

# **IP address assignment based on OS type (Configuration Guide)**

# Disclaimer

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# VLAN assignment priority

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- **Our VLAN assignment policy is as followings from the highest priority;**
  - P1. OS Type based VLAN (osType acquired from DHCP fingerprint option)**
  - P2. AAA VLAN override (using Radius Server, user + additional VLAN attribute)
  - P3. VLAN reassignment from real user's IP address (static IP user only)
  - P4. VLAN assignment by APC itself(MAC based Hashing rule)

[Note] This OS type based VLAN assignment functionality is applied on a WLAN basis. Preliminarily administrator has to know the actual fingerprint patterns regarding specific OS types and add those values into APC using commands behind this page.

First add fingerprint patterns to detect specific OS type and map OS type with VLAN(s). The APC assigns a new VLAN to user if user's device is detected with DHCP fingerprint option and this OS is bound to an actual VLAN.

# **Actual Configuration**

# Configure DHCP fingerprint patterns

– Previously, need to know the station's DHCP Fingerprint value and option type

- Android OS affiliation
  - Option: 60, Fingerprint: 0x646863706364
- Windows OS affiliation
  - Option 60, Fingerprint: 0x4d53465420352e30
- Apple iPhone
  - Option: 55, Fingerprint: 0x0103060f77fc

– CLI

```
APC_DPI/configure/os-aware # os-aware android seq 1 dhcp-option 60 eq 646863706364 os-type android
APC_DPI/configure/os-aware # show os-aware-all
=====
PLD_INDEX      OS_NAME      TYPE      REFCNT      OPTION      LENGTH      FINGERPRINT      OS_TYPE
=====
1             android      0         0           60          6           646863706364      android
APC_DPI/configure/os-aware #
```

# Configure Specific OS Types for VLANs

– OS-types are configured as below

```
WEC8500/configure/os-aware # show os-aware-all
```

PLD_INDEX	OS_NAME	TYPE	REFCNT	OPTION	LENGTH	FINGERPRINT	OS_TYPE
1	android	0	0	55	6	112233445566	android
2	windows	0	0	61	6	112233445566	windows
3	ios	0	0	61	6	112233445566	ios
4	apple-MAC	0	0	12	8	aabbccceddfff0011	mac

– CLI

```
WEC8500/configure/wlan 1# if-group-os windows 100
VLAN is added successfully.
WEC8500/configure/wlan 1# if-group-os windows 200
VLAN is added successfully.
WEC8500/configure/wlan 1# if-group-os windows 300
VLAN is added successfully.
WEC8500/configure/wlan 1# if-group-os android 101
VLAN is added successfully.
WEC8500/configure/wlan 1# if-group-os android 102
VLAN is added successfully.
WEC8500/configure/wlan 1# if-group-os android 103
VLAN is added successfully.
WEC8500/configure/wlan 1# show wlan if-group-os
```

VLAN	OS	Type	Configuration
1	1	1	android
1	2		windows

OS\_NAME

os-type PLD\_INDEX