

Prepaid Wireless Technology and Services

Duration: 1- 2 days

Prerequisites: Understanding of basic wireless principles

Objectives:

At the conclusion of the workshop the student will be able to:

- Understand technologies supporting prepay wireless
- Identify the target markets and business issues for prepay wireless
- Understand the systems and functional alternatives to deploying prepay wireless
- Understand challenges and opportunities in deploying prepaid wireless data
- Identify the major prepay wireless players and their strategies
- Identify the future direction of wireless prepay technology and business opportunities

Course Outline:

1. Course introduction
2. The prepay market
 - 2.1. Why prepay?
 - 2.1.1. Convenience to end user
 - 2.1.2. Cost of acquisition to carrier
 - 2.1.3. Fraud reduction for carrier
 - 2.1.4. Carrier reaches new target markets
 - 2.2. Target markets
 - 2.2.1. Credit challenged
 - 2.2.2. Temporary and infrequent use
 - 2.2.3. Anonymity market
 - 2.2.4. Cost control
 - 2.2.5. Others
3. Background information – technologies behind prepay
 - 3.1. Networks nodes
 - 3.2. Mobile network signaling
 - 3.3. Roaming in mobile networks
 - 3.4. GSM specific: SIM, SMS, and USSD
 - 3.5. IN and database interaction
4. Functional characteristics of prepay systems
 - 4.1. Provisioning and replenishment
 - 4.1.1. Card distribution
 - 4.1.2. Point of sale support

- 4.1.3. Other replenishment mechanisms
- 4.2. Customer care
- 4.3. Call processing
 - 4.3.1. Database
 - 4.3.2. Rating engine
 - 4.3.3. Account management
 - 4.3.4. Alerting and call control
- 4.4. Integration with other wireless network systems
- 5. Technical approaches to prepay
 - 5.1. Real-time vs. non real-time processing
 - 5.2. Solution approaches
 - 5.2.1. Handset based
 - 5.2.2. Service node based
 - 5.2.3. IN based
- 6. Prepay issues
 - 6.1. Cost of acquisition
 - 6.2. Service rates
 - 6.3. Roaming
 - 6.4. Churn and replenishment
 - 6.5. Services and differentiation
- 7. Billing alternatives
 - 7.1. Postpaid vs. prepay service
 - 7.2. Prepay vs. account spending limit solutions
 - 7.3. Third party payment
- 8. Prepaid wireless data
 - 8.1. GPRS
 - 8.2. SMS
 - 8.3. WLAN
- 9. Business and market issues
 - 9.1. Distribution alternatives
 - 9.1.1. Carriers
 - 9.1.2. Resellers
 - 9.1.3. MVNOs
 - 9.2. Opportunities for prepay growth
 - 9.2.1. Non-voice services growth
 - 9.3. Financial valuation of prepay vs. postpaid services
 - 9.4. Threats to prepay
 - 9.4.1. Migration to postpaid plans
 - 9.4.2. Throwaway phones
- 10. Implementation and operational issues
 - 10.1. Intellectual property issues
 - 10.2. Network monitoring
 - 10.3. Fraud
 - 10.4. Mobile number portability
 - 10.5. Dealing with intermediaries
- 11. Industry players and direction of industry
 - 11.1. Representative industry players
 - 11.1.1. Infrastructure and solutions
 - 11.1.1.1. Lightbridge
 - 11.1.1.2. HP
 - 11.1.1.3. Lucent

- 11.1.1.4. Ericsson
- 11.1.2. SIM
 - 11.1.2.1. GemPlus
 - 11.1.2.2. Schlumberger
- 11.1.3. Service bureaus
 - 11.1.3.1. Boston Communications Group
 - 11.1.3.2. VeriSign Telecommunications
- 11.2. Industry direction
 - 11.2.1. Prepaid wireless data
 - 11.2.2. Stored value
 - 11.2.3. Prepaid mobile commerce
 - 11.2.4. Integration with other systems such as location technology