FAQ - Redundancy

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

Introduction

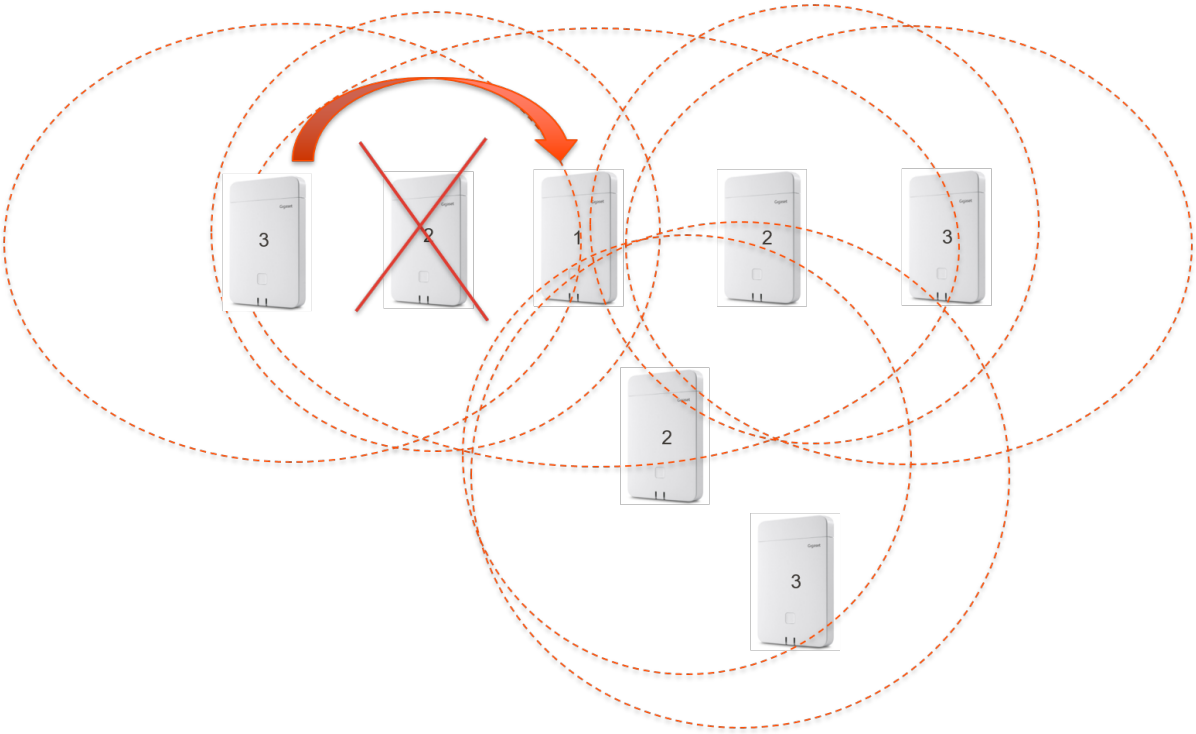
This article explains how you can add redundancy to your DECT multi-cell system, it can be split in:

- Base stations level 2 - 15
- Base station level 1
- DECT manager
- Integrator

Base stations level 2 - 15 redundancy

The N870 base-stations synchronised via DECT will automatically synchronize with a higher sync level. Base stations can and will skip a higher sync level if it can connect to an even higher sync level.

If you look at the picture, you can see that the base with level 3 will skip level 2, if level 1 can be seen with a good quality.



No redundancy:

Set-up: The base with level 3 can only see the base with level 2.

If the base with level 2 is down then also the level 3 base will be down. If more bases connect to this level 2 or 3 then also these bases will not be functional.

How to add redundancy:

To place the base stations more close to each other. In the example, the base with level 3 can see level 2 and level 1.

- Base with level 3 will automatically connect to level 1 if the quality is good enough
- If Level 2 is down then level 3 will still work as it can also connect to level 1
- The calls for the base with level 2 that is down will be handled by the level 1 and 3 (Capacity has to be calculated)

When the system is using LAN synchronisation then all Bases will connect to the LAN Master which is the level 1 base (mostly), then the next chapter "Level 1 redundancy" must be used to ensure redundancy.

Auto-provisioning

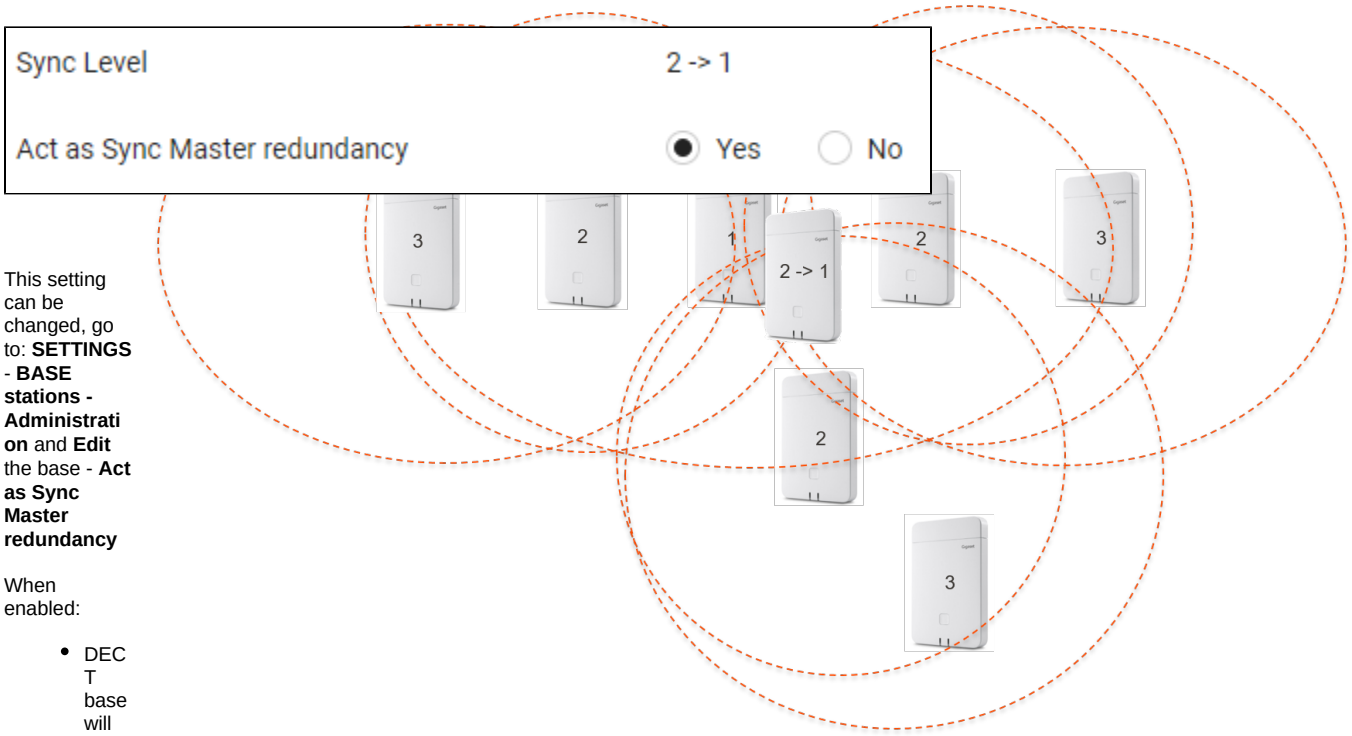
Parameter	Value
ConfirmedBaseStations.<MAC>.ucSyncLevel	0 For redundancy 1-15 for the standard sync levels
Example: <param name="ConfirmedBaseStations.589ec60d90ca.ucSyncLevel" value="0"/>	

Base station level 1 redundancy

If the base station with level 1 is down then the complete DECT multi-cell system will be down and no calls are possible.

For this in software 2.29.0 or higher a new feature is implemented.

You can add an extra DECT base station and enable the option "**Act as Sync Master redundancy**"



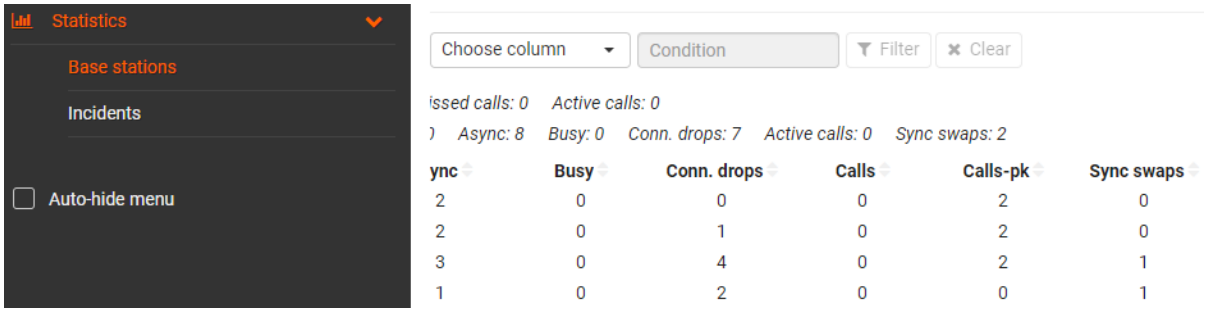
This setting can be changed, go to: **SETTINGS - BASE stations - Administration** and **Edit** the base - **Act as Sync Master redundancy**

When enabled:

- DECT base will get sync level **21**
- DECT base can handle calls like every other base
- If level 1 goes down, it will take over the role of level 1
  - DECT level 1
  - LAN Master if enabled
- It will take **10 minutes** before the device takes over the level 1 (Time cannot be changed)
- If level 1 comes back then it will be switched automatic to level **21** and will be the redundant base

If the level 1 is down, then for at least 10 minutes no calls are possible. After 10 minutes the redundant base will take over the level 1 role and the system will synchronize and handsets will connect. It will take some time before synchronization is ready and all handsets are connected again.

The Base station events page has a new column **Sync swaps** that will be increased if the Swap has taken place.



DECT manager redundancy

DECT manager redundancy is described here: FAQ Redundancy - DECT Manager (DM)

Integrator

When the Integrator is installed on a VMware, the redundancy is done via the VMware and it is not an N870 feature.