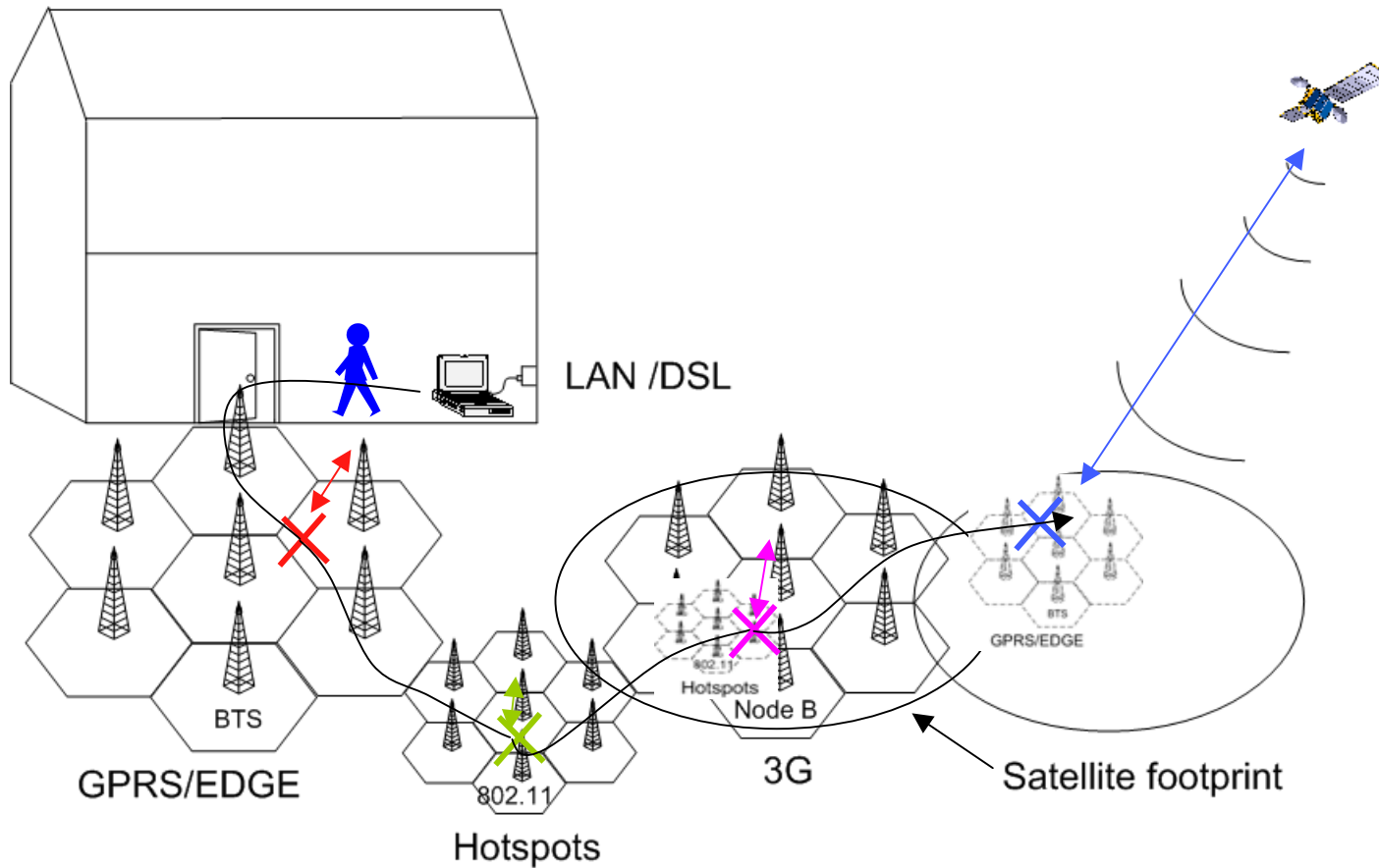


Towards a Seamless Broadband Access – Issues and Considerations

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A Vision



Determining Factors Influencing this Vision

Ability to roam freely between different access technologies, irregardless of the service providers, at the cheapest cost subject to an agreed QoS

2G/2.5G/3G

Fixed
Access

VISION

Operator
Perspective

**Different Radio
Access Technologies**

Ability to allow users to roam freely between different access technologies providing the agreed QoS and yet maximizing profitability

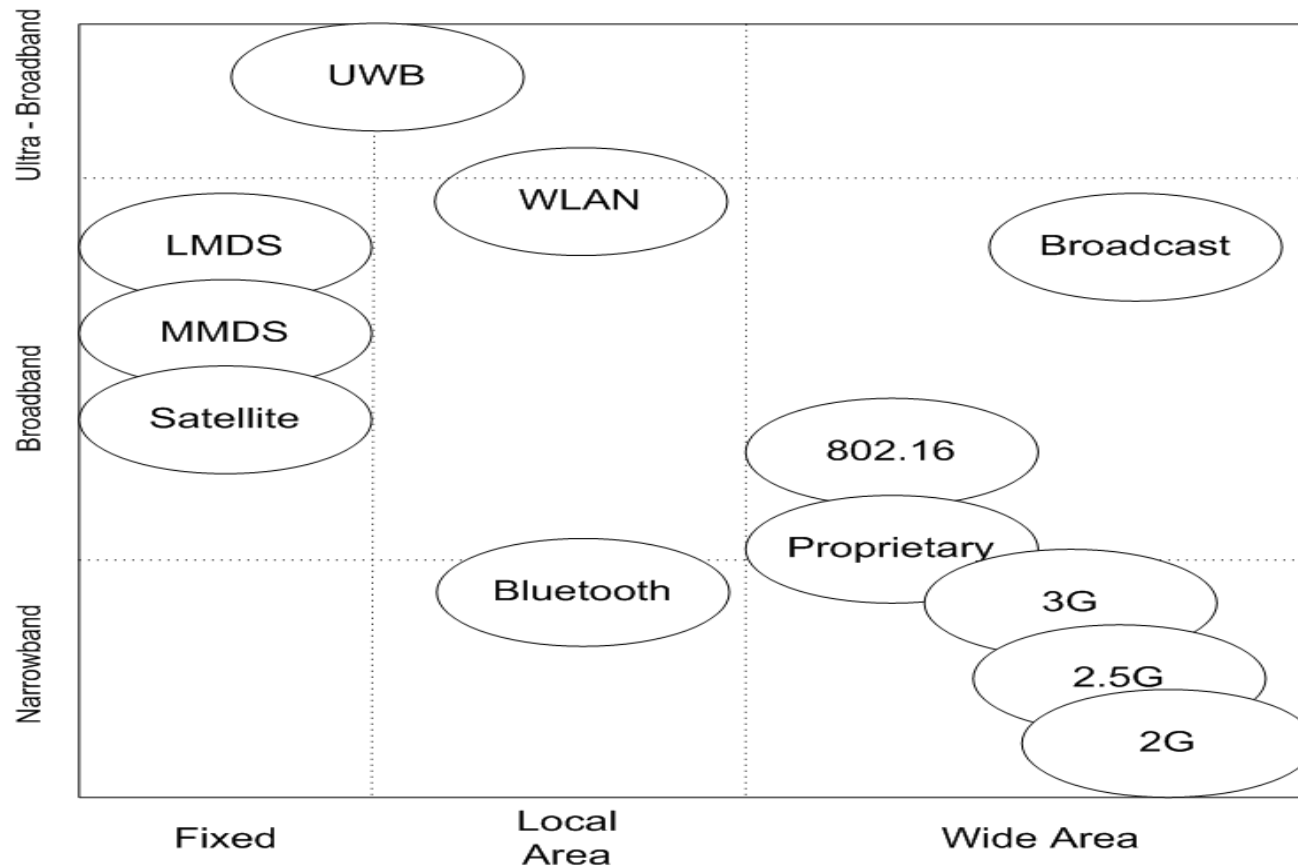
The Availability

- Standalone broadband technologies
 - Fixed broadband access technologies
 - Wireless broadband access technologies
- Legacy
- Some limited forms of interoperation between technologies
 - PCS1900/Wi-Fi (product)
 - AMASE (middleware solution)
 - SMS on POT (Application perspective)

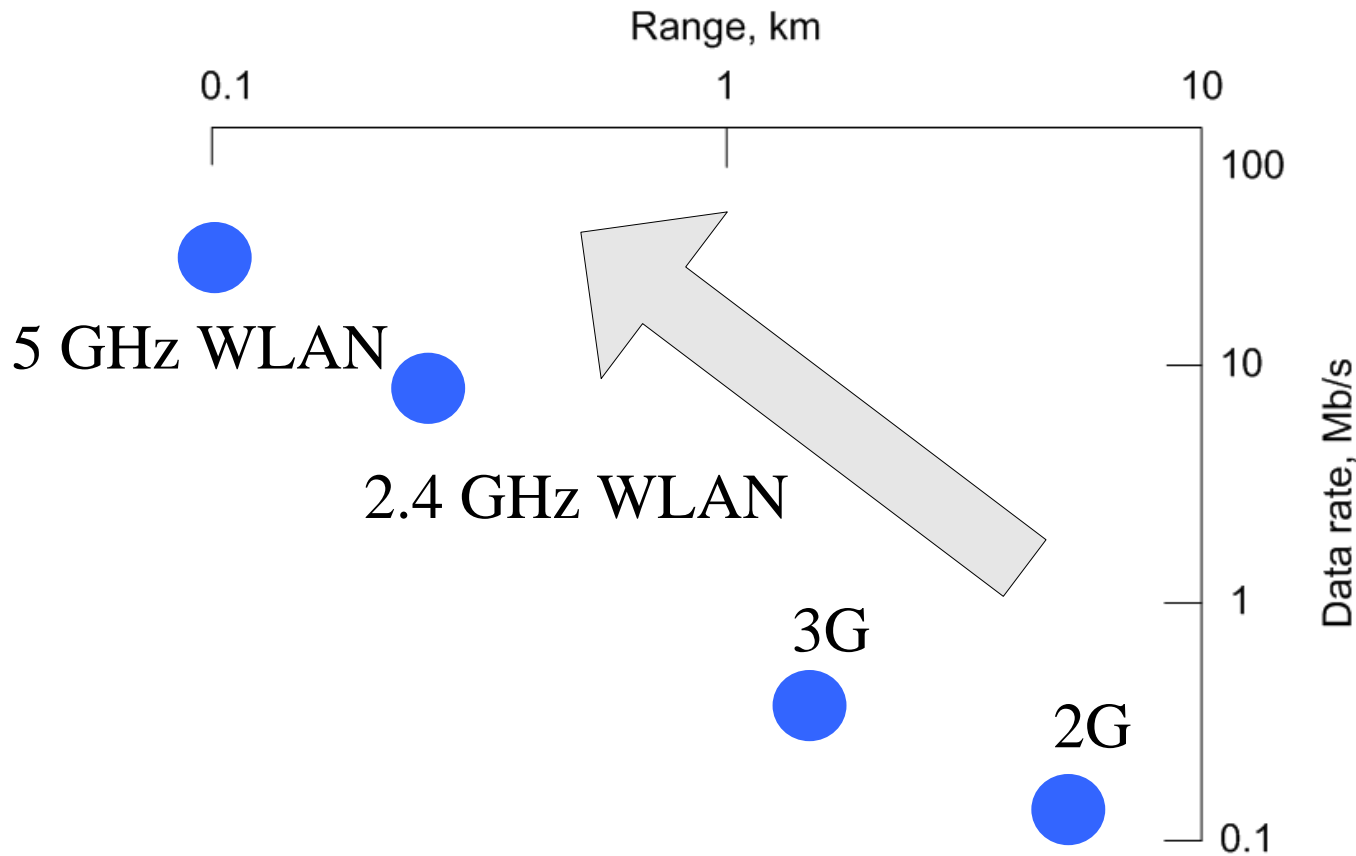
Fixed Broadband Access Technologies

- ADSL/DSL/HDSL
- Fiber
- Cable
- Power line
- Leased line

Wireless Access Technologies (1)



Wireless Access Technologies (2)






What are the Challenges ?

- Economic perspective
 - Economic model
 - Pricing and billing plans between systems and operators
- Service perspective
 - Service overlay network
- Technology perspective
 - Standardization
 - Interoperability
 - QoS
 - Security
- Regulatory perspective

What Are The Issues ?

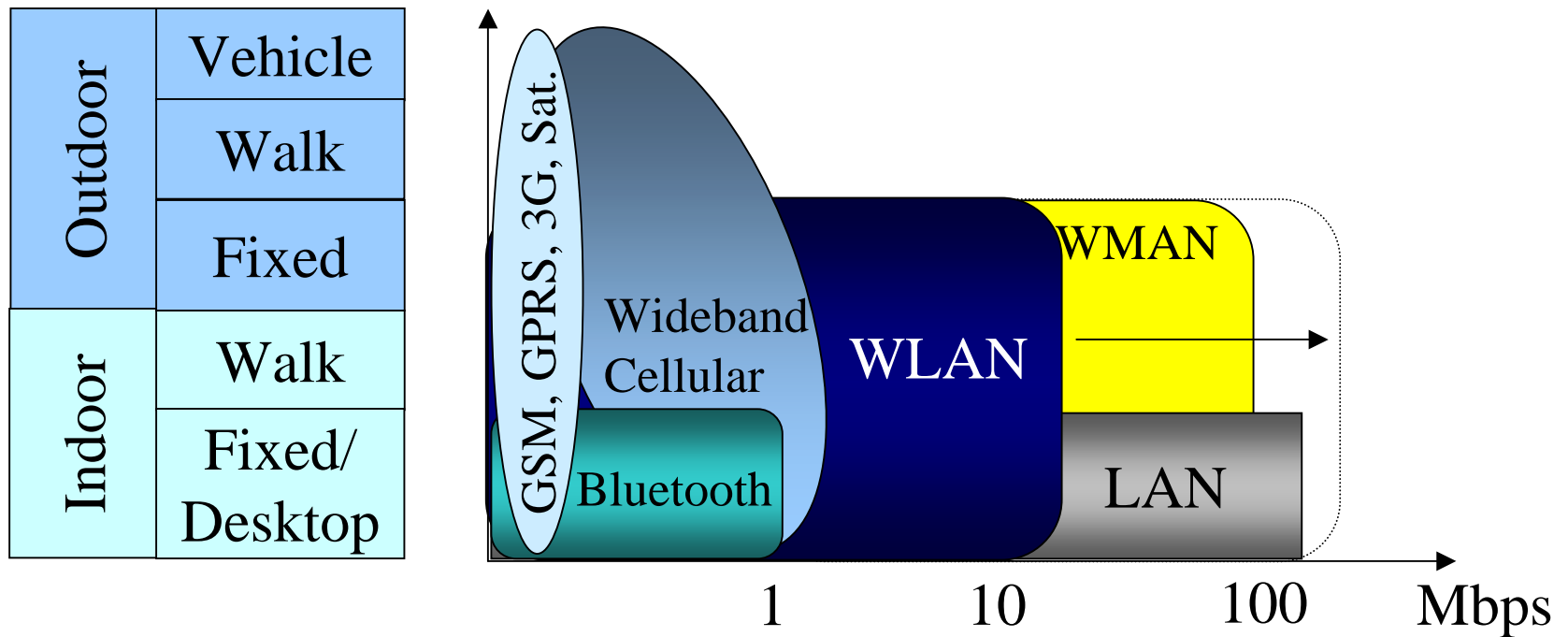
- Regulatory ?
- Technology ?
- Economics ?
- Demand or need ?
- Security ?
- Social and cultural aspects

What Are The Efforts ?

- Multi-modal equipments 
- Software-defined radio 
- Service overlay network 
- Proprietary systems
- Cooperation between working groups
- Standardization

What Are The Considerations ?

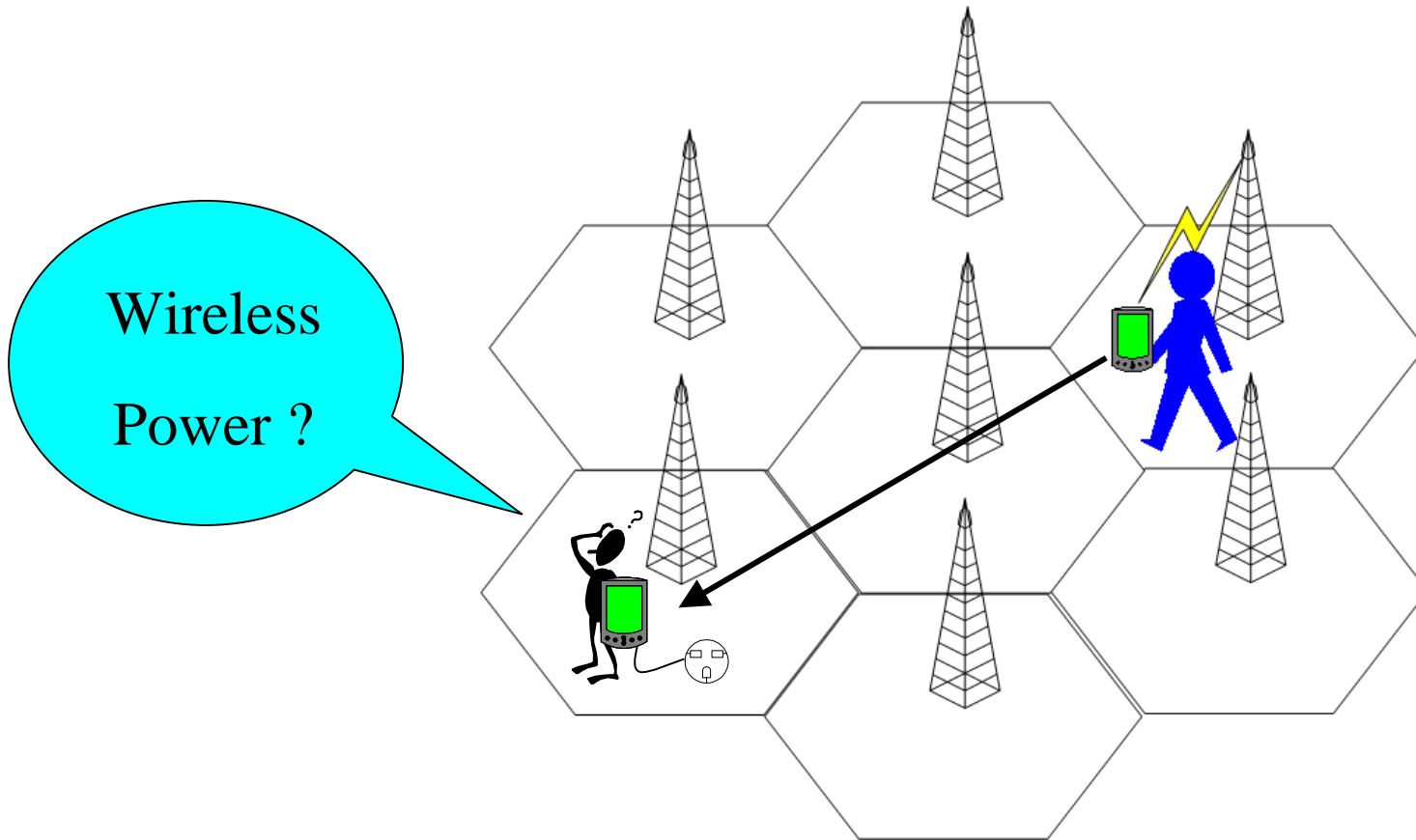
Seamless Access vs Mobility vs Broadband



Roles of Wireless Broadband Access

- Seamless broadband access cannot be achieved without wireless access technologies.
 - The only mechanism for providing connectivity in the wide area (away from office and home)
 - Means of distributing access in office and home without additional wiring and provides mobility
 - Mechanism to distribute signal to the home or the office though a fixed wireless deployment or the reuse of a mobile network
 - The only mean to provide mobility

What Needs to be Done ?



Conclusions

- The future towards a seamless broadband access certainly looks promising
 - For there are concerted efforts in realizing this in parts.
 - The need to have such a seamless access is increasingly been accepted as a vision in the future.
- A more cohesive efforts between regulators, equipment providers and service operators are needed to realize the vision.

Many Thanks