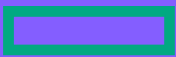


# Network Monitoring Inside vs Outside

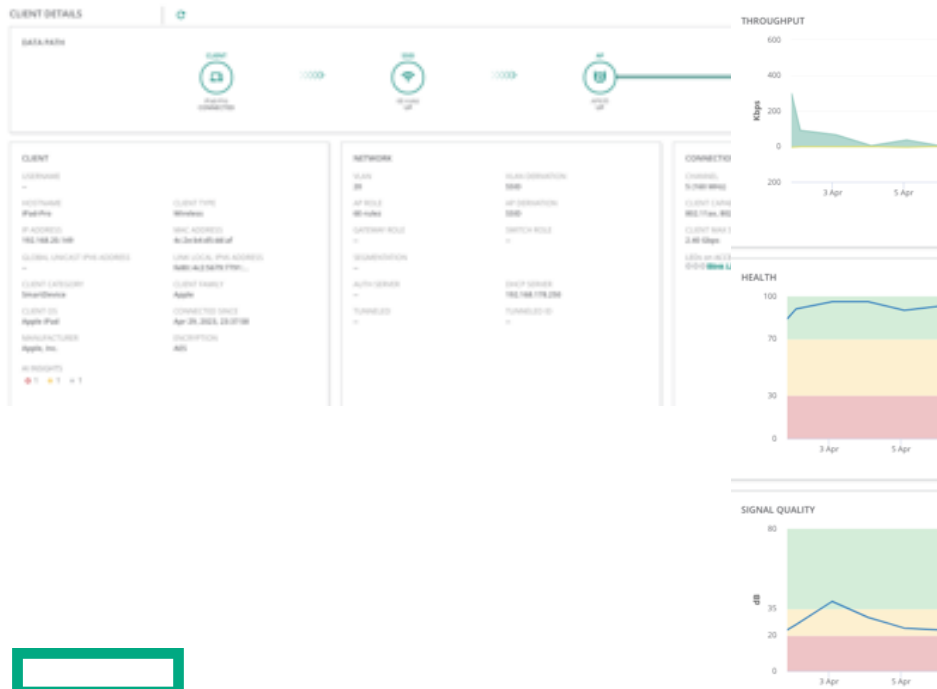
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# Definition for this presentation

## Network Monitoring from 'Inside'

- Within/inside WLAN/Network infrastructure
- 'as is' usually integrated



## Network Monitoring from 'Outside'

- External network monitoring sensor
- Active sensor
- Not just a 'log collector'



## Key Challenges

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Many issues go undetected until end-users complain



Many issues are transient, anecdotal, or difficult to replicate



Existing tools may be ineffective, and lack end-user awareness



## Monitoring via infrastructure

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Usually 'part of the package'.  
But 'free' ?

Limited in scope ->  
Few customizations

Computational cost

Designed to monitor network  
functions

Primary focus on  
troubleshooting

Perceived as  
'not independent'



# Monitoring via external sensor network

Purpose-Built Sensors



UXI\* Sensor

Non-Cellular  
Cellular

- Identical hardware
- Identical software
- Identical behavior
- Enduser hardware independent

Software agent  
e.g. for Zebra



- Identical software
- Software behavior identical
- Enduser hardware dependant
  - Business critical, specialized hardware performance

\* UXI= Aruba User Experience Insight



# Aruba User Experience Insight

## Vendor Agnostic



### Onboards like a user

- Enduser agnostic
- independant analysis



### Onboard ANY network

- Wireless or wired testing
- Measure DHCP, DNS, DORA
- Logs into captive portal



### Test your environment from the EDGE

- (web) Application testing
- Service testing
- Throughput/bandwidth testing
- Historical information

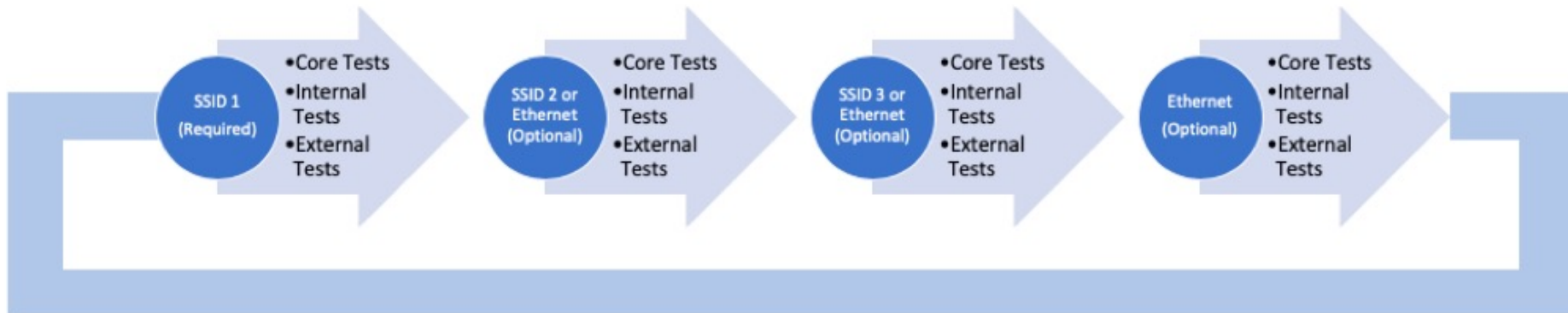


### Provides actionable insights

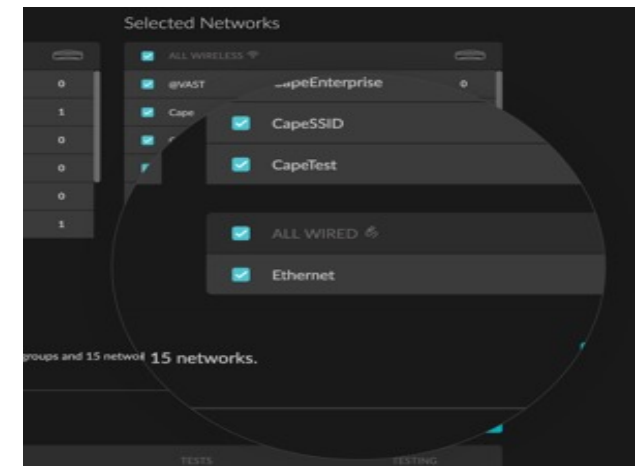
- Real-time alerts globally
- Trend and baseline
- Root cause analytics
- Integration to your NOC
- Stream to reporting tools



## The continuous 24/7 Sensor Test Cycle



- Tests networks in round robin fashion
- The sensor tests whichever BSSID is "best", based on the perceived quality according to the wpa supplicant on the sensor not necessarily the best RSSI.
- 4 networks - 1 wireless and 3 ethernet or any mix
- Tests such as YouTube, Dropbox, Netflix and iPerf can be configured to run at predefined frequencies. During the sensor test cycle, the sensor will determine if it has to run these tests based on how long it has been since the last time these tests were executed.



## Wi-Fi Visualization

### Get a better understanding of Wi-Fi network performance

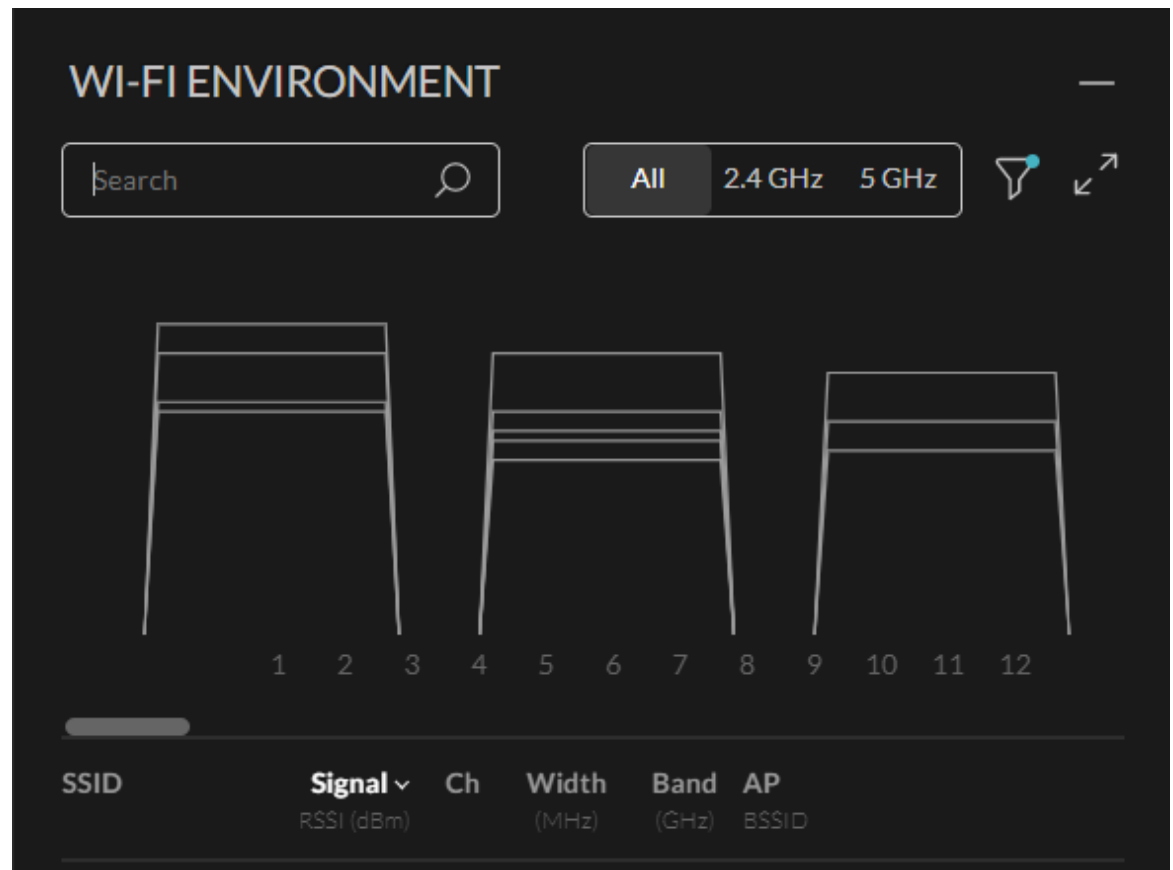
Displays the Wi-Fi environment around the sensor from a periodic AP scan..

The results include:

- SSIDs
- BSSIDs
- RSSI
- Channel
- Band
- Width
- AP Name (If AP name advertised in beacon frame)

### Benefits

Helping you visualize your channel plan and see areas free, with channel overlap or with channel interference.



[Learn more](#) – help article



## Non-technical benefits

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Being able to validate user complaints

Pro-active failure remediation

Behavioral changes

Historical data over all sensors  
-  
independent automatic documentation

Faster time to resolve

Complaints can be more specific and/or reduced

# Fragen ?!

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