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Active Radio Control minimizes interference for improved wireless network performance

LANCOM Systems introduces a free solution for WLAN optimization

Aachen, February 10, 2014—LANCOM Systems, the leading German manufacturer of networking solutions for enterprises and the public sector, introduces a free wireless-LAN optimization solution for their range of wireless products. With an intelligent combination of various radio-field optimization functions, **LANCOM Active Radio Control (ARC)** suppresses interference and provides a lasting increase in WLAN network performance. The core functions of ARC are included in the latest version 8.84 of the LANCOM operating system LCOS, and more features are to follow.

The use of wireless networking and WLAN-capable devices is growing rapidly. As a consequence, wireless networks are increasingly complex and there is a growing number of interference sources, which can make it difficult to provide WLAN clients with optimal coverage.

This is where **LANCOM Active Radio Control (ARC)** comes in. The WLAN optimization solution combines smart features, which optimize the interaction between the access point and clients, suppress interference sources, and rectify errors on the network. Signal coverage is greatly improved, which

increases the speeds available on the WLAN. Control over the WLAN configuration remains completely with the administrator.

Existing installations can also benefit from the core features of ARC by installing the free update to the latest version of the LANCOM operating system, LCOS 8.84. These features include:

RF Optimization

Channel overlap is reduced by the automatic selection of optimum WLAN channels, and WLAN clients benefit from improved throughput. Throughout controller-based WLAN installations, the managed access points automatically use the optimal channels.

Band Steering

If the 2.4-GHz frequency band is overloaded, the LANCOM access points automatically transfer clients to the 5-GHz frequency band, where sufficient channels are available for channel bundling. This enables LANCOM to effectively double WLAN performance.

Adaptive Noise Immunity

WLANs often operate in difficult environments with sources of interference that can strongly influence the performance of WLAN networks. Potential sources of interference are WLAN signals from third-party access points, and other radio signal emitters such as Bluetooth devices, wireless cameras and microwave ovens, which can significantly impact the WLAN. Enabling Adaptive Noise Immunity allows an access point to block out these interfering signals and to focus exclusively on WLAN clients that have sufficient signal strength. To achieve this, the WLAN module continuously measures the interference in the radio field. If a defined threshold is exceeded, LCOS reacts by reducing the reception sensitivity of the WLAN module. This means that WLAN modules searching for a vacant frequency with the "carrier sense multiple access/collision avoidance" procedure are more likely to ignore the interference.

This adaptive change of reception sensitivity by constantly sampling the radio field helps to optimize the WLAN module operation.

Spectral Scan

LANCOM Spectral Scan is a professional tool for efficient WLAN troubleshooting. By scanning the entire frequency spectrum, sources of interference in the radio field can be identified and displayed graphically.

Detailed information on *LANCOM Active Radio Control*, including a list of supported devices and a detailed techpaper, are available from the LANCOM website:

<http://www.lancom.eu/arc/>

The operating system LCOS 8.84 is available for download free of charge from the LANCOM website:

<http://www.lancom.eu/downloads>

LANCOM Systems background:

LANCOM Systems GmbH is the leading German manufacturer of reliable, innovative network solutions for business customers. LANCOM's two business units, VPN Network Connectivity and Wireless LAN, offer professional users secure, flexible infrastructure solutions for local-area and multi-site networks. The entire core product range is developed and manufactured in Germany. In addition, LANCOM also provides VPN solutions certified by the German Federal Office for Information Security (BSI) for the protection of particularly sensitive networks and critical infrastructures (EPCIP) against cyber attacks. LANCOM Systems has its headquarters in Würselen near Aachen, Germany, and other offices are located throughout Europe. Customers include small and medium-sized enterprises, government agencies, institutions, and major corporations from Germany, Europe and increasingly worldwide.

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