Requirments on Charging and Billing Systems for 3G

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Introduction

- Discontinuity of existing billing and charging technology because of GPRS and 3G
- Two types of approaches for upgrading the systems
  - upgrading the existing flat/time based rating systems (Amdocs, TelesensKSCL etc)
  - installing new adjucnt systems for IP billing on top of their existing circuit switched voice systems (Geneva, Portal, Solect)
- emerging of the player above (Amdocs, Solect)
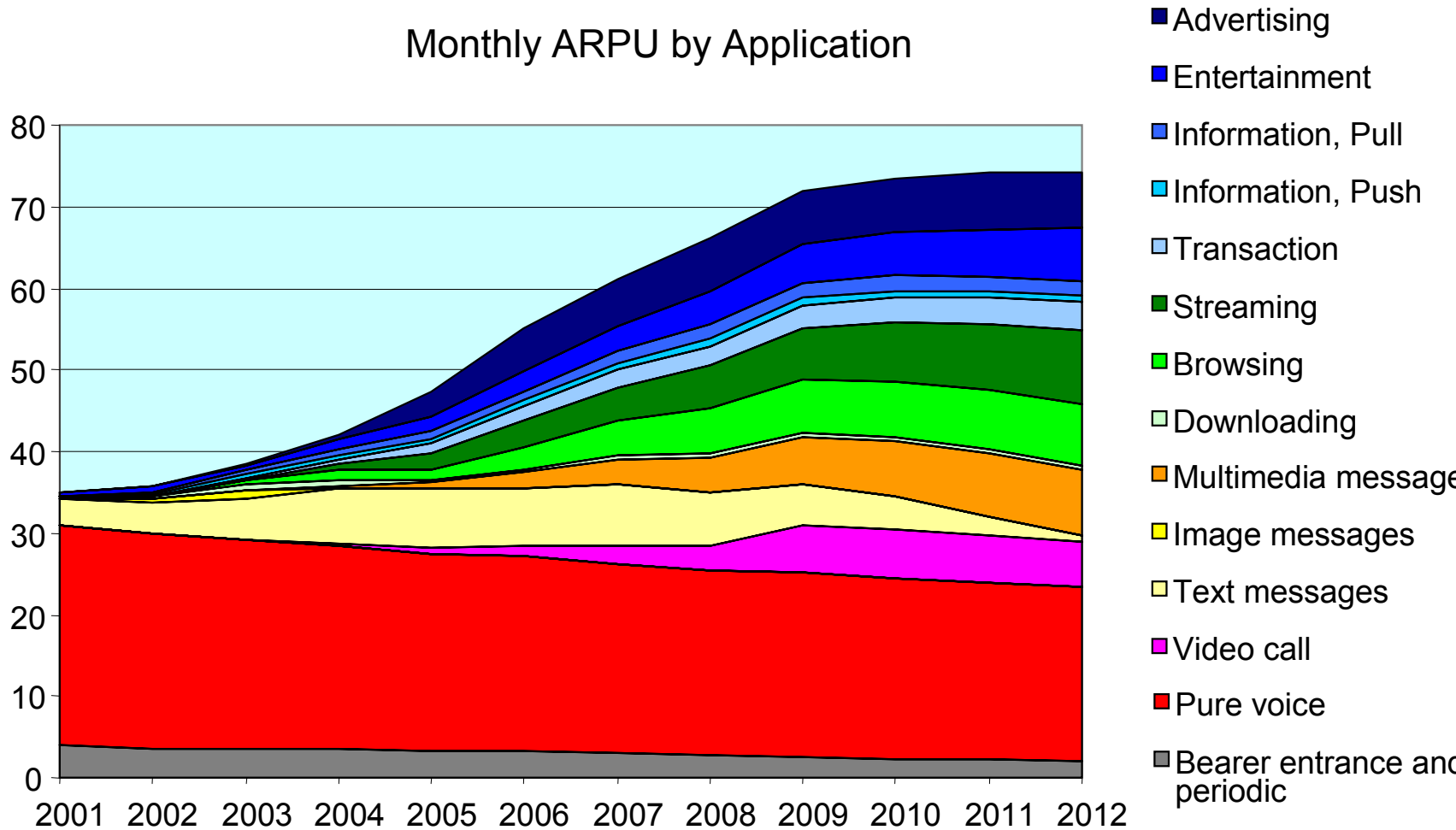
Description
DRs must be able to include at least the following components, when available and needed: 1. Requested QoS levels, 2. Provided QoS levels, 3. Session correlating ID to allow linking of multiple DRs generated for one access session, 4. User identity information, 5. Terminal equipment information, 6.Resource usage information*, 7 Time usage began, 8. Time usage ended or, Duration of usage, 9. Destination information, 10. Location of mobile, 11. Service type, 12.Value added charges type, 13. Orderly or disorderly deactivation, 14. Service options selected, 15. Location of service origination.

NTT DoCoMo

- Video service for 3G-modile phone: I-motion
  - news reports
  - mini music videos
  - sport news
- 3 classes for charging based on content
  - I. free
  - II. 1-2 euros
  - III. 2-4 euros
- TV Broadcasting
- Over 40 content providers

Monthly ARPU by Application

Legend:
- Advertising
- Entertainment
- Information, Pull
- Information, Push
- Transaction
- Streaming
- Browsing
- Downloading
- Multimedia message
- Image messages
- Text messages
- Video call
- Pure voice
- Bearer entrance and periodic

Merrill & Lynch estimate for 2010: ARPU 3% of GDP/capita

ARPU = Average Revenue per User per month

Revenue Sharing

Music industry

Artist → Record Company → Dealer → End-user
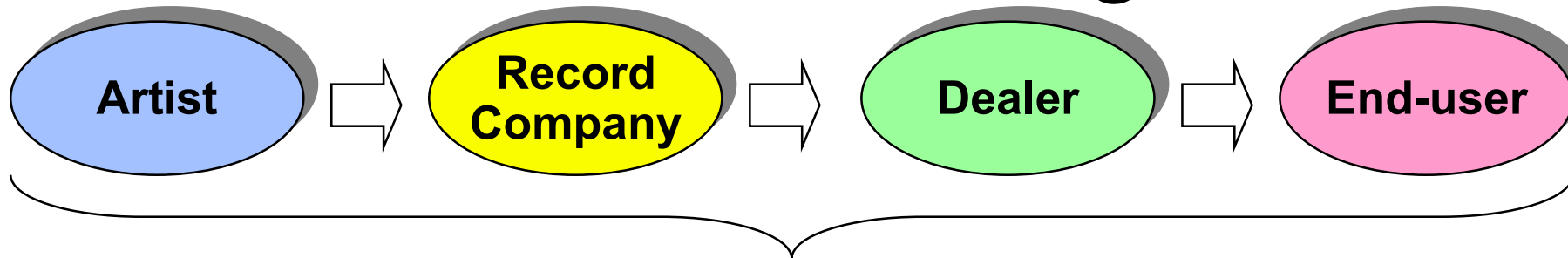
Total Music Market: 6 bn Euros

29% dealers' share

14.5% operators' share

Telecom industry

ARPU

0.XX € / month

About XXXX For Mobile Internet

XXXX for Mobile Internet provides a service management and CCB infrastructure that allows MSPs to set up different business models such as:

Sponsored Services – MSPs can set up a service to be sponsored by a third party realizing revenue from the sponsor and/or subscriber. Sponsored services apply to advertiser-consumer and employer-employee relationships.

Revenue Sharing – MSPs will deliver Internet content such as financial, travel, news and entertainment information by partnering with the appropriate content providers who will want to be reimbursed accordingly. MSPs will require the CCB functionality to 'share' the revenue collected from a mobile subscriber for use of these services.

mCommerce – MSPs will enable mCommerce by providing the mobile connectivity to eShops. MSPs will require the CCB functionality to collect money from mCommerce transactions and then allocate these monies across the various parties involved to ensure they are truly integrated in the mCommerce value chain..

The XXXX service management features enable management of bundled mobile IP offerings, such as GPRS access, e-mail, Internet /Intranet access and WAP-based content and value-added services. The rule-based rating engine supports sophisticated billing plans and its inherent flexibility accommodates rating on any service attribute in a carrier grade environme

Requirements for Charging and Billing

- Technology based requirements (all IP)
  - Speed
  - QoS, Multicast (Video, Voice, Calls)
  - IP Data (Mail, Web)
  - user-to-user services (MMS)
- Business based requirements
  - different kind of tarrifing based on: content, time, volume, location, time-of-day etc.
  - new revenue sources: revennue sharing, payments, 3G prepaid, 3G postpaid, new tariffing schemes, sponsoring, advertisement, media provider

Requirements for charging and billing systems

- collect CDR/SDR from CG, from network gateways and IP service sources (for example mail)

- to be capable to use different tariffing systems (time, location, content, session, user etc.)

- to provide revenue sharing possibilities

- different ways to handle micro and macro payments, credit advanced checking