Is your WiFi network ready to support casting?

5 things to consider

Most hotels offer their guests WiFi access to the internet, and the Quality of Service may well be satisfactory – or even excellent – for this application.

But, as for any network, several points must be taken into account when installing new services. Everything may not turn out to be as fine for the new applications, as the fundamental demands may be different.

In this document, we cover 5 things to consider when adding a casting service to your network.

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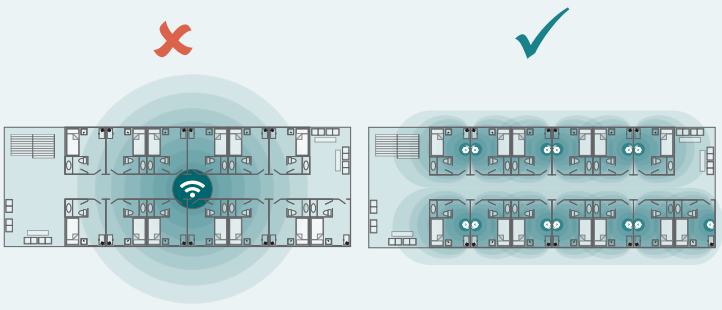
5 things to consider when adding a casting service to your network

Hospitality Casting can be realised with both management and video streaming over WiFi, or with streaming over a wired LAN network. This document concerns a full installation on the WiFi network.

A WiFi network can be configured in many different ways, and still serve the purpose of offering satisfactory wireless internet access to the guests. Adding a new feature like Hospitality Casting will put considerable load on the WiFi network, and if no action is taken, the resulting Quality of Service quite often turns out be much poorer than expected. In the following, we will look at the most important points to take into account when judging if a WiFi network is suitable for supporting Hospitality Casting with a sufficient Quality of Service.

1. A few WiFi Access Points with high radiated power

If the WiFi network is created with a small number of high power Access Points, these will often be a bottleneck for streaming traffic. For normal internet access this may not be seen as a problem, as the traffic load is typically lower by several factors. A much better approach is an installation with in-room Access Points, built with multiple Access Points with lower radiated power. With this approach, both traffic in the air and traffic through the Access Point will be more equally distributed.



2. WiFi network with range extenders

If a hotel experiences 'dead spots' in the WiFi coverage, the easy quick-fix is to install a Range Extender. For low data rate traffic this works well in many cases, but as all traffic is still routed via the Access Point, there will be a serious bottleneck for high data rate traffic like video streaming. As Range Extenders are adding coverage only, and not adding to the capacity of the system, these should be avoided – and replaced by individual Access Points. In-room Access Points with low radiated power is a better approach.

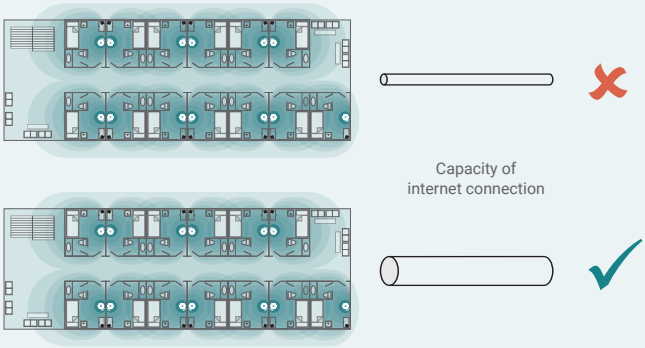
3. Capacity

Many WiFi installations are built to offer normal internet access to the guests. For this application, the demand for capacity is not very high.

Hospitality Casting will offer streaming of video entertainment to each individual guest, and thus the demand for capacity – or bandwidth – of the internet connection and the WiFi network is much higher. A typical HD video stream requires 4-5 Mbps, and the hotelier must take a decision regarding the desired Quality of Service. If every guest should be able to use the Hospitality Casting Service simultaneously, the bandwidth must be secured for each and every room. However, it is not likely that each and every guest will use the service simultaneously, so many will be satisfied with 70% of simultaneous demand.

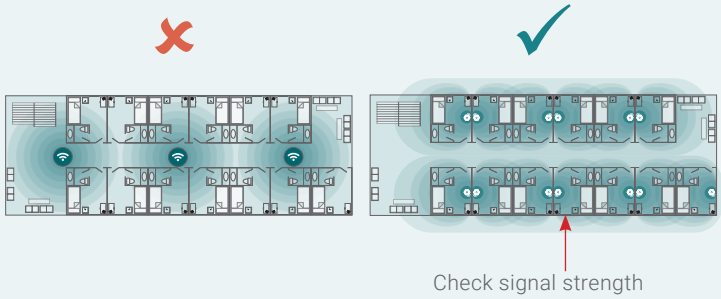
Networks must be reliable, fast, secure and easy to use – both now and in the future.

The capacity should be checked with a speed test in various locations around the installation.



4. Coverage

For normal WiFi internet access, it is often the case that only the main area is covered. If the guest is in a weak spot, they will just move to find a better signal. For Hospitality Casting, however, the demand is FULL coverage in order to offer a good Quality of Service. Since the guests' mobile phone is used as a 'remote control', they will expect to select TV entertainment from any spot in the room. Coverage is checked by measuring the WiFi signal strength all over, and eventually install more Access Points to cover dead spots.

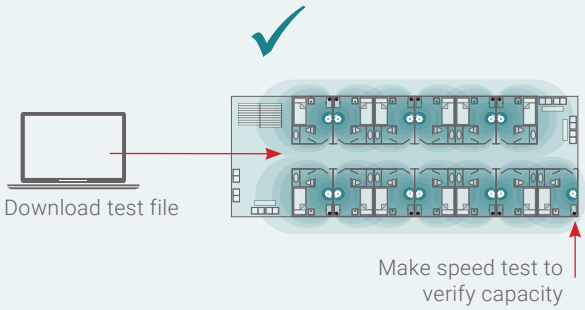


5. Managed network

Ensuring that the total capacity of the network is shared appropriately among the users, is the definition of a managed network. A network can have static or dynamic management, but generally it is about making sure single users cannot take up all capacity and leave other users with a poor service. Small WiFi installations in particular may not have any management of the capacity, and even if the total internet capacity is sufficient to offer good Quality of Service for Hospitality Casting, the Quality of Service experienced may be affected.

If for example a businessperson started downloading a lot of data from their headquarters, they may occupy all of the resources of the WiFi network and leave other guests with a poor Casting experience. They may even expect that the data download will take all night, and thus not see the benefit of the process taking half an hour only.

If there is no access to technical information of the WiFi network, it can be somewhat complicated to verify if there is a reasonable management of the network. One approach could be to start downloading a file through one Access Point while at the same time performing a speed test through another. A 1GB file will take 17 mins at a data rate of 8 Mbps. Test files for such test can be taken from: https://www.thinkbroadband.com/download, https://fastest.fish/test-files or similar.



Questions?

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About TRIAX

TRIAX is a global supplier of reliable, innovative products and solutions for the reception and distribution of video, audio and data signals.

We merged in 2021 with Ikusi Multimedia, with a shared vision of being our customers' preferred connectivity partner through cutting-edge technological leadership.

Our Products are used in homes, businesses and operator networks by broadcasters, satellite, cable and telecom operators.

Our Solutions combine our hardware and software expertise to deliver value to hospitality and related markets, through a partner network of system integrators, large installers and operators.

Our combined company of 260 employees is jointly owned by Polaris Private Equity and Velatia Group. See www.triax.com for further info.

03/2022