Cisco CCNA (200-301)

Episode Title: Describing IPv6 Unicast Type Addresses

Learner Objective: Describe the use IPv6 Unicast Type Addresses
Description: IPv6 has several different address types unlike IPv4 where there is only one.These types have different usages. You will learn the format and different usages.

Q: What are IPv6 Unicast Type Addresses?

IPv6 addresses used for source to destination traffic and "one to one" communication. They are addresses that are assigned to a single interface.

Q: Are there more than one type of unicast addresses?

Yes. There are special unicast addresses --

- Loopbacks and Unspecified Addresses.
    - Loopback (::1/128) - testing TCP/IP protocols stack.
    - Unspecified (::/128 or ::) - default route. --source or destination address.
- Link-local Unicast Addresses (FE80::/10)
    - Every enabled interface must have a link-local address.
    - Neighbor and router discovery
    - Routing protocols
- Unique Local Unicast Addresses (FC00::/7)
    - not routable on the internet
    - similar to IPv4 Private Addresses
- Global Unicast Address (2000 - 3FFF)
    - Routable on the internet

Endnotes, External and Etc.,

1.9 Compare IPv6 address types

- 1.9.a Global unicast
- 1.9.b Unique local
- 1.9.c Link local

RFC 4291 (https://datatracker.ietf.org/doc/html/rfc4291)