



सत्यमेव जयते

Telecom Regulatory
Authority of India

(An ISO 9001-2000 Certified Organisation)

NGN Deployment Commercial Challenges & Issues

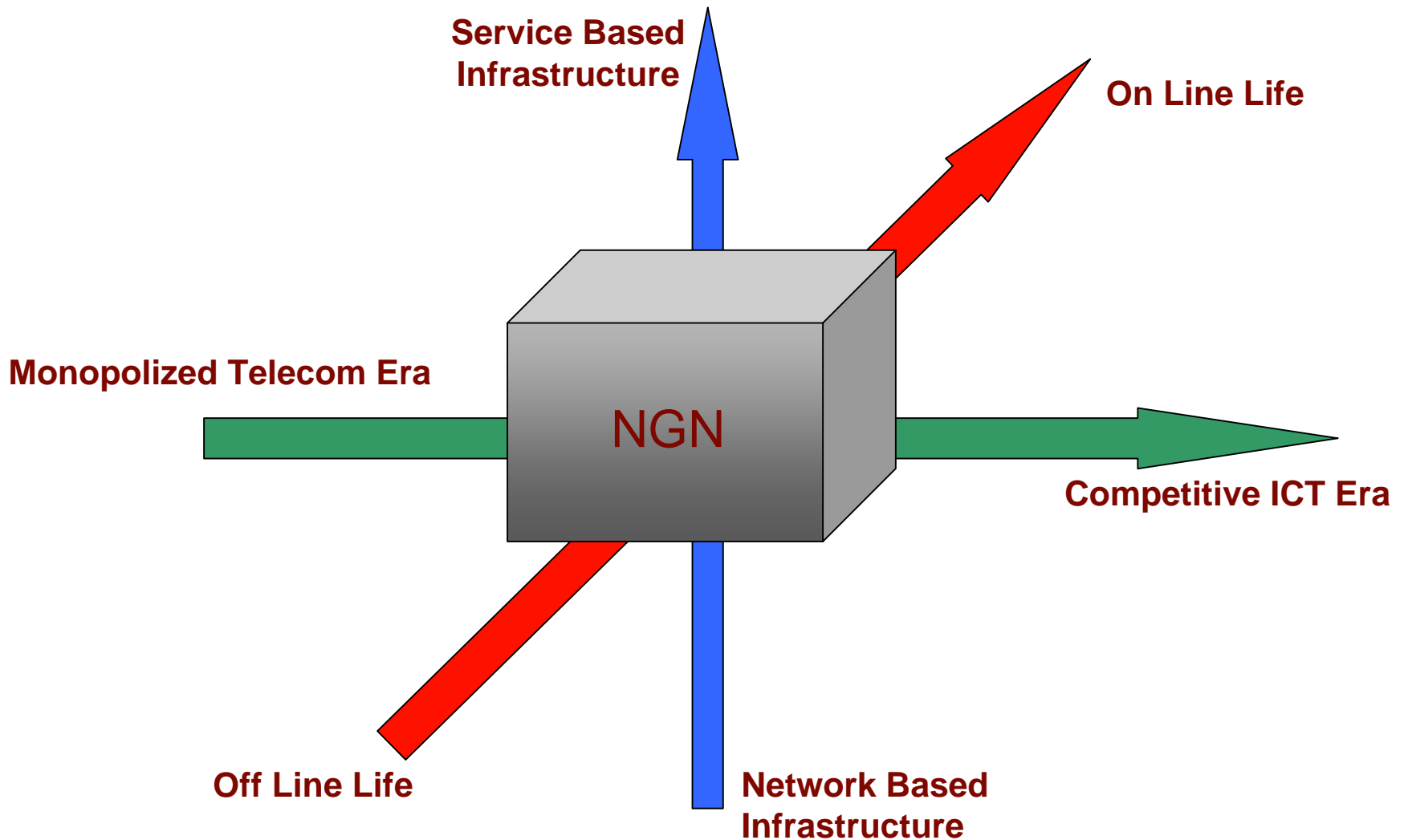
T V Sriram

Dec 04, 2007

Agenda

- New Paradigm
- Commercial Issues & Challenges
 - Business Models
 - Charging
 - Settlements
- Summary

Emerging Trend



The New Paradigm

Legacy



NGN

Dedicated Resources

Shared Resources

One Service, One Network

Multiservice, Converged

Dumb Devices

Intelligent Devices

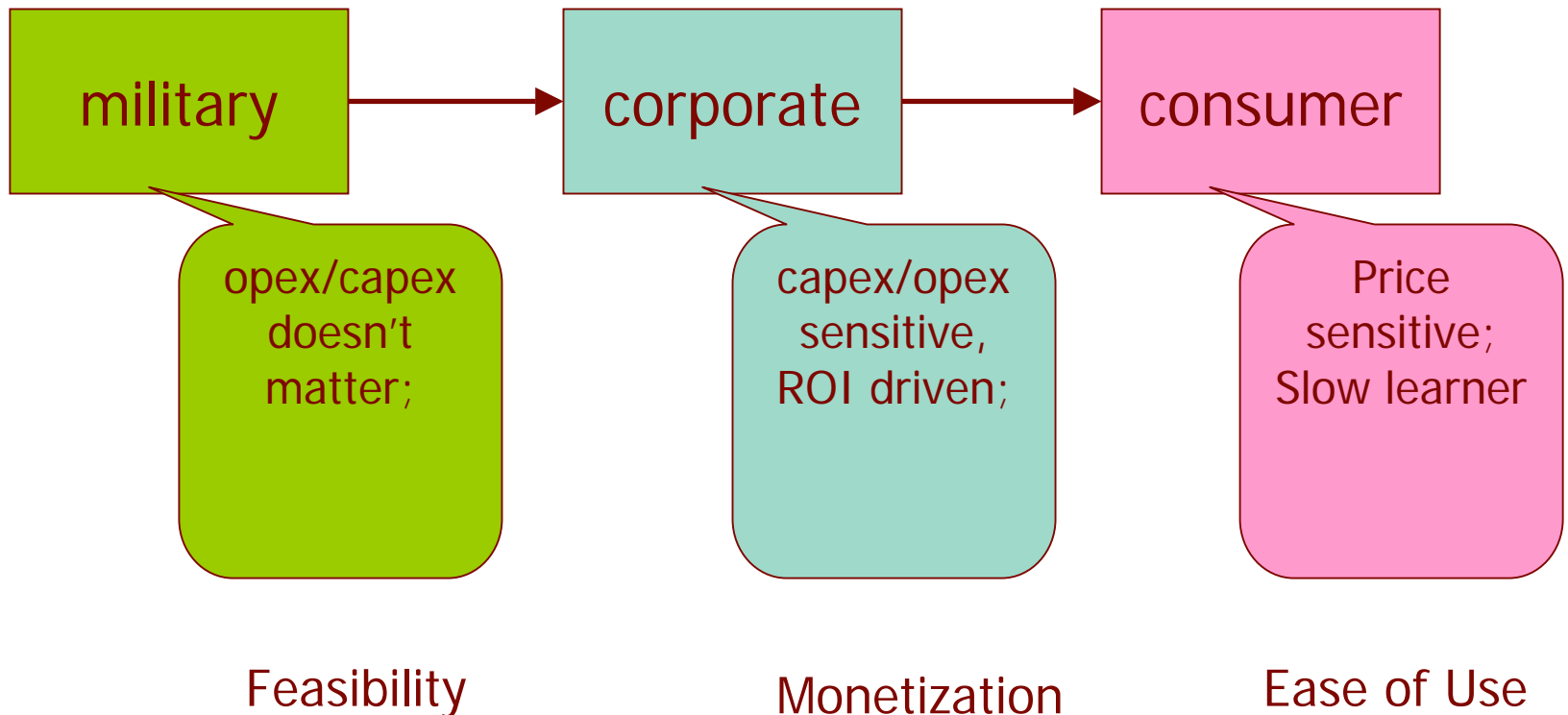
Geography Specific

Death of Distance

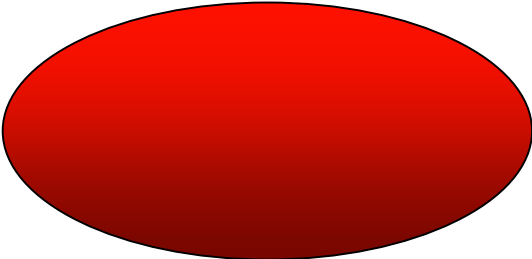
New Paradigms always challenge the existing environment

NGN Services

NGN Services need to be cost effective & easy to use

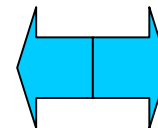
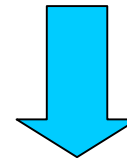


Challenges to be addressed

- Technology
- Regulatory Framework
- 
- Service Delivery
- Value Chain /Ecosystem

Business Drivers

- Top Line
 - New Applications / Services
- Bottom Line
 - Capex / Opex
- Investment Protection
 - Obsolescence, Maturity
- Profitability
 - Customer Life time value



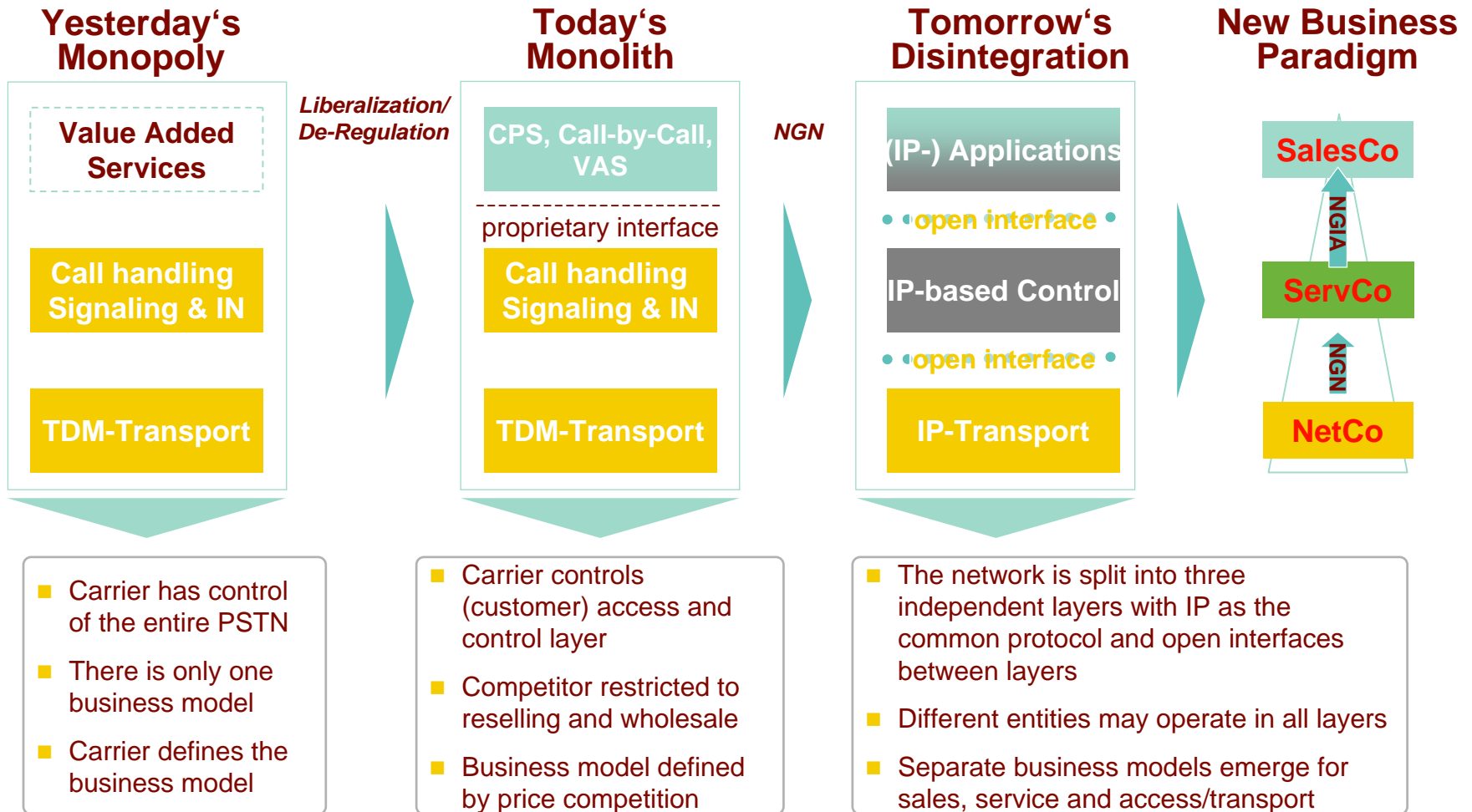
Promises that are yet to be validated

Commercial Issues and Challenges

- Business Model
- Charging
 - Service charging
 - Application charging
- Settlements
 - Inter –operator
 - ASP

Telecom Market Dynamics

Technology driven value chain construct → Segmentation of the telecom business model.



NGN Drivers

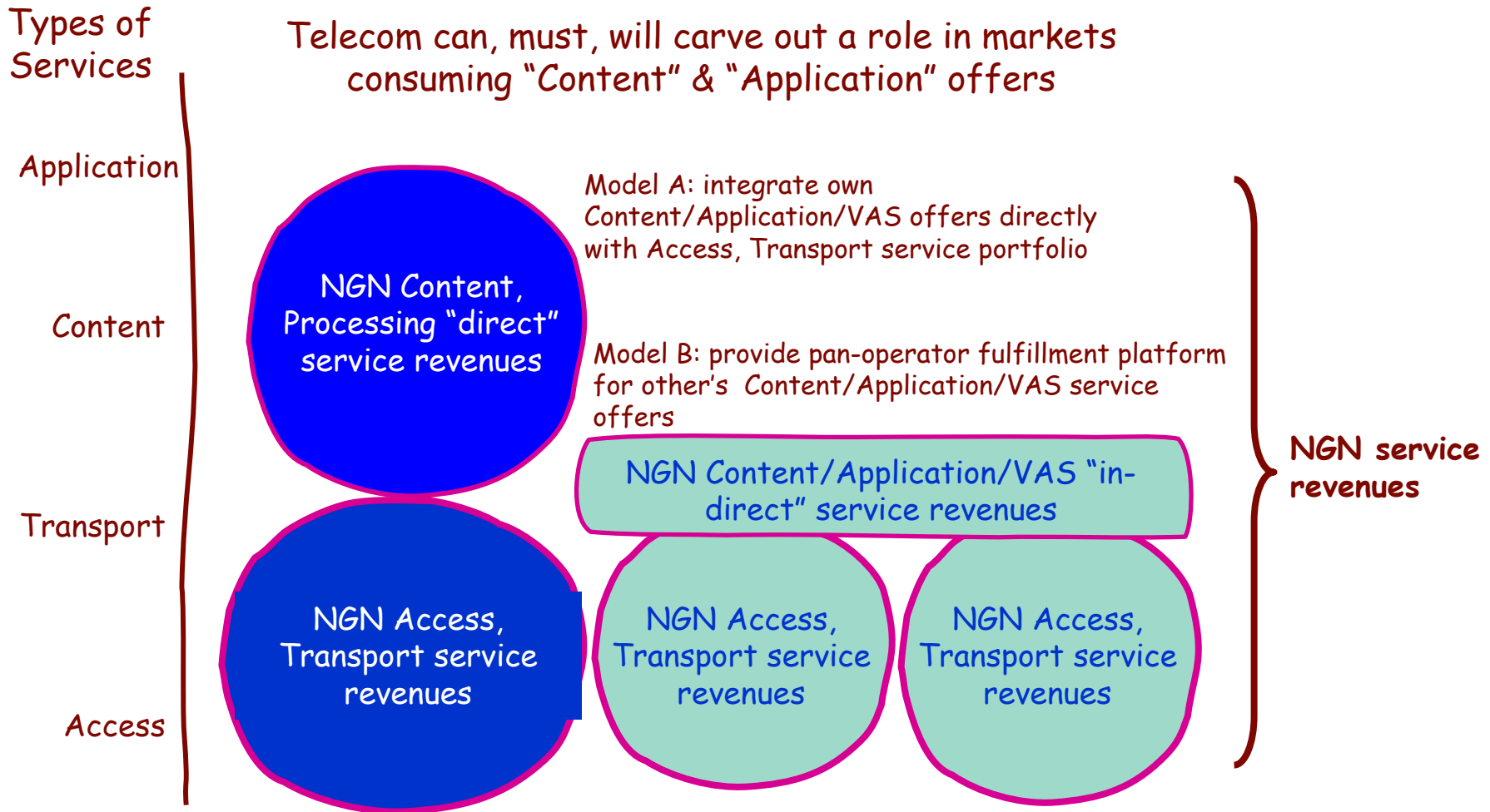
Service Provider	NGN Drivers
<ul style="list-style-type: none">• Telco Service provider• Mobile Operator• ISP / MSO• New Entrants from the web world<ul style="list-style-type: none">• Google• MSN• Yahoo	<ul style="list-style-type: none">• New Revenue streams• Captive requirements• New opportunities• Over the Top services

Different Drivers → Different Business Models

Business Model

- Legacy telecom operators will make overlay deployments for NGN and will follow the cap & grow model, ensuring maximum investment protection.
- Mobile operators will make green field / brown field deployments. It makes sense for these players to become ILD/ NLD operators for captive traffic, in order to justify the business model for NGN deployment.
- ISPs and MSOs will make green field deployments and may make a business case out of becoming NLD / ILD operators as well as access providers in certain areas.
- New entrants from the web world, who were enjoying a free ride until now, may decide to partner with NGN operators for providing service to their customers on innovative business terms, driven by market forces.

Possible Approaches

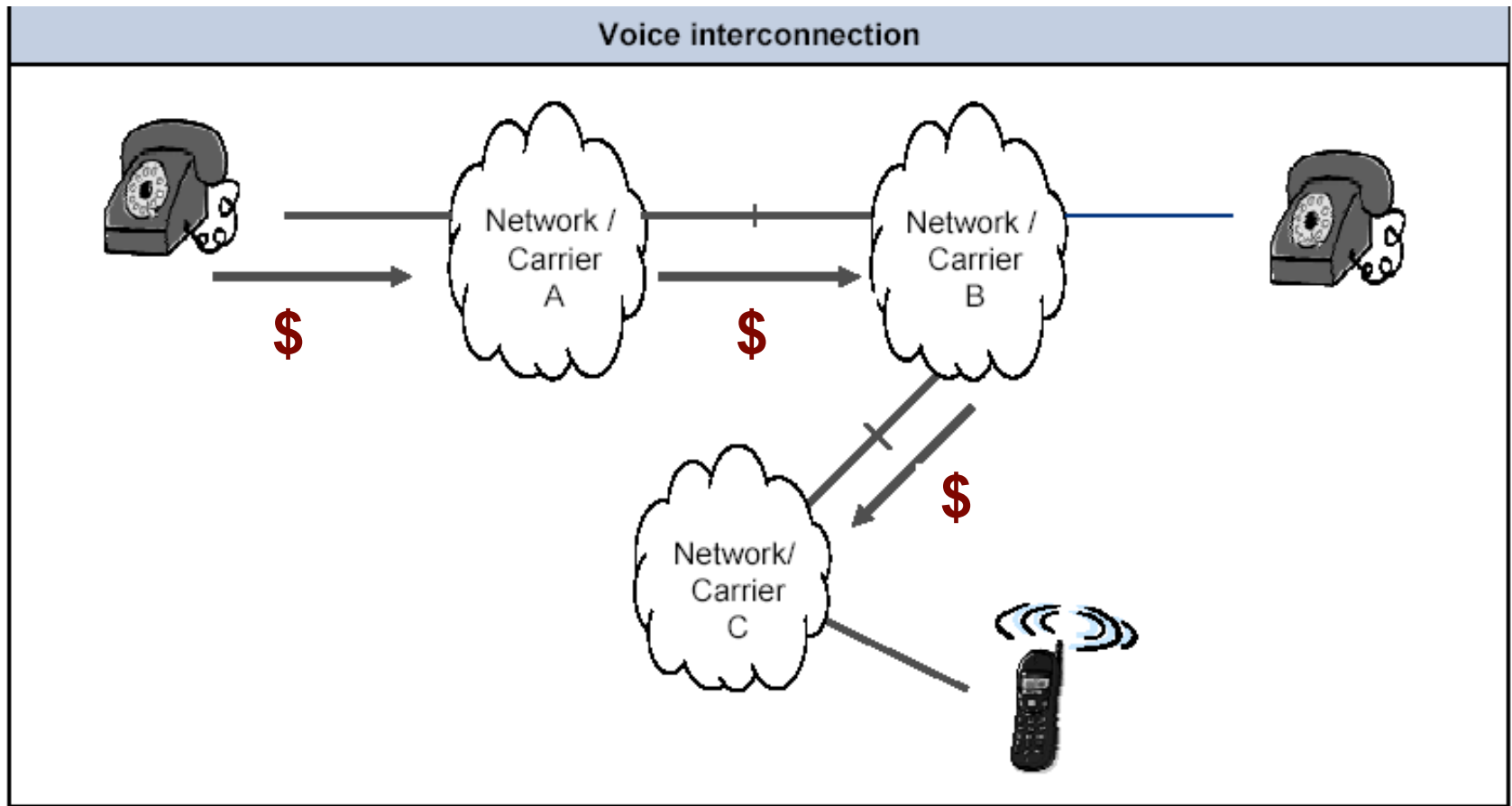


Charging

- Charging Regime
 - Distance, Duration, Location or Session ?
 - Usage Based or Flat Fee – Eat All You Can ?
- Identifying the Chargeable commodity
 - Minutes or Bytes ?
 - Unlimited ?
- ASP charging model
 - Application based ?
 - Whole sale or Access charge ?
 - Revenue share ?
- Charging in Real time with session awareness & cost determination for network usage → Simple Tariff structure for end user clarity

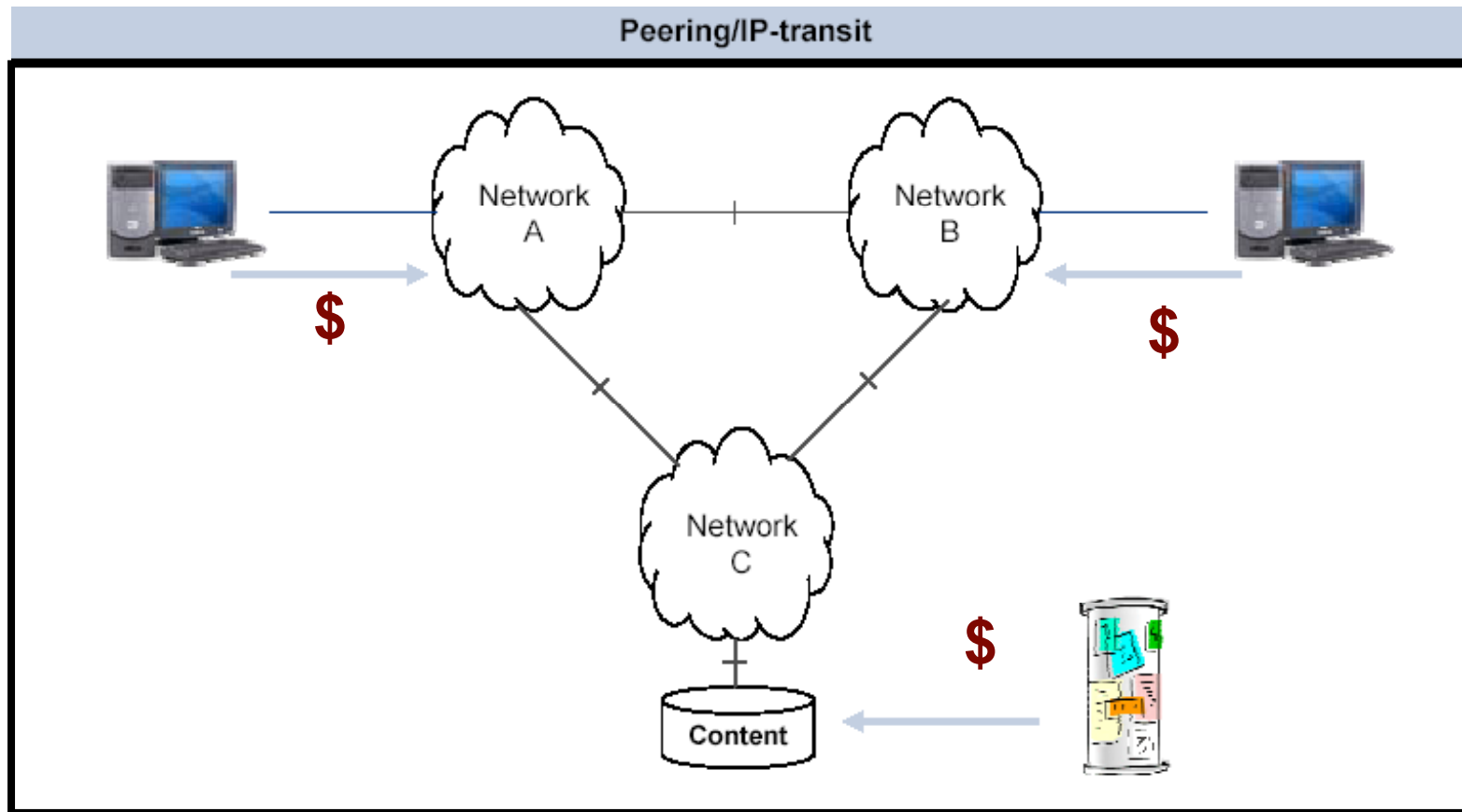
Interconnect Settlement - Voice

Today's Interconnection Revenue Model : Voice



Interconnect Settlement - Internet

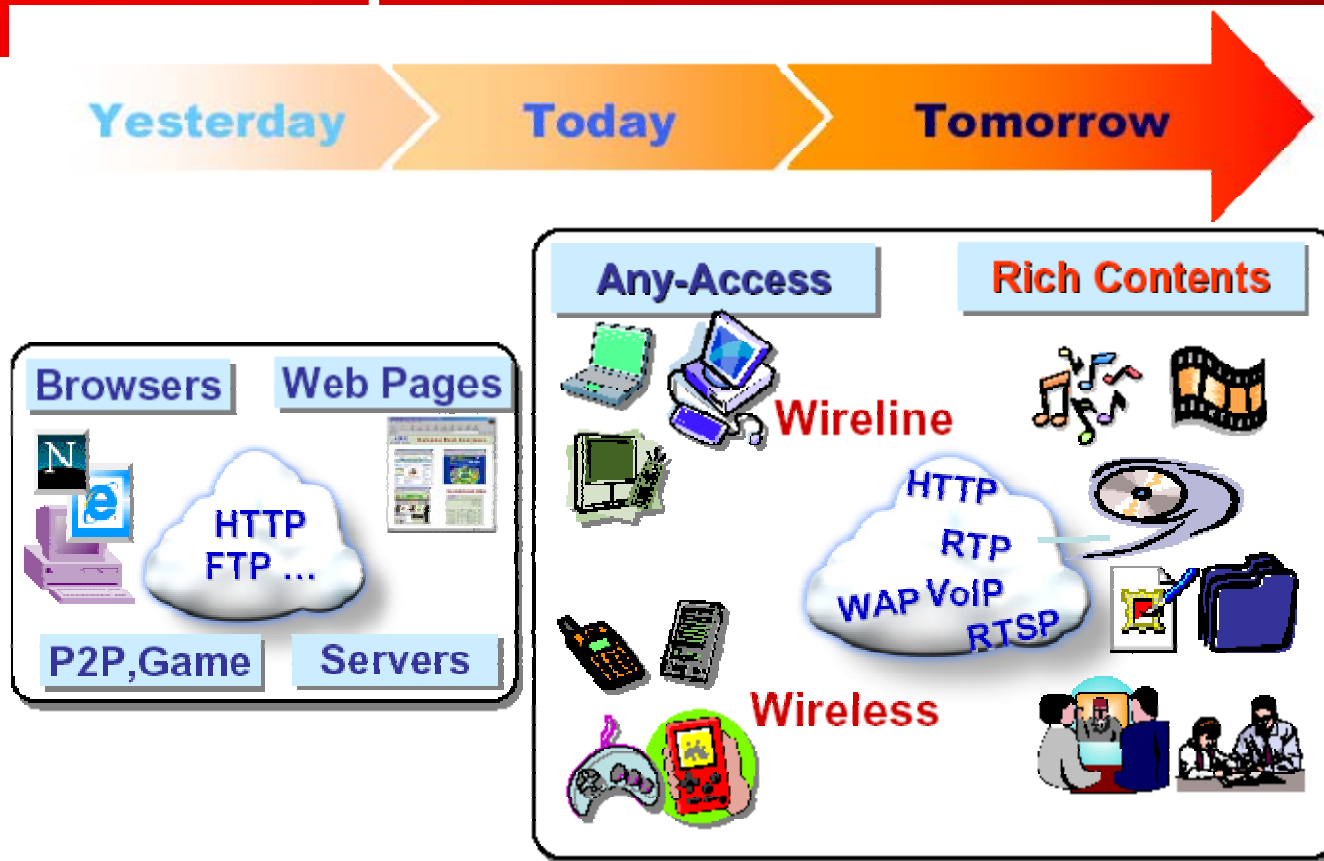
Today's Interconnection Revenue Model : Internet



Interconnect Settlement - NGN

- Interconnection Revenue Model for NGN will not be simple / straight forward as in the case of voice or Internet services
- Partner ecosystem will evolve over a period of time & will always be dynamic considering
 - Multitude of applications
 - Short Life cycle
 - Industry convergence
- Value chain construct will be much more complicated for Nexgen services & applications
- Protecting the interests of all the stakeholders to achieve a WIN-WIN proposition for all.
- Will Clearing House concept be helpful ??

Customer Expectations



- Total Solution and not just voice, data or both
- Differentiated Class of Service and Flexi Tariff
- Personalized, On Demand, Interactive
- Device-agnostic service – Mobile, Laptop, PDA etc

Summary

- NGN is APPLICATION driven & NOT TECHNOLOGY driven
- The success of NGN will depend upon these services and the ways of introducing them
 - Ease of Use → Increase uptake & Service adoption
 - User experience & Value proposition → Propensity to Pay
- It is important to understand NGN from the economic perspective – TCO Vs TVO analysis
 - Which **new services** can be delivered through NGN?
 - How to evolve **existing networks** towards NGN ?
- Service bundling is cost effective, but it is important to consider which services to bundle
- NGN is not a question of if, but when ?

The Airtel logo is centered on a white rectangular background. It features a red vertical bar on the left, followed by the word "Airtel" in a bold, sans-serif font. The "Air" is in black, the "t" is white, and the "el" is white and set against a red square background.

Airtel