

### **For airline, only one WLAN client flies**

*Lufthansa Systems chooses Funk Software's Odyssey for unbreakable security, vendor independence, simplified management and ease of use*

You probably know Lufthansa is one of the world's largest airlines — in fact it's the second largest international passenger carrier, flying 43.1 million passengers per year.

But you may not be aware of Lufthansa's leadership in other segments of the travel industry, and beyond. Lufthansa's logistics group carries more scheduled international cargo than any other carrier in the world. Its charter tourism group is ranked second in Europe and third internationally. Its catering function, which serves other airlines as well as Lufthansa, is the largest and most highly regarded in the industry. And it's MRO (maintenance/repair/operations) division is world's largest civil aircraft maintenance and overhaul organization.

It should come as no surprise, then, that another wholly-owned Lufthansa subsidiary, Lufthansa Systems, is one of the largest IT providers in the aviation industry. By leveraging its accumulated success and expertise in aviation, Lufthansa Systems has expanded — and continues to expand — into other industries, providing everything from consulting and custom application development to around-the-clock outsourced IT services.

### **Seeking secure, easy-to-manage WLAN access**

In 2003 Lufthansa Systems launched a campaign to roll out wireless LAN (WLAN) access to Lufthansa employees. The first phase involved implementing WLAN access in conference rooms, employee lounges, and other areas employees frequent when not at their desks.

"We wanted to give our customers, Lufthansa employees, more mobility and flexibility as they moved between our buildings," says Oliver Grimm, the WLAN project manager. "Many employees spend less than 50% of their days in their office, and are without access to e-mail and the Internet while they're away. WLAN access lets them access these resources from anywhere. It also gives us an easy and inexpensive way to provide temp workers or consultants with Internet and LAN access."

Grimm and Lufthansa Systems had two strict requirements for any WLAN infrastructure it deployed: It had to be secure, and it had to be easy for administrators to manage and employees to use.

"Obviously, the risk of having data stolen from a wireless network is much higher than with a wired network," says Grimm. "So we wanted wired-equivalent security for our WLAN. But we also wanted to implement it with minimal administrative effort and minimal end-user support, so that management and support costs wouldn't negate the savings we'd get from wireless."

### **Choosing 802.1x — and the Odyssey client**

Lufthansa Systems decided to build Lufthansa's WLAN on the IEEE 802.1X security standard. "802.1X afforded us the management ease of RADIUS server authentication, which would let us authenticate our WLAN users against the Novell NDS directory information we already had in place," says Grimm. "It supports transparent roaming between access points, which is convenient for our users. And it supports dynamic encryption keys, which lets us change encryption keys during a each wireless session to minimize the chance of an intruder getting access to the network via the wireless link."

After testing wireless several 802.1X hardware and software components in its own labs, Lufthansa Systems chose Cisco Aironet 1200 access points and used the currently installed RADIUS server. The access points are set to issue a new encryption key at log-in for every user, and to change that key in a short time-frame during each WLAN session.

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Oliver Grimm  
WLAN Project Manager  
Lufthansa



## ODYSSEY OVERVIEW

*Odyssey is a wireless LAN access control and security solution that not only provides strong security over the wireless link, but also can be easily and widely deployed and managed across an enterprise network. Odyssey includes client and server software. It secures the authentication and connection of wireless LAN (WLAN) users, ensuring that only authorized users can connect, that connection credentials will not be compromised, and that data privacy will be maintained. Odyssey is based on the IEEE security standard 802.1x, and supports a wide variety of 802.1x security methods, including the strong and easily managed security method EAP-TTLS.*

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Next came the choice of WLAN client software. Here too Lufthansa Systems evaluated several options, including the WLAN clients built into Windows 2000 and Windows XP. In the end the company chose Funk Software's Odyssey, a triple-purpose 802.1X access client that lets users establish a secure connection to an enterprise wireless or wired 802.1x network, or connect to a public WLAN at a hotspot. Only Odyssey met all of Lufthansa Systems' security, manageability and ease of use requirements, which include:

- Support for PEAP.** Odyssey supports a wide variety of WLAN security (EAP) authentication types — including PEAP, which Lufthansa Systems chose because it provides the security and management ease of protecting usernames and passwords in a tunneled layer security (TLS) wrapper, without requiring client-side certificates.

- Hardware independence.** Odyssey works with any 802.1X compliant hardware, including 802.1b or 802.1g wireless adapters from any vendor. "Odyssey's vendor independence lets us use the wireless adapters we have now, and equip new computers with whatever we choose," says Grimm.

- Compatibility with multiple operating systems.** Lufthansa Systems wanted to extend WLAN access to users running Windows 2000, Windows XP and Pocket PC; Odyssey supports all three (as well as Windows 98, Windows Me, and Windows Mobile 2003 for Pocket PC).

- Simple configuration, automated software distribution.** Odyssey lets an administrator save configuration settings in a template which can then be applied to each client, dramatically speeding deployment. "It takes no more than three to five minutes to configure Odyssey on a users' computer," says Grimm. Once the Odyssey client is installed, administrators can push changes or updates to the computer centrally, without a visit to the desktop.

- No additional WLAN password or logon required.** With Odyssey, a user is logged on to the WLAN at the same time he or she logs on to the network; all the user needs to do is turn launch Odyssey to connect. "**Odyssey is the only 802.1X client that supports single log-on in a NetWare environment,**" says Grimm.

- Automatic scanning for wireless networks.** Odyssey lets Lufthansa Systems' administrators create a prioritized list of networks; the software automatically connects to the highest priority network with the strongest signal, and makes the appropriate connection settings. "It's all transparent to the user — Odyssey finds the best network and uses the appropriate connection profile, and the user is connected," says Grimm. "This feature alone prevents many support calls."

## More wireless on the way

At the time we went to press, Lufthansa Systems had rolled out WLAN access to 600 users in its German offices. By the end of 2004 that will expand to cover nearly 2000 users, and international locations including offices in Singapore and Capetown. Every WLAN-enabled user, says Grimm, will run the Odyssey client.

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