Practice Development Trends of NGN for Developing Country: SoftX vs IMS

Baofeng (Felix), ZHANG
Rapporteur of Q6/13 ITU-T
Vice Director of Research and Standard Dept,
Core Network Division in Huawei Tech. Ltd.Co.
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- What are we looking for?
  - Telcos’s expectation on NGN and IMS.

- Opinions on the Deployment
  - Possible relationship between SX and IMS
  - Some Examples for the real deployment
What Telcos are doing without IMS?

- **Circuit-based**
  - Perfect Voice Communication
  - Basic Data Communication, partly convergence
  - Basic Multimedia Communication, partly convergence

- **IP-based**
  - Perfect Inheriting of Voice Communication
  - Broadband Data Communication, but most independent deployment
  - Multimedia Communication, more convergence than Circuit Age
What is the expectation for NGN and IMS by Telcos?

Top three concerns

- Cost
- Integration
- Security
- Mobility
- Performance
- MPLS implementation
- Geographic coverage
- Management
- Convergence
- Applications
- Strategy
- Remote access
- Other

Respondents
What Telcos wish IMS could do?

- Layered architecture
  - Separates transport, control and applications
  - "We can buy best of breed at every layer!"
- Access-agnostic
  - Simpler convergence of fixed and mobile networks
  - "Services no longer tied to access network technology!"
- Real-time IP applications
  - With QoS, security, charging
  - "A means to fight IP applications leakage to the Internet!"
- New kinds of applications
  - Blended together
  - "Higher ARPU, lower churn!"
- More applications, much more quickly, at much lower cost
  - But controlled, supplied and billed by service provider
  - "No need to rely on a few killer apps!"
What’s IMS services?

- Messaging services (IM, SMS, MMS etc.)
- Push to talk over NGN (PoN)
- Point-to-point interactive multimedia services (e.g. interactive real-time voice, real-time text, real-time video, total conversation, voice telephony with text, etc.)
- Collaborative interactive communication services (multimedia conferencing with file sharing and application sharing, e-learning, gaming)
- Push-based services (e.g., IP multimedia services, MMS, and new services including public safety, government, corporate IT etc.)
- Content delivery services (Radio and Video streaming, Music/Video on demand, TV channel distribution, financial info distribution, professional and medical image distribution, electronic publishing)
- Broadcast/Multicast services
- Hosted and transit services for enterprises (IP Centrex, etc.)
- Information services (e.g. cinema ticket info, traffic status, advanced push)
- Location based services (tour guide, assistance for emergency call etc.)
- Presence and general notification services
- Real-time conversational voice services
- 3GPP Release 6 and 3GPP2 Release A OSA-based services

IMS will start from non real-time, non voice service first: data-based service
What is the plan for Telcos?

When do you expect to see widespread deployment of IMS in your company's networks?

- By the end of 2006
- In 2007-2008
- After 2008
- Never
- Don't know/not sure

Source: Heavy Reading
Conclusions

- We are looking for……
  - Money and Flexibility !!!
    - Revenue from new APP
    - Open Arc to reduce COPEX
    - Be Converging and easy to deploy new APP to reduce OPEX
    - ……

- But we must think about ……
  - What’s the real situation of the APPs to market?
  - Evolution not Revolution to future
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Evolution Road from current Network

ITU-T

2G
- PSIN
- GSM
- CDMA

3G
- F-SoftX + MG + IAD/AG
- 3G R99
- 3G R4
- MSofT X+MG
- 3GPP IMS
- 3GPP2 MMD

3G-based NGN

AIPN

NG IMS?

4G B3G Core Network

4G B3G Network?

Others

ITU-T Workshop on "Next Generation Networks"
Hanoi, Vietnam, 15-16 May 2006
Co-existing of Softswitch and IMS

- PSTN C5/C4
- Basic H.323 / SIP
- VoIP, multimedia

- SIP-based MM VAS
- FMC service
- VoIP for some special application

PSTN Switch

SoftX3000

AG/IAD

HSS / sHLR

CSCF&AS

IMS

H.248/MGCP/IUA

Map

Diameter

H.323

VoIP, multimedia

SIP-based MM VAS

FMC service

VoIP for some special application

ITU-T Workshop on “Next Generation Networks”
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Evolution: IP Multimedia Capability Enhancement as Softswitch provides PSTN/AN services
Huawei’s Smooth Evolution Solution

- Same Network Architecture
- Minimum System Change
- Shared HW&SW Platform

ITU-T Workshop on "Next Generation Networks"
Hanoi, Vietnam, 15-16 May 2006
SoftSwitch vs IMS in General

- IMS is a clear trend, especially for the non real-time services;
- There is no confliction between the softswitch and IMS.
- Softswitch is the best way if the requirements focus on the voice communication.
Challenges
- Hard to provide enhanced services in old PSTN switch
- Hard to provide unified user experiences for users in whole province

Benefits
- IMS based smart network solution, easy to migrate to IMS network.
- ENIP AS provides unified service experiences for whole province users, and provides more enhanced services, such as MRBT, Video conference, IP Centrex, UC, WEB 800, etc.
- Reducing CAPEX and OPEX
First National Wide NGN Network Consolidation in LATA --U-SYS in CANTV, Venezuela

Challenges

- As the largest operator in Venezuela, CANTV strives to provide more service experiences to all its’ end customers in the country but run the network at an overall low cost.
- Existing analog switches and old digital switches: high OPEX and hard service deployment.

Benefits

- National Wide Network Coverage: 180K lines and 30K DTs
- Whole network intelligence and overall low O&M cost
- Multiple Services: Voice, B/W list, video call/conference, CRBT, etc.
U-SYS in Jazztel, Spain

Challenges
- The existing voice network: small capacity, unclear network structure and high maintenance cost.
- Services like NP are very difficult or even impossible to be realized on old network.
- Complete the new network construction within six months.

Benefits
- Large capacity network bearing 390K lines and 75K trunks.
- Customized service including Number Portability, Indirect Access, which can fully take advantage of the ULL policy.
- Advanced network architecture. Centralized network management system and automatic service provisioning system.
Worldwide NGN Application

- Etisalat, UAE
- BTC, Bulgaria
- PCCW, Hong Kong
- TOT, Thailand
- JAZZTEL, Spain
- Cantv, Venezuela

In June 2005, Huawei Technologies received the Frost & Sullivan Asia Pacific Technology Award for:

"NGN Infrastructure Vendor of the Year 2005"
Thank You

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