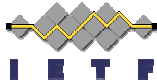# An Information Model for PPVPNs

draft-scandariato-ppvpn-info-model-00.txt

Riccardo Scandariato
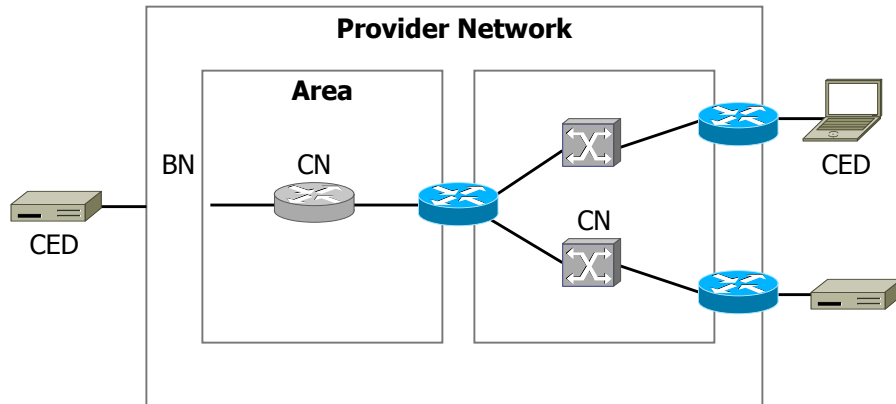Politecnico di Torino
riccardo.scandariato@polito.it

Agenda

- **Reference Model**
  - Extensions
- **Management**
  - Proposal for SW representation of resources
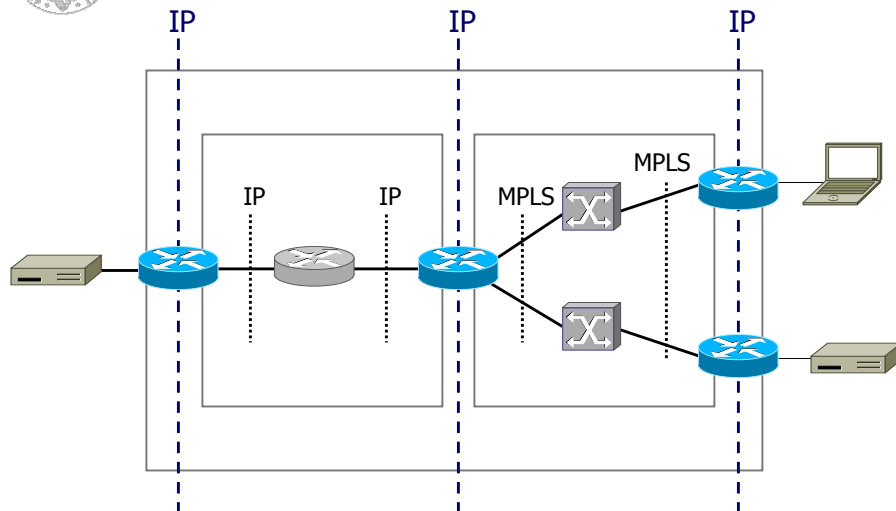
Reference Model

Provider Network

Area

BN CN

CED

CN

CED

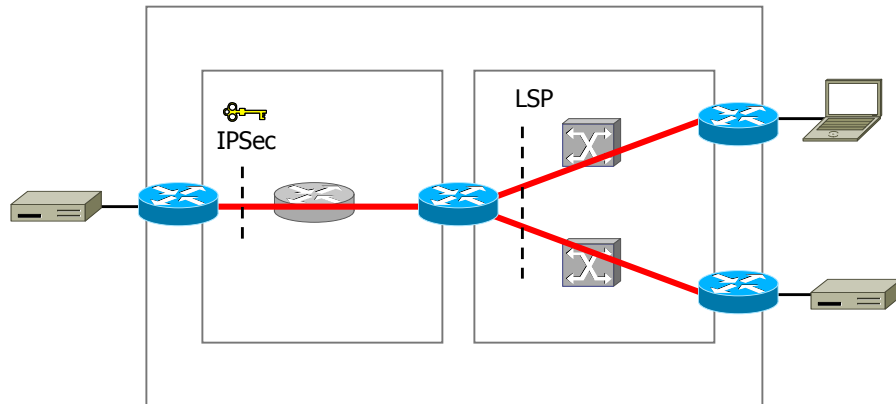# Reference Model (ii)

IP IP IP

IP IP

MPLS

MPLS

MPLS

Reference Model (iii)

IPSec

LSP

Reference Model (iv)

- Support for areas
  - Integration of different technologies
  - Manageability
- We take core nodes into account
  - Traffic Engineering

Quote Of The Day

"In order to facilitate the service management, a logical view of the network indicating VPN topology above the backbone topology is useful"
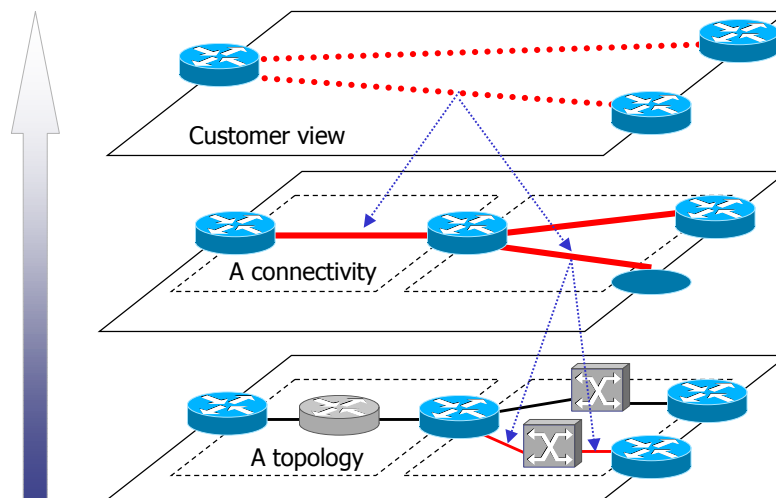
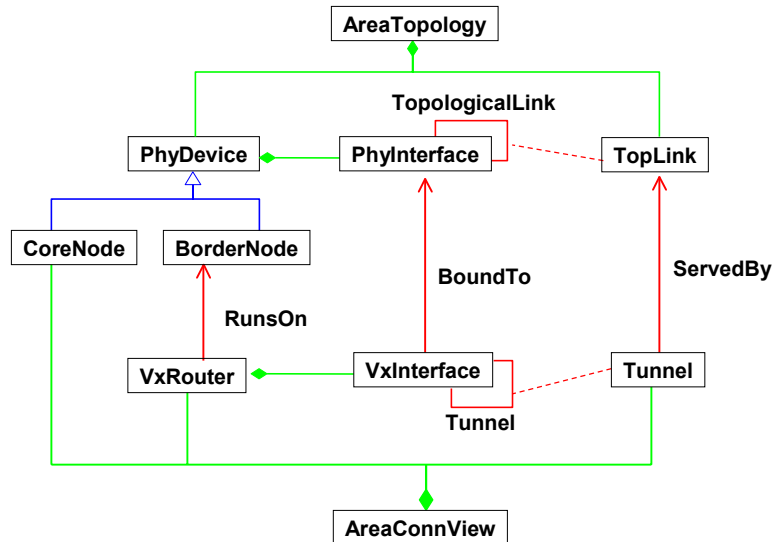draft-ietf-ppvpn-requirements-00.txt

Abstractive Approach

Customer view

A connectivity

A topology

Information Model


```
                        AreaTopology

                       TopologicalLink
  PhyDevice    PhyInterface          TopLink

CoreNode   BorderNode
                          BoundTo        ServedBy
              RunsOn
  VxRouter     VxInterface            Tunnel
                          Tunnel

                       AreaConnView
```

SW representation

- Two layers of abstraction
  - Topology View (e.g. Links and Devices)
  - Connectivity View (e.g. Tunnels and VFIs)
  - Mapping between Connectivity entities and Topology entities

- Management architecture
  - VPN requests expressed at topmost level
  - VPN management&verification operated at lower levels

Thank you!

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