

Beyond Home Network

Design the Sustainable Future

Kazuhiro Kitagawa

Keio University & PUCC

31 October 2008



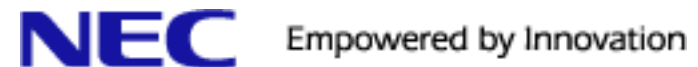
Outline

- About PUCC
- Aim of home network
 - Home automation, home AV ...
- Home network issues
 - Why not deployed ?
- Open overlay
 - Home network break through
- A head of the pack
 - Toward green information network
- Best Practice – Healthy living
- Conclusion

PUCC – A Consortium promoting open overlay

- Peer to Peer Universal Computing Consortium
 - Unique cross industry member forum with same goals and visions
 - Organize a virtual ubiquitous network by harmonizing the internet, mobiles, sensors, home appliances, AV, imaging device and etc with flyweight middleware
 - Utilize existing devices & standards with fullest extent

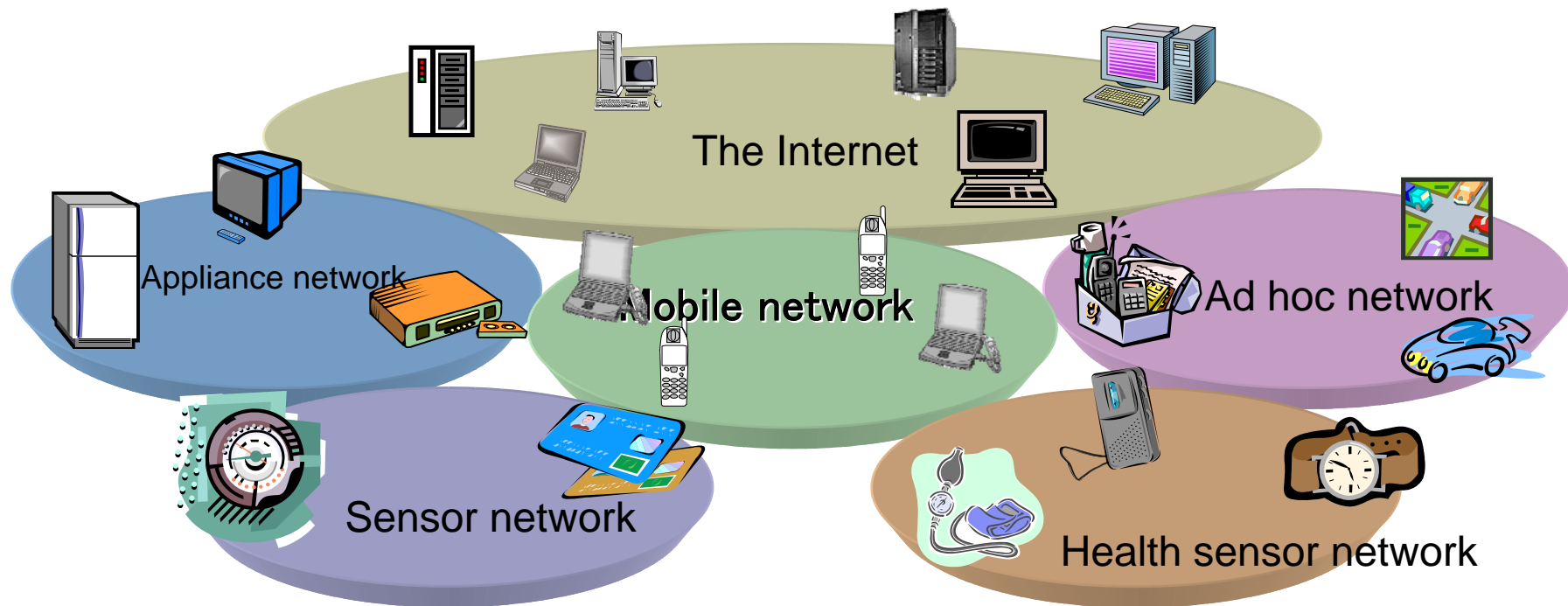
PUCC Members



Aims of home networks

- Several types of home networks exist due to data formats and network traffic patterns
 - Home automation
 - Home appliances communicate each other to help household
 - Home security
 - CCTV, burglary protection
 - AV network
 - Share digital contents among home digital devices
 - Health sensor network
 - Monitor patients/regular people

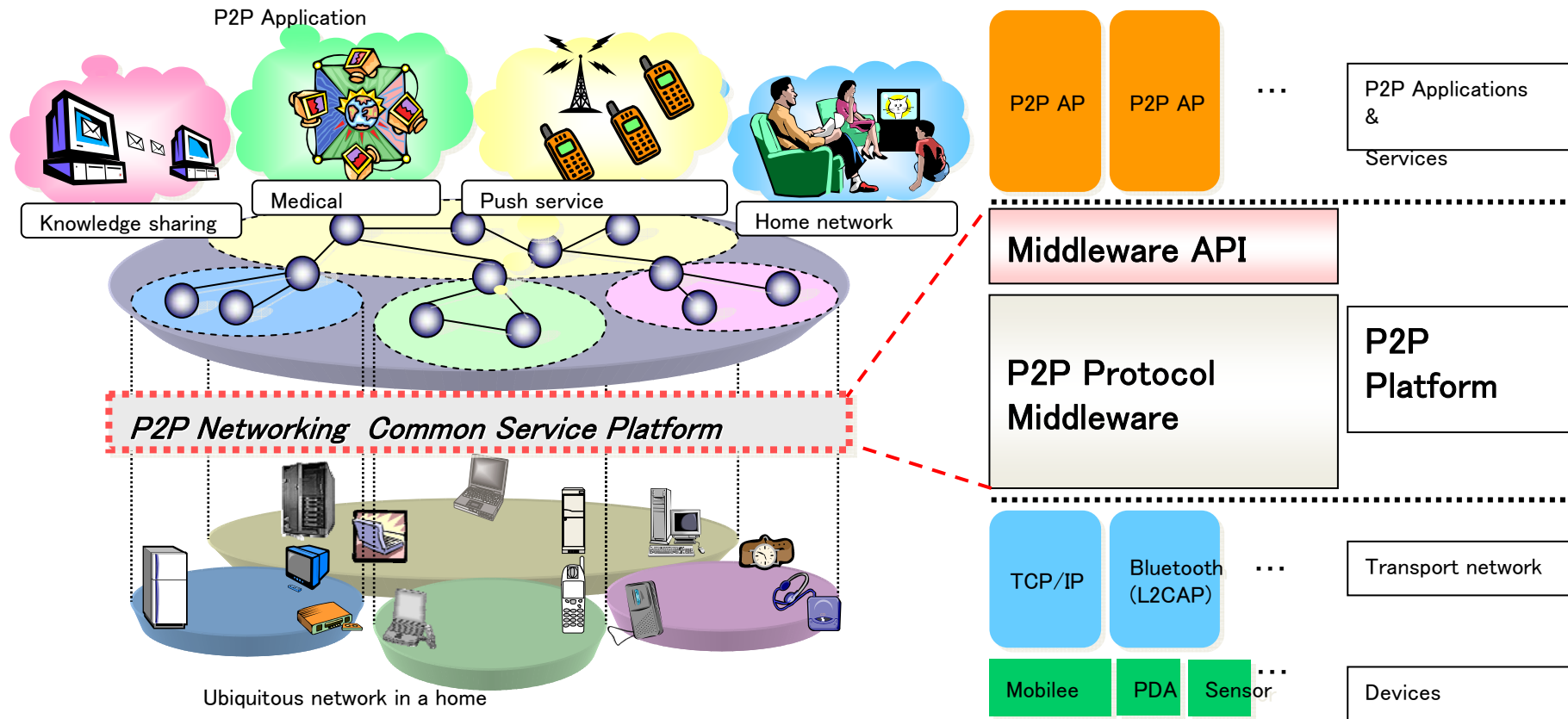
Ubiquitous in home network



Home network issues

- Deployment
 - Prohibit of the progress of home network
- Why ?
 - Several networks in a home
 - Multi type communications
 - Isolation of the networks
- No common access methods among home networks, the Internet and Mobile
 - Lack of interoperability
- Pucc introduces practical new visions toward sustainable society

Designing the future home network by open overlay



Tackling home network issues

- Open overlay
 - Common application and service platform for the existing network
 - Middleware to connect multi devices and networks
 - Mostly implemented on a home gateway, PDA and mobile phone

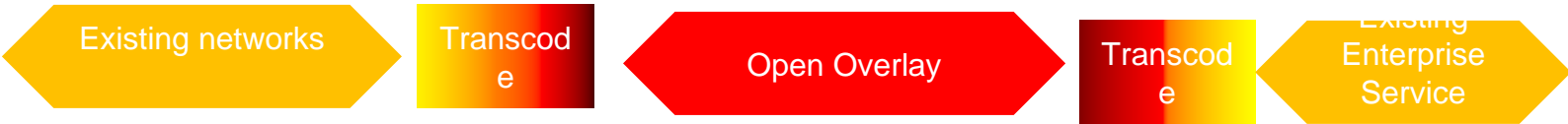
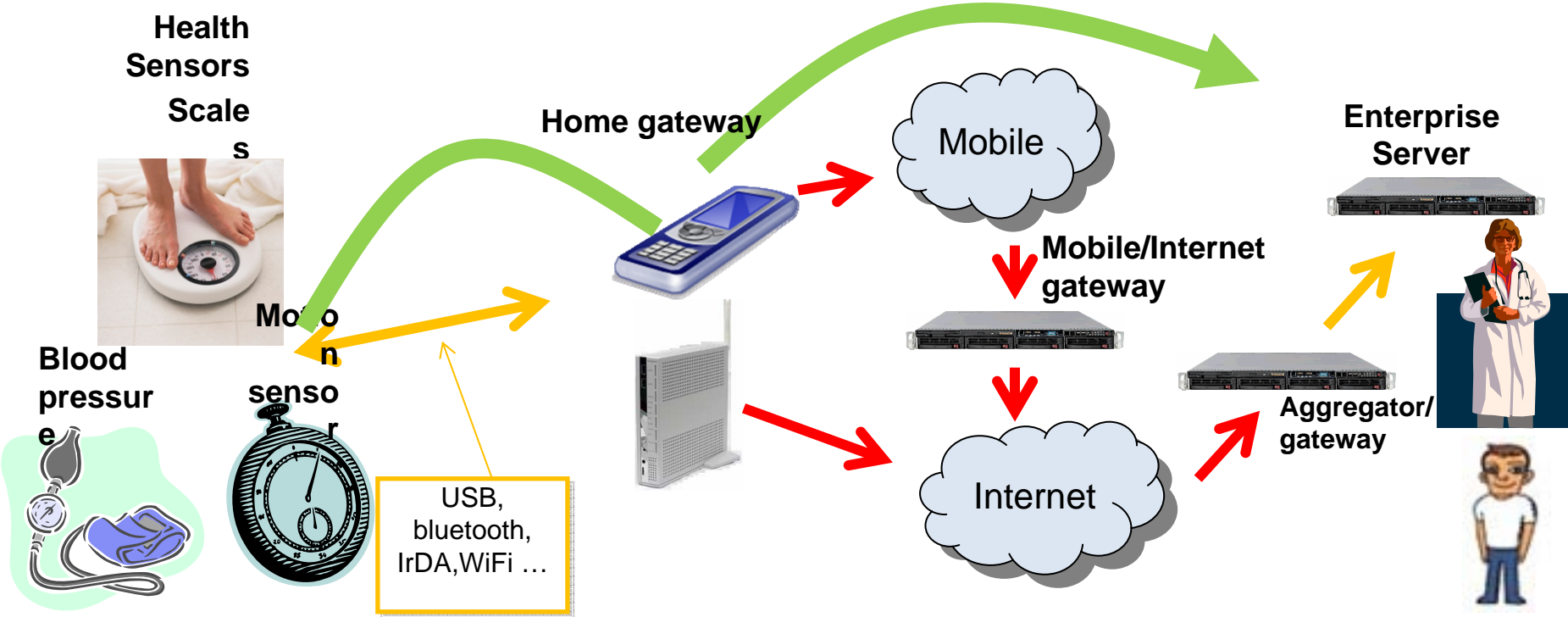
PUCC - a head of the pack

- PUCC for unified home network to achieve
 - Home appliances, sensors, mobile, the Internet are able to work each other seamlessly
 - Not only for home automation, entertainment
- Green network and information system
 - Achieve total energy saving by using multi types of information
 - Reduce goose chase
 - Allow two-way event driven communication

Healthy Living Service by IMIC and Pucc

- Pucc's Best Practice
- Lead by International Medical Information Center, Keio University and Pucc
 - Supported METI as a part of Information Grand Voyage Project
- Restructuring Tele-care/Tele-medicine business process and systems
 - Apply lessons learned – combination of entry health check and monitoring habitual life
 - For all, low income, elderly persons ...
- High level interoperability by open overlay
 - Device vendor independence
 - Network operator independence
 - Location independence
 - Physical network independence

Healthy living Service



Conclusion

- Open overlay promises to overcome home network issues and organize a green network toward the sustainable society
 - Totally reduce all the cost and spending

- Thank you for your attention

