

# Mobile Internet charging: prepaid vs. post paid

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# Advantages of prepaid

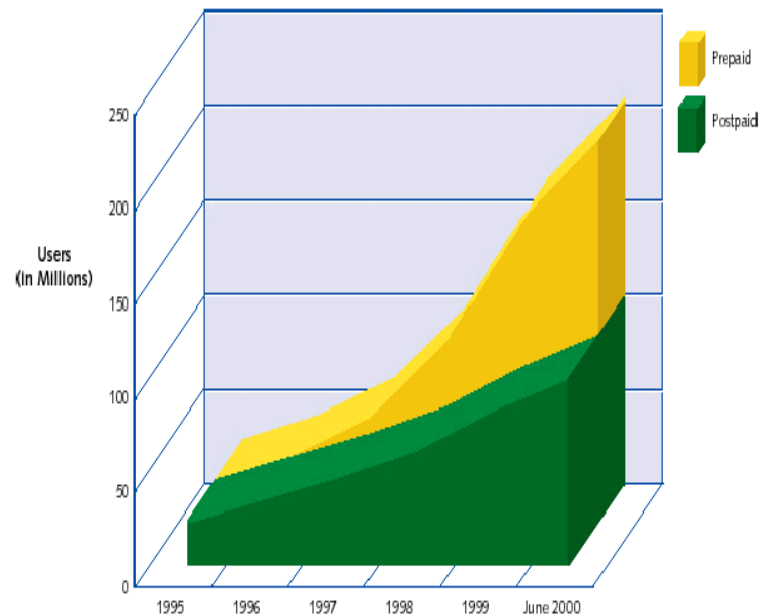
- Operator gets the money immediately when the call is made
- Operator saves in billing expenses
- No credit risk
- Some customers prefer to operate only on cash basis
- In some cultures cash transactions are preferred over credit transactions
- Some customer will never use their whole balance
- Customers who want to enjoy anonymity can also use mobile phones
- Separation of customer segments

# Disadvantages of prepaid

- It is difficult to get information about the customer
- Customer loyalty is hard to maintain. Churn is about 20% per year in Western Europe.
- Lower average revenue per user
- Criminals prefer prepaid because of the anonymity
- Real time charging systems is needed
- Separate top up system is needed

# Prepaid in Western Europe

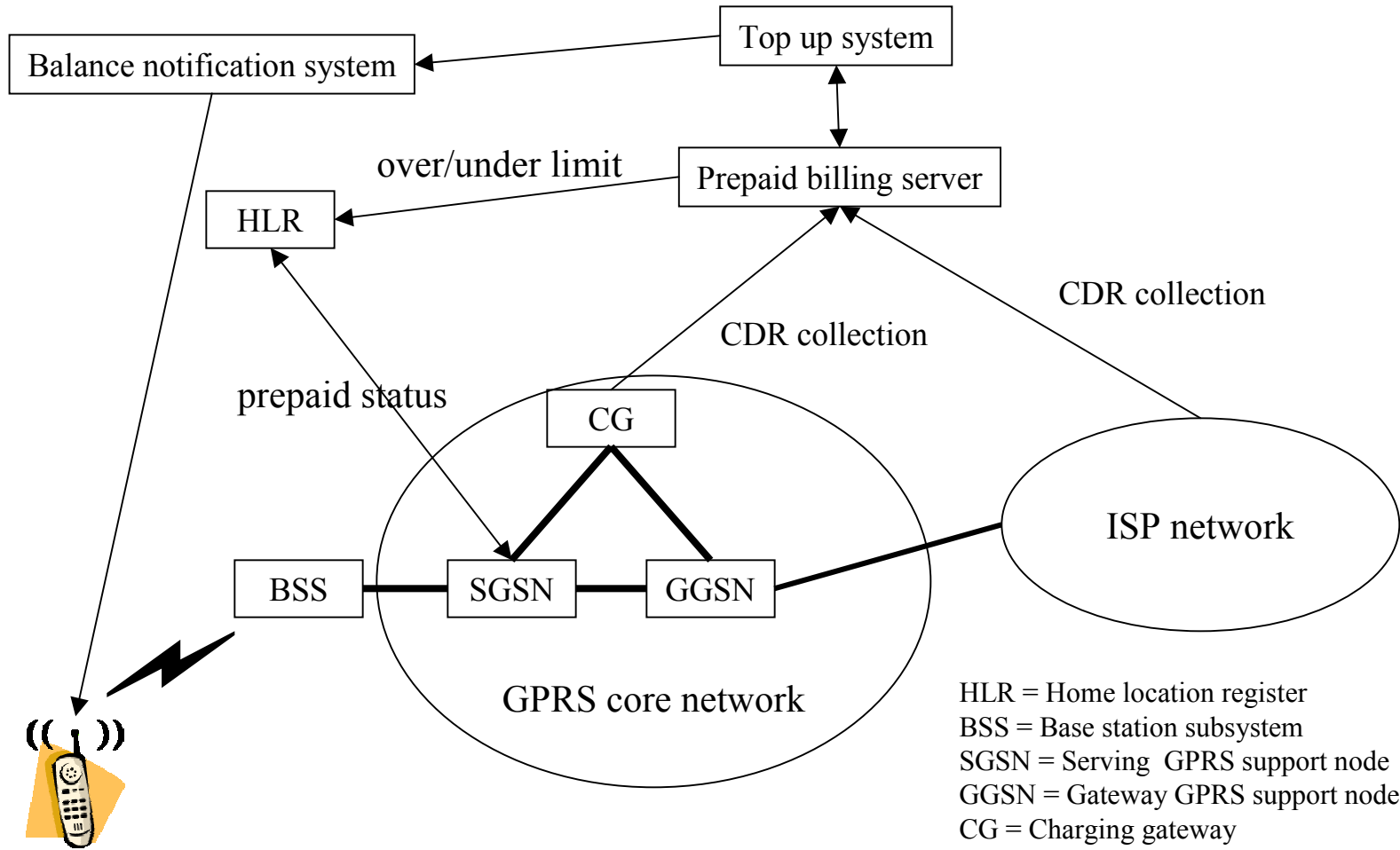
- Today over 60% of mobile subscribers are using prepaid
- Prepaid has had a significant impact on the penetration level of mobile subscribers
- Only one third of the total revenue comes from prepaid
- In Italy over 90% of mobile subscribers are using prepaid
- Operators became interested in prepaid only after saturation point of post paid customers started to come closer
- Western Europe has clearly largest number of prepaid subscribers



# Prepaid technology

- Prepaid in GSM
  - IN
  - service node
  - hot billing
  - handset based approach
- Prepaid in GPRS
  - IN
  - Server based approach
- Deployment of GPRS prepaid systems must be much more rapid than the deployment of GSM prepaid systems has been

# Server based prepaid



HLR = Home location register  
BSS = Base station subsystem  
SGSN = Serving GPRS support node  
GGSN = Gateway GPRS support node  
CG = Charging gateway  
CDR = Call detail record  
ISP = Internet service provider

# Future challenges

- Increasing ARPU & decreasing churn
  - value-added services
  - loyalty programs
  - customer care
  - personalization of services
  - self-service
- Avoiding price competition
- Improvement of top up systems
  - m-commerce