Wireless Audit

Airxperts Services

Product Brochure

What Is It?

A **Wireless Audit** is a thorough evaluation of your existing Wi-Fi service.

The audit is conducted by a skilled engineer. It is intended to be a *comprehensive* look at your solution, and will normally include the following steps:

- Evaluate the existing design
- Evaluate the existing implementation
- Evaluate external factors affecting the service
- Comprehensive Site Survey & Spectral Analysis
- Real-time performance & roaming tests
- Diagnosis of any discovered and reported issues
- Analysis of results
- Report & Recommend
- Remediation (optional)

Note: If you have a specific wireless issue you need assistance with, please consider our Wireless Support offering.

Do I Need One?

There are several reasons to commission a full wireless audit. For example:

- You're experiencing persistent or undiagnosed issues
- Your use cases have expanded & business requirements have evolved
- You're considering a major upgrade or want to find the performance limits of the existing service
- You want an independent evaluation of an implemented solution
- You just want a mid-life check-up by a specialist

If any of these situations apply, then a **Wireless Audit** is something you should consider.

What Benefits Will I Gain?

- An audit can provide a solid baseline for the next generation of your service
- An audit can diagnose previously undetected issues with your service
- An audit can help you optimise the performance of your service, and increase return-on-investment

Being a comprehensive process, undertaken by a specialist, a Wireless Audit will always find several ways to improve your wireless service. The cost of an audit is justified by the increase in productivity and improved return on investment we offer.

What are some of the challenges affecting Wi-Fi?

Wi-Fi has evolved into a very capable technology. But, delivering a robust, secure and high-performance wireless network remains a specialist task at times. All wireless networks suffer from one or more of the following problems to some extent:

- Insufficient signal
- Excess signal
- Congestion
- Interference from other Wi-Fi sources
- Interference from non-Wi-Fi sources
- Sub-optimal configuration of infrastructure

The Technical Details

Wi-Fi uses *radio waves* for transmission. Those signals are transmitted over a shared medium – free space. That means your wireless environment is contested between your users, your access points, your neighbours and any other technologies using the same radio frequencies.

By its very nature Wi-Fi is a half-duplex technology. At any one time a user can be either transmitting or receiving – but not both. Moreover, there can only be one transmitter at a time on the same channel, whether it's one of your users, or one of your neighbours'. All transmitters are always competing over the same resource - **Air-Time** - the right to transmit in that specific timeslot. Everyone is listening and waiting for their chance to transmit.

How We Help

The larger your network, and the more demanding your requirements, the more likely you need a Wireless Audit.

A **Wireless Audit** is your solution to the problems to the above. Our report will detail how to:

- Remediate the issues we find
- Maximise Air-Time to your users, where and when they need it
- Minimise the typical problems affect most wireless networks
- Maximise your return-on-investment with optimal performance

What Is Included?

Your Comprehensive Wireless Audit Report will include:

- Report & evaluation of business requirements
- Analysis of the existing design
- Analysis of the existing implementation
- Inventory of hardware and software
- Floor plans with AP locations marked
- Heat-maps showing delivered coverage
- Details of discovered sources of interference
- Results of real-time tests
- Executive summary of results & recommended remediation steps

Our Process

Our audit process is a 4-phase approach.

This approach has been applied and refined over the course of many small to very large Wi-Fi solutions with great result for you, the customer:

1. **Discover**
2. **Review**
3. **Recommend**
4. **Remediate**

Phase 1: Discover

This phase takes place on-site. We collected all the aforementioned information about your needs and your existing solution.

Phase 2: Review

This phase takes place remotely. We analyse all the gathered information with respect to your current business requirements and constraints.

Phase 3: Recommend

In this phase, we report on our result in detail and recommend remediation steps.

Phase 4: Remediate

We can optionally remediate the solution or support you through it.

About Airxperts

Airxperts is an Australian company specialising in Information Technology Consulting in the networking and mobility spaces.

We have been operating successfully for over 4 years and served many large corporate and government customers. In that time, we have developed a reputation for our technical expertise & high-quality work.

We are lean and focused, but well-equipped to tackle large projects, with proven results in the University and Defence spaces, for example.

For any sales enquiries please contact:

Airxperts

www.airxperts.net

enquiries@airxperts.net

+61 2 6116 8277