



## **FREQUENTLY ASKED QUESTIONS: WI-FI CERTIFIED™ 802.11n DRAFT 2.0**

### **Why do I want Wi-Fi CERTIFIED 802.11n draft 2.0 products?**

802.11n is a breakthrough technology that enables Wi-Fi networks to do more, faster, over a larger area. 802.11n Wi-Fi provides the very best connection available for computer networking and home entertainment applications alike – delivering the range, bandwidth, and performance today's multimedia applications and products demand.

Key features of Wi-Fi CERTIFIED 802.11n draft 2.0 products include:

- A strong Wi-Fi signal that can blanket the entire home
- The whole family sharing an internet connection on a wide array of devices without degradation
- Plenty of bandwidth to move high-definition video and audio streams from device to device, throughout the home
- The best user experience with voice calls, video games, and other multimedia applications
- Back up large files in a snap
- Confidence that devices from different manufacturers will work together

### **When will products be available for purchase?**

We expect that Wi-Fi CERTIFIED 802.11n draft 2.0 devices will begin appearing in stores in August of 2007.

### **How much performance improvement do I get with 802.11n?**

The technology specified in 802.11n draft 2.0 has the potential to deliver up to twice the range and five times the throughput of legacy Wi-Fi devices. However, products may vary in their performance and you should consult manufacturer information and independent product reviews to determine which products are right for you.

### **What does “draft 2.0” mean?**

The IEEE (Institute of Electrical and Electronics Engineers) defines the underlying standards of Wi-Fi technology through a process of written drafts which are approved by the organization and which ultimately lead to a ratified standard. Currently, Draft 2.0 of the IEEE 802.11n standard has been approved, and this forms the basis for Wi-Fi CERTIFIED 802.11n products. Ratification of the final 802.11n standard is not expected until 2009, but the draft 2.0 is widely considered to provide a stable foundation for commercial products.

The Wi-Fi CERTIFIED logo includes the word “draft” so that consumers will know that products with the certification are based upon this draft standard.

### **I've seen pre-n products in the store for a while now. What has changed?**

Some manufacturers released product based upon earlier versions of the IEEE draft standard and labeled these products “pre-n.” Some of these products were noted to have interoperability problems. Now, Wi-Fi certification is available to products to help ensure the best user experience through wide product interoperability, security protections, and backward compatibility. Consumers should always choose Wi-Fi CERTIFIED products when buying any Wi-Fi gear.

### **How can I tell if a product has been Wi-Fi CERTIFIED?**



Look for the Wi-Fi CERTIFIED name and / or logo on the product. Only products which have passed our testing bear the Wi-Fi CERTIFIED name and/or logo:



**Can I use 802.11n draft 2.0 products with my old Wi-Fi gear?**

Yes. Wi-Fi CERTIFIED 802.11n draft 2.0 products are tested for backward compatibility with 802.11 a/b/g gear. Users should match the letters on the logo for the new product to the standard in their old product.

If the product is Wi-Fi CERTIFIED but does not display the logo, you can determine which old Wi-Fi gear it will work with by looking at the frequency band(s) it supports. 802.11n gear operates on the 2.4 GHz band, the 5 GHz band, or both. Wi-Fi CERTIFIED gear that works on 2.4GHz is backward compatible with 802.11b and 802.11g gear, while gear that works on 5GHz is compatible with 802.11a. Only dual-band (2.4 *and* 5GHz) gear will work universally with 802.11a, b and g gear. All Wi-Fi CERTIFIED 802.11n draft 2.0 access points (routers) are dual-band.

**What is MIMO?**

MIMO is an abbreviation for Multiple-In, Multiple-Out. Wi-Fi CERTIFIED 802.11n draft 2.0 devices make use of multiple antennas to send and receive more than one communication signal simultaneously. This is similar to having two FM radios tuned to the same channel at the same time – the signal becomes louder and clearer. This multiplies the performance of the Wi-Fi signal, and is reflected in the two, three, or even more antennas found on some 802.11n routers.

**If I have a mixed network of Wi-Fi CERTIFIED 802.11n draft 2.0 and previous-generation Wi-Fi gear, can I still get the benefits of 802.11n?**

Wi-Fi CERTIFIED 802.11n draft 2.0 gear is backward-compatible with Wi-Fi CERTIFIED 802.11 a/b/g gear that operates in the same frequency bands. When using an 802.11n router (access point), you will probably see some performance improvements on a mixed network, but the dramatic range and throughput improvements are only possible when both client and network devices are Wi-Fi CERTIFIED 802.11n draft 2.0.

**Is 802.11n secure?**

Wi-Fi CERTIFIED 802.11n draft 2.0 products are tested for the very latest generation of Wi-Fi security: WPA2™ (Wi-Fi Protected Access 2™). The only way to be sure that an 802.11n or MIMO product meets these standards is to purchase Wi-Fi CERTIFIED products.

**I heard 802.11n can cause interference problems with other Wi-Fi networks. Is this true?**

In some configurations, 802.11n products can interfere with other Wi-Fi networks when they are trying to achieve the best performance. However, all products that are Wi-Fi CERTIFIED



802.11n draft 2.0 are required to implement a “good neighbor” protocol that helps ensure that interference is not a problem. Wi-Fi CERTIFIED 802.11n draft 2.0 products will operate in a manner designed to cause the least interference.

**How can I find a list of Wi-Fi CERTIFIED products?**

Visit [www.wi-fi.org](http://www.wi-fi.org) and click on “Certified Products” to find a searchable database of products. You can search by product type, manufacturer, and type of certification.

**How can I learn more about 802.11n?**

Visit [www.wi-fi.org](http://www.wi-fi.org), where you will find white papers, presentations, and other information about Wi-Fi and Wi-Fi CERTIFIED 802.11n draft 2.0.