History of Internet Pricing

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Introduction

• Landmarks
  • Early 19\textsuperscript{th} century: Mail services
  • Early 20\textsuperscript{th} century: Telephone services
  • 1991:
    • NSF lifts restrictions on commercial use of NSFNET.
    • Commercial services on GSM
  • Military parted ways. WWW browser comes into existence.
Evolution of Pricing

- Pricing Trends: In Retrospect
  - Legacy systems [Mail & POTS]
    - Moves from complicated to a flat model.
    - Cost, an initial impediment for POTS.
    - Time of day variation, distance dependence.
  - Fixed Internet
    - Residential Access
      - Combination of flat and time-based model until 1996.
      - Emails charged.
      - Majority currently follows flat pricing model.
  - Leased lines
    - Based on Static contract parameters, dynamic parameters.
    - Prices are distance independent.
    - International circuit priced higher than domestic ones.
    - Bursty rate model.
Evolution of Pricing cont’d

• Interconnection
  • Peering Agreements
• Services
  • Advertising Pricing Model
  • Subscription models, eg: e-journals
• Mobile (Internet) services
  • Metered/Usage-based
    • Pre-Paid and Post-Paid
• Block Pricing
• I-mode Pricing
• Message pricing
- Service Life Cycle

- Pricing models: Proposed
  - Paris Metro pricing
  - Edge Pricing
  - Congestion-based pricing

- Observations
  - Flat pricing model is dominant
  - Customers need simplicity
  - Lack of content-based pricing.
Observations cont’d

• Mobile vs Fixed Internet
  • Mobile services have personal focus and are location sensitive.
  • Relationship between value and pricing required.
  • Co-branding of content.
  • Walled Garden approach unsuccessful
  • Virtual community based services
  • Trust: Advantage Mobile
  • Tiered Pricing
  • Pre-paid service customers

• Open Issues
  • Flat vs Usage-based pricing?
  • Carriers: Dumb pipes?
  • Revenue sharing models?