

# FAQ - Wireless coverage

Valid for: N610 N670 N870 N870E Embedded Integrator Virtual Integrator

## Wireless coverage

The selection of locations where the base stations are to be installed should guarantee optimum wireless coverage and enable cost-effective wiring.

Optimum wireless coverage is achieved if the required reception quality is delivered at all points of the wireless network. If costs need to be considered, this should be done with a minimum number of DECT base stations.

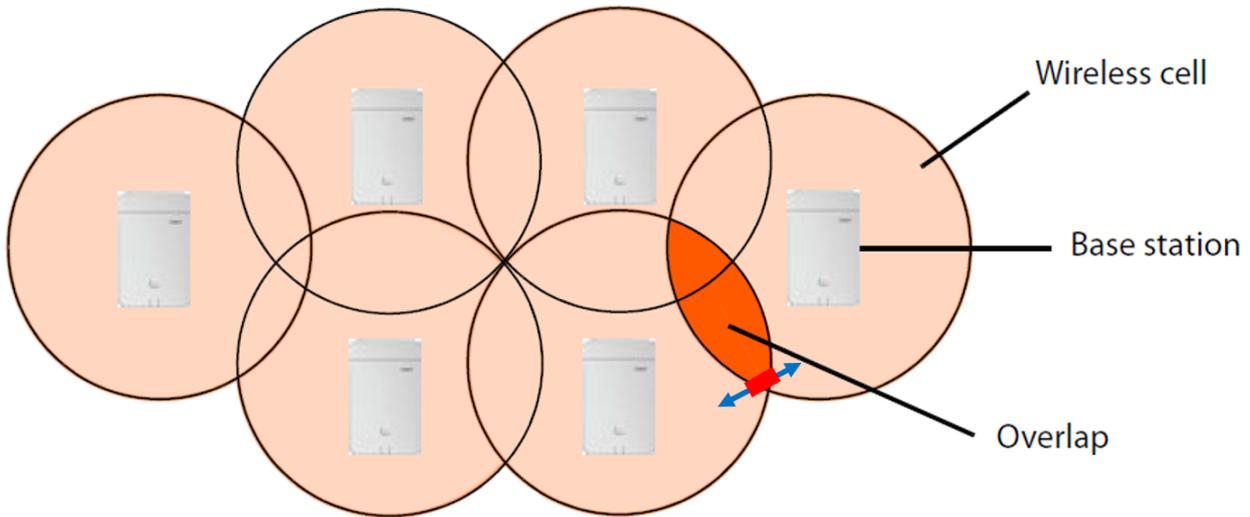
To ensure an interference-free switch of call connections from one cell to another (handover) there must be an area where good reception is ensured for both base stations. This achieve this, a minimum quality for reception must be defined.

The overlap zones should be about 5-10 meters, so that there is enough time for fast walking to switch to the other base station. In the example below we have with the blue arrow marked an position where the overlap zone is less than 5 meters, this could results in a disconnected call.

The wireless range of a DECT base station for handsets is:

- Max. 50 m in buildings
- Up to 300 m outdoors

These guidelines values do not apply to the maximum possible distance between two base stations. To ensure the handover of a handset from the cell of one base to the cell of another, this distance is derived from the necessary overlap zone.



## Signal transmission

The ideal signal transmission of a base station is a shaped like ring, so that the registered handsets can be the same distance away from the base station in all directions without the wireless signal being interrupted.

The range is actually influenced by a variety of environmental conditions. For example, obstacles such as walls or metal doors can impede the wireless signals or interfere with their uniform transmission.

You should investigate the actual conditions that the planned wireless network will be subjected to by measuring the signal transmission of the measuring base station at appropriate positions.

