REGIONAL CONFERENCE KEYNOTE ADDRESS 728th 04

Indian Telecom Scene

Reliance- The Leading Group

Reliance Infocomm Mission

Reliance Infocomm

Future Challenges

Indian Telecom Scene-Current

- India a vibrant economy more than 7 to 8 % GDP growth
- Teledensity: Risen from less than 2% in 2000 to more than 7 %.
- Wireless overtaking Wire line in line with global trend.
- By the end of '2004 expected mobile subs is 56 .5 million as against expected 42.1 million fixed subs. (Gartner Report Telecom Summit-2004)
- Mobile subscriber base growing about 2 million per month
- In percentage terms India is the fastest growing market in Asia followed by Indonesia, Philippines and China though China has the highest subscriber base (270 million).
- Forecast a 122 million subscriber base by end of '2007 (Gartner Report)
- India's total telecom market \$13.71 billion in '2001 and projected CGAR of 13.42 % through 2006 when the value of the market would be \$24.29 billion.(Frost & Sullivan)

Indian Telecom Scene-Current Contd..

- Factors facilitating growth in India -no different from those prevailing globally:
 - Industry deregulation and liberalization
 - Increased competition
 - Declining tariffs
 - Lowering of entry barriers
 - Variety of pre-paid offerings

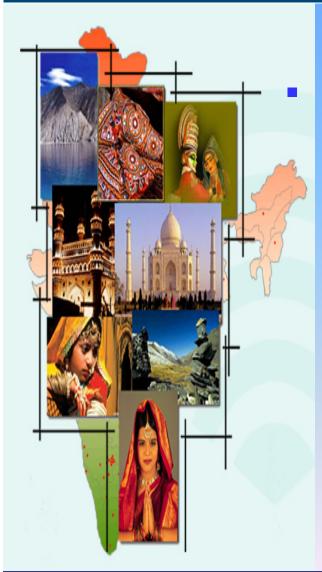
Indian Telecom Scene-Historical Perspective

- Liberalisation Process New Economic Policy '1991
 - Delicensing of telecom equipment manufacturing
 - Privatization of services
- Provision of VAS by private sector in metro areas
 - licenses issued in 1994
- National Telecom Policy (NTP)'94
 - Value added and Basic Services by private sector in all India
 - Licences issued in 1995-1996.
- New Telecom Policy (NTP)'99
 - Migration to Revenue Share
 - Reforms in telecom sector
 - Universal service obligation
- Migration to Unified Access License-2003
- Migration to complete unified licence under process

Indian Telecom Scene-Historical Perspective Contd..

- Private Sector in the Long Distance (National & International)Market
 - sector opened for private sector-2001
- Establishment of Regulator –1997
 - TRAI Act '1997
 - Amendment in the Act in 2000
 - Establishment of Dispute Settlement Tribunal (TDSAT)

Indian Telecom Scene-Great Potential Indicators



Growth potential indicators:

- Total population 1.1 billion-second largest (next to china)
- Growing middle class population(250-300 million)
- Nearly half the population under the age of 25
- Significant economic expansion over the past decade
- Rising business and consumer spending

Reliance – The Leading Group

• Reliance – India's No. 1 Group

Reliance Group	US\$ Billion	Rank (In Indian Private Sector)
Revenue	19.4	1
Net Income	1.2	1
Cash Flow	2.2	1
Total Assets	18.0	1

- Largest & Significant contributor to Indian economy accounting for
 - 4% of India's GDP
 - 5% of India's exports
 - 10% of government's indirect tax revenues
- Pioneered the equity cult in India in late seventies.
- India's largest investor base, ~ 3.5 million.

Reliance Infocomm Mission



"We will leverage our strengths in executing complex global-scale projects to make leading edge information and communication services affordable by all individual consumers and businesses in India. We will offer unparalleled value to create customer delight and enhance business productivity.

We will also generate value for our capabilities beyond Indian borders while enabling millions of India's knowledge workers to deliver their services globally."

Muhrt amhai

Mukesh Ambani Chairman & Managing Director



Reliance Infocomm

Reliance Infocomm-Entry



- In mid-nineties, Reliance entered the growing telecom field.
- In 1995 obtained licenses for providing cellular (GSM based) services in seven states in India and Basic Service License for one state.
- Big entry in telecom sector came in 2001 obtained licenses for providing basic telephone (CDMA based) services in 18 states of India, covering about 95% of the population.
- These licenses are for providing limited mobility services.(WLL-M)
- Being an integrated player, obtained licenses for providing national and international long distance services, internet services also in 2001.
- Also got authorization under 214 Registration in the US and registration as a re-seller in the UK.

Reliance Infocomm

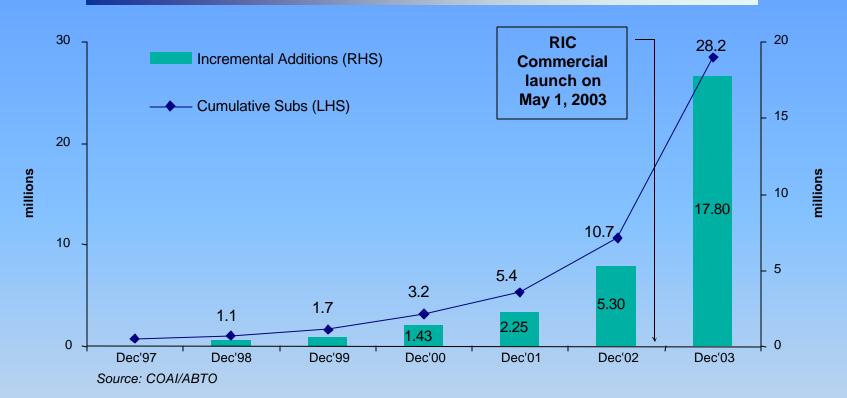
Impact

RELIANCE CONTRIBUTION IN CDMA GROWTH

■Entry of Reliance – a revolution

- •First company in India to select CDMA technology with WLL(M)
- •Commercial services started in May 2003.
- •Unparalleled launch scale seen anywhere in the world Simultaneous launch of service in 110 cities.
- •Getting 125,000 subscribers in 12 hours and about 1.0 million in ten days. Such scales are unheard of.

Mobile Subscriber Growth

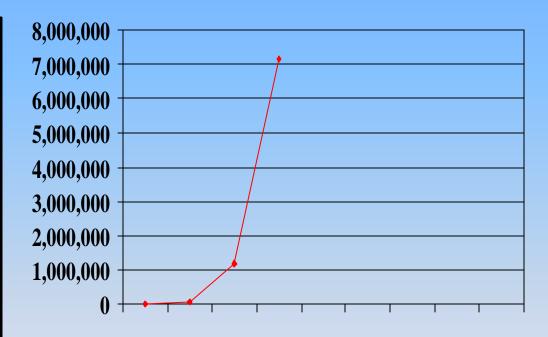


- •Indian mobile growth on a J Curve
- •Reliance's entry stimulates mobile market growth
- •176% growth in 2003

RELIANCE CONTRIBUTION IN CDMA GROWTH

Growth of CDMA Subscribers

Year/Month	Numbers (in millions)	
March '01	.0014	
March '02	.0568	
March' 03	1.17	
March '04	7.16	



March March Warch Warch WA

RELIANCE CONTRIBUTION IN CDMA GROWTH

- No.1 mobile operator within 7 months of launch
- 7 million subscribers nationwide 22% mobile market share
- On-line mobile portal 'R-World' logs 35 mn hits a day
- 300,000 subscribers accessing the internet at speeds upto 144 kbps

RELIANCE PLAN

- Reliance vision : change the way India communicates
- •Reliance has followed a simple plan :
 - **Reach the masses and increase the number**
 - **•**Keep the tariff affordable
 - Provide new applications
 - **Let handset not remain an instrument for voice only but become one instrument for all types of applications including entertainment, wireless internet connectivity etc**
 - **■**The R-World applications to attract larger share of young population

RELIANCE CONTRIBUTION IN CDMA GROWTH

- The impact made by Reliance Infocomm entry result of strategic planning and sustained efforts for 3 / 4 yrs.
 - Created world class infrastructure
 - Made product innovations
 - Innovative Marketing
 - Created network for customer care and customer satisfaction
 - Revolutionary Tariffs

Reliance Infocomm

Infrastructure

Reliance Infocomm-Infrastructure

Phase I:

- Simultaneous launch of services in 110 cities on 1st May 2003
- CDMA 1X network rolled out in 1,100 towns
- 4,500 BTSs planned 3,000 BTSs already installed
- 61 Mobile Switching Centers (MSCs) across the country
- Network Capacity of 20m subscribers



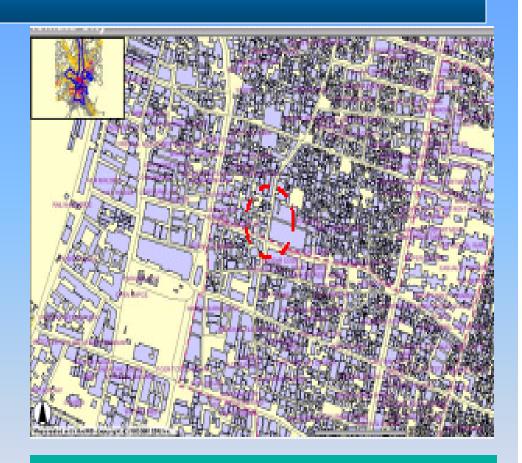
Reliance Infocomm-Infrastructure Contd..



- GIS Based Network Planning
- Highly Resilient Network
 - Ring & Mesh architecture
 - 137 rings across India
 - 3 or more paths in Metros
- 60,000 Route Kms of nationwide OFC backbone with terabit capacity (2,200,000 fibre kms).
- Covering 20 Telecom circles

Reliance Infocomm-Infrastructure Contd..

- Reliance has developed a unique GIS database that maps all potential clients (corporate or residential) in India on a very small grid
- 17 Million individual data records already created
- Applications :
 - National backbone network planning
 - RF network coverage mapping
 - Demographic analysis of customer
 - Map navigation services for CRM to aid call centre agents
 - Distribution channel mapping for better control



A close look at a part of Kolkata – Overview of transportation infrastructure, BTS connectivity and Reliance Rooftop and Ground Base Towers sites.

Product Innovations

Domestic Roaming :

- First CDMA operator in India to provide National Roaming
- Roaming with home tariff plan
- Voicemail retrieval at Local call rates from anywhere in the country by dialing the same access number

• International Roaming :

- First operator in the world to provide comprehensive inter-operable (CDMA-GSM) International Roaming
- Roaming available on 300 GSM networks in 172 countries
- First CDMA Operator to launch RUIM (Removable User Identity Module) cards which can be used also on GSM networks



Mobile screen. 70 mm excitement



Enjoy the rich and fascinating world of films on our colour multimedia mobile phones. Watch trailers of Kal Ho Naa Ho on 'R World'. Get your favourite video dips and download wallpapers on your mobile phone. Go shead. Lead a life in colour, in a world of colour. On your true-to-life colour multimedia mobile phone.

Key ' 😭 ' features:







KAL HO NAA HO



- ■Bundled services Handset, NLD/ ILD, SMS
- Value Added services "R World" (Always-on-Internet), Games, Content



THE MOBILE REVOLUTION

KABHI MOBILE KABHI COMPUTER

EXPERIENCE THE DIFFERENCE, INDIA

ON LG CDMA HANDSETS





All our LG CDMA handsets are Java enabled and offer 24-hour, high speed Internet access. They offer a rich and unique experience of web applications from our own 'R' World.



Video: Watch streaming video clips of sports, movies, news, cartoons & a lot more.



Audio: Hear songs on your handset in Hindi, English & regional languages from our great collection.



Surf: Access a wide range of interesting WAP sites like Yahoo & Rediff and experience the difference



News: The latest business, sports & weather news in 6 major Indian languages from leading content providers like AajTak & CNBC.



Messaging: Use SMS, E-mail & a range of greetings. Download from hundreds of pictures, add your text & send to loved ones.



Panchaang: All you Astrology, Hora, Rahukalam & Numerology enthusiasts, this is for you!



Convenience: Access your Reliance bill whenever you need to.



Finance: Keep a tab on your stocks through a frequently updated ticker.



Games: Access our vast library of games,



Cricket: Get news, scores and information on favourite sport live on your handset.

















Dimensions
Weight
Battery
Lithium ion with 140-160 hours stand-by time and 2.5-2.5 hours talktime time and 1.2-1.5 hours talkt



Product Innovations Contd..

- Data Cable : Handset as a wireless modem
 - Internet access through PC / Laptop
 - First company to introduce wireless Point of Sale terminals for credit card transactions





- PDAs : Applications on your handset
 - Corporate intranet access
 - Internet access
 - Real time information updates
 - Calendar and Scheduler
- CDMA 1x PCMCIA Card : Laptop connectivity
 - Complete mobility without cables
 - Internet access









Product Innovations Contd..

R - WORLD

- Over 200 Content partners and over 10,000 content items
- Over 9,200 registered application developers
- 70 applications & 35 games live on 'R World' to scale to 150 applications shortly

News



RBill

Reliance elect one to

®LG

Astrology



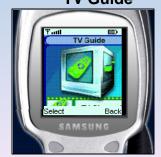
Games



EMail



TV Guide



Achievements

- Over 35 million hits a day, which includes:
 - 11 mn cricket hits (during Indian cricket season)
 - 100,000 Greeting card hits (during festival months)
 - 100,000 MMS sent
 - 1.5 mn ringtone downloads
 - 600,000 downloads of games
 - 800,000 Video downloads
- Comprehensive City Guide covering 30 Indian cities
- Interactive TV Program guide covering over 75 TV channels



The power of next-generation technology

- Multimedia Italia sen indiatitabila Phana sets as a high spand anodam
- Faster Stan dial-upp
- Make an executive calls more while an the net
- Compatible with most imprope & Docktops

Call 3033 3333



Innovative Marketing, Sales & Distribution

Multi-channel pan-India distribution and customer-care network

- 250 WebWorlds (Retail broadband centres)
- Over 7,000 Point of Sales Outlets
- Nearly 1,000 Direct Sales Agents
- Over 3,000 Independent Sales Agents
- Nearly 4,000 Customer Care executives







Faceto-

face

Voice

Internet/ web (Fixed/ wireless)

Points of sale



Contact centre



Self-care



World Class Customer Service Infrastructure Contd...

Customer Convenience Centre

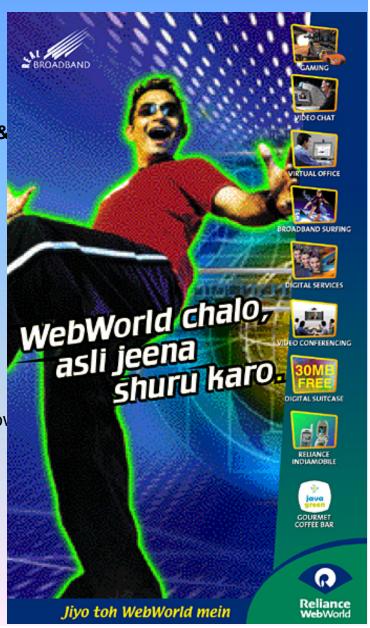
- Sales and customer service for Reliance Infocomm subscribers
- Merchandising of RIC & other synergistic Products & Services

Broadband Centre

- Internet Browsing / Net Telephony
- Multimedia Digital Conferencing
- eLearning
- Digital Delivery of Material
 - Digital suitcase for Data Files
 - Digital Entertainment (movies & interactive TV shown
- On Line Gaming
- Virtual office and Digital Imaging services

Food & Beverages Centre

"Java green" – A Gourmet Coffee Bar



World Class Customer Service Infrastructure Contd...

- Multichannel contact center with capacity for 3,250 seats in Mumbai.
 To be expanded to 6,000 seats (across cities) by March '05
- Capacity to attend calls in less than 20 seconds, handling 10 languages
- 400,000 calls handled per day
- Focus on quality
- Proximity to customer service outlets at all Webstores and WebExpresses
- Innovative self care initiatives, boosting customer convenience and increasing operational efficiency



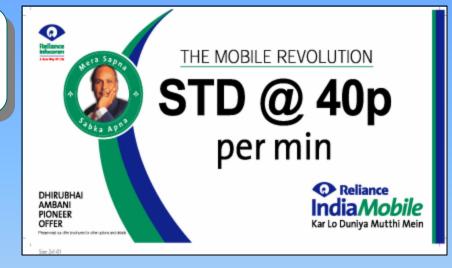
"What safety is to a manufacturing business, customer service is to our telecom business" ... Mukesh Ambani

Revolutionary Tariffs

Reliance has broken the tariff barrier and made telecom services affordable for the masses

■POST PAID

- Local and STD tariffs @ 40 paisa (approx 1.0 cents)
- Bundling of handsets with tariffs
- Monsoon hungama @ Entry price of Rs. 501 only (\$11.13)





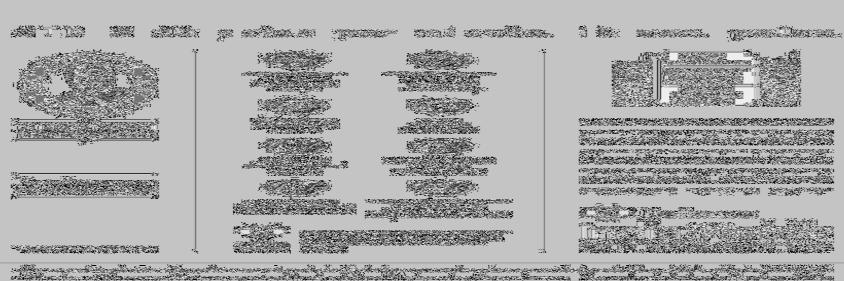


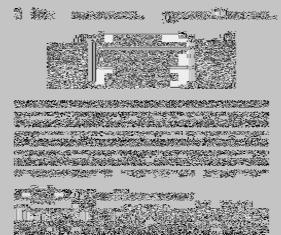
THE MOBILE REVOLUTION

CALL NATIONAL PAY

INDIA.







Revolutionary Tariffs Contd..

Revolutionary Pre-Paid Offer

- Launched on February 9, 2004
- Very low entry cost
- Consumers get Free Recharge Vouchers worth almost the cost of handset

Handset	Offer Price	Free RCVs Worth	Effective Price
Motorola C 131	US\$ 78	US\$ 72	US\$ 6
LG 2030	US\$ 144	US\$ 144	Nil
Nokia 2280	US\$ 144	US\$ 144	Nil
GTRAN GCP 4020	US\$ 267	US\$ 144	US\$ 123

 Truly National Prepaid offering national roaming with home tariff plan and national recharging



with a latest mobile handset

Get Repaid Rs. 3240

with Free Recharge Vouchers, instantly



RELIANCE



Car La Durdes Mudth Make

And stay connected up to I year without recharging.

Channe the heat vary to go mobile

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		March Court	
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Mujhme hai woh baat!

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Reliance Infocomm

Future Plans

Reliance Infocomm-Future Plans

 Reliance Infocomm has aggressive future plans both in terms of technological developments and subscriber growth.

TECHNOLOGY RELATED

- Evaluation is on for :
 - DO Trial
 - Trials on BREW Chat
 - PTT services
- Introduction of CDMA-CDMA roaming
- Media FLO trials on DO
- Location based services

Reliance Infocomm-Future Plans Contd..

SUBSCRIBER RELATED

- Sustain and enhance coverage leadership
- 3800 additional towns to be covered reaching
 5000 towns by the year end
- Capacity to handle 40 million subscribers by the year end
- Focused acquisition of high ARPU customers

NETWORK RELATED

- In Phase II (up to March '05):
- Additional 3,800 towns for extended coverage

Reliance Infocomm-Future Plans Contd..

- Enterprise Broadband:
 - Covering 200 cities initially
 - Bundling of Voice & Data
- Consumer Broadband : Digital Homes
 - Ethernet to every home
 - Set top box offering interactive TV services, VOD,
 Broadband Internet Access, Video Conferencing, Gaming etc

CDMA-WLL(M)



Limited Mobility



- **Permitted by the Government in '2001.**
- •Had a rocky history.
- Opposition from GSM operators.
- Long drawn court battle objections.
 - **■**Mobility in a given area (SDCA)
 - **Use only v5.2 interface instead of IOS.**
- **CDMA** won in the end and now a Unified Access License.

Spectrum Issues

NEED FOR ADEQUATE SPECTRUM

- Reliance Infocomm has aggressive plans for future growth both for voice and data services including EVDO
- Most of the services and the applications are based on wireless
- In wireless systems spectrum and capital are substitutes to some degree
- Additional spectrum would mean less Capex to the operators to get same capacity and quality of service.
- Hence need for adequate spectrum for CDMA operators to :
 - •Plan their networks efficiently
 - •Provide better coverage in remote and inaccessible areas
 - •Make it more cost effective and hence affordable
 - •Provide quality service compared with International standards

PRESENT SPECTRUM STATUS

Parameter	GSM	CDMA
Spectrum Band	900 MHz and 1800Mhz (890-915 p/w 935-960 MHz)	800 MHz (824–844 p/w 869 –889 MHz)
Earmarked Spectrum	25 + 25 MHz (+ allocation from 1800MHz band)	20 + 20 MHz
Total Spectrum for each operator	12.5 + 12.5 MHz	5 + 5 MHz
Initial Allocation	4.4 + 4.4 MHz	2.5 + 2.5 MHz linked to establishment of POP.
Additional Allocation	Initially need based. Now link to subscriber base. •Beyond 0. 5 million- 6.2 MHz. •Beyond 1.0 million 8 MHz •Beyond 1.5 million - 10 MHz.	 Linked to roll out obligations Coverage of 15 % area additional 1.25 MHz. Coverage of 40% additional 1.25 MHz. (Only in the metro city of Delhi the additional allocation linked to number of subs.)

PRESENT SPECTRUM STATUS Contd..

Parameter	GSM	CDMA
International practices	900 and 1800 MHz band	800 and 1900 MHz band
Future Earmarking of Spectrum in India	1710-1785 p/w 1805-1880 (DCS 1800)	Nil The frequency allocation plan refers to the DCS 1800 band for CDMA as well. However this band not suitable for CDMA due to non-availability of compatible handsets and infrastructure.No roaming would be possible. Hence, the entire DCS1800MHz band practically for GSM.
3G Spectrum	The National Frequency Allocation Plan provides for 3G frequency band as 1885 –2025 MHz p/w 2110-2200 MHz to be co-ordinated with existing users initially for 1920-1980 MHz p/w 2110-2170 MHz.	
Our Requirement	Adequate spectrum in line with International standards – min of 15 +15 MHz in the appropriate band of USPCS –1850-1910 MHz p/w 1930-1990 MHz i.e. allocation for CDMA in 800 MHz and 1900 MHz band.	

Future Challenges

- Tremendous growth in telecom sector in terms of :
 - New technologies
 - New applications
 - Growth of subscribers
 - Increase in teledensity
 - Increase in competition
- But also fall in tariffs and hence fall in ARPU
 - •ARPU falling from \$12 per sub per month in March'2003 to \$11,2 in March'2004 (Gartner report)
- Competition has come to stay and will be guiding factor in growth of telecom sector in India, new ways have to be found for increasing revenue and sustainability of wireless service operations.

Future Challenges

- New value additions, data services, entertainment services will need to be considered and provided to increase revenue and profitability.
- Whatever may be the technology, there are four challenges for the operators:
 - Attracting and maintaining subscriber base
 - Increasing operating margins
 - Achieving economies of scale
 - Efficient network management
- Operators who are able to muster these, will be able to grow and survive in the long run.
- We at Reliance, are determined to achieve this.

THANK YOU

"Reliance Infocomm will connect millions of Indians with each other. It will connect India's villages with towns and cities.
And the whole country, with the rest of the world...ushering in a new way of life."

Mukesh Ambani

Chairman & Managing Director

Muhre amhai

BANANC

President

Reliance Infocomm Ltd.

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