CCTV Camera Interview Q&A;

Q: What are the main types of CCTV cameras?

A: Dome, Bullet, PTZ (Pan-Tilt-Zoom), IP, Wireless, and C-Mount cameras.

Q: Difference between Analog CCTV and IP CCTV?

A: Analog: Uses coaxial cable, DVR, lower resolution. IP: Uses network cable, NVR, higher resolution, supports remote access.

Q: What is DVR and NVR?

A: DVR (Digital Video Recorder) works with analog cameras. NVR (Network Video Recorder) works with IP cameras.

Q: What are PoE Cameras?

A: Power over Ethernet cameras use one cable for both power and data.

Q: How do you troubleshoot if a CCTV camera is not showing video?

A: Check power, verify connections, test with another port, check DVR/NVR input, reset/reconfigure IP (for IP cameras).

Q: How to check if CCTV camera is working remotely?

A: Check internet access, port forwarding, firewall, mobile app/CMS, use static IP/DDNS.

Q: Difference between 2MP, 4MP, 8MP cameras?

A: 2MP ≈ 1080p, 4MP ≈ 2K, 8MP ≈ 4K Ultra HD.

Q: What is ONVIF?

A: Open standard allowing interoperability between IP cameras and NVRs of different vendors.

Q: What is retention period in CCTV?

A: The number of days video is stored, depends on HDD size, resolution, compression, and number of cameras.

Q: What security measures are used in CCTV systems?

A: Strong passwords, encryption, user role management, firmware updates.

Q: What cables are used in CCTV installation?

A: Analog: Coaxial + power cable. IP: Cat5e/Cat6 network cables with PoE.

Q: How to calculate storage requirement for CCTV?

A: Based on resolution, frame rate, compression, number of cameras, and retention days.

Q: What is motion detection in CCTV?

A: Feature that records or alerts only when movement is detected, saving storage.

Q: What compression technologies are used in CCTV?

A: H.264, H.265, MJPEG. H.265 offers better compression and storage savings.

Q: What is the difference between DVR and Hybrid DVR?

A: Hybrid DVR supports both analog and IP cameras.

Q: How do you secure remote CCTV access?

A: Use VPN, change default ports, enable HTTPS, strong passwords, disable unused accounts.

Q: What are PTZ cameras and their use?

A: Pan-Tilt-Zoom cameras can rotate, tilt, and zoom for wide area coverage.

Q: What is frame rate in CCTV?

A: Measured in FPS (frames per second). Higher FPS gives smoother video but uses more storage.

Q: How to troubleshoot DVR/NVR not recording?

A: Check HDD health, recording schedule, storage space, camera connectivity, firmware issues.

Q: What is the importance of IR (Infrared) in CCTV cameras?

A: Allows night vision recording in low light or complete darkness.

Q: What is the difference between static IP and DDNS in CCTV remote access?

A: Static IP is fixed and reliable but costly. DDNS maps dynamic IP to a domain name for remote access.

Q: How do you add an IP camera to NVR?

A: Connect to network, assign IP, add via NVR interface (ONVIF or manual config).

Q: What are the common power supply issues in CCTV?

A: Loose connections, insufficient amperage, voltage drop over long cables, faulty adapters.

Q: How to troubleshoot blurry CCTV footage?

A: Clean lens, adjust focus, check resolution settings, verify IR reflection issues.

Q: What is RAID in CCTV storage?

A: RAID (Redundant Array of Independent Disks) is used in NVRs for data redundancy and performance.

Q: What are common CCTV maintenance tasks?

A: Check camera alignment, clean lenses, verify recording, update firmware, test power backups.

Q: Explain centralized vs decentralized CCTV system.

A: Centralized: All cams connect to NVR/DVR. Decentralized: Cameras store directly to SD cards or NAS.

Q: How to extend CCTV camera distance?

A: Use video baluns (for coax), PoE extenders, fiber optics for long runs.

Q: What is VMS (Video Management System)?

A: Software platform to manage, record, analyze, and monitor multiple CCTV systems.

Q: What are common causes of CCTV downtime?

A: Power outage, network issues, HDD failure, firmware bugs, configuration errors.