
Fixed-Mobile Interconnection

Briefing Paper



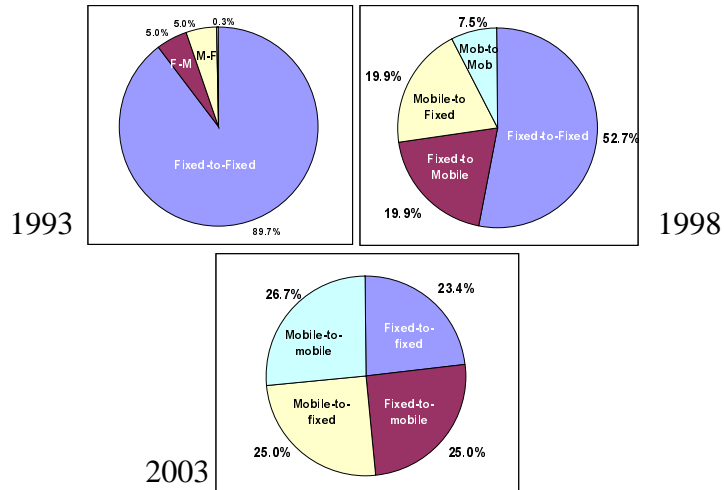
ITU Fixed-Mobile Interconnection Workshop
Geneva, 20 September 2000

Objectives

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

Importance of Fixed-Mobile Interconnection is increasing

Worldwide calling opportunities: Among mobile and fixed-line users (1993, 1998 and forecast 2003)



Source: ITU

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

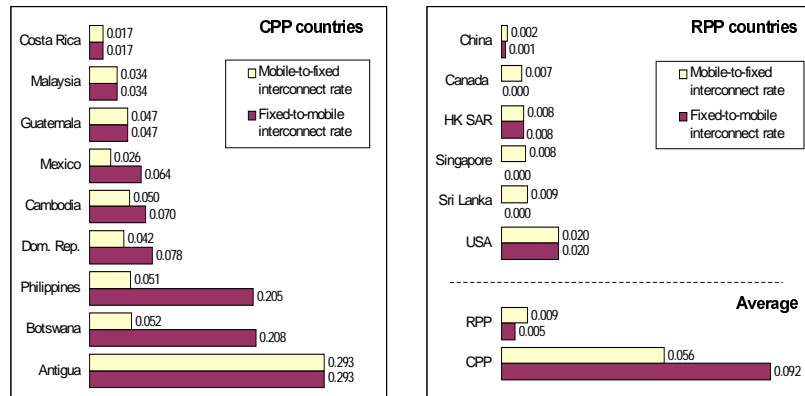
- Unintended consequence: Smaller operator may overprice
- Exacerbated by CPP environment
 - where fixed customer pays
 - where fixed operator may have incentive to cross-subsidize mobile
- Some customer interests not represented in bilateral negotiations by operators

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

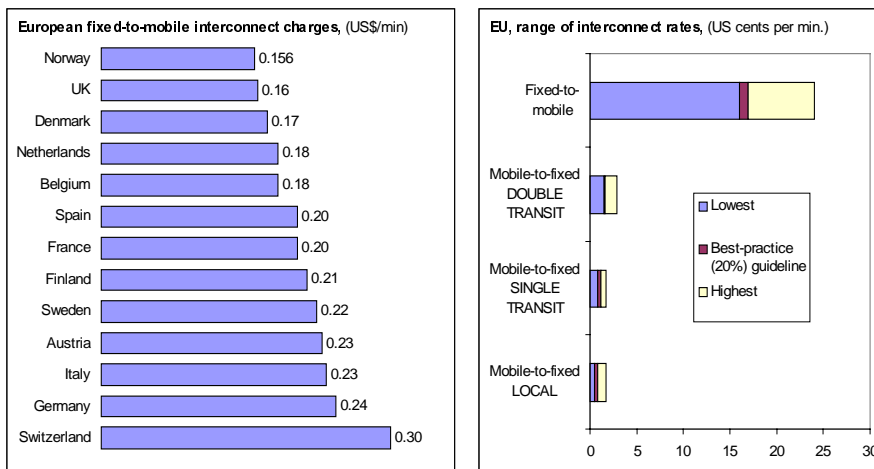
Interconnection Rates in Selected CPP and RPP Countries

Per minute in \$US



Source: ITU Regulatory Survey 2000, FMI Case Studies

Interconnection Rates in European Countries



Source: Compiled from ITU Regulatory Survey 2000, European Union, ECTA

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

Regulatory Process

- 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

Regulatory Process

- 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