



What to look out for when considering a wi-fi solution

Wi-Fi E-Guide



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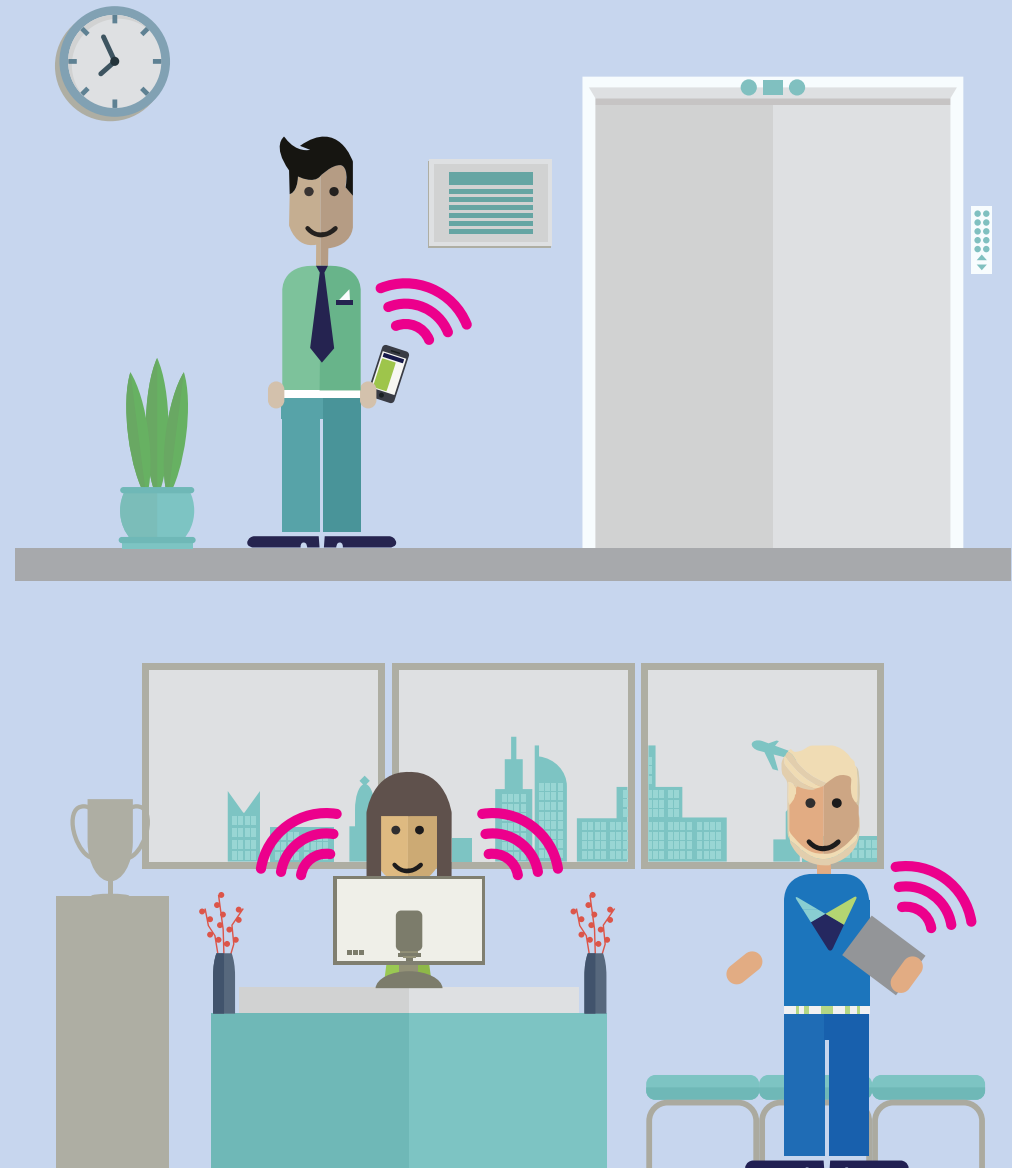


What to look out for when deploying a wi-fi solution

Capacity & Speed

When considering Wi-Fi capacity you need to determine the number of users and devices that will be accessing your wireless infrastructure. Note that a single user may have multiple devices (laptop, phone or tablet.)

The wireless frequencies (2.4GHz or 5GHz) being used is also a key factor, 2.4GHz is typically more congested and provides lower bandwidth but better range, while 5GHz allows for higher densities and bandwidth and shorter range.



The types of devices connecting to the wireless infrastructure also influence capacity and speed. Typically wireless devices that support 802.11b/g tend to slow down the wireless channel for other connected devices on the same access point. Understanding what applications (for example VoIP, video, file transfer and HTTP) using the wireless network allow you to better plan for the service levels expected from your wireless deployment.

Assessing these options will then allow you to plan what access point types are needed, how many and which channels should be used. Access points with multiple radios will support a varying array of wireless clients and deliver the best service levels.



Wi-Fi Coverage

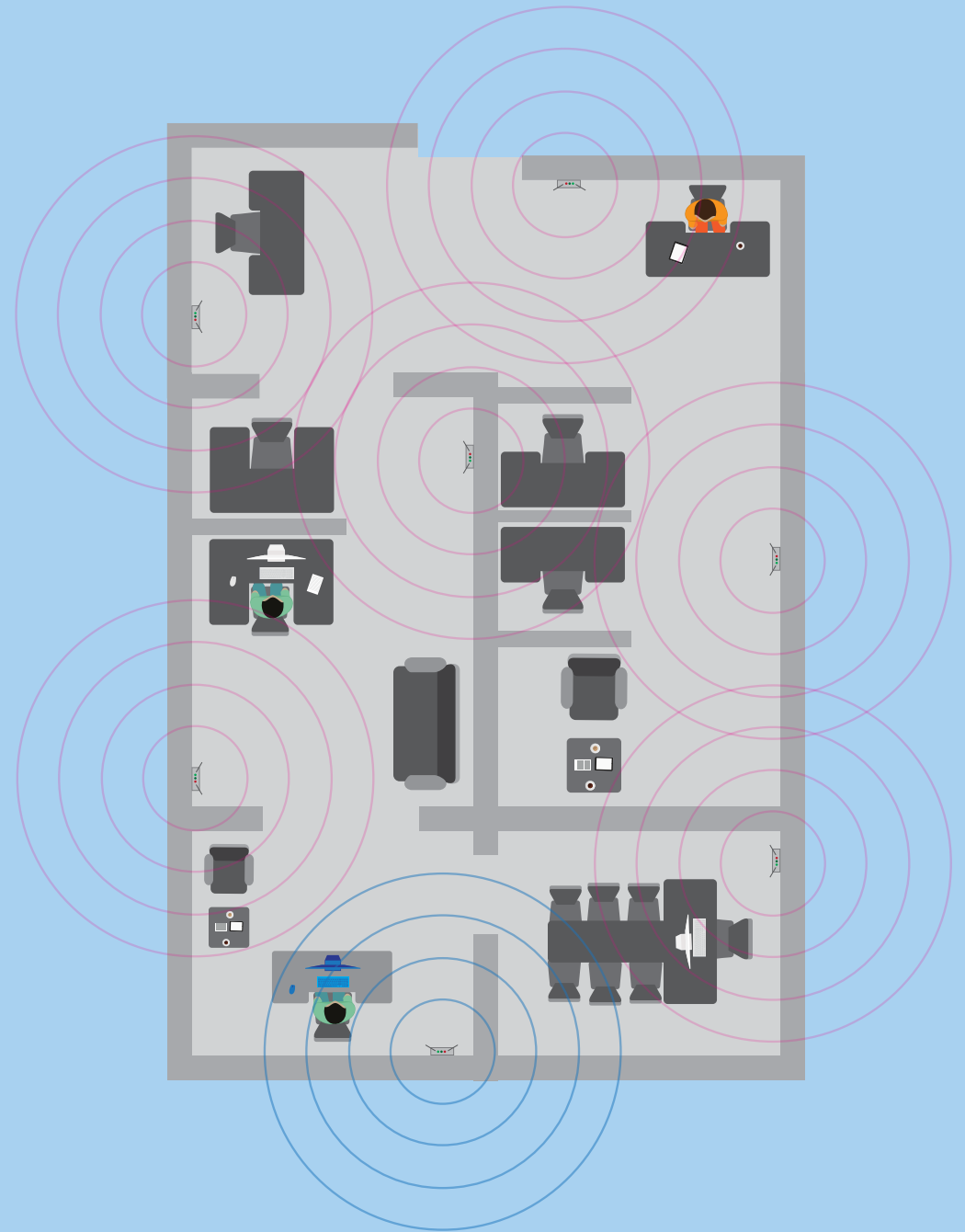
Where specific capacity, coverage and signal strengths are required, there are a number of factors which must be considered.

Firstly the building layout and structure influences the way wireless signals are spread or in some cases blocked. The higher frequencies of the 5GHz wireless networks provide higher speed and capacity, but they are more prone to weakening by physical obstructions. Different materials affect wireless signals in different ways, a wireless survey to help to predict and plan coverage areas taking into account environmental factors, building structure and materials, removes the guess work.



Channel utilisation and neighbouring channel interference within the coverage area needs to be assessed to determine what the optimal wireless frequencies are.

It is also worth considering whether or not the wireless infrastructure will be used in real time location tracking (RTLS) for example, in retail environments. This information is important for the appropriate placement of access points within the required coverage area.



Centralised Management

Wireless access points can be managed as autonomous devices on a small scale, once the number of access points increases, the management overhead becomes cumbersome and a centrally managed solution becomes more appropriate.

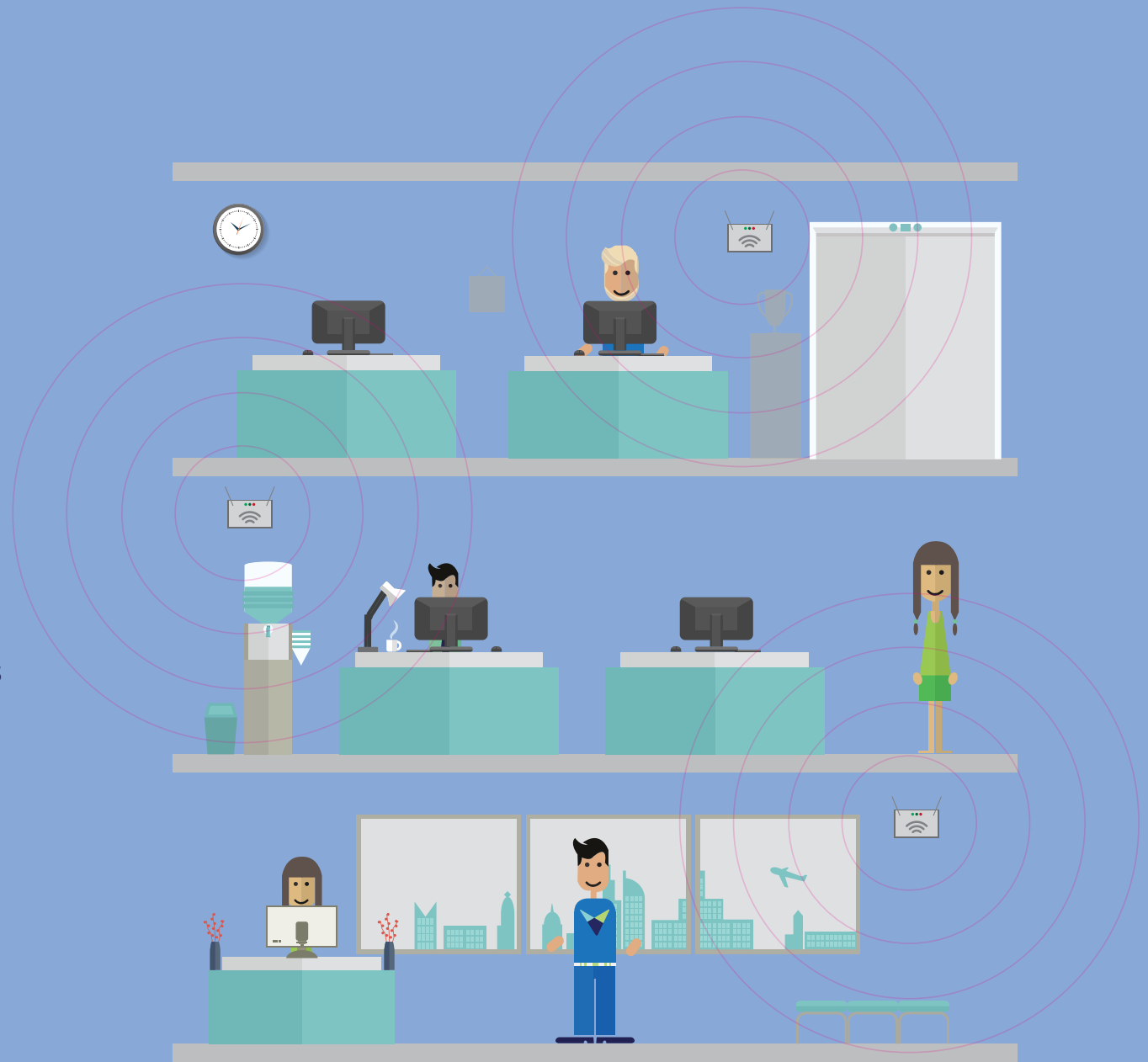
A centralised management solution allows for consistency and ease of configuration across all access points by having configuration profiles pushed out to all access points. You can consider either using a central controller or a cloud based management solution to manage your wireless estate.



Cloud based management allows you to easily manage a wireless network that may span many geographic locations and networks, yet maintaining a consistent configuration set.

Managing security is always an important consideration when deploying wireless networks. 801.1x and WPA2 wireless networks are becoming a requirement in most corporate wireless deployments.

Guest Wireless to visitors and contractors is also common place, while still maintaining security and accountability.



Cisco Meraki Wi-Fi Solutions

The Cisco Meraki portfolio includes wireless access points, switches, security appliances, and mobile device management solutions. What sets Cisco Meraki apart is that all of these are centrally managed from the cloud. This makes them significantly easier to deploy and manage than traditional networks.

Benefits include:

- Managing devices across multiple sites from a single dashboard
- Monitoring and controlling users, applications, and devices in real time
- Scaling from small sites to million-user deployments
- No controller hardware or management software to install and maintain
- Complete, high-performance feature set and support included



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Wi-Fi Services

Viadex enable companies to simplify IT infrastructure solutions deployed both locally and globally. Our solutions save our clients time, hassle and money. Whether you are planning to deploy a wireless network or validate an existing deployment, Viadex can help. Our methodology and internal mantra, which we apply to everything we do, Audit – Design – Deploy – Optimise, will ensure successful project delivery.

Viadex is a Cisco Premier Partner with UCS specialist status and accredited member of Cisco's Global Partner Network program, with access to Cisco's GPN marketplace and approved five-step process.

About Viadex Discover 

Viadex Discover provides Proximity Solutions for the retail and leisure industry, giving you the power to influence purchasing decisions and habits before the point of purchase.

Drawing on our expertise in the IT infrastructure and services market, we are perfectly placed to consult on all of the latest customer engagement analytics, WiFi and iBeacon technologies to deliver a multi-vendor bespoke service to suit your specific needs.

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