UAS Network Wiring Standard

The primary goal of this guide is to ensure uniform distribution and positive end-to-end identification of all infrastructure data cables and their connections in patch panels and wall-plates/junction boxes.

Copper:

The standards for all copper connections are: 48-port Cat5e or greater patch panels, and a minimum of three (3) Cat5e or greater keystone-style jacks per wall-plate/junction box. Each office or classroom where data is connected should have a minimum of two wall-plates/junction boxes, and each cubicle should have a minimum of one wall-plate/junction box.

Both ends of each connection (every cable, wall-plate, and each port on every patch panel) should be labelled as follows:

- Room number
- A hyphen
- The letter J (for Junction Box)
- The Junction Box number
  - Determined sequentially
  - Clockwise around the room
  - Starting from the primary door into the room
- Another hyphen
- The port number
  - Sequentially
  - Starting at the top left
  - Counting horizontally first
  - Then vertically

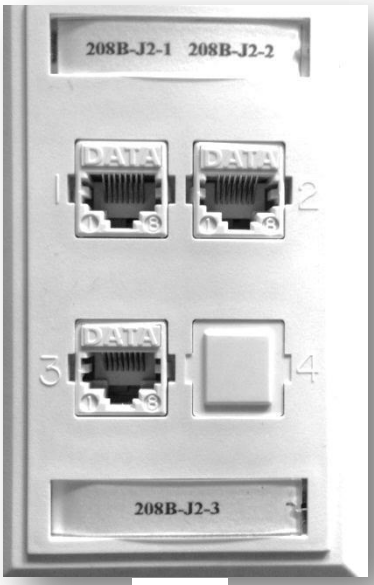

Figure 1

EXAMPLES:

The wall-plate/junction box as shown in figure 1 is clearly labelled. It's the second wall-plate/junction box from the left of the main entrance to room 208B, thus it's J2. The ports are labelled left-to-right, top-to-bottom.

This labelling convention also makes it easy to identify the ports when looking at the patch panel (as shown in figure 2: the 7th junction box/wall-plate in room 208B, ports 1 through 4.)

Figure 2

Fiber Optics:

The standards for all fiber optic connections are: Single-Mode fiber with a core width of 9 microns. This cable should be terminated in a 1U, sliding drawer fiber cabinet with strain relief and modular panels similar to Corning CCH01U. The modular panel slots should be populated with LC connectors, similar to Corning CCH-CP12-A9 or CCH-CP24-A9 depending on density needs.

Patch cables should be LC-to-LC, UPC, 9-micron core, 50-micron clad, single-mode, and colored yellow for 1 gigabit/sec connections or slower, and cyan for 10gigabit/sec connections or faster.