**Packet Tracer - Create Realistic Structured Cabling in the Physical Workspace and Cabling Devices in a Rack**

**Objectives**

In this activity, you will install a patch panel and a wall mount. You will then use these to connect network devices in the office to the equipment in the wiring closet.

**Part 1: Install a Patch Panel in the Wiring Closet**

**Part 2: Attach a Wall Mount in the Office**

**Part 3: Connect an Additional Wall Mount and Cables**

**Required Resources**

   Latest Packet Tracer version

**Instructions**

**Part 1: Install a Patch Panel in the Wiring Closet**

**Step 1: Install a patch panel in the Rack**

a.     Click the **Equipment Cabinet** to access a simulated **Wiring Closet**.

b.     To install a patch panel, click **Connections** in the **Device-Type Selection Box**, and then click **Structured Cabling**.

c.     In the **Device-Specific Selection Box**, click the first option, which is **Copper Patch Panel**.

d.     Click a desired location in the **Rack** to install the patch panel in the rack.

**Note**: For accurate grading, make sure the name of the patch panel is **Patch Panel0**.

**Step 2: Connect the Office-SW1 to the patch panel.**

a.     From the **Cable Pegboard**, select a **Copper Straight-Through** cable.

b.     On the switch **Office-SW1**, click the **GigabitEthernet 1/0/13** port. Now locate and click **Jack13** on the **Patch Panel0**.

**Note**: Recall that you can right click the switch and the patch panel, select **Inspect Front**, and then zoom in to better locate the desired ports. You can also use the global **Zoom In** tool on the tool bar.

c.     Use the following table to finish the connections between the **Patch Panel0** and **Office-SW-1**.

| **Office-SW1** | **Patch Panel0** |
| --- | --- |
| G1/0/13 | Jack13 |
| G1/0/14 | Jack14 |
| G10/15 | Jack15 |
| G1/0/16 | Jack16 |

*Blank Line, No additional information*

d.     If desired, you could also color code the cables in the rack. Right-click the desired cable, select **Color Cable**. Select or create the desired color, and click **OK**.

e.     If you do not like the cables dangling, you can organize them. Right-click any white space in the rack and select **Manage All Cables on Rack**. Now all your cables are organized on the rack.

f.      Click **Back level** (Alt-Left) to return to the **Office**.

**Part 2: Attach a Wall Mount in the Office**

**Step 1: Install a wall mount.**

a.     To install a wall mount, click **Connections** in the **Device-Type Selection Box**, and then click **Structured Cabling**.

b.     In the **Device-Specific Selection Box**, click **Copper Wall Mount**.

c.     Click the desired location on the wall next to the **Equipment Cabinet**.

**Note**: For accurate grading, make sure the name of the wall mount is **Wall Mount0**.

d.     In the **Device-Type Selection Box**, click **Connections**, and then click **Copper Straight-Through** cable.

e.     Click **Wall Mount0** and select **PunchDown1**. Then click the **Equipment Cabinet** (Wiring Closet) and select **Rack** > **Patch Panel0** > **Punchdown13**.

f.      Repeat for the rest of the available punchdowns on **Wall Mount0**.

| **Wall Mount (Next to Equipment Cabinet)** | **Patch Panel** |
| --- | --- |
| Punchdown1 | Punchdown13 |
| Punchdown2 | Punchdown14 |
| Punchdown3 | Punchdown15 |
| Punchdown4 | Punchdown16 |

*Blank Line, No additional information*

g.     Connect the PC **Office-Admin** and **Printer0** to any available jacks in the wall mount using **Copper Straight-Through** cables. After a minute or two, both devices will receive IP addressing information from the DHCP service running on the **Office-Server** inside the **Equipment Closet**.

h.     Verify connectivity by navigating to the web site http://office.srv. Click **Office-Admin** > **Desktop** > **Web Browser**. Enter**office.srv** in the URL field. This may take up to a minute. You can click **Go** to refresh the web page request.

**Step 2: Organize the cables.**

In the Physical mode, you can organize the cables so that they are spanning across the entire room.

a.     Right-click the desired cable, select **Create BendPoint**.

b.     Drag the black square to the wall. Continue to create bendpoints and drag the bend points into the walls or floor until the cable no longer goes across the middle of the room

Using the bendpoints has the same effects as running the cables into the walls in an office.

c.     Repeat the steps until you are satisfied with the results.

**Part 3: Connect an Additional Wall Mount and Cables**

Now that you have connected **AdminOffice** and **Printer0** to the network, connect more cables to the patch panel, add another wall mount, and connect the **Office-User** **PC**.

a.     Return to the **Equipment Closet** and make the following connections:

| **Office-SW1** | **Patch Panel0** |
| --- | --- |
| G1/0/21 | Jack21 |
| G1/0/22 | Jack22 |
| G1/0/23 | Jack23 |
| G1/0/24 | Jack24 |

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b.     In the **Office**, add another **Wall Mount** next to the window and connect the wall mount to the patch panel using the following connections.

**Note**: For accurate grading, make sure the name of the wall mount is **Wall Mount1**.

| **New Wall Mount (Next to Window)** | **Patch Panel0** |
| --- | --- |
| Punchdown1 | Punchdown21 |
| Punchdown2 | Punchdown22 |
| Punchdown3 | Punchdown23 |
| Punchdown4 | Punchdown24 |

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c.     Connect the **Office-User PC** to your new wall mount.

d.     After a minute or two, verify the **Office-User** PC received IP addressing information and then verify connectivity to the web site **office.srv**.

e.     If desired, create bend points in the cables and organize them.

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