



## **IT/ Telecommunications**

### ***Standard Scope of IT /Telecomms Services***

IT/Telecommunications can include the following\*:

- a. ICT ELV (Extra Low Voltage) Cable and Converged Network design
- b. MATV design
- c. IPPBX specification
- d. IPTV & VOD specification
- e. HSIA (wired and WIFI) specification

### ***Scope of ELV & MATV Design Services***

#### **Stage 1 - ELV cable plant – needs analysis**

- a. Meet with Clients IT managers to discuss the technology requirements which will need to be supported both now and for future needs.
- b. Discuss with the client standards for ELV cabling, along with the specific hotel project design brief to agree.
- c. Discuss with the client/Design team Equipment room, wiring centres and head end locations.
- d. Following completion of meetings and discussions, preparation of a concept design document and an initial budget based on concept design this to be agreed and signed off by the client prior to movement to detailed design.

#### **Stage 2 - ELV cable plant - design**

- a. ELV cable design to comply with clients brand standards.
- b. Design fibre and copper balanced twisted pair backbone infra structure to support all of the required IP supported technology.
- c. Design category 3 copper twisted pair backbone infra structure to support all of the required analogue supported technology.
- d. Design internal copper balanced twisted pair structured cabling scheme, including quantity and location of wiring centre's to support all analogue and IP based technologies including 802.11a/b/g wireless.
- e. Design MATV network to support TV services (if not total IP).
- f. Liaise with M&E consultant to advise on raceway design, routes and sizing.
- g. Specification of size and layout of all Telecom Space requirements which will house wiring centre cabinets, ICT hardware and servers. This will include the design and layout of the main Equipment Room and Entrance Facility.





### **Stage 3 - ELV cable plant - Documentation**

- a. Prepare detailed wiring specification document in line with brand standards and based on the agreed cable design formally provided for IT cabling system and MATV network. These specifications will include :
  1. Specification of cable type copper, fibre & coaxial
  2. Scheme design
  3. Standards for Installation
  4. Products and Applications Warranty
  5. Installation techniques
  6. Warranty certification
  7. Termination hardware – Copper, fibre & Coaxial
  8. Labelling systems
  9. Patch leads types
  10. Wiring Centre Cabinet specifications
  11. Distribution Frame specifications
  12. Cabling documentation
  13. Grounding & Bonding
  14. Testing specification

### **Stage 4 - ELV cable plant Telecom Space design**

- a. Provide detailed Telecom Space design and layouts for all wiring centre locations including main Equipment room.
- b. Design MATV network to support TV services (if not total IP).
- c. Provide all wiring centre details and elevations for mounting and terminations.
- d. The design to include all branch power requirements for all Telecom Spaces. UPS and HVAC requirements.

### ***Scope of IP Network and Applications Design Services***

#### **Stage 1 - IP Network and Applications – needs analysis**

- a. Discuss with the clients IT department the IT requirements and standards for all back of house systems, along with IPPBX, HSIA (wired and WIFI) & IPTV to establish the size and bandwidth requirements for the IP network and produce a concept design document.
- b. Following completion of meetings and discussions preparation of a concept design document and an initial budget based on concept design, this to be agreed and signed off by the owner prior to movement to detailed design.





## **Stage 2 - IP Networks and Applications - Design documentation**

- a. Prepare an initial detailed design document for the IP network hardware infra structure which will support all of the IP applications, review, amend if required and agreed with the IT department.
- b. On agreement and sign off, prepare detailed system specification document for issue, the document to contain all requirements and specifications for the IP network hardware.
- c. Prepare individual documents for IPTV, HSIA (wired and WIFI) & IPPBX systems. All documents to be inline with brand standards, where applicable.
- d. On agreement and sign off, prepare individual system specification documents for issue, the documents to contain all requirements and specifications for each applicatio

## **Stage 3 - IP Network and Applications - RFP issue, review and recommendation**

- a. Issue of IP network, IPTV, HSIA & IPPBX specifications as an RFP to nominated specialist vendors, or as part of main RFP (which would be issued through the M&E consultants).
- b. Answer any RFI's received from bidding vendors.
- c. Provide RFP detailed review documents and comparison of all RFP responses for each individual specification document. This will also include a summary document identifying all cost and solution comparisons.
- d. Attended vendor demonstrations/interviews of shortlisted vendors for each solution type.
- e. Provide a recommendation of contract award based on vendors demonstration/interview, supplied costs, their experience and understanding of the solution they propose.

## **Stage 4 - Construction and Implementation**

- a. For all of the areas listed ELV cable plant, IP Network equipment, IPTV, HSIA & IPPBX, attend regular on-site design team and construction team meetings. Review/comment on the appointed contractors shop drawings.
- b. Carry out regular on site visits during the installation period to check on installation standards, and provide progress reports.
- c. Work with chosen vendors in preparing design documents, software and implementation schedule.
- d. Work with chosen vendors in preparing training schedules.
- e. On project completion be in attendance for witness testing and also carryout site inspection. Produce snagging list (punch list) of all incomplete/ non conforming items.
- f. Acceptance all completed documentation and test results, evaluate content and accuracy and pass forward recommendation for sign off on acceptance

*Note: Time at site is billable on a daily rate basis.*

