

# RBS 6201/6202 & BBS/BBU 6201 Installation

## RAN System Description and RBS 6000 Survey



# Course Agenda

- Introduction
- RAN System Description and RBS 6000 Survey
- RBS 6201 & RBS 6202 Technical Data
- BBS 6201 & BBU 6201 Technical Data
- Installation Safety Precautions and Tools
- Site Installation Preparation
- RBS 6201 & RBS 6202 Installation
- BBS 6201 & BBU 6201 Installation
- Concluding Routines
- Practical Exercises
- Theoretical Assessment and Course Summary

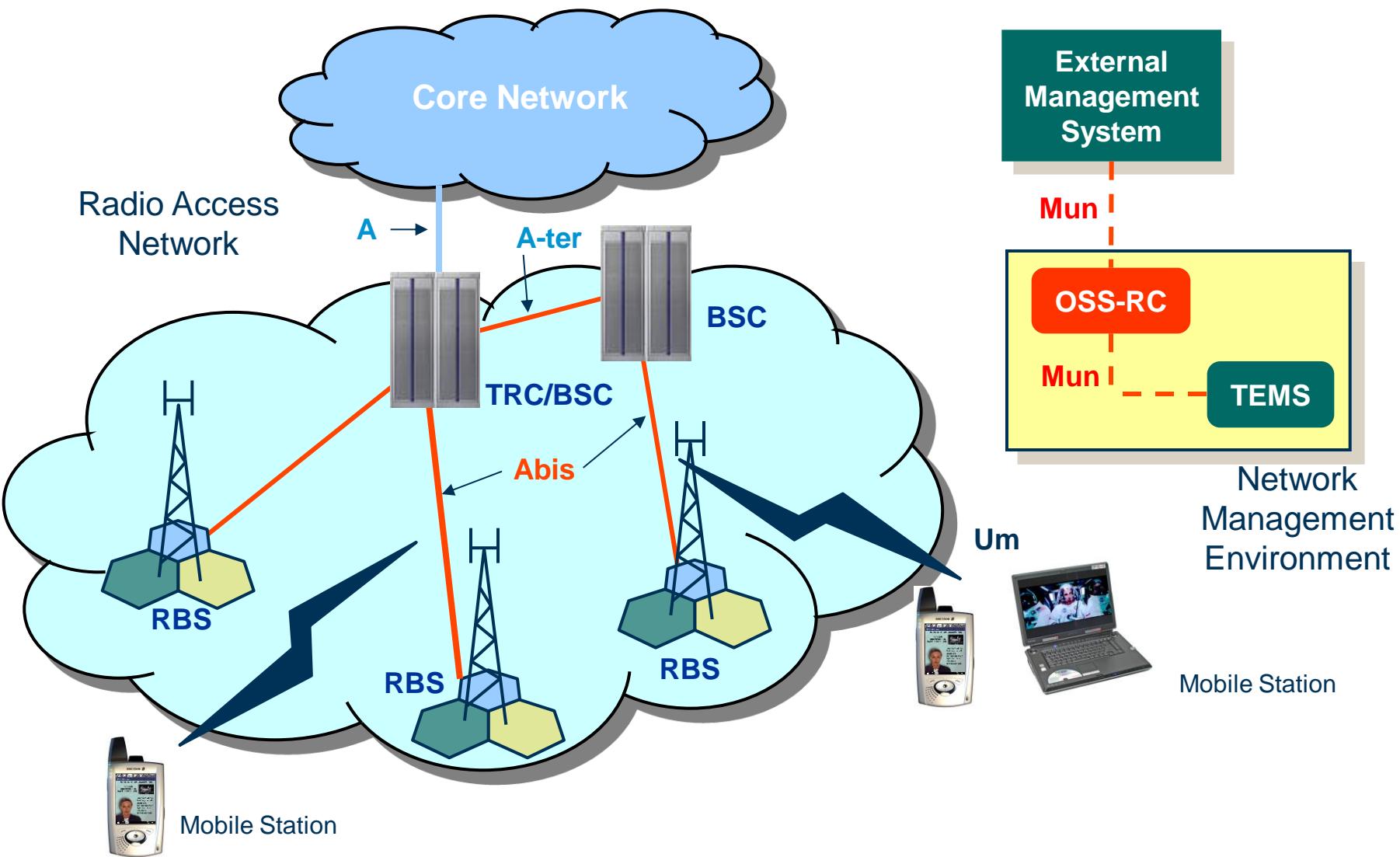
# Module Objectives

**At the end of this module, you will be able to:**

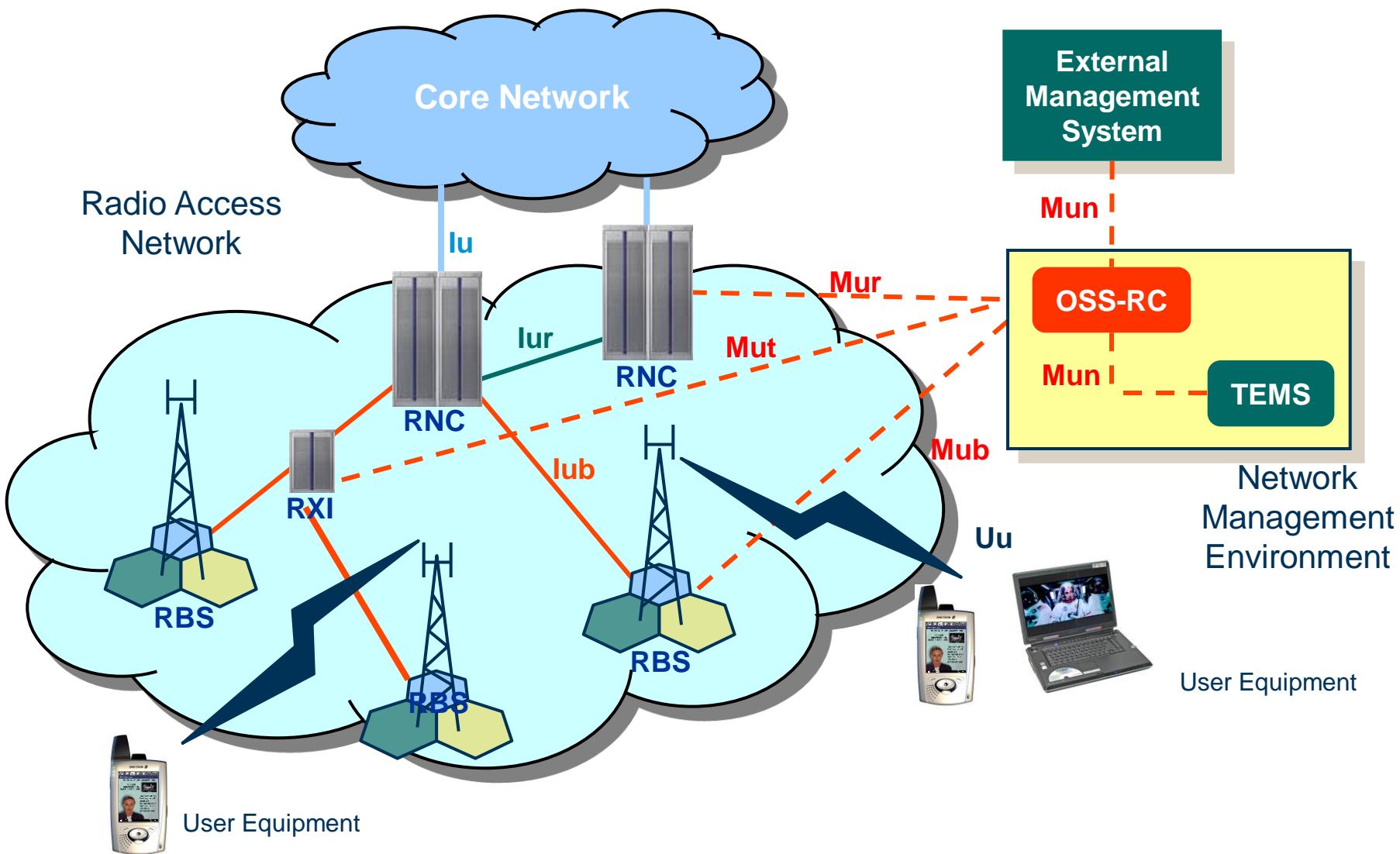
- **Learn the general overview of GSM, WCDMA and LTE system.**
- **List the various RBS 6000 cabinets.**



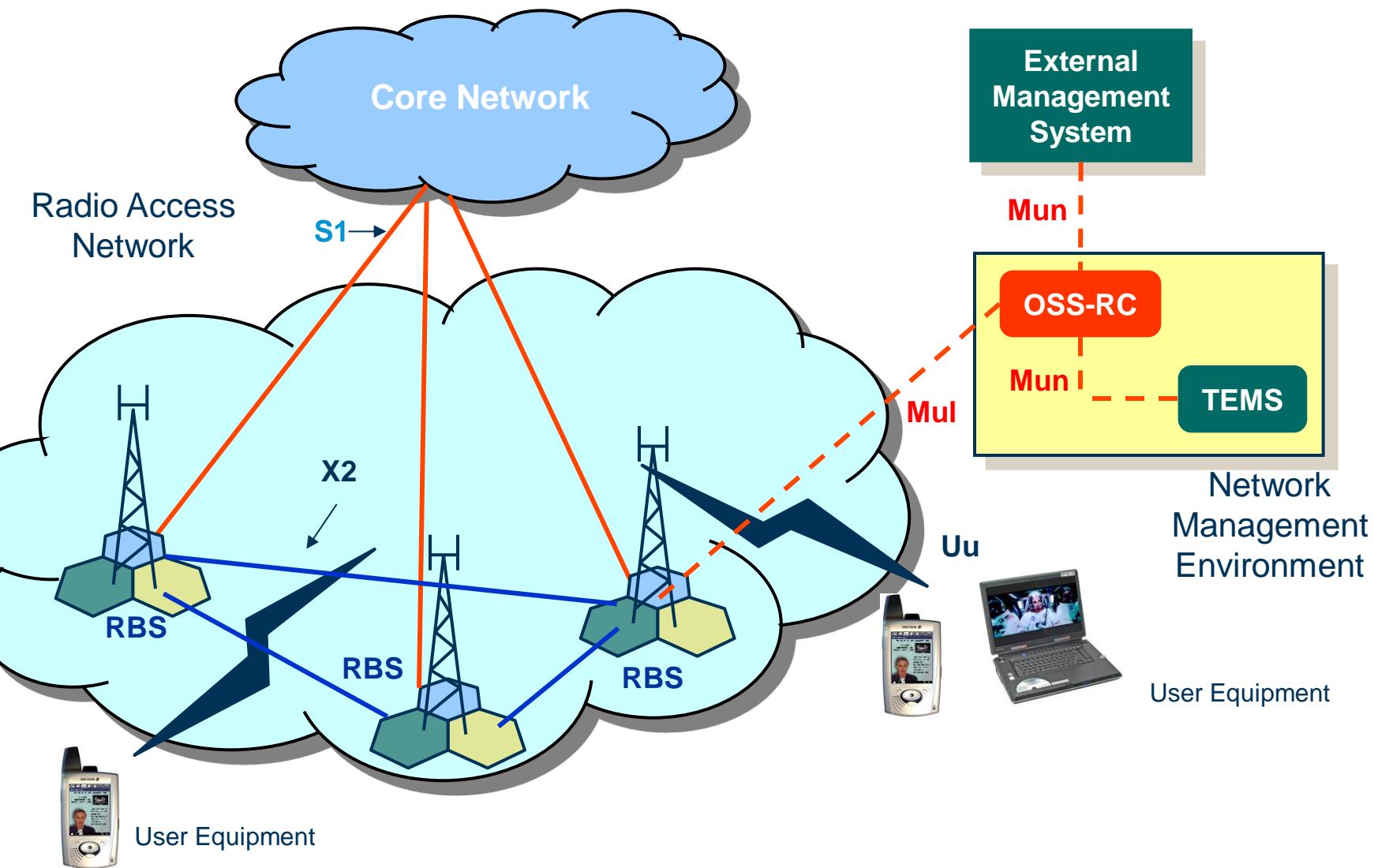
# GSM RAN Interfaces



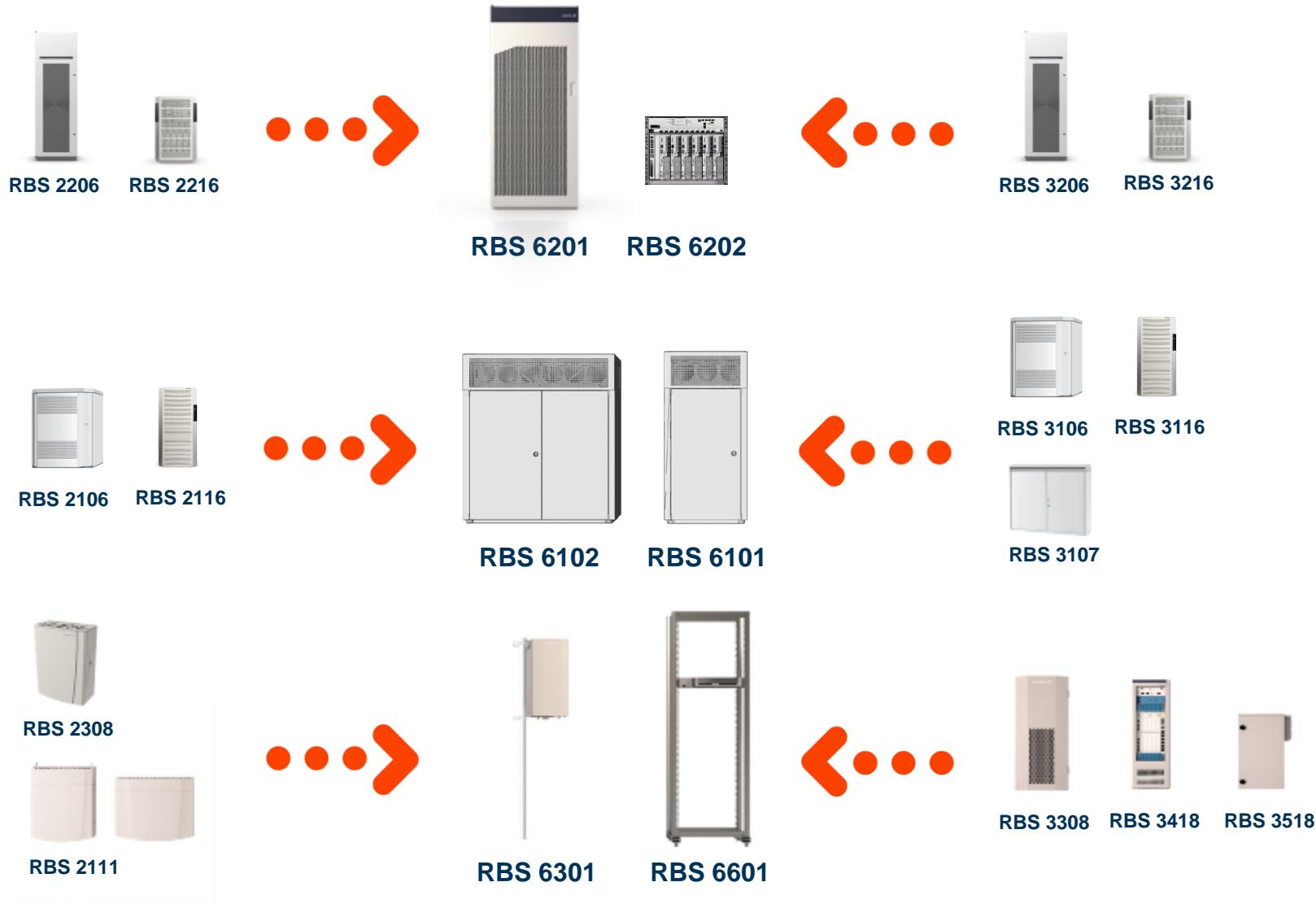
# WCDMA RAN Interfaces



# LTE RAN Interfaces



# Cabinet Vision



# RBS 6000 family



# RBS 6102



- Outdoor macro RBS cabinet
- Supports GSM, WCDMA and LTE
- Complete RBS including transmission equipment and internal battery backup.
- Can be equipped with various Digital Units (DU) and Radio Units (RU)
- Can be configured with up to 12 RUs.
- Has the following power supply alternatives:
  - RBS 6601 - -48 V DC (two-wire)
  - 200 – 250 V AC
- Supports up to 6 U transmission spaces.
- Supports GPS as a synchronization source.
- Ethernet-based site Local Area Networks (LAN) (optional).
- Supports external alarms.

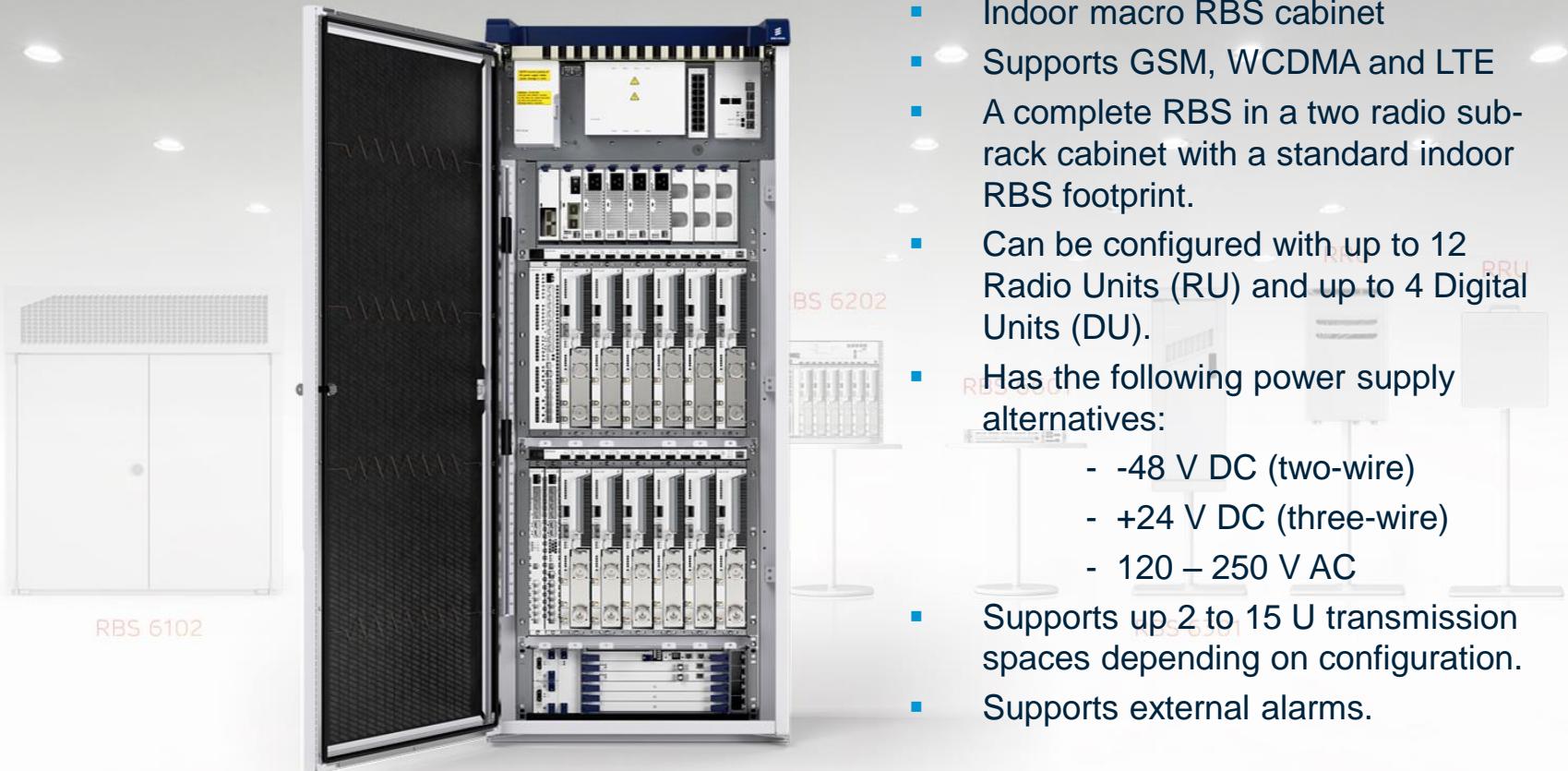
# RBS 6101



- Outdoor macro RBS cabinet
- Supports GSM, WCDMA and LTE
- Complete RBS including transmission equipment and internal battery backup.
- Can be configured with up to 6 Radio Units (RU) and up to 4 Digital Units (DU)
- Has the following power supply alternatives:
  - -48 V DC (two-wire)
  - 100 – 250 V AC<sup>1</sup>
- Supports up to 4 U transmission spaces depending on configuration and if RBS has internal batteries.
- Supports external alarms.

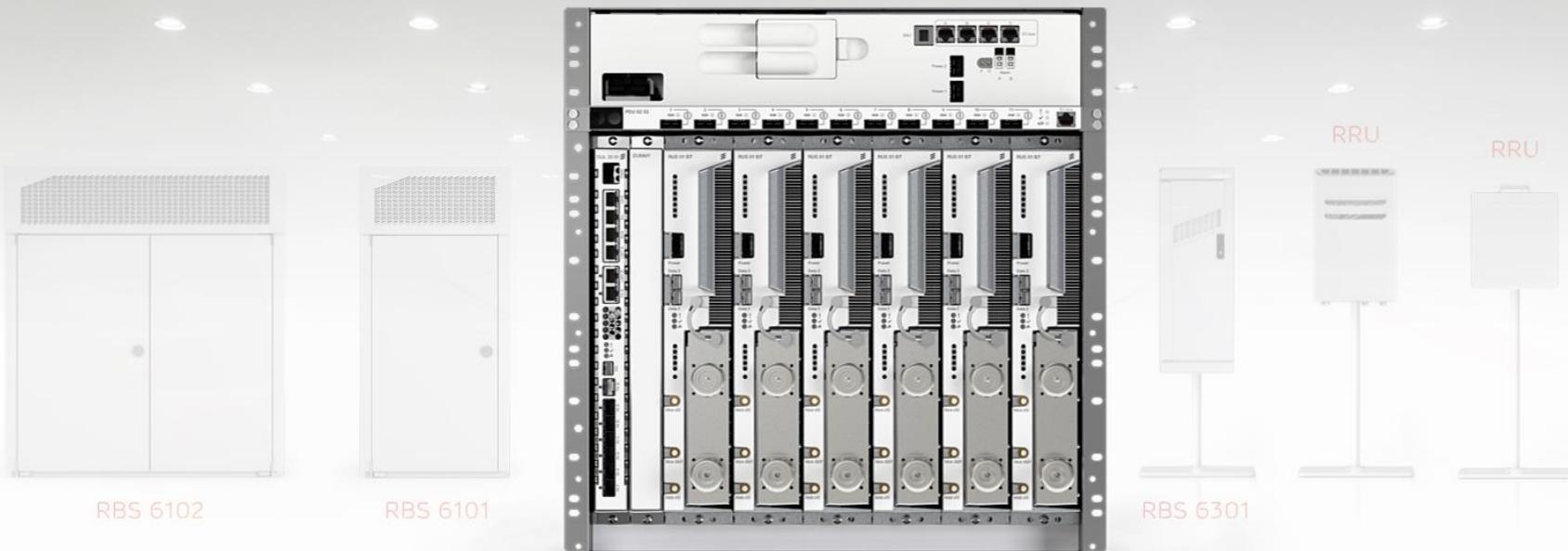
<sup>1</sup>Supply voltage below 200 V AC must be phase to phase connected. Single phase connection requires 200-250 V Ac.

# RBS 6201



# RBS 6202

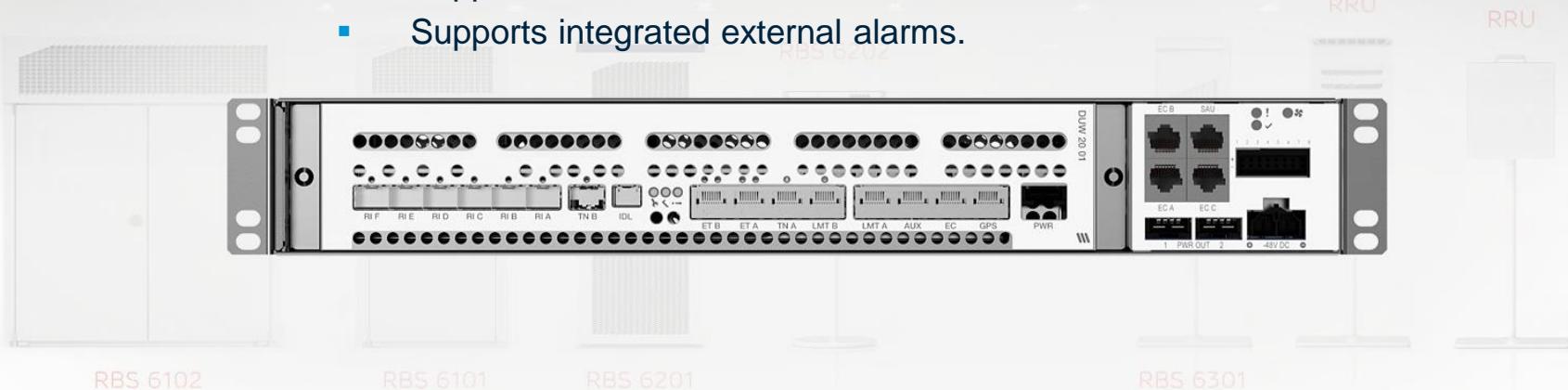
- Compact indoor macro RBS cabinet
- Supports GSM, WCDMA and LTE
- Optimized for installations in already existing 19" frames to save space at the customer site.



- Radio shelf is an 11U (488.1mm) high support rack with space for 8U (1431mm) modules (1-2xDU + 6xRU) including climate and power functions.
- The second DUW is place below the radio units in an additional box that is screwed on to the bottom of the cabinet.

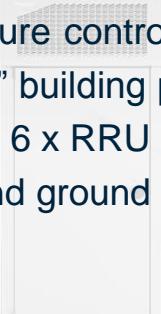
# RBS 6601

- Main-Remote indoor RBS solution
- Supports GSM, WCDMA and LTE
- A sub-rack based RBS to be hosted in a 19 inch rack structure, either an existing RBS or other standard racks.
- Can be configured with up to 2 Digital Units (DU)
- Power supply is -48 V DC (two-wire)
- Supports external GPS
- Supports integrated external alarms.



# RBS 6301

- Main-Remote outdoor RBS solution
- Supports GSM, WCDMA and LTE
- Multi-enclosure control support
- Versatile 19" building practice
- Power up to 6 x RRU
- Wall/pole and ground mountable



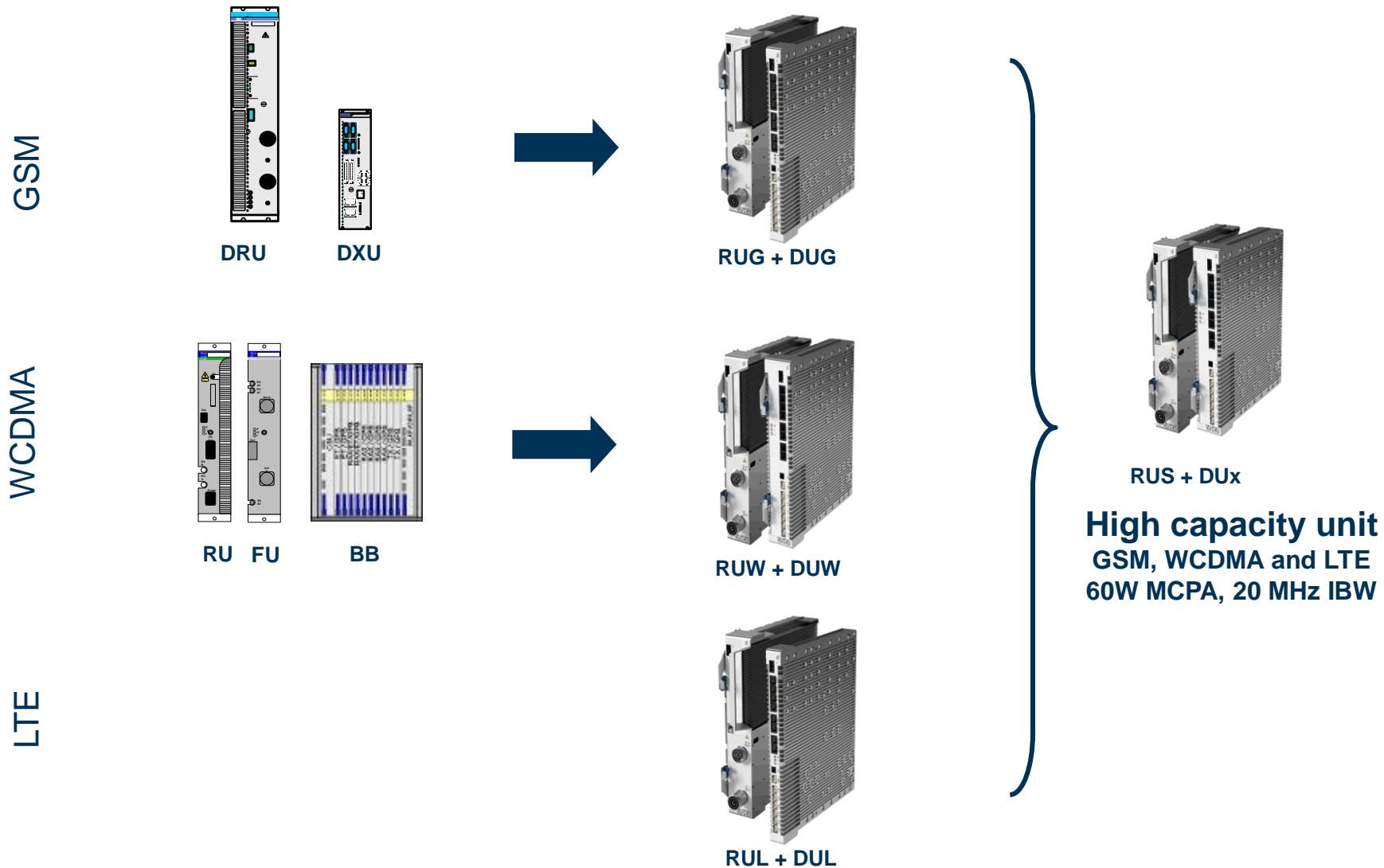
# RRUW/S 01



# RRUS 11



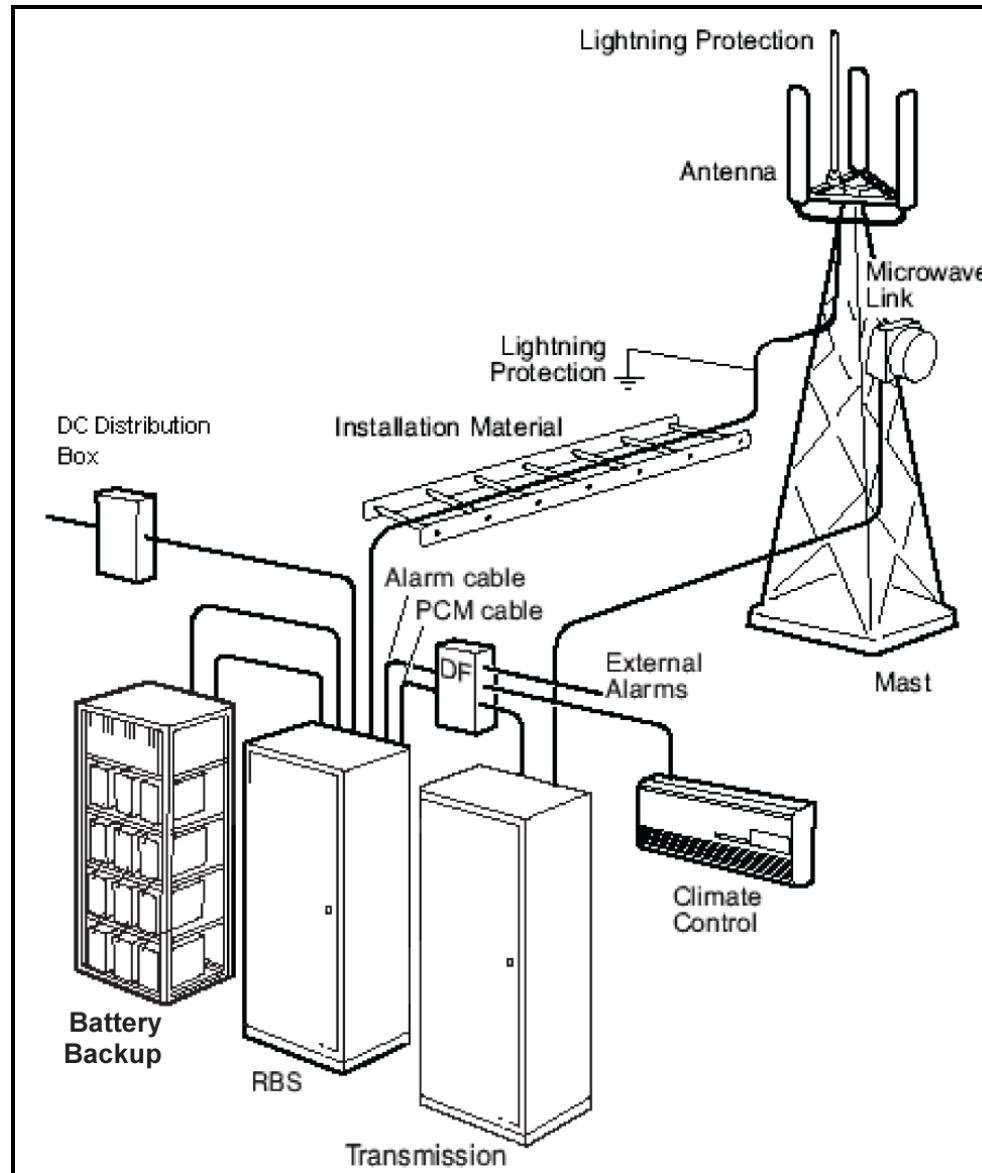
# RBS 6000 Unit Migration



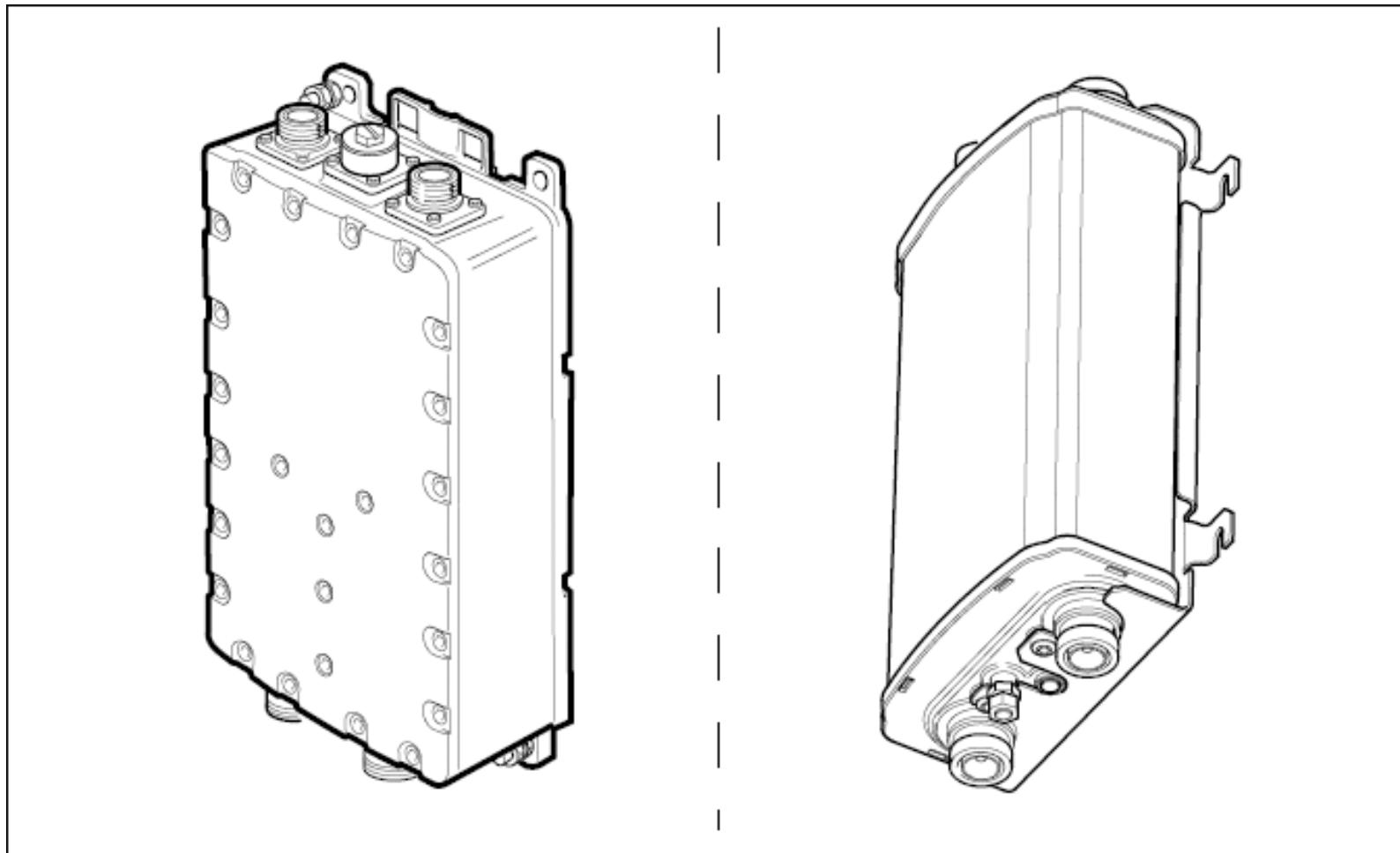
# RBS 6000 Unit Positions



# Typical RBS Site



# Antenna System Controller (ASC)



# Remote Electrical Tilt, RET

## Characteristics:

- Needs a specific RET compatible antenna
- Allows network tuning remotely
- Minimizes site visits
- Nominal power supply: 28 V DC
- Maximal down-tilt angle depends on antenna type

