



**APT/ITU Conformance and
Interoperability Event**

09 – 10 September 2013, Bangkok, Thailand



**Document C&I/INP-05
09 September 2013**

Socialist Republic of Vietnam

NGN INTEROPERABILITY ISSUES

The image shows the top portion of a presentation slide. On the left is the VNPT logo, which includes the text "VNPT" and "Tập đoàn Bưu chính viễn thông Việt Nam" (Vietnam Post and Telecommunications Group) along with a stylized blue bird icon. The background of the slide is light blue with a faint pattern of binary code (0s and 1s). A large, dark blue rounded rectangle is centered on the slide, containing the text "NGN INTEROPERABILITY ISSUES" in white, bold, sans-serif capital letters. At the bottom of the slide, there is a dark blue footer bar containing the website "www.vnpt.com.vn" on the left and three small circular icons on the right.

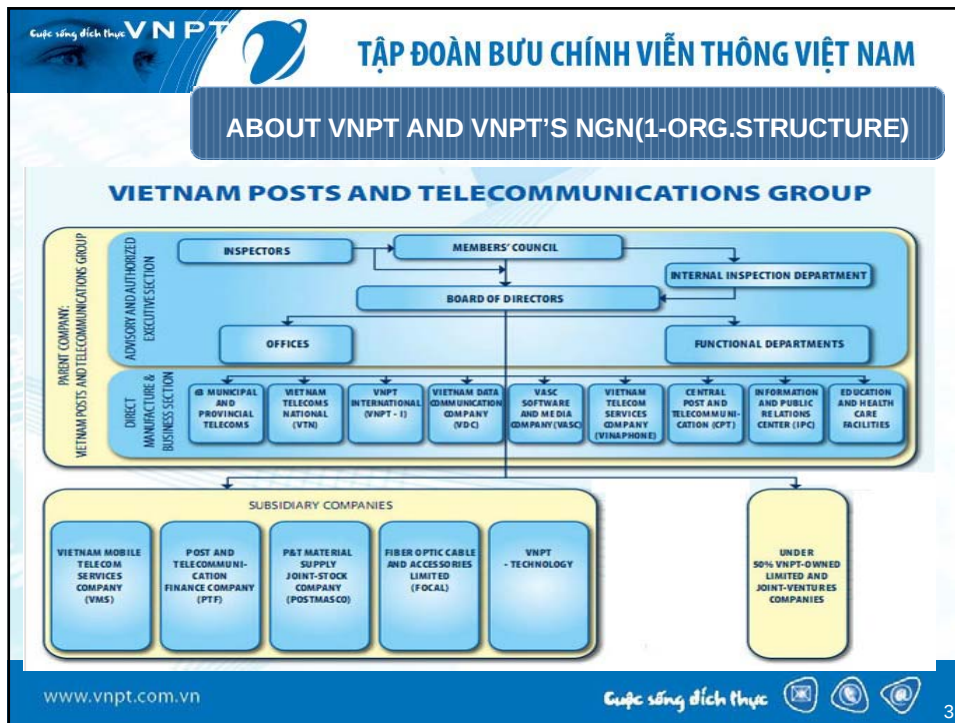
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graph TD; A[ABOUT VNPT AND VNPT'S NGN] --> B[INTERCONNECTIONS BETWEEN VNPT'S NGN AND OTHER'S NGN]; B --> C[VNPT'S REQUIREMENTS FOR INTERCONNECTION]; C --> D[VNPT'S PROPOSALS TO COMFORMITY AND INTEROPERABILITY ACTIVITY];
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ABOUT VNPT AND VNPT'S NGN

INTERCONNECTIONS BETWEEN VNPT'S NGN AND OTHER'S NGN

VNPT'S REQUIREMENTS FOR INTERCONNECTION

VNPT'S PROPOSALS TO COMFORMITY AND INTEROPERABILITY ACTIVITY



TẬP ĐOÀN BƯU CHÍNH VIỄN THÔNG VIỆT NAM

ABOUT VNPT AND VNPT'S NGN(2 – DEV. STRATEGY)

DEVELOPMENT STRATEGY AND DIRECTION

VISION

VNPT is a "Top 1 Vietnam – At International Level" group in terms of Posts, Telecommunications and Information Technology development, assessing the competitive edges to compete with other large telecommunications groups in international markets.

MISSION

VNPT is always striving to apply posts – telecommunications technology and information technology successfully, bringing good values to Vietnamese consumers and people.

CORE VALUE

Traditional value: Going along the nation's history of revolution, VNPT has always shouldered the duties of both doing business and serving the Party, the State and the people of Vietnam.

Human value: VNPT commits to serve customers in the best manner, benefit partners, contribute to the community and improve the life of our employees. All are: **"For people, towards people and among people"**.

Connecting value: By conquering many heights in advanced posts – telecommunications technology and information technology, VNPT helps to close the gaps among people, to win over the distance of time and space to share happiness, success, knowledge and precious memories in life.

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Cuộc sống đích thực VNPT **TẬP ĐOÀN BƯU CHÍNH VIỄN THÔNG VIỆT NAM**

ABOUT VNPT AND VNPT'S NGN(3 – NGN MILESTONES)

Phase 1 (2003): implemented IP Core network, Surpass System and xDSL in provinces. Supplying Internet Service, VoIP Transit

Phase 2 (2004): extended xDSL system in provinces. Supplying 1800,1900 service

Phase 3 (2005): extended Surpass System. Supplying 1719 service

Phase 4 (2006-2007): extended Surpass System and xDSL system. Supplying IP Centrex Service and FixSMS Service

2008: Built VN2 (IP/MPLS transmit network) . Backbone bandwidth up to: 130++ Gbps

2010-2011: selected Alcatel-Lucent to deploy IP Multimedia Subsystem (IMS) solution. Supplying services: IP Centrex, CRBT, Voice mail box...

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ABOUT VNPT AND VNPT'S NGN(3 – NGN SERVICES)

FixSMS – Fixed line SMS

1719 – Calling card

1800 - Free phone

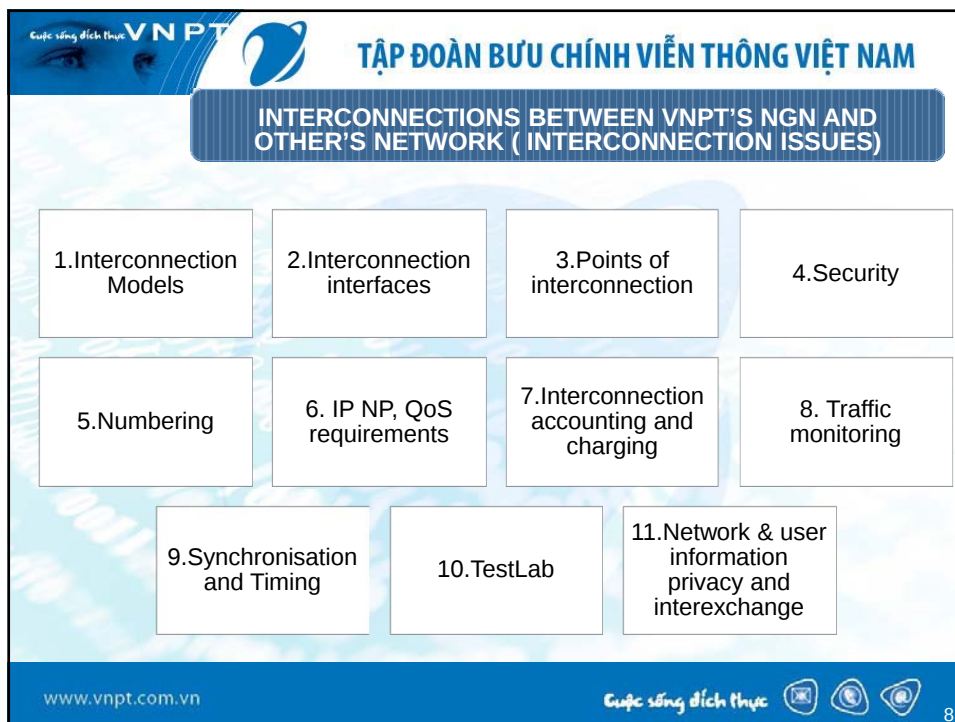
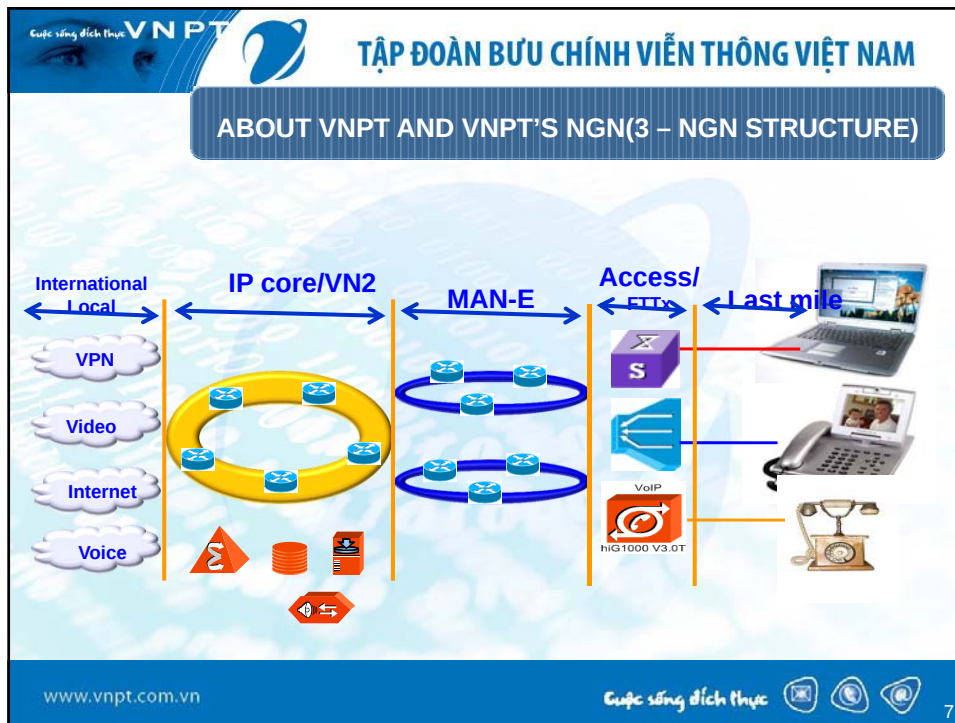
1900 - information and entertainment services

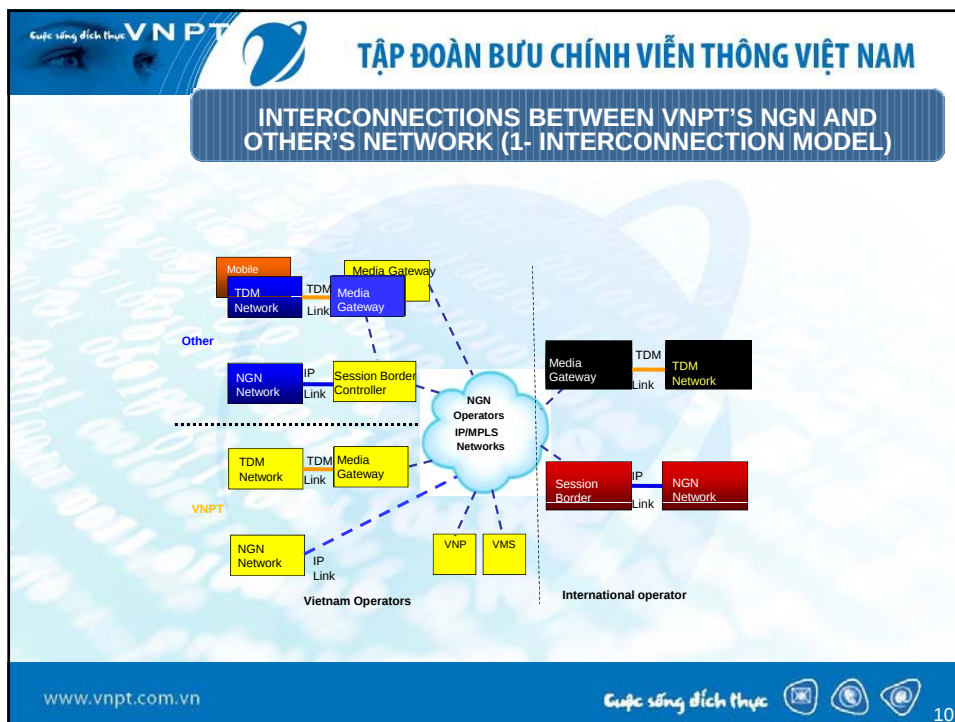
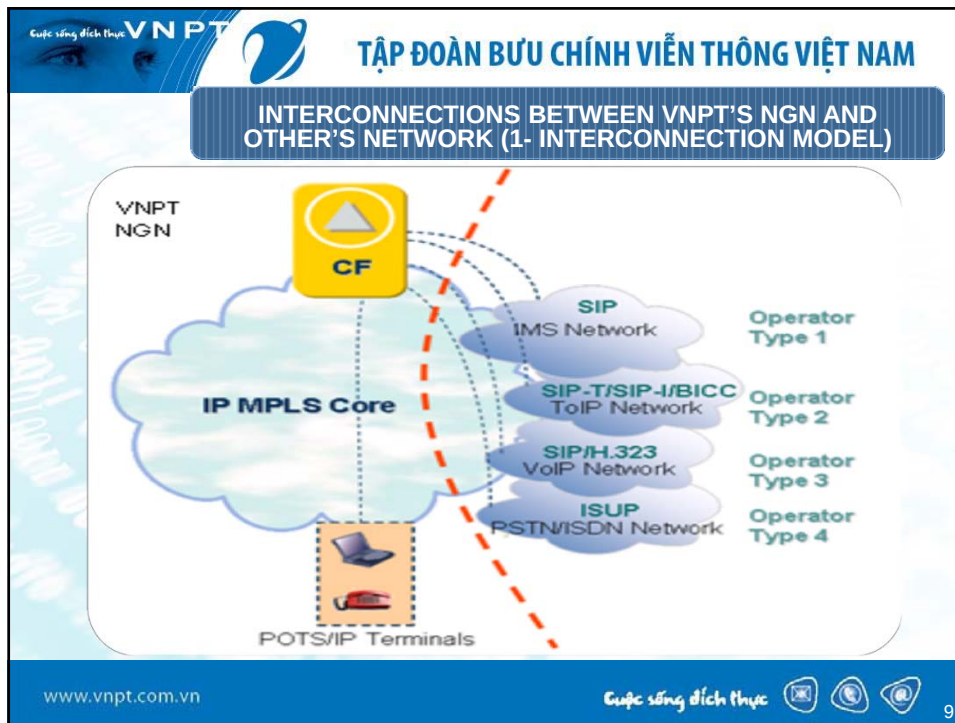
MegaWan - VPN

IP Centrex

Video Conferencing

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INTERCONNECTIONS BETWEEN VNPT'S NGN AND OTHER'S NETWORK (2- INTERCONNECTION INTERFACES)

Network Interface

- TDM: ISUP
- IP: SIP-I, SIP-T, IPv4, IPv6

Physical Interface

- GE (Gigabit Ethernet)
- FE (Fast Ethernet 10/100 Base-T).

Signaling Interface

- Type 1: SIP (IETF RFC 3261)
- Type 2: BICC (ITU-T Q.1901)/SIP-I (ITU-T Q.1912.5)
- Type 3: SIP (IETF RFC 3261)/H323
- Type 4: SIGTRAN (IETF RFC 2719) /M3UA (IETF RFC 3332) /SCTP (RFC 2960)

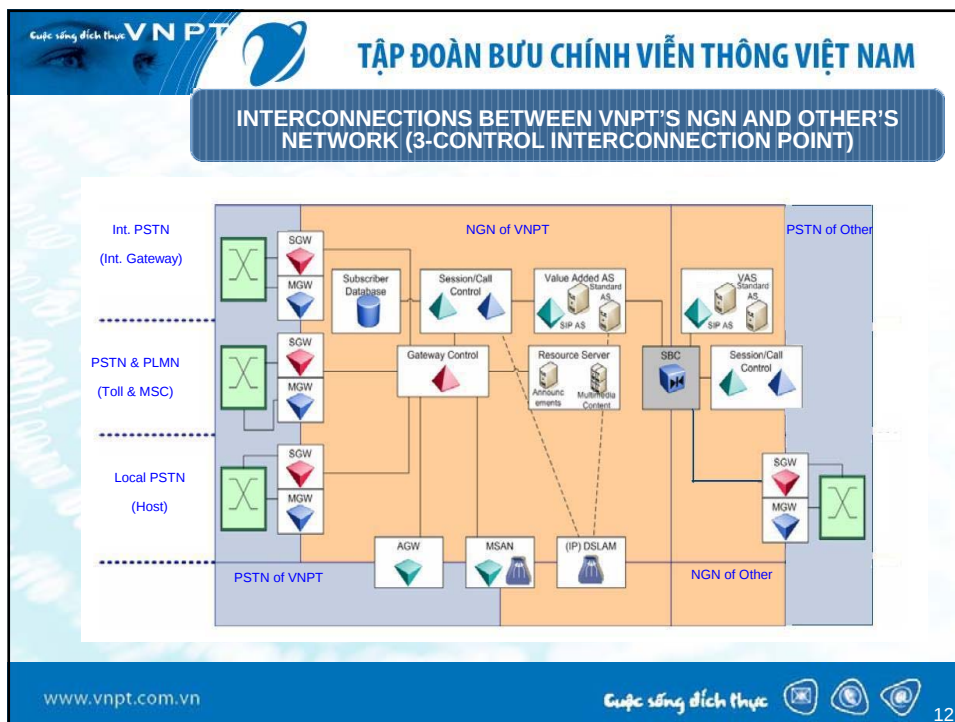
Application Interface

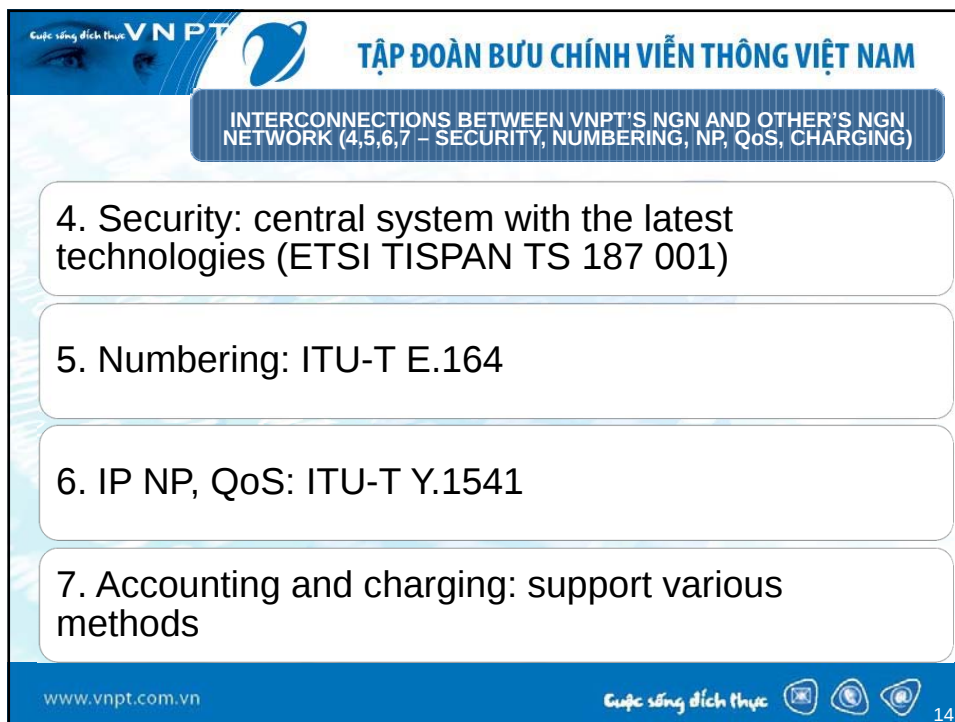
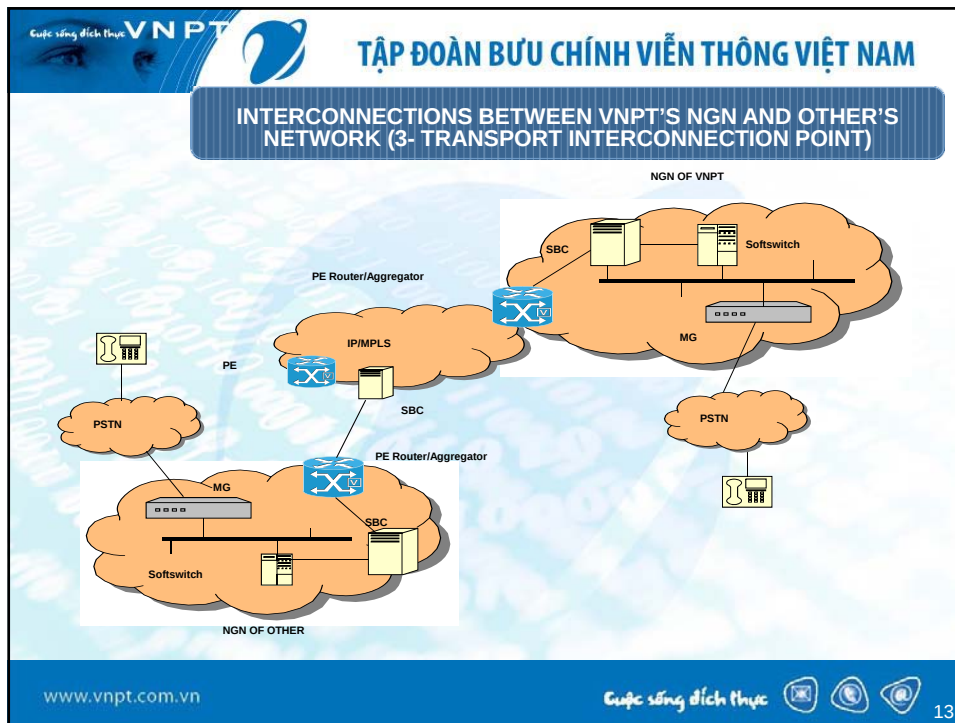
- SIP (IETF RFC 3261)

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INTERCONNECTIONS BETWEEN VNPT'S NGN AND OTHER'S NGN NETWORK (8 – OAMC tools)

- IP traffic monitoring
- VoIP monitoring
- Voice monitoring
- NP monitoring with active mode
- NP monitoring with passive mode
- Jitter monitoring
- LSP (Label Switch Paths) monitoring

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INTERCONNECTIONS BETWEEN VNPT'S NGN AND OTHER'S NGN NETWORK (9,10,11 – SYN&TIMING, TESTLAB, INFORMATION)

- 9. Synchronisation and Timing: by VNPT
- 10. Testlab: for testing equipment, interconnection solution before putting into operation
- 11. Information exchange: network and service policies, user profile, management information

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 VNPT'S PROPOSALS TO COMFOMITY AND INTEROPERABILTY TEST ACTIVITIES (1)

C/I test for the SBC's following functionalities :

- Denial of Service attacks and overload control
- IP Address and ID management
- Network Address Translation and Firewall Traversal
- Converting between IPv4 and Ipv6for devices
- Lawful Interception
- Quality of Service (QoS) management
- Protocol Translation and Software version adjusments
- Call accounting/Generations of CDRs

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 VNPT'S PROPOSALS TO COMFOMITY AND INTEROPERABILTY TEST ACTIVITIES (2)

ITU should have appropriate policies to attract other SDO-s, various industriars, vendors paticipating in CI test for related standards (not only ITU-T's standards)

ITU-T should have appropriate policies for developing countries to access C/I test results detailed Information (basic and optionals)

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Thank you!

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