Networking Infrastructure for Pune Metro Surveillance



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CASE STUDY

Name : **PUNE METRO**

Industry : **INFRASTRUCTURE**

Location : **PUNE, MAHARASHTRA**

OVERVIEW

Digisol supplied Active and Passive networking solutions for surveillance infrastructure across Pune Metro stations. The project required a networking foundation capable of supporting surveillance connectivity in demanding operating environments, with a focus on industrial-grade switching, high-speed data transmission, and resistance to electromagnetic interference.

The supplied infrastructure combined managed industrial switching, optical connectivity, and shielded structured cabling to address the project's networking requirements.

CLIENT REQUIREMENT

The customer required industrial-grade switches capable of operating in harsh environments and high-performance CAT6A STP structured cabling to support fast data transmission and high noise immunity. The network infrastructure also required optical connectivity and organized fibre termination to connect designated network locations.

THE DIGISOL SOLUTION

Digisol supplied an integrated solution across the Active and Passive networking layers. The Active layer included 8-port Gigabit Layer 2 managed industrial switches and industrial-grade 1.25 Gbps, 850 nm optical transceivers. These components addressed the requirement for industrial switching and optical connectivity between network locations.

The Passive layer comprised CAT6A STP cabling, multimode OM2 6-core armoured optical fibre, fibre LIUs, and multimode LC-LC and LC-SC patch cords. The shielded copper cabling addressed the requirement for high-speed transmission and noise immunity, while the optical fibre and termination components supported interconnection between designated network locations.

IMPLEMENTATION

The supplied Active and Passive components formed the networking infrastructure for the surveillance deployment. Industrial switches provided managed network connectivity, while optical transceivers supported fibre-based links. Fibre LIUs and compatible patch cords enabled organized optical termination and interconnection, and CAT6A STP cabling provided shielded copper connectivity.

Together, these components addressed the project's requirements for industrial-grade switching, optical connectivity, and structured cabling across the designated surveillance network locations.

PROJECT OUTCOME

The deployment provided Pune Metro with a structured networking foundation for surveillance connectivity across designated stations. The combination of industrial switching, optical fibre infrastructure, and shielded CAT6A cabling aligned with the customer's requirements for operation in harsh environments, high-speed data transmission, and electromagnetic interference immunity.

The project demonstrates Digisol's contribution across both Active and Passive networking infrastructure, bringing switching and physical connectivity components together to support the surveillance network.

PUNE METRO Surveillance Networking Project / BILL OF MATERIALS (BOM)

1 MODEL: DG-IS4510E	2 MODEL: DG-SA1030I	3 MODEL: DGF-LM2DLLCP-3CD-12T	4 MODEL: DGF-LM2DLLCP-2D-12T	5 MODEL: DGF-PM2DLCLCP3L
 8-Port Gigabit Layer 2 Managed Industrial Switch	 Industrial Grade SFP Transceiver, 1.25 Gbps, 850 nm	 Fibre Compact LIU, Wall/DIN Rail, Loaded, 6 mm LC Duplex Adapter and 12 OM2 LC Pigtails	 Fibre Drawer LIU, Loaded, 12 OM2, LC Duplex Adapter	 Multimode OM2 (50/125 µm), Duplex LC-LC Fibre Patch Cord, PC Type
Qty: 1	Qty: 3	Qty: 2	Qty: 1	Qty: 2

6 MODEL: DGF-PM2DLCCP3L	7 MODEL: DGF-PM2DLCLCP2L	8 MODEL: DGF-CAM2OUSL-06	9 MODEL: DGC-SCASF4L-3GW	10 MODEL: DGC-PCAUMGY-2L
 Multimode OM2 (50/125 µm), Duplex LC-SC Fibre Patch Cord, PC Type	 Multimode OM2 (50/125 µm), Duplex LC-LC Fibre Patch Cord, PC Type, 2 m	 Multimode OM2 Unitube Armoured Optical Fibre Cable, 6-Core, LSZH	 CAT6A S/FTP, 23 AWG, LSZH, GI Armoured Cable, 305 m	 CAT6A UTP Patch Cord, 24 AWG, LSZH, Grey, 2 m
Qty: 3	Qty: 1	Qty: 2	Qty: 1	Qty: 1

* Note: Quantity indicates the number of entries in the supplied list, not the confirmed physical quantities.