TCOE

National Broadband Initiative Meet

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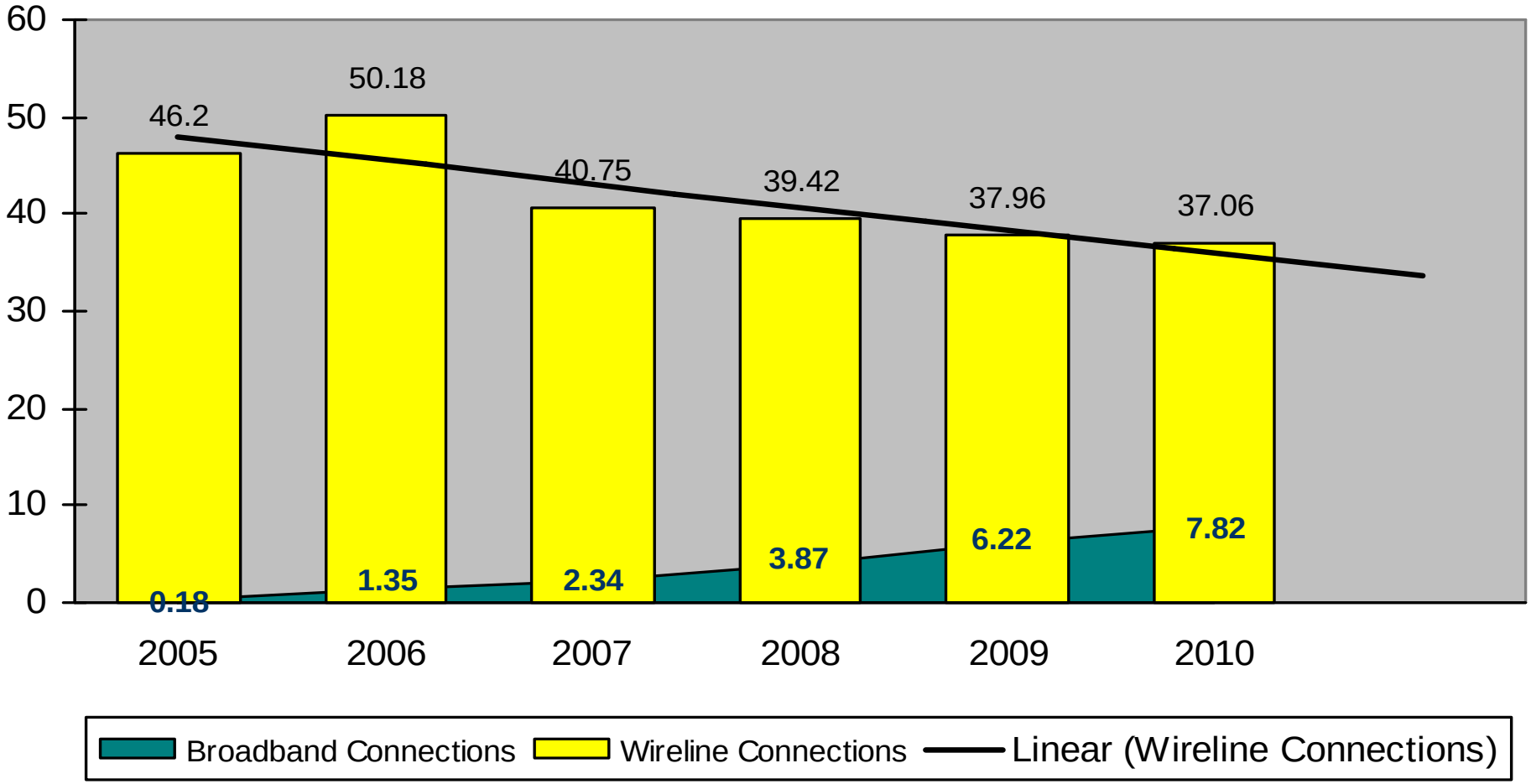
The Agenda

- The Indian Broadband Scenario – Some facts
- The Demand Factors affecting Broadband adoption?
- Broadband Demand Generation – The "How"
- In Conclusion

Indian Broadband Scenario:

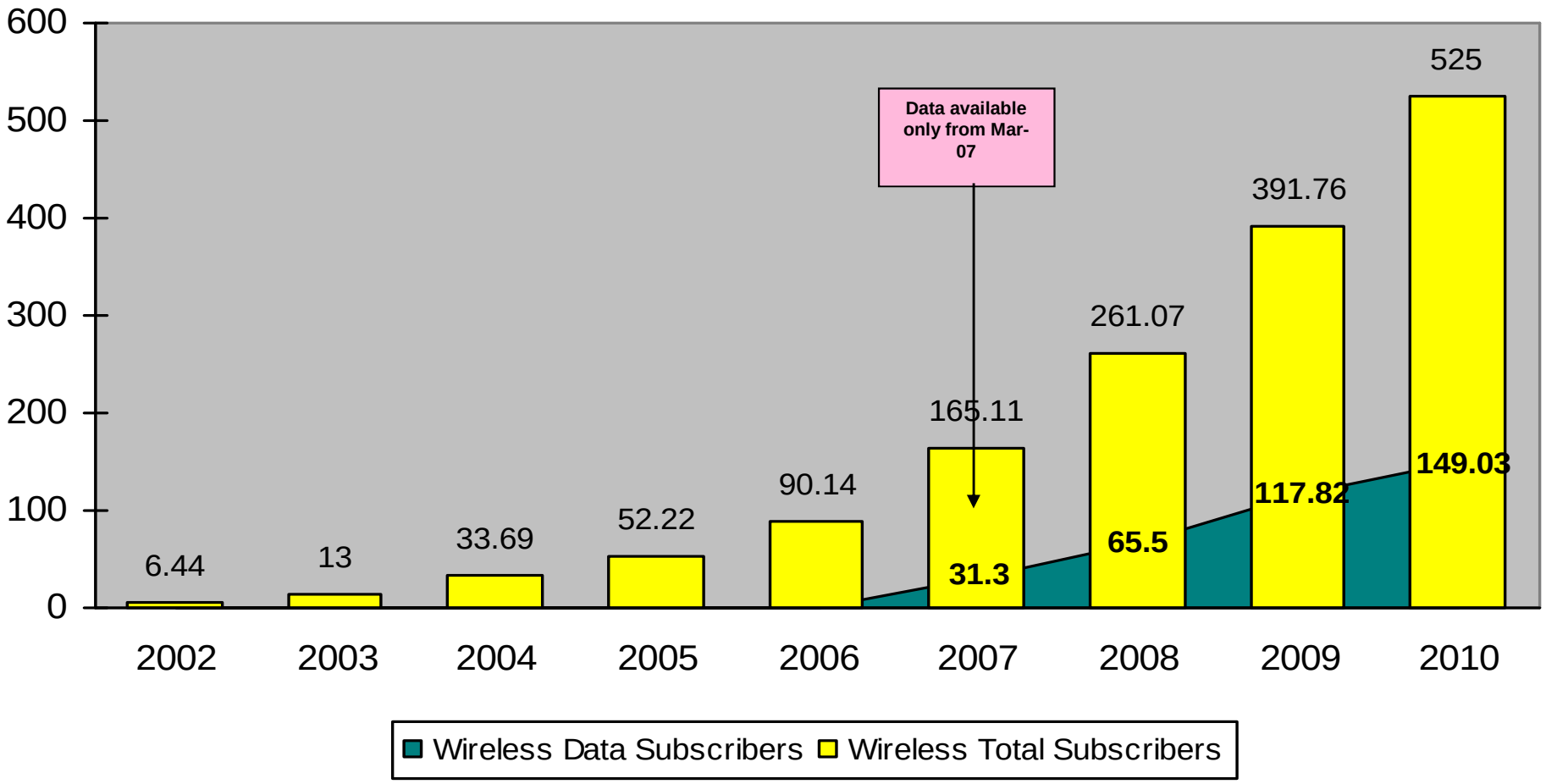
- Current demand driven by Software Exporters, ITES, Banking, Software Service Providers and Finance Sector.
- Home Users constitute a small share of this demand.
- 172 Million Internet using subscribers with over 149 Million users coming from the wireless category.
- Only 7.8 Million of these are BB users *(Source:TRAI)*
- Current Pricing structure high.
- Near absence of flat-rate data plans.
- Most of the plans available today are usage based pricing plans.
- Applications such as healthcare, telemedicine and video-on-demand in infancy.
- Near absence or low availability of localized content.

Growth of Broadband/Wireline



Source: TRAI Quarterly Performance Reports. Figures as on March of the corresponding year, except 2010 (till Dec-09).

Growth of Wireless Data/Total Wireless



Source: TRAI Quarterly Performance Reports. Figures as on March of the corresponding year, except 2010 (till Dec-09).

Factors affecting Broadband adoption:

Broadly 2 Factors affecting Broadband adoption:

1) **Attitudinal Factors**

that describe the perception towards broadband technologies

2) **Control Factors**

which describe the beliefs about having the necessary resources and opportunities to adopt broadband in the home

Attitudinal Factors

Attitudinal Factors can be further segregated on the basis of :

1. **Utilitarian Outcomes:** Need to perform job related tasks, access educational / research material, perform business activities from home, communicate with family and friends are examples**.**
2. **Hedonic Outcomes:** Use for entertainment such as downloading and playing music and movies, playing online games.
3. **Relative Advantages (vis-à-vis Narrowband) :** Faster access, faster downloads, un-metered access and always-on access

Control Factors

Control Factors can be clubbed under 3 heads.

1. **Affordability :** Cost of Broadband service, Cost of device.

2. **Lack of Need / Relevance:** E.g. consider Internet a waste of time, Lack of relevant content and applications.

3. **Usability:** Lack of digital literacy skills, physical handicaps

- ***The relative importance of these factors in limiting adoption differs by individual and generally by type of individual. For E.g., for some wealthier older individual, a lack of interest and / or knowledge of the value proposition of broadband internet may be a more important factor than the cost. In contrast, for some low income, non-elderly households, cost may play more of a deterrent factor. Hence, Demographic variables like age, education and income do affect the importance of the majority of the above control factors.***

How do we then generate demand?

- **Provide interesting content or applications:**
  - Current consumer usage dominated by e-mail, chatting and web browsing.
  - However, interesting / engaging content in local languages, & access to wider range of relevant content to be future prime drivers.
- **Promote e-governance / citizen services:**
  - E-governance expected to be a major puller for future BB adoption.
  - Government should develop accessible, reliable and user-friendly services and applications (various tax forms, business registration, utility bill payments, municipal fees, fines, etc) to better serve their own and their citizen needs.
  - Providing discounts to citizens using the e-channel would certainly incentivize citizens to go online.
- **Connect Educational Institutions:**
  - Schools, Universities, etc should be connected to high staff and students in global knowledge flows.

How do we then generate demand?

- **Drive down access device costs / price of the service :**
  - Relevant experience in mobile voice telephony a powerful example.
  - Significant price elasticity of demand exists in BB.
  - Services/CPE need to be made affordable by SP's/Vendors.
- **Educate Consumers on Broadband and its benefits**
  - Targeted education and promotion through one-stop shops / access centres that provide opportunity to trial the service at no cost.
  - Offers of subsidized / free trials of broadband for a fixed duration by SP's.
  - Need to create awareness on the benefits of BB - E.g. its high reliability and stability.
- **Government should lower taxes on Broadband services / CPE:**
  - High price of BB services remains a barrier to adoption
  - Reduced taxes by Government on both the CPE/service can enable the price of the service to be brought down substantially.

How do we then generate demand?

- **Innovations in access Devices:**
  - Worldwide Apple's I-Phone and other smartphones are playing a major role in fuelling the data appetite.
  - Making available phones smarter shall fuel demand for BB services.
- **Launch Flat-rate Plans:**
  - Usage based pricing deters price-conscious users from trying new content and bandwidth heavy services – Video On Demand, etc.
  - Usage based pricing also becomes an obstacle for local internet technology firms and content providers to roll out new products/services aimed exclusively at the Indian market by restricting demand for BB.
  - Flat Rate allows them to be free in choice.
  - Flat Rate charging also provides expense predictability to the customer.
- **Launch Application Stores:**
  - Such stores potentially open up the content and applications market to just about anyone, and drive both usage and innovation.
  - Create newer revenue streams for operators/handset players.

To Conclude….

The Indian Government therefore needs to take the following 3 key steps :

1. In view of the widely acknowledged fact that BB adoption is sensitive to costs, the Government of India should immediately go in for a reduction / rationalization of taxes on Broadband services / CPE to facilitate price reduction at end user level.
2. Create Local Information Access Centers where the public can access the internet for free. For this the government can look at utilizing the services of the 1,55,035 Post Offices *(Source: Annual Report 2008-09, Dept of Posts,)* along with BSNL's 38,302 fixed exchanges *(Source: BSNL website)* spread across India
3. Implement E-Governance as a priority area across all Government Departments . For that all relevant Government Departments – Central and State- should develop accessible, reliable and user-friendly services and applications (various tax forms, business registration, utility bill payments, municipal fees, fines, etc) in regional languages. Further, citizens using e-channel be offered discounts to incentivize citizens to go online

To Conclude….

3 key research questions to identify the issues behind low adoption of BB in India could be :

1.) Why do the residences and businesses that currently subscribe to narrowband internet access services, and that are located in areas where BB service is currently available, not subscribe? To what extent do the following inhibit subscription levels:

   a) Awareness of service availability

   b) Price of the Service

   c) Price differential between BB and Narrowband services and perceived value differential.

   d) Concern about technical difficulty of installation?

   e) Concern about delivered service meeting the advertised speeds and functionality?

   f) Perceived, or real, absence of interesting content or applications that need BB access speeds.

   g) Inability to understand tariff plans based on speeds.

2.) How many of the current wireless data users would be willing to use BB services once they become available to them and at what price?

3.) Why do users who currently use BB services at a local cybercafe, not buy a dedicated BB connection for their residence? To what extent do the following inhibit subscription levels:

   a) Price of the Service / Access Device?

   b) Concern on not getting the desired speeds at residence.

   c) Concern about technical difficulty of installation?

   d) Concern about delivered service meeting the advertised speeds and functionality?

   e) Low levels / Sporadic BB requirement.

   f) Inability to understand tariff plans based on speeds.

Thank You