Planning Guide – CCTV portfolio overview

Transmission methods

Coaxial cable
- Low costs
- Simple to cable, simple handling
- Point-to-point connection
- No maintenance required
- No active amplifier required

Twisted pair (two-wire) transmission
- Range up to 1500 m
- Uses existing cable infrastructure
- Small space required due to narrow diameter of cable
- Cost-effective for short distances

Fibre optic transmission
- Range up to 69 km
- Secure against interference and tapping
- Low pallet and fire load (weight)
- No maintenance required
- Multiple transmission of signals possible

PSTN/ISDN dial-up line
- Unlimited range in existing ISDN telecommunication networks
- Cross-border connection possible
- For in-house systems, no costs if the systems present are used

LAN/WAN/Web
- Uses existing network structures and hardware
- No range limit within the network
- Internet integration possible

Advantages

Disadvantages

Coaxial cable
- Large space required due to wide diameter of cable
- Signal interference from electro-magnetic sources
- Limited range: up to 200 m depending on cable specification
- Lightning protection expensive
- Separate cable required for control

Twisted pair (two-wire) transmission
- Active elements (transmitter and receiver required)
- Maintenance required (temperature-dependent)

Fibre optic transmission
- Higher costs (material and handling)
- Active elements (transmitter and receiver required)
- Significant effort and expense involved with changes in camera location
- Special installation training required

PSTN/ISDN dial-up line
- Costs depend on the availability of telecommunication networks
- Active elements (transmitter and receiver required)
- Slower image transmission speed

LAN/WAN/Web
- Hardware costs
- Bandwidth restriction for image transmission speed
- Bandwidth restriction for image transmission quality
SISTORE CX EDS
Outdoor motion detection and tracking
or
SISTORE CX ODR
Detection of abandoned or removed objects
Up to 8 surveillance channels

SIMATRIX 164
16 video inputs
4 video outputs
IVM interface
16 alarm inputs
RS232

SIMATRIX 648
Expandable up to 64 video inputs
8 video outputs
IVM interface
Max. 64 alarm inputs
RS232

SIMATRIX SYS
Expandable up to 255 video inputs
64 video outputs
IVM interface
Max. 256 alarm inputs
RS232

SIMATRIX NEO
Expandable up to 224 video inputs
32 video outputs
Modular and scalable system
Simultaneous multi-protocol-telemetry
Ethernet connection
IVM interface
Max. 256 alarm inputs
RS232

SISTORE AX
4/9/16 video inputs, up to 200 ips
Up to 4 audio channels
PTZ control
Export via DVD writer
IVM connection

SISTORE MX
Hybrid video recorder
4~32 video inputs
Up to 32 IP camera inputs
Up to 200 ips
2/4 monitor outputs
1 audio channel
PTZ control
Export via DVD writer
IVM connection

SISTORE CX
Real-time video codec
4/8 video inputs, 200 ips (8 x 25 ips)
1/2 IP camera inputs
2/4 monitor outputs
PTZ control
IVM connection

TFT LCD display monitor
DVR remote access software
Interactive Video Management software
Remote keyboard CKA4820
**Hybrid IP cameras**
- Controls DVR systems (SISTORE)
- Complete PTZ control
- Multi-client access

**SISTORE CX**
- Transceiver (encoder & decoder)
  - Streaming:
    - 200 ips encoding (CIF, 2CIF)
    - 100 ips encoding (4CIF)
    - 100 ips encoding & 50 ips decoding (2CIF)
    - 50 ips encoding & 50 ips decoding (4CIF)
    - 100 ips decoding (2CIF, 4CIF)
- Compression:
  - 4CIF = ~ DVD quality
  - 2CIF = ~ SVHS quality
  - CIF = ~ VHS quality

**SISTORE CX1**
- Real-time video codec
- 1 video input, 25 ips
- 1 monitor output
- PTZ control
- IVM connection
- EDS compatible

**SISTORE MX NVS**
- IP camera recording software
- 4/9/16/32 IP camera inputs
- Mega pixel recording
- PTZ control
- IVM connection
- EDS compatible

**SISTORE MX NVR**
- Recording up to 16 IP camera inputs
- Up to 100 ips
- Mega pixel recording
- Up to 16 alarm inputs and outputs (optional)

**SISTORE MX**
- Hybrid video recorder
  - 4-32 video inputs
  - Up to 32 IP camera inputs
  - Up to 200 ips
  - 2/4 monitor outputs
  - 1 audio channel
  - PTZ control
  - Export via DVD writer
  - IVM connection

**Interactive Video Management system**
IVM is a scalable, open, interactive system for the control and operation of security applications:
- Controls analogue (SIMATRIX) matrix switchers
- Display of configured site plans with cameras, monitors, alarm lists, log books etc.
Siemens: one brand, one partner – one system – for all your security & fire safety requirements

**Access Control**

**CCTV**

**Fire Safety**

**Intruder Detection**

**Every day small sized applications in “standalone” operation – small convenience store or petrol station shop**

**CCTV products for this example:**
- Monofocal fixed domes, to surveil the shop
- High-resolution DIP switch colour camera monitoring customers paying and forecourt
- 15” high-resolution public display monitor
- SISTORE AX4 Lite, 4 camera digital recorder, operating in a standalone mode

**Medium sized applications with local area networking (LAN) – large supermarket with warehouse**

**CCTV products for this example:**
- Speed domes, to surveil all the aisles
- High-resolution IP cameras monitoring “sale items” on end of aisles for Marketing purposes
- CKA keyboard to control speed domes, SIMATRIX & SISTORE AX
- 15” TFT display monitor
- SISTORE AX16, 16 camera digital recorder, with LAN connection to head office
- SISTORE CX, digital video codec for IP transmission & recording of warehouse cameras

**High-risk applications with wide area networking (WAN) – commercial bank**

**CCTV products for this example:**
- Vandal resistant domes monitoring public floor areas for the highest protection
- High-resolution colour cameras monitoring customers being served
- High-resolution wide dynamic cameras monitoring customers entering through glass doors to the bank
- 19” TFT display monitor
- SISTORE MX hybrid recorder, with WAN connection to security office
Welcome to the world of innovative thinking

- Innovation
For the last 160 years, Siemens has been investing a great deal in both manpower and research and development. This has ensured a constant stream of new insights, technologies and inventions that enable us to continuously improve the reliability of our products and systems to make them easier to install and operate.

Advances in digital technologies are creating a whole new world of possibilities. Siemens has been at the leading edge of progress in this field and continues to redefine both current and future technologies.

- Interoperability
Interoperable systems are now supplied alongside such basic requirements as lighting, heating and water in a building. As a company, we know that integration supports the business environment through the interaction of products and systems. We break down the barriers between our access control, intrusion detection and video surveillance product lines in our security portfolio and listen to what the market actually wants. We then develop to deliver both fully integrated and interoperable security systems, based on our 30 years of know-how in security.

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The information in this document contains general descriptions of technical options available, which do not always have to be present in individual cases. The required features should therefore be specified in each individual case at the time of closing the contract.

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