

# CCN/ICN over Android

- An industry perspective and early experiment -

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2011.12.02

@ Global Future Internet Summit, Seoul, Korea

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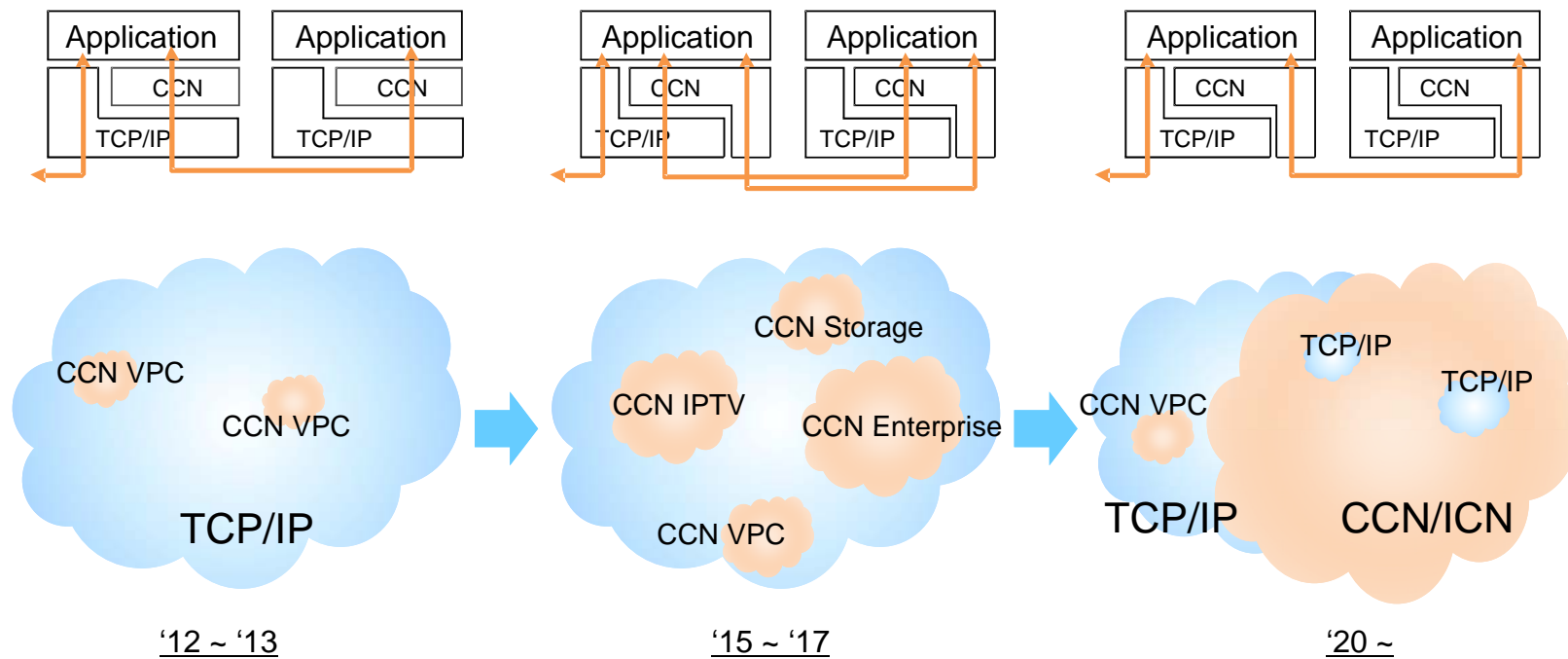
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# CCN/ICN motivation

- Dominant usage of current Internet is to distribute contents such as web pages, music or video files.
- People only value “what,” and are not interested in “where” the contents are actually located.
- IP only cares about “where,” not about “what.”
  - Such gap becomes the source of problems, i.e.,
    - Usability
    - Performance
    - Security
    - Seamless support of mobility

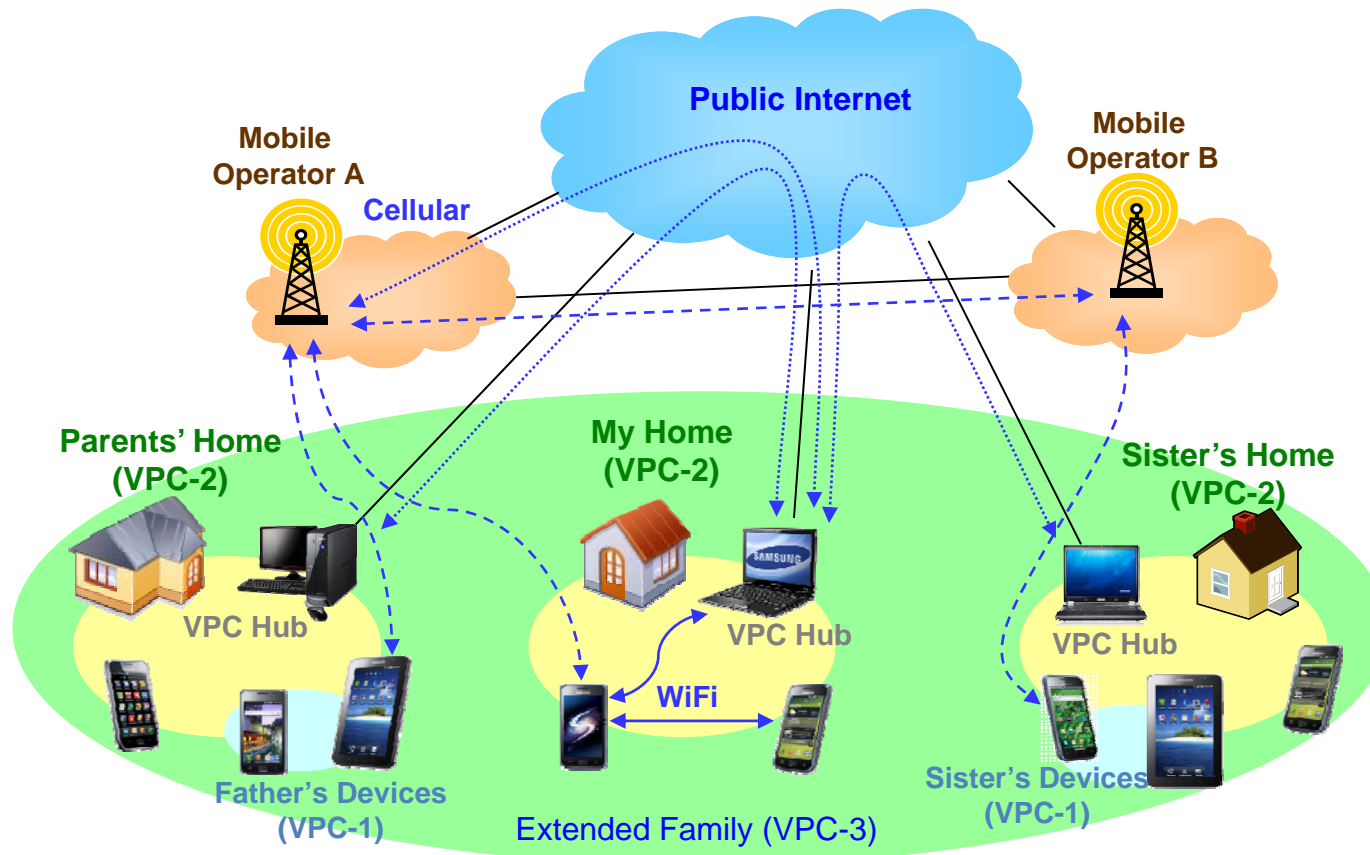
# Deployment – Revolutionary evolution

- Overlay on top of TCP/IP
  - fast local caches with better security, ease of configuration, mobility
- Connected islands
  - sparse at first but each new link adds value (incremental deployment)
- Dominant paradigm over time

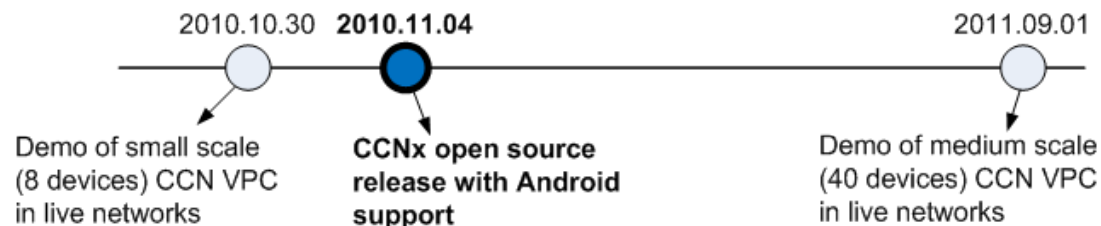
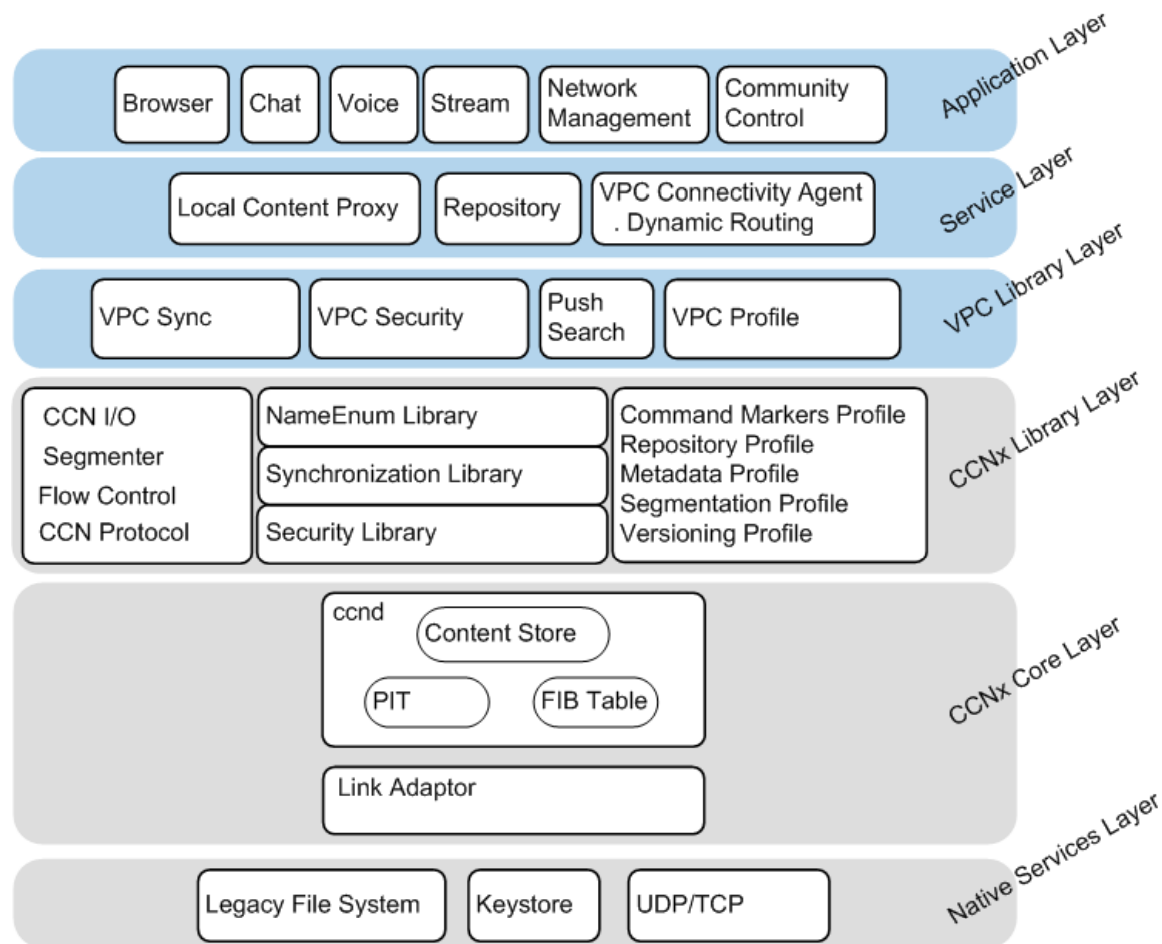


# CCN/ICN over Android - VPC (Virtual Private Community)

- Mobile convergence solution
- Secure & virtual network infrastructure on consumer devices

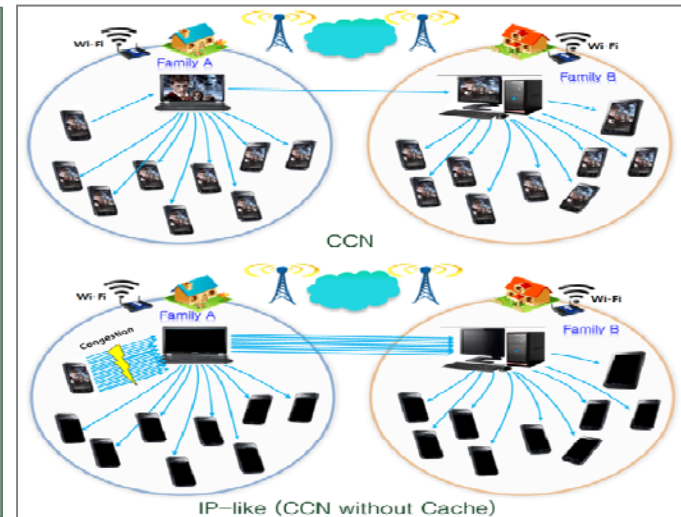
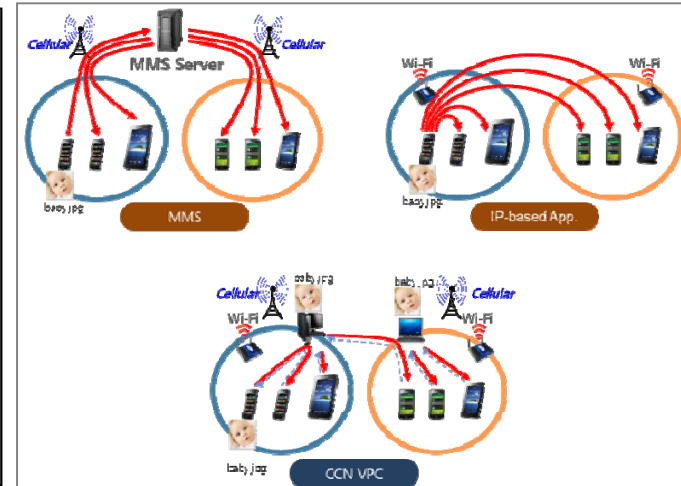
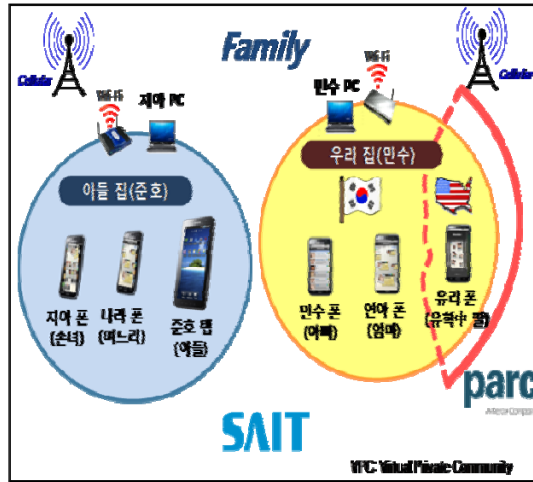


# VPC node architecture



# Experiments

- Android Galaxy S2/Tab, Linux/Windows PC, Smart TV
  - Browsing, Content push, Chat, Easy enrollment, revocation & access control
  - Wi-Fi, 3G cellular across Pacific (KT, SKT, AT&T)



# Moving forward

- Core to edge
  - networked CE devices, IoT (Internet of Things)
- New communication paradigm leveraging storage
  - also for challenged networks with ubiquitous sensors, DTN

