

Understanding and Development idea for NGN

- NGN research trends
- NGN development direction
- NGN realization object

Basic concept of NGN

- It generally refers to a confluent network which adopts a great deal of innovative technology and focuses on IP, yet supports voice, data and multiple media services.
- NPN, CUN, UN, NGN, are not the simple extension and repetition of existent network, but an continuously evolutive concept and process,.
- In service: support voice, video and multiple media service
- In network: include service plane and transfer plane in vertical and include core network and Access network in horizontal

What is NGN?

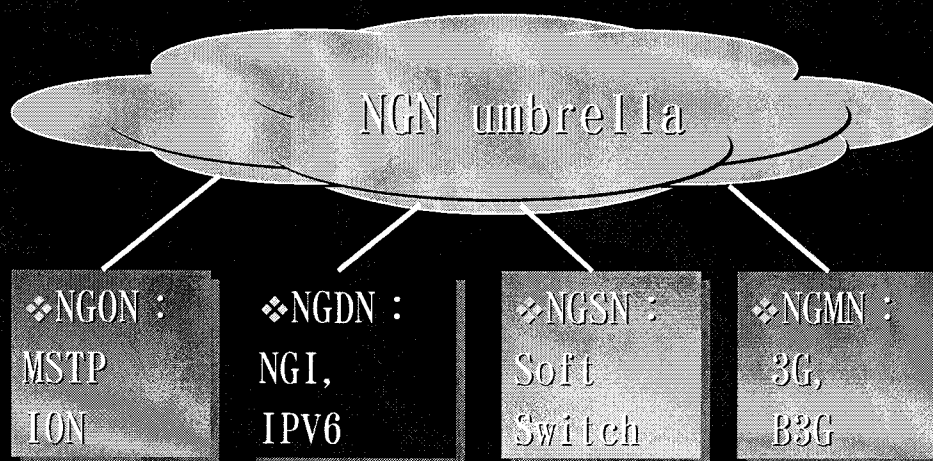
- ITU-T thinks GNG is concrete realization of GII.
- As far as service plane is concerned, NGN is next generation service network.
 - As far as telephone network is concerned , it is a switch system.
 - As far as data network is concerned, they are next generation internet and IPv6.
 - As far as mobile network is concerned, they are 3G and B3G.
- Only as far as transfer plane is concerned, it is next generation transfer network (include MSTP, hyper long distance transmission and intelligent optical network).
- Broad sense of NGN refers to next generation confluent network, it can cover three networks.
- Narrow sense of NGN refer to a new open switch system frame whose control plane is soft switch.

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Category of broad sense NGN



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Research trends of NGN

- Study items about the NGN in the world
- ITU — T starts NGN 2004 Project
- The research on NGN in ETSI and NGN action project of NGN (NGNI)

Development directions of NGN

- Development directions of NGN
- IP network will be the core of NGN
- commercial mode of network;
- Operational mode of network
- design idea of telecommunication services
- The next generation network will involve the advantages of traditional telecommunication network and internet.

The acquaintance of telecommunication operator to NGN (1)

- Instead by long-distance and international communication, a great deal of services are by IP, and it is by mobile communication in local network. In this case, The new strategic approach to decrease the network cost, increase income and develop new services is badly needed. NGN provides an important chance.
- In order to control the development trends of the important technology in time, China telecommunication decides to start NGN testing project. Its aim is to accumulate experience for china telecommunication network and to prepare in idea, technology and training.

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The acquaintance of telecommunication operator to NGN(2)

- China telecommunication not only thinks the NGN is update in switch equipments, but also has long strategic understand.
- It is open and distributing in frame and continuous development in service. It must cover from core to edge, from wire to wireless in network. There must be many companies to realize interoperation in applied environment.
- To be brief, NGN must be whole and evolutive resolve project of point to point , but not partial update. It will be completed fluently under our long and hardly efforts

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Research development(1)

- As economic strength increases step by step and telecommunication industry develops continuously in China, the capacity of telecommunication market is tremendous, which has become a hotspot for international and national industry. The national technical strength increases fast, and the research in NGN reach the advance international level. Innovative ability has been held, and to a certain extent the innovation has began. The requirement for NGN is insistent in nation, which will affect the project of NGN directly. Operators and manufacturers need the government to organize the research to NGN, so as to induct the development of the industry.

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Research development(2)

- The following items has began in nation: 3T network, ASON, soft switch and so. These items are important parts of NGN. Study bodies have started to research in IPV6 and IPV6 testing network. Because of shortage of the push from the government, the power is scattered. Now the key problem is to found NGN item, study the frame of NGN, construct the test-bed of NGN, organize the industry to resolve the key problem of NGN and establish industry standards under the government to meet the need of national telecommunication development and to induct the development direction of national telecommunication industry.

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Development status of China telecommunication

- It began to be realized that grouping and confluence is main direction in 1997.
- It was realized that overlap network is the better evolutive strategy to NGN in 1998.
- The strategic research reports to affirm the direction and evolutive course were finished in 1999.
- The laboratory test was started in Feb. 2001.
- The test project item of NGN was started in Jul. 2001.
- The test project contract was subscribed with five firms on the 22nd Mar. 2002.
- The spot test and operation will be put up from Jul. 2002 to Mar. 2003.
- Based on the analysis result of the technology, service and economy of test project, the next direction will be decided.

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Function of China government in the development of NGN

- Search and produce new industry hotspot, lead industry development direction.
- From the whole situation, from the enforcement of the national power, from the safety of the country, network safety and the key technology of the equipments. Self-determination intellectual property —→ core competitive power.
- Organize and mobilize industry to resolve key technical problems.
- Use standards to drive the industry development and push industrialization progress.
- Telecommunication industry meets the national requirements —→ makes for the world

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The general objective of NGN(1)

- Confirm the systematic structure and technical standard of NGN (IP telecommunication network).
- Confirm the key technology of NGN (IP telecommunication network).
- Build the test-bed of NGN.
- Realize the industrialization production of network node equipment and service systematic equipment.
- Build the next generation telecommunication business network.

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The general objective of NGN(2)

- lead the development of telecommunication information industry development
 - Operation industry
 - Basic telecommunication service
 - Incremental telecommunication service
 - Telecommunication equipment manufacturing equipment manufacturing
 - Telecommunication software industry
 - Telecommunication micro-electronics industry

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Thank you!

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