Mobile Multimedia Pricing: Value Matters

IRoNet Results Seminar
January 8, 2004

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Mobile Industry:Status Quo

- Evolution in bearer technology enabling a range of multimedia services on mobile.
- Entry of new players
- Additions to the mobile value chain
- Pricing models changing from time-based to volume-based.e.g: i-mode

Challenges

- Volume-based pricing model
  - doesn’t capture the exact value of a service.
  - cannibalises services.
  - over-utilise the networks.
  - makes traffic estimation difficult.

Solution

- Value-based approach with Ramsey pricing
  - Set the value of a service based on subscriber's willingness-to-pay.
  - Cross-subsidies.
- Vertical Bundling
  - Bundles transport with the content

Provides greater independence of the value of a service from underlying technology.

Why Value-based Pricing? -I

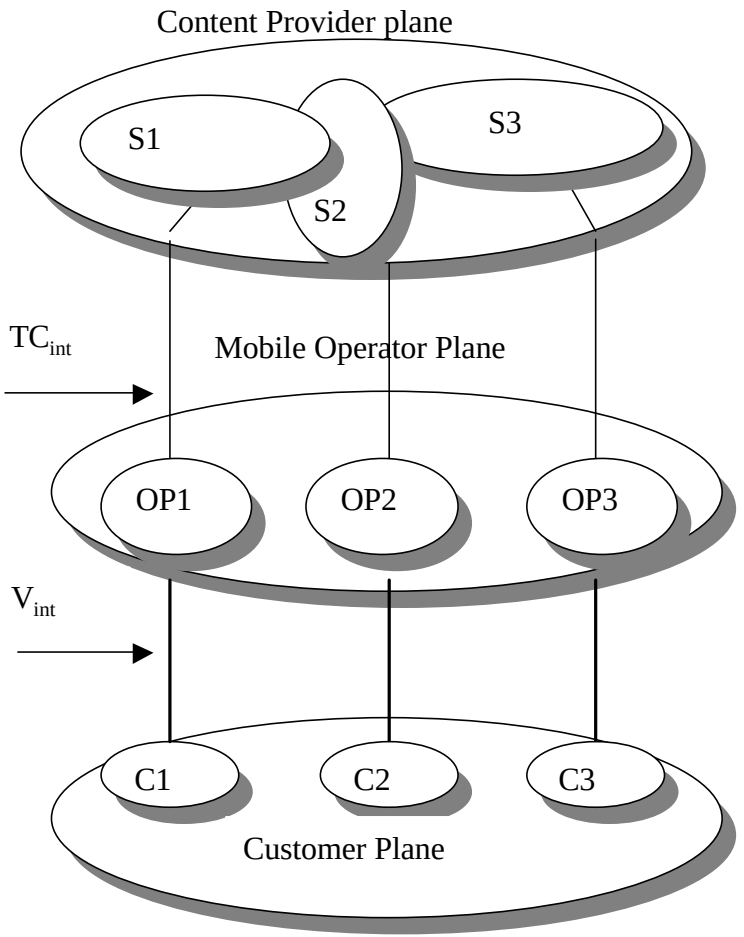
- *cost of production < price < willingness to pay*
- Services
  - User created, e.g: SMS, MMS
  - Commercial e.g: Video streaming
- Service charges not independent of transport
  - Leads to service cannibalisation.

Charge/Service	Streaming Video (600MB)	Streaming Audio (4 MB)
Total Charges (€)	6006	41
Perceived Value (€)	6	1
Transport Charges (€)	6000	40

Why Value-based Pricing? -II

- Operator's Revenue Cannibalisation
  - Convergence turning voice into a commodity service.
  - Marginal cost reduces to zero
  - Competition among incumbents drives prices closer to cost.
  - Maximises consumer surplus but reduces operator's incentive to invest.

Value-based Pricing Model



- Maximise value per byte. $p = max \{ v/B \}$
- Planes
  - Content Provider
  - Mobile Operator
  - Customer
- Interfaces
  - V_{int}: Value Interface
  - TC_{int}: Transport-content Interface

Value-based Pricing Model Cont'd..

- Horizontal bundling of services at customer plane
  - Mix of elastic and inelastic services
  - Include services that maximise value with lower transport usage e.g: SMS, MMS
  - Cross-subsidies (Ramsey Pricing)
  - Enables service differentiation and reduces cost.

Revenue-Sharing Model

- Revenue-sharing to be based on:
  - Operator's cost components
    - Billing and charging
    - Network expenditure
    - Customer management
  - Content provider's cost component
    - Development cost
- Percentage share at the TC_{int} may be variable

Role of…

- Competition
  - at V_{int} among operators
    - Helps to keep check on service pricing
  - at TC_{int} among operators and content providers
    - Generates innovation
- Uncertainty
  - Opportunities for experimentation with new service rollouts.
  - TC_{int} enables greater risk sharing.

Impact on…

- Networks
  - Optimal usage
  - Synchronisation between operators' and network designers' goals
  - Better traffic forecasts
- QoS
  - Better resource management

Inference

- Value-based vertical bundling approach
  - creates greater demand, reduce operational cost and create service differentiation.
  - Promotes competition and experimentation
- Requirements
  - Billing and charging machinery need to be tuned for value-based pricing
  - Evaluate the willingness-to-pay of customers