Fixed-Mobile Interconnection

Briefing Paper

ITU Fixed-Mobile Interconnection Workshop
Geneva, 20 September 2000

Objectives

• Lay bare some key issues for discussion by workshop
• Identify contribution ITU can make to improve performance of this dynamic and innovative sector
Call Termination

- Calling parties seek to terminate calls at specific addresses (numbers) that are controlled by specific operators
  - No practical alternative but specific operator
- Operator controlling more valuable (or larger set of) addresses has incentive to refuse interconnection or price high
- “Primary interconnectivity rule”: SMP operator shall interconnect at cost
Call Termination

• Unintended consequence: Smaller operator may overprice
• Exacerbated by CPP environment
  – where fixed customer pays
  – where fixed operator may have incentive to cross-subsidize mobile
• Some customer interests not represented in bilateral negotiations by operators

Call Termination

• Lack of transparency of charges does not allow customers to exercise informed choice
• Increased competition in the form of additional licensees does not affect termination charges, though improving performance in other aspects
Interconnection Rates in Selected CPP and RPP Countries

Per minute in SUS

Source: ITU Regulatory Survey 2000, FMI Case Studies

Interconnection Rates in European Countries

Source: Compiled from ITU Regulatory Survey 2000, European Union E-7DA
F-M & M-M Termination Charges

- Absence of cost orientation indicated by
  - Wide range of fixed-to-mobile charges in Europe
  - Mobile-to-mobile charges being generally lower than fixed-mobile charges

Physical Links

- Where regulator is not involved, charges for physical links may be set to burden mobile operator
- Incumbent may have incentive to limit points of interconnection
  - In some cases, with effect of increasing charges
  - Increasing vulnerability of mobile network to congestion
Regulating F-M Interconnection

- Some NRAs subject to overarching principles
  - Signatories to GATS Protocol 4, Regulatory Reference Paper
  - European Union directives
- Includes principle of cost-oriented, non-discriminatory interconnection by major suppliers/operators with SMP

Regulatory Process

- Current practice is to require commercial negotiation, with regulatory intervention as backstop
- Regulators face serious resource limitations
  - Bilateral relations increase with higher number of operators
  - Cost studies, especially of mobile termination, may be problematic and time-consuming
Prioritizing intervention
  – Conventional market share
  – Based on calling opportunities

Prevent lock-in of outcome at moment of entry by mobile operator

Reducing complexity (and workloads)
  – “Most Favored Nation”
  – Require/encourage/allow clustering

Alternative Dispute Resolution may be of value
  – Mediation, backstopped by formal proceedings
  – Arbitration
    • Conventional
    • “Final offer”
    • Other
Cost Studies

- Generally accepted that mobile termination costs may be higher than fixed, because of additional mobile network elements
- Higher proportion of joint and common costs in mobile than in fixed
- Rapid rates of technological change and cost reductions cause difficulties
- 3G licensing exacerbates costing problems

Benchmarking

- Difficulties and delays associated with formal costs studies may be sidestepped by benchmarking, i.e.,
  - EU best practice guidelines: upper limit of lowest three rates
  - ITU-T draft recommendation on settlements: average of lowest 20 percent of rates
Mobile Internet

• Current minute-based interconnection arrangements may have to be revised because of
  – Messaging in the context of “always on” mobile networks
    • SMS as precursor?
    • Message or volume-based or flat-rate?
  – Information retrieval, with asymmetric flows

Mobile Internet

• Possible lessons from
  – Internet interconnection, peer vs client?
  – Canadian two-tier mobile interconnection system?
• Studies needed
Role for the ITU?

• NRAs require knowledge of
  – Best practices on all aspects of fixed-mobile interconnection
  – Simple and easy to implement cost methodologies
  – Benchmarks, possibly ranges of acceptance
  – Challenges of the mobile Internet

Role for the ITU?

• ITU is well positioned because of its broad membership
• Publication of rates and related information can have beneficial effects on behavior of both regulators and operators
• Provide virtual (www.itu.int/interconnect) and face-to-face spaces for sharing knowledge/ resolving problems