



Making a Difference to the Networks Worldwide

**DESIGN AND CONSULTING ON INTELLIGENT CAMPUS
NETWORK INFRASTRUCTURE**

Background:

BPO organization with about 700 Seats, operating out of Mumbai, India. Primarily targeting Airlines, Travels and Health Care BPO and managing very high end processes for Global Clients. The requirements are to

- ✦ Develop a new facility of 120,000 Sq.ft consisting of multiple levels to support more than 2000 people
- ✦ Develop Interconnect backbones between the existing facility and new facility for smooth transition of customers as well as redundancy
- ✦ Develop Intelligent Management System for the Campus Network to reduce the time taken for Changes, Troubleshooting and to consolidate management of many campuses from single location in Mumbai
- ✦ Network Design and Implementation to support 100% SLA
- ✦ Transition the customers to new site within stipulated time windows

Solutions:

InKnowTech took up this assignment and delivered the complete Intelligent Campus Network Infrastructure for the first time in India.

Application:

Data: Cat 5 e100 Mbps per user, Gigabit between active devices (switches and routers, switches and servers)

Voice: Call Center: VOIP on combination of Fiber on Backbone and Horizontal Cat 5 e

PSTN Voice: Combination of Cat 3 riser and Cat 5 e Horizontal

Management: Intelligent Passive Infrastructure Management for Network to help in Monitoring, Management and Troubleshooting of the Passive Network using Tools ITRACS, USA in combination with Hardware from Tyco Amptacs Product range



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Specifications:

- ✦ Interoffice backbone: Single Mode Fiber Armoured 8 core, 1.6 Km distance through Hard soil and Soft soil, Asphalted Roads
- ✦ Office Data Backbone: Data Backbone between NOC and 5 Hub Rooms in Composite Fiber (running in different cable trays with diversity pathways, Cat 6 Copper of 48 Runs.
- ✦ Voice Backbone for PSTN: Cat 3 Riser Cables of n x 100 (n = 2 to 5) between NOC and different hub rooms depending on the user distribution
- ✦ User Specifications on Horizontal: 4 Ports of Cat 5 e per user

Deliverables:

- ✦ Designing the Raceways and Cable trays to accommodate Fiber Backbones, Copper Backbones, Copper Riser and Raceways for the Horizontal cable distribution up to every workstation
- ✦ Solution Design
- ✦ Deployment of the solution:
 - Campus Network
 - Intelligent Management System
- ✦ Transition of the customer networks to new location

Technology Challenges:

- ✦ Project was completed within specified time frames and critical customers were transitioned within the SLA/Time windows which were specified
- ✦ Challenges included:
 - Coordinating and Project management/synchronization with agencies such as Architects, civil contractors and Material manufacturers to ensure that just in time material delivery and installation, as the place had very less storage space
 - Development of the first Intelligent Passive Network Infrastructure to monitor and manage from Backbones up to end user (presently InKnowTech is the only company in India to carry this capability having deployed such designs and solutions in about 4 different campuses)
 - Transition of customers within SLA (many a time our teams had work continuously for about 36 hours for such transitions)

