

We change the shape of the world



SOS (Sea of SIMs) Server Application

NovaTec Kommunikationstechnik GmbH

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SOS (Sea of SIMs) Server Application

SOS is an upgrade platform for NovaTec's Mobile Gateways (NMG) to allow a centralized SIM and GSM engine management. SOS is the abbreviation for **Sea of SIMs** and is a pool of SIMs which must not necessarily be located at the same place as the NMGs. The new **Enhanced Wireless Access Unit (EWU)** in the NMG sends a request for the necessary SIMs according to their configuration via IP network to the SOS. The SOS which holds the SIMs, will select the appropriate SIM out of its pool and provide the data of this SIM to the EWU, again via IP network.



SOS (Sea of SIMs) Server Application

The EWU also allows an optional local SIM reader card with up to four SIMs per channel for local SIM provision. The local SIMs and the remote SIMs located in the SOS can be configured as one common array.

Due to the non physical connection between the SIMs and the GSM engines a number of advantages can be attained:

The main advantage with the EWU and the SCU is that you are no longer limited to a certain number of SIM cards per GSM channel as you can now allocate any number.



Advantages

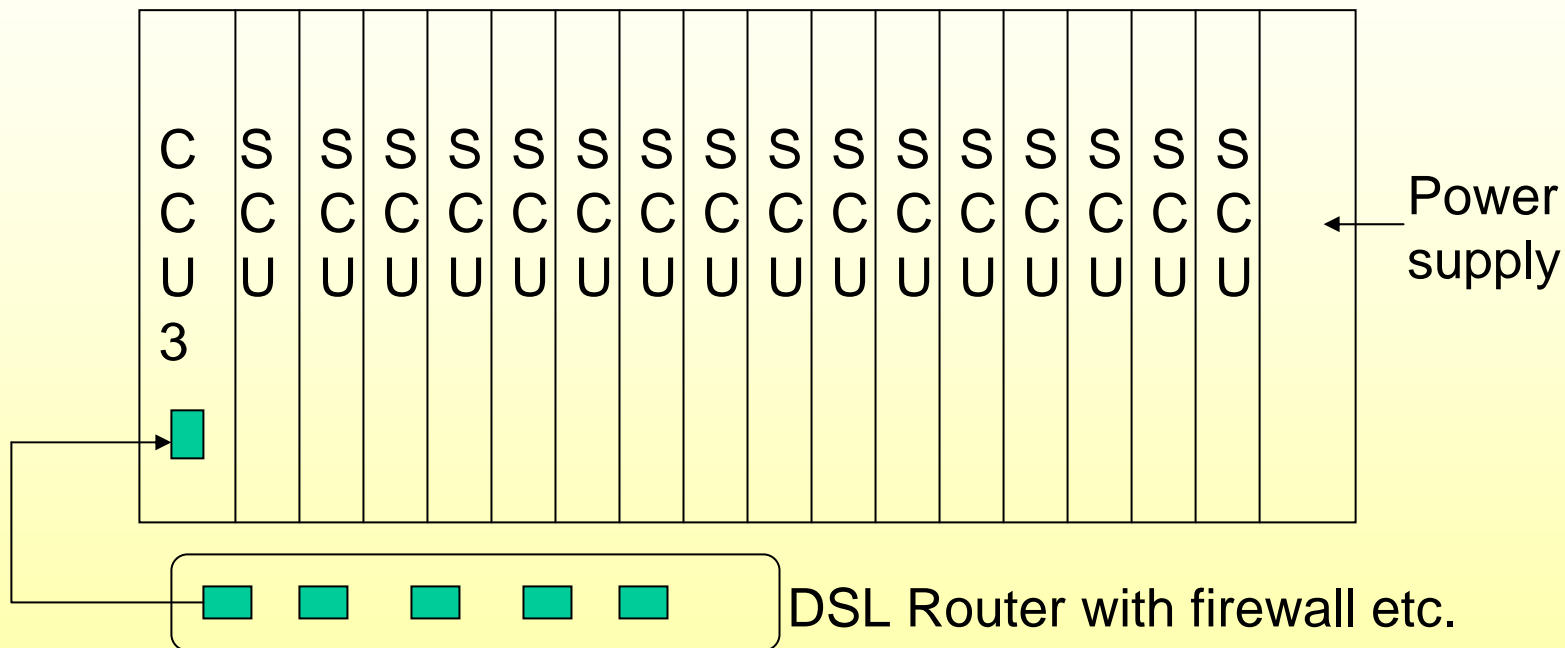
- Central SIM storage & management.
- Intelligent, automatic SIM-to-GSM channel mapping based on network, tariff, remaining budget etc.
- Each SIM can be dynamically allocated to each GSM channel.
- Optimal use of prepaid SIM cards.
- SIM and IMEI of an existing pool can be centralised in one system and dynamically allocated to the GSM channels.
- Secure placement of the SIM cards as they are stored away from the NMG location.



Other advantages

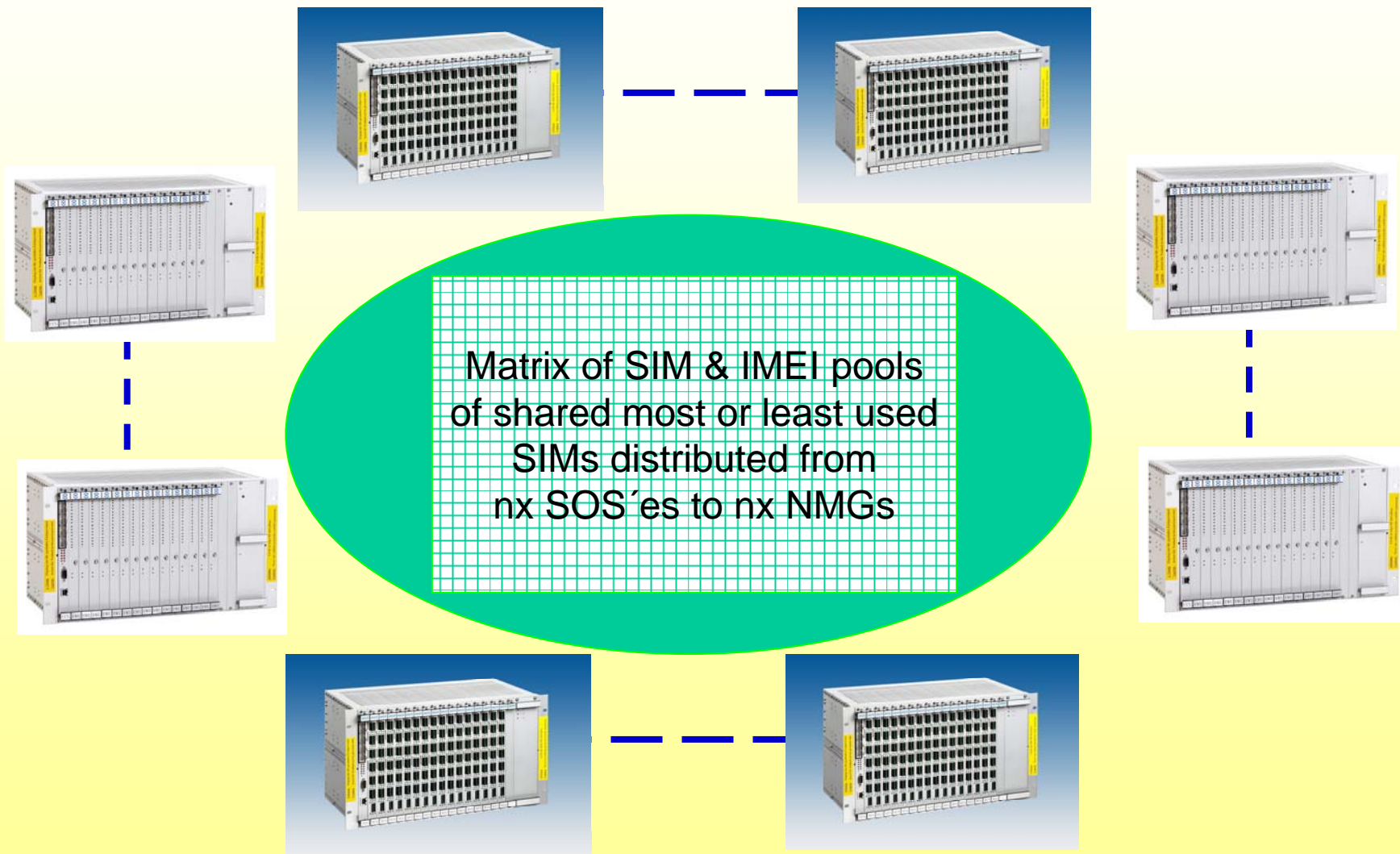
- Each EWU is directly linked to corresponding SCU on the SOS side giving complete back to back communication between NMG and SOS.
- In connection with the NMS network management system all SIMs can be configured from a centralized remote location, for any number of NMGs and SOS being operated.
- All reports for pre-paid SIMs being empty or any errors or ASR values can be monitored and managed by the NMS (alarm generation via E-mail and SMS).
- The optional local SIMs can be used as automatic back-up in case of eventual disconnected IP link or during SIM board maintenance in the remote SCU.

Typical build up of SOS remote side



One CCU is required and up to 16 SCU can be held in the unit, each SCU can hold 20 SIM cards and only an IP connection is required (no E1) making a total of 320 SIM cards per SIM Server.

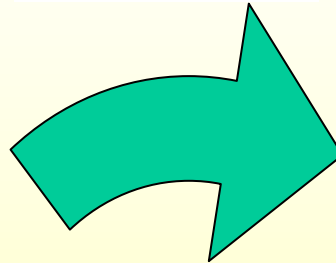
Typical build up of SOS remote side:



SIM and IMEI rotation between the locations:



NMGs include the GSM channels and the access to PSTN/VOIP

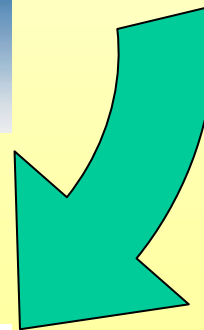
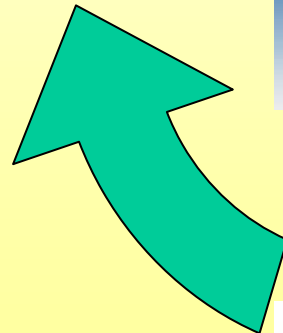


Random SIM & IMEI rotation of the 320 SIMs & internal IMEIs within the SOS!

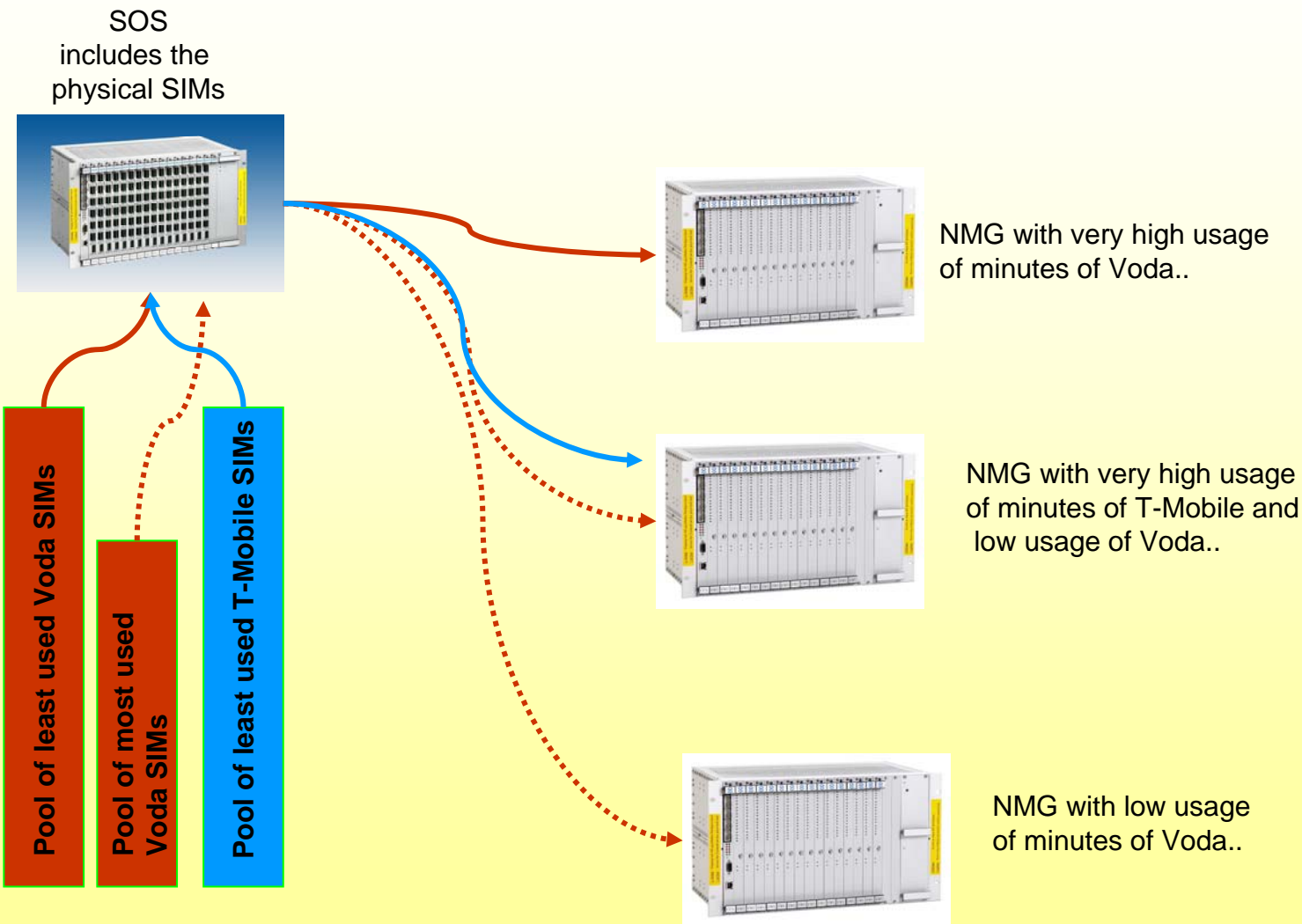
Configurable time or budget for the switching of the rotation steps.



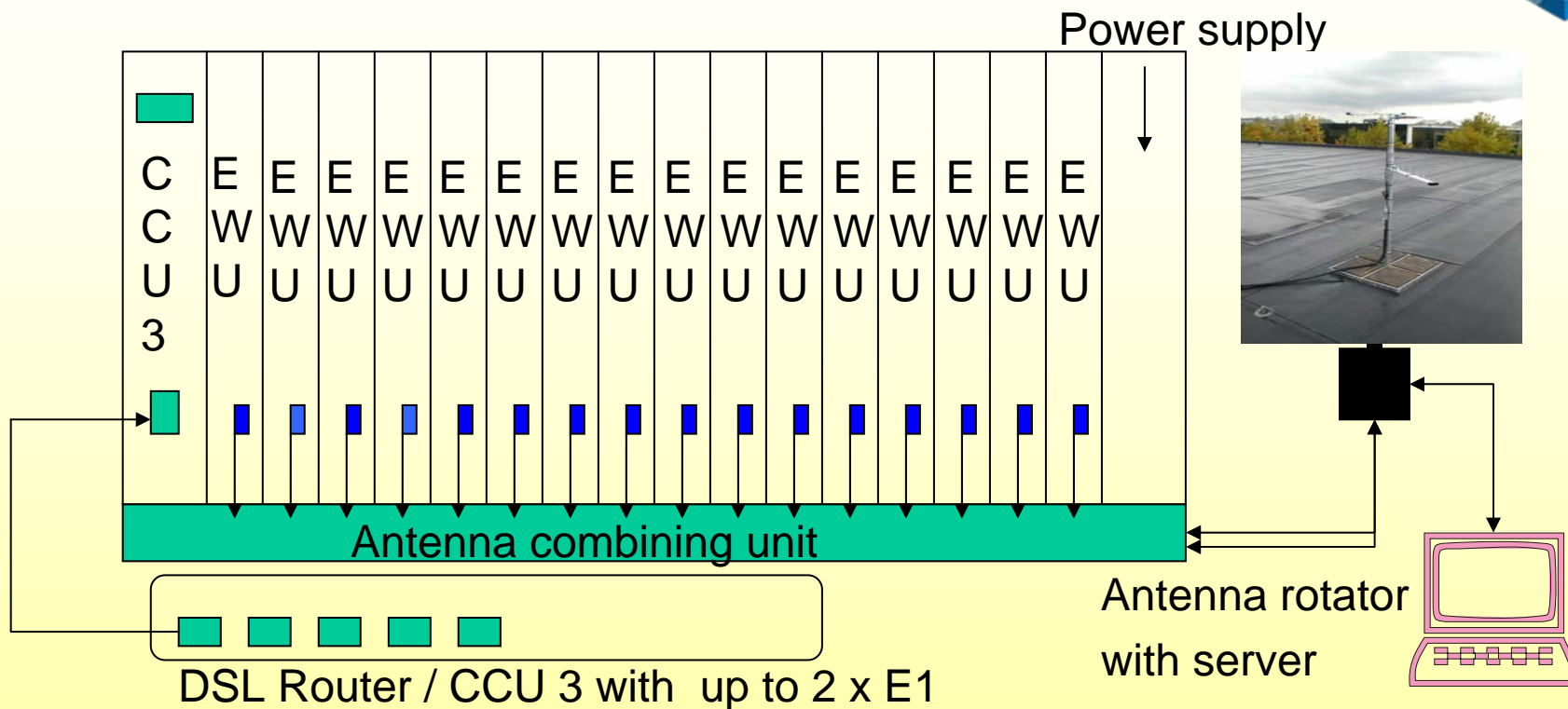
SOS includes the physical SIMs



SIM pools to be distributed to the NMGs:



Typical build up of NMG local side



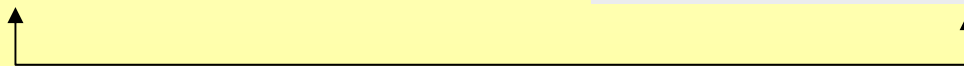
One CCU is required and up to 16 EWU can be held in the unit, each EWU has 4 GSM channels. An IP and E1 connection is required. On each EWU are 4 local backup SIM cards per channel in case of Internet breakdown.



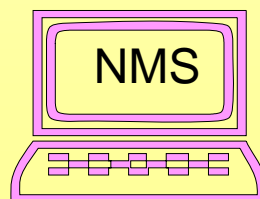
SOS equipped with CCU (**C**entral **C**ontroller **U**nit) and SCU (**S**IM **C**arrier **U**nits). All SIMs are located here.



NMG equipped with CCU and **EWUs** (**E**nhanced **W**ireless **A**ccess **U**nit).



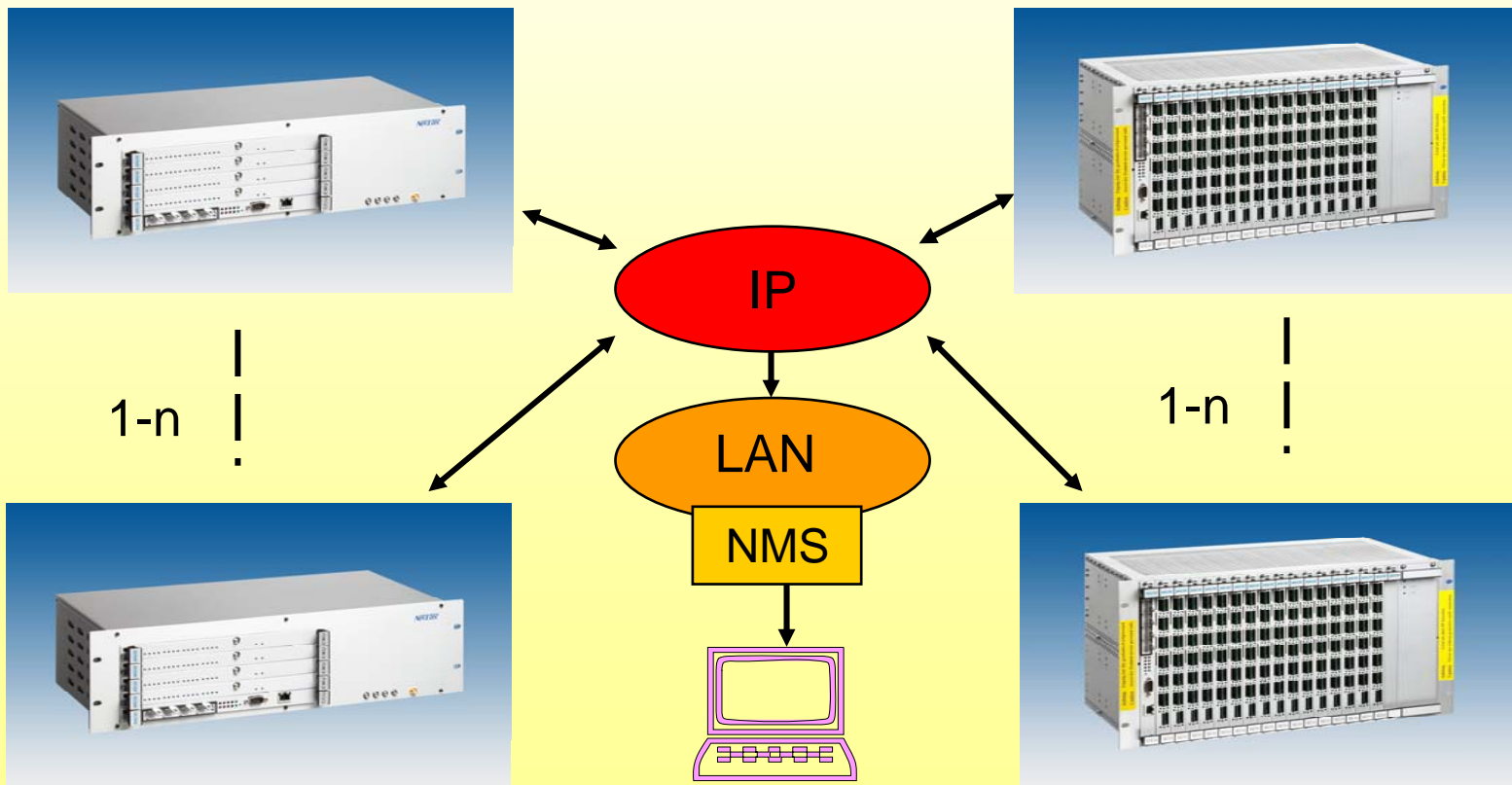
IP



Rack to Rack or Channel to SIM

NMGs equipped with CCU and **EWUs**.

SOS equipped with CCU and SCU. All SIMs are located here.





Contact us

If you would like to find out more about our products, or have any questions please contact NovaTec at the following address:

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Thank you for your attention!