

# STANDARD OPERATING PROCEDURES FOR PROJECT IMPLEMENTATION

To build an efficient division and ensure uniformity across implementation there needs to be a well-documented way and culture of offering solutions. Thus the need for Standard Operating Procedures.

They detail everything from initiation to handover and support.

## Project Initiation

Step 1: Carryout Site Survey to ascertain customer requirements and scope

Step 2: Prepare and send quote to client

Step 3: Receive LPO, sign Functional Requirements Document

Step 4: Sign contract

## Project Planning

Step 1: Internal Project Kick-Off Meeting - Output Project Management Plan

- Schedule
- Cost
- Communication
- Procurement
- Quality
- Change Management
- Resource Management
- Scope Management
- Site Implementation Diagram

Step 2: External Project Kick-Off Meeting

## Project Implementation

Step 1: Transport of material, equipment and personnel to site

Step 2: Laying of infrastructure

- i. Route/Cabling Path
  - a. Existing Route - confirm that the existing route can accommodate the new cables to be run from end to end. Care should be taken not to force cables into small spaces, if a route cannot accommodate the new cabling then a new route needs to be created
  - b. New Route - in the case where a new route needs to be created, there are two approaches. Depending on client preference, budget and use case, ensure you

ii.

have agreed with the client whether to introduce a permanent route or temporary.

➤ Permanent Cable Route - this uses metal trunking

➤ Temporary Cable Route - this uses plastic trunking

NOTE: Do not run data cables in the same space as power cable

Ensure not to interfere with other existing data cabling As much as possible pin trunking to surfaces using screws, not glue

No cable should run naked on visible surfaces

Hide cable paths as much as possible using walls, using rear surfaces instead of front Cabling

- a. Cable Type - for data cables use at least Cat6
- b. Cable Environment - use outdoor for outdoor runs and indoor for indoor runs. If a cable is buried underground, and where necessary, or upon customer's request, run the cable inside a PVC conduit.
- c. Cable length - with data cables do not exceed 90m between terminals for pure copper and 70m for coated
- d. Ensure all cables are well labelled clearly on both sides of the print paper such that someone does not have to twist the cable to read. Labelling should be done with a proper label printer.
- e. Cable Management -
  - run cables without intertwining them, ensure they can be easily pulled without interfering with other cables
  - At each end have an allowance of at least a meter for future re-crimping maintenance. Roll the allowance neatly with cable ties
  - As much as possible, terminate cable ends at a patch panel in the cabinet or faceplate at the node instead of directly into a device
  - As much as possible, depending on agreement with client, budget and use case, use a cable manager in the network cabinet

- f. Crimping and other cable terminations - crimping should be done neatly with the jacket inside the pinout. For other terminations there should be minimal lengths of cable outside their insulation jacket
- iii. Surface Management
  - a. Modification - modification should be done with as little damage to the surface as possible. Ensure you have agreed with client on who is responsible for restoring the surface.
  - b. Concrete surfaces - do not use nails in concrete surfaces to mount objects. Instead drill a hole, insert a tight wall plug and screw into the wall plug.
  - c. Gypsum surfaces - use self-tapping screws for such surfaces and be careful not to overtighten as the screw will be come loose.

#### Step 3: Installation of terminals

Terminals in this context refers to devices like Access Control Terminals, Access points, Faceplates, CTV Cameras etc.

- i. Neatness - Installation of terminals should be done with the highest neatness standards. As much as possible let them pop out of the wall without visible cabling or trunking.
- ii. Alignment - use a spirit level to ensure vertical edges are exactly vertical to the earth and horizontal edges are exactly horizontal to the earth
- iii. Positioning - an access control device should be installed at a height of 1.3m above ground, Access points should be strategically positioned to provide strong signal to as wide an area as possible and terminals in public spaces should be installed out of reach of children.

#### Step 4: Testing and adjustment

#### Step 5: Quality Assurance with client

### Project Closure

#### Step 1: Project presentation to the client

#### Step 2: Sign-off with the client

#### Step 3: Training

#### Step 4: Agree on Support Arrangement