WiFi Training Program 2025

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Question-4:

Whats the difference between Lightweight APs and Cloud-based Aps

🌟 **Difference Between Lightweight APs and Cloud-based APs**

Aspect	Lightweight APs	Cloud-based APs
Architecture	Centralized control using a WLC (Wireless LAN Controller).	Managed through a cloud-based platform without dedicated on-prem controllers.
Control Plane	Managed by a local controller (WLC) using protocols like CAPWAP.	Managed via a cloud controller accessible over the internet.
Data Plane	Can be SplitMAC (Local Mode) or Tunnel Mode (Centralized forwarding).	Typically operates in Local Mode, where APs handle data traffic directly.
Deployment Complexity	Requires physical controllers on-premises.	Simplified deployment with cloud dashboards for configuration and monitoring.
Scalability	Limited by the capacity of the local controller.	Highly scalable; cloud servers can support hundreds or thousands of APs.
Cost	Higher initial cost due to controller hardware.	Lower initial cost, but involves subscription fees for cloud services.
Security	Security policies are applied at the local controller.	Security policies are applied via the cloud; requires internet access.
Management Interface	Managed through on-prem controllers or dedicated software.	Managed through web interfaces or cloud dashboards (e.g., Cisco Meraki, Ubiquiti UniFi, Aruba Central).
Roaming	Handled efficiently by the local controller.	Can support seamless roaming if designed properly, but may introduce latency.
Firmware Updates	Pushed from the controller to the APs.	Pushed from the cloud platform to the APs.
Examples	Cisco Aironet, Aruba Instant AP (with local controllers).	Cisco Meraki, Ubiquiti UniFi, Aruba Central.