CJK Testbed Collaboration for NGN - Phase I Plan

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The 4th CJK NGN Working Group Meeting
June 24~25, 2005, Beijing, China

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Work Items
in the Terms of Reference

- Define Objectives of the CJK interoperability tests for NGN (4th Meeting)
- Define Roadmap (4th Meeting)
- Define Network Architecture (Physical, Transport and Service Topologies and underlying technologies (e.g., MPLS, etc.)) of the test-bed both intra- and inter-domain scope (4th Meeting)
  - In Intra-domain case, each administration decides its own network (e.g., KOREN or APII in case of Korea) and enhances its functionalities to conform to NGN
- Define Implementation Agreements for inter-domain connectivity (5th Meeting)
- Define target services, target components, test scenarios and test case suits (5th Meeting)
- Recruit participants for equipment and services at each test-bed site (5th Meeting)
- Establish a dedicated reflector for detailed discussion

Objectives
in the Terms of Reference

- Interconnecting CJK NGN Test-beds and building a common NGN technology testing infrastructure
- Feasibility testing prior to NGN commercial deployment
- Interoperability testing for Standard-based NGN components developed by CJK
- Providing NGN service development platform especially focusing on inter-country issues
- Reflection of testing results into corresponding standardization activities periodically
- Cooperation with other international NGN related test-beds and their activities such as MOONv6, Plugtests, GMI, etc. (*Note: This issue will be revisited in the future meeting*)

Phase I Objectives

- Proposal to extend Phase I from 2006. 3 to 2006. 12
- Define an architecture of a test-bed among CJK to promote mutual efforts to implement, test, deploy NGN technologies
- Define test items, cases, and scenarios for Phase I
- Organize the first Interop Testing Lab hosted in one location among CJK during 2nd Quarter of 2006
- Organize the first CJK NGN Interoperability Event (CNI2006) co-located with ITU-T SG13 meeting during 4th Quarter of 2006
- Cooperative reflection of experiences gained during Phase I into international standard bodies (ITU-T SG13/other related SGs and SDOs (e.g. IETF))
- Define roadmap for Phase II

Phase I Roadmap

- Duration: 2005. 7 ~ 2006. 12
- 2005. 7 ~ 2005. 12
  - Define an architecture of a test-bed
  - Define test items, cases, and scenarios for Phase I
- 2006. 1 ~ 2006. 6
  - Organize the 1st Interop Testing Lab hosted in one location among CJK
- 2006. 7 ~ 2006. 12
  - Organize the first CJK NGN Interoperability Event (CNI2006) co-located with ITU-T SG13 meeting
  - Establish the CJK test-bed
  - Define roadmap for Phase II

Test-bed Architecture

- Each Administration (responsible organization for a test-bed operation) establishes a respective domestic NGN test-bed
- Design a common architecture among CJK which can interconnect three national test-beds
- Design physical and logical connectivity details (e.g., bandwidth, topology, VLAN or L2/L3VPNs)
- Decide transport protocols used (e.g., MPLS)
- Decide session control protocols used
- Decide service provider(s) for the operations of each test-bed
- Utilize the existing inter-country connectivity projects such as APII IPv6 (Japan-Korea) and China-Korea APII test-bed
- Design a common NOC (Network Operation Center) for the CJK test-bed

Test Items, Cases, and Scenarios

- Service oriented vs technology oriented
- Service-oriented
  - Define services as test items first
  - Then define service specific technologies as items
  - Test service features
  - e.g., QoS-aware L2VPN/VPLS, VoIP, IPTV, etc.
- Technology-oriented
  - Define specific technology as test items
  - Test functionality details
  - e.g., RACF, Performance Monitoring/SLA Monitoring, Accounting for Billing, etc.
- If NGN services are available for Phase I testing, service-oriented method can be used
- If not, NGN individual technology can be tested in advance of services
- Another influence factor is the standardization requirements related with testing

Interoperability Testing Lab

- Hosted in one location among CJK during 2nd Quarter of 2006
- Local pre-testing event before the real inter-CJK interoperability testing
- Specific NGN technology testing is main focus
- One voluntary organization can host the event and others participate it
- Test items, cases, and scenarios will be decided during next two meetings (2005. 11 and 2006. 3)

CJK NGN Interoperability Event

- Co-locates with ITU-T SG13 meeting during 4th quarter of 2006
- Leverage experiences gained from the local interop testing lab
- Define a specific testing scope within NGN Release 1 service and functionality
- Demonstrate inter-CJK NGN collaboration effort to the rest of the world
- Feedback the experiences into NGN standardization