Trouble in Paradise
Challenges to international telephone traffic

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The views expressed are those of the author and may not necessarily reflect the opinions of the ITU or its members.
A quarter century of talking

Global international telephone calls, billions of minutes

Early period: Growth tied to network expansion & global GDP

Paradise period: Growth tied to globalization & fax

Party over?

Note: Traffic over public telephone network.
Source: ITU.
Just not the business it used to be

- Flat to declining international revenue
- Inelastic demand
- Statistical aberrations
- Liberalization
- The Internet
- New market segments replace international as star of telecom industry

Revenue from fixed calls UK. Millions of pounds.

Source: OFTEL.
**Convergence**

**Average of one-minute call to USA. Retail price. US$.**

- **Settlement rate**
  - $0.00
  - $0.50
  - $1.00
  - $1.50
  - $2.00

- **Mark-up**

**Swiss call prices. US cents per minute.**

- **Call to USA**
  - 74
  - 58
  - 58
  - 43
  - 28

- **Local call**
  - 5
  - 5
  - 4
  - 4
  - 4

Source: ITU adapted from FCC and national data (34 countries).

Source: Swisscom.
How come my traffic is not growing?

Telephone traffic, millions of minutes

- United Kingdom
  - Calls to Mobiles
  - International

- Sweden (Telia)
  - Internet

Source: OFTEL. Source: Telia.
The Internet Way

• Technical, financial & social challenge to circuit switched international telephone traffic
• Anyone can be a telco
## Winners and Losers

Example of call from USA to developing country Accounting rate system + terminated by an ISP, per minute

<table>
<thead>
<tr>
<th></th>
<th>Traditional</th>
<th>New</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developed country PTO</td>
<td><strong>Receives</strong> US$ 1.35 retail tariff.</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td><strong>Pays</strong> 84 US cents settlement.</td>
<td><strong>Receives</strong> US$ 1.35 retail tariff. <strong>Pays</strong> 40 US cents to ISP for terminating call. <strong>Gain</strong> 95 US cents.</td>
<td>+ 44 US cents</td>
</tr>
<tr>
<td></td>
<td><strong>Gain</strong> 51 cents.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Developing country PTO</td>
<td><strong>Receives</strong> 84 US cents settlement.</td>
<td><strong>Receives</strong> 2 US cents local call charge.</td>
<td>- 82 US cents</td>
</tr>
<tr>
<td>Developing country ISP</td>
<td>0</td>
<td><strong>Receives</strong> 40 US cents for terminating call. <strong>Pays</strong> 2 US cents for local call. <strong>Gain</strong> 38 US cents.</td>
<td>+38 US cents</td>
</tr>
</tbody>
</table>
“A world with a billion mailboxes—outnumbering televisions and phone lines—is probably only two years away”
# Show me the money

Quarterly results, June 2000, US$ millions

<table>
<thead>
<tr>
<th>Who’s not making money</th>
<th>Who is</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Revenue</td>
</tr>
<tr>
<td><strong>amazon.com</strong></td>
<td>578</td>
</tr>
<tr>
<td><strong>net2phone</strong></td>
<td>19</td>
</tr>
<tr>
<td><strong>Yahoo!</strong></td>
<td>270</td>
</tr>
<tr>
<td><strong>AOL.com</strong></td>
<td>1’929</td>
</tr>
</tbody>
</table>

Source: ITU adapted from country reports.
The New PTO

Internet initiatives

- **Access**
  - SingNet
  - SingTel Magix
  - mysingtel
  - e-ideas

- **Infrastructure**
  - NCS Media Hub
  - Consumer Connect
  - SingTel IX
  - ID.Safe

- **Content**
  - Lycos Asia
  - SESAMi.com
"The Group’s highest revenue growth segment was **Public Data & Private Network**… Revenue growth from Internet related activities was particularly strong. There has been a substantial increase in demand for ...services in areas like e-business consulting, network management, Internet solutions and web hosting." – SingTel commenting on recent results.

Source: Singapore Telecom.
And in the End...

- People will always have a need to communicate internationally...
- ...But, international voice is becoming a low-value commodity like apples, traded on exchanges like corn or oil...
- ...Value is in network infrastructure and services, strength is your network expertise and brand...
- Build international IP connectivity, originate and terminate Internet calls, become an ISP and develop services with partners.

“Companies that succeed as an Internet provider, and as a supplier of IP-based services, will win in the end.”—Telia (Sweden)
“In 1999, Swisscom launched a series of projects which have the aim of evolving Swisscom’s fixed-line networks away from the current circuit-switched infrastructure optimized for narrow-band voice traffic toward a packet-based infrastructure designed for broadband data traffic and highly efficient transmission of voice traffic. The core of the infrastructure of this next generation network will be based on IP technology.”
—Swisscom 1999 Annual Report
More info

www.itu.int/ti/publications/DOT99/index.htm

www.telegeography.com/Publications/tg00.html