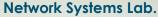


## Korean Perspective on Future Internet

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## It is an opportunity!



- Korea has/had some global leadership in telco sectors
  - Circuit-switched networks (e.g. TDX)
  - Cellular networks (e.g. CDMA, mobile WiMax)
  - Access networks (e.g., xDXL, PON)
- But, never had global leadership in data sectors
  - Internet
- Lack of Internet architects
- Future Internet is a new playground but probably last opportunity that Korea can obtain global leadership in research as well as market after 10-20 years from now
- Our strength in wireless space might provide a good chance.



## We're moving



- Target: 10-20 years from now
- Revolutionary approach
  - Launched "Fundamental Technologies for Future Internet" project this year funded by Ministry of Information & Communications
  - Phase I: 3 year long, \$1.4M per year
  - 15 professors, 80 graduate students
  - Architecture, Service, Wireless, Testbed
- Plan to launch Center of Excellence (CoE)
  - \$10M/year for more than 5 years (not authorized)
- Community building
  - Annual Future Internet Workshop (FIW)
  - Annual Future Internet Camp
  - Plan to raise 500 researcher for next 5 years
- Nationwide testbed building
  - Starting from KOREN
  - \$10M/year (not authorized)
- Regional collaboration to reach critical mass

Network Systems Lab.



## Our Approach for Wireless Future

- Autonomic router
  - Clean-slate design
  - Arbitrarily deployable without pre-planning
    - Self-organizing, self-managing, self-healing
  - Low cost, low power
  - Cognitive radio
  - Wireless technology neutral
  - Distributed radio resource management
  - Cross-layer optimization
  - Innovative mesh protocol stack
  - Innovative mobility management
  - Opportunistic networking
  - Cooperative networking

