FAQ - DECT-based synchronisation

Valid for:	~~N610~~	N670	N870	N870E	Embedded Integrator	Virtual Integrator

Introduction

 To relay DECT synchronisation signals from base station A to base station B, base station B must be able to receive signals from base station A with sufficient signal quality.

> ⓘ DECT manager and base stations must be connected to the same Ethernet or virtual LAN sharing a common broadcast domain.

A base station can synchronise with each base station on a higher sync level. The sync level concept allows base stations to automatically select the best suitable base station (having a lower sync level number) to receive synchronisation signal from. Simultaneously, it guarantees a strictly limited number of hops along any branch in the synchronisation tree and to prevent circles between automatically optimised synchronisation chains.

During configuration, assign one level in the synchronisation hierarchy (sync level) to each base station. Sync level 1 is the highest level; this is the level of the sync master and appears only once in each cluster. A base station always synchronises itself with a base station that has a better sync level. If it sees several base stations with a better sync level, it synchronises itself with the base station that provides the best signal quality. If it does not see any base station with a higher sync level, it cannot synchronise.

- There can be only one Level 1 in a Cluster
- A base station can synchronise with each base station on a higher sync level.
- DECT manager and base stations must be connected to the same Ethernet or virtual LAN sharing a common broadcast domain.
- Minimise the DECT levels as much as possible.
- Sufficient signal quality between base stations is needed. (-65dBm when measurement kit is used.)

Criteria for a good DECT radio network

A criterion for a good DECT radio network is the cell spacing. So the distance between the base stations. To enable base station synchronization, these must be within the range of -65 dBm to the nearest base station. The motion-free telephoning of the participants across all transmission ranges requires an overlap of the -65 dBm ranges. 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. The handset must reach both base stations with a reception power of at least -65dBm so that the handover is possible without interference.