



“電信商解決方案”

MANAGEABLE WIRELESS SOLUTION

豐富的電信商合作經驗，整合Wi-Fi與電信服務系統

Abundant experience in telecom collaborations for integrating Wi-Fi into telecom service systems

BROCHURE

Z-COM, Smart and Fast Network Communication



Next-Generation Technologies

- Software-Defined Network
- Edge Computing
- AIoT

Z-COM has invested in heterogeneous network integration R&D for years. Through partnership with global leading Telco operators, we've accumulated abundant experience in telecom system integration with Wi-Fi- extended broadband network, to offload traffic from 3G/4G mobile networks as well as providing mobile network coverage with less cost. Over the years, Z-COM's carrier grade solutions are used to deploy massive scale of Wi-Fi hotspots and various applications for smart city.

The new Z-COM carrier-grade wireless network solution introduces Software Defined Network (SDN) architecture, with Edge Computing concepts for Artificial Intelligence of Things (AIoT) applications. The solution offers higher wireless bandwidth, separates control and data plane for edge computing, that provides customized products equipments and software with compatibility, stability, scalability, and security for mobile network operators. Z-COM solutions offer best cost/performance value, with rapid deployment and easy management tools that help telecom operators reduce capital investments and operating expenses, accelerate cost recovery and increase profits.

Solution Features

01 Abundant Experience in Telecom Collaborations for Integrating Wi-Fi with Telecom Service Systems

- Accelerate the lead time for Proof of Concept (POC), and providing customized solutions for installation.
- Integrate Wi-Fi with 3G/4G core networks, to create network for seamless roaming with different RF.
- Support various communications protocols and call flows which correspond to authentication (AAA, 802.1x, Captive Portal).

02 Centralized Management Platform to Optimize Performance and Efficiency

- Support Wi-Fi SON technology for easy and fast network deployments.
- Configure and upgrade massive scale AP via Centralized Management Platform.
- Integrate network diagnostic tools for monitoring and troubleshooting at remote, to reduce network maintenance cost.
- Introduce new management platform in SDN architecture, to save hardware investments for network equipments upgrade in the future.



Solution Features

03 Advanced Hardware Design Embedded with Flexible and Reliable Software

- Integrate design with RF and software, to provide excellent signals for wireless coverage and mechanism to reduce interferences at same or near channels.
- Support both central forwarding and local forwarding modes, to flexibly plan network for each customer.
- Support Wi-Fi WPA3 standard, providing security for user-related data at highest level.
- Prevent network service interruption via highly reliable N+1 Redundancy.

04 A Wide Range of Carrier-Grade Wireless Access Points for Deployments in Various Environments

- Support reliable access for multi-users in high density population area via latest OFDMA/MU-MIMO technology.
- Integrate access points and bridges with high power and high gain antennas for rural area deployments.
- Robust design with IP67 and 14 Grade wind resistance for outdoor environment.

Application Scenarios



Smart City



Wireless Hotspot

- Smart City

Wireless network is the foundation for building a smart city. It makes the city more efficient and drives economic development. Z-COM provides carrier operators with easy to deploy, manageable, and cost-effective network solutions.

- Wireless Hotspot

Z-COM helps telecom operators to deploy hotspots, and provide free Wi-Fi services to retain current clients. Telecom operators can also work with the government to build a smart city or cooperate with SMBs to open up new business opportunities. Whether in a park, shopping malls or restaurants, everyone can enjoy unparalleled Wi-Fi experience.

Z-COM Wi-Fi 6 / 6E Product

Coverage



SP250 Outdoor AP

2.4GHz / 5GHz Concurrent
Omni-directional antennas
for coverage

PTP/Coverage



SP250-S5 Outdoor AP

2.4GHz / 5GHz Concurrent
2.4GHz for coverage
5GHz directional antennas
for PTP Long Distance

4G LTE



SP250-A04 Backhaul AP/ Gateway

2.4GHz / 5GHz Concurrent

PtP/PtMP



SP230-S5 Outdoor AP

2.4GHz / 5GHz Concurrent
2.4GHz Omni antennas 5GHz
Directional antennas
6km 100Mbps

PtP/PtMP

5G NR



AG260 Railway Gateway

2.4GHz / 5GHz Concurrent
EN 50121 Railway applications
Electromagnetic compatibility
EN 50155
M12 X-Coded

Coverage



AS240 Entry-level Indoor AP

2.4GHz / 5GHz Concurrent
Omni-directional antennas for
coverage



AX-931 Wi-Fi 6E module

4X4:4 MU-MIMO
QCN 9074 160MHz Up to 4800Mbps
Max 21dBm per chain
M.2 E Key Interface



Access Point Features Highlight



IP67 Rating



Windproof



Wide
Temperature



High
Power



PoE Out



km
Transmission



Versatile Placing
Options



Simple
Design



Strongest
Competitiveness



5GHz
Priority



Anti-tamper
Lock



MU-MIMO



WLC Deploy a manageable, Intelligent, Easy Network



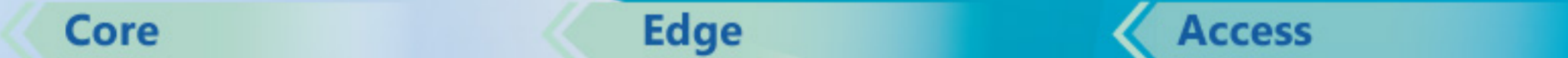
Cutting-Edge Technologies

- 無縫漫遊
Seamless roaming
- 自動頻道
Auto channel
- 頻寬控制
Bandwidth control
- 5GHz 優先
Auto channel
(5GHz prioritization)
- 負載平衡
Load balance
- 自動功率調整
Auto power

Key Features

- SDN架構
- 集中管理
Centralized
- 即時監控
Real-time monitoring
- 遠程故障排除
Remote Troubleshooting
- N+1 Backup
- 集中轉發
Central forwarding

zMEC Edge Computing Platform



Network Slicing

- 高擴充性
Scalability
- 降低佈建成本
Low deployment cost

URLLC

- 快速反應時間
Low-latency connectivity

Superior Scalability

- 高可用性/高彈性
High Flexibility

Load Balance

- 自動調配資源
Resource Allocation
- 資料安全性
Security

電信商網路架構



豐富的電信合作經驗,整合Wi-Fi與電信服務系統

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內建集中管理,可批量升級、更改設定,大幅降低網路管理成本,效能和效益再升級

Centralized management platform to optimize performance and efficiency



支援各類型協議和認證機制(AAA Captive Portal)所屬的呼叫流程(Call Flow)提高網路安全性

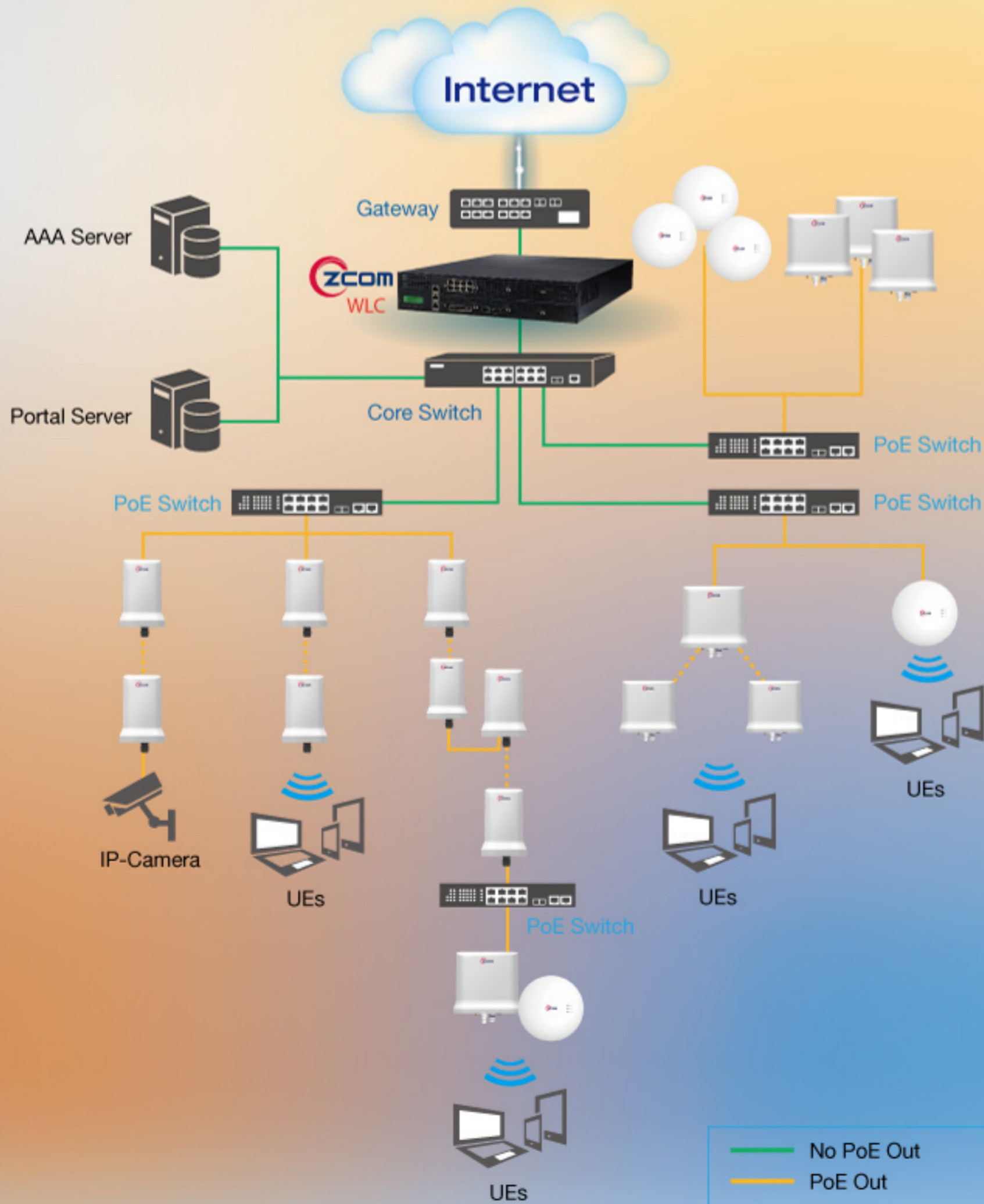
Call flows and various access security schemes will enhance security of the network.



高可靠度的N+1備援機制,確保網路不因意外而暫停服務

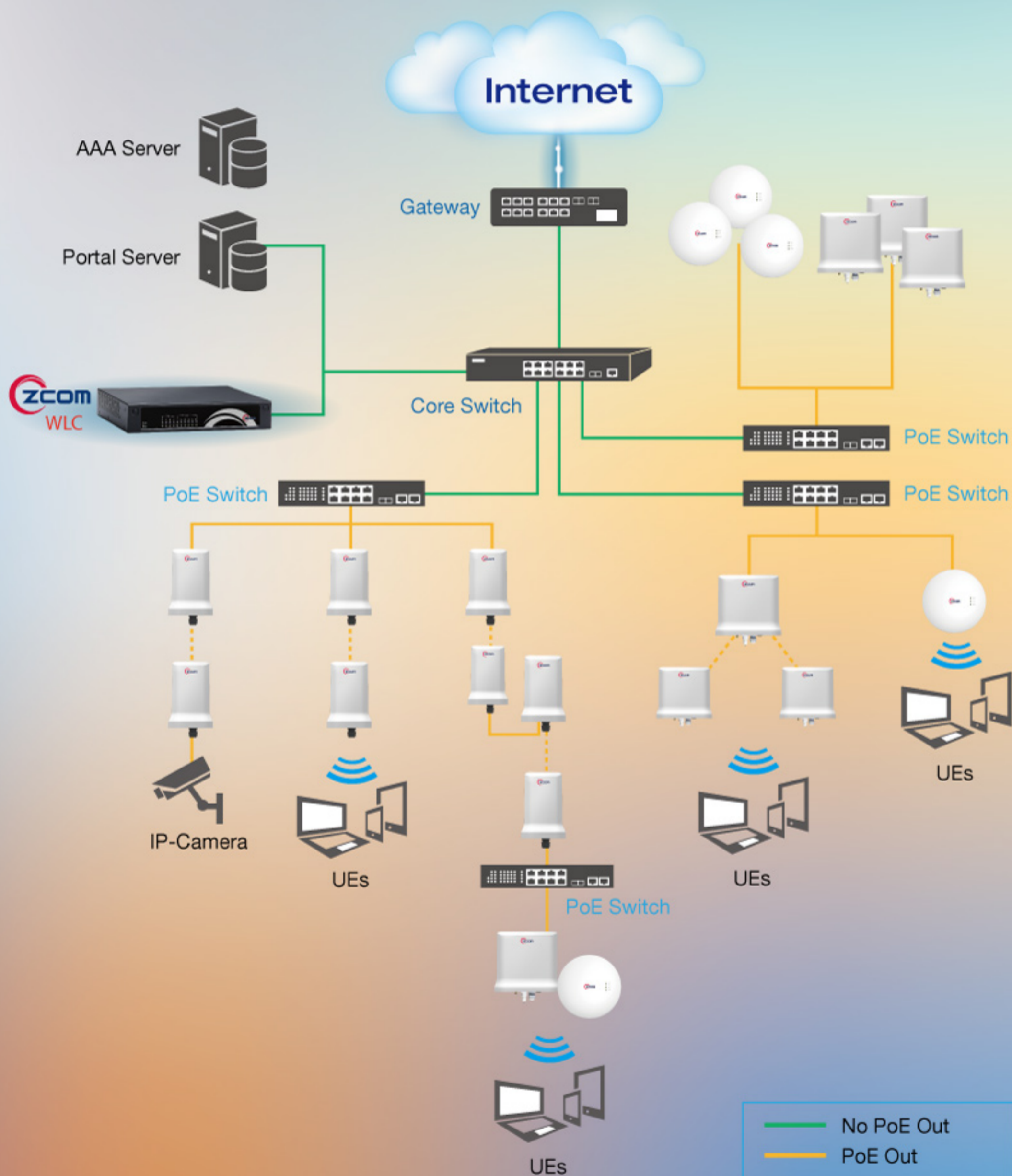
A wide range of carrier-grade wireless access points for deployments in various environments

集中轉發 Central Forwarding



電信商網路架構

本地轉發 Local Forwarding



About Z-COM

成立於1995年，智捷科技專注於無線通訊研發與製造。憑藉近30年技術實力，成功推動大規模Wi-Fi Offload和智慧城市項目，全球部署數百萬運營商級Wi-Fi基地台，連接超過五億使用者。近年來更多次與中國、印度電信商合作佈建智慧城市，積極與IoT世代網路應用接軌。

作為無線網路和混合組網的專業網路系統供應商，智捷科技整合5G、Wi-Fi/AIoT技術，積極佈局專用網路系統和邊緣運算的AIoT應用，打造新一代的移動寬頻應用。

Since 1995, Z-COM pioneers wireless communication R&D, boasting nearly 30 years of expertise. We've successfully led global Wi-Fi Offload and smart city projects, connecting 500+ million users with millions of carrier-grade Wi-Fi stations. Collaborating with telecom giants in China and India, we actively embrace IoT-era network applications.

As a top-tier provider in wireless and hybrid networking, Z-COM integrates 5G, Wi-Fi, and AIoT technologies. Our strategic deployment includes dedicated networks and edge computing for AIoT, shaping the next-gen mobile broadband solutions.



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