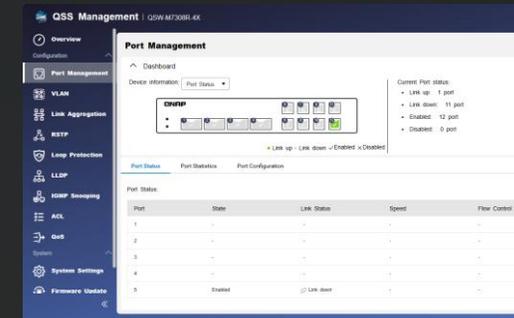
Designed for enterprise core networks

Suitable for the core high-speed network requirements of enterprises, providing stable and high-performance solutions.



High-speed network switching

4 x 100GbE ports and 8 x 25GbE ports for the fastest network speeds and support for rack and server connections.



Graphical web management interface

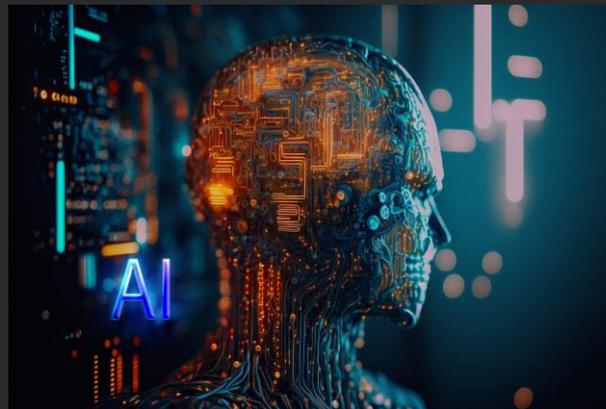
QSS (QNAP Switch System), a user-friendly graphical web interface, provides functions such as an overview dashboard, network port management, and configuration guides, making network management more intuitive and easy.

100GbE switch-accelerated GPU cluster

Based on Nvidia's September 2023 GPU Cluster optimal performance configuration, achieving a network bandwidth of 100GbE or above on each node is crucial for minimizing the impact of insufficient node bandwidth on overall performance. Therefore, deploying QSW-M7308R-4X is an economical and high-speed solution, effectively reducing the bottleneck in node network bandwidth. This setup is ideal for accelerating scientific computing tasks, such as simulating complex natural phenomena, designing new materials, or developing novel drugs. It is also well-suited for training large-scale machine learning/deep learning models, enabling rapid processing of massive amounts of data, including images, videos, or text.



Calculating complex scientific



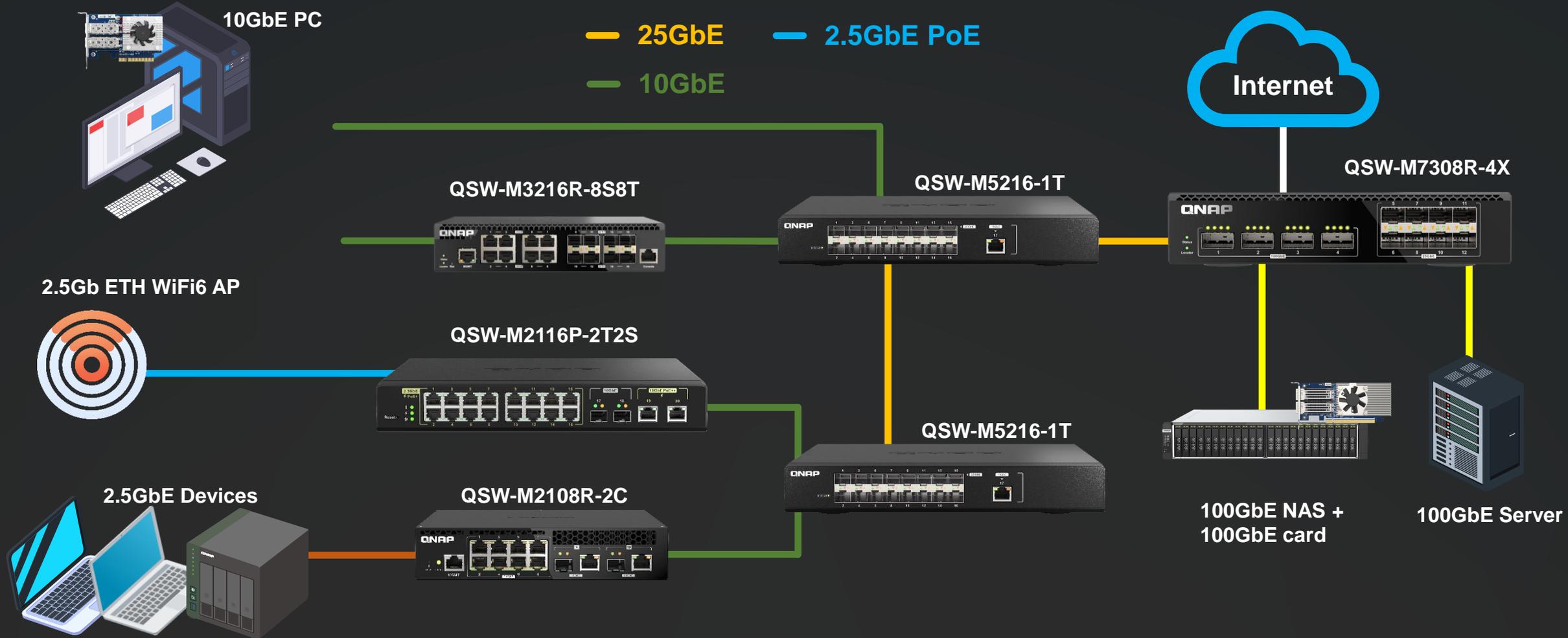
Training AI model



Processing big-data

Ultra-high bandwidth required for enterprise backbone networks (500~1,000 staff)

- 100GbE
- 25GbE
- 10GbE
- 2.5GbE
- 2.5GbE PoE



QSW-M7308R-4X Switch support FEC

QNAP's new QSW-M7308R-4X 100GbE network supports reliable and secure FEC (Forward Error Correction) function, which can provide greater error tolerance, improve network utilization, and improve the overall efficiency of enterprise networks



Improve transmission reliability

Enabled FEC of 100GbE switches can effectively reduce the error rate in data transmission and improve overall transmission reliability.



Reduce the number of retransmissions

With the FEC function, even if some errors occur, they can be corrected without retransmitting, saving valuable time and resources.

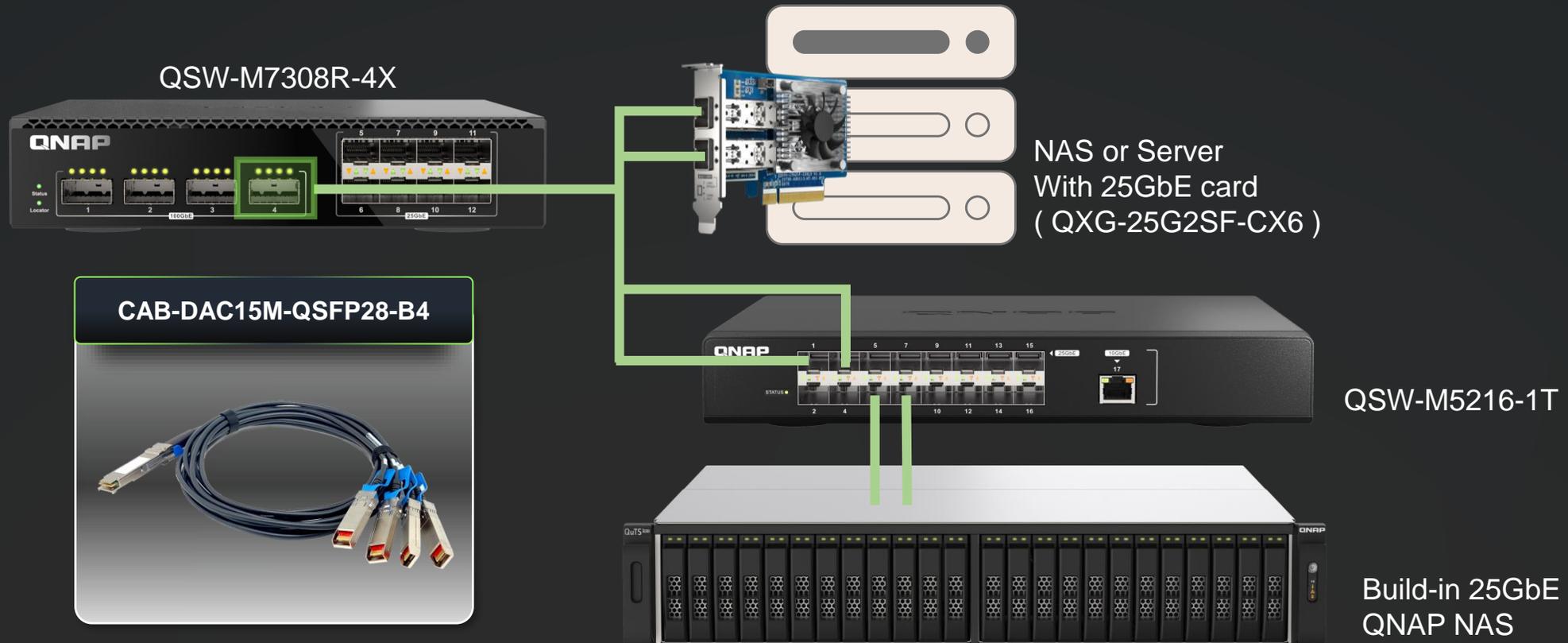


Improve network performance

FEC function can effectively reduce the transmission packet loss rate, improve the network's overall performance, and ensure fast and stable data transmission.

Configure 100GbE divided into four 25GbE

The QSW-M7308R-4X 100GbE high-speed network switch can be used with a high-speed network switch, in addition to directly connecting to the 100GbE port, it can also be connected to the 25GbE port on the switch through a four-part breakout cable, or connected to a 25GbE expansion card to connect more devices, and the network failover backup mechanism can be set by the switch side to ensure high reliability of uninterrupted network services. Expected 2024 H2 support



QSW-M7308R-4X Half-Width / Single unit / Desktop flexible configuration

The QSW-M7308R-4X adopts a half-rack width design, allowing enterprises to accommodate two half-width switches in a 1U space according to their needs. It can be flexibly purchased and expanded as enterprises grow. It can also be attached to the foot mat with the packaging connotation and placed on the tabletop, which is space-saving



Half-width rackmount flexible configuration

With the exclusive rack kit SP-EAR-QSW2FOR1-01, you can install two half-width rack-type switches



Rackmount single unit

The QSW-M7308R-4X can be installed in a 1U cabinet with the bracket included in the package

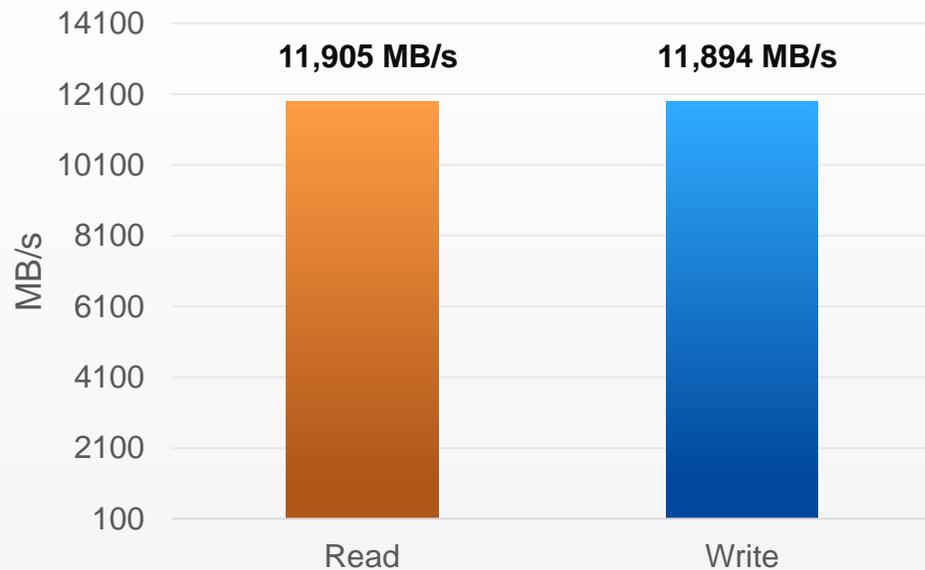


Desktop configuration

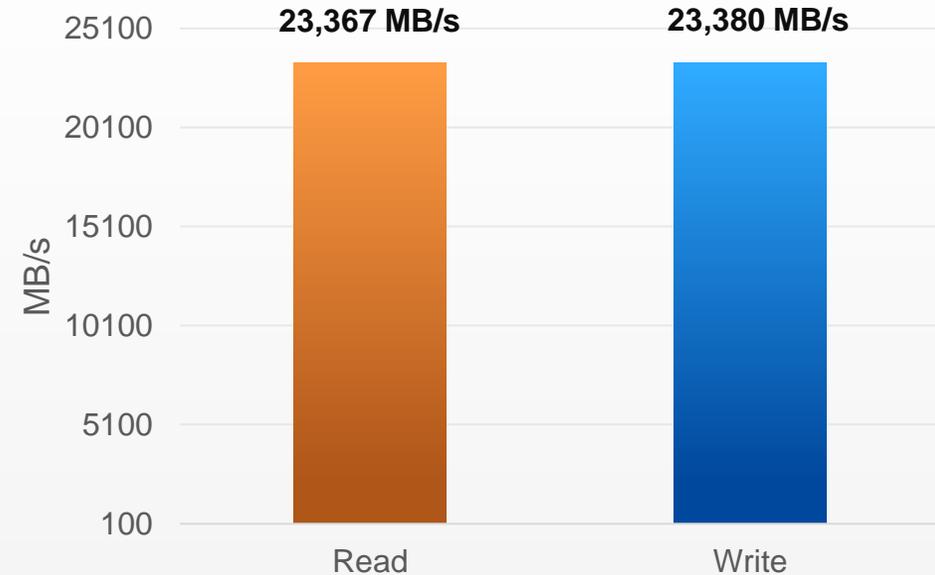
Attach the foot pad of the QSW-M7308R-4X package to easily place it in the office or any where.

QSW-M7308R-4X supports LACP, creating a total bandwidth of nearly 200 Gbps for you.

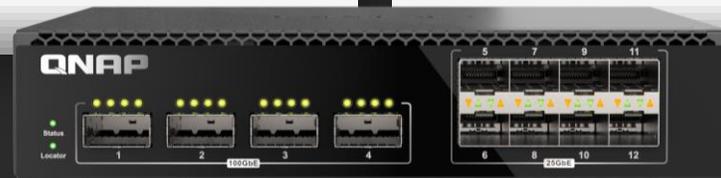
1 x 100GbE iPerf Network speed test



2 x 100GbE RDMA Performance testing

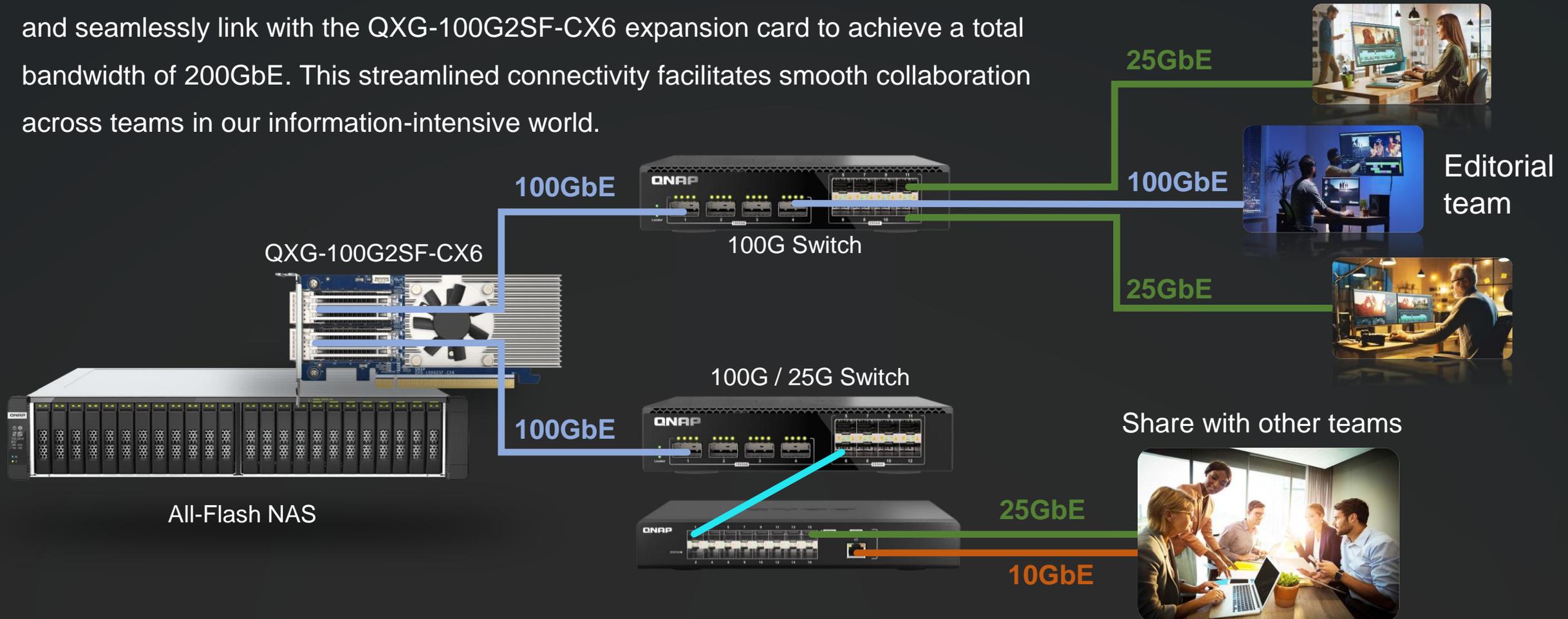


Test environment:
NAS | TS-h2490FU-7232P-64GB with QXG-100G2SF-E810
NIC: QXG-100G2SF-E810, MTU 9000
SWITCH | QSW-M7308-4X
客户端 PC | OS: Ubuntu 20.04 , CPU: Xeon Scalable , RAM: 64GB



With the QXG-100G2SF-CX6 enjoy 200GbE total bandwidth for 4K video editing across teams

Connect the QSW-M7308R-4X's two 100GbE LAN ports to the QNAP All-Flash NAS and seamlessly link with the QXG-100G2SF-CX6 expansion card to achieve a total bandwidth of 200GbE. This streamlined connectivity facilitates smooth collaboration across teams in our information-intensive world.



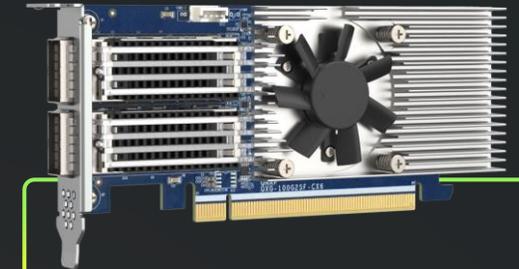
QSW-M7308R-4X 100GbE Advice with QNAP All-Flash Solution



TS-h2490FU



TS-h1290FX



QXG-100G2SF-CX6



TS-h1090FU

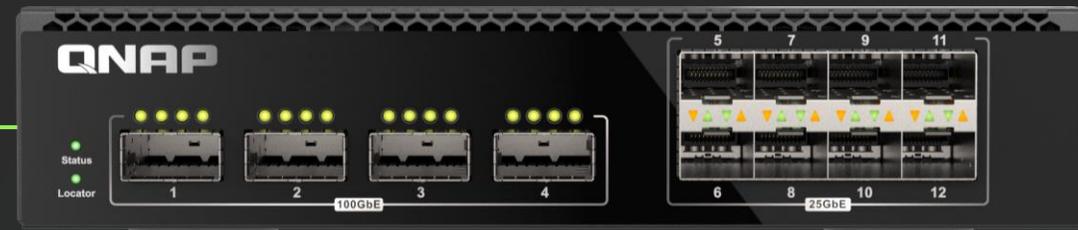


NEW

TS-h3077AFU



TDS-h2489FU



NEW

QSW-M7308R-4X

25GbE / 100GbE optional accessories



QXG-25G2SF-CX6



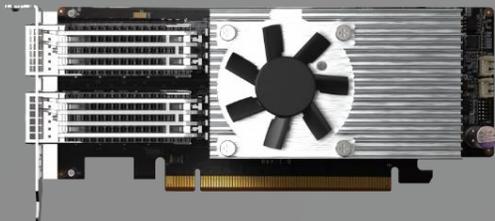
25GbE SFP28 DAC

CAB-DAC30M-SFP28
CAB-DAC15M-SFP28



100GbE SR Transceiver

Check the compatibility list



QXG-100G2SF-E810



100GbE QSFP28 DAC

CAB-DAC15M-Q28



QXG-100G2SF-CX6



25GbE SR Transceiver

TRX-25GSFP28-SR

Compatible with DAC and Transceiver

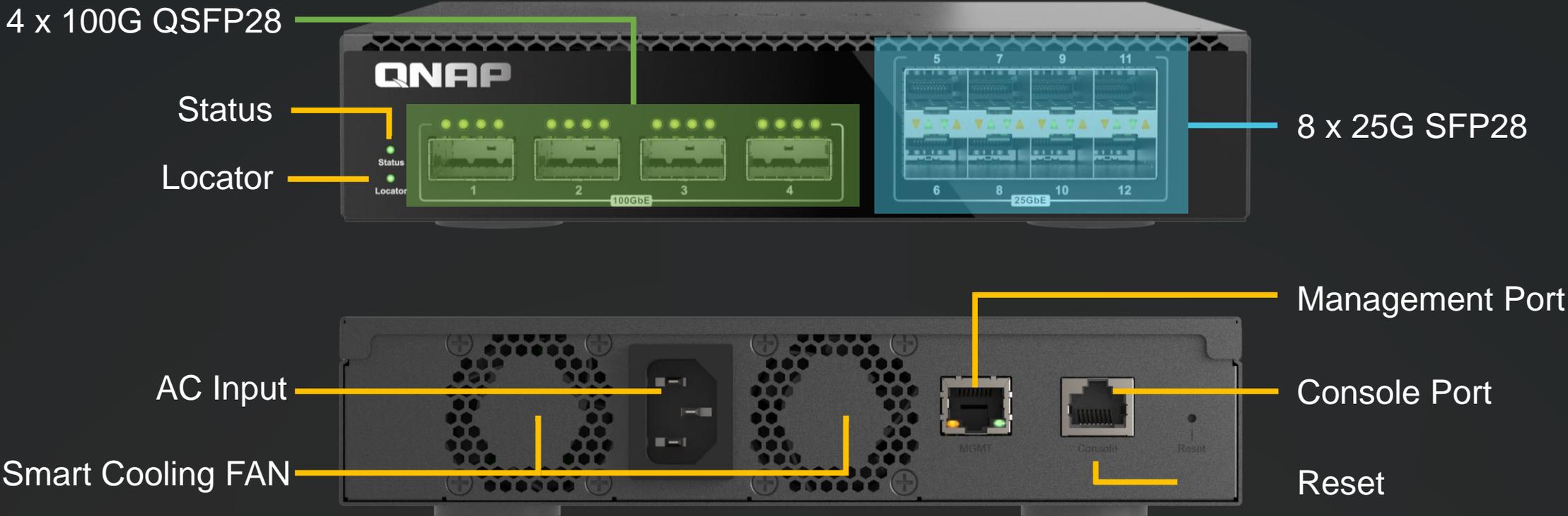
Transceivers :

- 1. Finisar FTLC9558REPM QSFP28 100G光纖模組
- 2. Finisar FTLC1156RDPL-1Y QSFP28, 10km,100G-LR4
- 3.10Gtek AMQ28-SR4-M1
- 4.Opstran QSFP28 LR4 for Dell 407-BCDH
- 5.Invaxon QSFP28 LR4 for Cisco QSFP-100G-LR-S
- 6.Fiber QSFP28 SR4 for Dell Q28-100G-SR4

DAC Cable :

- 1. 100G QSFP28 DAC Cable - 100GBASE-CR4 QSFP28 to QSFP28 Passive Direct Attach Copper Twinax Cable for Cisco QSFP-100G-CU3M
- 2. Mellanox Passive Copper Cable, ETH 100GbE, 100Gb/s, QSFP28, 1m, Black, 30AWG, CA-N
- 3. Mellanox MCP2M00-A005 Compatible 5M 25GBase SFP28 to SFP28 Passive Direct Attach Copper Twinax Cable, 25 Gb Ethernet
- 4. Cisco SFP-H25G-CU5M Compatible 25G SFP28 Copper Cable (5-meter, AWG24, passive)
- 5. 25G SFP28 SFP+ DAC Cable - 25GBASE-CR SFP28 to SFP28 Passive Direct Attach Copper Twinax Cable for Dell Force10, 5-Meter(16.5ft)
- 6. CYSKY 25G SFP28+ DAC Cable, 3-Meter (9.84ft) Passive Direct Attach Copper Twinax Cable for Cisco, Ubiquiti, D-Link, Netgear, Mikrotik, Open Switch Devices

QSW-M7308R-4X Exterior I/O



Dimension (HxWxD)
43.3 x 207 x 248.8 mm
1.7 x 8.15 x 9.8 inch

Management Port: Through OOB for secure access (must enable in QSS)
Console Port: Managed by CLI commands

QSW-M7308R-4X Specification

100GbE LAN port	4 x QSFP28
25GbE LAN port	8 x SFP28
1GbE network management port	1
Console port	1
Indicators	Status, Positioning
Switching Capability	1200 Gbps
MAC address table	32k
Support standards	IEEE 802.3 Ethernet IEEE 802.3u 100BASE-T IEEE 802.3ab 1000BASE-T IEEE 802.3z 1000BASE-SX/LX IEEE 802.3ae 10G Fiber IEEE 802.3by 25 Gigabit Ethernet IEEE 802.3bj 100 Gigabit Ethernet IEEE 802.3bm 100G Fiber IEEE 802.3x Full-Duplex Flow Control IEEE 802.1Q VLAN Tagging IEEE 802.1w RSTP IEEE 802.3ad LACP IEEE 802.1AB LLDP IEEE 802.1p Class of Service Forward Error Correction(FEC)



Simple and straightforward interface design

- Concise and visual
- Guide users through configuration

The image displays three overlapping screenshots of the QSS Management web interface for a QSW-M7308R-4X switch. The interface is clean and modern, with a dark blue sidebar on the left containing navigation icons for Overview, Port Management, VLAN, Link Aggregation, RSTP, Loop Protection, LLDP, IGMP Snooping, ACL, QoS, System Settings, and Firmware Update.

Overview Screenshot (Top Left): Shows system information for the QSW-M7308R-4X, including IP address (172.17.30.42), MAC address (24:5E:8E:84:39:08), and switch firmware (1.4.1.97783). It also features traffic graphs for 100GbE and 25GbE ports.

Port Management Screenshot (Middle): Displays a dashboard with a port status indicator (ONRP) and a table of port details. The table lists 10 ports with their states and link statuses.

Port	State	Link Status	Speed
1	-	-	-
2	-	-	-
3	-	-	-
4	-	-	-
5	Enabled	Link down	-
6	Enabled	Link down	-
7	Enabled	Link down	-
8	Enabled	Link down	-
9	Enabled	Link down	-
10	Enabled	Link down	-

VLAN Configuration Screenshot (Bottom Right): Shows the VLAN configuration page with a step-by-step wizard. The wizard includes instructions for adding a new VLAN, selecting ports, and applying the configuration. A table below the wizard shows the current VLAN configuration.

VLAN ID	PORT
1	1 2 3 4 5 6 7 8 9 10 12 LAG 1 LAG 2 LAG 3 LAG 4 LAG 5 LAG 6 L Action

Clearly divide the individual networks within the studio



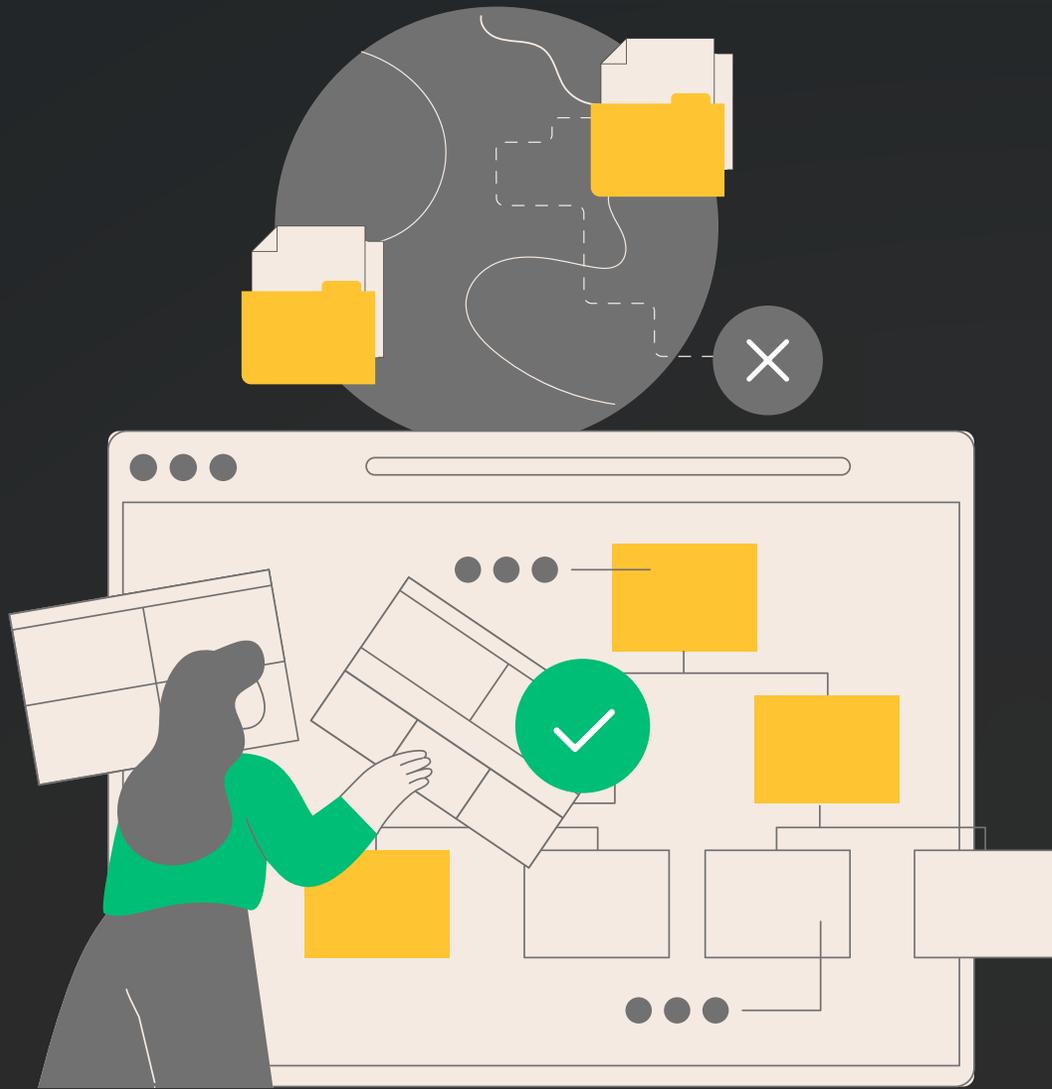
- Virtual Area Networks (VLANs) can be used to explicitly separate different departmental networks
- It is easy to manage, and different networks can be connected conditionally
- It is also possible to separate the network of employees and guests

Accurately distribute audio and video streams to devices

- **IGMP snooping** All stream assignments can be accurately recorded
- **Avoid transmission errors or packet loss** that cause audio or video interruptions or degradation of quality.



Optimize network transmission paths at any time



- RSTP, Rapid Spanning Tree Protocol) Monitor and optimize network transmission paths at any time
- No matter how complex the network architecture is, files will always be transferred with the fastest path

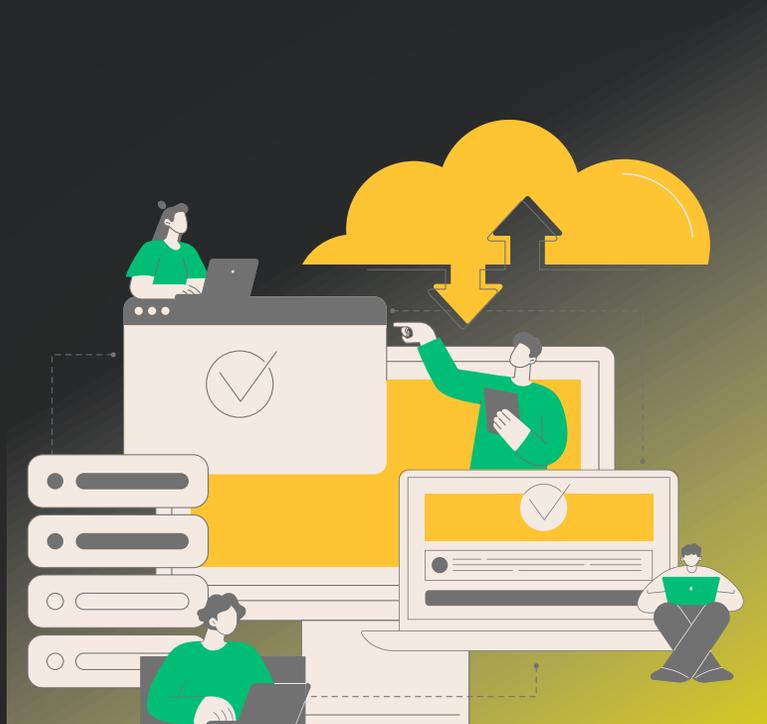
Switch Firmware Version Checking and Automatic Updates

- One-click automatic updates
- Automatically detects whether there is a new firmware
- Manual update



The QSW-M7308R-4X supports IEEE 802.3x, LLDP, QoS etc

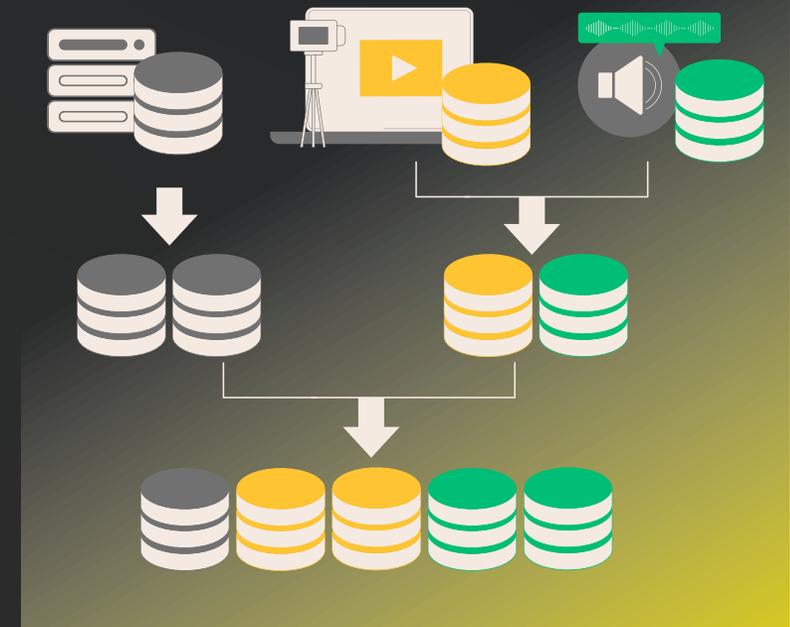
Through flow control (IEEE 802.3x) Monitor network congestion to avoid packet drops



Link Layer Discovery Protocol (LLDP), Let managers see at a glance which devices are connected to the switch



Quality of service (QoS) Different network devices and packets can be classified and prioritized to improve the distribution of network traffic.



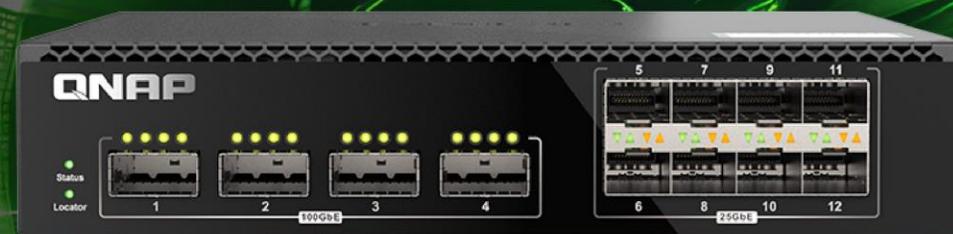
QNAP

Extended warranty, Up to 5 years of coverage

The QSW-M7308R-4X includes a complimentary 2-year product warranty. For extended coverage, consider the QNAP Extended Warranty Plan, offering up to 5 years of product warranty and additional value.



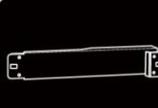
Extended warranty purchase P/N
LW-SWITCH-YELLOW-3Y (Physical)
LW-SWITCH-YELLOW-3Y-EI (Electronic)



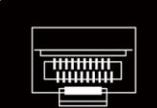
QNAP

QSW-M7308R-4X

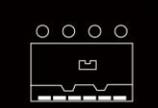
100GbE
x
25GbE
Managed



Rack Brackets
Inside



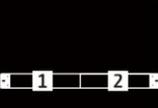
8 x 25GbE



4 x 100GbE



FEC
Forward error
correction



2 in 1U



Designed for SMB
and Enterprises

