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

- Balance notification system
- Top up system
- Prepaid billing server
- HLR (Home location register)
- prepaid status
- over/under limit
- CDR collection
- CG (Charging gateway)
- BSS (Base station subsystem)
- SGSN (Serving GPRS support node)
- GGSN (Gateway GPRS support node)
- GPRS core network
- ISP network

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