

4 tips for building better wireless networks

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How much performance do companies want to implement when they deploy a wireless network? These cases may not be enough - especially when wireless becomes a key part of the new data center infrastructure. *'It would be a mistake - a very common mistake - to think that the performance of a wireless LAN is always low,'* said David Newman, Network Test's president in a statement. *'People say, it's just a wireless network, what do you expect from it? In fact, wireless LANs can be set up to perform quite well but need to have some investment in this network design.'*

With the help of Newman and wireless experts, the following four tips will help us to optimize a wireless network and improve application performance.

1. Install more access points than you think

Having multiple access points will improve the reliability, throughput and capacity of the network, said Craig Mathias, head of Farpoint Group. *'People often try to use the wide range possible for access points, which is completely wrong for any radio-based device,'* he said. *'When the cost of access points is expensive, this solution is also valuable in cost savings, but currently the price to spend on these devices has dropped significantly, usually only \$ 400 to 600. \$, you also need to gradually change that saving strategy.'*

Mathias said he was very good at optimizing capacity instead of scope. That means that there should be enough access points to manage user needs. Some users only go online for a moment and check email, while others run more in-depth applications and need more capacity, he said. Determining the correct number of access points means studying network administration logs to see what types of applications users are accessing, from where and how often. There is no separate answer to this problem, even the key principle is not good in this case.

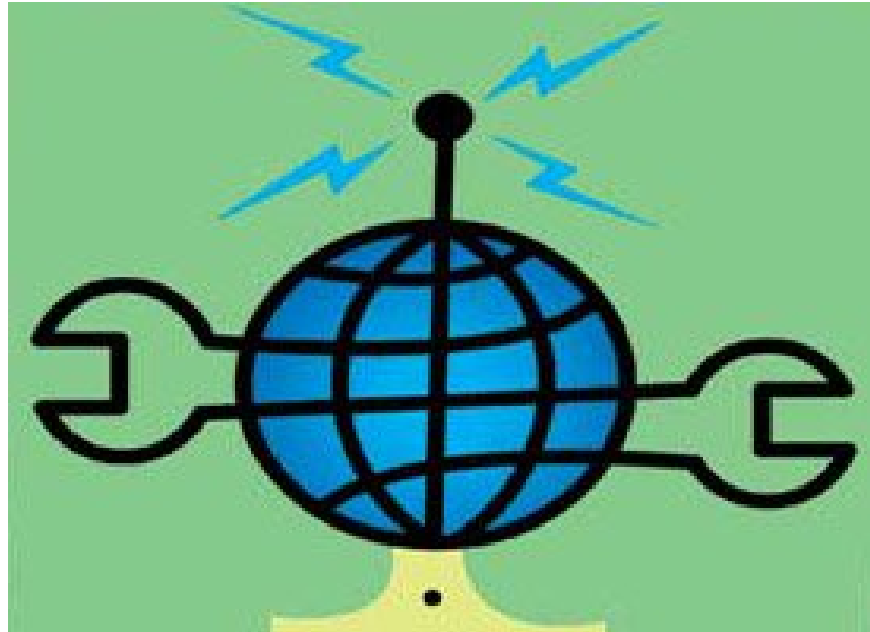
2. Do not place the transducer too high above the ground

Normally, the network designer usually puts the transmitter 5.5m to 6m above the ground, why not set it up to 15m high to see if it works better, Leonard Scott, director of the city IS Corpus Christi, Texas has asked such a question. It is not really a good idea, because placing too high can cause some problems: *'When a device is placed too high above the ground, the receiver will be very difficult to collect. Brand from users on the ground'*. 6m is the required height, Scott noted, he designed a wireless Internet network for the Corpus Christi residence and the applications used by city employees.

However, errors in the height of the transmitter are not limited to city Wi-Fi projects. Companies sometimes put

this transmitter on top of a building's door for security and aesthetic reasons or because it thinks it will give better coverage, Mathias said. In a store, this strategy can work well because the capacity needed here is low, just enough throughput to scan barcodes and perform similar tasks. In office settings, the transmitter must be covered at a longer distance, a good option for placing receivers is on the top of the walls, Mathias said. Wireless signals are designed to radiate around, not from bottom to top, he added.

3. Avoid focusing the area excessively



Although large chipset vendors are in the midst of providing support for 802.11a WLAN standards, Newman advises using them when possible.

The 802.11a standard helps optimize because it operates in the less-used 5GHz band and so the surfaces are less prone to interference than the newer 802.11g standard, which operates within a much-used 2.4GHz frequency band. . ' *Not only WLANs use that frequency, but also some mobile phones, other shortwave systems are also used. They won't be universal enough for all registered devices to use those frequencies,* 'Newman said.

Mathias dismissed that, saying that using a 5GHz band could make radio waves not as far away as using the 2.4GHz band: 'If you listen to my advice - it's not optimal for offense. vi, but optimized for capacity, it will not matter at all, "he added.

The standard 802.11n standard that Mathias says will improve throughput by a factor, which will work in 2.4GHz and 5GHz frequencies. Therefore, businesses can switch from 802.11a to 802.11n and still use the 5GHz band.

4. Consider centralized WLAN architecture

Deciding whether to use distributed or centralized architecture is 'a rather fierce debate,' Newman said. The centralized architecture uses a controller to manage all access points, whereas the distributed architecture requires those access points to be managed separately.

' *I am biased with the opinion of those who think' concentration will be more optimal ' , because you can set up whatever characteristics you want and they are taken to the entire business ' Newman said. Features include radio frequency settings of access points as well as QoS mechanisms to prevent voice retention and video traffic, he added.*

Mathias also likes focusing methods. With distributed architecture, you will be asked for problems when controlling each access point and remember each IP address, he said. ' *I like the centralized method and like its management ' .*

Companies that use distributed architecture also have some advantages in optimizing, Newman said. Firms like Colubris Networks say you can flexibly manage with their distributed networks when there is a centralized installation.

If these four tips are not enough to maximize the performance of your wireless network, Newman also offers the final advice: ' *Go back to using a simple wiring! '*

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