



# **SNS COLLEGE OF TECHNOLOGY**

**Coimbatore-35**



## **DEPARTMENT OF INFORMATION TECHNOLOGY**

### **19CSB302- COMPUTER NETWORKS**

**III YEAR V SEM**

#### **UNIT 3 - INTERNETWORKING AND ROUTING**

**TOPIC – SDN**



# SDN

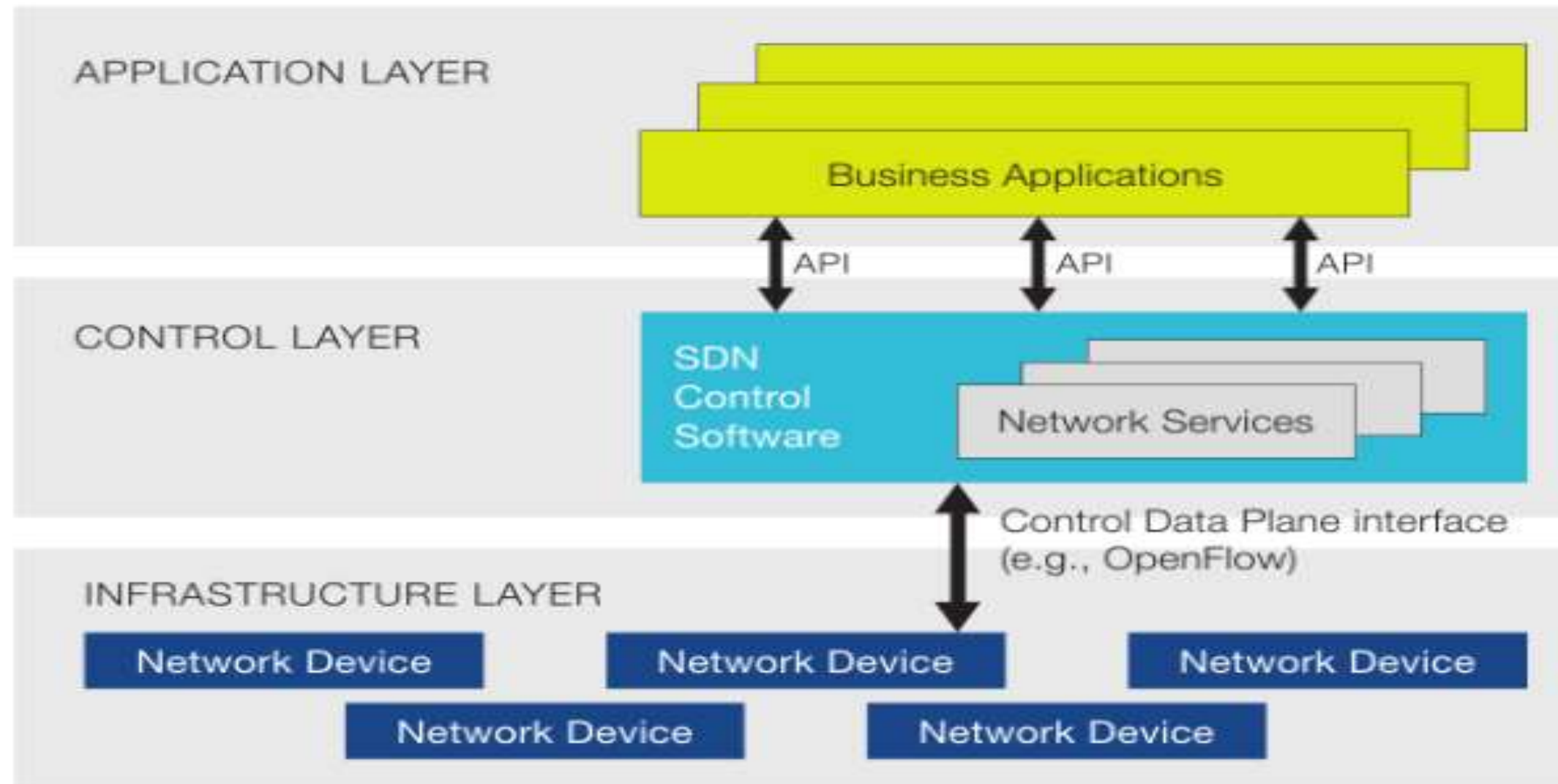


- Software Defined Networks-“brains” of the network
- Three Layers in SDN Architecture
- Application-Application and services running on the network
- Control-SDN controller
- Infrastructure-Switches,routers,Physical Hardware
- Benefits
- Direct Programmability
- Centralized Management



# Data Plane

## Control Plane-Routing, Decision Making





# Different Models of SDN



- **Open SDN**-Open Flow Protocol
- **SDN via APIs**-the devices are provided with control points enabling the controller to manipulate the remote devices using APIs. (Application Programming Interface)
- **SDN via Hypervisor based Overlay Network**-the configuration of physical devices is unchanged. Instead, Hypervisor based overlay networks are created over the physical network. Only the devices at the edge of the physical network are connected to the virtualized networks, thereby concealing the information of other devices in the physical network.
- **Hybrid SDN**-Hybrid Networking is a combination of Traditional Networking with software-defined networking in one network to support different types of functions on a network.