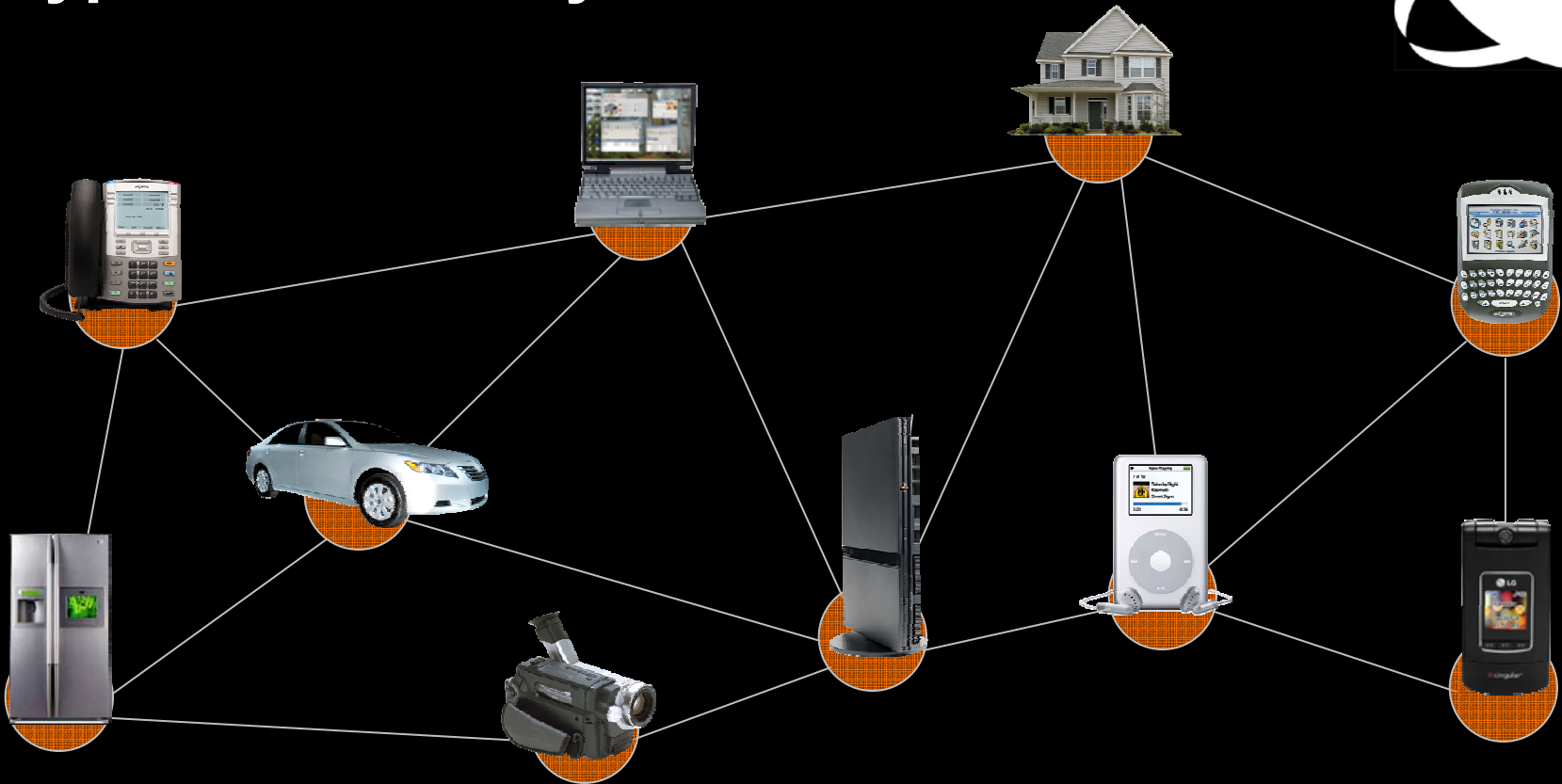# Enabling 4G Broadband

Scott Wickware

Vice-President, Carrier Networks

Bahrain, November 12th, 2007

BUSINESS MADE SIMPLE

NORTEL

Hyperconnectivity

Anything that can be connected and would benefit
from being connected will be connected

Hyperconnectivity is Real and Happening Now

Person to Person

- Europe – mobile phones now outnumber people (103% penetration)
- Global mobile IM grew 33% 2H06
- One Laptop Per Child

Person to Machine

- By 2010, worldwide:
- 4-fold growth in Internet Commerce
- 1-2 billion A-GPS-enabled handsets
- 100 million iPODs sold
- iPhone: hyperconnectivity at applications level

Machine to Machine

- 98% of all CPUs today are embedded (by 2010 – 14 billion connected, embedded devices)
- 70%+ of all 2007 cars in U.S. have iPOD connectivity
- Sensor pocket in Nike shoes

Hyperconnectivity:
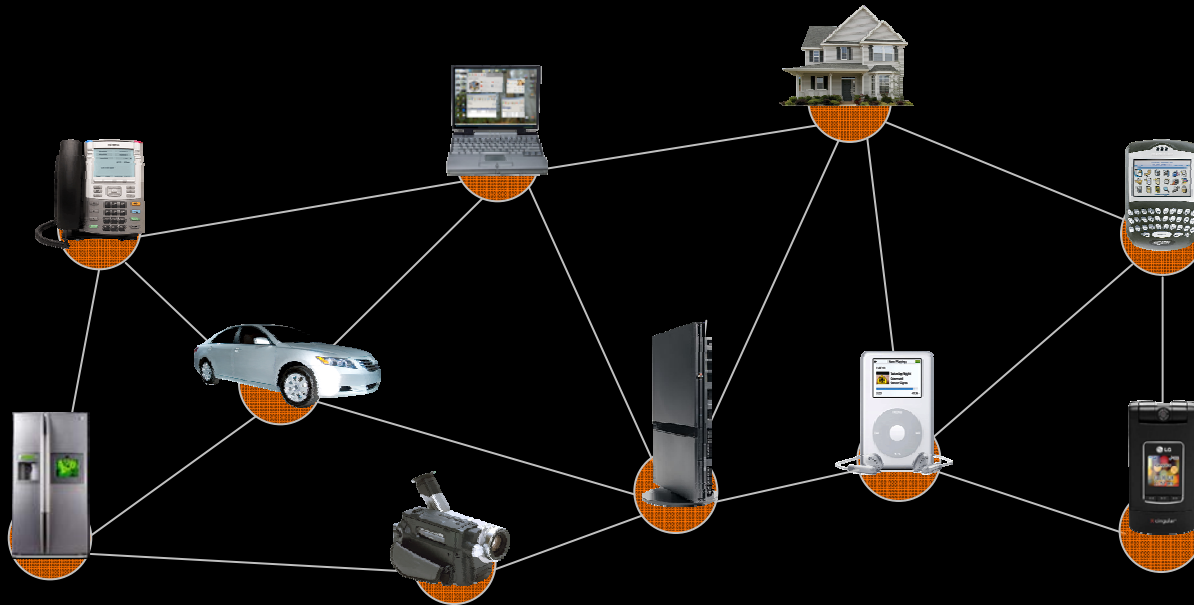# Opportunity for 4G Operators

Opportunity

- New application revenue

- New business models

- Pent-up demand

- Device pull

- First mover advantage

Challenge

- Scale is unprecedented

- Hard to do all things well

- More than access

- Increasingly complex

- Partner management is hard

**Companies that anticipate and plan for success
will capture the opportunity of Hyperconnectivity**

Addressing the Challenge and Opportunity of Hyperconnectivity

Hyperconnectivity

Addressing the Challenge and Opportunity of Hyperconnectivity

Hyperconnectivity

"True" Broadband

- Scale access network

- Scale core network (metro & long- haul)

- Unify experience (seamless mobility)

- Manage network and business (services)

The Power of Mobile Bandwidth

The Power of Mobile Bandwidth

The Power of Mobile Bandwidth

Addressing the Challenge and Opportunity of Hyperconnectivity

Hyperconnectivity

"True" Broadband	Communications - Enabled Applications
• Scale access network	SOA / Web Services / IMS
• Scale core network (metro & long- haul)	• Network-engaged applications
• Unify experience (seamless mobility)	• Applications-aware networks
• Manage network and business (services)	

Communications-Enabled Applications

Every Application will have Built-In Communications Capabilities

4G World – Broad View
Connecting Everything That Should Be Connected
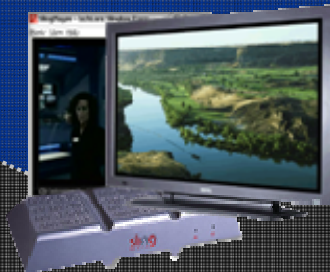

Nortel
4G View

Broadband
Home

Mobile VOIP

Metro
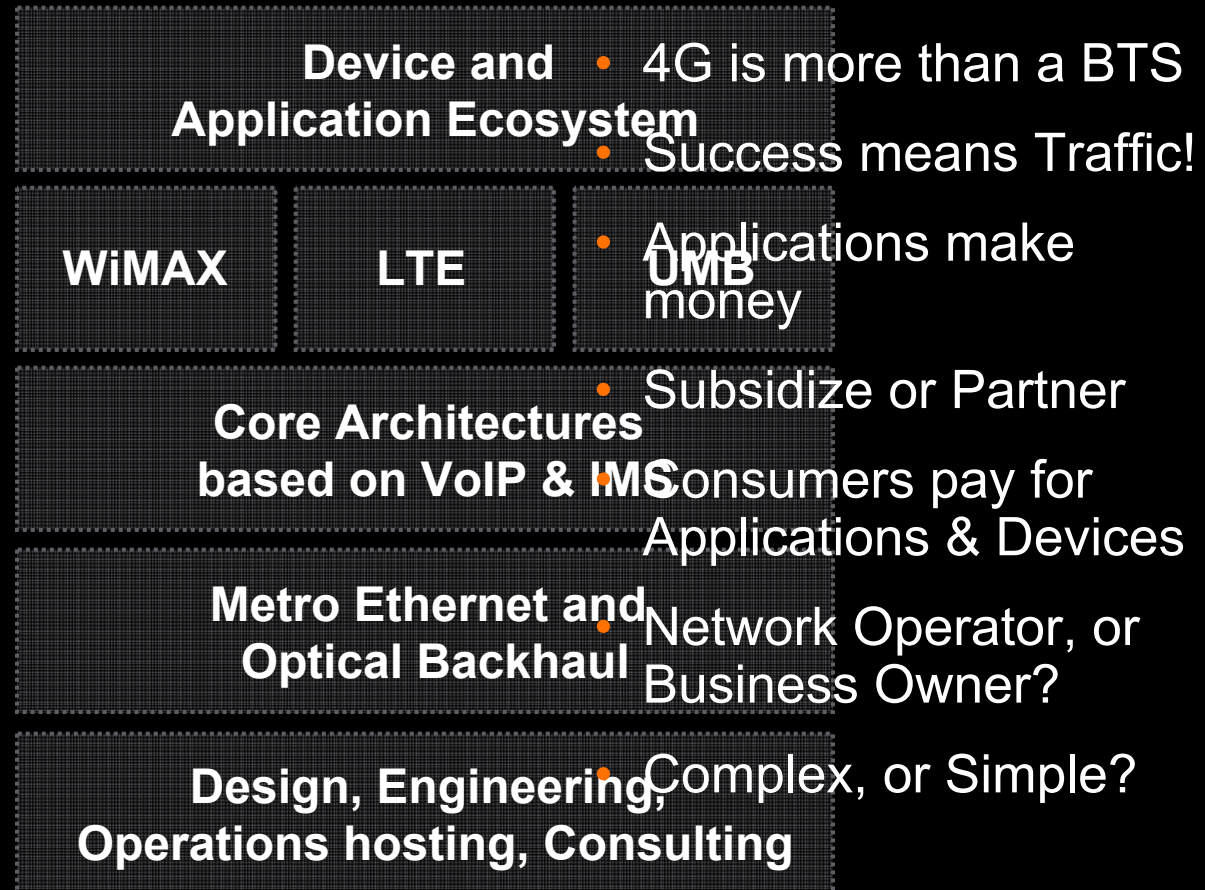HotSpot

Mobile
Data

Mobile
Video

Multimedia
Distribution

Extended
Enterprise

Planning for Success in 4G Broadband

Device and Application Ecosystem	• 4G is more than a BTS
	• Success means Traffic!
WiMAX / **LTE** / **UMB**	• Applications make money
Core Architectures based on VoIP & IMS	• Subsidize or Partner
	Consumers pay for Applications & Devices
Metro Ethernet and Optical Backhaul	• Network Operator, or Business Owner?
Design, Engineering, Operations hosting, Consulting	• Complex, or Simple?