



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

Submarine Cable	Landing Stations	Landing Station Owned by	Type of Cable System	Designed capacity of Existing Cable	Equipped Capacity (GBPS)	Utilized Capacity (GBPS)	Spare Capacity (GBPS)
SMW3w	Mumbai	VSNL	Consortium, Protected	212 GB	20	20	0
SMW4	Chennai Mumbai,	Bharti VSNL	"	1.20 TB	20 20	11 16	9 4
SAFE	Cochin	VSNL	Consortium, Unprotected	5 GB	5	5	0
FLAG (Reliance)	Mumbai	VSNL	Hybrid, Protected	160 GB*	20**	10	10

* 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.)

Submarine Cable	Landing Stations	Landing Station Owned by	Type of Cable System	Designed capacity of Existing Cable	Equippe d Capacity (GBPS)	Utilized Capacity (GBPS)	Spare Capacity (GBPS)
i2i	Chennai	Bharti	Private, Unprotected	8.40 TB	160	12	148
TIC	Chennai	VSNL	"	5.10 TB	320	16	304
Falcon	Mumbai	Reliance	"	2.56 TB	2.50	1	1.50
Indo-Sri lanka Cable	Tuticorin	BSNL	"	960 GB	20	-	20
Total	CLS - 6 Cables - 9	4		18.60 TB	587.50	91	496.50

* 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- 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



International Telecom access- Milestones

- 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



TRAI's Cable Landing Stations Regulation 2007

– Salient Features (contd.)

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



TRAI's Cable Landing Stations Regulation 2007

– Salient Features (contd.)

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



TRAI's Cable Landing Stations Regulation 2007

– Salient Features (contd.)

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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