Network Management

Integrated, Cloud, On Premise

Agenda

Overview of Aruba's Management Solutions

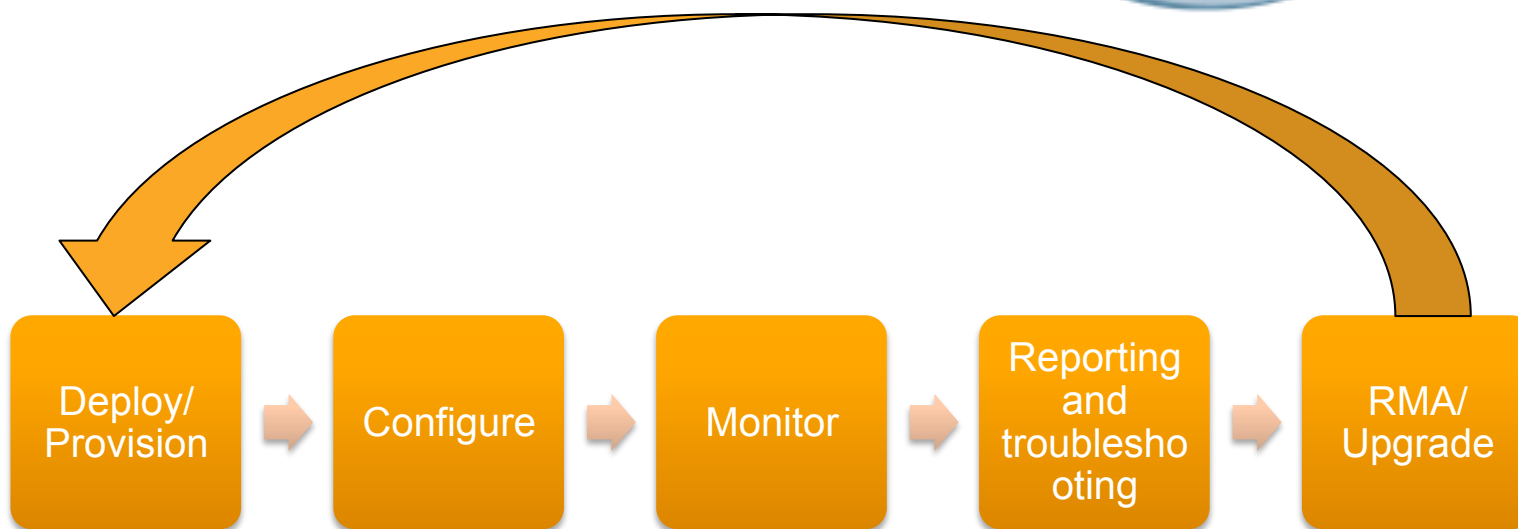AirWave 7.7

Aruba Central

Recap of the Network Management Solutions

Q & A

Aruba management suite

AIRHEADS 2013

Customer premises

AirWave Management Server

Aruba Activate

Aruba Central NEW

Deploy/ Provision → Configure → Monitor → Reporting and troubleshooting → RMA/ Upgrade

Best of breed across the entire management lifecycle

ARUBA
n e t w o r k s

#airheadsconf

AirWave 7.7

AppRF – Firewall visibility

- Summary page to display top destinations & applications
- Drill down pages similar to ArubaOS
- Client diagnostic page to display top 3 apps/destinations

#airheadsconf
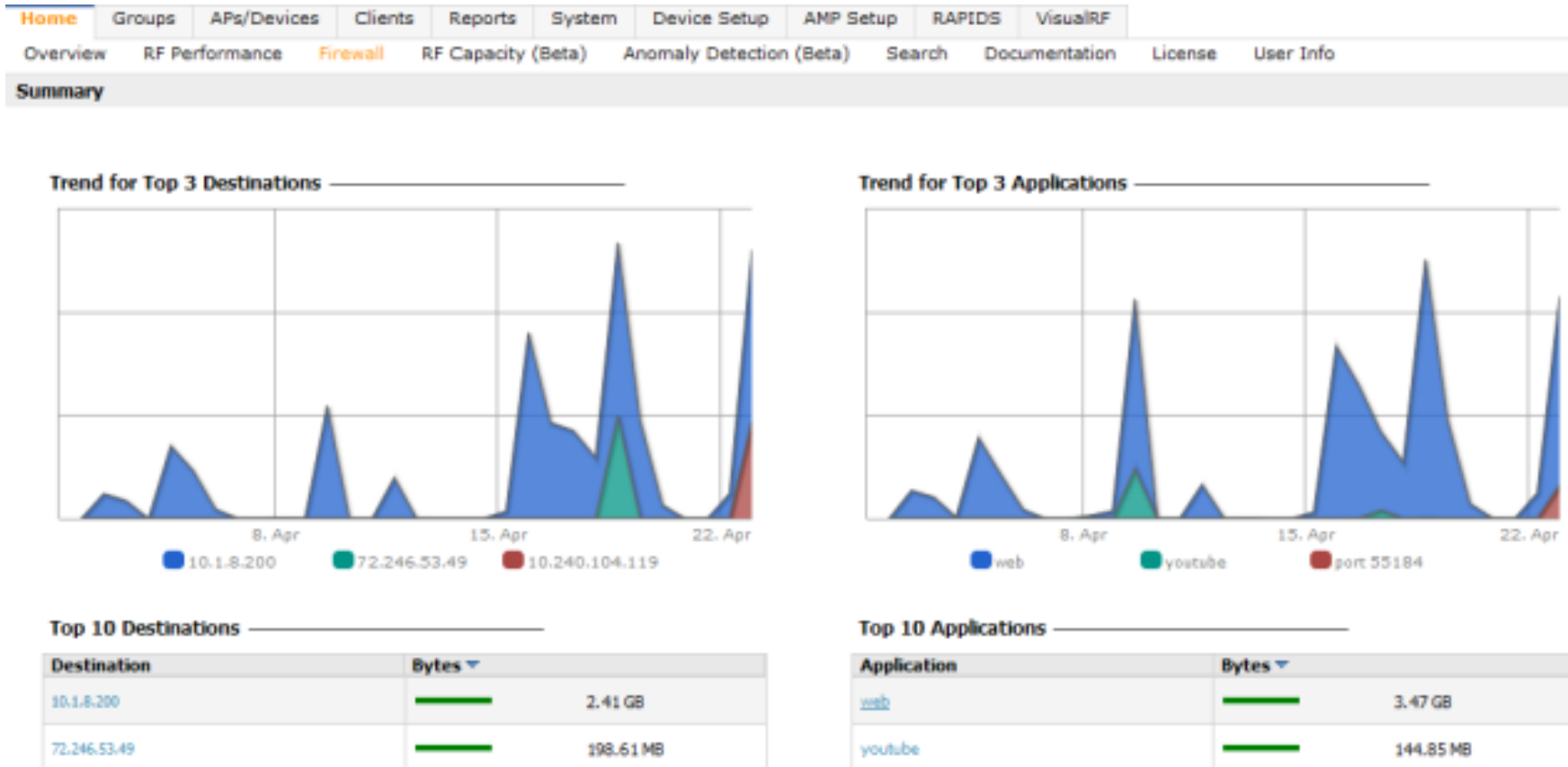
AppRF – Firewall visibility

- Drill down pages similar to ArubaOS
- Client diagnostic page to display top 3 apps/destinations

Device Info

Username:	ARUBANETWORKS\msubramanian
Device Name:	
Device Type:	Windows 7
MAC Address:	60:A4:4C:82:A1:D6
Role:	employee
Notes:	

Top 3 Applications

Applications	Bytes ▼
port 37933	3.51 MB
svc-https	271.61 KB
svc-msrpc-tcp	261.07 KB

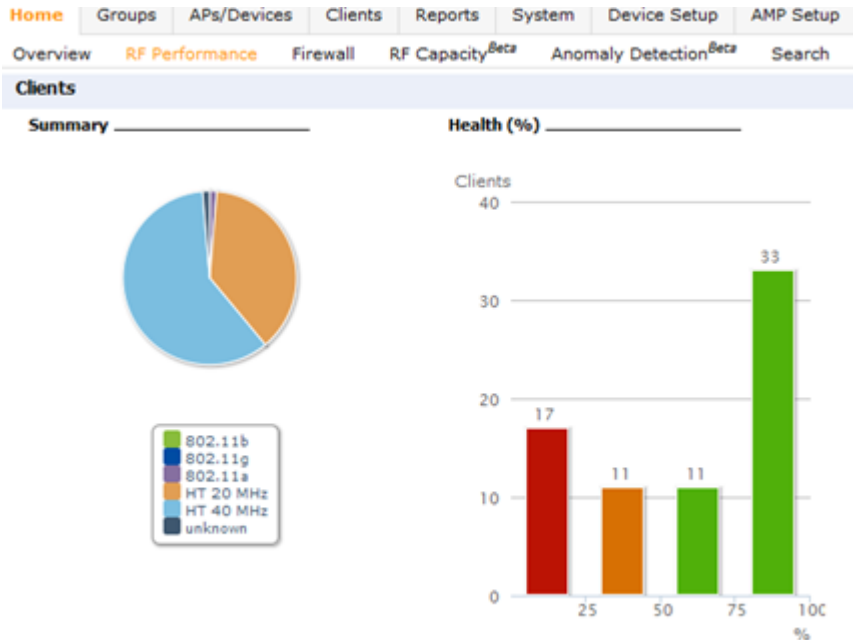#airheadsconf

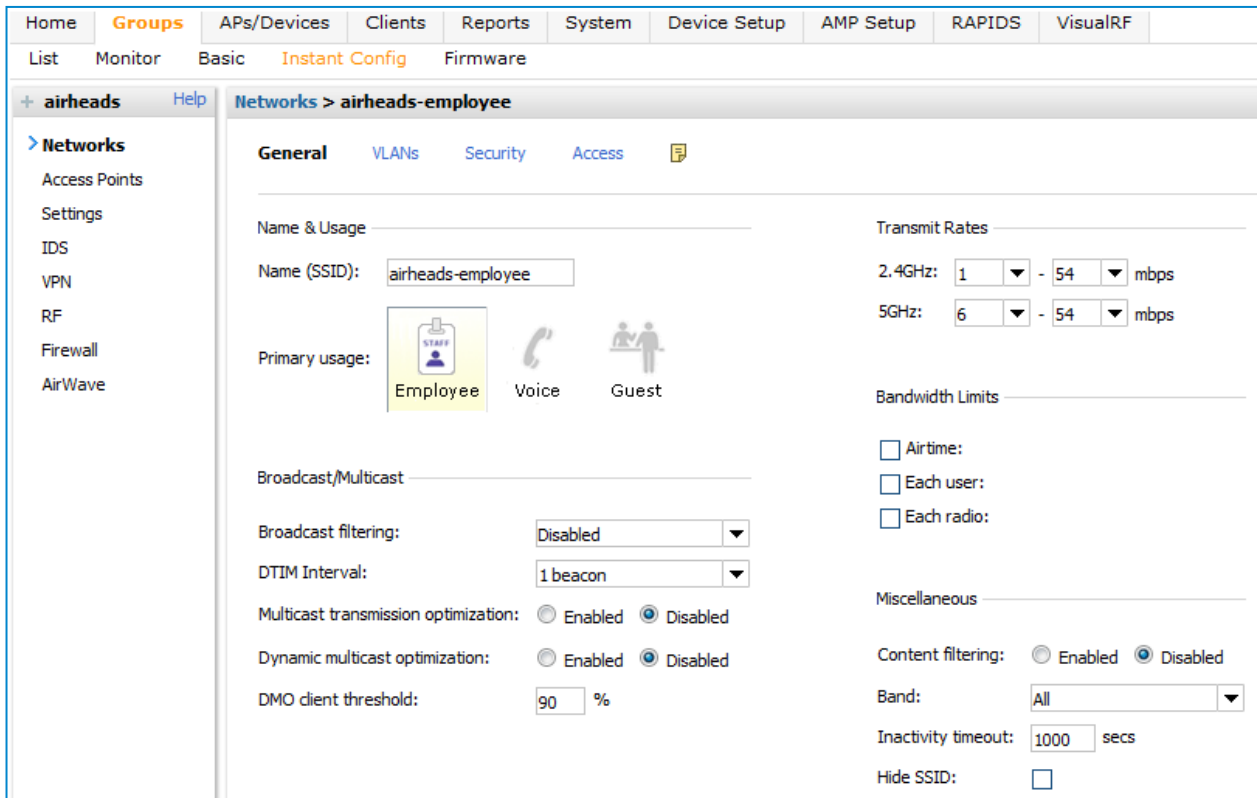- Visibility into client match events and reporting
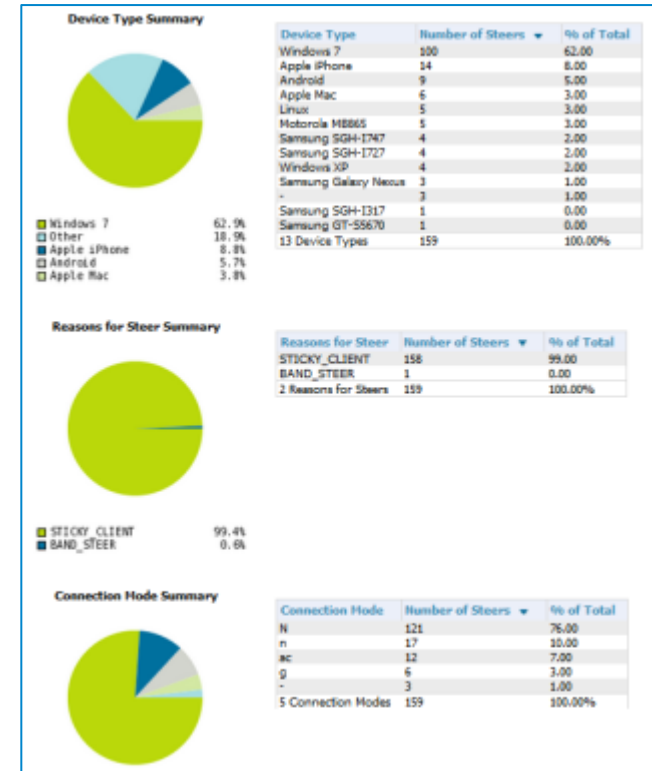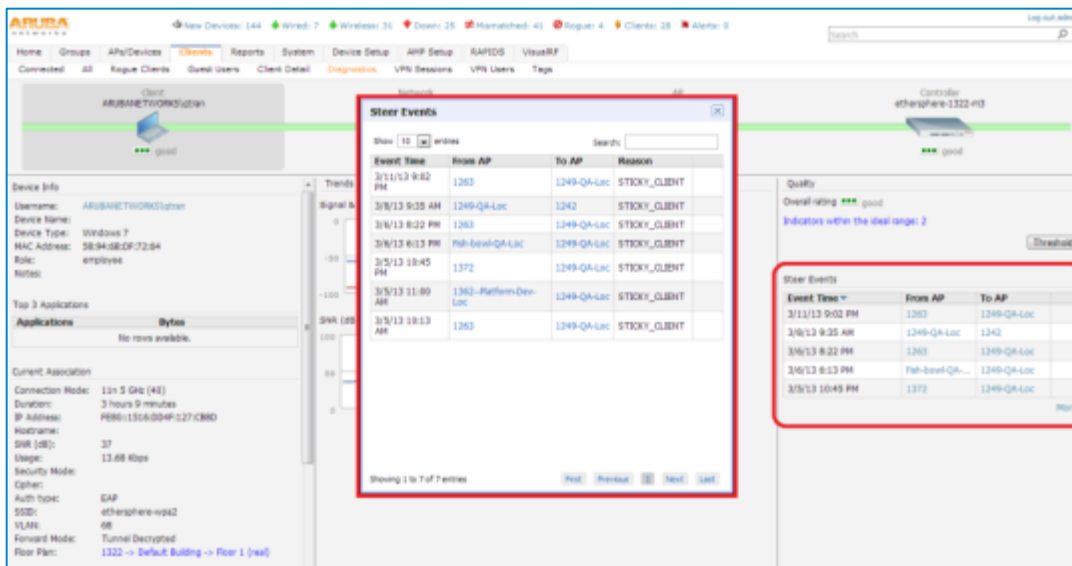
ARM 3.0 – client health

Client health: Dashboard and overlay

#airheadsconf

IAP GUI Config
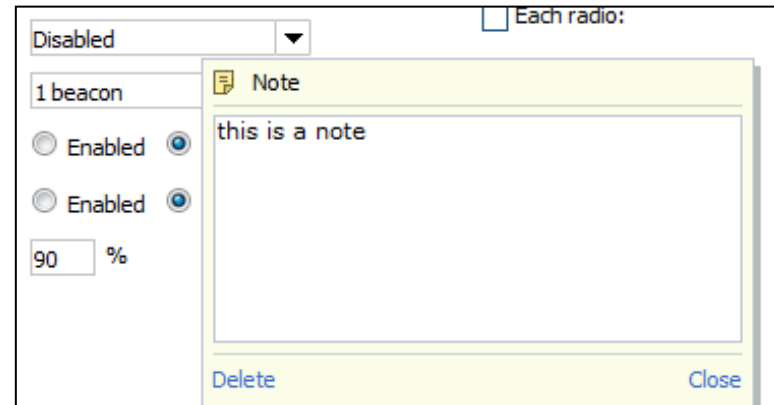
- Simplified UI to configure VCs and APs
- Terminology, help similar to IAP
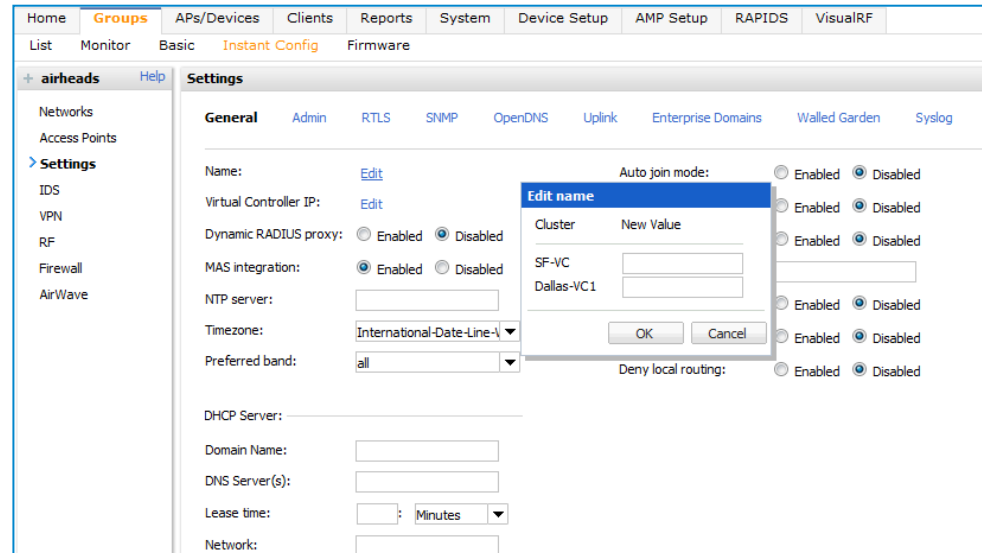- Tools to override settings per location/VC and resolve mismatches

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IAP GUI Config

Add note on any field

Multi-edit for Name/IP

#airheadsconf

IAP GUI Config

Drill down to a location and override any field

#airheadsconf

Other Visibility Features

Watched Client (VIP) Dashboard

- Any client can be added to the watched

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AIRHEADS 2013

Radios by Channel Utilization and Client Count

Clients

Click and drag in plot area to zoom in

1341-AP21 (1341-ap21.arubanetworks.com)
Clients: 5
Channel Utilization (%): 93.31

% Chan. Utilized

X-Y scatter plot of all radios:
#clients .vs. radio utilization

Radios in the from the diagonal deserve further investigation

125 radios were "heavily utilized" 75-100% of the time.

("Heavily utilized" is 80%+ utilization).

(Only "on time" is considered. That is, blocks of time the radio is doing something, not the middle-of-the-night).
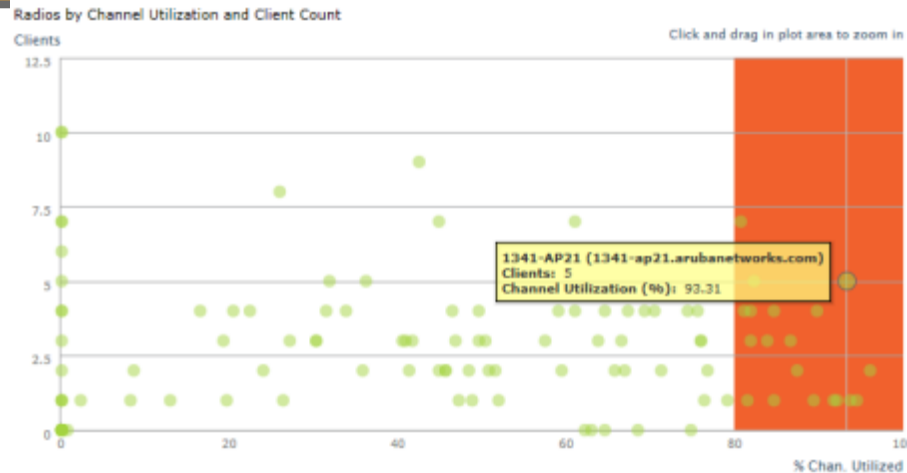
Radios Above Usage Threshold:

Radios

150	125	200	125
0-25	25-50	50-75	75-100

% Above Threshold

#airheadsconf
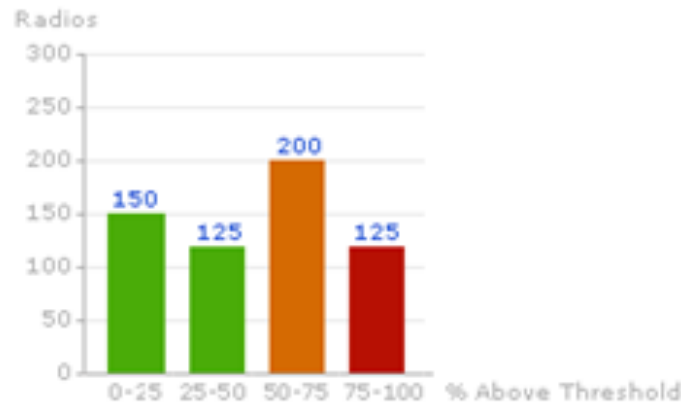
Graphs: moved Flash → HTML5

All graphs in AirWave 7.7 are converted from Flash to HTML5

#airheadsconf
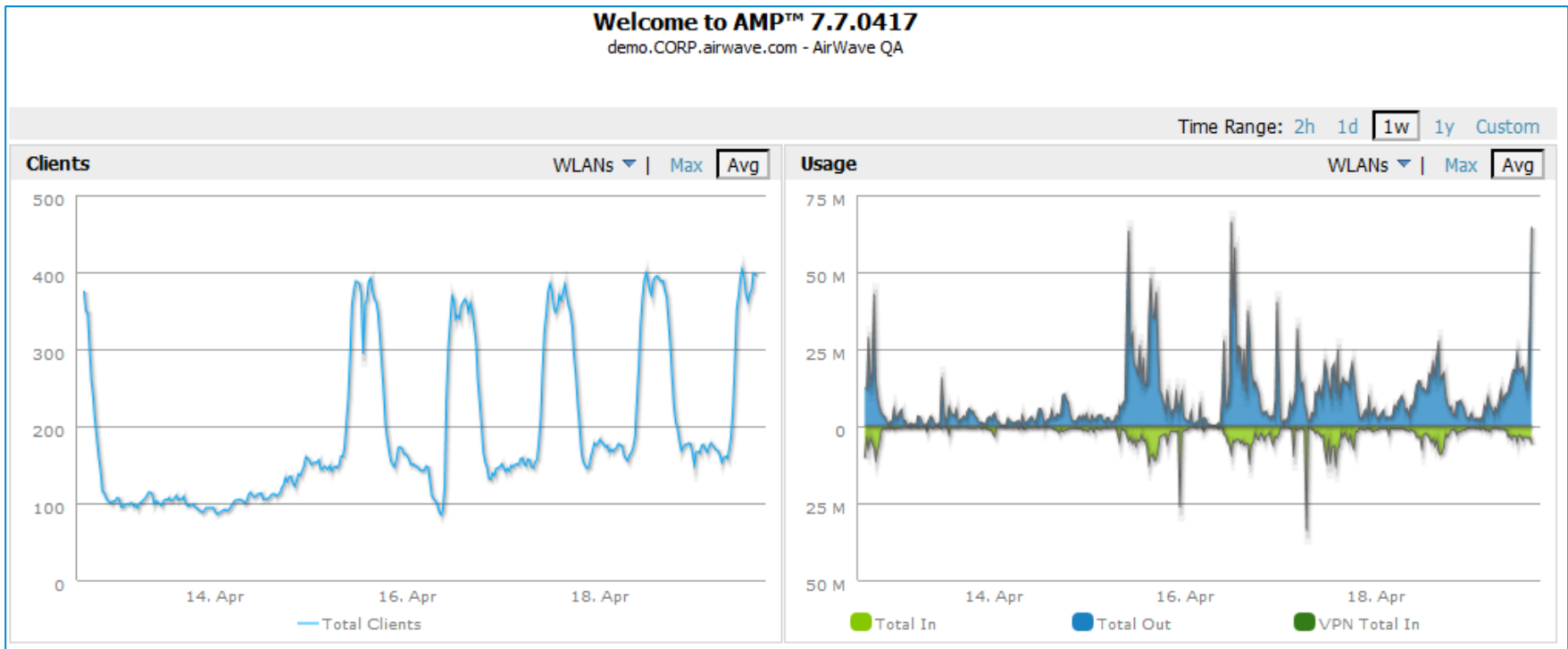
Graphs: moved Flash → HTML5

By clicking on a graph, can then zoom in/out,
pan, and hover (to get values for each point)

#airheadsconf
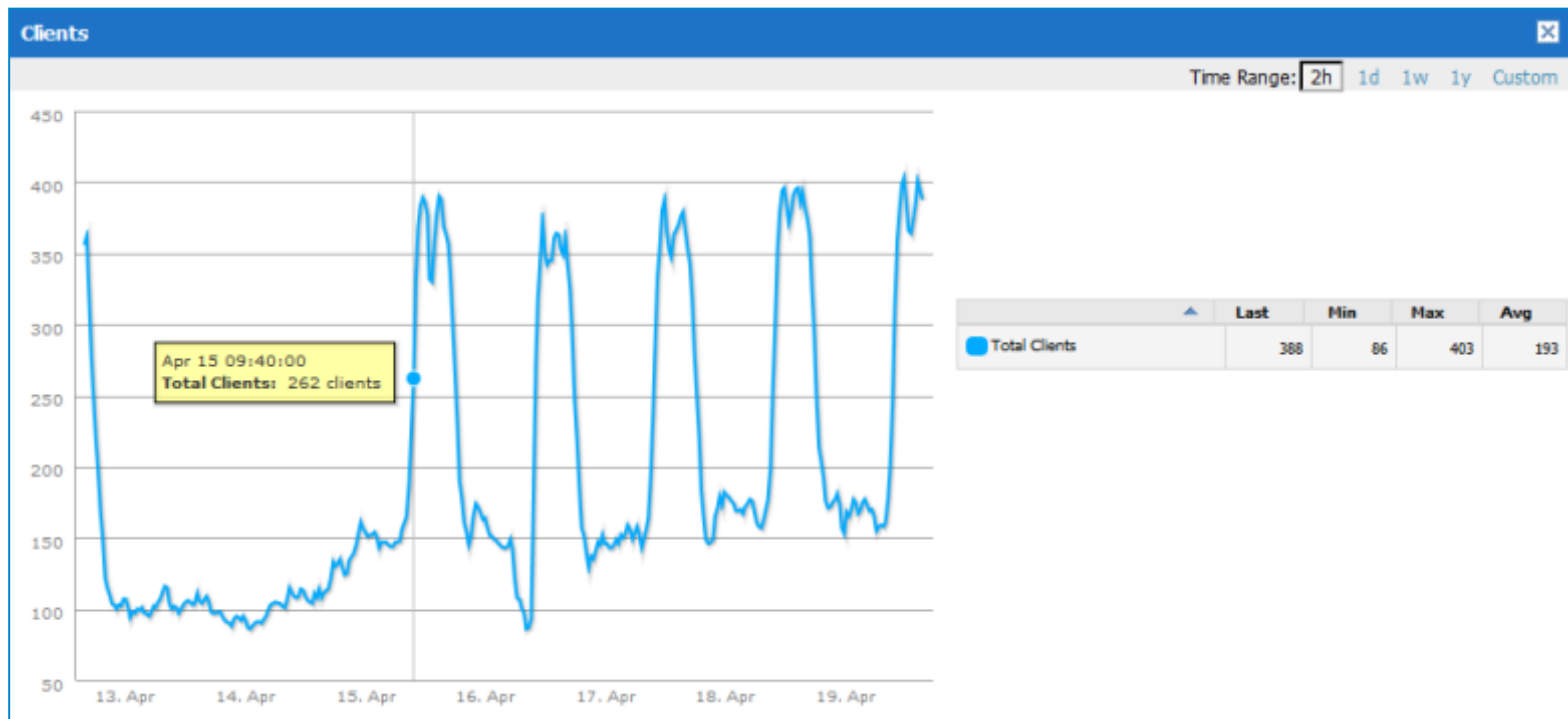
Aruba Support

Support for new APs

- AP224/AP225 (802.11ac), RAP155/155P

AOS 6.3 Support

- Configuration of new and updated profiles
- AP monitoring with HA Lite

Real time monitoring for controllers

- Client monitoring data (state and stat)

Aruba Instant

- Support for IAP 3.3
- Threshold to mark VC down (similar to SNMP threshold)
- Show the AP acting as VC in lists
- Firmware upgrade improvements: Image Server Integration, group enforce flag

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Aruba Support – MAS Config

- Configuration of 7.1 and 7.2 profiles
- MAS config is its own tab (do not use same AMP group for controller and MAS config)

#airheadsconf

Aruba Support – MAS Config

Per switch overrides on any profile

Aruba Overrides

Aruba Switch Override

Certificates selected here will have higher priority while resolving Certificate Name, type uniqueness conflicts between "Aruba Config" and "Device Override".

Profile:	IGMP Snooping ▼
Profile Instance:	igmp-snooping-factory-initia ▼
Field:	Query-interval ▼
Query-interval (1-18000 sec):	125

Add   Cancel

#airheadsconf

7.7 – Other Enhancements

Trigger Enhancements

- Auto acknowledgement of up/down alerts
- NMS integration now supports SNMPv3 informs
- Radio up trigger

Reporting Enhancements

- Folder level summarization in Device Summary reports
- Wired bandwidth in Network Usage Report
- Quarterly reports (reports every n months)
- Email CSV reports

Usability and workflow enhancements

- 30x improvement in time taken for nightly audit (login to controller once for all the APs)
- Import config from controller/switch when added into group (like Instant)
- Show device name everywhere (no more mac addresses in AP names)
- Aruba AP Group on APs/Devices-> New page
- Split up image download and reboot (Cisco and Aruba)
- First discovering AP/time in the rogue list

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Multi-vendor device support

- Support for Cisco 1600 and 2600
- Support for HP devices

API Improvements

- API to get report data in XML format (XHTML)

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Serviceability Enhancements

- Visibility into performance issues on AMP
- Run commands enhancements (both IAPs and controllers)

#airheadsconf
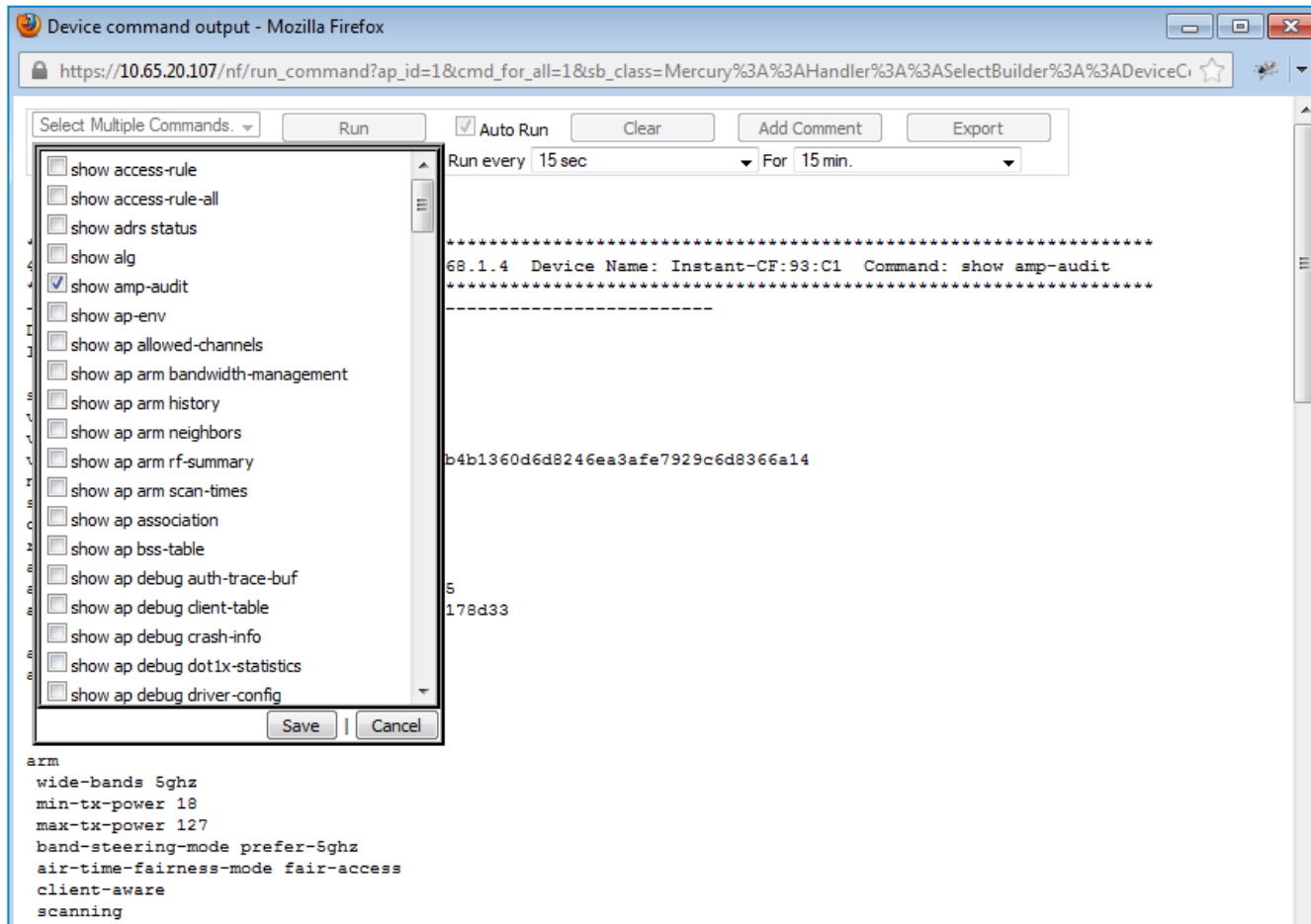
VisualRF

Features

- Identify planned APs on a floor plan
- Show notes field (read only)
- New AP Support (AP224, RAP155)

Performance and Scalability Improvements

- Loading VisualRF page is faster
- Optimized for better handling of channel utilization and interface metrics
- Speedups in VisualRF startup
- Better logging and diagnostics
- Better defaults for http timeouts
- Handle OOM issues better
- Location Accuracy Tool for better troubleshooting

#airheadsconf

Anomaly detection

Anomalies illustrated for clients and bandwidth.

Shown here, the current reading (blue, green), plotted against 40-week average +/– one standard deviation.

Average for any given period of time, (for example, noon-12:10 on a *Friday*), is calculated for that same time-period (noon-12:10) for the previous 40 *Fridays*.

(Average is NOT simply the previous few days).

Usage (bps)

Average for noon-12:10 on previous 40 Fridays

Click and drag in plot area to zoom in

+/- One std dev

Current value

60 K
40 K
20 K
0
20 K
40 K
60 K

12:00   12:30   13:00   13:30

— Avg In   — Avg In over 40 wks   Std Deviation In (1)
— Avg Out   — Avg Out over 40 wks   Std Deviation Out (1)

ARUBA networks

#airheadsconf
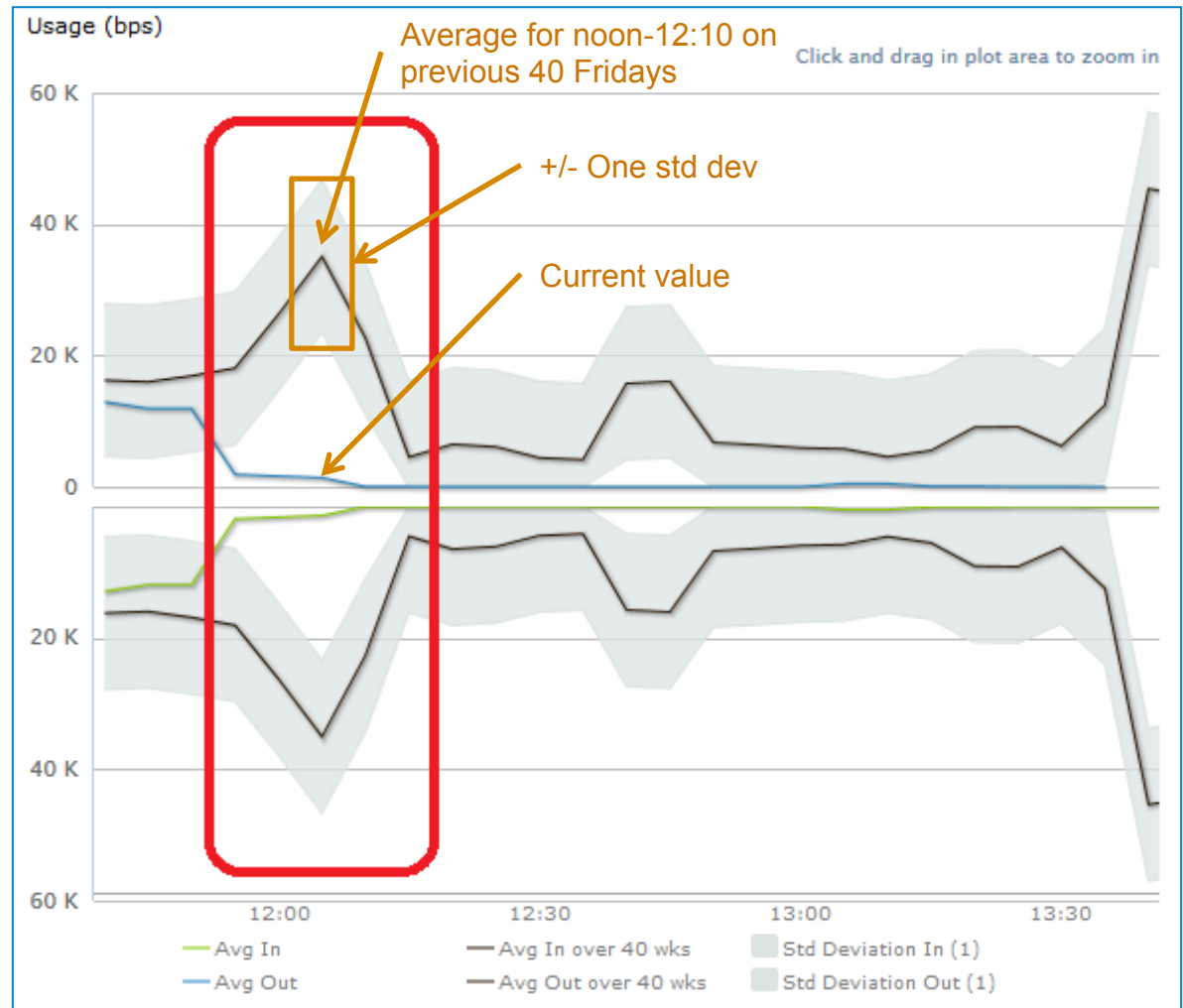
Aruba Central

Introducing Aruba Central

✓ Centralized cloud based management for Instant APs

✓ Multiple sites (or)

✓ Multiple clusters in a single site

✓ No servers to install

✓ No ongoing maintenance

HQ

BRANCH

BRANCH

BRANCH OFFICE

HOME OFFICE

ARUBA networks

›› #airheadsconf
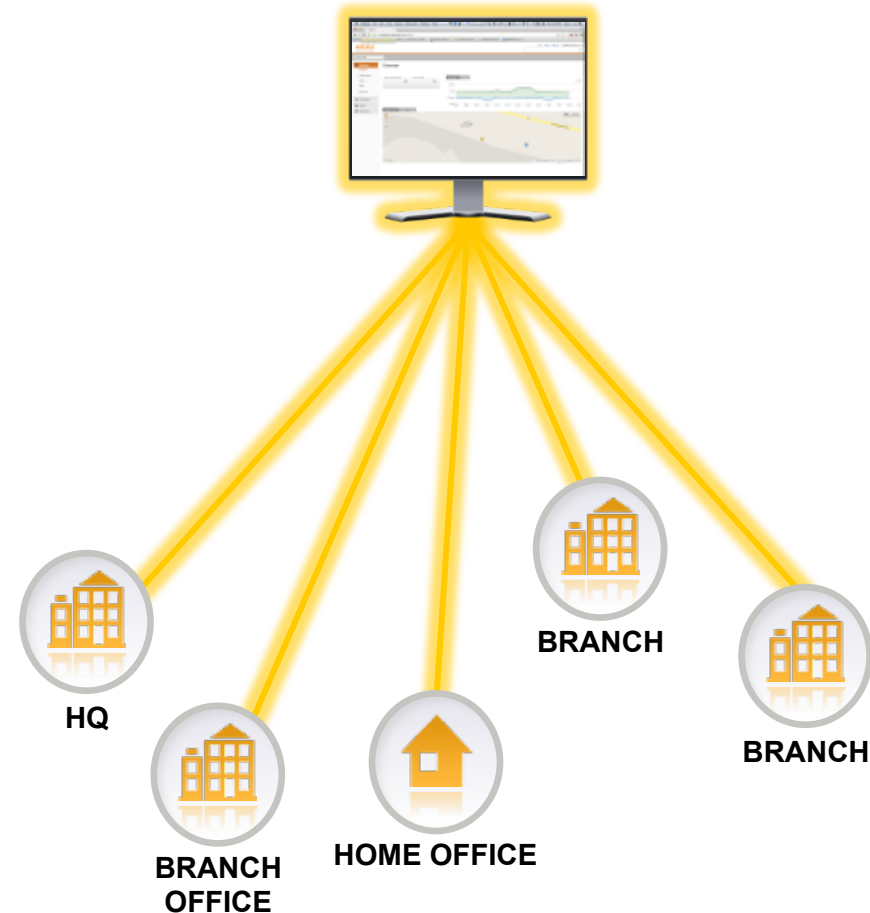
- **Multi-tier multi-tenant architecture**

- **MSP console**

- **Complete "rebrandability"**

- **Highly reliable cloud infrastructure to provide SLA to your customers**

#airheadsconf

Summary on NMS Solutions

AirWave or Aruba Central?

Private cloud	Public Cloud
Strong data privacy, compliance and security requirements	Ease of setup, deployment and expansion of a "cloud" based solution
Desire control over management software (exact image version etc.)	Do not want to "manage the management software"
Prefer a one time expense over a recurring fee	Prefer an operational expense over initial upfront capital expense
Want to control access to the management software only from internal network	Prefer having access to the management software from anywhere in the world with an Internet connection

Your choice depending on your business requirements

#airheadsconf