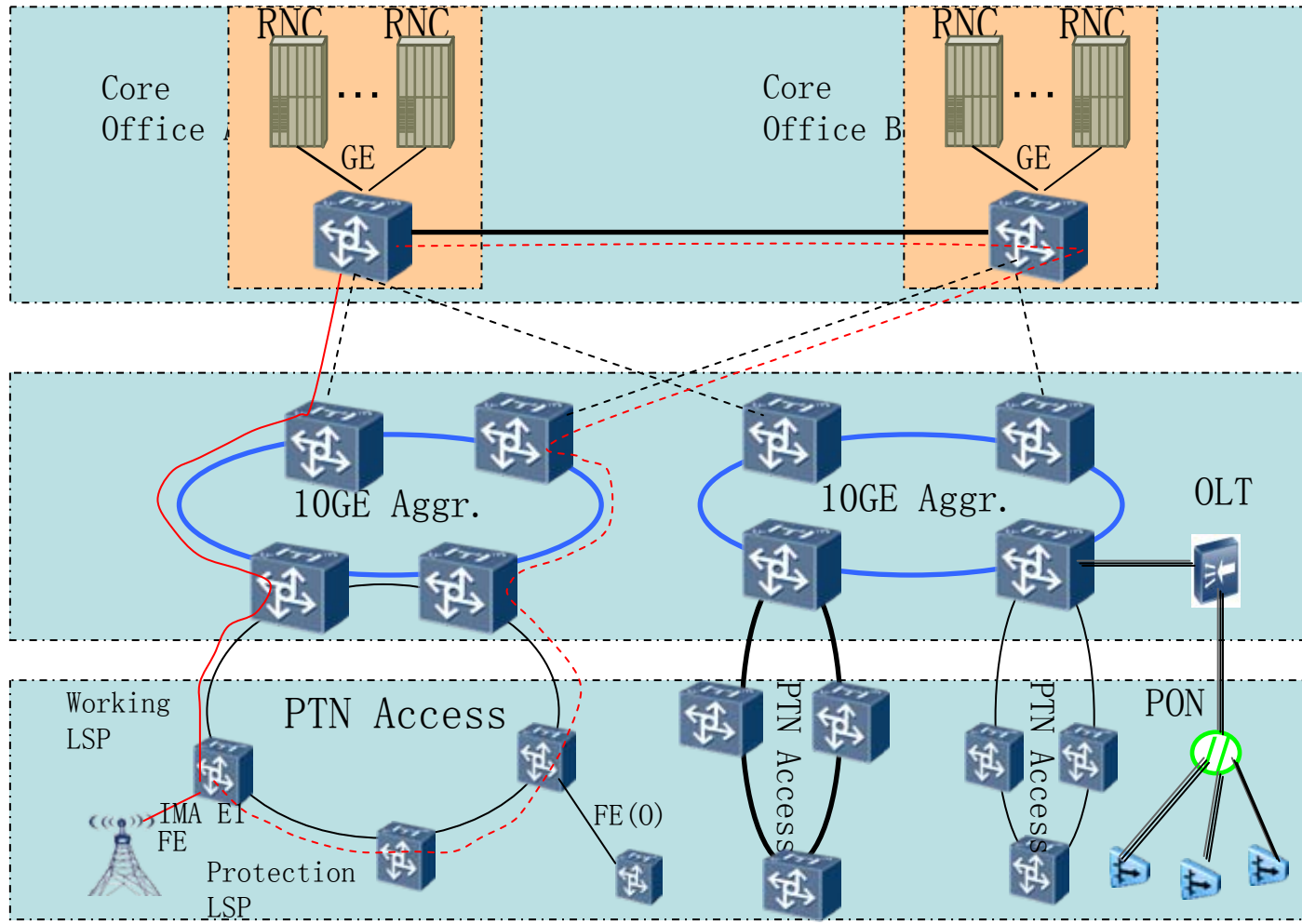# CMCC's considerations for MPLS-TP
Han Li – China Mobile

The material in this presentation is a subset of the material in draft-fang-mpls-tp-oam-considerations-01

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PTN Application

- Metro area with ring topology fiber (1k to 5k nodes/metro)
- Service:2G/3G backhaul dedicated Ethernet line and PON (OLT)
- Deployed 38,000 PTN nodes in 2009, will deploy 110,000 more in 2010
- Protection: 1:1 LSP
- OAM: based on Y.1731 and pre-standard G.8114

RNC RNC

Core Office A

RNC RNC

Core Office B

GE

GE

10GE Aggr.

10GE Aggr.

OLT

Working LSP

PTN Access

PTN Access

PTN Access

PON

IMA E1 FE

Protection LSP

FE(O)

legend： PTN 10GE   PTN GE   PTN GE

CMCC's Considerations for MPLS-TP

- Low TCO

- High reliability

  - 50ms protection switching

- Powerful OAM tools & Network Management System

  - Fault management, performance monitoring for PWs, LSPs, Sections and tandem connections (cc/cv, AIS, RDI, LB, LM, DM, …)

  - Easy to operate for current transport network staff

    - Support for static provisioning, powerful GUI & NM

    - Transport operation behavior

- Scalability

  - Future application: LTE backhaul

  - Monitor >1,000 LSPs/node

Upgrade Considerations

- Able to upgrade from the currently deployed PTN

  - Upgrade each complete metro network overnight

  - Minimize the service interruption

- Urgent upgrade action

  - Window of opportunity for upgrade closes by the end of 2010

    - ❖ Currently: Only 10 ~ 20% of the 38,000 nodes carry service

    - ❖ 110,000 more PTN nodes to be deployed from now on

    - ❖ By the end of 2010: Almost all deployed nodes will carry service