

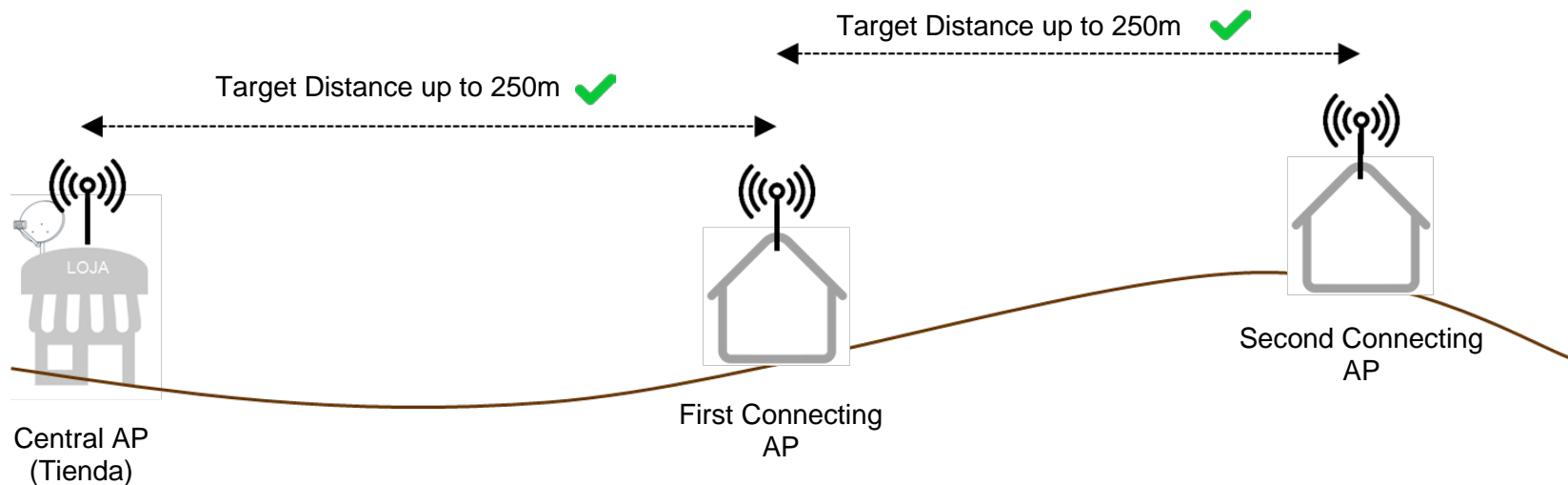
Community WiFi Coverage – Installation Guidelines

Scope: This documentation provides guidance on selecting locations for WiFi Access Point installations to extend the WiFi signal across the community and provide a continuous, community-wide network. For requirements on installing the access points themselves, refer to the installation documentation.

1 Distance between Access Points

Generally, the distance between APs should be less than 250m to maintain a consistent coverage between APs.

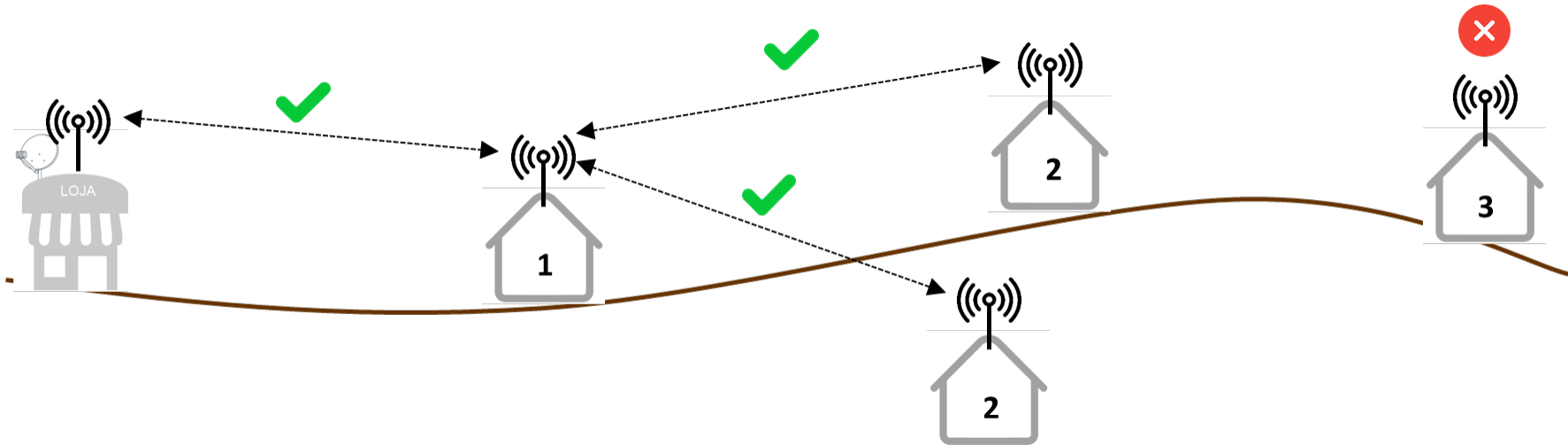
Where there are areas that coverage is not needed, maximum distance may be up to 500m – however, the installation should always be verified by performing a speed test and performing any other tests specified by Viasat.



2 Hops between Access Points

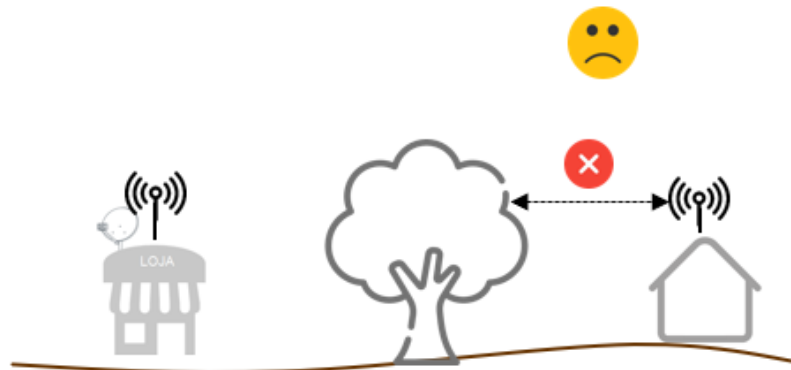
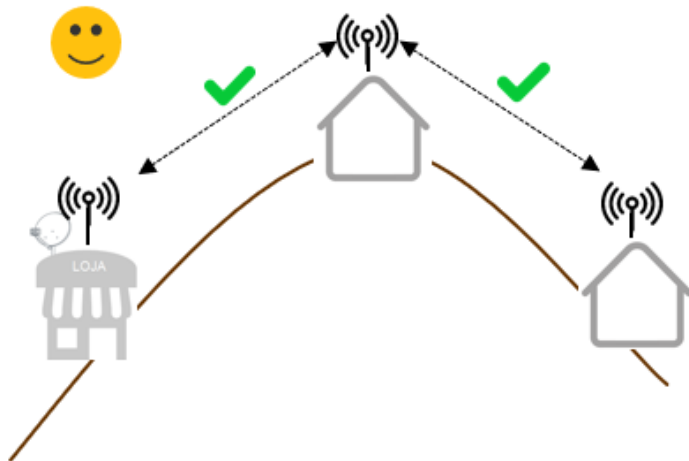
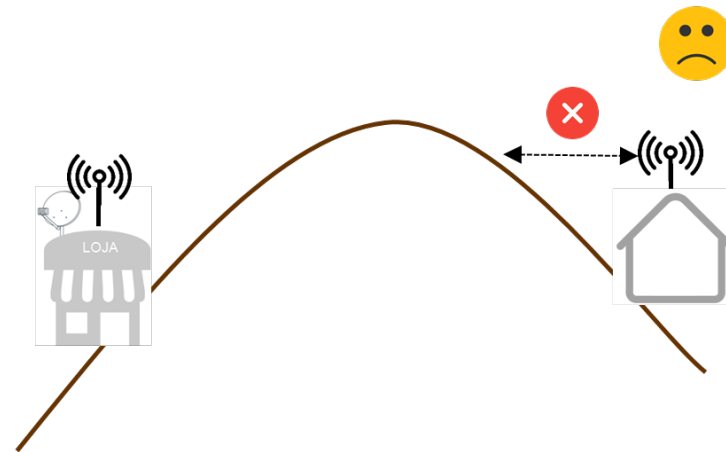
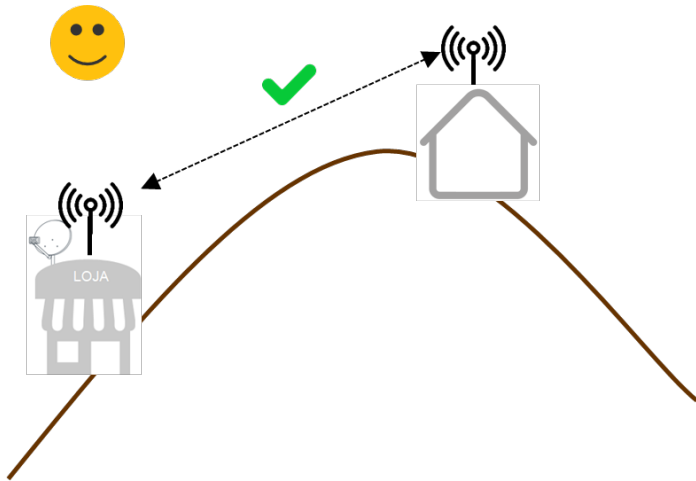
The network design will support Access Points connected directly to the Central AP [House 1] and Access Points connected via one-“hop” (or link) to reach the Central AP [House 2]

It is not possible for an AP at to connect across two hops to reach the central AP [House 3].



3 Line of Site Between Access Points

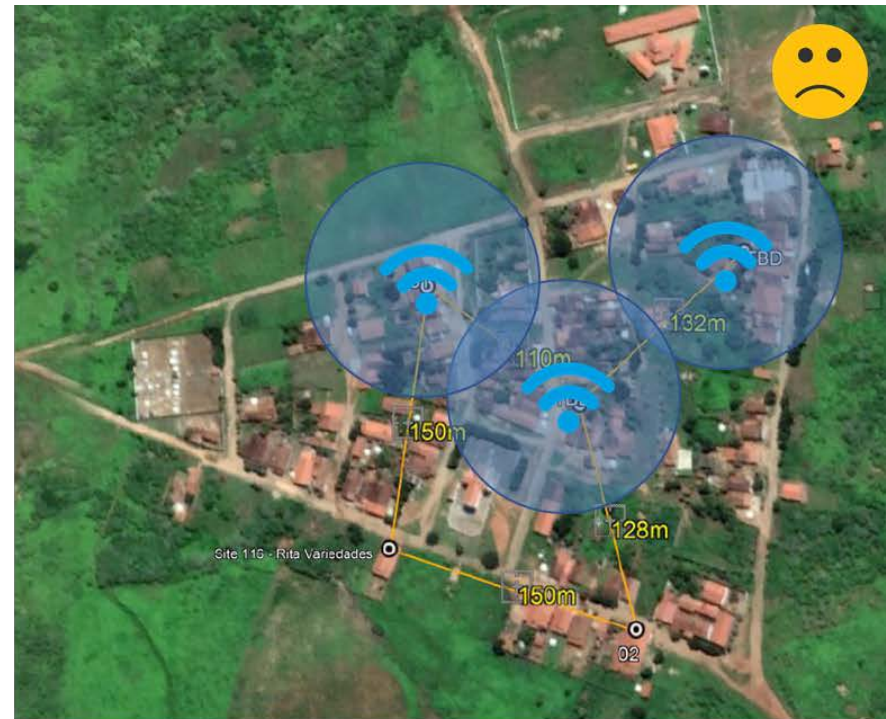
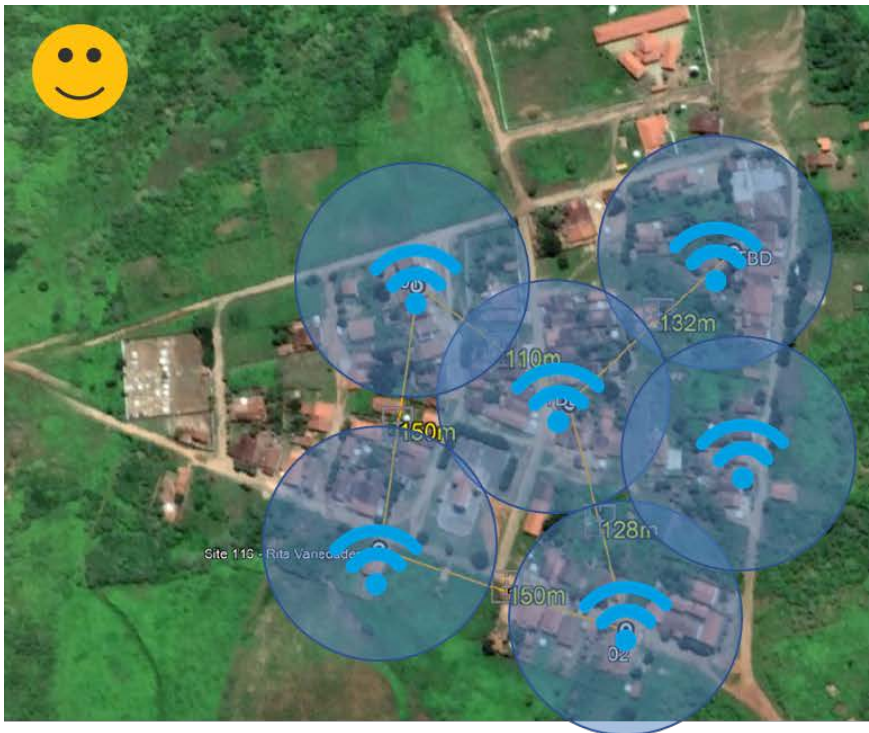
There must be line of site between the new AP and either the Central AP (at the store) or another AP which can “see” the Central AP. Avoid obstructions such as trees or other structures could interfere with the line of site.



3.1 Coverage Area

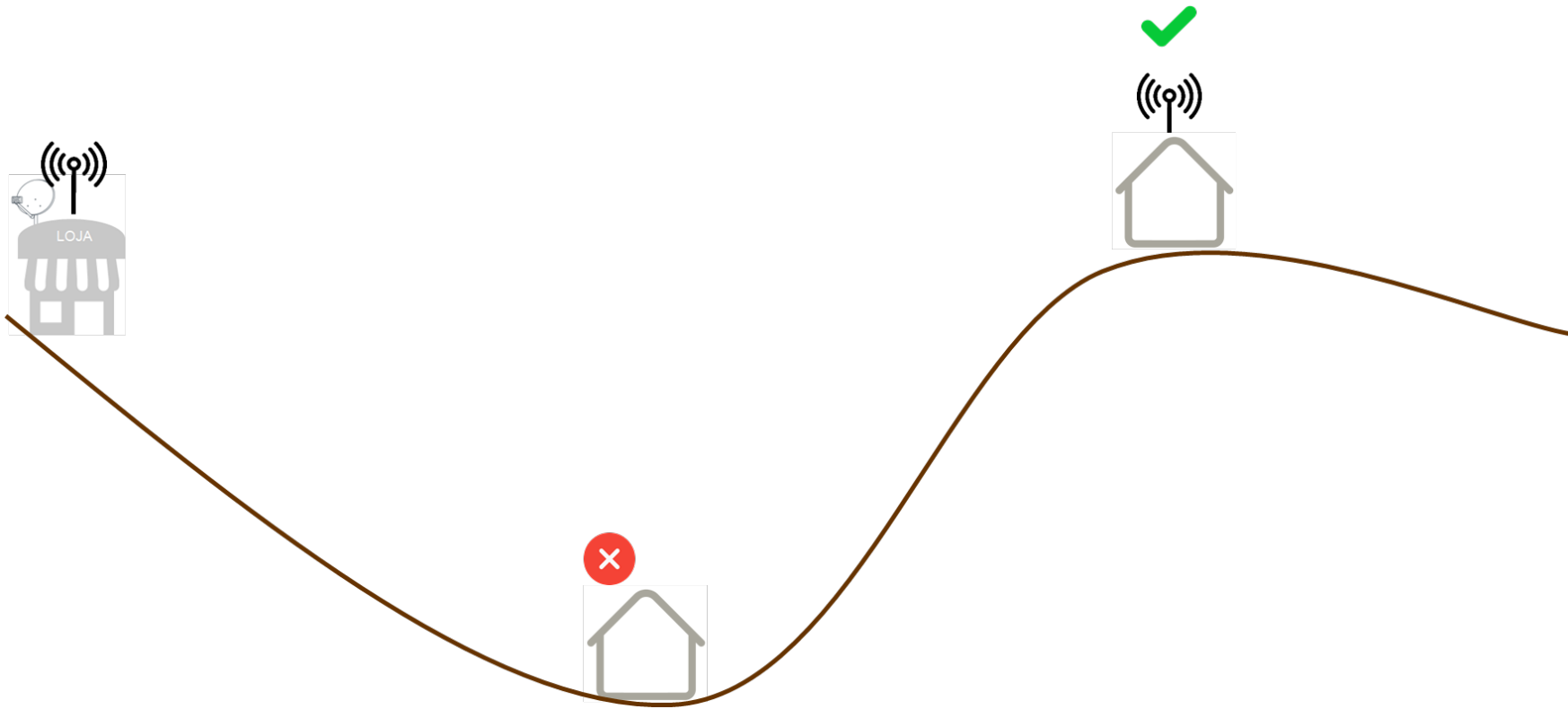
Ensure that at least 90% of the community is covered within the WiFi signal area.

The WiFi signal for customers reaches approximately 100-200 m from the Access Point, depending on local factors (interference, terrain, weather).



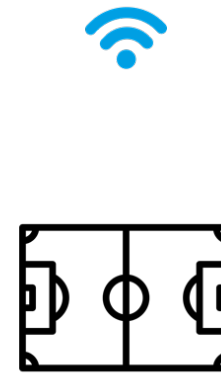
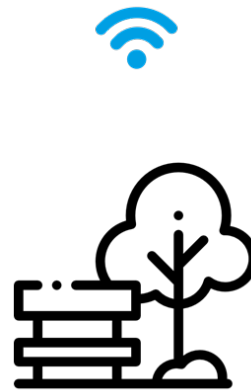
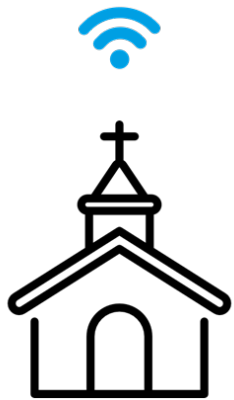
4 Seek high-points in the community, not low points

The WiFi signal will reach more customers if the APs are placed at high points in the community. Install at locations such as buildings on hills, on towers, or on tall buildings.



5 Provide Coverage at Popular Gathering Areas

Place APs such that they provide coverage in common gathering areas such as – churches, school, town squares, sports field.



6 Select Reliable locations where Power can always be provided

Other businesses and/or community members who will keep the Access Point powered on consistently, in exchange for a monthly free internet access. The Access Point only consumes about as much electricity as a light bulb.

Make sure to check with a multimeter that the voltage at the location meets local standards before verifying it as a candidate for Coverage.

