Cisco CCNA (200-301)

Identifying SDN Architecture Concepts

Learning Objective: Recognize fundamental SDN concepts

Description: Managing networks using controllers is not uncommon. You will learn how APIs interact with applications and devices.

- SDN Basics

    - 6.3.a Separation of control plane and data plane

        - Data Plane --decides what to do with the packets moving through the device--which interface to send it to, encapsulate or decapsulate.
        - Control Plane -- management interface for configuring the enter
        - e.q overlay: VXLAN --Layer 2 overlay over underlying physical infrastructure.
        - e.q. fabric: network topology
        - e.q. underlay: infrastructure

    - 6.3.b North-bound and south-bound APIs

        - North-bound API

            - API between Controller and Application
            - Between Application Plane and Control Plane
            - Between the User Interface and the Controller

        - South-bound API

            - API between Controller and Device
            - Between the Control Plane and Data Plane, regardless of virtual or physical devices.

Endnotes, External and Etc.

6.3 Describe controller-based and software defined architectures (overlay, underlay, and fabric)

- 6.3.a Separation of control plane and data plane
- 6.3.b North-bound and south-bound APIs