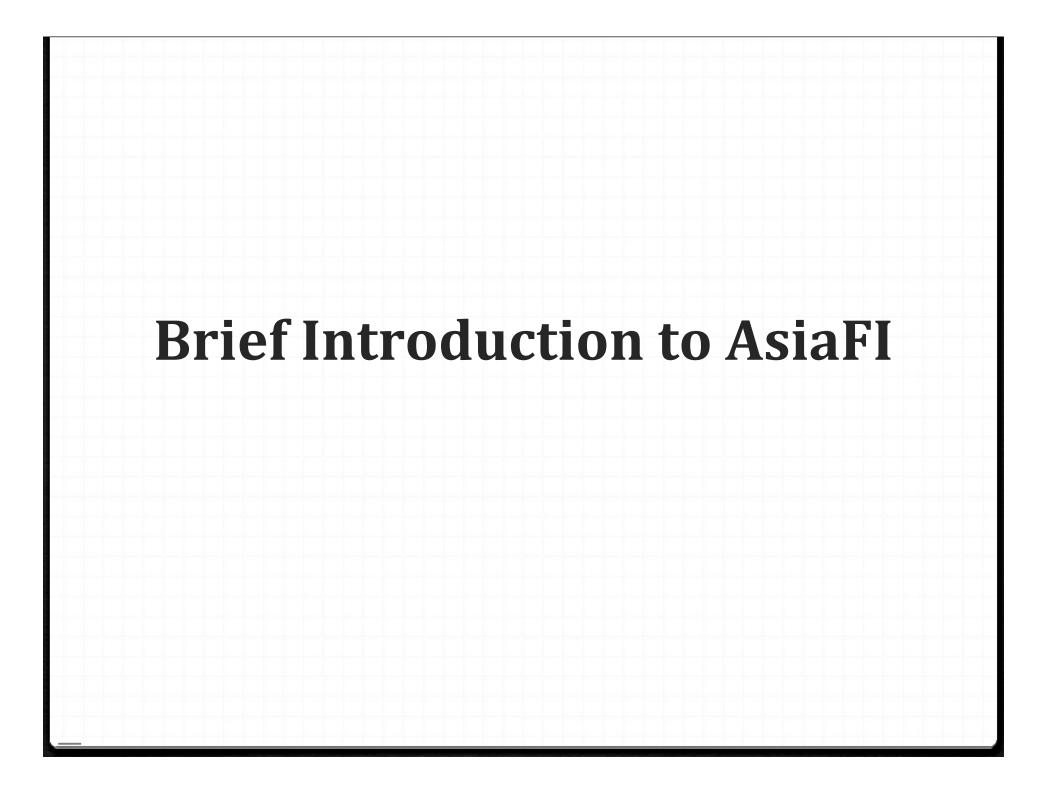# Introduction to AsiaFI and ICN WG

Jun Bi

AsiaFI Steering Group and ICN WG

AsiaFI NDN Workshop

Seoul, Korea

March 20, 2012

Content

O Brief Introduction to AsiaFI (Asia Future Internet Forum)

O AsiaFI NDN/ICN efforts (history and next step)

Brief Introduction to AsiaFI

AsiaFI

0 Asia Future Internet Forum (AsiaFI) was founded to coordinate R&D on Future Internet among Asia counties as well as with other continents.

   0 The 1st Preparation Meeting, Seoul July,2007

   0 The 2nd Preparation Meeting, Xi'An, Aug,2007

   0 The 3rd Preparation Meeting, Seoul, Nov, 2007

   0 The Interim Board and Steering Group was elected in Dec. 2007

   0 The 1st General Meeting, Hawaii, Jan, 2008

   0 The bylaw is approved in April, 2008

   0 The Board and Steering Group for the term 2008-2010 is elected in May, 2008

   0 The 2nd General Meeting, Seoul, June, 2008

0 www.AsiaFI.net

AsiaFI Organization

o Board

o Steering Group

o Technical Groups

   o FITG (Future Internet Technology Group)

   o ICN WG – AsiaFI's "flagship" topic

   o Testbed WG

   o YRG (Young Researcher Group) - BoF

o Secretariat

AsiaFI Schools

O AsiaFI Regular Schools/Workshops

  O 2008 Winter (Seoul) , Summer (Jeju)

  O 2009 Winter (Beijing), Summer (Jeju)

  O 2010 Winter (Seoul), Summer (Yokohama)

  O 2011 Winter WS (Hongkong), Summer (Daejeon)

  O 2012 Summer (Kyoto)

  O 2013 Winter WS(Honolulu), Summer (China)

  O 2014 Summer

AsiaFI Workshops

O Workshops/Tutorials organized by WGs to discuss specific topics

- O 2008.8, 2009.8, WS on FI testbed, Jeju
- O 2010.8, 2011.8, 2012.8, WS on FI architecture (FIA), Yokohama , Daejeon, Kyoto
- O 2008.10, WS on fundamental issues of Future Internet, Qingdao
- O 2009.3, WS on future internet technology for the other billions, Kaohsiung
- O 2009.11, FI Workshop, Bangkok
- O 2010.2, WS on identifiers in FI (WIFI), Seoul
- O 2011.8, Network science workshop, Daejeon
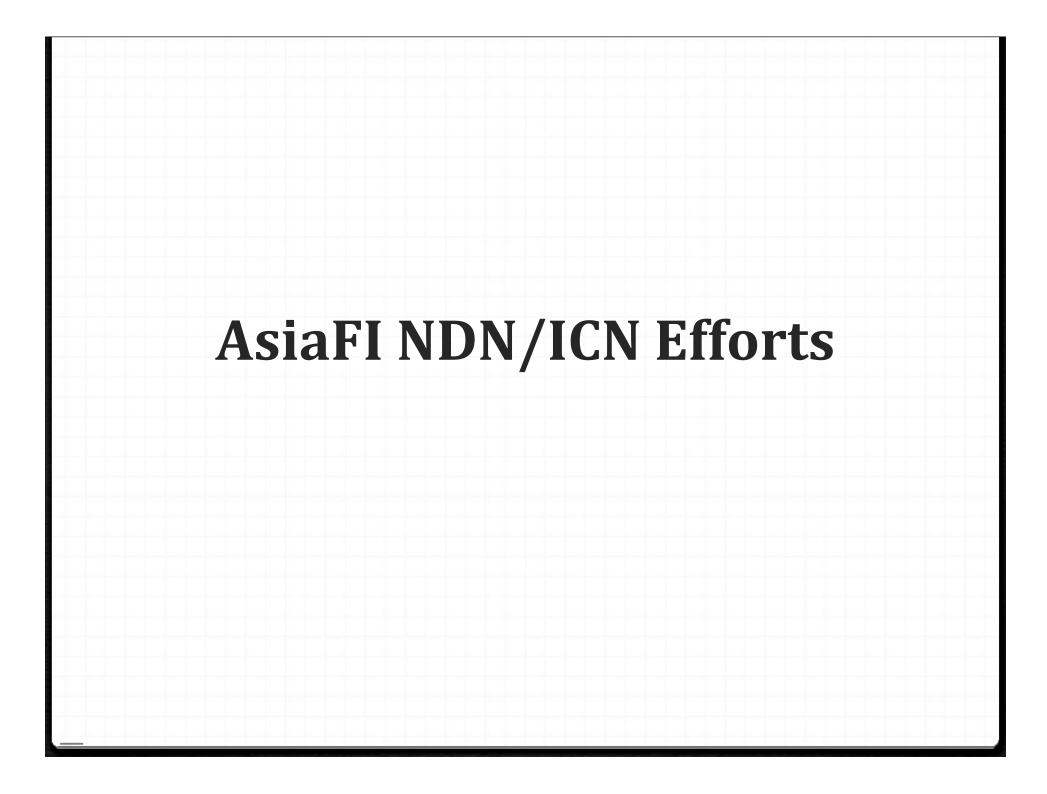- O 2012.3, NDN hands-on workshop, Seoul

Co-sponsered Conf/WS

O Conference/Workshops (with papers published by ACM/IEEE)
   O International Conference on FI (CFI),Seoul,
      O 2006,2007,2008,2009,2010,2011, 2012…..
         O Please consider to submit papers!
         O Submission Deadline March 31, 2012
   o Workshops in conjunction with conferences
   O MICNET 2009, Beijing, with Mobicom
   O Workshop on FI Trust and Security (FIST), 2009-2011, with SAINT and ICNP
   O Asia Workshop on FI Technology 2011 (AWFIT), Bangkok, with AINTEC

AsiaFI Participation

O 14 Countries

O 45 Institutions with MoU

O 500~1000 Participants(2008~2012)

O 250~500 Student Participants

Example:AsiaFI Summer School, Daejoen 2011.8

- 7 countries
- 94 participants
- 41 student participants
- 21 students with paper presentations

AsiaFI NDN/ICN Efforts

NDN Introduction Phase

o 2010.2.24 AsiaFI/FIF Workshop on Identifiers in Future Internet (WIFI), Seoul (during AsiaFI winter school)

   o Workshop focuses on new ID for mobility

   o Discussed Name vs. ID at Panel

      o No clear consensus at panel

      o Rough consensus: name is more like an upper layer id

NDN Introduction Phase

O 2010.8.24-27 AsiaFI Summer School, Yokohama

  O Invited talks at school and FIA workshop

   O Introduction to Named Data Networking, Lixia Zhang

   O Evolving Internet into the Future: Named Data Networking, Lixia Zhang

   O NDN applicability to automotive scenarios: Ryuji Wakikawa

NDN BoF Phase

o NDN BoF during 2010 Summer School

  o Consensus: NDN is an interesting new research direction

  o Decided to set up NDN BoF towards a new working group

NDN BoF Phase

0 2011.2.23 AsiaFI Workshop/Meetings at APAN-APRICOT, Hongkong

 0 Invited talk on NDN

  0 Evolving Internet into the Future: Named Data Networking, Lixia Zhang

 0 AsiaFI NDN BoF meeting on 2011.2.24

  0 Lixia Zhang and Dan Massey introduced NDN project progress

  0 Jun Bi and Sen Wang introduced UCLA-Tsinghua joint efforts on NDN audio conf. tool with a demo

  0 YH Choi introduced a planed NDN project at SNU

  0 Initial plan to organize a NDN hands-on workshop with Homework

NDN BoF Phase

- 2011 8.8-8.12 summer school, Daejeon
  - About 3 students papers on NDN/ICN
    - Research on wireless NDN architecture, SNU
    - Caching in Information-Centric Networking, Tsinghua
    - SIONA: A Service and Information Oriented Network Architecture, Tsinghua

ICN WG Phase

- AsiaFI NDN BoF during 2011 Summer School
  - Participants
    - China: Tsinghua (4), BUPT(1)
    - Japan: Keio (2), IIJ Lab(1), NICT(1)
    - Korea: SNU(3), KHU(1), Konkuk(1), GIST(1), KT(3), Bell Labs Korea(1), Samsung(1)
  - CJK NDN/ICN research updates
    - Tsinghua, SNU, KT
  - Draft WG charter was approved
  - Agreed to set up AsiaFI ICN WG
  - Approved by SG/board later

ICN WG Phase

O 2011.11.12 AWFIT Workshop at AINTEC11, Bangkok

  O Keynote speech on NDN and how to start your own research on NDN by Lixia Zhang

  O 4 papers on ICN/NDN among 12 accepted papers

    O Content-Oriented Transport Protocol, U. Tokyo

    O Could in-network caching benefit Information-Centric Networking?, Tsinghua

    O Potential Based Routing for ICN, NICT/Osaka Univ

    O A New Approach to Securing Audio Conference Tool, UCLA

NDN/ICN Publications

o SIGCOMM2011 ICN WS

   o 1 (China joint with USA) among 12 papers

o INFOCOM2012 NOMEN WS

   o 3 among 11 papers

   o Korea:1, China:1, Korea joint with USA: 1

   o France:4, USA:4

o MOBIHOC2012 NOM WS

o SIGCOMM2012 ICN WS

AsiaFI NDN Workshop

O 2012.3.19-21, AsiaFI NDN Workshop, Seoul

O Total registrations : ~90

O Students : ~60

O From 25 institutes (average 3-4 persons)

  O Universities (17)

    O SNU, Tsinghua U, KAIST, Keio U, Waseda U, KHU, Kyushu U, POSTECH, Yonsei U, Shanghai Jiaotong U, CNU, SKKU, Konkuk U, Kyoto U, Silpakorn U, Dong-Eui U.

  O Research Institutions (5)

    O NICT, GIST, KISA, NIMS, NUS

  O Research Labs in Industries (3)

    O Huawei, SAIT/Samsung, KT

AsiaFI ICN WG Charter

o Goal
  o Organize ICN related tutorial/workshop
  o promote discussions/joint research
  o coordinate prototyping/testing
o Scope
  o ICN Research (Architecture /Routing/Forwarding /Caching/Application)
  o ICN Prototyping, Test-beds
  o Special focus on NDN in the current phase: NDN-Asia
o Chair: Jun Bi, Co-chairs: Hitoshi Asaeda/Kideok Cho
o http://www.asiafi.net/org/ndn/
o Wellcome to join icn@asiafi.net

Next Step of ICN WG

0 ICN/NDN Day at 2012 Summer School, Kyoto

0 Morning: Invited speakers to present

- 0 USA, Europe
- 0 China/Japan/Korea NDN research update

0 Afternoon: Students in this area to present: papers & posters

0 NDN Discussion among professors/researchers and students

Next Step of ICN WG

O ICN/NDN "Vision Statement" at WG mailing-list

O ICN WG Meeting and Election during 2012 summer school

O NDN Session at 2013 Honolulu APAN/AsiaFI FI Workshop/Meetings

O NDN topic at 2013 summer school (China)

O Joint research/testbed in Asia

O Welcome to this community!

Thank You!