

PUCC and WEB

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Innovation for Information Technology

- Computing Centric
- Data Centric
- Communication Centric



User View

- Centralized
- Distributed
- Personalized
- Ubiquitous
- Pervasive



Network Innovation

- Remote access network
- Computer network
- Internet
- Peer-to-Peer network
- Mobile network
- Wireless network



Device Innovation

- PC
- Non-PC
 - Digital home appliance
 - Mobile phone
 - Digital camera
 - Car navigator
 - Robot
 - RFID/IC card
 - Etc.



Application Innovation

- Integration
 - Vertical
 - Horizontal
- Business innovation/Service innovation



Japanese Technology

- Good manufacturing
 - High quality
 - Reliable
- Individual element
- Individual device/equipment
- Lack of integration (vertical/horizontal)
- Japan is a country for elements/parts bases



Integration

□ Vertical

- Within the same company
- Within the same industry

□ Horizontal

- Among different companies
- Among different industries



Role of Universities

- Neutral position
- Innovative design/Global design--
integration
- Consolidation among
industries/universities/countries
 - Technical consortium
 - Business consortium
 - Standardization consortium



PUCC motivation

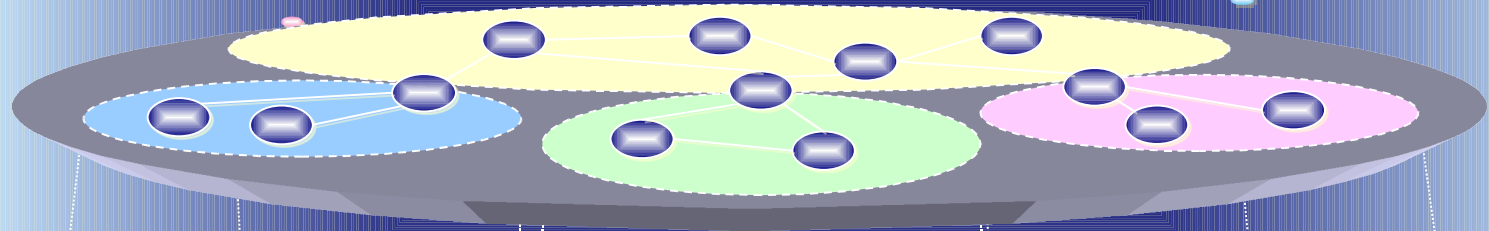
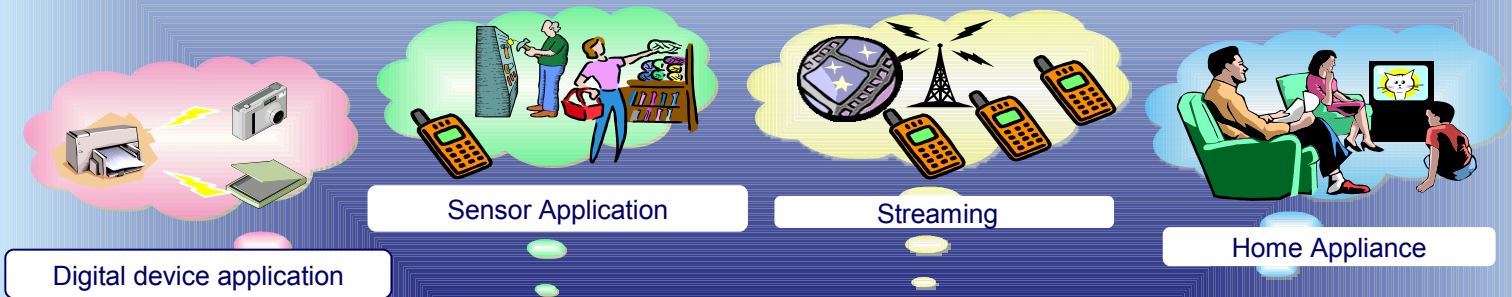
- Integration
- Practical technologies/Real issues
- Global standard/De fact standard
- Consolidation among different companies/industries/local standards



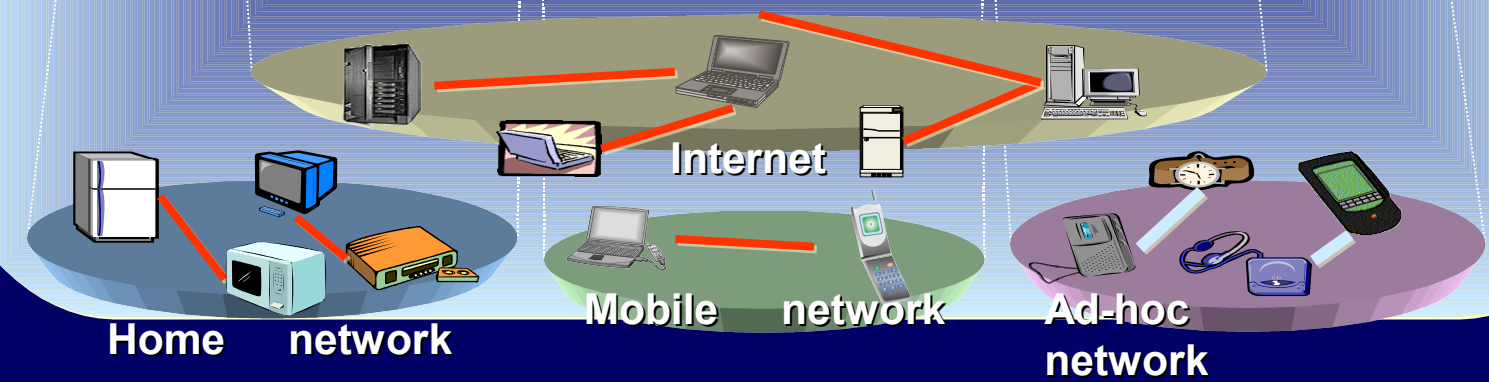
PUCC technologies

- P2P network
- Mobile integration
- Overlay network protocols
- Application/Service integration

Applications

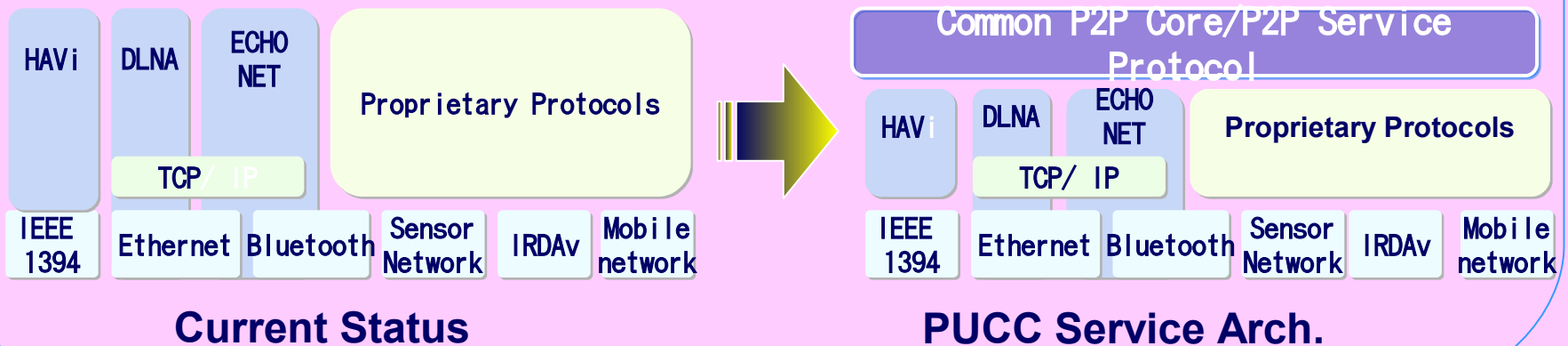


Light weight P2P Protocol and Common application platform

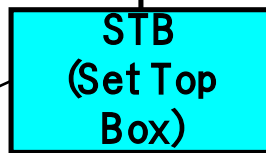
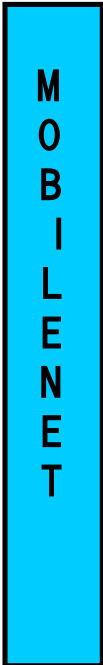
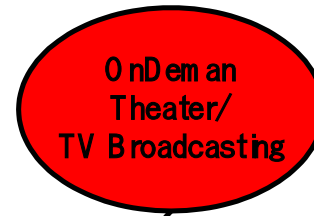
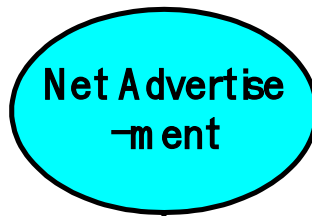
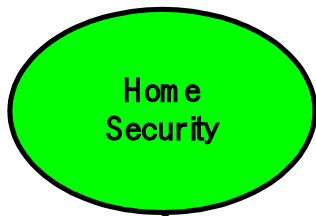


PUCC Architecture

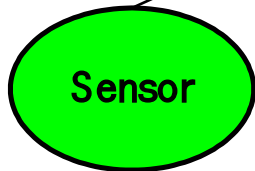
- Common P2P Protocol: Bridge existing NW
- Common Application Service Platform
- Common Metadata to discover/harmonize services



Application(WEB)

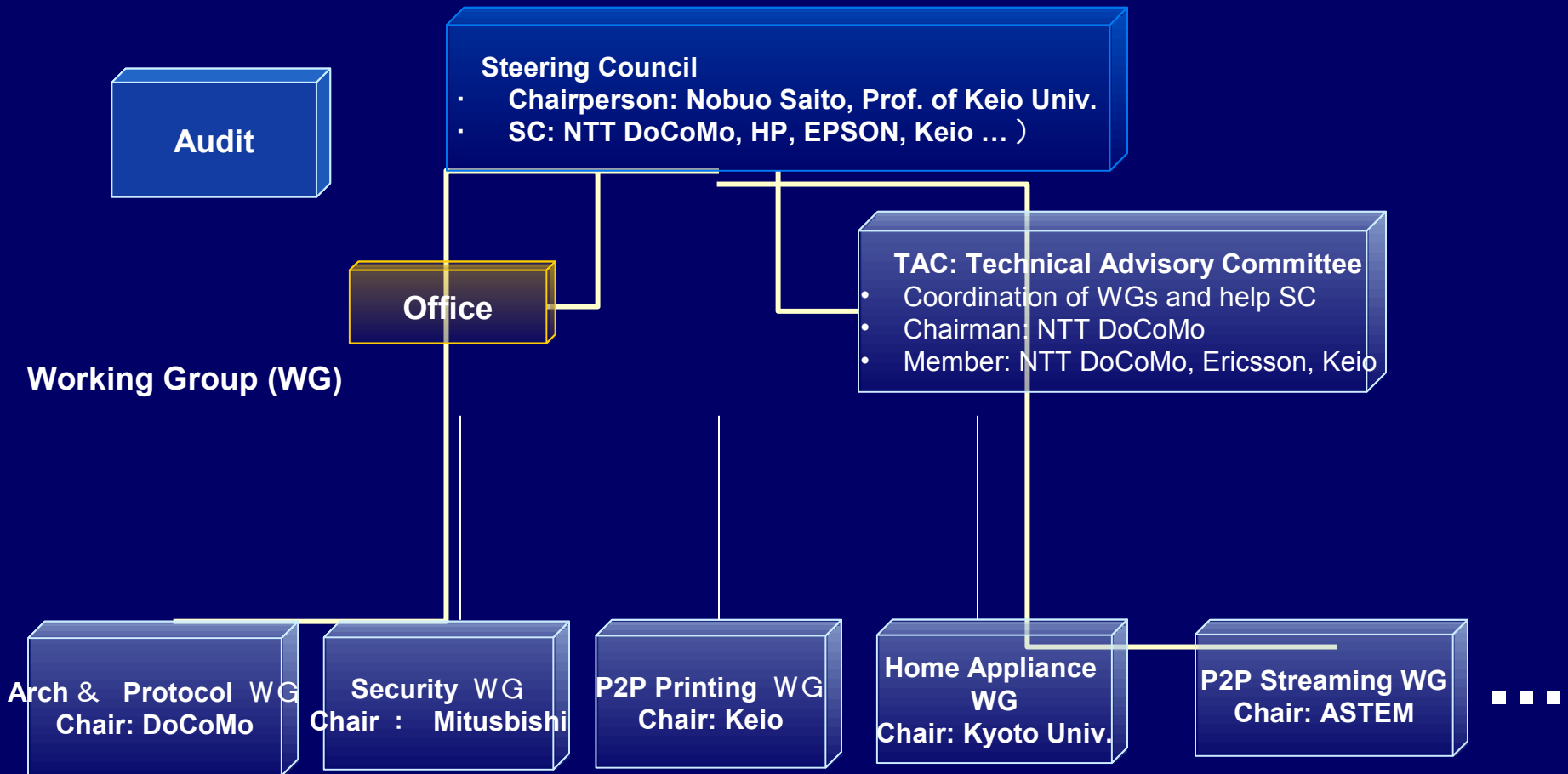


Embedded Chips



P2P Network (Home Network)

Organization Structure



Current Members

- Aplix
- Epson
- Canon
- NTT DoCoMo
- Ericsson
- Mitsubishi
- HP
- Miako network
- Toshiba
- Lexmark
- ASTEM
- Univ. of Tokyo
- Kyoto Univ.
- Shizuoka Univ.
- Keio Univ.
- Waseda Univ.
- Doushiha Univ.
- Ritsumeikan Univ.
-



Intellectual Property Right Policy

□ RAND



Japanese Government

- Platform Development
- Experiment and evaluation



Future for PУCC

- Standard for Platform
 - PUC-Platform for Ubiquitous Computing
 - PУCC-Pervasive and Ubiquitous Communication and Computing
- Global activities/memberships
- Innovative Applications

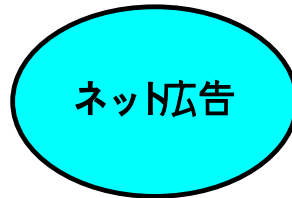
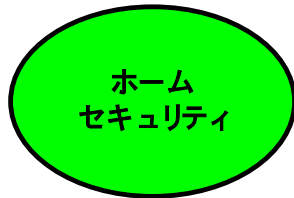


WEB Role

- User interface
- P2P Web
- Rich client model
- Integration mechanism

アプリケーション (WEB)

WEB サーバ



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T

リッチクライアント



組み込みチップ

仮想WEB



WEBサーバ

P2P ネットワーク (ホームネットワーク)