

Winning in Education with

LANCOM

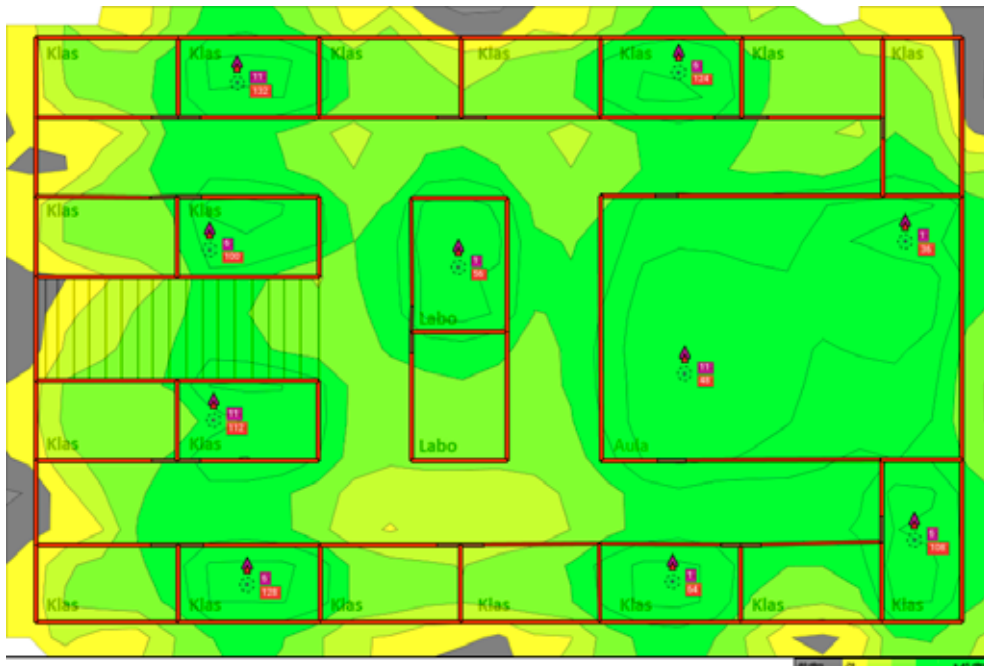
Challenges In Education Environments

Education environments have their own challenges when it comes to Wi-Fi deployments. They need maintenance-free and highly reliable access, while keeping the costs limited. The investments may typically demand a longer life span, at an average of 6 to 8 years, before new equipment can even be considered.

Another challenge is that there is a difference between low density and high-density environments. In a **low-density** environment, teachers are typically only using internet access for reference materials, whereas in **high-density** environments, each student in the classroom will be connected to the internet, and actively using the network for research, accessing classroom materials, assignments, exams, ...

From basic Wi-Fi coverage for each classroom ...

In a first, but common scenario, classrooms have basic connectivity requirements that allow teachers to utilize digital content and provide basic connectivity to the students. The placement of the Access Points is designed to easily accommodate for any future expansion towards a high-density environment. In this scenario we can cover up to three classrooms per AP.



Questions? Contact our experts!

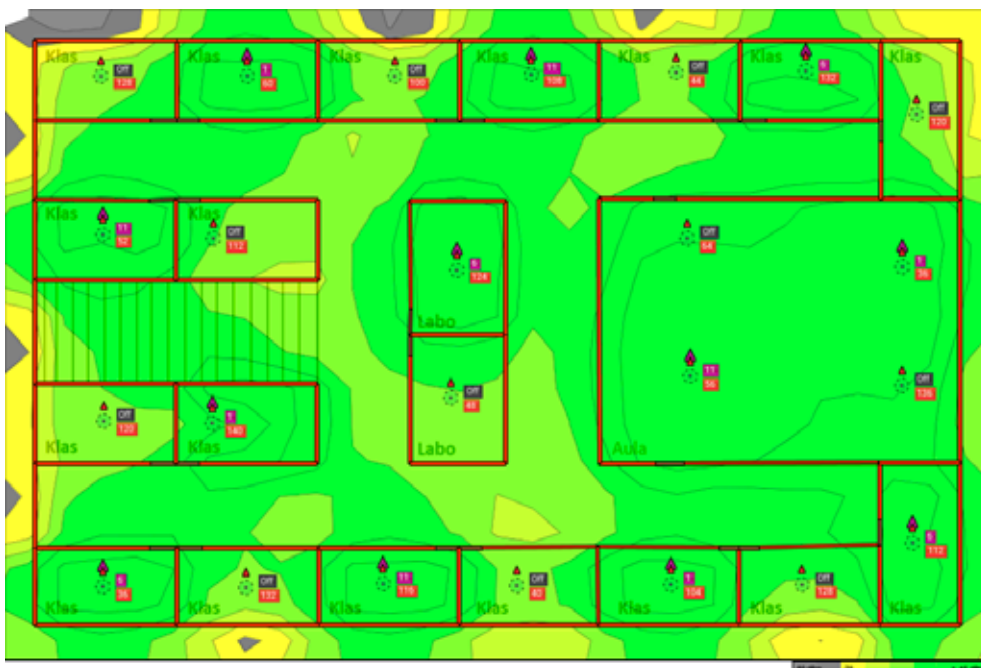
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... to high-density and throughput driven design

In this second scenario, all students have multiple devices that are being used for educational purposes. Typical characteristics of these environments are:

- High Schools & Universities
- Students have laptops to attend classes
- Majority of classes require digital content
- Online examinations

Typically, one access point per classroom is installed to accommodate the high density environment. This strategy will give you the best Wi-Fi design possible as the small Wi-Fi cells do not need to travel through walls. This design allows for up to 70 devices per classroom.



What is the ideal Wi-Fi standard?

The ideal Wi-Fi standard is Wi-Fi 5 (also known as 802.11ac wave 2) as it's considered to be today's mainstream chipset, available at an affordable price point.

All clients today, and in the future, are fully compatible with this standard. Furthermore, using a 4-stream 4x4 Access Point allows for simultaneous connections of two 2x2 Multi-User clients, offering maximum throughput. Also, Beamforming with these Access Points will improve the signal quality remarkably.

So, why aren't we using Wi-Fi 6 yet? In today's market, it's a very expensive proposition, and there aren't any clients available yet that can use the advantages that Wi-Fi 6 offers. The first real world advantages of Wi-Fi 6 will not emerge in the first two years to come.

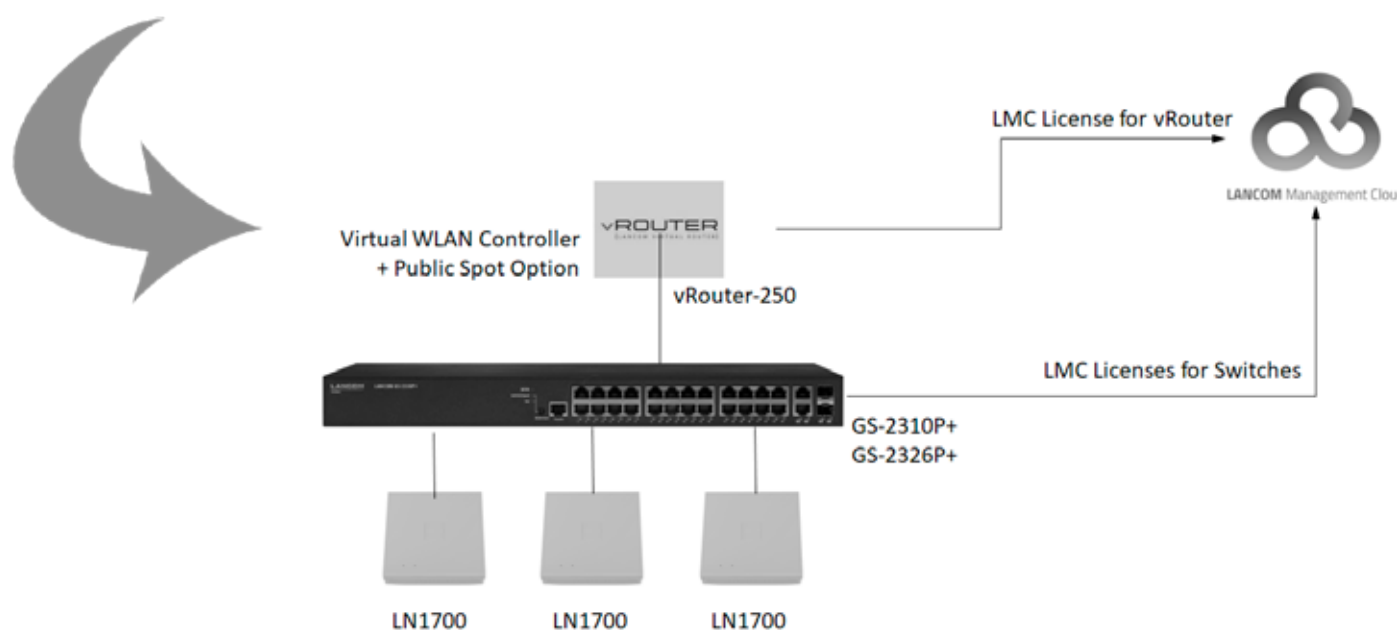
Wi-Fi 6 clients will be backwards compatible with Wi-Fi 5.

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The solution for Education Environments

The solution is to use the Lancom LN-1700 High Performance Access Point in combination with PoE switching equipment. The virtual router provides management capabilities for the access points, while the Lancom Management Cloud is used for monitoring the access points and maintaining an overview of the complete network infrastructure.



Summary

Lancom Systems offers a qualitative solution to bridge the gap between low- and high-density environments with futureproof equipment.

The centralized Lancom Management Cloud allows easy configuration and monitoring with a very limited recurring license fee.



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