

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., xDSL, 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

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