

Application Note
Public Access “Hotspot” Internet Access
10 Gigabit Wireless Networks



About Wireless Excellence

Founded in 1996 and with headquarters in Oxford UK, Wireless Excellence Limited is a leading designer and supplier of outdoor and indoor Broadband Wireless communication products.

With a complete range of solutions including Radio, Microwave, Millimeter-Wave, Free Space Optics, WiFi and 4G/5G/LTE, customers in over 80 countries have chosen Wireless Excellence as the “one stop shop” solution of choice for dependable wireless networking.

Scenario

Hotspot (Public Wireless Internet Access, WiFi) is widespread and commonly available in hotels, cyber-cafes, coffee bars, airports and other public locations. Most Hotspot solutions consist of a simple WiFi "access point" plus a proprietary "hotspot controller" which manages authentication and connection through to a billing system.

In comparison with existing "2 box" solutions Wireless Excellence provides higher levels of integration with a single-box Hotspot including WiFi access point plus hotspot controller features including authentication, connection to a billing system, bandwidth-per-user control, firewall, traffic shaping and anti-virus/worm suppression.

A CableFree Hotspot can use either fixed line (ADSL, leased line, fibre) or wireless backhaul using an optional second radio card. In a typical wireless application, the WiFi Hotspot operates in the 2.4GHz band, with backhaul in the 5.8GHz band to a major network node. Licensed frequency backhaul is also possible including optional 3G/LTE backhaul integrated

The Wireless Excellence Hotspot solution is a high-capacity, highly reliable and rich-feature-set wireless products with high levels of integration and low cost of ownership. CableFree products offer up to 1.3Gbps capacity, low costs, advanced feature-set compared to existing Hotspot offerings and are installed in hours, not weeks.

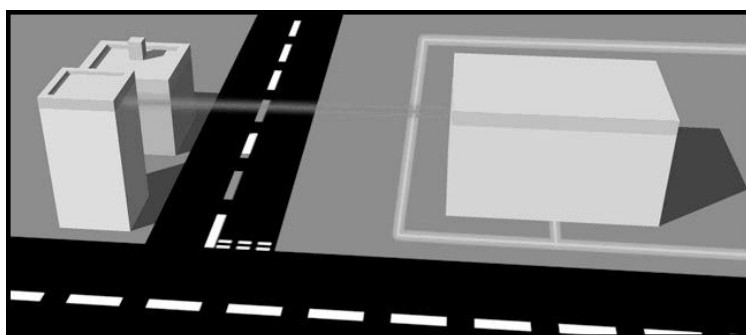
Solution

A CableFree wireless solution offers the following features and benefits:

High Performance	802.11a/b/g/n/ac 867Mbps and 1300Mbps multi-radio solutions
Rapid installation:	15 minutes deployable
Highly reliable:	99.999% availability achievable
License-free Operation:	No fees to pay on license free bands
No monthly rental fee:	Low maintenance solution
Diverse technology options:	Complete range of indoor and outdoor solutions
Fully manageable:	Advanced software tools
Resilient solutions:	VRRP resilient router options
Highly Secure:	Proven inherently secure technologies
Low Total-Cost-of-Ownership (TCO):	Moveable asset
Safe & Environmentally friendly:	Low disruption during installation

CableFree products are field-proven, with thousands of deployments in over 80 countries since 1997. Excellence in performance and reliability are not sacrificed in providing highly competitive priced solutions together with a comprehensive range of support services.

Application Diagram



One or more CableFree Hotspot units are mounted in buildings which are connected together either by cables or CableFree wireless products. Connection to the Internet is via leased line, ADSL, 3G/4G/LTE or wireless connection. Line-of-Sight (LOS) for Hotspot internet is not required.

Network connection is 10/100/1000Mbps Ethernet connected either directly or via Power-over-Ethernet (POE) to the wireless units. The units can be mounted on tripods, rooftops, towers, poles or behind windows.

A site survey is recommended to determine suitable mounting points, location of cable runs etc. Installation involves physically mounting the equipment, aligning it, connecting data and power circuits and commissioning.

Recommended Products

CableFree WiFi	High performance WiFi for indoor and outdoor coverage
CableFree AC-MIMO	Outdoor WiFi up to 1.3Gbps, range up to 40km

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For More Information

Please contact Wireless Excellence Ltd for information on the complete range of CableFree products and services

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