

Course Content

Radio Resource Management Overview

Parameter Configuration

Common Channels & Power Control

Load Control

Admission Control

Packet Scheduling

Handover Control

Resource Manager

HSDPA RRM & parameters

HSUPA RRM & parameters

HSPA+ RRM (Rel. 7/8)

Module Objectives

At the end of the module you will be able to:

- Describe the purpose of RRM
- List the RRM functional entities
- Describe the purpose of each of the RRM functional entities
- Identify the location of RRM entities



Radio Resource Management Overview

- Introduction
- Load Control (LC)
- Admission Control (AC)
- Packet Scheduler (PS) incl. HSPA
- Power Control (PC)
- Handover Control (HC)
- Resource Manager (RM)
- RRM of HSDPA
- RRM of HSUPA
- RRM of HSPA+ (Rel. 7/8)

Radio Resource Management

Radio Resource Management (RRM) is responsible for optimal utilisation of the air interface resources

Target for RRM is to ensure the RAN offers:

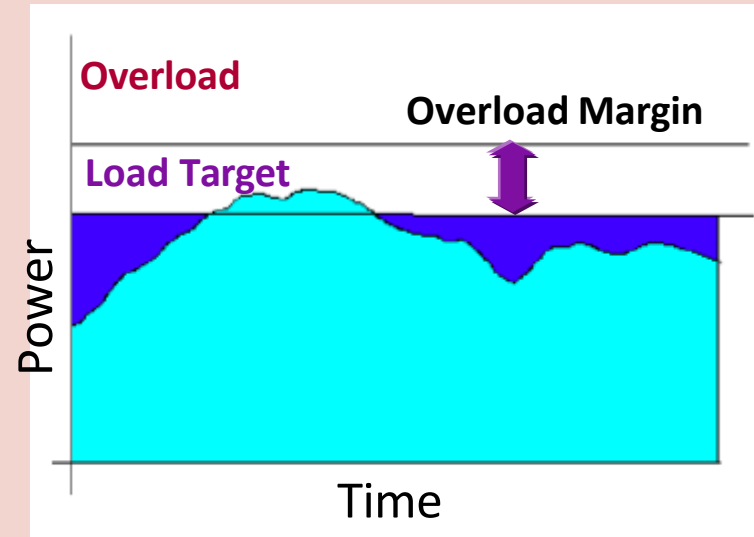
- The *planned coverage* for each targeted service
- High *capacity* i.e. low blocking (new calls, handovers)
- The required Quality of Service (QoS)
- Optimize the use of available capacity (priorities)

By continuously monitoring/adjusting how the available resources are used in accordance with user requests



RRM Tasks

- RRM must be able to:
- Predict the impact on interference (power) of the admitting a new user for UL & DL
- Perform appropriate actions (e.g. new call admissions, bitrate increase/decrease etc.) in accordance with prevailing load conditions
- Provide different quality of service for real time (RT) and non-real time (NRT) users
- Take appropriate corrective action when the different cell load thresholds are exceeded in order to maintain cell stability (i.e. load control)



Estimated capacity for
NRT traffic



Measured load caused
by non-controllable load
(RT)

RT services must have higher quality assurance than NRT

RRM Functional Split

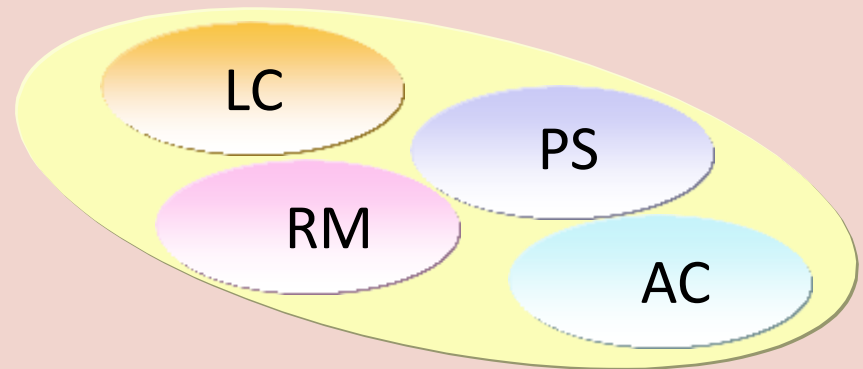
- RRM is made up of a number of closely interdependent functions (i.e. algorithms)
- These functions can be divided into;

- **Cell Based**

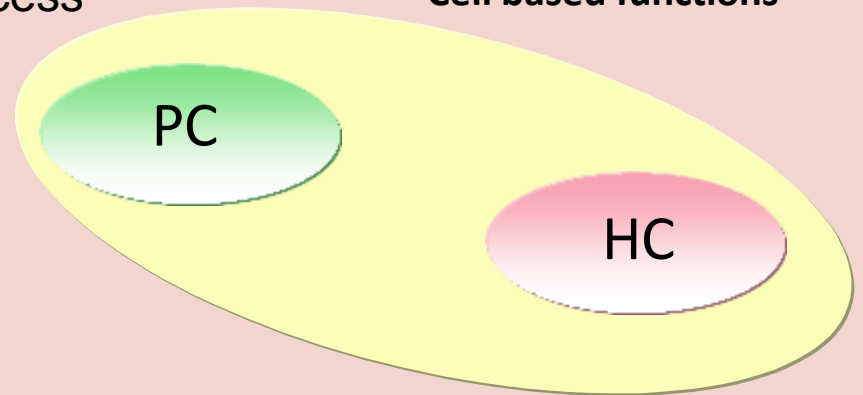
- Load control (LC)
- Admission control (AC)
- Packet scheduling (PS)
- High Speed Downlink Packet Access
- Resource manager (RM)

- **Connection Based**

- Handover control (HC)
- Power control (PC)



Cell based functions



Connection based functions

以上内容仅为本文档的试下载部分，为可阅读页数的一半内容。如要下载或阅读全文，请访问：<https://d.book118.com/806140022143010102>