Cloud-managed hotspot

The LANCOM Management Cloud (LMC) offers the practical option to provide one or more simple Wi-Fi hotspots with just a few clicks. Unlike a non-cloud-managed network, there is no need for an additional gateway or a WLAN controller featuring the LANCOM Public Spot option—all you do need is a valid LMC license on the local devices that support the hotspot. In addition, there are all the advantages of a cloud-managed network in terms of time savings and versatility: The very simple setup and the custom design of the hotspot are handled centrally using a graphical user interface. The secure provision of the hotspot at all of the desired locations is enabled with the click of a mouse. This makes any cloud-managed hotspot an ideal, versatile solution for the provision of hotspots in networks of any size.
This techpaper uses two example network scenarios to illustrate the operating principle of a hotspot that is set up via the LMC, and it highlights the differences in various topologies.

Setup

The "Networks" section of the LANCOM Management Cloud offers a central, user-friendly interface for configuring the hotspot. It is possible to set up several hotspot SSIDs with different login pages and individual access passwords. The appearance is fully customizable with company logos, individual welcome texts, and terms and conditions. As a help to the administrator, the way the hotspot looks on user devices is displayed at all times during the setup.
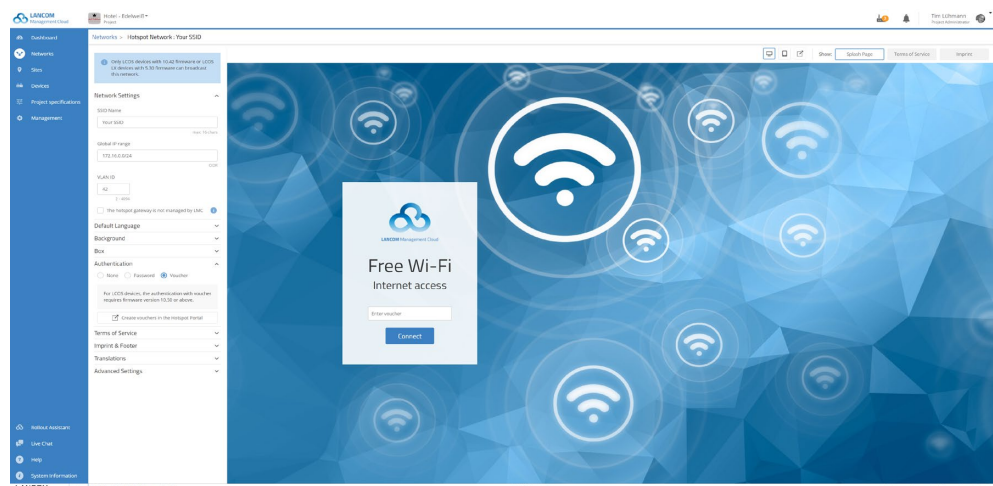

Figure 1:
Setup interface

Finally, the new hotspot network is assigned to the required locations and the LMC immediately provides a Wi-Fi hotspot for users, which VLANs securely separate from

the internal network. Client login information is synchronized fully automatically across all of the access points in the network, which guarantees seamless roaming of clients between the access points.

These steps in the setup procedure are the same irrespective of the network scenarios outlined below. However, depending on the scenario the transport routes may differ for the hotspot data and the components used. The following explains aspects that require particular attention during the setup.

Standard scenario: Network infrastructure with LANCOM components

If you operate a LANCOM router, the LMC takes it as a hotspot gateway and uses its functions such as DHCP and DNS.

The homogeneous infrastructure makes it easy to implement this type of scenario: The LMC handles the VLAN configuration on all of the devices, so there is nothing more to consider during the setup. A few steps is all it takes to provide a convenient hotspot in medium and large networks.
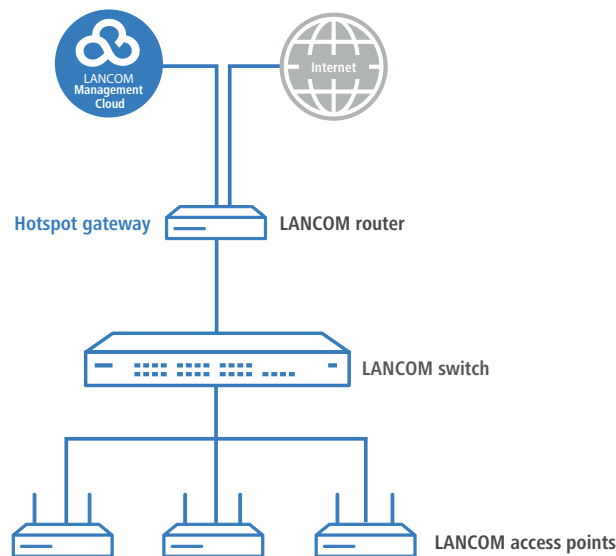

Figure 2:
All-LANCOM
infrastructure

Alternative scenarios: Using LANCOM access points on network components from other manufacturers (overlay network)

Even in smaller networks, which may not be based entirely on LANCOM components, the new Cloud-managed hotspot is also easy to implement thanks to a process developed specifically for this application. In this example scenario, LANCOM access points were operated behind an existing network infrastructure with components from other manufacturers. In this case, the hotspot is provided with the help of a so-called "overlay". Here, the hotspot data transfer routes are overlaid on the existing

connections. This uses network address translation (NAT) to ensure that hotspot users and their data are securely isolated from the rest of the company's internal data streams. The data streams are coordinated by a dedicated NAT AP in the local installation. The NAT AP is determined automatically by the LMC, but if necessary the administrator can change this at any time. We recommend that you use as powerful an access point as possible, for example one of the LX or LN series. This method is particularly useful in small networks where, for example, non-VLAN capable routers or switches are operated.
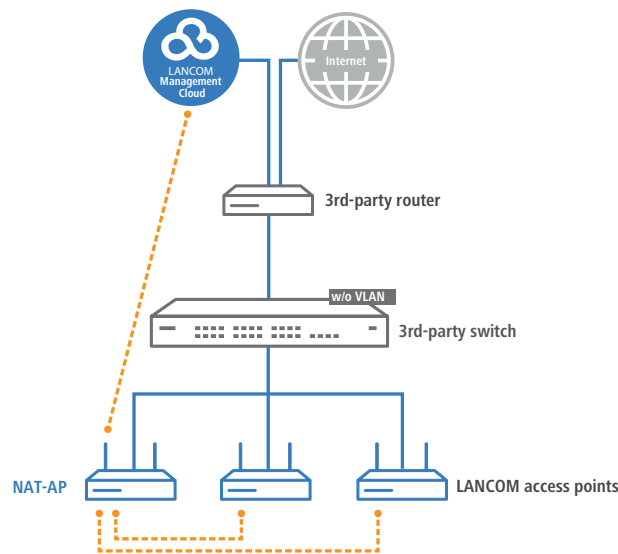

Figure 3:
LANCOM access points only

If a VLAN configuration is already being used in network installations with components from other manufacturers, it should be ensured that the VLANs of the access points harmonize with the rest of the network infrastructure and match the data transport between the access points.

Further information on the installation can be found in the LANCOM Knowledge Base.

Summary

The LANCOM cloud-managed hotspot is the ideal solution for setting up simple, user-friendly Wi-Fi hotspots—all without a dedicated hotspot gateway. It even integrates into existing networks operating components from other manufacturers. A wide range of application scenarios can be implemented, such as shop-in-shop scenarios where a network uses multi-SSIDs to provide multiple hotspots. Last but not least, the cloud-managed hotspot stands for the same values as the LANCOM Management Cloud: Maximum savings of time and cost.

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