

WLAN Guided "Pick-by-Voice"

Warehouse Goods Picking

Access Point

Power



System



LAN



WLAN



QSS



QSS





Change Driver

An international food retailer uses a “pick-by-voice” system in its 70 regional warehouse locations across Europe.

The WLAN guided system directs the warehouse staff to the picking positions by voice instruction and specifies the quantities to be taken from the shelves.

The system consists of round-beam antennas covering the entire area, whose radio cells heavily overlap.

This leads to problems with the roaming capability of the pick-by-voice devices, which alerts the warehouse staff with a loud beep. This issue demotivates the warehouse personnel, leads to much longer picking process time, and ultimately higher personnel requirements in the warehouse to get the job done.

A redesign was therefore necessary.





Damovo Approach

Damovo carried out a redesign of the WLAN infrastructure based on directional radio.

WiFi experts used Ekahau software to plan the new WLAN radio network. The warehouse configurations, including wall locations, materials and room heights were all recorded, and a simulation started.

Parameters such as signal strength, signal-to-noise ratio, two-channel interference and channel width were displayed for each hall area and the design plan was then created.

After installation, the antennas were precisely levelled so that the radio cells were almost touching but not overlapping. High-bay aisles were each illuminated separately with directional radiators.

The radio channels were distributed in an optimal way so that the terminals do not have to perform a long scanning process when roaming and can seamlessly switch to the next radio cell without interruptions and packet losses. The terminals also now have a clear roaming path across the radio cells.



How the **employees** benefit

The warehouse staff is much more motivated in their work now that the disturbing noises have been eliminated.

The picking activity can be carried out without interruption which makes their job much easier.

How the **company** benefits

The picking processes are executed much faster meaning more orders are processed.

The number of staff has been reduced.

Errors in the picking of goods has been minimised.