



ALLION[®]

An ISO/IEC 17025
Qualified Test Laboratory

Intel My Wi-Fi Technology

Nion Wu

www.allion.com

Agenda

- Introduction
- Client Requirements
- Program Flow
- Test Facility
- Interoperability Test
- Qualified Devices List
- Reference Link



Introduction

Intel® My WiFi Technology is

- A Wi-Fi* Personal Area Network (Wi-Fi PAN)
- Allows a single Wi-Fi adapter to function like two separate adapters.
 - One interface can connect to any standard Wi-Fi certified Access Point (AP).
 - The other interface enables a Wi-Fi PAN that can operate concurrently with the Wi-Fi connection.
 - Support different band / channels
 - Support WPA2, WPS and QoS
 - CE devices with embedded Wi-Fi see this Wi-Fi PAN network as just another Wi-Fi network to which they can associate.
 - Allow 8 devices connect to WPAN

Client Requirements

- Baseline WFA certification
- Support multiple Wi-Fi profile
 - No need to re-activate the pairing procedure for each connectivity change between the WLAN and the Intel® My Wi-Fi PAN.
- Interoperability with Intel Central Point (CP)
 - Infrastructure (BSS) only
 - Wireless security
 - Support None, WEP40, WEP104, WPA-PSK, WPA2-PSK
 - NOT support mixed security mode.
- WPS
 - Push Button Configuration (PBC)
 - PIN code (at least 8 digits)

Client Requirements

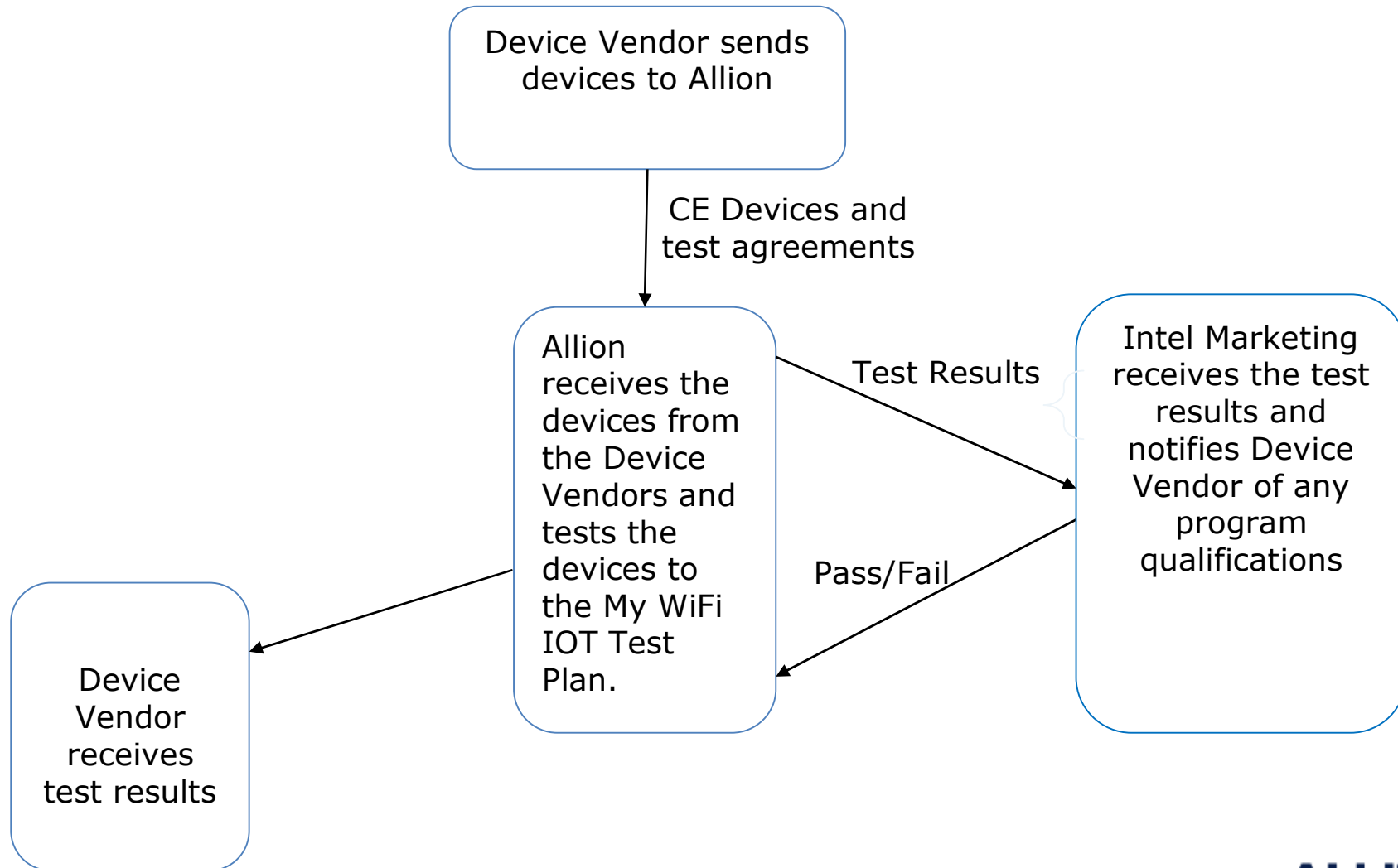
- Intel® My Wi-Fi Technology IE
 - Resemble the “Standalone AP” by announce capability IE
 - The IE exists in Beacon, Probe request / responses and Association request / responses
 - The specific IE format is

	Element ID	Length	Intel OUI	Type/Version	PAN Type	Info
Octets	1	1	3	1	1	n

Field	Value
Intel OUI	00 17 35
Type/Version	0x01
PAN Version Type	0x01


Probe Respsnds.htm

Intel® My WiFi IOT Program Flow

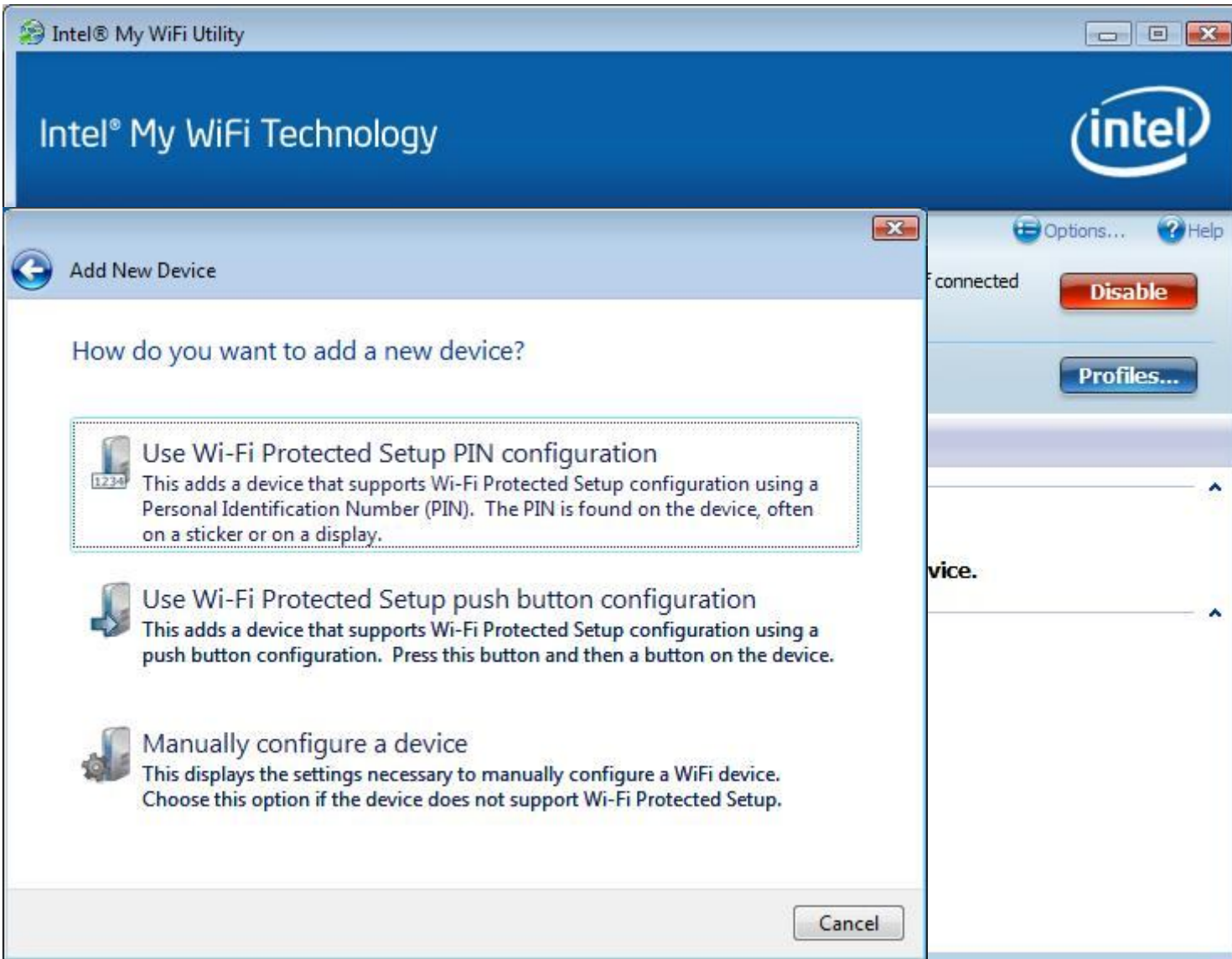


Test Facility

- Test platform: Centrino 2
- Test OS:
 - Vista 32 SP1
 - Vista 64 SP1
 - Windows 7*
- Intel WiFi Card
 - WiFi Link 5100
 - WiFi Link 5300
 - Or higher
- Intel PROSet version 12.x

Test Facility

- Intel® My WiFi Utility
- Intel® My WiFi Technology



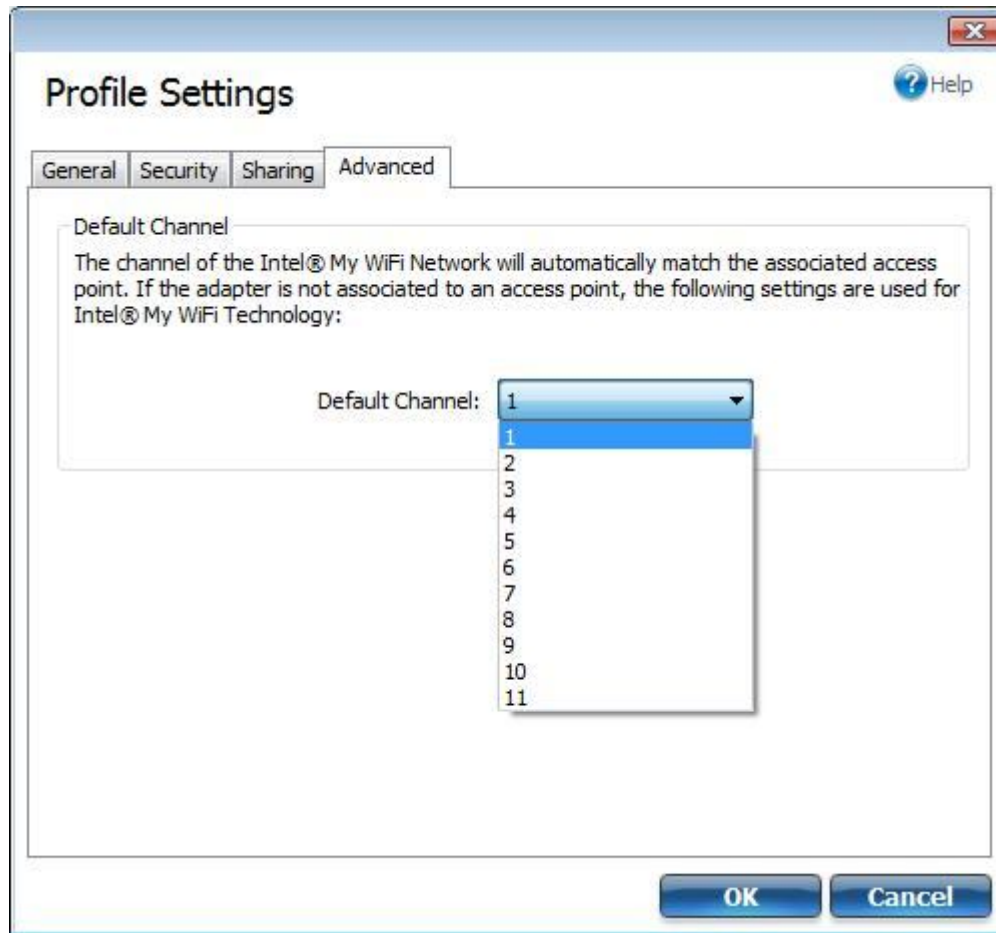
The screenshot displays the Intel My WiFi Utility interface. A dialog box titled "Add New Device" is open, asking "How do you want to add a new device?". It offers three options:

- Use Wi-Fi Protected Setup PIN configuration**: This adds a device that supports Wi-Fi Protected Setup configuration using a Personal Identification Number (PIN). The PIN is found on the device, often on a sticker or on a display.
- Use Wi-Fi Protected Setup push button configuration**: This adds a device that supports Wi-Fi Protected Setup configuration using a push button configuration. Press this button and then a button on the device.
- Manually configure a device**: This displays the settings necessary to manually configure a WiFi device. Choose this option if the device does not support Wi-Fi Protected Setup.

The background window shows the main utility interface with the Intel logo, "Options..." and "Help" buttons, and a "Disable" button.

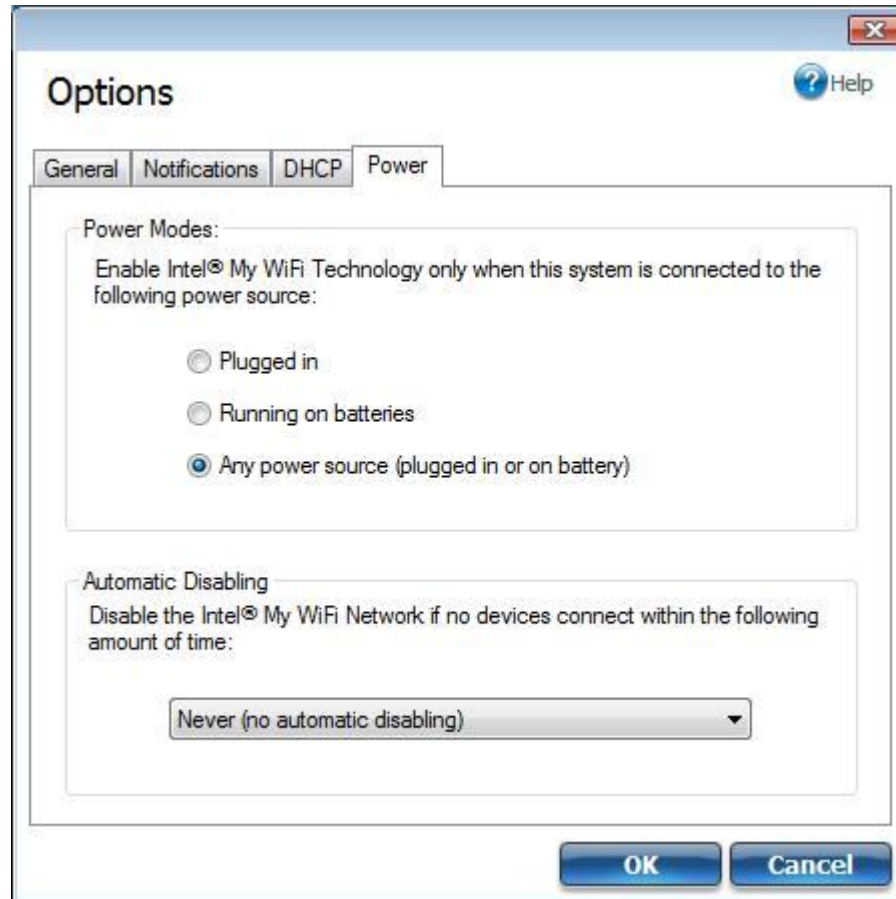
Test Facility

Profile Settings



Test Facility

Options setting



Interoperability Testing (IOT)

Two device samples must be sent from the CE vendor.

The following test will NOT be executed

- Conductive performance
- Power Consumption
- Stability, Stress & Endurance
- Security Vulnerabilities
- Regulatory

Interoperability Testing (IOT)

The test includes

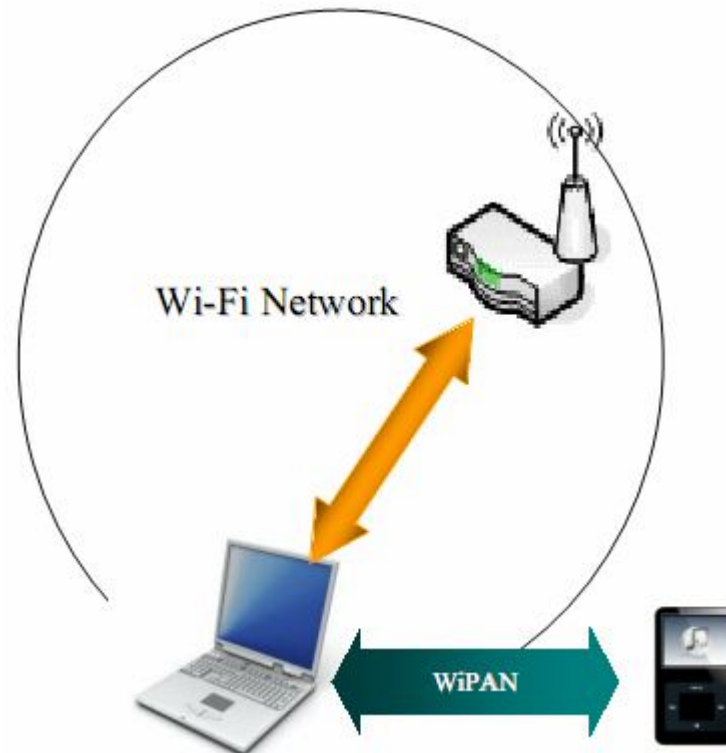
- Protocol conformance
 - Pairing, including discovery, association
- Basic usability
- OTA performance
 - Data rates within the PAN coverage area as measured by file transfer times.
- User's Guide
 - Functionality specified in the client device's user guide will be tested.

Interoperability Testing (IOT)

- Paring
 - Connectivity using WPS PBC and PIN
 - Manual connectivity (without WPS)

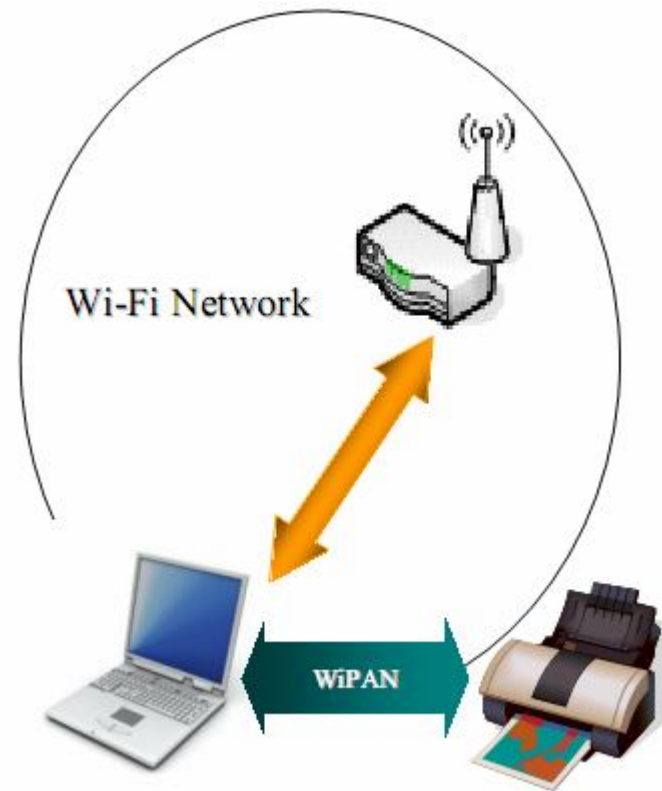
Interoperability Testing (IOT)

- Sync and Go Use Case
 - Media players, cameras, DFP,
 - Portable storage device where files are synchronized with a PC



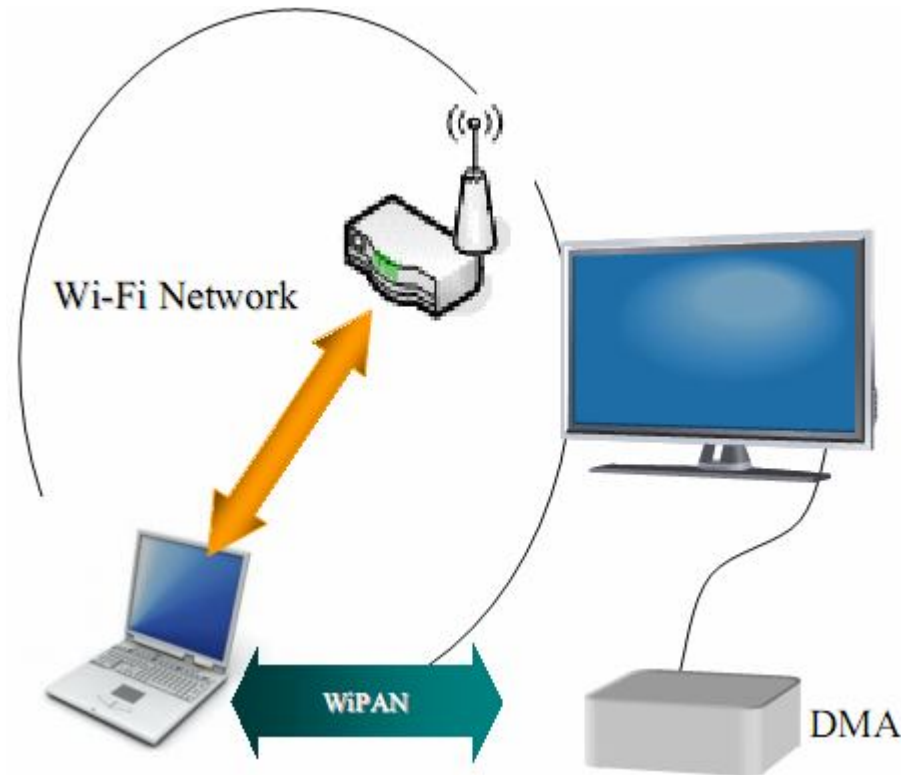
Interoperability Testing (IOT)

- Printing Use Case (for printers)



Interoperability Testing (IOT)

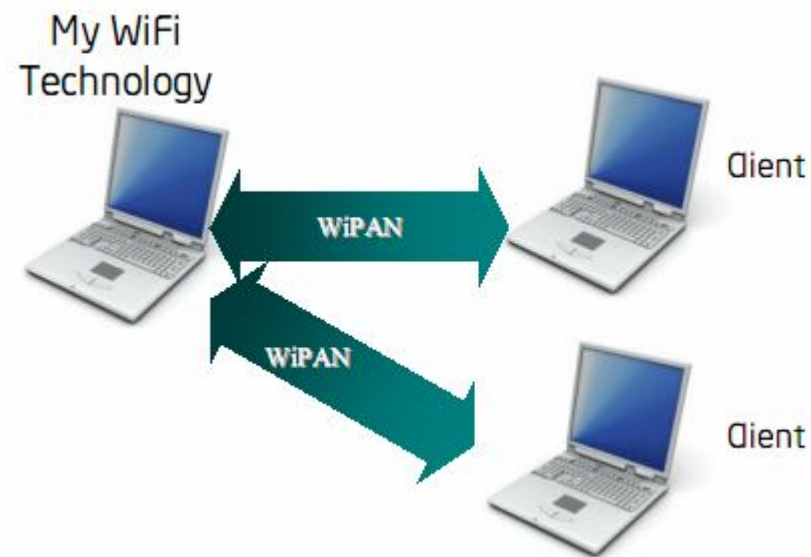
- Streaming Media Use Case
 - Media display (e.g. television, monitor, etc.)
 - Digital Media Adapters (DMA)



Interoperability Testing (IOT)

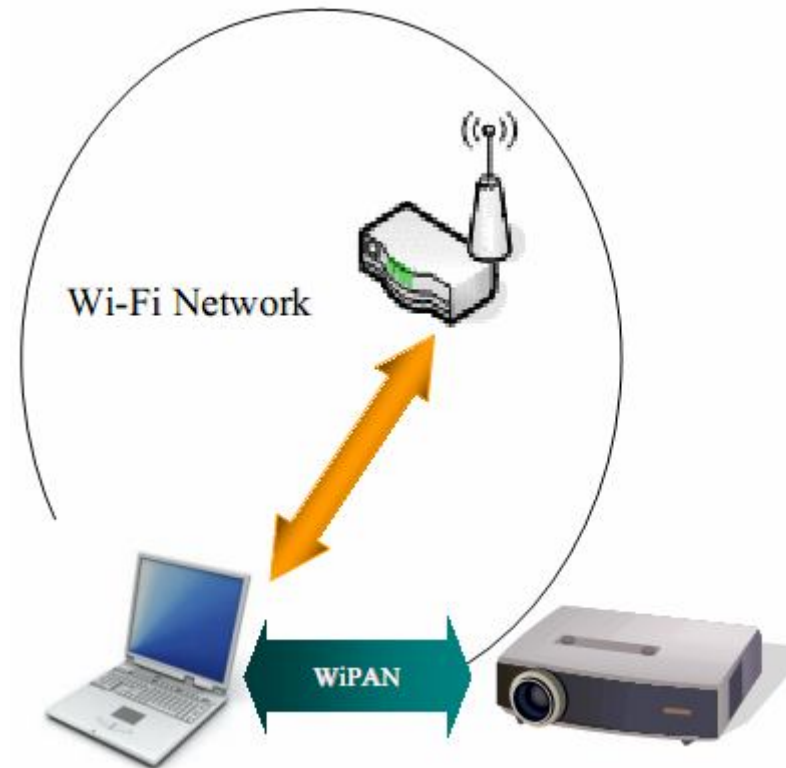
- File Sharing Use Case

- Wi-Fi enabled computers, such as laptops, Mobile Internet Devices, Netbooks, etc.



Interoperability Testing (IOT)

- Projector Use Case



Qualified Device List

Brand	Product
Apple	Apple TV*
	Airport Express*
	Time Capsule*
Brother	Printer HL-2170W*
D-Link	Wi-Fi Digital Photo Frame DSM-210*
Hewlett Packard	HP Photosmart C7280*
Lexmark	Printer X7675*
Linksys	Wireless Game Adapter (WGA600n)*
Nikon	Coolpix model P3*
Panasonic	Wi-Fi Projector PT-LB60NTU*
Philips	Wi-Fi Digital Photo Frame 8FF3WMI*

ALLION[®]

Reference Link

- Intel My WiFi Technology Center:
<http://communities.intel.com/community/mywifi?view=overview>
- Intel My WiFi User Guide:
<http://communities.intel.com/servlet/JiveServlet/downloadBody/2665-102-3-4643/MyWiFi%20UG.pdf>

Q&A

Thank You

NO TEXT, LOGO OR GRAPHIC FROM THIS DOCUMENT MAY BE COPIED OR RETRANSMITTED UNLESS EXPRESSLY PERMITTED BY ALLION TEST LABS, INC. AND/OR THEIR RESPECTIVE OWNERS.

ALLION[®]