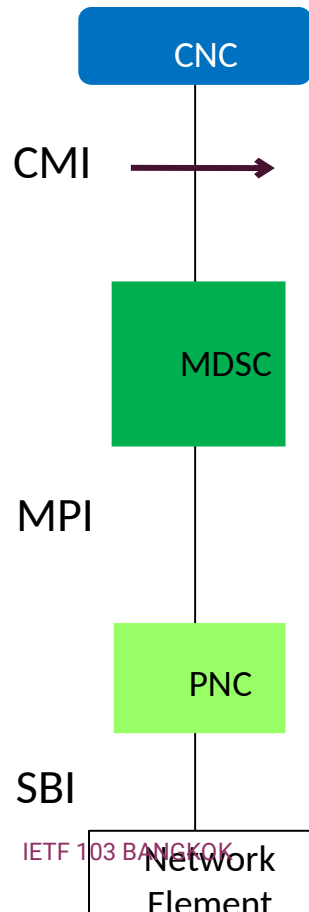# APPLICABILITY OF YANG MODELS FOR ACTN

DRAFT-IETF-TEAS-ACTN-YANG-02

Young Lee, Haomian Zheng (Huawei)
Daniele Ceccarelli (Ericsson)
Bin Yeong Yoon (ETRI)
Oscar Gonzalez de Dios (Telefonica)
Jong Yoon Shin (SKT)
Sergio Belotti (Nokia)

STATUS AND MAIN CHANGES

- Update after WG adoption

- Motivation: How different types of YANG models are applicable to the ACTN.

- Main changes:

  - Clarify the abstraction/PM description, and fix previous issues;

  - Provide description on how multi-vender inter-op can be achieved via ACTN;

  - Link to more related drafts (Layer 1/2/3 Service Model, etc.)

  - Adding the description about SBI (southbound interface between PNC and device)
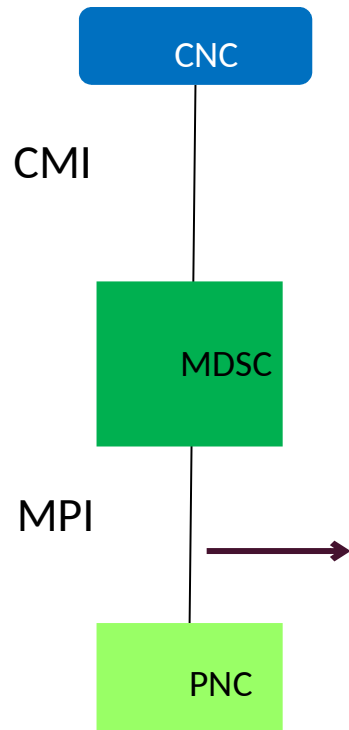
CMI AND CUSTOMER SERVICE MODEL

CNC

CMI

MDSC

MPI

PNC

SBI

Network Element

CMI: Serve for the network users

Example Scenario: VN Provisioning and DCI Interconnection

Function   Yang Model

VN Service Request   [ACTN-VN-YANG]

VN Computation Request   [ACTN-VN-YANG]

TE & Service Mapping   [TE-Service-Mapping]

VN Performance Monitoring Telemetry   [ACTN-PM-Telemetry]

Topology Abstraction   [TE-topology]

Layer 1 Connectivity Service Model   [L1CSM]

Layer 2 VPN Service Model   [RFC8466]

Layer 3 VPN Service Model   [RFC8299]

MPI AND NETWORK CONFIGURATION MODEL

CNC

CMI

MDSC

MPI

PNC

MPI: Focused on Network Configuration and Inter-op

Example Scenario: Multi-domain Topology Abstraction and Connection Provisioning

```
Function                Yang Model

--------------------------------------------------------------

Configuration Scheduling                [Schedule]
Path computation                        [PATH_COMPUTATION-API]
Tunnel/LSP Provisioning                 [TE-Tunnel]
Topology Abstraction                    [TE-topology]
Client Signal Description               [Client-signal]
Service Provisioning                    TBD*


-------- TECHNOLOGY SPECIFIC ----------
OTN Topology Abstraction     [OTN-Topo]
WSON Topology Abstraction    [WSON-Topo]
Flexi-grid Topology Abstraction     [Flexigrid-Topo]
```
Microwave Topology Abstraction   [MW-Topo]
```
ODU Tunnel Model     [ODU-Tunnel]
WSON TE Tunnel Model [WSON-Tunnel]
Flexi-grid Tunnel Model         [Flexigrid-Tunnel]
```

SUMMARY & NEXT STEPS

- This document says how to build ACTN interfaces via IETF YANG models;
- The related models are becoming Stable as well as this draft for fundamental functionalities;
- Ready for the Last Call;