

Managing Wireless APs

A No-Cost D-Link® Solution

Solution Brief

February, 2009

Abstract

The widespread use of wireless local area networks (WLANs) has been steadily snowballing. As more and more enterprises launch WLANs and upgrade older, less secure Wi-Fi installations, challenges abound. IT managers and network administrators will need better tools to monitor networks, manage changes, modify configurations, and support growing user populations more efficiently and easily. They will also need to look for solutions without raising costs, acquiring new skills or impacting support response times.

This solution brief examines the business challenges inherent in WLAN management and presents an overview of D-Link's AP Manager II, a wireless access point management software solution that addresses the most pressing Wi-Fi management issues head-on.

> Wireless Environments Need Simple, Comprehensive Management Solution

As more and more wireless access points make their way into companies, the task of managing wireless networks has grown to become more complex. Mobile access in and around corporate office spaces and work sites is now expected, and organizations find themselves frequently adding equipment, relocating access points (APs), modifying settings and upgrading firmware just to keep up with the demand.

As needs continue to increase, the process of managing, upgrading and configuring multiple access points becomes more time-consuming and resource-draining. Organizations need a way to centrally manage multiple APs in IT environments without increasing management costs or staff overhead. They also need to monitor WLANs in real time to track usage, manage coverage and maintain security.

Some of the key AP management requirements include the following:

- A single centralized management tool
- Group management capabilities
- Multi-configuration features
- Mass firmware upgrading
- Mass configuration
- Fault management
- Real-time monitoring
- Real-time reporting

In order for these tasks to be performed optimally, a solution is needed to help IT managers and administrators to manage networks via a simple interface with real-time analysis of user movements and usage trends. With the right information and reporting, appropriate priority level for application accessibility, bandwidth allocation and application response times can be achieved. Management costs can therefore be reduced while maintaining high availability of network uptime.

The key is to increase management capabilities in a straight-forward manner without resorting to expensive, complex, and difficult to deploy software.

> D-Link's Free Software Solution – AP Manager II

D-Link® AP Manager II helps IT managers and administrators realize the benefits of Wireless networking technology without the headaches of decentralization and massive changing of Wi-Fi configurations. The software comes free with D-Link APs to provide easy management over a broad mix of access points from one computer across multiple subnet boundaries. With AP Manager II, regular maintenance checks can be conducted without wasting resources of sending personnel out to physically verify each access point. This software is highly scalable and is built with a robust SQL database so it can easily manage hundreds of APs.

> Single Centralized Management Solution

AP Manager II provides a centralized Web-based management interface for supporting all APs across a wireless local area network (WLAN). The administrator logs in to a PC and all the options to manage the APs by IP Address, model name, location or MAC address are available.

IP Address	Model Name	MAC Address	NetMask	FW version	Location
192.168.0.51	DWL-6300AP	001195E0FAB0	255.255.255.0	v2.00	Warehouse
192.168.0.50	DWL-3200AP	00179A04C2D8	255.255.255.0	v2.16	RD
192.168.0.49	DWL-3200AP	001B1120AC39	255.255.255.0	v2.46	RD
192.168.0.48	DAP-3220	0011001100AA	255.255.255.0	v1.00	Sales
192.168.0.52	DWL-7700AP	0019E9C9C440	255.255.255.0	v3.20	Warehouse

Centralized Management Console

The software provides group and multiple configuration management which allows the upgrade of firmware across all APs via templates designed for specific groups. Maintenance templates can also be applied to groups via template. This means less time and resource are needed for manual updating of APs one-by-one.

The interface shows a tree view on the left with categories like Model, Group, RD, Sales, Warehouse, Category2, and Category3. Red arrows point from these categories to corresponding rows in the AP tables on the right.

IP Address	Model Name	MAC Address	NetMask	FW version	Location
192.168.0.50	DWL-3200AP	00179A04C2D8	255.255.255.0	v2.45	RD
192.168.0.49	DWL-3200AP	001B1120AC39	255.255.255.0	v2.45	RD

IP Address	Model Name	MAC Address	NetMask	FW version	Location
192.168.0.48	DAP-3220	0011001100AA	255.255.255.0	v1.00	Sales
192.168.0.51	DWL-8200AP	001195E0FAB0	255.255.255.0	v2.04	Warehouse
192.168.0.52	DWL-7700AP	0019E9C9C440	255.255.255.0	v3.20	Warehouse

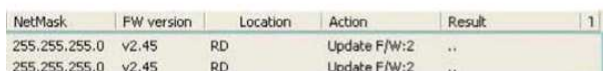
IP Address	Model Name	MAC Address	NetMask	FW version	Location
192.168.0.50	DWL-3200AP	00179A04C2D8	255.255.255.0	v2.45	RD
192.168.0.49	DWL-3200AP	001B1120AC39	255.255.255.0	v2.45	RD
192.168.0.48	DAP-3220	0011001100AA	255.255.255.0	v1.00	Sales

Easy Group Management

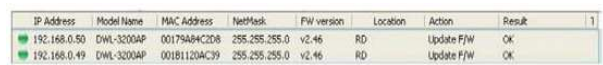
For example, upgrading firmware by model number is an easy, two-click process. Select "Upgrade Firmware" . . .



Indicate the model number. . .



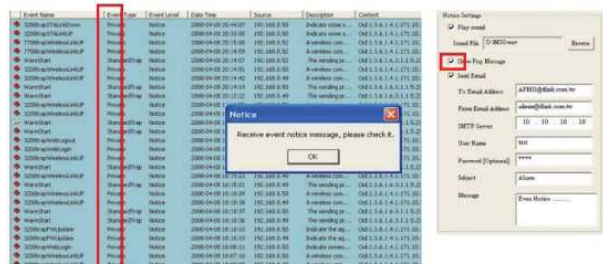
.. then review the changes.



Template updates are just as easy. Simply select the template to run, apply the configuration to multiple APs and review the results.

> Fault Management, Performance Management and Reporting

AP Manager II provides fault management with StandardTrap, System Threshold and Private event logs for administrators to manage their D-Link wireless APs. Notification alerts can be delivered as pop-ups and/or emails.



Fault Management Console

Performance management provides Transmit and Station information so administrators can monitor wireless performance in detail.

Transmit Detail

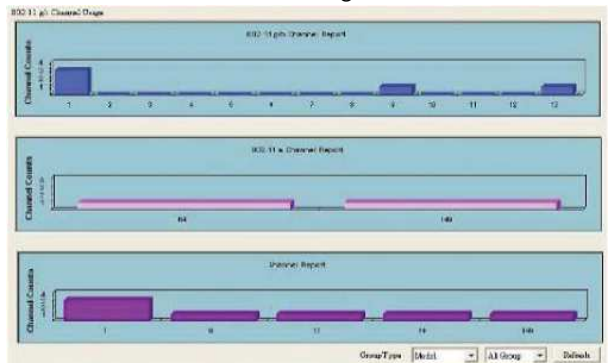
Date/Time	IP Address	Mac STA's Number	UpTime	Transmitted Packets	Transmitted Success Rate	Transmit
2008-04-24 18:44:23	192.168.0.100	0	2:19:32.00	4791	89	0

Station Detail

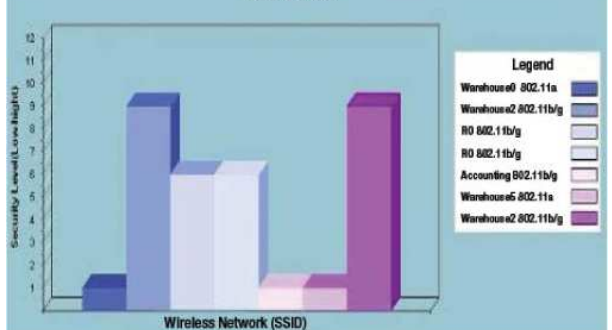
Date/Time	SSID	MAC Address	Band	Authentication	RSSI	Power Save Mode
2008-06-01 15:30:46	Primary-SSID	00:302666D711	802.11a	Open/Greent	100	On

Real-time reports can be exported to text (.txt), Microsoft Excel (XLS) or Adobe Acrobat (PDF) files. Administrators can examine detailed reports on performance, uptime, usage trends and security events. Administrators can also drill down on the information based on AP Association, Security, Utilization, Channel, Rogue AP, Syslog and more.

Channel Usage



Security Report



Security Level

Quick reporting features show critical network statistics at a glance.

In order to ensure optimal performance, AP Manager II has the following system requirements:

- Computer with Windows 2000, Windows XP, Windows 2003, or Windows Vista
- An Ethernet adapter
- RAM memory of at least 128MB
- CPU processor of at least 500MHz
- System must be running MySQL Server 5.0 and MySQL ODBC Connector 3.51
- APs used with AP Manager II must have SNMP enabled

> **Easy-to-Use AP Management Keeps Business in Focus**

With D-Link AP Manager II and D-Link wireless access points, lesser time is needed for managing hardware so more time can be spent on key business initiatives. Even with the proliferation of wireless networks presenting more challenges, there is no need to add extra cost and resources to address the issues. AP management across multiple devices and subnets can now be easily done using point and click. AP Manager II is a no-cost solution for these tight economic times.

For more information about D-Link AP Manager II, please visit <http://dpartner.dlink-intl.com>.

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