

Changes in v2.6:

v2.5 was updated May 10, 2016. v2.6 is an updated copy from March 1, 2017.

Modifications to 4. Horizontal Pathways section with feedback incorporated from UofA Facilities and Operations Electrical Trades.

Removal of Payphones section.

Major changes noted below:

4. Horizontal Pathways

C. Raceway Systems

Expanded Perimeter Raceway Systems section and added Raceways Inside Rooms, including recommended suggestions.

Reason for change: updates from UofA Facilities and Operations Electrical Trades

Removal of section:

6. Miscellaneous

B. Payphones

Reason for change: payphones are being removed from campus

Changes in v2.5:

v2.4 was updated May 2, 2016. v2.5 is an updated copy from May 10, 2016.

Addition of Appendix B: Typical Telecommunications Room Layout

Major changes noted below:

3. Requirements for Telecommunications Spaces

G. Electrical Power

VoIP equipment requires a 220V/20A emergency power outlet the connector must have the ability to mate with a HBL2321 power connector.

(was: 250V)

Reason for change: correction to power voltage - 220V

9. Additional U of A Cabling Requirements

A. Voice over Internet Protocol (VoIP)

The power requirements are a minimum of one NEMA L6-20R locking female receptacle connected to a 220 volt 20 amp circuit on UPS power.

(was: emergency power)

Reason for change: clarification that emergency power fed by generator is not required, but an uninterruptible power supply (UPS) is required for VoIP deployments

8. Additional U of A Cabling Specifications

Singlemode fiber to be fusion spliced (Preferably by IST)

Reason for change: clarify splicing on singlemode fibre

Fiber patch panels to be used at all locations, IST to determine type/brand of enclosure to suit the location (i.e. Siemon depending on location and proper adapter strips depending on terminations)

(was: Nordx or AMP)

Reason for change: updated preferences

10. References

Telecommunications Distribution Method Manual (TDMM) 13th Edition by Building Industry

(was: 10th)

Changes in v2.4:

v2.3 was updated April 29, 2016. v2.4 is an updated copy from May 2, 2016.

Major changes noted below:

5. Telecommunications Outlets

A. Standard Wall Outlets

[The gang box] is mounted flush in the wall at same height as the convenience electrical outlet--12" AFF.

(was: 18" AFF)

ADDITION of line:

Consider furniture designs when determining outlet placement. Wall ports must remain accessible for terminations, testing, and future troubleshooting.

Reason for change: meet electrical outlet height, and 18" may be too high for furniture with modesty panels

A TO for a wireless access point should be no more than 3 feet away from the specified wireless access point location. IST is responsible for wireless design and wireless access point placement.

(was: A TO for wireless access point is mounted high on the wall at least 4" below the drop ceiling.)

REMOVAL of lines:

The wireless access point transmitter has an 8"X10" off white decorative plastic cover that protrudes four inches from the wall. Very small green indicator lights "LEDs" are visible from the bottom of the cover.

Reason for change: updated preferences for wireless access points

Changes in v2.3:

v2.2 was last updated February 5, 2009. v2.3 is an updated copy from April 29, 2016. It includes:

Minor wording changes and corrections.

Rename of AICT to IST

Addition of Appendix A: Requirements for copper and fiber installations

Major changes noted below:

1. General Specification Guidelines

ANSI/TIA/EIA-568-C.3 Optical Fiber Cabling Components Standard

(was: ANSI/TIA/EIA-568-B.3)

Reason for change: updated standard

3. Requirements for Telecommunications Spaces

A. Location

Telecommunication room (TR) placement should be discussed with IST and IST must approve the final design drawings. Quantity of TRs in a building should be kept to a minimum.

(was: and at least one smaller telecommunications room (TR) is required on each floor above.)

Reason for change: building design and networking requirements vary too much by building to give authoritative direction. If a TR is not required on every floor, then building space is wasted. Consultation with IST is the best way to allocate space appropriately.

3. Requirements for Telecommunications Spaces

G. Electrical Power

VoIP equipment requires a 250220V/20A emergency power outlet the connector must have the ability to mate with a HBL2321 power connector.

(was: HBL2621)

Reason for change: vendors have changed 3KVA UPS plugs to NEMA L6-20R compatible

3. Requirements for Telecommunications Spaces

M. Service Corridors

Flame test rating of FT6 (CSA)

(was: FT4)

ADDITION of line:

Indoor/outdoor fibre cables are preferred when running cables through the service corridor.

Reason for change: updated standards and preferences

4. Horizontal Pathways

E. Homerun Conduits

ADDITION of line:

Power over Ethernet (PoE) devices such as wireless access points (APs) must have a home run to the telecommunication room (TR) that contains the PoE network switch. Patching between floors or between different TRs is not acceptable.

Reason for change: clarification of requirements for PoE devices such as wireless access points

5. Telecommunications Outlets

A. Standard Wall Outlets

REMOVAL of line:

There must be an electrical outlet next to every wireless TO to power the wireless access point transmitter that will be mounted on the wall.

*Reason for change: Power over Ethernet (PoE) supplies wireless access points with power. No other power source is required except where the network switch does not supply PoE.
Requirement to use PoE switches with any new University Wireless Service (UWS) deployment.*

5. Telecommunications Outlets

E. Modular Furniture

ADDITION of line:

Wall ports must remain accessible for terminations and testing.

Reason for change: Furniture impeding wall ports requires movement of furniture and delays the finalized installation of ports.

8. Additional U of A Cabling Specifications

Fibre Requirements

Multimode 50µm OM4 minimum

(was: Multi Mode 62.5µm minimum Corning InfiniCor 300 or 1000 or equivalent 50µm minimum Corning InfiniCor 600 or 2000 or equivalent)

Indoor use FT-6 rated, tight buffered

(was: FT-4 rated)

Termination to be LC connectors

(was: ST connectors)

Reason for change: updated standards and preferences

8. Additional U of A Cabling Specifications

Connectivity Hardware

Data Jacks: Hubbell (violet in color)

PBX Voice Jacks: Hubbell (white in color)

(was:

- Current primary for data: Hubbell (violet in color)

- Secondary: Panduit (violet in color)

- Voice: Not specified (Black, White, Beige or Gray colors only)

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Reason for change: updated preferences

9. Additional U of A Cabling Requirements

A. Voice over Internet Protocol (VoIP)

1. The power requirements are a minimum of one NEMA L6-20R locking female receptacle connected to a 220Volt 20 AMP circuit on emergency power. The power should be mounted on the wall close enough to so that no extension cord is required.

(was:

- Mounted over top of rack or bottom of tray feeding the relay rack design.
- Mounted at the top or bottom of the relay rack.
- Mounted on the wall close enough to so that no extension cord is required.
- Mounted in a receptacle box with a movable (4 ft) power cable.

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Reason for change: power mounted above the rack is no longer preferred