

Use and applicaion in projects of Ethernet/PoE over 2-wire extender

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Case study of Military camp

➔ Problem:

1. Install 30 IP cameras to cover the distance of 1500 m around the wall.
2. Video streams needed to have a high secure protection.
3. Keep video recording when there is a power failure.

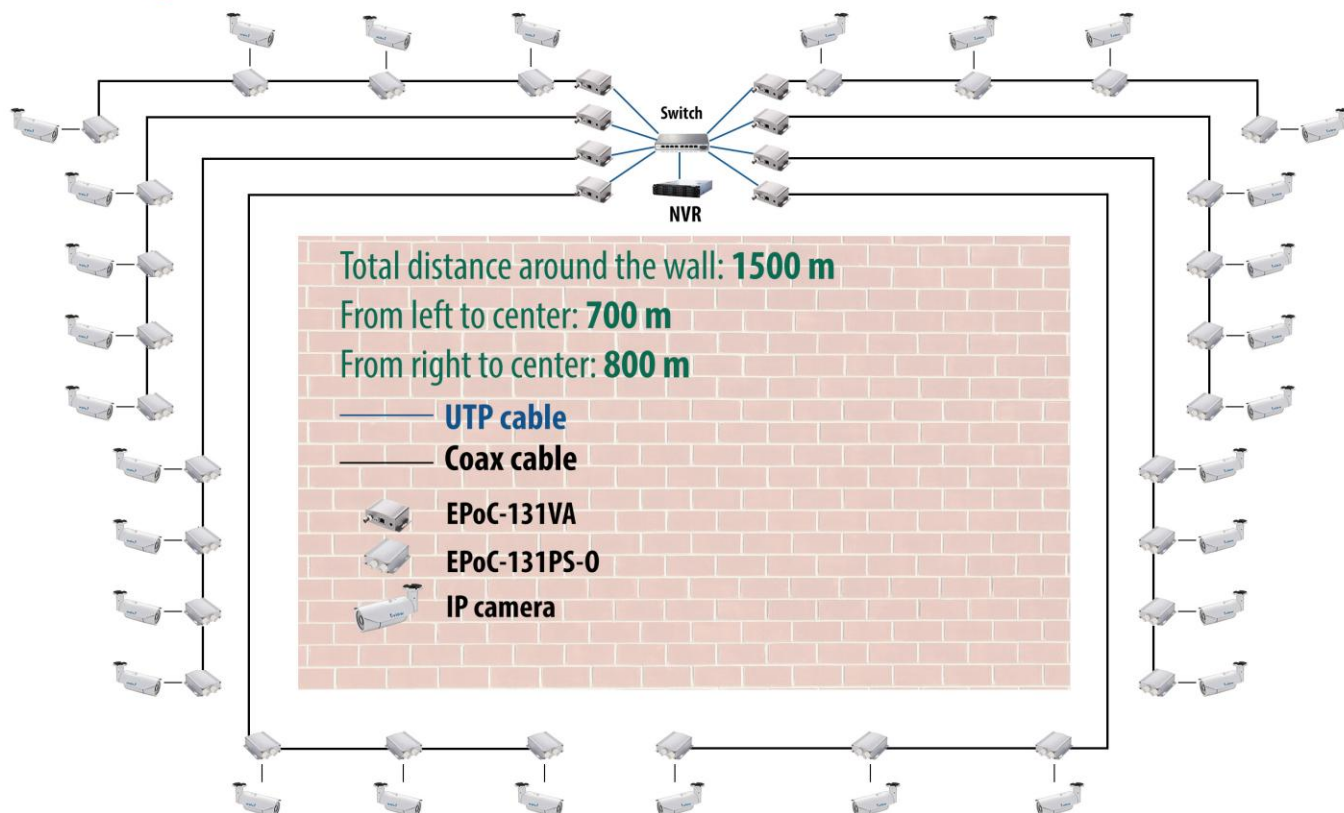
➔ Solution:

1. Use EPoC Ethernet/PoE over 2-wire Extender with Daisy Chain system configuration via RG-6 Coaxial cable.
2. Each coaxial cable transmits 4 IP Video & PoE signals.
3. Use 2 opposite directions to cover area around wall: the distance from left to center is 800 meters and from right to center is 700 meters, so total distance is 1500 meters.
4. The EPoC Ethernet/PoE over 2-wire Extender supports 128-bit AES encrypted communication for transient protection. This function meets army's requirement for 100%.
5. Provide power source from control room support "Central power management"; integrate the UPS for all the devices to prevent the video loss when power fails.

➔ Installed products:

1. EPOC-131VA Ethernet/PoE Extender (Switch site) x 8 pcs
2. EPOC-131PS-0 Outdoor Type Ethernet/PoE Extender (Camera site) x 30 pcs
3. IR-2MIP508-0311 2-Mega IR Bullet IP cameras x 30 pcs
4. AnyNet-3208 32Ch Embedded NVR x 1 Set
5. DC56V/1.28A power adapter x 8 pcs

Diagram



Case study of Steel factory

➔ Problem:

- There is big interference around the factory.
- The maximum transmission distance between IP cameras to switch Hub is 500 meters.
- There is no space to put the Switch Hub in the operation area.

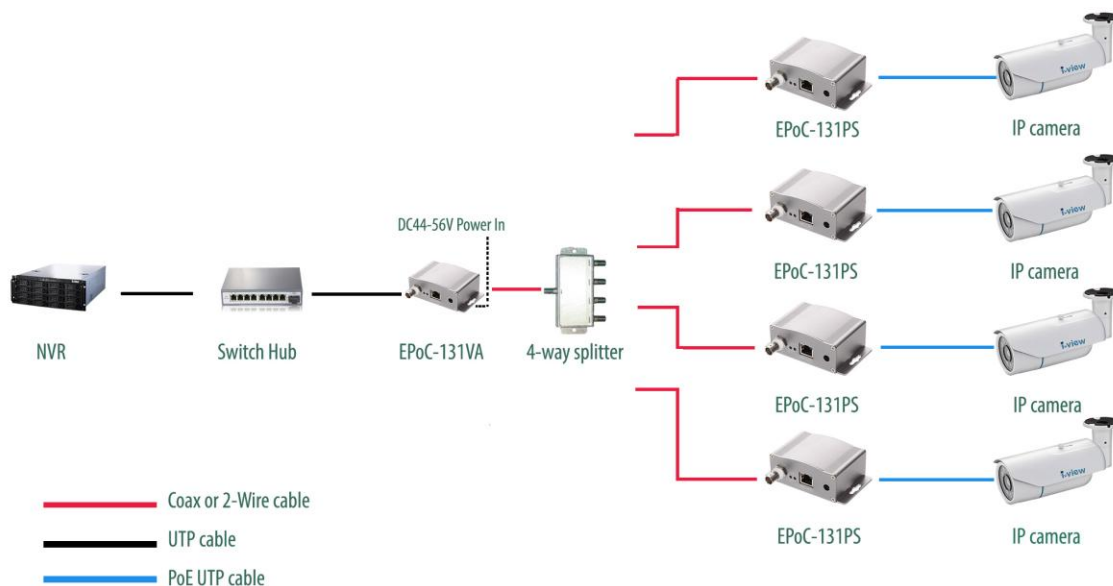
➔ Solution:

- EPoC Ethernet/PoE over 2-wire Extender supports "Group" communication which prevents the interference problem.
- Transmit the Ethernet/PoE via single RG-6 Coaxial cable up to 800 meters. No need of Optical Fiber/Power cable for long distance transmission.
- Usage of the Coaxial cable is easier to install and maintain than Optical Fiber cable.
- Save ~60% of total cost than when using the Fiber optical cable solution.

➔ Installed products:

- EPoC-131VA Ethernet/PoE Extender (Switch site) x 20 pcs
- EPoC-131PS Ethernet/PoE Extender (Camera site) x 5 pcs
- EPoC-131PS-O Outdoor Type Ethernet/PoE Extender (Camera site) x 5 pcs
- DM-2MIPS08-0311 2-Mega IR Dome IP cameras x 30 pcs
- IR-2MIPS08-0311 2-Mega IR Bullet IP cameras x 5 pcs
- AnyNet-3208 32Ch Embedded NVR x 1 Set

Diagram



Case study of Supermarket

➔ Problem:

1. Migration phase: upgrading analog for IP cameras.
2. Increase amount of cameras but there is no space to put a new cable.
3. Minimize disruption to the business.
4. Avoid lead and asbestos abatement issues.
5. Transmit IP video & PoE over the 100 meters (328 feet) limit.
6. Save the cabling costs and should be easy to maintain.

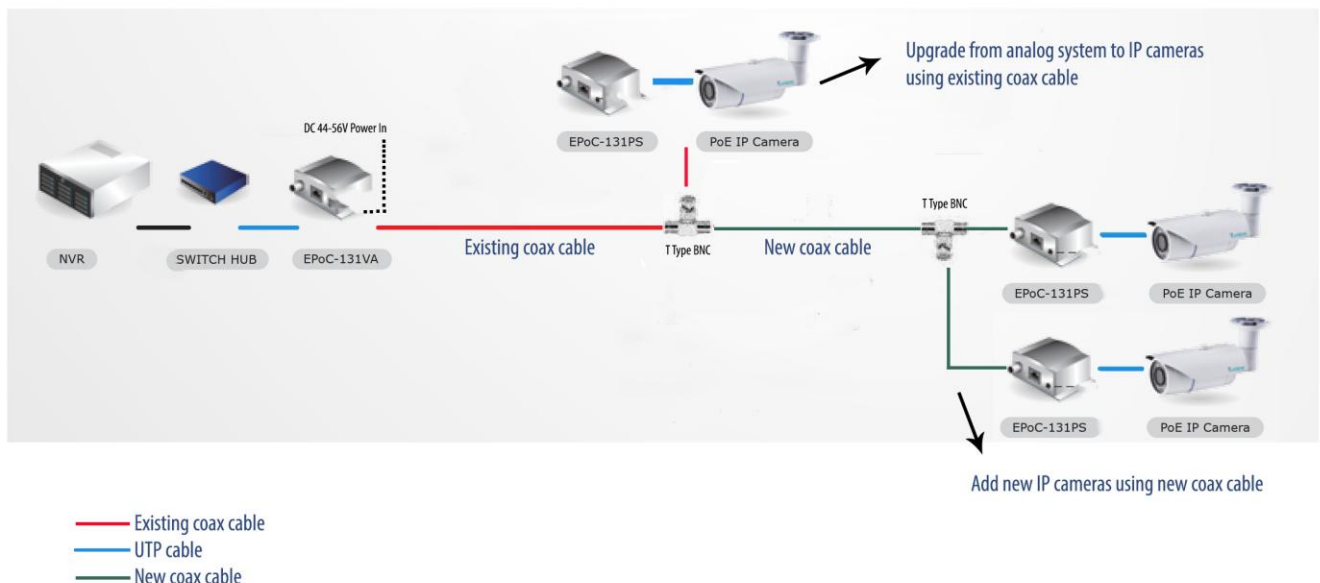
➔ Solution:

1. Use the existing coax cable for swapping analog for IP camera via EPoC Ethernet/PoE over 2-wire Extender. It's simple, quick and reduces the cost. While minimizing disruption to the business, it also avoids lead and asbestos abatement issues.
2. Daisy Chain system configuration to add additional IP cameras easily without re-cabling.
3. EPoC Ethernet/PoE Extender can transmit the IP video/PoE to more than 600 meters via the existing coax cable.

➔ Installed products:

1. EPOC-131VA Ethernet/PoE Extender (Switch site) x 88 pcs
2. EPOC-131PS Ethernet/PoE Extender (Camera site) x 210 pcs
3. EPOC-131PS-O Outdoor Type Ethernet/PoE Extender (Camera site) x 30 pcs
4. DM-2MIPS08-0311 2-Mega IR Dome IP cameras x 210 pcs
5. IR-2MIPS08-0311 2-Mega IR Bullet IP cameras x 30 pcs
6. AnyNet-6424 64Ch Embedded NVR x 4 Sets

Diagram



Case study of Installing IR PTZ Network Camera on the Mining field

➡ Problem:

1. The IR PTZ Network Camera requests 40W when turn on IR LED.
2. The installation distance is about 600 meters.
3. Cannot get the power from camera site.

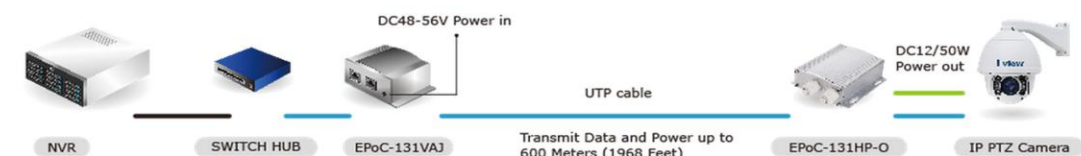
➡ Solution:

1. Use the EPoC-131VAJ + EPoC-131HP-O Ethernet/PoE Extender with RG-6 Coaxial cable.
2. Plug DC56V power adapter on the Switch Hub site.
3. The EPoC-131HP-O can offer DC12V/4A power for the PTZ camera after 600 meters distance transmission.

➡ Installed products:

1. EPoC-131VAJ Ethernet/PoE Extender (Switch site) x 1 pc
2. EPoC-131HP-O Ethernet/PoE Extender (Camera site) x 1pc
3. DC56V/1.28A switching power adapter.

Diagram



Case study of Elevators in Hospital

➔ Problem:

1. There is interference problem when elevator is running.
2. The cable can be easily broken when using normal UTP cable.
3. Totally there are 16 elevators in this hospital.

➔ Solution:

1. Use the EPoC Ethernet/PoE Extender which works with any kind of 2-Wire cable. We used the existing cable of elevator and there was no reliability problem.
2. EPoC Ethernet/PoE over 2-wire Extender supports "Group" communication which prevents the interference problem.

➔ Installed products:

1. EPoC-131VA Ethernet/PoE Extender (Switch site) x 16 pcs
2. EPoC-131PS Ethernet/PoE Extender (Camera site) x 16pcs

Diagram

