



Network-wide Visibility and Location Mapping

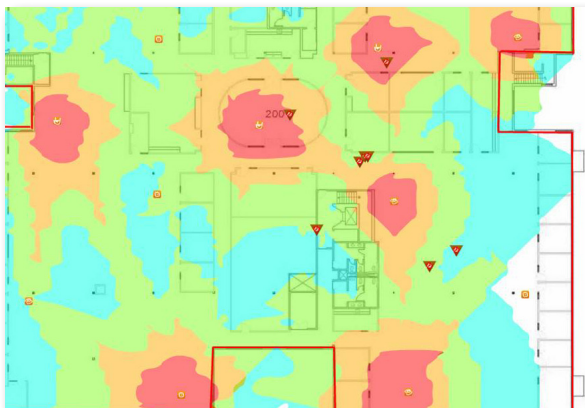
Identifying service quality issues affecting users is a difficult task for organizations managing mission-critical wireless networks. Traditional port-based network management tools are not designed to provide an accurate picture of the issues affecting service quality – the RF environment, mobility controllers, wired infrastructure, and access points.

AirWave VisualRF™, by Aruba Networks, brings the visibility and context needed to effectively manage today's mobile network. Providing an accurate view of the entire network, VisualRF automatically generates maps of the RF environment and the underlying wired topology, showing what the network looks like – in real time. VisualRF builds this map using RF measurements gathered from active, authorized wireless access points and controllers, without requiring costly, separate location appliances. AirWave VisualRF displays exactly who is on the network, where they are, and how the network is performing. Armed with the RF coverage and location data provided by VisualRF, IT administrators can solve problems faster, improve service quality for users and make better decisions about the network.

How Is VisualRF Used?

Whether you're planning a new wireless network or trying to isolate a user's problem on the network, a picture is worth a thousand words. After all, the network's performance depends not only on how the infrastructure is performing, but also on where users are and how well the AP's signals reach them.

VisualRF calculates signal coverage and the location of wireless clients, RFID tags, and rogue devices identified on the WLAN as well as interferers detected through spectrum analysis. It uses a combination of dynamic RF sampling and a predictive model based on site and infrastructure characteristics for areas where RF sampling isn't available to calculate coverage and location. The VisualRF module exposes this information via an interactive web interface, displaying fully integrated maps and location information to staff across the IT organization. An open XML API provides for a cost-effective way to utilize location data in a variety of external location-based business applications.



VisualRF's heat map view depicts the strength of the RF coverage in each location.

The Aruba Advantage

A Better User Experience

AirWave® from Aruba Networks has been designed from the ground up as an operations solution for the whole IT organization; from the service desk, to the NOC, to network engineering. Each team member has role-based access to relevant information, and it's usually just a click or two away.

User-Centric Management

AirWave provides a single, accurate picture of everything that affects service quality for users – from wired infrastructure, to the RF environment, to individual mobile devices. It also integrates seamlessly with existing IT service management tools for more efficient problem resolution.

Intelligence for Better Decision-Making

AirWave provides a wide range of actionable information, from time-sensitive alerts to historical reporting. With data that spans days, months, and seasons, IT staff always have what they need to spot trends, plan capacity, and craft the right strategies for their organization.

Multi-Architecture, Multi-Generational

Even in mixed architecture networks with multiple generations of products, AirWave provides a single view to monitor and manage the entire network.

Key Features

SIMPLE SETUP PROCESS

- No need for additional dedicated sensors, exciters or location servers
- Imports existing building floor plans and maps from third-party tools
- Supports DWG, DWF and DFX CAD, PDFfile formats as well as common image file formats
- Batch upload tool can import hundreds of floor plans at one time
- Automatically discovers and polls devices via AirWave
- Automatically tracks any device that associates with the network, including laptop computers, PDAs, wireless VoIP phones, scanner guns and many Wi-Fi asset tags
- Automatically tracks non-802.11 devices that interfere with your wireless network

EFFECTIVE SITE PLANNING — DEPLOY YOUR NETWORK RIGHT THE FIRST TIME

- Determines the right quantity and placement of APs, controllers and switches based on your coverage goals
- Supports 3rd party AP and network infrastructure products
- Incorporates switches and wiring closets into network design
- Automatically generates bill of material reports in Microsoft® Word formats to simplify the quote and physical deployment process

VISUALRF PLAN: FREE STANDALONE PLANNING TOOL

- Runs on Windows-based laptops and workstations
- Uses the same RF planning and visualization algorithms as VisualRF
- Allows plans made offline to be imported into VisualRF (and vice versa)

EFFICIENT TROUBLESHOOTING

- Different visual overlays display heat maps of expected signal quality, expected 802.11 data rates, channel utilization, upstream relationships between APs and wiring closets and the number of radios that can serve a voice client at every point on a floor plan
- Automatically recalculates coverage maps and device locations as it receives real-time data from the wireless LAN infrastructure
- Performs what-if analysis for proactive coverage planning by simulating the failure of a number of deployed radios

OPEN ARCHITECTURE

- XML API enables cost-effective integration of valuable location data with other applications

ACCURATE LOCATION DATA

- Determines GPS location coordinates for APs and controllers on any floor plan by setting latitude and longitude coordinates, and displays altitude as floor number
- Allows quick location of users and wireless devices for troubleshooting, planning and asset tracking
- Generally achieves resolution below 10 meters — horizontally and vertically — without requiring special sensors or site surveys
- Plays back a user's location history over the past day to aid in troubleshooting and recovery of lost devices
- Last known location of each tracked device is stored indefinitely to help find lost or stolen devices

RF STATISTICS

RF Statistics allow AirWave administrators to track and display various RF information over a specified period of time for detailed analysis of:

- RF channels, power, and noise
- ARM events
- Active sources of interference
- Other relevant data used to generate specific RF health reports

BETTER SECURITY

- View locations of rogue APs discovered by AirWave RAPIDS™ for faster investigation and threat removal
- Plan the proper locations for dedicated Wi-Fi sensors such as Aruba Air Monitors to ensure complete coverage of your organization's RF environment

APPLICATION BRIEF

AirWave® VisualRF™

“If a problem interferes with one of our mission-critical applications, our users don’t care whether it is caused by the device’s firmware, the wireless AP’s signal or a down switch – they just want it fixed. With its new wired infrastructure and mobile device management capabilities, AirWave delivers the type of user-centric management that meets our users’ needs and aligns with our goal of driving down IT support costs.”

Greg Catalano
Senior Network Engineer
Boise Inc.



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