ICT Applications in Library Services

Unit 4 CCTV – Switchers, Multiplexers, Monitor, Recorders

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CCTV cameras work



Components of CCTV systems

- Cameras
- Lenses
- Housing and mounts
- Switches and multiplexers
- Monitor
- Video recorders



Video Monitors

- The function of monitors is to display video images for viewing.
- The selection of monitors is an important to the quality of the image as the selection of cameras, lenses and other components.
- The video monitors: Liquid crystal displays (LCDs) and LED display, various sizes and other

features.

Switchers and Multiplexers

- In CCTV systems that have more cameras and recording devices, switched and multiplexers are used to route the video signal.
- Switchers are simpler in concept than multiplexers. They can be set manually or automatically to send analog or digital video to a monitor or a recorder.



Digital Video Recorders

Recording capability is essential for assessment

investigation and evidence.

DVRs and NVRs on IP networks



Transmission

- The transmission system is an important component of the CCTV imaging chain that sends and receives video signals between the cameras, the processing system (i.e.DVRs, NVRs and multiplexers) and thee monitoring (i.e. the display)
- Wired transmission
- Coaxial Cable
- Fiber optics
- Telephone network optics
- Wireless transmission

IP network Transmission

Internet Protocol Network System

- IP based CCTV systems are designed to provide the ability to monitor, record and stream video over a network to computers or other equipment.
- The system can use existing local area networks, wide area network (WANs), and/or wireless LANs (WLANs) to save on installation costs.
- However for added security an organization could install its own private area network (PAN) cabling and support hardware.



