International Telecommunication access
An Indian Experience

Telecom regulatory Authority of India
New Delhi
International Telecom access-
Indian Scenario (as on 31.03.2008)

- No. of International Long Distance Operators : 14
- No. of Cable Landing Stations LS : 6
- No. of Cable Systems : 9
International Telecom access-
Indian Scenario (as on 31.03.2008)

Capacities:-

- **Total Designed Capacity** : 18.60 TB
- **Total Lit (Equipped) Capacity** : 587.50 GB (3% of design capacity)
- **Total Protected Capacity available** : 100 GB (17% of lit capacity)
- **Total Utilized Capacity** : 91 GB (90% of protected capacity 15% of total lit capacity)
- **Total Spare Capacity** : 496.50 GB (85% of total lit capacity)
## International Telecom access-
Capacity of Submarine cables in India

<table>
<thead>
<tr>
<th>Submarine Cable</th>
<th>Landing Stations</th>
<th>Landing Station Owned by</th>
<th>Type of Cable System</th>
<th>Designed capacity of Existing Cable</th>
<th>Equipped Capacity (GBPS)</th>
<th>Utilized Capacity (GBPS)</th>
<th>Spare Capacity (GBPS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMW3w</td>
<td>Mumbai</td>
<td>VSNL</td>
<td>Consortium, Protected</td>
<td>212 GB</td>
<td>20</td>
<td>20</td>
<td>0</td>
</tr>
<tr>
<td>SMW4</td>
<td>Chennai, Mumbai,</td>
<td>Bharti VSNL</td>
<td>&quot;</td>
<td>1.20 TB</td>
<td>20</td>
<td>11</td>
<td>9</td>
</tr>
<tr>
<td>SAFE</td>
<td>Cochin</td>
<td>VSNL</td>
<td>Consortium, Unprotected</td>
<td>5 GB</td>
<td>5</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>FLAG (Reliance)</td>
<td>Mumbai</td>
<td>VSNL</td>
<td>Hybrid, Protected</td>
<td>160 GB*</td>
<td>20**</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>

* After the Arbitration award by International Court FLAG is allowed to upgrade the capacity to 80 GBPS in both the directions

** 10 GBPS each in both the direction, about 5 GBPS is used for transit traffic
## International Telecom access-
Capacity of Submarine cables in India (contd.)

<table>
<thead>
<tr>
<th>Submarine Cable</th>
<th>Landing Stations</th>
<th>Landing Station Owned by</th>
<th>Type of Cable System</th>
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</tr>
</thead>
<tbody>
<tr>
<td>i2i</td>
<td>Chennai</td>
<td>Bharti</td>
<td>Private, Unprotected</td>
<td>8.40 TB</td>
<td>160</td>
<td>12</td>
<td>148</td>
</tr>
<tr>
<td>TIC</td>
<td>Chennai</td>
<td>VSNL</td>
<td>&quot;</td>
<td>5.10 TB</td>
<td>320</td>
<td>16</td>
<td>304</td>
</tr>
<tr>
<td>Falcon</td>
<td>Mumbai</td>
<td>Reliance</td>
<td>&quot;</td>
<td>2.56 TB</td>
<td>2.50</td>
<td>1</td>
<td>1.50</td>
</tr>
<tr>
<td>Indo-Sri Lanka Cable</td>
<td>Tuticorin</td>
<td>BSNL</td>
<td>&quot;</td>
<td>960 GB</td>
<td>20</td>
<td>-</td>
<td>20</td>
</tr>
<tr>
<td>Total</td>
<td>CLS - 6 Cables - 9</td>
<td>4</td>
<td></td>
<td>18.60 TB</td>
<td>587.50</td>
<td>91</td>
<td>496.50</td>
</tr>
</tbody>
</table>

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International Telecom access-
Challenges

- Increase competition in the International Long Distance sector to reduce the effective cost to end-users
- Non-discriminatory access at reasonable prices to bottleneck facilities.
- Ensuring growth in International telecom segment with transparent regulatory framework on
  - Identification of eligibility condition for access seeker to cable landing station facilities
  - Stipulation of time frame to entering into agreement for providing access facilitation
  - To facilitate Co-location, Capacity up-gradation, Grooming Service
  - Ensuring minimum commitment period for Co-location Services at cable landing stations.
  - Backhaul circuit provisioning and related issues
Entry Fee and Annual License Fee reduced significantly
  - Revised Entry fee for new ILDO license from US$ 6 Millions to US$ 0.6 Million
  - Annual license fee reduced to 6% from 15% both for existing and new ILDOs from 01.01.2006

Amendment in ILD license for enabling TRAI to bring out regulations to ensure efficient, transparent and non-discriminatory access to essential facilities for submarine cables at CLS.

Introduction of resale in IPLC segment for increasing competition after a period of 5 years of opening up of ILD sector i.e. from Feb’2007
International Telecom access-

Regulatory Initiatives

- 2002: The ILD segment of telecom sector was opened for competition
- 2005: TRAI fixed ceiling tariff for IPLC to bring down cost for the users by an extent of 59% for higher capacities.
- 2006: Government accepted recommendations made by TRAI on
  - Introduction of Resale in IPLC segment
  - Access to essential facilities including landing facilities for submarine cables at cable landing stations”
- 2007: TRAI gave recommendations on terms & conditions for introduction of Resale in IPLC segment.
TRAI’s Cable Landing Stations Regulation 2007 - Summary

- 07.06.2007: TRAI issued Regulation on International Telecommunication Access to Essential Facilities at Cable Landing Stations (CLS) Regulation
  - Every owner of the cable landing station (OCLS) are mandated to submit Reference Interconnect Offer (RIO) for approval of the Authority within 30 days.
  - Owners of the cable landing station has also been asked to provide the costing details in arriving at the various charges submitted to the Authority as a part of schedule of their document
  - In the Regulation it has also been mentioned that the Authority shall approve the CLS-RIO within 60 days from the date of its submission by the owner of the cable landing station.
TRAI’s Cable Landing Stations Regulation 2007

– Salient Features

- Provision of access to cable landing station by owner of cable landing station on non-discriminatory basis.
- Application procedure by eligible Indian International Telecommunication Entity for access facilitation to cable landing station and related international submarine cable capacity streamlined
- Confirmation by the owner of cable landing station after receipt of application under regulation
- Timeframe in entering into an agreement for providing Access Facilitation
Access to CLS and related Int’l Submarine cable capacity

- Demand and payment procedures for access to Reference Capacity
- Ensuring provision of backhaul circuit
- Detailed steps, time and procedure for testing of Reference Capacity
- Provisions related to access facilitation charges and payment terms
- Capacity up-gradation and related payment by eligible Indian International Telecommunication Entity

- Cancellation charges
- Termination and discontinuance of Access Facilitation by owner of CLS
- Restoration of access facilities
Co-location Site and Co-location space

- Procedure for application, charges, payment terms and conditions
- Mechanism related to important co-location aspects such as
  - Allocation of alternative co-location space
  - Additional co-location space and equipments
  - Installation of equipments by access seeker
  - Authorization for physical access to space at CLS
Miscellaneous

- Period of Co-location agreement (min. 3 years as prescribed)

- Reporting requirement (any agreement between access seeker and CLS owner shall be submitted for registration within 15 days from agreement date)
Way Forward

- Access to International access infrastructure should be essential input for host of telecom services needing international connectivity.
- Any access barriers to such facility can constrain the competitiveness of telecom operators and become detrimental to healthy growth of international telecom market.
- CLSs should be considered as critical telecom infrastructures and it is to be ensure that such facilities does not become ‘bottleneck’ to international telecom service provision.
Thank You

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