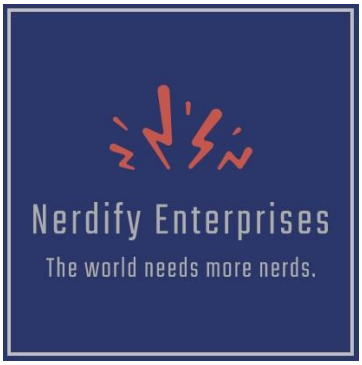
Cable Drop

Introduction

Building remodels are underway at the Nerdify corporate offices. A large closet is being converted into an office space to accommodate a new nerd. In order to use the closet as a work space, you will need to complete a cable drop to provide wired Internet and VoIP phone access.



Objective

In this project/lab the student will:

- Students will simulate a network cable drop by pulling cable and terminating one end with a keystone and the other end with an RJ45 jack. Then, test the cable drop for continuity.

Equipment

- Bulk Ethernet Cable
- Electrician scissors/wire cutters
- Punchdown tool
- Cable Tester
- 1 working Straight Through Cable
- Video "Cable Drop"

Assignment

- Submit a link to a video of yourself making the cable and that your simulated cable drop successfully passes standards using the cable tester. (80 points)
- Submit answers to the reflection questions. (20 points)

Safety

Exercise caution when working with sharp tools, such as scissors and cable strippers.

Procedure

1. Cut a piece of cable about three feet long to use as your simulated cable drop. Get a keystone to use as your wall outlet.

2. Strip about one inch of the jacket from the cable and untwist the four pairs. Follow the labelling and color coding guide indicated on the keystone (not the typical 568A or 568B color patterns) to place the cables in their correct position.

3. When your wires are in place, place the keystone on a flat surface and use the punch down tool to push into the wires and attach them to the keystone.There will be an audible “click” sound when you have pushed hard enough. Ensure that the side labelled “cut” is facing away from the rest of the wire. When pressed, this will cut off the excess wire.
4. One the other end of the cable, strip about one inch of the jacket away from the end of the cable and untwist the pairs. This end of the cable will have the 568B color scheme and an RJ45 jack.

5. To test your drop, attach a straight through cable into the keystone and plug it into the cable tester. Plug the other end with an RJ45 jack into the tester. Plug the previously created straight through cable into the keystone and the other end of the tester to create a “loop.”

6. If your simulated drop is successful, you should see a light pattern like that of a regular straight through cable. If not, check your connections to ensure all wires were punched and in the correct place.

Reflection

1. Why is it important to label the keystone with the port number attached on the other end of the cable? ***So you know what device it is connected to in case you have to perform maintenance on said device you will know exactly what devices are being affected***

2. Ethernet cabling has information about its category, rating, speed, impedance, etc printed on it. Look at the physical cable you used – what category is it? ***Cat6a***

Standards for This Competency	EXEMPLARY	ACCOMPLISHED	DEVELOPING
Cable drop passes standards using the cable tester.	*Yes, (80 pt)*	*No,* (0 pt)	*No,* (0 pt)
Reflection Question #1	Answer is correct and fully developed. (10 pt)	Answer is correct and partially developed. (5 pt)	Answer is incorrect. (0 pt)
Reflection Question #2	Answer is correct and fully developed. (10 pt)	Answer is correct and partially developed. (5 pt)	Answer is incorrect. (0 pt)