

# PUCC and WEB

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# Innovation for Information Technology

- Computing Centric
- Data Centric
- Communication Centric



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# User View

- Centralized
- Distributed
- Personalized
- Ubiquitous
- Pervasive



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# Network Innovation

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



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# Device Innovation

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



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# 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



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# Integration

## □ Vertical

- Within the same company
- Within the same industry

## □ Horizontal

- Among different companies
- Among different industries



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# Role of Universities

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



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# PUCC motivation

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

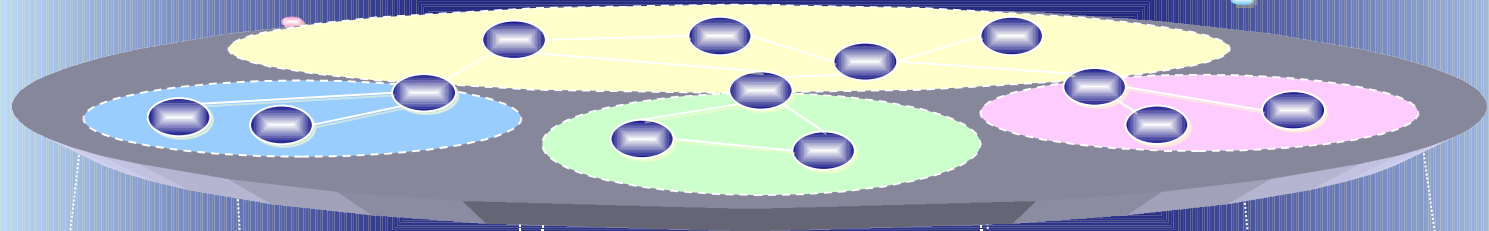
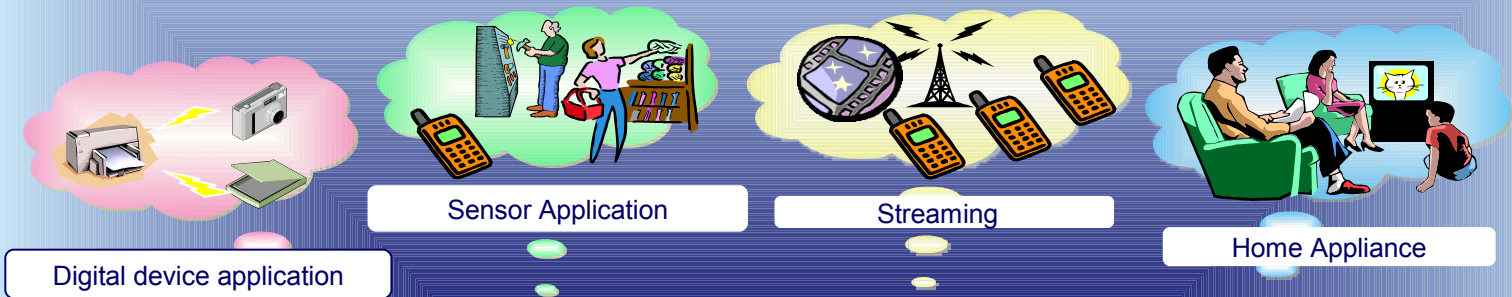


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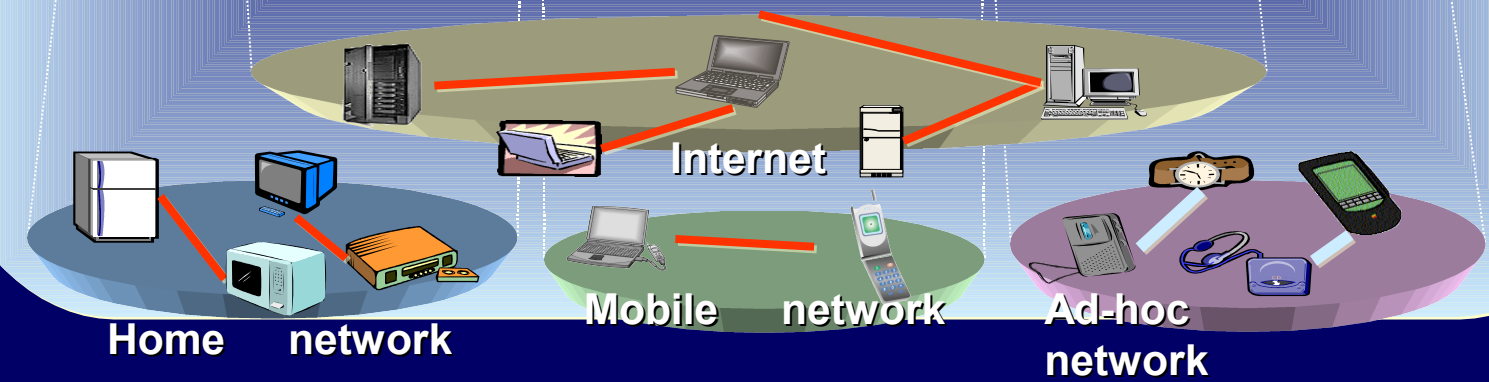
# PUCC technologies

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

# Applications

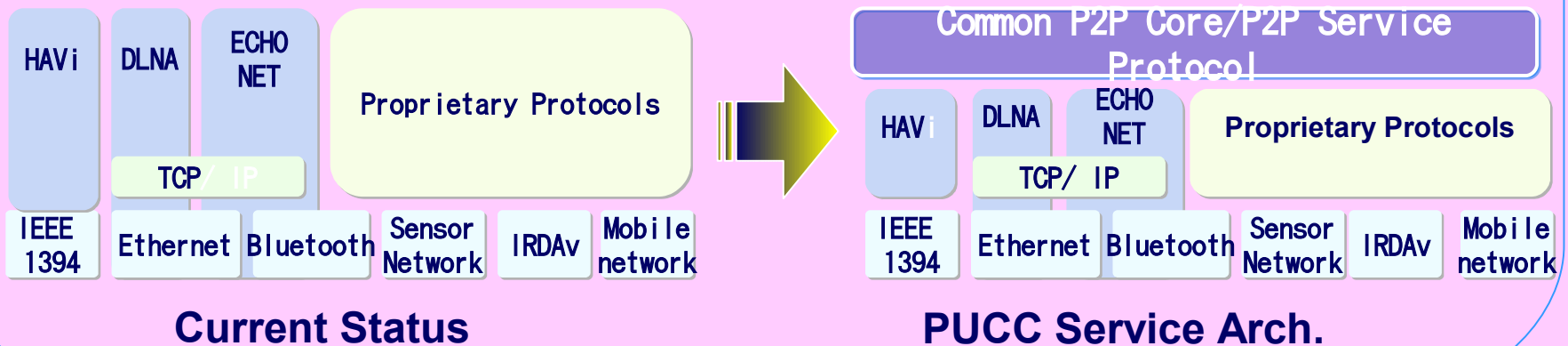


## Light weight P2P Protocol and Common application platform

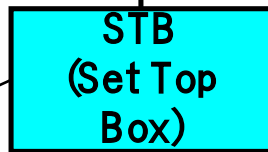
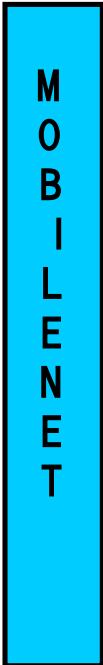
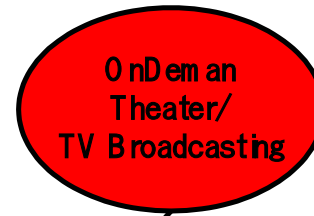
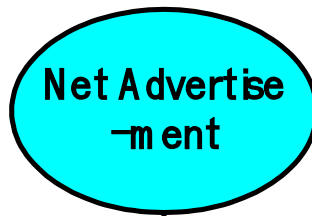


# PUCC Architecture

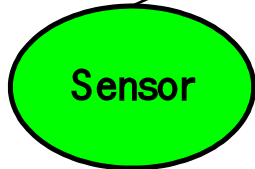
- Common P2P Protocol: Bridge existing NW
- Common Application Service Platform
- Common Metadata to discover/harmonize services



Application(WEB)

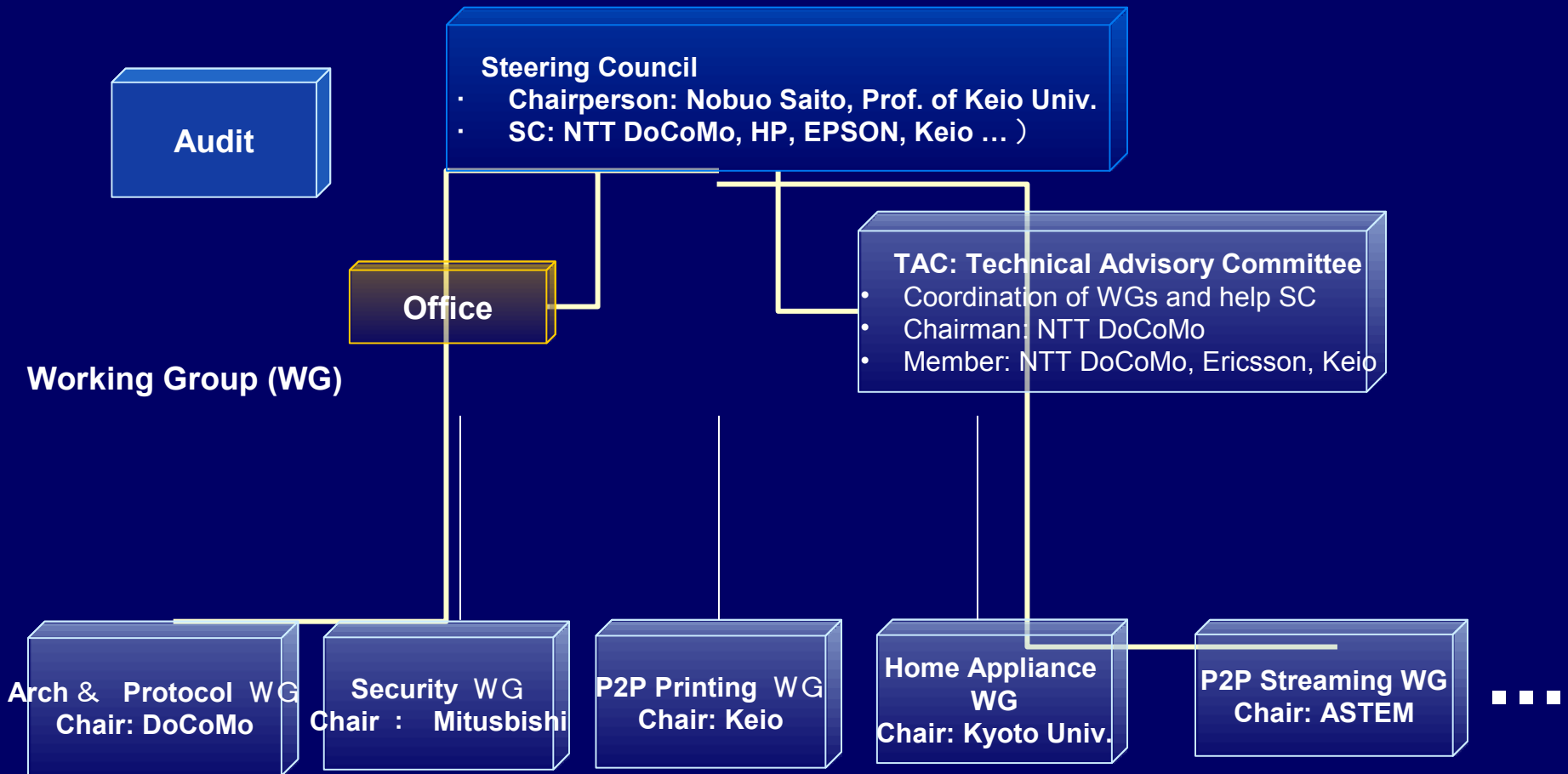


Embedded Chips



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.
- ....

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# Intellectual Property Right Policy

□ RAND



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# Japanese Government

- Platform Development
- Experiment and evaluation



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# Future for PУCC

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



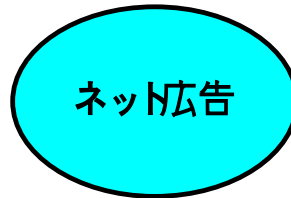
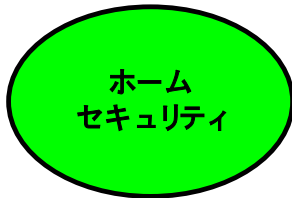
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# WEB Role

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

アプリケーション (WEB)

WEB サーバ



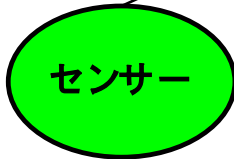
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リッチクライアント



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)