Wireless Network Analysis

Complete Network Monitoring and Analysis for 802.11a/b/g/n

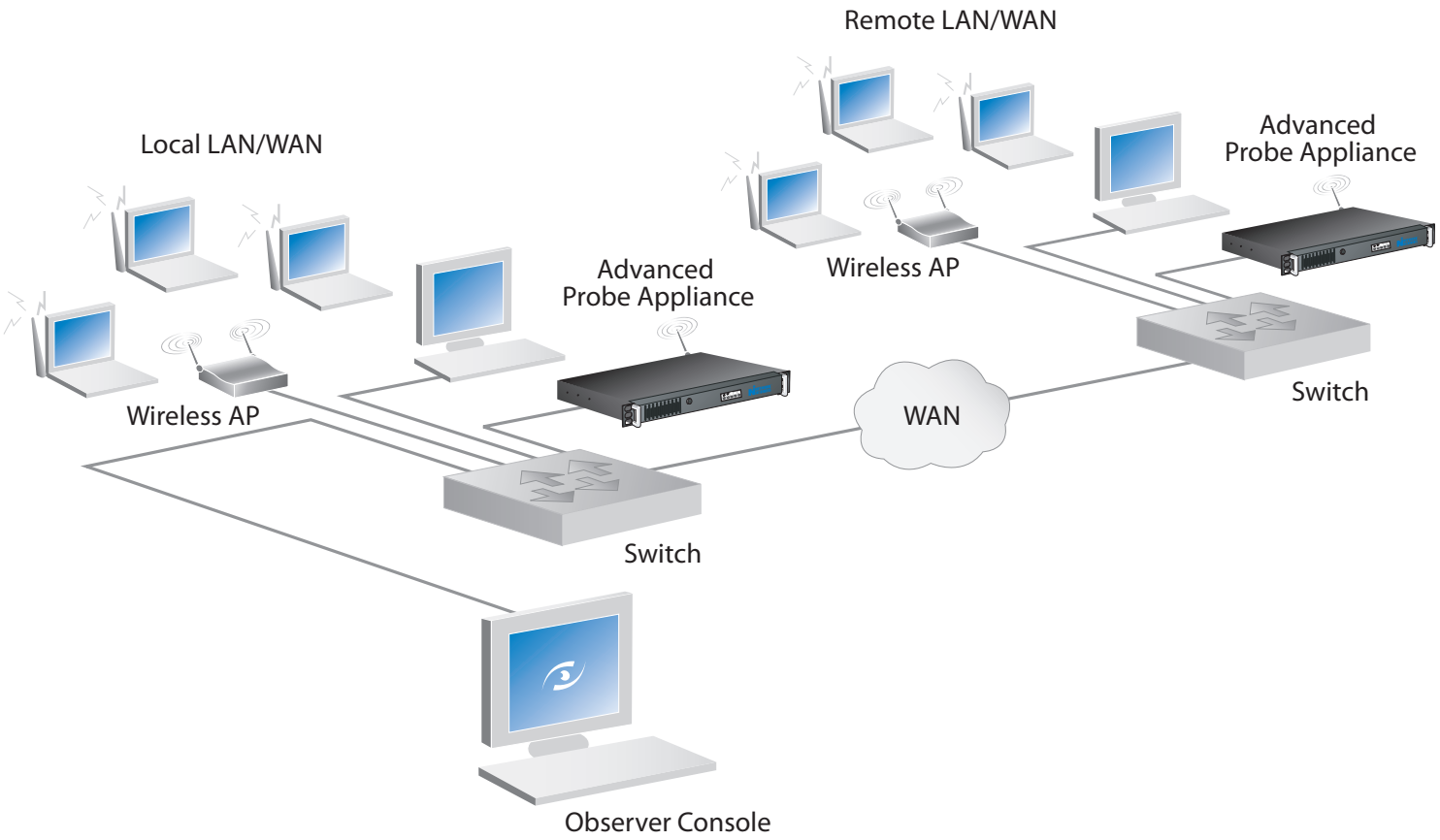
Comprehensive Wireless Network Management Made Simple

From deploying access points to baselining activity to enforcing corporate security policies, Network Instruments® provides a complete, scalable solution for managing wireless networks. Whether a wireless network is being managed from a local or remote location, Observer's award-winning analysis capabilities allow network professionals to maximize efficiency and speed troubleshooting while proactively managing and streamlining the network.

Observer® also includes comprehensive management for wired networks, providing a one-stop solution for enterprises currently using or expecting to implement a wired-to-wireless network. Even if there are no official plans for wireless, there may be unauthorized wireless activity to be concerned about.

Observer provides in-depth management

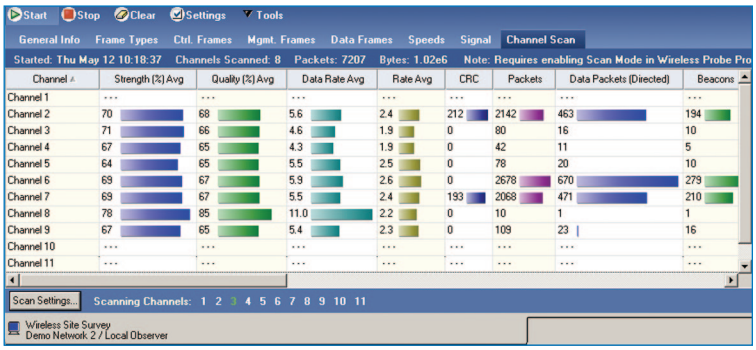
- Site configuration tools
- Security options
- Local/remote capabilities
- Remote monitoring resources
- Wireless health displays
- Troubleshooting Experts
- Wired-to-wireless integration
- Single user interface
- Long-term trending information



Site Configuration Tools

Deploying a wireless network involves many steps, including determining optimal access point locations, configuring security, and verifying performance—all of which can be daunting.

You can eliminate those uncertainties with Observer's **Wireless Site Survey**. The ***Signal*** tab displays signal strength to help you determine where exactly to place access points. The ***General Info*** tab shows access points and the corresponding level of security to determine who is using the network and locate possible security vulnerabilities. The ***Channel Scan*** tab shows overall performance statistics such as signal quality and data rates so you always know the condition of the WLAN. Other statistics on frame types, control frames, management frames, data frames, and speed can also be viewed from the Wireless Site Survey.



Wireless Site Survey

Wireless performance indicators include:

- Traffic totals
- Signal quality
- Signal strength
- Supported clients
- Actual data transfer rates
- Wired traffic communicating through an access point

Security Enforcement

Security is the biggest concern when deploying wireless networks. Observer monitors wireless activity to help you enforce tight security policies—helping prevent and eliminate security vulnerabilities. When security is breached, for example, by a rogue access point or rogue client, Observer's Triggers and Alarms will send a notification so you can react immediately.

Observer also watches for virus and attack signatures. That way infected devices can be detached before they wreak havoc on the rest of the network. Network Instruments continually provides updates for the most recent virus and attack signatures, so you can remain on top of the latest threats.

Even if your network is exclusively wired right now, you could be vulnerable to wireless security threats. For example, an employee might purchase an access point and plug it into the corporate network. Such rogue access points typically do not conform to the company security policy, which potentially opens the door to sensitive data. However, with Observer's Triggers and Alarms, you can detect those access points and take appropriate action.

Observer enforces security by identifying:

- Unknown clients
- Broadcasted SSIDs
- Rogue access points
- Misconfigured access points

Local/Remote Capabilities

Comprehensive network management relies on visibility. With Observer, you immediately gain visibility to troubleshoot problems, eliminate vulnerabilities, and streamline the network, no matter the topology. By implementing Network Instruments' probes at a remote office, you can gain visibility into any segment of that network. Therefore, if your office is located in the United States and you have a probe deployed at the European office, you can monitor wireless network activity just as well in Europe as you do in the local office.

Remote Monitoring Resources

Analyzing the network, whether wired or wireless, should not affect network performance. Network Instruments' probes analyze wireless activity in real time at the probe itself, sending only screen updates to the console. Therefore, your own monitoring activity won't interfere with network traffic.

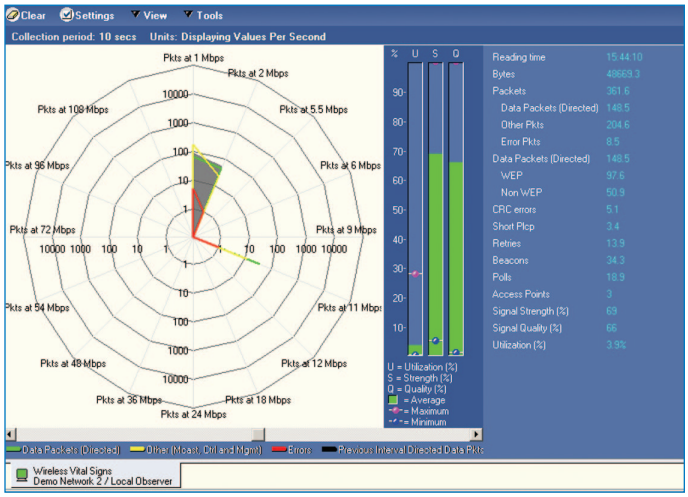
All Network Instruments probes are wireless-capable. Each probe, when equipped with a wireless interface card, senses wireless activity and shares it with Observer consoles located anywhere in the world, providing you scalability without sacrificing functionality.

Network Instruments' probes:

- Maintain low overhead
- Collect, store, and analyze network activity
- Offer wireless and wired monitoring in real time

Wireless Health Displays

Who has the time to personally investigate network performance at a packet-by-packet level? Observer does that work for you through **Wireless Vital Signs**, which provides an at-a-glance heads-up display of wireless health, including statistics on key performance characteristics such as connection speeds, signal strength, signal quality, WLAN utilization, and error conditions. The **Access Point Load Monitor** also provides a view of current activity on individual access points such as packets per second, bytes per second, and access point utilization.



Wireless Vital Signs

Troubleshooting Experts

It's not hard to notice there's a problem on the network. The challenge is being able to pinpoint the problem and resolve it before it spreads and wastes valuable time and money. Observer quickly isolates wireless problems and provides solutions through its Expert analysis. There are more than 50 wireless-specific Expert conditions.

Wireless Expert conditions include:

- Unknown stations
- Spoofed MAC addresses
- Whether an access point is using open system or shared key authentication
- Whether encryption is disabled or enabled
- Authentication and de-authentication rates

Wired-to-Wireless Integration

If you are planning to implement a wireless segment or already have one deployed, it is likely to be an extension of your wired network. When a problem arises on the network, it is not always evident whether the source of the problem is on the wired or wireless side. Having to depend on separate tools to monitor both infrastructures is limiting and not as effective as one tool capable of monitoring it all. Observer can monitor both the wired and wireless segments simultaneously, so when a problem arises, you can investigate the entire network; a wireless-only analyzer only provides half the picture. Furthermore, with wireless-only analyzers, you are unable to troubleshoot an application issue because they cannot read beyond the MAC layer of the frame since the header is typically encrypted with most security configurations. With Observer, you have the option to view the entire payload on the wired side.

Single User Interface

Having to depend on multiple, incompatible products to monitor various network segments is not as efficient or powerful as Observer, which is based on a single user interface that allows you to simultaneously monitor all segments of the network, regardless of the topology. Therefore, if you are monitoring the WLAN, WAN, or LAN– or any combination thereof–Observer provides the functionality and flexibility to manage them all.

Observer's single user interface also reduces training times by having to learn one application instead of multiple applications. Only having to launch one product also allows for faster troubleshooting.

Long-Term Trending Information

It's frustrating to deal with recurring problems. Observer allows you to collect, store, view, and analyze network statistics over long periods of time. This capability provides you with baseline comparison data to tell whether a problem is chronic, which might indicate the need for a faster connection, or acute, which might indicate a failure of some sort.

Observer's trend reports are the most powerful in the industry because they are built using stored data and are not limited in time. Reports on remote locations are just as powerful because probes gather the same type of data remotely that Observer gathers locally. Observer also provides easy collaboration to solve tough problems faster and build a shared base of knowledge. Reports can be viewed in tables or graphs and be published to the web using a built-in web server, or sent via e-mail to a list of users.

Performance and Price Leadership

Observer's wireless monitoring, analysis capabilities, and convenient deployment options keeps you on top of your network. Network Instruments provides a complete, scalable network solution, eliminating the need to purchase separate components for different parts of the network. There is no need to purchase additional management servers, acquire different trending and reporting tools, or even invest in separate wired and wireless analyzers. Observer has all of this functionality built in. By offering affordable, award-winning solutions, the Observer family of products continues to lead the industry in performance and price.

Can your current analyzer match all the WLAN capabilities of Observer?

- ✓ Rogue access point detection
- ✓ Signal strength and quality metrics
- ✓ Real-time statistics
- ✓ Security
- ✓ Single interface for distributed and local analysis across multiple topologies
- ✓ Expert analysis
- ✓ Wired support
- ✓ Triggers and alarms
- ✓ At-a-glance network health displays
- ✓ Baselining
- ✓ Scalability

Technical Specifications

- Supports 802.11 a/b/g/n
- Radio frequency: 2.4 GHz and 5 GHz bands; concurrent with multiple NICs
- Full SNMP support (Observer Suite)
- Integrates with HP OpenView console (Observer Suite)
- 802.11 security and encryption support
- Web-enabled reporting
- Real-time decode layers 2-7

Operating Systems Supported: Windows® 2003, XP, XP x64

For minimum and recommended system requirements, please visit our web site at:
www.NetworkInstruments.com

About Network Instruments

Network Instruments, a leading provider of performance management and troubleshooting for fifteen years, helps organizations ensure the delivery of business-critical applications. The company's platform of management and reporting products provides comprehensive visibility into networks and applications to optimize performance, speed troubleshooting, and assist long-term capacity planning. Network Instruments achieved profitability in its first quarter and posted double-digit growth every year since its founding – without any external funding. Network Instruments is headquartered in Minneapolis with sales offices worldwide and distributors in over 50 countries. For more information, please visit www.networkinstruments.com.

Solution Bundles

Contact a Network Instruments representative or dealer to ask about product bundles that cover all of your network management needs.

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