



VLAN 1: ISP 10.45.1.0/24 – Exterior-facing Router Interfaces, firewalls or WAN optimization controllers

VLAN 2: Hosts 10.45.2.0/24 – Office desks, back-office workstations in the Forecourt Upper Floor, and administrative PCs in the Supermarket.

VLAN 3: Staff Radio 10.45.3.0 – IP-Based radio dispatch consoles or handheld radios.

VLAN 4: Power Infrastructure 10.45.4.0/24 – Dedicated monitoring for the Slow Charge and Fast Charge areas.

VLAN 5: Technical Clients 10.45.5.0/24 – Specialized diagnostic workstations located in the Test & Service Building.

VLAN 6: Infrastructure Servers 10.45.6.0/24 – Domain Controllers (DC1,DC2) and Database Servers.

VLAN 7: Telephony 10.45.7.0/24 – VoIP phones at the POS counters, service desks, and upper-floor offices

VLAN 8: HVAC infrastructure 10.45.8.0/24 – Building automation for the large open-plan office (70m x 40m) and temperature-sensitive areas like the Server Duct

VLAN 9: Storage 10.45.9.0/24 – NAS (Network attached Storage) units and SAN (Storage Area Network)

VLAN 10: Network Management 10.45.10.0/24 – network management appliance, SNMP monitoring Tools, syslog servers

VLAN 11: Security Cameras 10.45.11.0/24 – 21 Networked CCTV cameras covering the site perimeter, POS terminals, and internal shop areas.

VLAN 12: Server OOBM 10.45.12.0/24 – Management of the Campus Distributor (CD) racks located in each building (10 total).

VLAN 13: Wireless access points 10.45.13.0/24 – 10 Wi-Fi APs distributed across the site, specifically in the Forecourt circulation areas, seating areas, and office spaces

VLAN 15: Routers 10.45.15.0/24 – Core Layer 3 switches or routers.

VLAN 16: Links 10.45.16.0/24 – Single-mode fiber connections running in a Ring Topology through the 100mm underground ducts

VLAN 998: Cluster Chat – High-speed inter-node communication for the POS terminals (4 per station) to ensure synchronized transactions

VLAN 999/1000: Native/Discard – Security segments used for untagged traffic or unused switch ports.