Virtual Network: Another Scenario-NaaS

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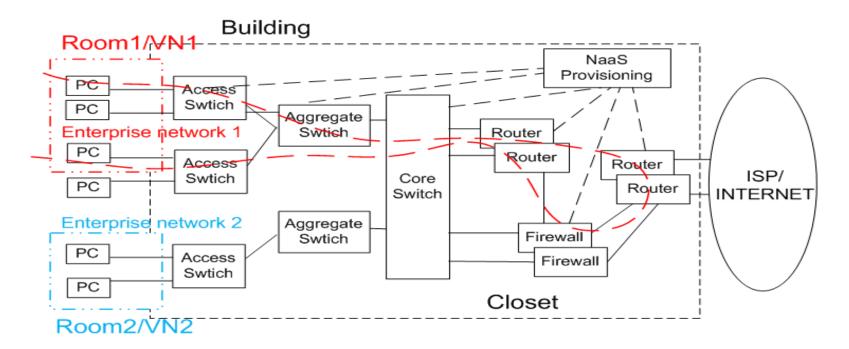
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Virtual Network RG, IETF81, Quebec

Motivations for NaaS -Network as a Services

- Many drivers for Network virtualization
  - Network resources partition or effective usage
  - Network innovation, and so on

- Virtual networks' customers
  - Research community: research network/test bed
  - Efficient transport of high-volume traffic (e.g., content)
  - Competitive Backbone network, etc.

- VN's mass market, NaaS -Network as a Services
  - Oriented to small and middle business (SMB) customer, but not exclusively
  - SMB customers deploy their own IT network based on NaaS services
  - SMB customers may migrate their network to NaaS
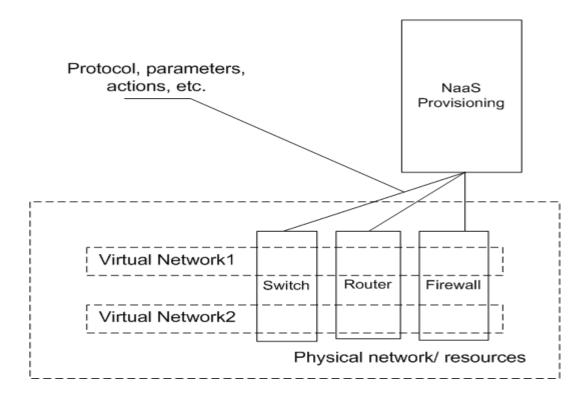 - More than one million new company registered each year, potential customers

NaaS: Concept framework

- Advantages/Benefits
  - For Services Providers: new revenue
  - For Customers: low TCO, high standard security policy, scalability, etc.
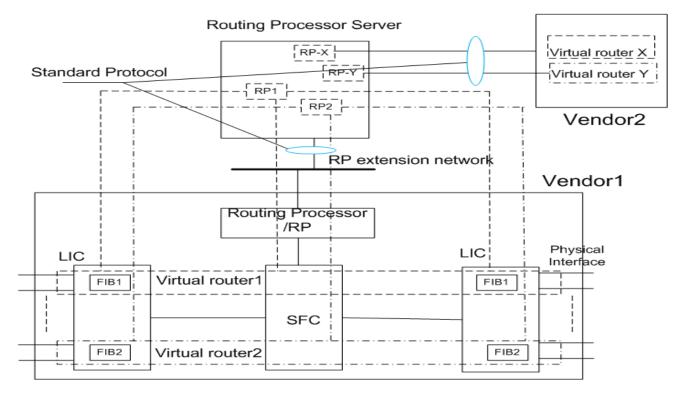 - All: power and space saving

Challenges and Possible Solutions(1)

- **NaaS Provisioning Function**
  - Request, Resources discovering, Matching, Selection, Binding
  - Standard Interface between NaaS Provisioning and Devices?

Challenges and Possible Solutions(2)

- Virtual Router and Switch Implementation
  - Cost-effective solution; Common solution?
    - Support Different Vendor Interoperation
  - Extend FORCES protocol to support VR implementation, Maybe

Next step

- Collect the comments and feedback
- Develop the requirements further
- Some technology discussion, maybe in mailing list
  - Framework, solutions, and protocols
- Further works or Documents may include:
  - NaaS requirements
  - NaaS framework
  - NaaS Provisioning/Devices interface protocol
  - Virtual router(router/RP server) interface protocol,
  - etc.