

Session 3: IPv6 Services and Applications **KEYNOTE: IPv6 ADOPTION**

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The Global IPv6 Service Launch Event

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Agenda

- **Converging Digital World – Seamless solutions based on IP**
- IPv6 enabling in large scale Peer-to-Peer connectivity
- The Journey ahead
- Summary

In Converging Digital World

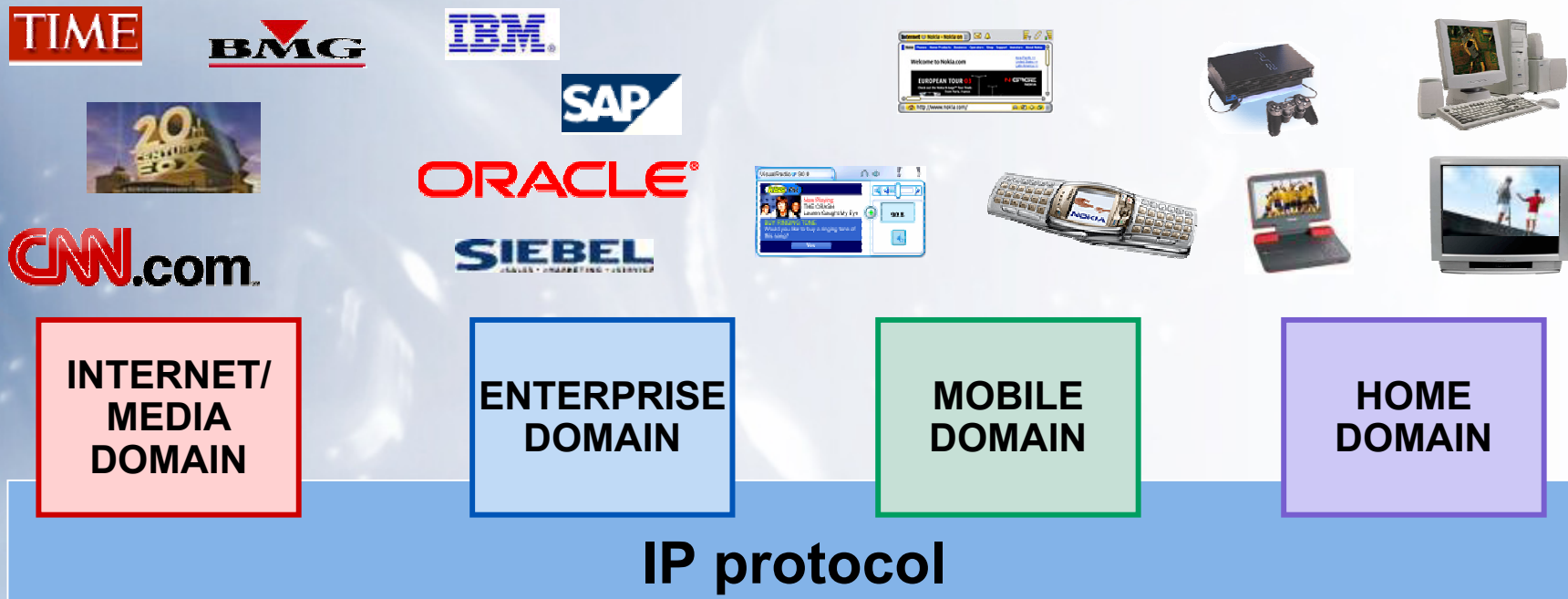
- Seamless Solutions are Based on IP



IP is a Common Building Block Across Different Network Domains

IP is a common element of the services architecture

- Industry efficiency in standardization, product & service implementation
- Services architecture similar across different networks

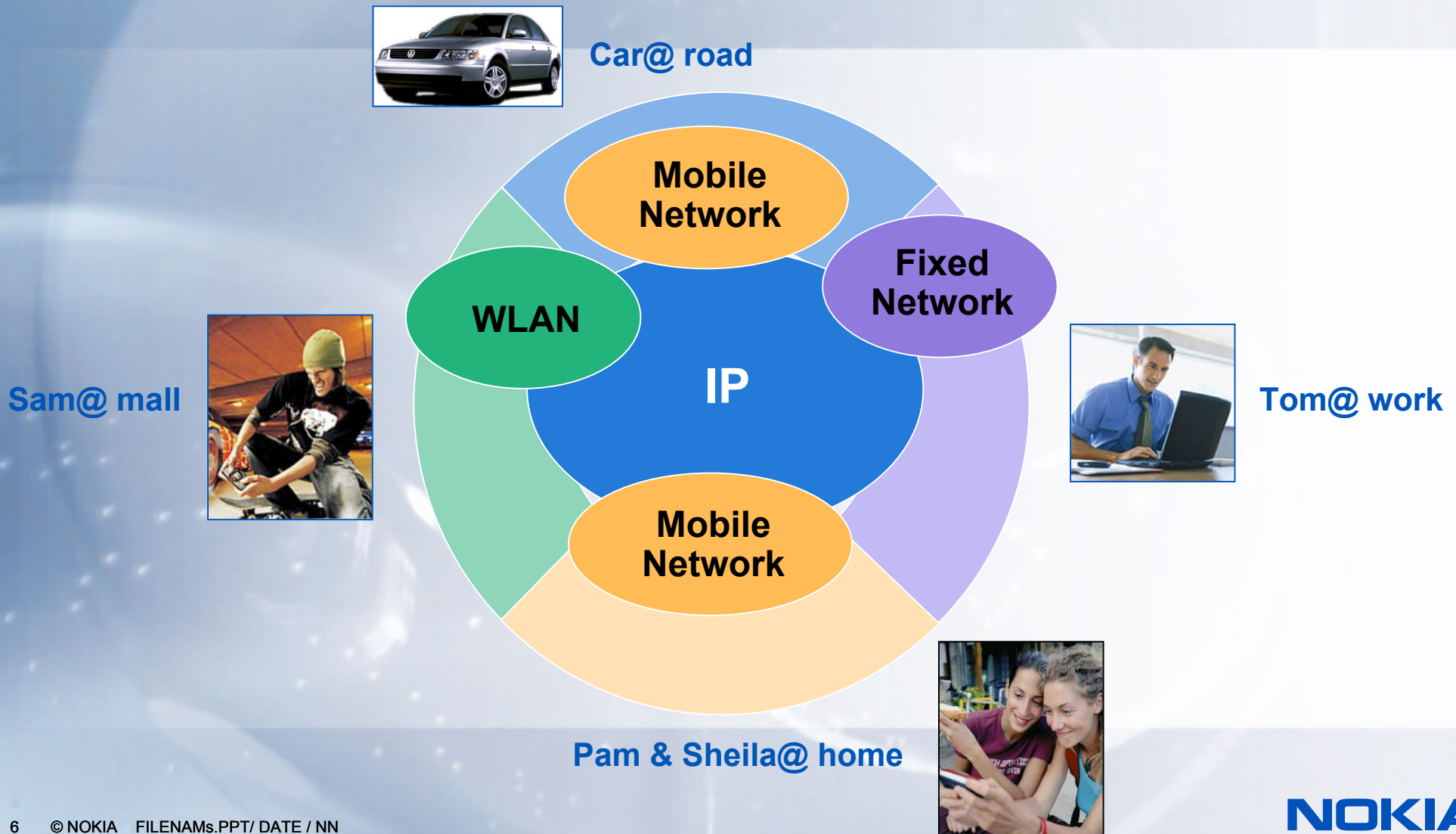


IPv6 Delivers Versatile Connectivity – Realisation of Convergence Expectation

- In Convergence all the devices are equal in terms of connectivity
- Media devices are designed to exchange data
- IP protocols are the most common way to connect different devices together
- Number of connected appliances exploding



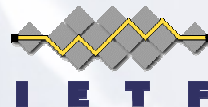
Connecting Users in Different Networks



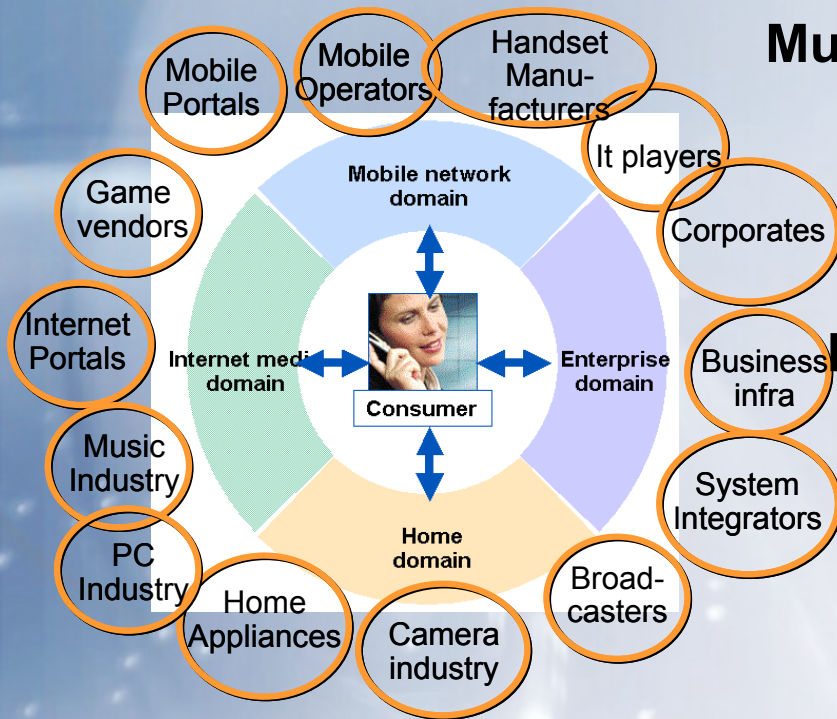
Implementing Convergence - Several Issues Require Industry Collaboration



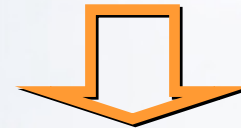
- Content sector:
 - Digital Rights Management & Copyrights
 - Open & Global media formats
- Services sector:
 - “Global” Services architecture & unified service solutions
 - Business models to support convergence of networks
- Technology sector :
 - Data Security & Validity
 - Digital Identity & Privacy
 - Device high capabilities
 - Superior usability



Open Platforms, Open Minds



Multivendor environment requires interoperability

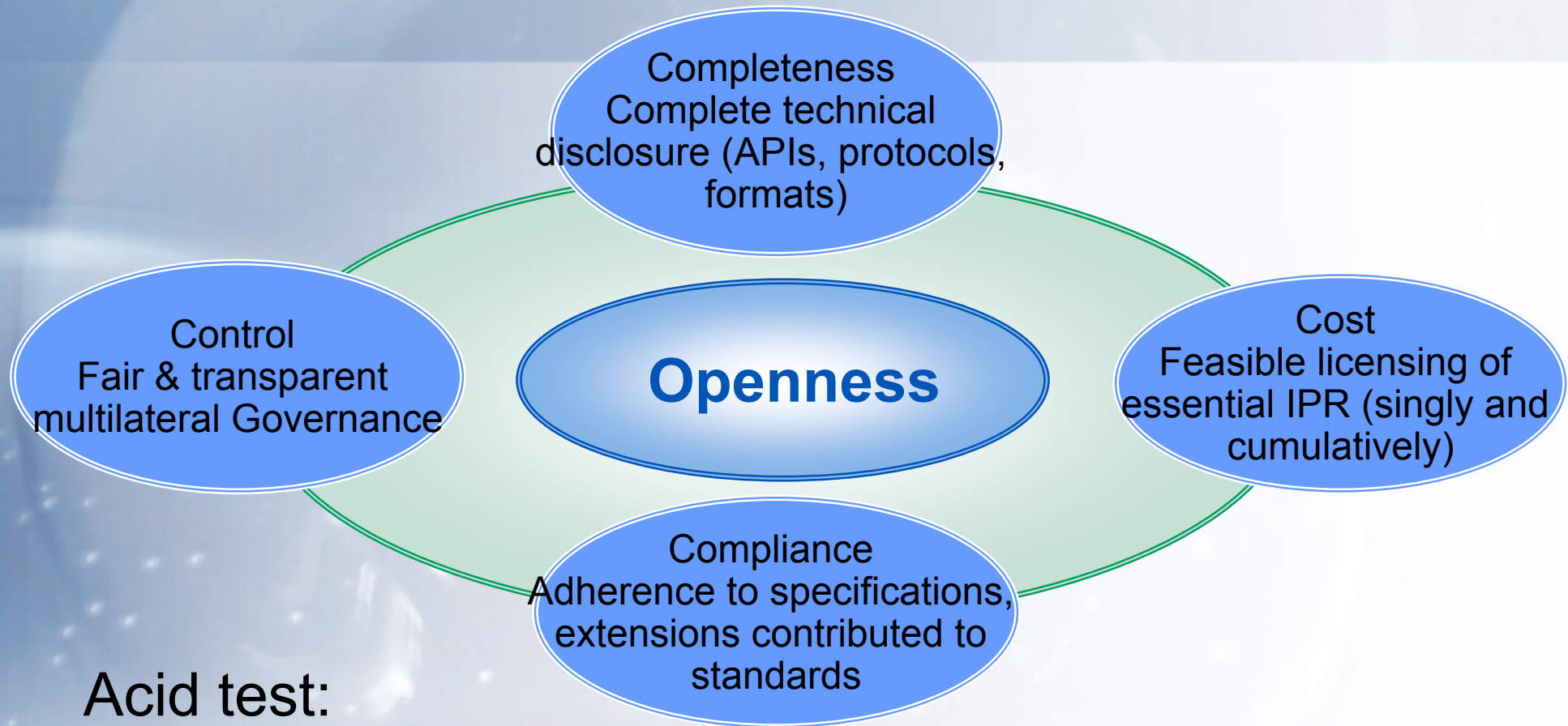


Fair interoperability requires open interfaces



**Open interfaces mean protocols & formats
Based on open specifications**

Openness Prerequisite for a Healthy Industry Environment



I³ = **I**NDPENDENT **I**NTEROPERABLE **I**MPLEMENTATION

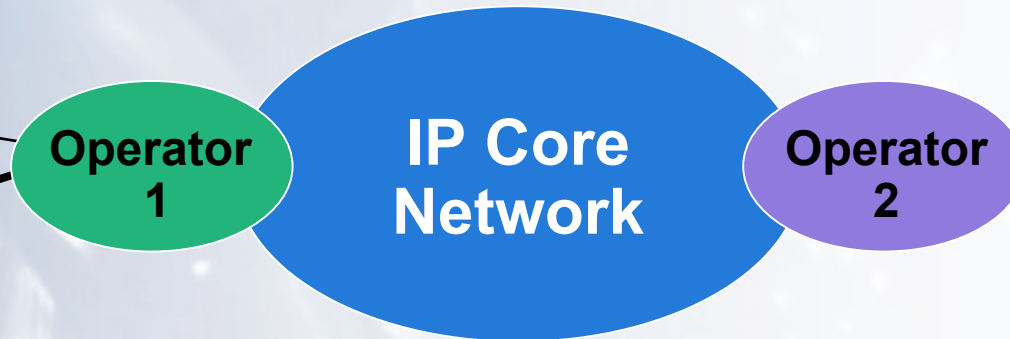
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Connectivity Today

- IPv4 addresses are running out –the amount of connected devices is exploding
- Clients can not be connected peer-to-peer in different networks
- Sustainable long-term solution is IPv6

PRIVATE IPv4 ADDRESS



PRIVATE IPv4 ADDRESS



Peer-to-Peer connections between users



IPv6 Brings

- Resolves the address limitation of IPv4
- Enables peer-to-peer services across different networks
- Less complexity in network design and operational maintenance
- End-to-end security features
- The base for Digital Convergence architecture
- Possibility to use multiple IP addresses in Devices



+44 3 1234567

END-TO-END PHONE CALL



+44 9 7654321



1080::1:1:2:ABBA:CAFE

END-TO-END IP MULTIMEDIA CONNECTION

IPv6



1080::AAAA:1:2:3:4

NOKIA

Peer-to-Peer Connections for the User



**Share content &
files with friends**



**Play multiplayer
games**

Push-to-talk

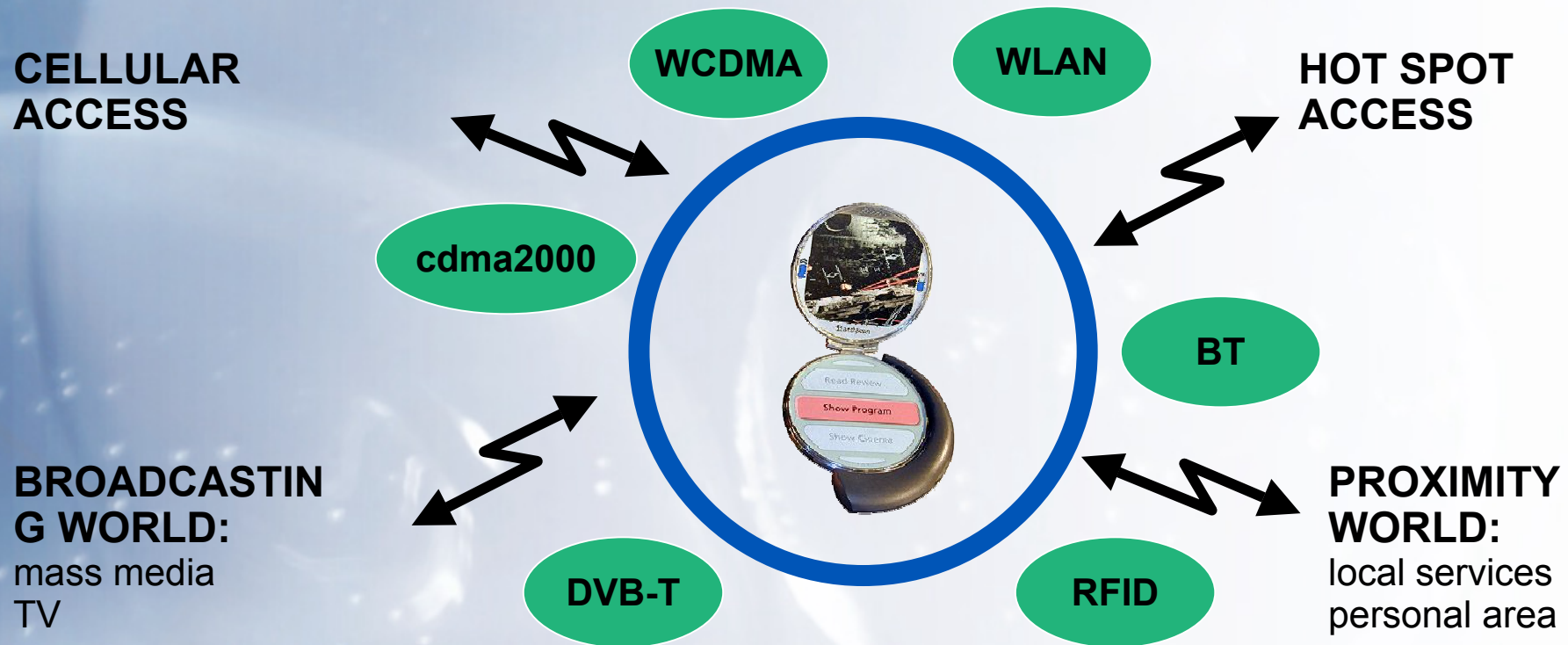


Rich Call capabilities

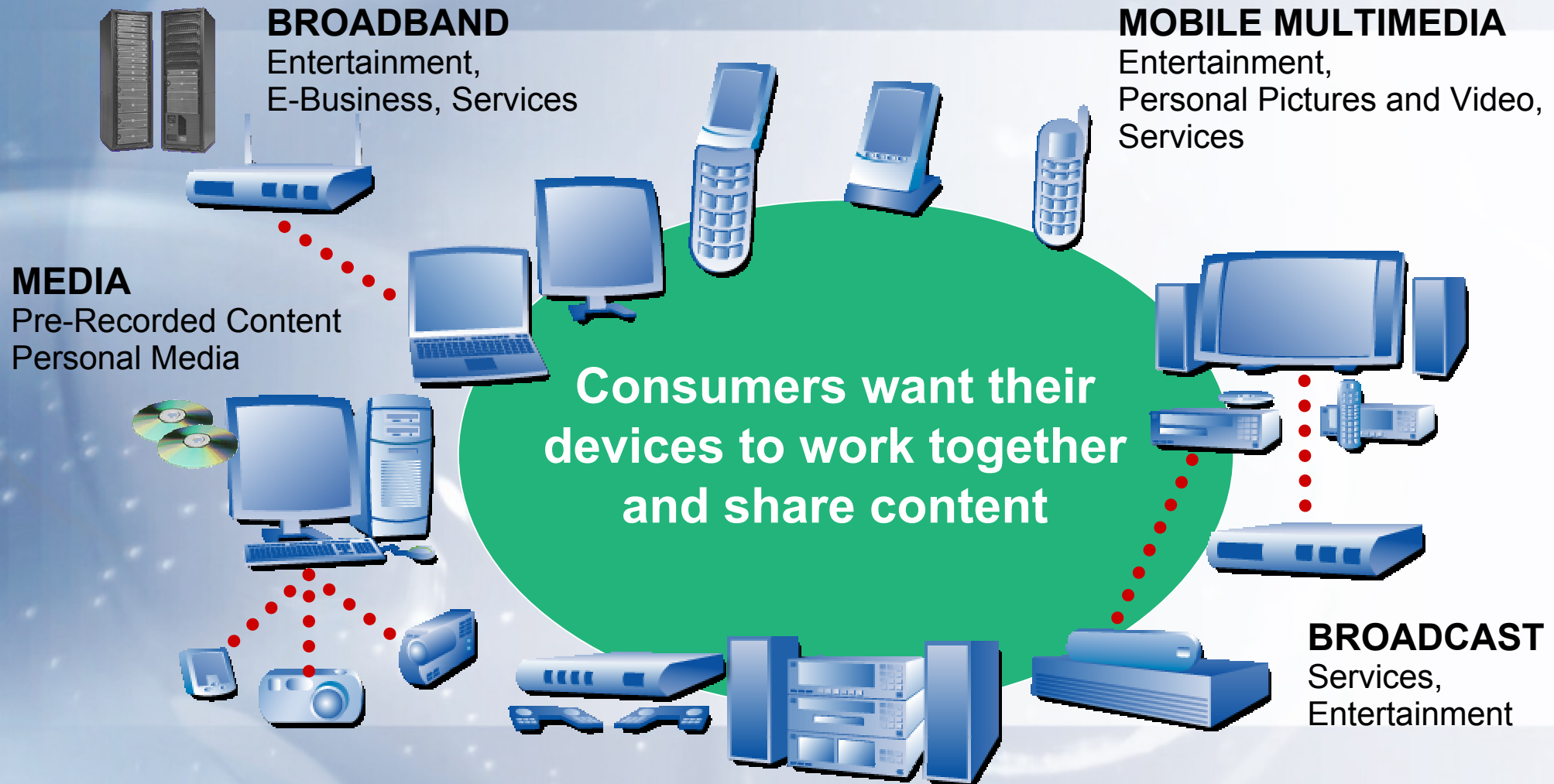
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Mobile Industry Moving to Multiradio



Digital Home Vision is Driven by IP Connectivity



Transition to IPv6 Started

- Big part of existing IP infrastructure can be upgraded with Software
- Core network routers are starting to support IPv6
- Nokia's network elements will support IPv6 this year
- Transition period quite long → Managed transition mechanisms existing
- Target to make technology transition invisible for the users



Nokia 7700 Device supports IPv6

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Summary

- **Industry Trends**

- Digital Convergence is happening
- IP becoming the unifying services architecture
- IP enables the connectivity across different networks
- Openness, standards and interoperability are prerequisite for convergence

- **The Role of IPv6**

- IPv6 resolves address limitations of IPv4
- IPv6 enables Peer-to-Peer connectivity in global scale
- Transition has started