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DATA SHEET

OVERVIEW

Building or securing wireless networks can be a challenge when your tools don't understand radio waves. Riverbed® AirPcap enables troubleshooting tools like Wireshark® and Cascade Pilot™ to provide information about wireless protocols and radio signals. A complete range of models is available for your wireless capture needs.

Riverbed AirPcap

The First Open, Affordable, and Easy-to-Deploy WLAN Packet Capture Solution

Riverbed AirPcap adapters offer an easy way to capture and analyze 802.11 wireless traffic, and include full integration with the popular Wireshark and Riverbed Cascade Pilot network analysis tools. Three AirPcap models are available:

- **AirPcap Classic** gives you the power to capture and analyze low-level 802.11b/g wireless traffic, including control, management, and data frames on your Windows workstation or laptop. Per packet information is also available, such as power, hardware timestamps (in micro-seconds), and receive rate.
- **AirPcap Tx** retains all of the functionality of AirPcap Classic and, additionally, supports packet injection.
- **AirPcap Nx** is a dual-band solution supporting packet capture and injection for 802.11n, 802.11a/b/g legacy modes, and the 4.9 GHz US public safety channels. It features 2 x 2 MIMO with two internal antennas, plus two integrated MC-Card connectors for optional external antennas to enhance performance in the most demanding environments.

AirPcap Key Features

- Full integration with Wireshark and Cascade Pilot for complete WLAN traffic analysis, visualization, drill-down, and reporting
- Monitor Multiple Channels Quickly and Conveniently with AirPcap and Wireshark
- AirPcap 3-pack for Multi-Channel, Aggregated Analysis
- Portable and Versatile
- Easy to Setup and Easy to Use
- Professional Performance
- Ready to Power Your Application!

Industry-leading capability to simultaneously capture on multiple channels

When monitoring on a single channel is not enough, multiple AirPcap adapters can be plugged into your laptop or a USB hub and provide industry-leading capability for simultaneous multi-channel capture and traffic aggregation. To facilitate the use of this feature, we offer the AirPcap 3-Pack which includes three AirPcap adapters and the Single Download Network Toolkit.

"Out with the old, in with the 11n USB AirPcap Nx! Whether diagnosing enterprise wireless issues or picking a channel for my Grandma's wifi, this adapter is my favorite. It looks cool, it's light as a feather and (since it's integrated with WinPcap) it works seamlessly with Wireshark."

— Larry Averitt
Intel Corporation
Mobility Group

AirPcap Classic Overview

When monitoring on a single channel is not enough, multiple AirPcap Classic adapters can be plugged into your laptop or a USB hub and provide industry-leading capability for simultaneous multi-channel capture and traffic aggregation. To facilitate the use of this feature, we offer the AirPcap 3-Pack which includes three AirPcap Classic adapters and the Single Download Network Toolkit.

AirPcap Tx Overview

AirPcap Tx has the ability to inject raw 802.11 frames into your wireless network which makes them an invaluable aid in assessing the security of your wireless network. AirPcap Tx can inject any kind of frame, including control, management, and data frames. These frames can be transmitted at any allowable rate depending upon your adapter.

An application, called **AirPcapReplay**, is included in the AirPcap Software Distribution. The purpose of this application, as the name suggests, is to replay 802.11 network traffic that is contained in a trace file. In addition to the replay feature, AirPcapReplay also allows the user to edit individual packets using a built-in hex editor.

In addition to AirPcapReplay, there are several third-party freeware and open-source tools that are compatible with AirPcap Tx. These tools are typically for advanced users who are interested in securing and/or auditing their wireless networks. One of these, Aircrack-ng, is a well-known suite of tools for auditing wireless networks. It allows various types of penetration tests on a wireless network: www.aircrack-ng.org

Unlike passive reception, there are restrictions on the transmission frequencies/channels imposed by various countries. While there are no channel restrictions for monitoring 802.11 traffic, AirPcap Tx will allow transmission on only those channels that are permitted according to the ship-to country.

AirPcap Nx Overview

AirPcap Nx provides advanced technology and additional capabilities that include:

- Full integration with Wireshark and Cascade Pilot for complete WLAN traffic analysis, visualization, drill-down, and reporting
- 802.11n traffic capture on 20MHz and 40 MHz channels
- 802.11a, b, g packet capture on 20MHz channels
- 802.11a/b/g/n packet injection at all rates
- Detailed decoding of control, management, and data frames in Wireshark, including A-MSDUs, A-MPDUs, and HT information

- Per-packet radio information
- Microsecond timestamp resolution
- Two internal antennas and two integrated MC-Card connectors for optional external antennas
- Support for 2x2 MIMO
- Support for simultaneous multi-channel capture into a single, merged trace file using multiple AirPcap Nx adapters and exclusive multi-channel aggregation technology
- AirPcap and WinPcap APIs are provided for the creation or extension of your own lab tools

Model	AirPcap Classic	AirPcap Tx	AirPcap Nx
Operating System Support	Microsoft® Windows 2000, Windows XP (32/64), Windows 2003 Server (32/64), Windows Vista (32/64), Microsoft® Windows 7 (32/64)		
Network Topology	IEEE 802.11 b/g		IEEE 802.11a/b/g/n
Bus Type	USB 2.0 Type A, compatible with USB1.1		USB 2.0 Type A, compatible with USB1.1
Operating Frequencies	2.4 - 2.484 GHz (b/g)		2.412-2484 GHz (b/g/n) 4.920-5.825 GHz (a/n)
Modulation	OFDM and DSS		CCK, OFDM, HT-OFDM and MCS 0-15
Antenna	Built-in Antenna		Two built-in Antennas Two integrated MC-Card connectors for optional external antennas
Decryption	WEP, WPA PSK (in Wireshark) and WPA2 PSK (in Wireshark)		WEP, WPA PSK (in Wireshark) WPA2 PSK (in Wireshark)
Power	USB Bus (no external power), 5VDC, 350 mA (Max)		USB Bus (no external power), 5VDC 300mA (max) or 1.5 Watt (max)
Dimensions	76.5 mm (L) x 27 mm (W) x 10 mm (H)		104 mm (L) x 24 mm (W) x 8 mm (H)
Temperature	Operating: 0°C to 55°C, Storage: -20°C to 70°C		Operating: 0°C to 55°C, Storage: -20°C to 70°C
Humidity	5%-90% (Non-condensing)		Operating: 10%-70% (Non-condensing) Storage: 5%-95% (Non-condensing)
Certifications	FCC and CE, RoHS compliant		RoHS compliant
Data Rates	Up to 54Mbps for 802.11a/b/g		Up to 54Mbps for 802.11a/b/g Up to 130Mbps (20MHz channels) and 300Mbps (40MHz channels) for 802.11n
802.11n Supported Modes	x	x	Legacy Mode HT20 mixed mode HT40 mixed mode

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About Riverbed

Riverbed Technology is the IT performance company. The Riverbed family of wide area network (WAN) optimization solutions liberates businesses from common IT constraints by increasing application performance, enabling consolidation, and providing enterprise-wide network and application visibility – all while eliminating the need to increase bandwidth, storage or servers. Thousands of companies with distributed operations use Riverbed to make their IT infrastructure faster, less expensive and more responsive. Additional information about Riverbed (NASDAQ: RVBD) is available at **www.riverbed.com**.

InfoWorld 2009 TECHNOLOGY OF THE YEAR AWARDS

2005, 2006, 2007, 2008, 2009

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Riverbed Technology
199 Fremont Street
San Francisco, CA 94105
Tel: +1 415 247 8800
Fax: +1 415 247 8801
www.riverbed.com

Riverbed Technology Ltd.
Farley Hall, London Road
Binfield
Bracknell
Berks RG42 4EU
Tel: +44 (0) 1344 401900

Riverbed Technology Pte. Ltd.
391A Orchard Road #22-06/10
Ngee Ann City Tower A
Singapore 238873
Tel: +65 6508-7400

Riverbed Technology K.K.
Shiba-Koen Plaza Building 9F
3-6-9, Shiba, Minato-ku
Tokyo, Japan 105-0014
Tel: +81 3 5419 1990

APC020411