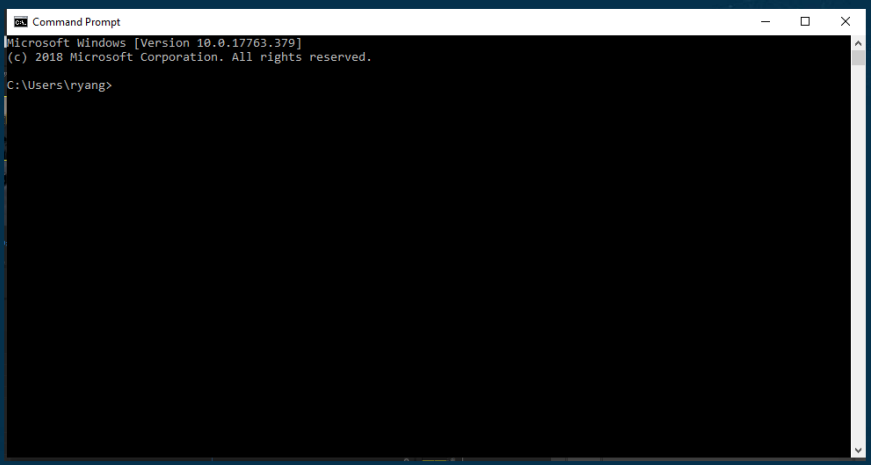
Chapter 18

Episode 18.01

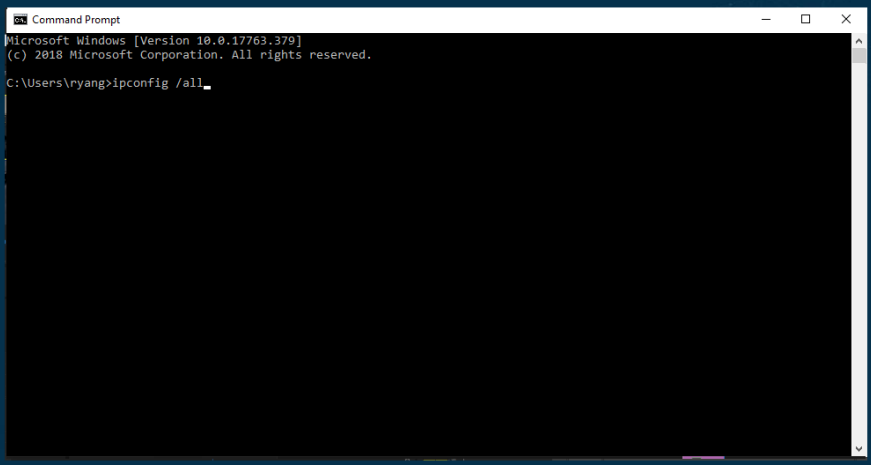
Episode title: **Introduction to Networking**

Objective:

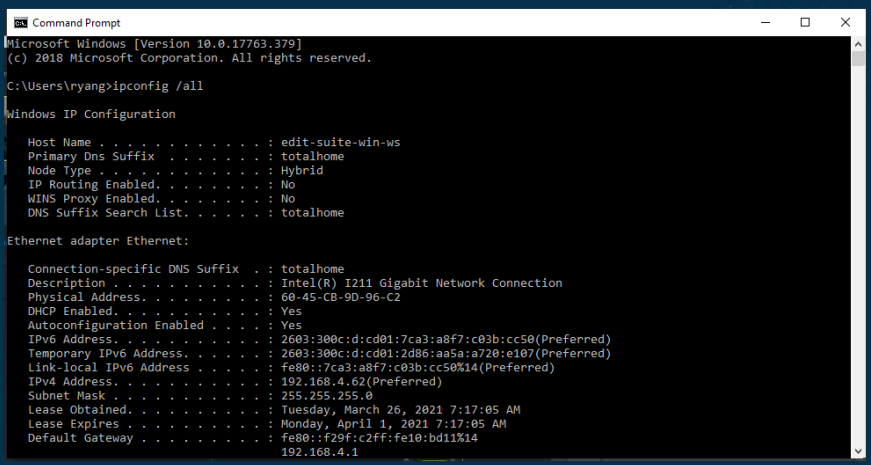
MAC Address


Command Prompt
Microsoft Windows [Version 10.0.17763.379]
(c) 2018 Microsoft Corporation. All rights reserved.
C:\Users\ryang>

MAC Address


Command Prompt
Microsoft Windows [Version 10.0.17763.379]
(c) 2018 Microsoft Corporation. All rights reserved.
C:\Users\ryang>ipconfig /all

MAC Address


Command Prompt
Microsoft Windows [Version 10.0.17763.379]
(c) 2018 Microsoft Corporation. All rights reserved.
C:\Users\ryang>ipconfig /all
Windows IP Configuration
Host Name . . . . . : edit-suite-win-ws
Primary Dns Suffix . . . . . : totalhome
Node Type . . . . . : Hybrid
IP Routing Enabled. . . . . : No
WINS Proxy Enabled. . . . . : No
DNS Suffix Search List. . . . . : totalhome
Ethernet adapter Ethernet:
Connection-specific DNS Suffix . : totalhome
Description . . . . . : Intel(R) I211 Gigabit Network Connection
Physical Address. . . . . : 60-45-CB-9D-96-C2
DHCP Enabled. . . . . : Yes
Autoconfiguration Enabled . . . . : Yes
IPv6 Address. . . . . : 2603:300c:d:cd01:7ca3:a8f7:c03b:cc50(Preferred)
Temporary IPv6 Address. . . . . : 2603:300c:d:cd01:2d86:aa5a:a720:e107(Preferred)
Link-local IPv6 Address . . . . . : fe80::7ca3:a8f7:c03b:cc50%14(Preferred)
IPv4 Address. . . . . : 192.168.4.62(Preferred)
Subnet Mask . . . . . : 255.255.255.0
Lease Obtained. . . . . : Tuesday, March 26, 2021 7:17:05 AM
Lease Expires . . . . . : Monday, April 1, 2021 7:17:05 AM
Default Gateway . . . . . : fe80::f29f:c2ff:fe10:bd11%14
192.168.4.1

Episode 18.05

Episode title: **Introduction to Networking**

Objective:

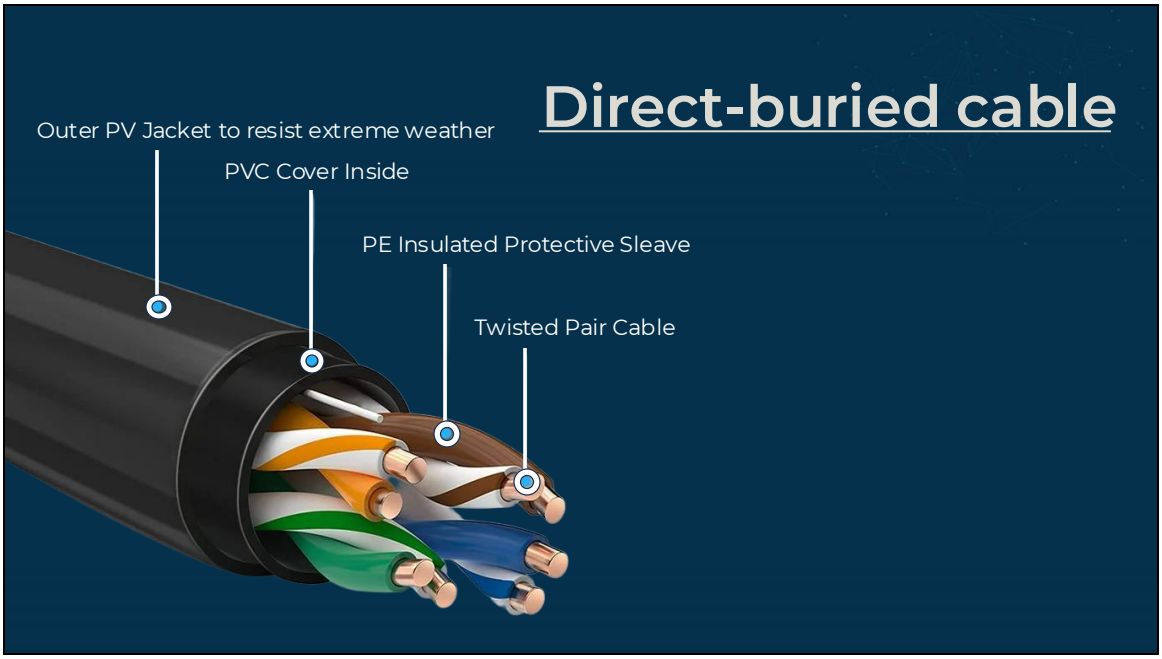
Lower 3rds

- **Direct-buried cable** (**DBC**) = Shielded for Outdoor Use
- Designed to Be Placed Directly in Soil
- Extra Layers Protect Against Water, Heat, Cold, and Soil Acidity
- Ideal for Extending Networks Between Buildings

Lower 3rds

- Buried Cable Reduces Risk from Lightning Strikes
- Direct Burial = Exam-Worthy Term to Remember

Direct-buried cable



Insulation benefits

Extreme temperatures

Moisture

Soil acidity

Physical pressure

Lightning

Episode 18.07

Episode title: **Introduction to Networking**

Objective:

Lower 3rds

OBJ - Loopback plug

A loopback plug or a loopback cable takes an output signal and reverses it into the input signal of the same port

Loopback plugs are also made for fiber connections

Loopback plug

Otherwise known as, loopback cable:

Output signal and reverses it into the input signal of the same port

Loopback plug

Otherwise known as, loopback cable:

Output signal and reverses it into the input signal of the same port

Loopback plug

Otherwise known as, loopback cable:

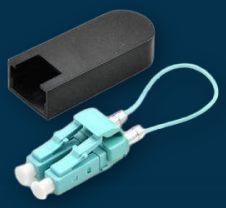
Output signal and reverses it into the input signal of the same port

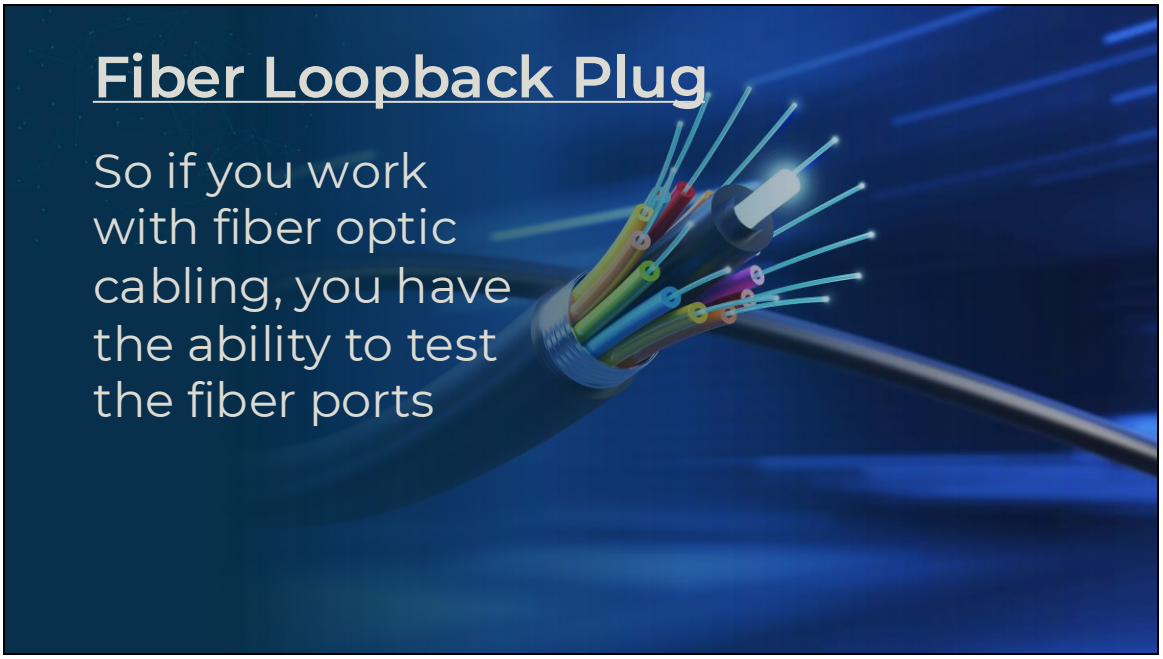
Fiber Loopback plug

Single-mode

Multi-mode

Typically color coordinated to match mode type



Fiber Loopback Plug

So if you work with fiber optic cabling, you have the ability to test the fiber ports