The Aruba IAP-105 access point provides the following capabilities:

- Supporting existing 802.11a/b/g wireless services.
- Performance, 802.11n 2.4 GHz and 5 GHz functionality while simultaneously supporting existing 802.11a/b/g wireless services.

For information about the IAP-105’s LED behavior, see Table 1 on page 2.

The IAP-105 is equipped with four LEDs that indicate the status of the various components of the IAP.

- **PWR**: Indicates whether or not the IAP-105 is powered-on.
- **11N**: Indicates the status of the 802.11a/n radio.
- **11B/G/N**: Indicates the status of the 802.11b/g/n radio.

For information about the IAP-105’s LED behavior, see Table 1 on page 2.

### Identifying Known RF Absorbers/Reflectors/Interference Sources

Identifying known RF absorbers, reflectors, and interference sources while in the field during the installation phase can be critical. Make sure that these sources are taken into consideration when you install an IAP to its fixed location.

- **Absorbers include:**
  - Concrete/concrete—Old concrete has high levels of water dissipation, which drive out the concrete, allowing for potential RF propagation. New concrete has high levels of water concentration within the concrete, blocking RF signals.
  - Natural Items—Fish tanks, water fountains, ponds, and trees
  - Brick

- **Reflectors include:**
  - Metallic Objects—Metal pans between floors, rebar, fire doors, air conditioning/heating ducts, metal windows, blinds, brick and metal fences (depending on orientation), metal shelving, and filing cabinets.
  - Do not place an IAP between two air conditioning/heating ducts. Make sure that APs are placed below ducts to avoid RF obstructions.

- **Interference sources include:**
  - Microwave ovens and other 2.4- or 5-GHz devices (such as cordless phones)
  - Cordless headsets such as those used in call centers or lunch rooms

### About the Aruba IAP-105 Access Point

The Aruba IAP-105 wireless access point supports the IEEE 802.11n standard for high-performance WLAN. This access point uses MIMO (Multiple-In, Multiple-Out) technology and offers throughput modes to deliver high-performance, 802.11n 2.4 GHz and 5 GHz functionality while simultaneously supporting existing 802.11a/b/g wireless services.

### Package Contents

- IAP-105 access point
- Installation guide (this document)
- Aruba Instant Quick Start Guide

Before installing your IAP-105 access point, be sure that you have the following:

- CAT5 UTP cable of required length
- One of the following power sources:
  - IEEE 802.3af-compliant Power over Ethernet (PoE) source
  - The PoE source can be any power source equipment (PSE) for an Aruba AP DC-adapter kit (solid yellow) in VisualRF.

### Summary of the Setup Process

The IAP-105 access point consists of five tasks, which must be performed in this order:

1. Identify the specific installation location for each IAP.
2. Install each IAP.
4. Configure each IAP.

### Identifying Specific Installation Locations

The keyhole-shaped slots on the back of the device can be used to securely attach the device directly to a 1/4-20" standard ceiling tile rail.

1. Pull the necessary cables through a prepared hole in the ceiling tile to provide service to all Aruba Networks products should be performed by trained service personnel only.

### Installing the IAP-105 Access Point on a Wall

1. If necessary, connect the console cable to the console port on the back of the IAP.
2. Install each IAP.
3. Align the mounting slots on the rear of the IAP over the screws and slide the unit into place (see Figure 4).
Serial Console Port

The serial console port (Console) allows you to connect the IAP to a serial terminal or a laptop for direct local management. This port is an RJ-45 female connector with the pinouts described in Figure 5. Connect this port in one of the following ways:

- Connect it directly to a terminal or terminal server using an Ethernet cable.
- Use a modular adapter to connect the RJ-45 (female) connector on the IAP to a DB-9 (male) connector, and connect the adapter to a laptop using an RS-232 cable. See Figure 5 for connector details of the adapter.

Power Connection

The IAP-105 has a single 12V DC power jack socket to support powering through an AC/DC power adapter.

If both AC and DC power are available, the IAP uses AC power even when there is not enough POE voltage available to power the AP.

Verifying Post-Installation Connectivity

The integrated LEDs on the IAP can be used to verify that the IAP is receiving power and initializing successfully (see Table 1). Refer to the Aruba Instant Quick Start Guide for further details on verifying post-installation network connectivity.

Table 1 AIP-105 Series LED Meanings

<table>
<thead>
<tr>
<th>LED</th>
<th>Color/State</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>PWR</td>
<td>Off</td>
<td>No power to IAP</td>
</tr>
<tr>
<td></td>
<td>Green flashing</td>
<td>System initializing</td>
</tr>
<tr>
<td></td>
<td>Red</td>
<td>System failed to initialize, contact TAC</td>
</tr>
<tr>
<td></td>
<td>Green steady</td>
<td>Power on, device ready</td>
</tr>
<tr>
<td>IAP/R</td>
<td>Off</td>
<td>10/100 Mbps link</td>
</tr>
<tr>
<td></td>
<td>Green</td>
<td>1000 Mbps link</td>
</tr>
<tr>
<td></td>
<td>Amber</td>
<td>10/100 Mbps link</td>
</tr>
<tr>
<td></td>
<td>Green flashing</td>
<td>Ethernet link activity</td>
</tr>
<tr>
<td>11A/K</td>
<td>Off</td>
<td>No link</td>
</tr>
<tr>
<td></td>
<td>Green on</td>
<td>1000 Mbps link</td>
</tr>
<tr>
<td></td>
<td>Amber on</td>
<td>10/100 Mbps link</td>
</tr>
<tr>
<td></td>
<td>Green flashing</td>
<td>Ethernet link activity</td>
</tr>
</tbody>
</table>

Safety and Regulatory Compliance

Aruba Networks provides a multi-language document that contains country-specific restrictions and additional safety and regulatory information for all Aruba access points. This document can be viewed or downloaded from the following location: www.arubanetworks.com/safety_addendum.

The device will be electronically labeled and the FCC ID will be displayed via the remote Web UI under the About menu.

RF Radiation Exposure Statement: This equipment complies with FCC RF radiation exposure limits. This equipment should be installed and operated with a minimum distance of 13.78 inches (35 cm) between the radiator and your body for 2.4 GHz and 5 GHz operations. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. When operated in the 5.15 to 5.25 GHz frequency range, this device is restricted to indoor use to reduce the potential for harmful interference with co-channel Mobile Satellite Systems.

EMC Compliance and Warning Statement

- ISO/IEC 9506-1:2-2007
- EN 60061-1-2:2007

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the manufacturer’s instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment causes interference with other devices, which may be determined by turning the equipment off and on, the user is encouraged to try and correct the interference by one or more of the following measures:

- Relocate or shield the receiving equipment.
- Increase the separation between the equipment.
- Connect the equipment into an outlet on a circuit different from that to which the device(s) are connected.
- Consult the manufacturer or field service technician for help.

The Model IAP-105 does not have an Applied Part as defined in IEC 60061-1. The protection against electric shock is Class II. The device is not protected against ingress of liquids and has a protection class of IP20 as defined by IEC 60529 and IEC 60529-1. Equipment not suitable for use in hazardous locations shall not be used in such locations. The unit is considered “Continuous Operation” equipment as defined by IEC 60061-1.

Power Consumption: 48 VDC 802.3af power over Ethernet or 12VDC, 1.25A for external AC supplied power (adapter sold separately). Maximum power consumption: 12.5W.

European Union RoHS

Aruba products also comply with the EU Restriction of Hazardous Substances Directive 2002/95/EC (RoHS). RoHS restricts the use of specific hazardous materials in the manufacture of electrical and electronic equipment.

Specifically, restricted materials under the RoHS Directive are Lead (including Solder used in printed circuit assemblies), Cadmium, Mercury, Hexavalent Chromium, and Bromine. Some Aruba products are subject to the exemptions listed in RoHS Directive Annex 7 (Lead in solder used in printed circuit assemblies). Products and packaging will be marked with the “RoHS” label shown at the left indicating conformance to this Directive.

China RoHS

Aruba products also comply with China environmental declaration requirements and are labeled with the “RB” label shown at the left.

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