

3G in India

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An "industry inside" view from a radical

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DISCLAIMER

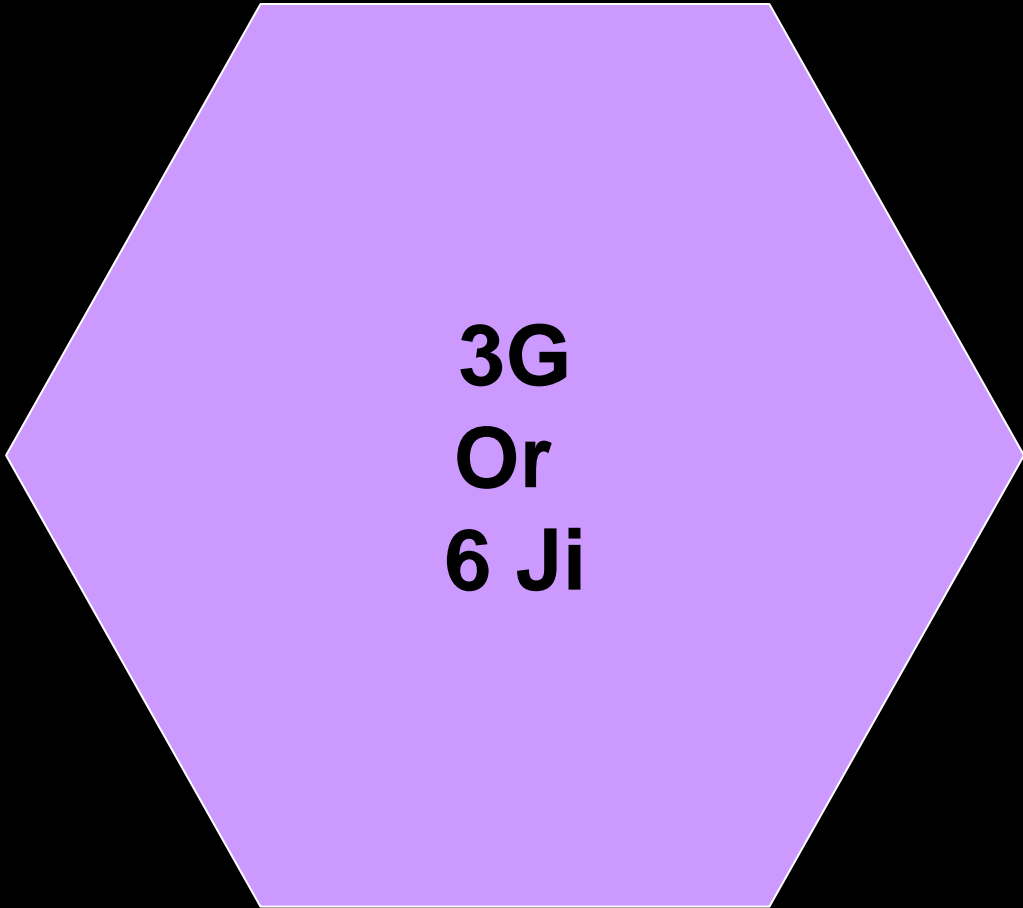
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No problem can be solved from the same consciousness that created it
We must learn to see the world anew ... *Albert Einstein*

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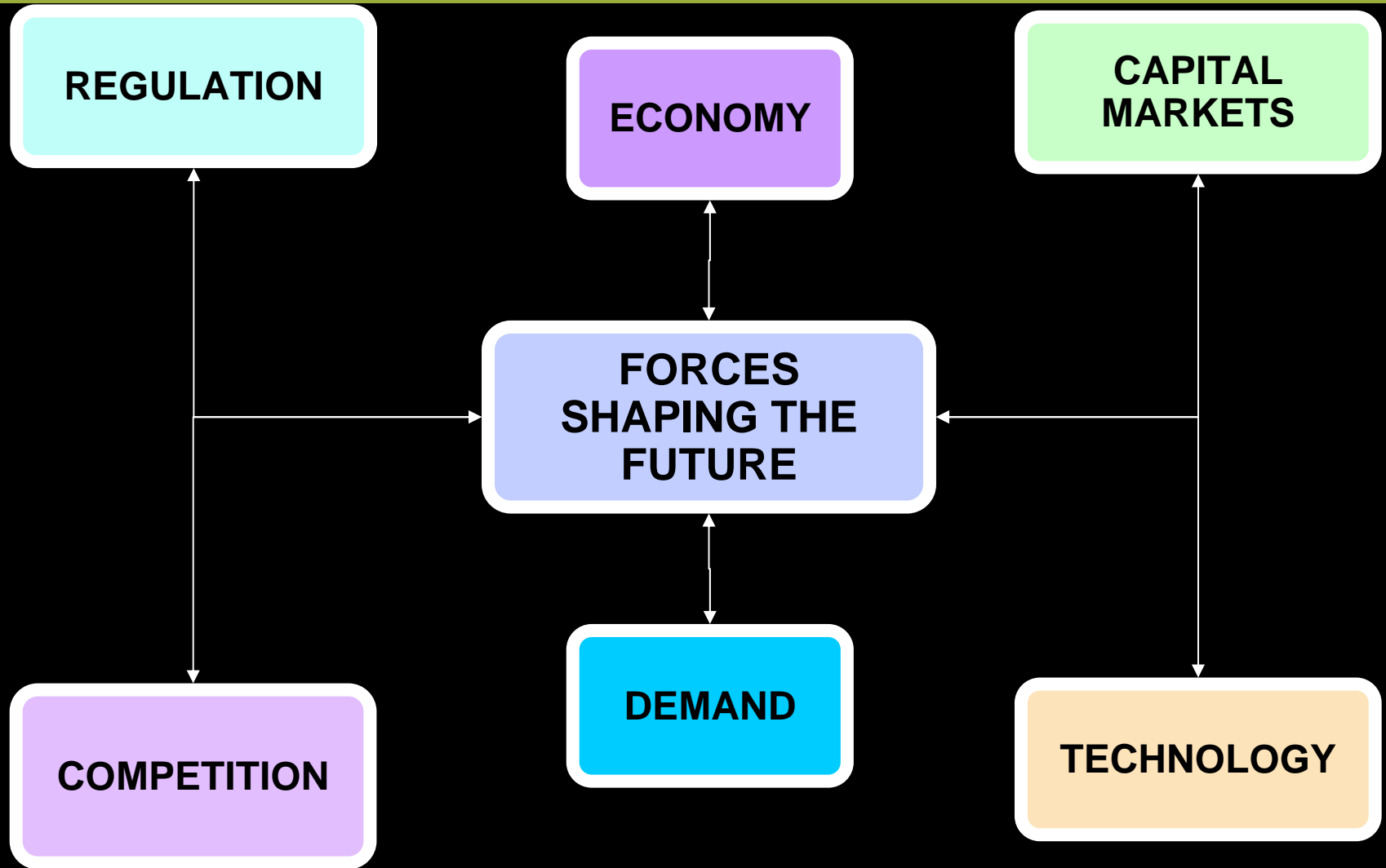
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State of affairs



**3G
Or
6 Ji**

Forces that shape an industry



Kick-start 3G services in the country

- Spectrum allotted to
 - Bharti Airtel, Aircel Cellular, Idea Cellular, BSNL, MTNL, Reliance Telecom, Hutchison Essar & Tata Teleservice
- 3G trials across 17 cities
 - Mumbai, Bangalore, Gurgaon, Chennai, Coimbatore, Bhubaneswar, Shillong, Jammu, Shimla, Patna, Guwahati, Siliguri, Pune, Hyderabad, Howrah, Chandigarh and Kolkata.
 - Frequency in the 2.1 GHz band → W-CDMA-based 3G (GSM bandwagon)
 - Frequency in the 1.9 GHz band → CDMA players
- Time 2007 or 2008?
- Defense claiming its pound of flesh to vacate spectrum
 - Who will pay?

A number of ~~subscribers~~... customers Excuse me what are they subscribing!

- Tele-density* to be over 40% by 2010
 - ARPU vs. User addition
- Growth over 25% CAGR
 - > 480 million by 2010!
- Telecom Services revenue in excess of \$30 billion by 2010
 - Telecom revenue as a % of GDP
 - Is the Jipp curve relevant?

- **What is Tele-density?**
- **Does it include fixed and cellular?**
- **Must it be by Household (Fixed) vs. POPS (Cellular)**
- **Communication – Information – Transaction – Entertainment**

Mera Bharat ke Mahanjan

- Around 50 million Rural telephones in India by 2010
- Too little to late
 - ~ 300 plus district head quarters
 - ~ 6,000 tehsils
 - ~ 600,000 villages
- Phone ... Electricity ... Water ... Sanitation ... Lively hood

- Does increase in Tele-density drive GDP growth or the other way?
- Need to break out of the chicken and egg syndrome!

Licensing and regulation

- The Tiger Regulates *Assertively or Insipidly* on 3G?
 - License fee or open entry
 - Auctions vs. Beauty parades
 - Will - The Legal Loop ... *happen again*

Spectral Wars ... Wars

- Where do we stand ?
 - 450MHz, 800MHz and 2100MHz bands identified for 3G Services
 - 1900MHz band available for CDMA2000 operators
 - 1900MHz spectrum 'non-availability due to 'technical issues'
 - Possible interference with GSM?
- DoT sneaks scarce spectrum BSNL
 - Lack of a level playing ground
 - 5 + 5 MHz spectrum (2-GHz)
 - For Pune, Chandigarh, Kolkata and Coimbatore.
 - Private operator applications pending
 - BSNL allocation expected to favor GSM lobby

The battle of standards

Oligopoly vs. Hyper competition

- WCDMA vs. cdma2000 EV-DO
 - Reliance and Hutch
 - Inter-operability and Roaming
 - Consumer appliance (multi-mode)
- Qualcomm pushing its agenda
 - Royalty cut is lower in China when compared to India
 - TS-SCDMA
- Reliance on GSM!!
 - Is it end of the road for cdma2000
 - Will Hutch be acquired?
 - The Tata endgame?
 - Will cdma2000 be relegated to “low cost - mass market”

The dark horse

- Wi-MAX
- cdma2000 EV-DO

What do people pay for to run telecom services?

Spectrum
Right of way
Equal Access to Interconnect
Universal Service Obligation



License fee

Cost per bit



Revenue per bit

1 Content ... A ji vo ji kuch to suno^(dikao) Ji

- Content
 - What and relevance
 - Who gets the money

Pricing Paradigms

Voice

Cost of (Origination + Transmission + Termination) X Margin

Data

Cost of (Origination + Transmission (?) + DRM + Novelty) X Margin

2 Carriage ... The true death of distance

- Carriage
 - Will it get down to no charge!!
 - Google sounds a warning

Google CEO Eric Schmidt caused a stir with a public suggestion that mobile phones “should be free,” supported by ad revenue

Should printed magazines be free a la “Free ads”

Should TV (the box) be free and Content (Soaps, not the hygiene type) and Adverts pay for everything!! ... The consumer actually pays!!!!

Sound-byte

Sponsored appliances

Permission marketing → Kleenex in the Loo!

All Marketers are Liars ... Seth Godin

3 Consumer appliance ... Lifeline to Lifestyle

- Consumer appliance
 - What will it be “kabi phone ... kabi game-box ... kabi TV ... kabi camera ...”
 - Cost to someone (operator) Price to the other (consumer)
- Six months ago we had no phone below \$40
- Now we have sub \$30 phone
- IP wars and royalty ... Plurality rules!
- Fortune at the bottom of a \$ 5 ARPU market

Will 3G devices come to this or be elitist (urban)

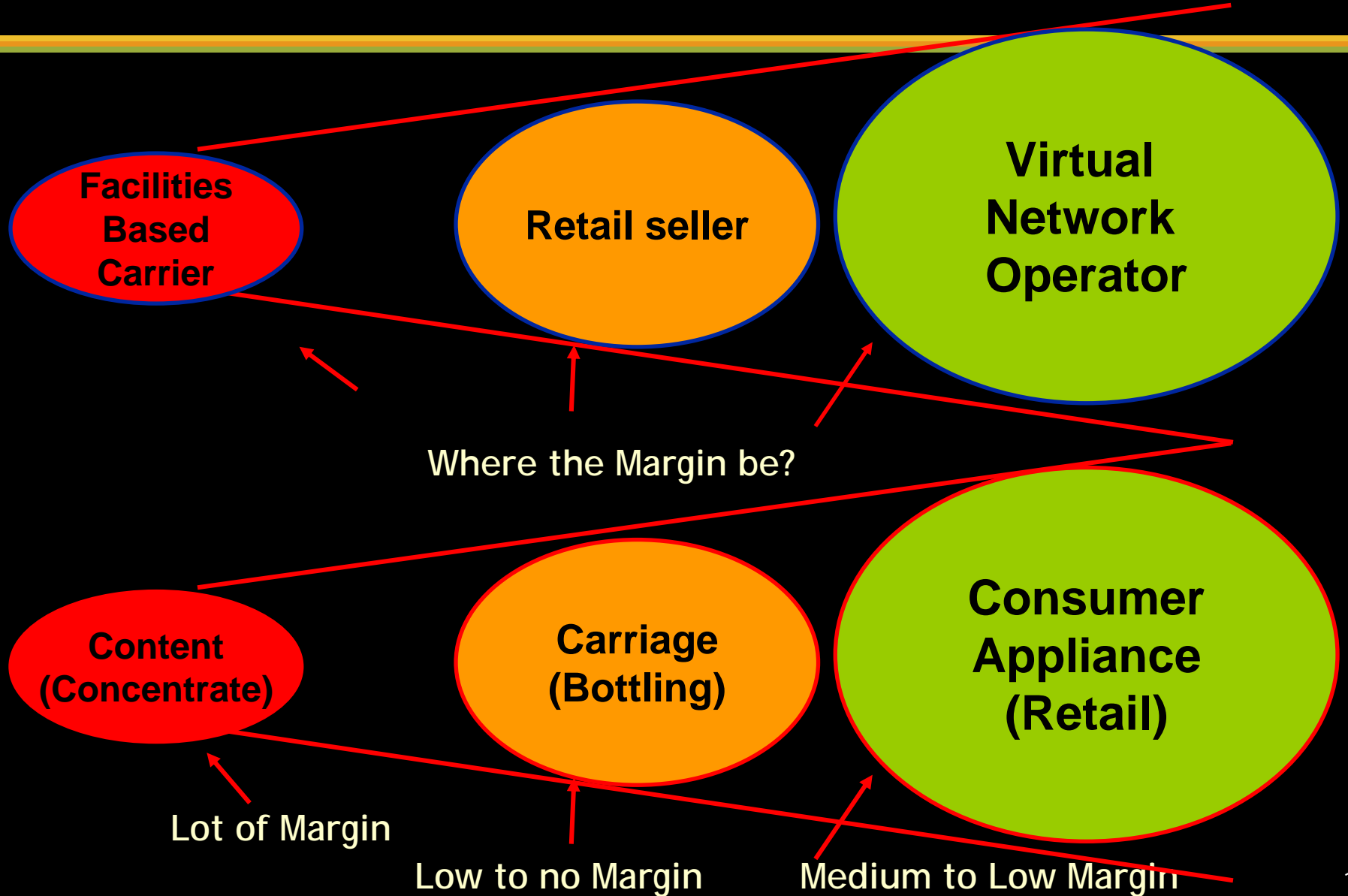
The Pre Convergence era - Functional silo's

Function	Information				
	Voice	Text	Image	Data	Video
Create and Aggregate <i>Content</i>	Telecommunication	Publishing	Photography	Computing	Broadcasting
Display <i>Customer Appliance</i>					
Store <i>Memory</i>					
Process <i>Hardware/OS/Applications</i>					
Distribute <i>Transport</i>					

Convergence - A way to view the same!

Function	Information				
	Voice	Text	Image	Data	Video
Create and Aggregate <i>Content</i>	Integrated Content				
Display <i>Customer Appliance</i>	Integrated Devices				
Store <i>Memory</i>	Integrated Storage				
Process <i>Hardware/OS/Applications</i>	Integrated Architecture				
Distribute <i>Transport</i>	Integrated Transport				

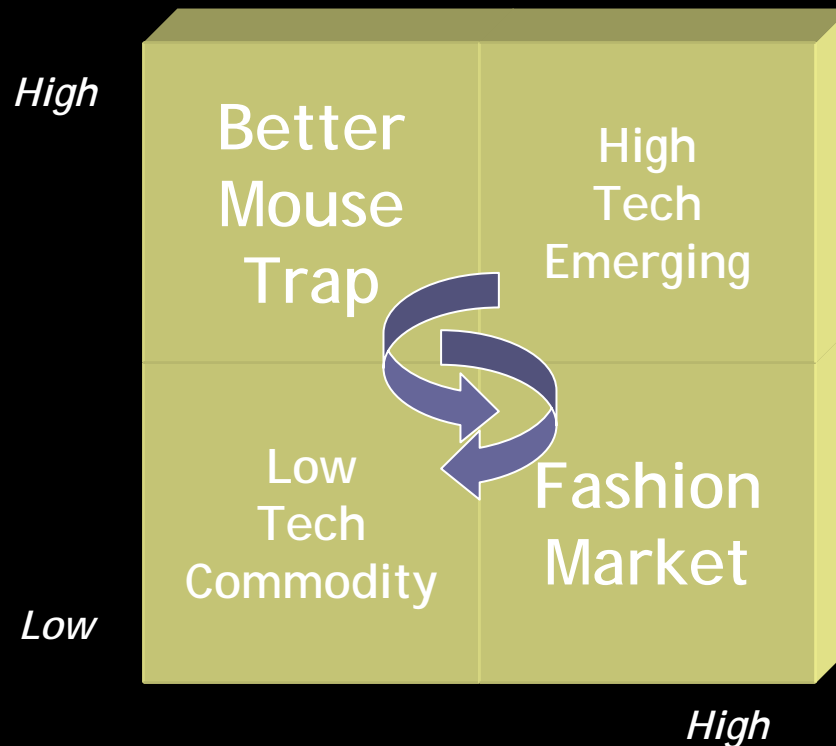
Where is the value?



Customer proposition that 3G delivers?

Rate of change of consumer needs

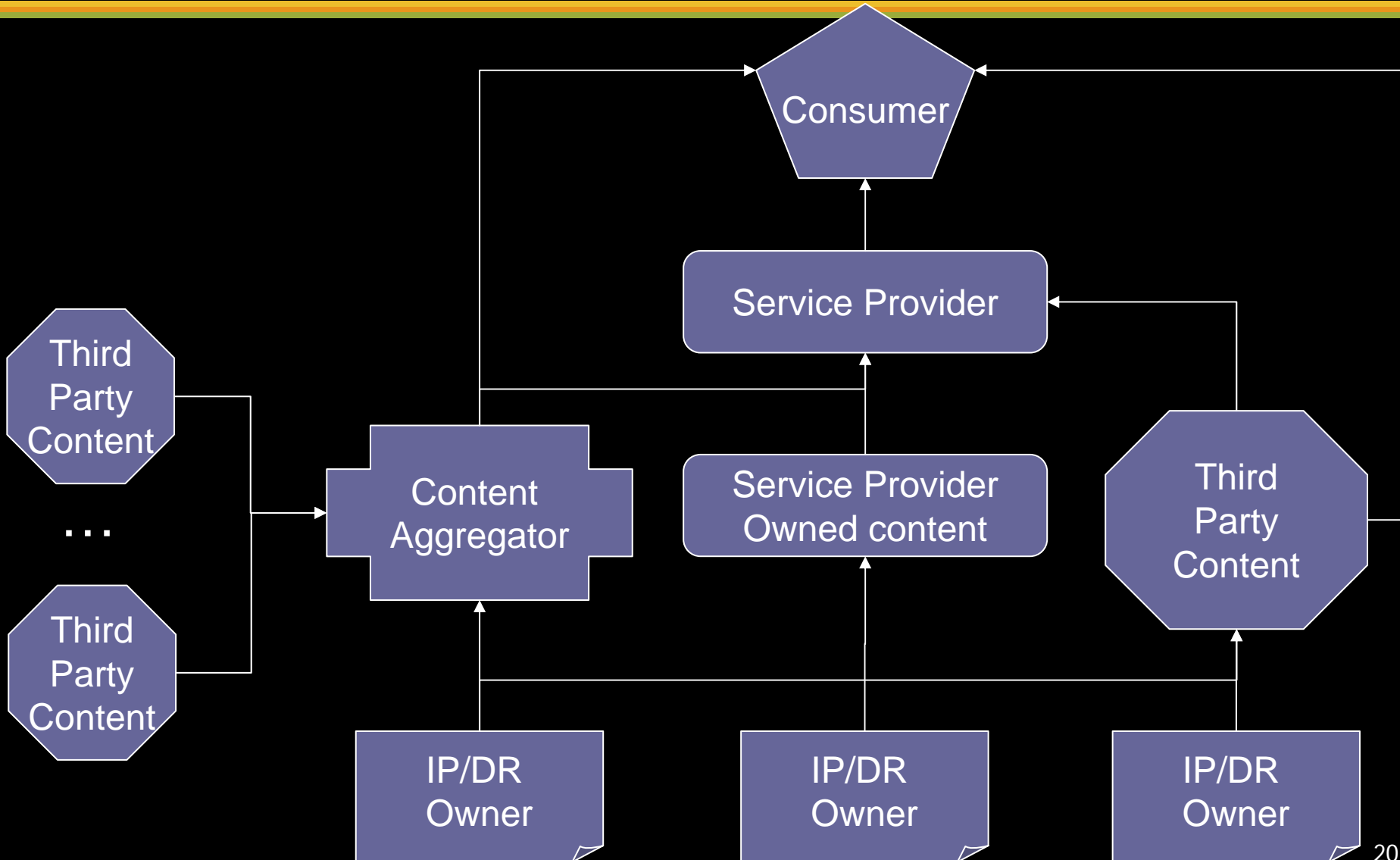
Rate of change of Technology




The Business Case

- Capex
 - Three to five year simple pay back of CAPEX from EBIDTA
- Revenue
 - Crashing ARPU?
 - Where will it bottom out? \$ 5??
 - How telecom must tap into "C+ITE" revenue
 - Is AMPU the king of measures?
- Margins
 - Voice
 - SMS
 - Other Apps

Show me the money



Consumer Needs - A Taxonomy

Forms/ Functions (Need) 	Voice	Text	Image	Multimedia
Communication	Simple or Three Party Calling	SMS Peer to Peer	MMS	Video Streaming/ Download Mobile TV
Information	Voice Portal Services RT/RBT!!	SMS Peer to Application	ATM Location LBS Cartoon Clips on Mobile	Video Guides Movies Infomercials
Entertainment				
Transaction	Sound bytes Dialogs Speeches	Buy and sell Lyrics, Jokes, Quotes	Buy and sell D - Pictures	Buy and sell Video clips

Taxonomy is easy ... Knowing the mind of the consumer is the hard part...
One size fits all is over ... Bespoke will rule ... so will community based apps

The quest for the killer app ... 1

- The killer AP
 - Value add or Value denude
 - Will there be a non voice killer App
 - Communication vs. Comm. + Info + Entertainment + Transaction
- Why will people part with money
 - Information
 - Convenience
 - Amusement/Entertainment
 - Safety & Well being
 - Status

The quest for the killer app ... 2

- Urban 3G vs. Mass (rural 3G)
 - Will there be fortune at the bottom of the pyramid
 - ARPU as % of disposable income
 - Sachet/Pouch model for telecom
 - The luxury good experience ... contrarian behavior

Will the rural market be any different ... most likely not?!

SWAG numbers

- When
- Where
- How many
- A Questions of honest answers???!!!!
 - Spread-cheating vs Spread-sheeting

Thank you