

Positioning Access Points

Basic Installation Guidelines for Cisco Access Point and PoE injector v7

Author: Janne Veijola

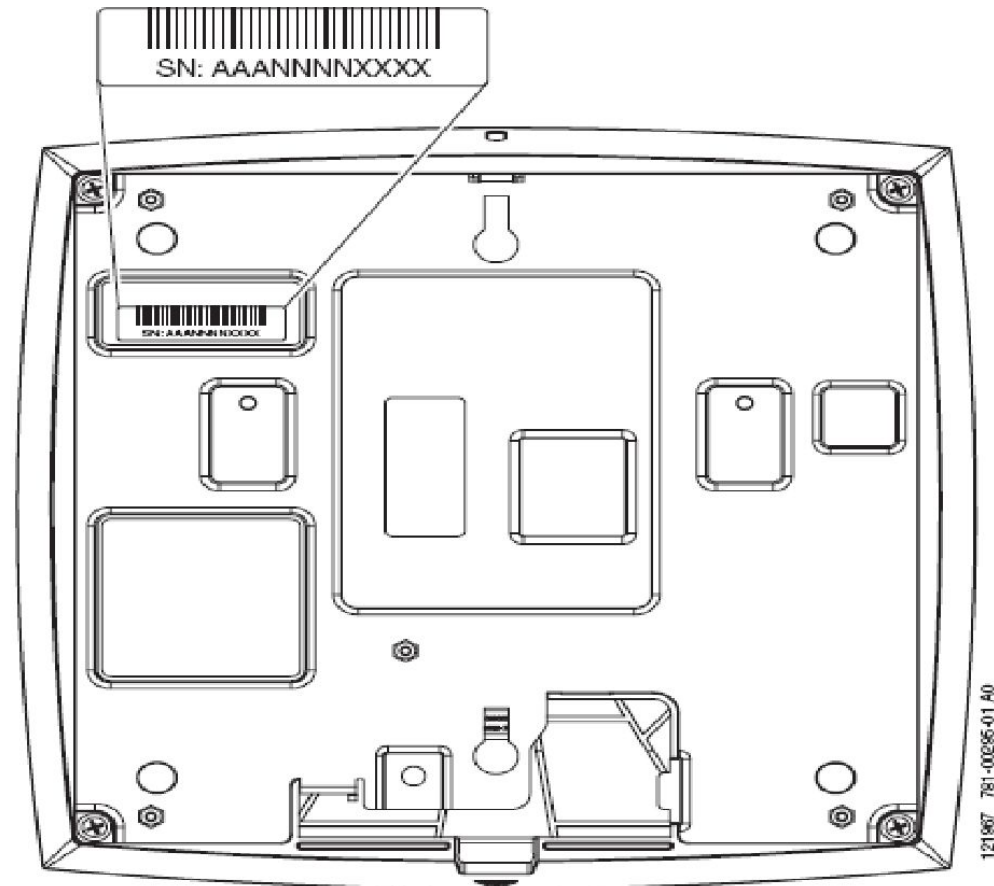
General Guidelines – Positioning Access Points

- APs shall be mounted as close as possible to locations that have been shown in the radio plan document
- The length of the work area AP patch cable shall not exceed 5 m
- Ensure that access points are not mounted closer than 1.5 meters (5 feet) from the body of all persons
- Do not mount the access point within 90 cm (3 feet) of metal obstructions
- Install the access point away from microwave ovens. Microwave ovens operate on the same frequency as the access point and can cause signal interference
- Mount access points only inside the building
- If possible avoid mounting access points on walls or other vertical surfaces

General Guidelines – Positioning Access Points

- APs shall be mounted below a ceiling
- Visual contact between users and APs shall be maintained
- APs shall NOT be mounted above a ceiling

Specific Guidelines – Locating The Serial Number and MAC address from Cisco AP



The access point serial number label contains the following information:

- Model number, such as *AIR-AP1131AG-A-k9* or *AIR-LAP1131AG-A-k9*
- Serial number, such as *VDF0636XXXX* (11 alphanumeric digits)
- MAC address, such as *00abc65094f3* (12 hexadecimal digits)
- Location of manufacture, such as *Made in Singapore*

Specific Guidelines – Serial Number and MAC address delivery – **IMPORTANT**

- Before AP mounting, record AP serial number and MAC address to the “NSN WLAN Hardware Data for HP 2012.xlsx” Excel document (**IMPORTANT**)



NSN WLAN
are Data for HP 20

- Return the updated “NSN WLAN Hardware Data for HP 2012.xlsx” to IT PM (**IMPORTANT**)
- If APs will be relocated from other NSN site to the new site or stored in the office, please refer file “wlan device storing or delivery from site X to site Y v06 .xlsx” (**IMPORTANT**)



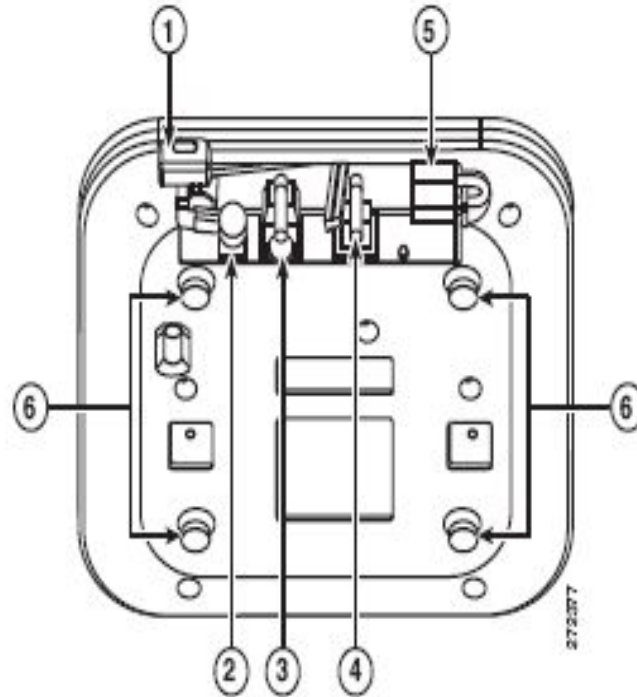
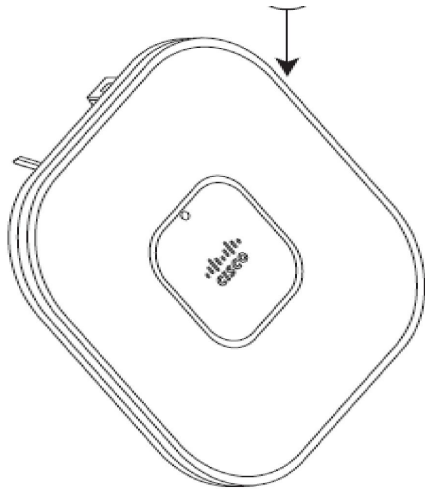
Microsoft Office
Excel Worksheet

and proceed with mounting as defined on next slide number 6

Specific Guidelines – Serial Number and MAC address delivery – **IMPORTANT**

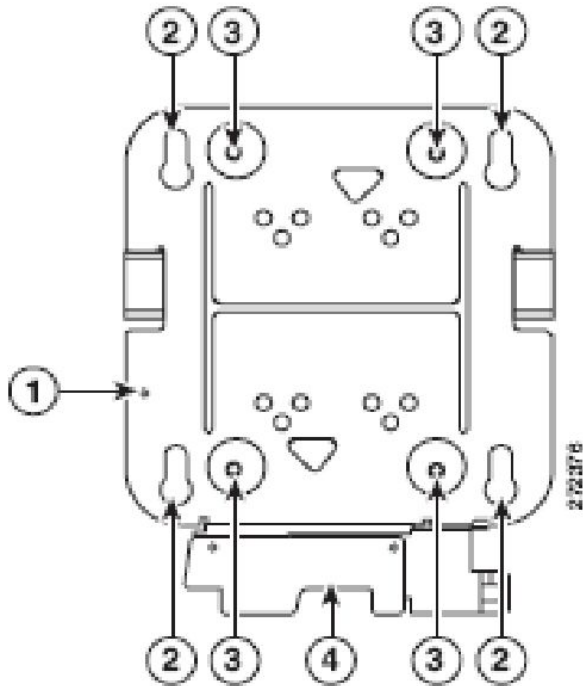
- Please see AP device number from site's "AP locations.ppt" document sent by radio planner
- Stick name label to AP cover (**IMPORTANT**)
 - access point / floor 9 / device number 07 => ap907
 - access point / building e / floor 4 / device number 8 => ape408
 - AP name label can be placed on front cover and it has to be well distinguishable with characters at least 20 mm (the same name label can be used for PoE injector naming as well, please refer slide 15)
- Complete access point installation and write up RJ45 sockets that are connected to APs
- Provide RJ45 numbers to WLAN project contact

Specific Guidelines – Cisco 1140 Series AP Layout and Connectors



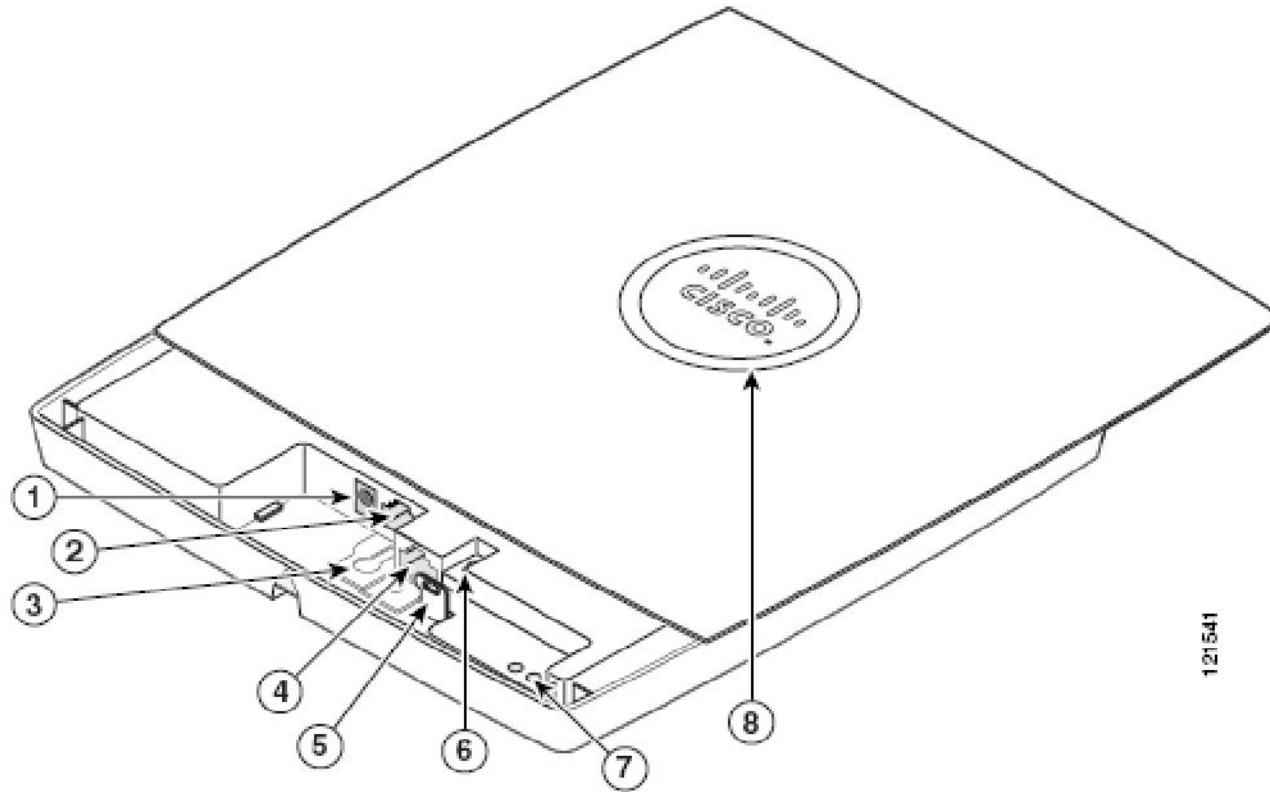
| | | | |
|---|----------------------|---|--|
| 1 | Kensington lock slot | 4 | Console port |
| 2 | Power connection | 5 | Security padlock and hasp |
| 3 | Ethernet port | 6 | Low-profile mounting bracket pins (feet for desk or table-top mount) |

Specific Guidelines – Cisco 1140 Series AP Mounting Bracket details



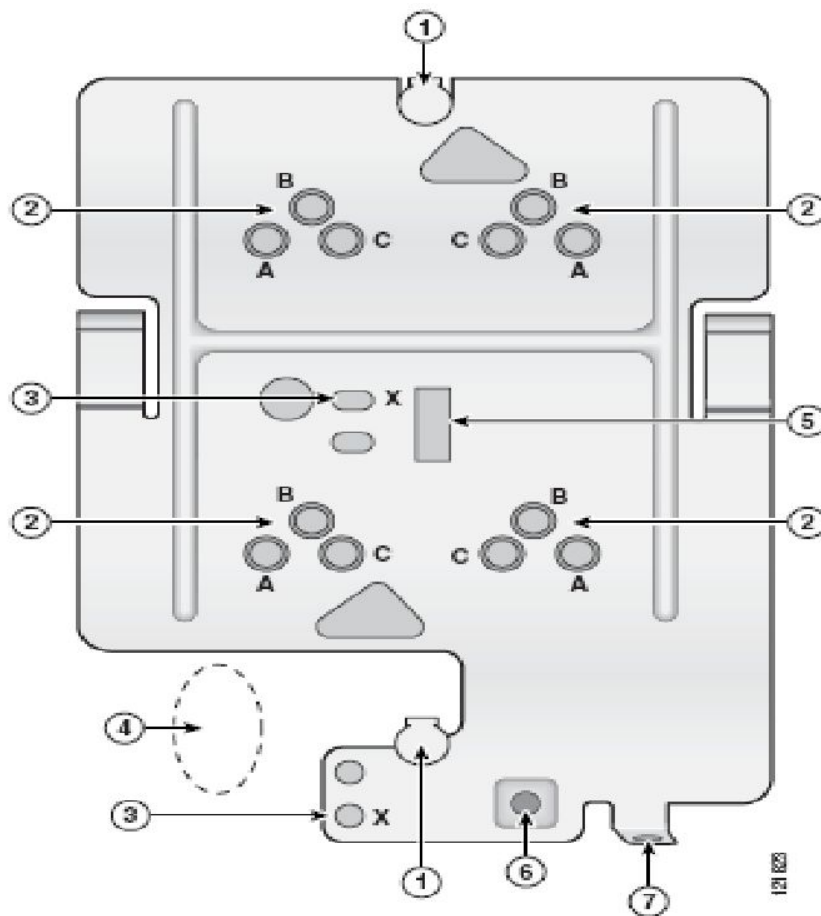
| | | | |
|---|--------------------------------|---|-------------------------|
| 1 | Grounding post | 3 | Indented mounting holes |
| 2 | Access point mounting keyholes | 4 | Cable access cover |

Specific Guidelines – Cisco 1130 Series AP Layout and Connectors



| | | | |
|---|-----------------------|---|---------------------------------|
| 1 | 48-VDC power port | 5 | Padlock post |
| 2 | Ethernet port (RJ-45) | 6 | Mode button |
| 3 | Keyhole slot | 7 | Ethernet (E) and radio (R) LEDs |
| 4 | Console port (RJ-45) | 8 | Status LED |

Specific Guidelines – Cisco 1130 Series AP Mounting Bracket details



| | | | |
|---|--------------------------------|---|------------------------|
| 1 | Keyhole clips | 5 | T-bar hanger clip hole |
| 2 | Screw holes (A, B, C) | 6 | Security screw hole |
| 3 | Screw hole (X) | 7 | Padlock hole |
| 4 | Location for cable access hole | | |

Specific Guidelines – Mounting the AP on a Horizontal Surface



Horizontal mounting below a suspend ceiling
(In the example pictures devices are not Cisco 1130 or 1140)



Specific Guidelines – Poor AP Placement



Poor placement, AP placed near physical obstruction
(In the example pictures device is not Cisco 1130 or 1140)

Specific Guidelines – Poor AP Placement



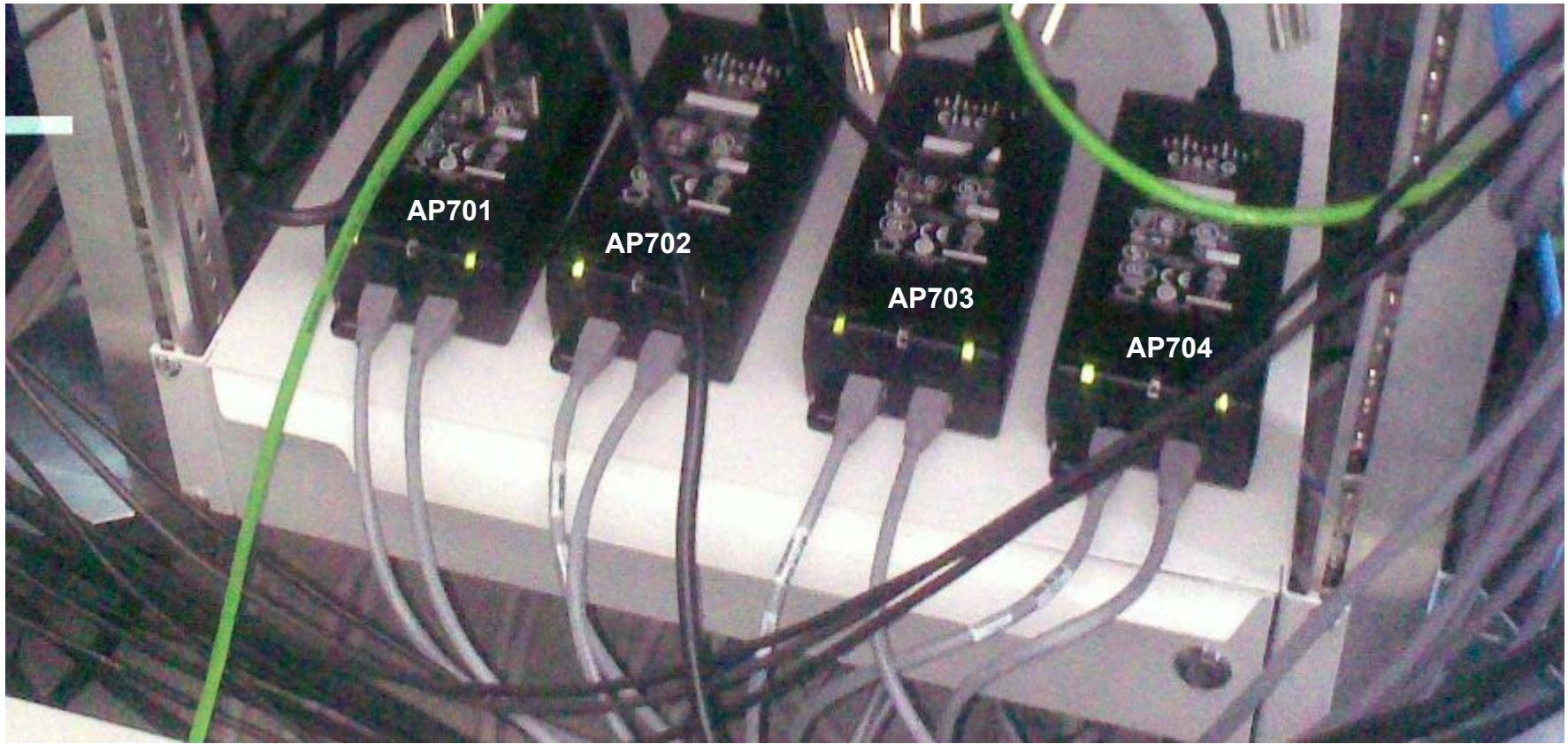
Poor placement, APs placed near to each other

General Guidelines – Positioning Access Points

- Please see more details about Cisco 1140 AP mounting from the document “**Cisco Aironet 1140 Series AP Getting Started Guide.pdf**” which is shipped with Access Point
- Please see more details about Cisco 1130 AP mounting from the document “**Cisco Aironet 1130AG Series Access Point Hardware Installation Guide**” which is shipped with Access Point

PoE injector installation

- Usually PoE power injectors can be located to telecommunication room
- Own rack shelf/plane is needed
- To avoid heat load there must be free space between injectors as illustrated in the picture below
- AP numbering has to be placed to injectors



Post deployment end user level connectivity testing

- Once all WLAN devices are installed according to radio plan, configured and operating normally then end user level connectivity testing can be started (**IMPORTANT**)
- Base test steps are listed to “WLAN_Deployment_Checklist_v1 8.xlsx”