

# Extending Decoupled SMO / Non-RT RIC to xHaul and beyond

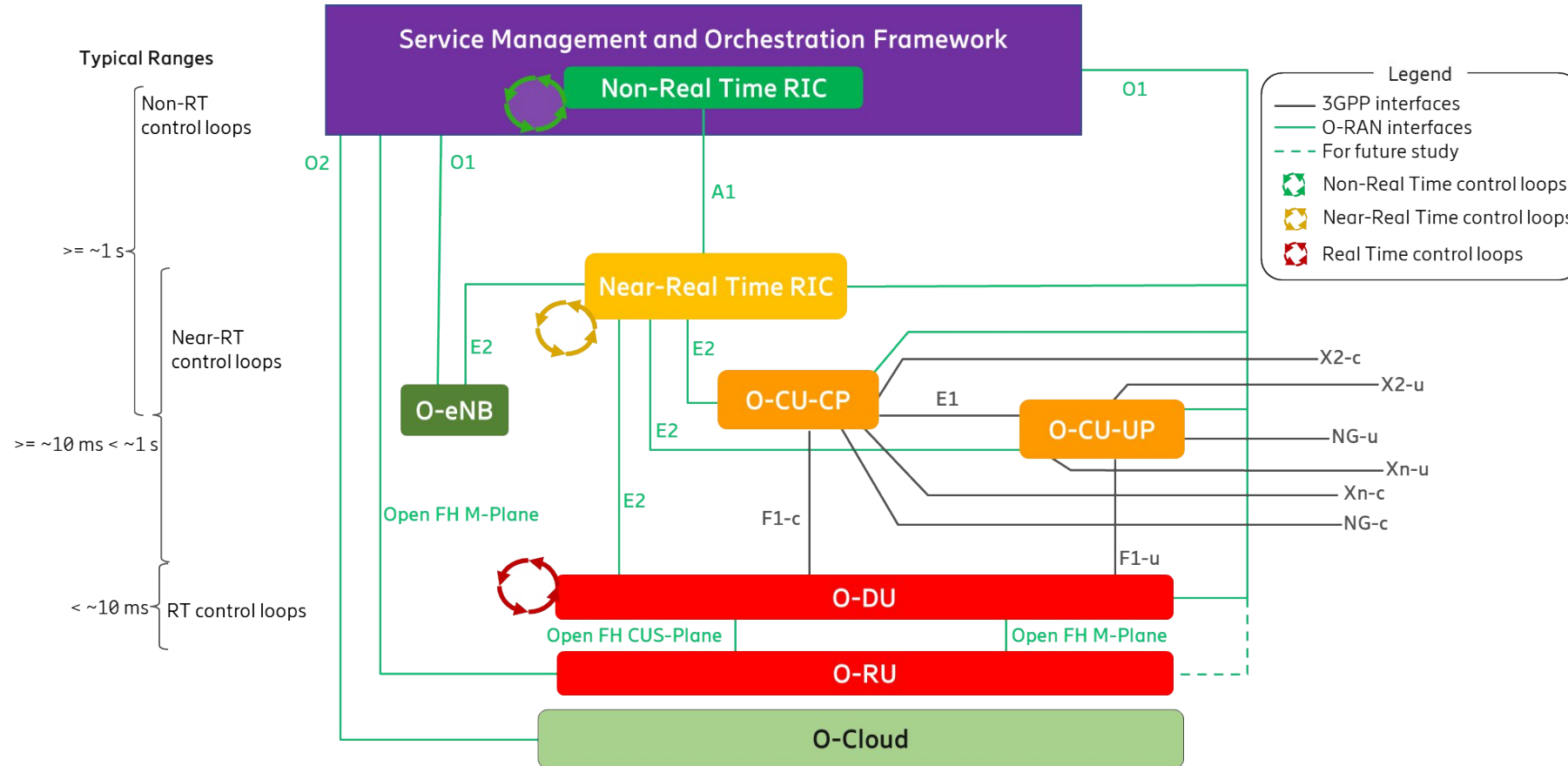
i14y Lab Summit 2024

Alfons Mittermaier

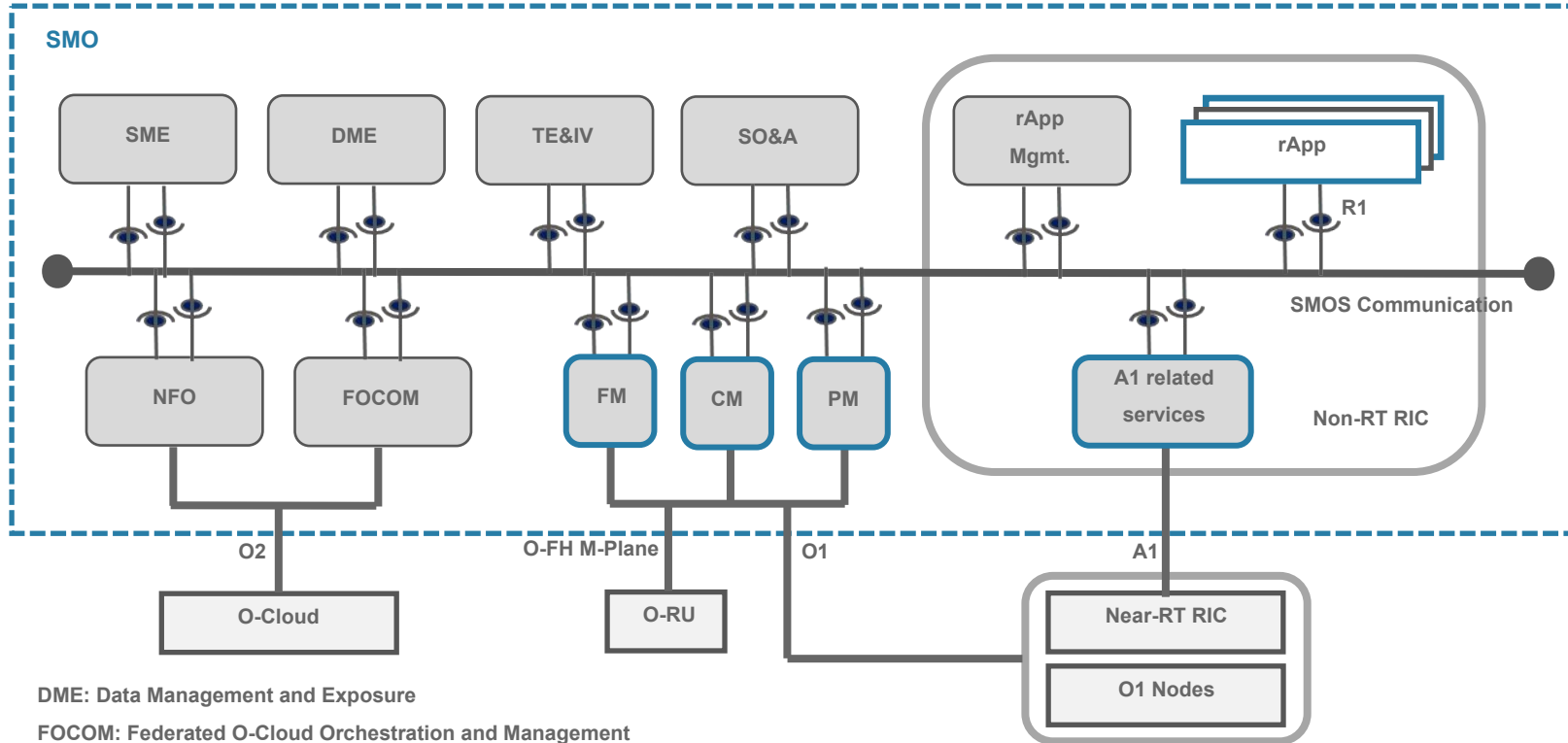
highstreet technologies GmbH



# O-RAN Architecture just for the Radio Access Network



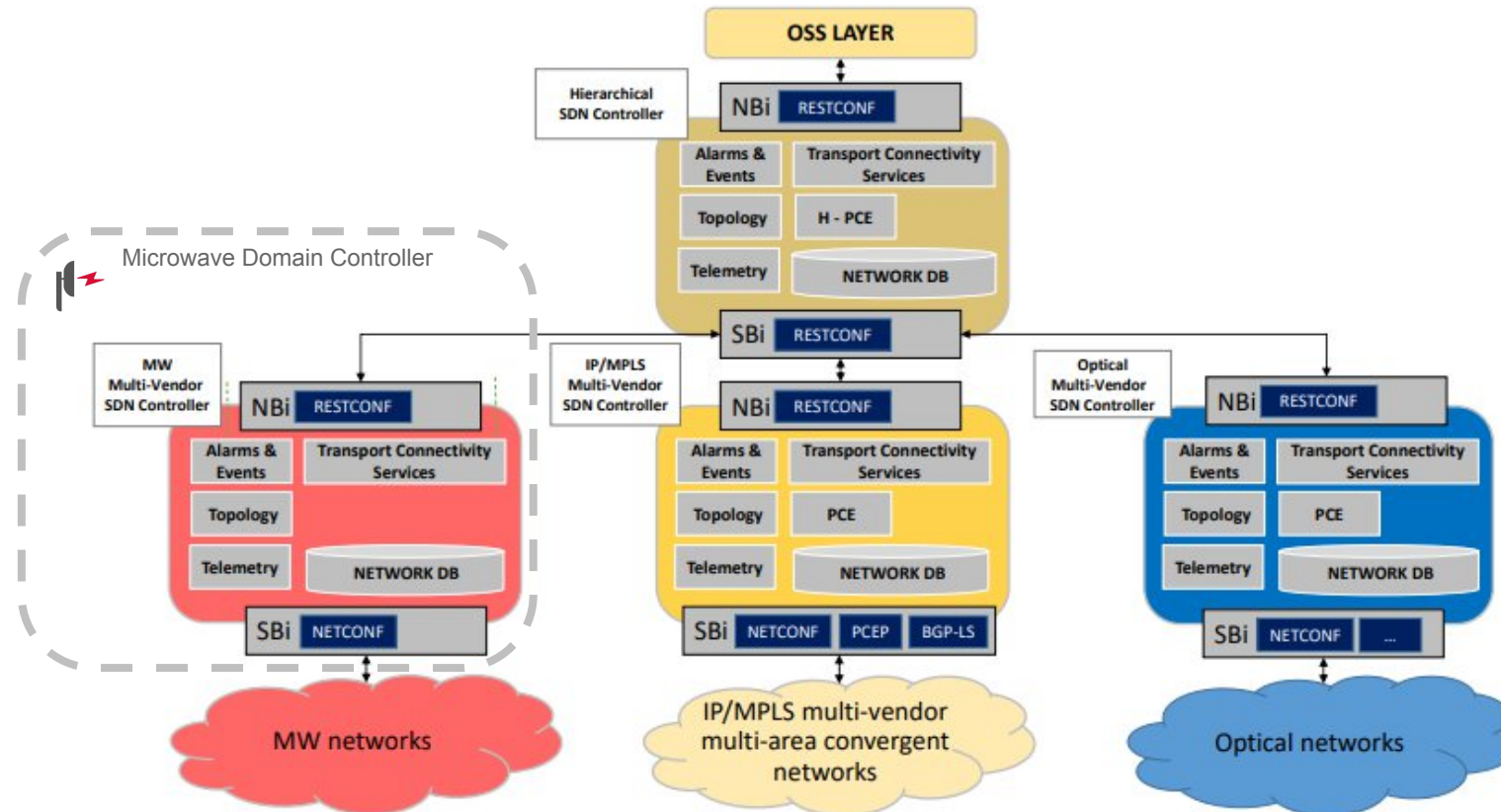
# Decoupled SMO Architecture slightly simplified



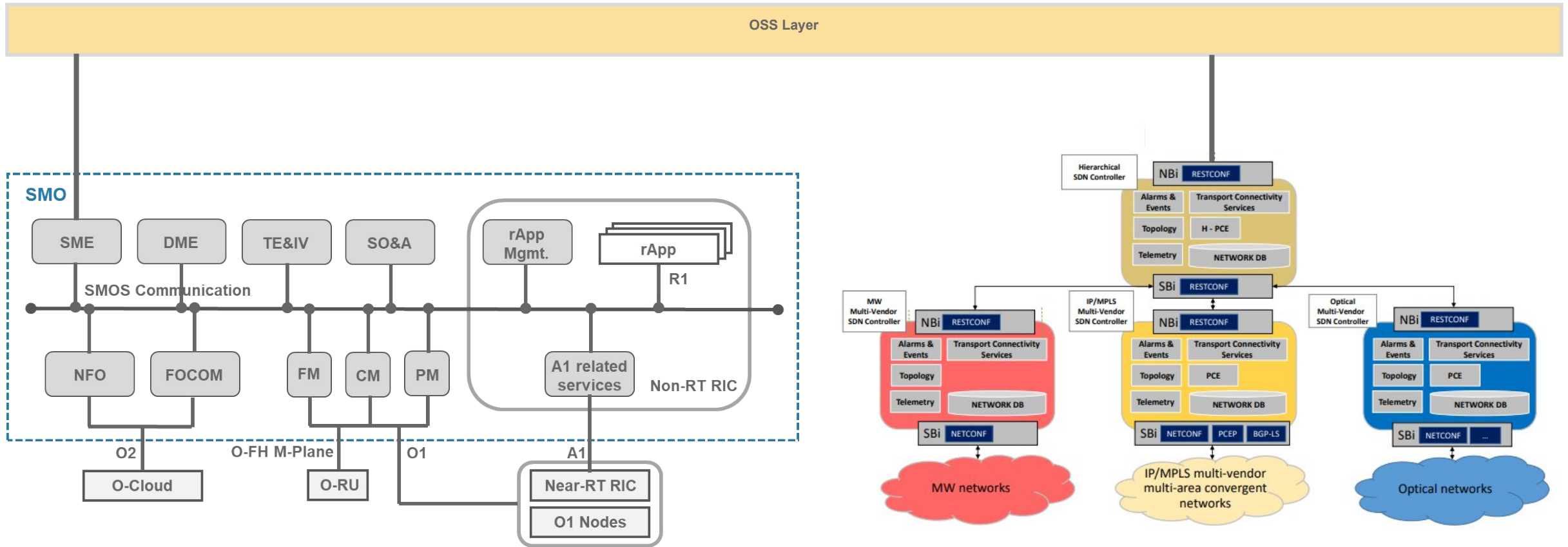
DME: Data Management and Exposure  
 FOCOM: Federated O-Cloud Orchestration and Management  
 NFO: Network Function Orchestrator  
 SME: Service Management and Exposure  
 SO&A: Service Orchestration and Assurance  
 TE&IV: Topology Exposure and Inventory



# TIP MUST Architecture for Transport Network Management (TNM)



# Classical Network Management with Decoupled SMO

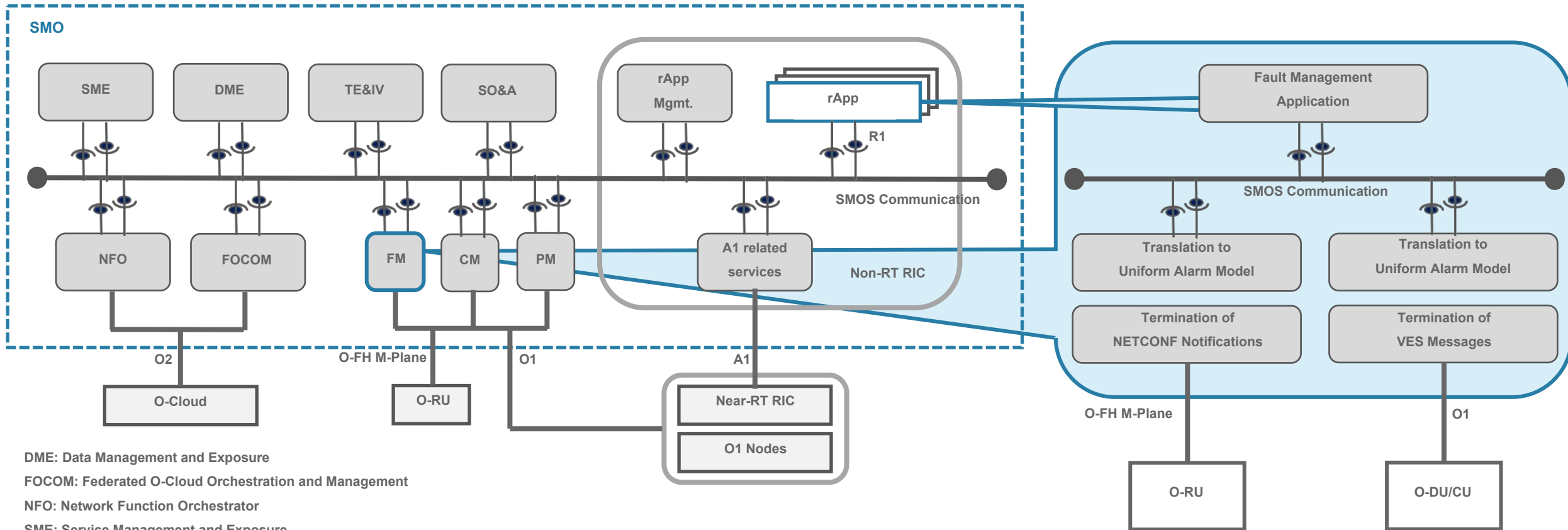


O-RAN Alliance Architecture for Service Management & Orchestration (SMO)

TIP MUST Architecture for Transport Network Management (TMN)



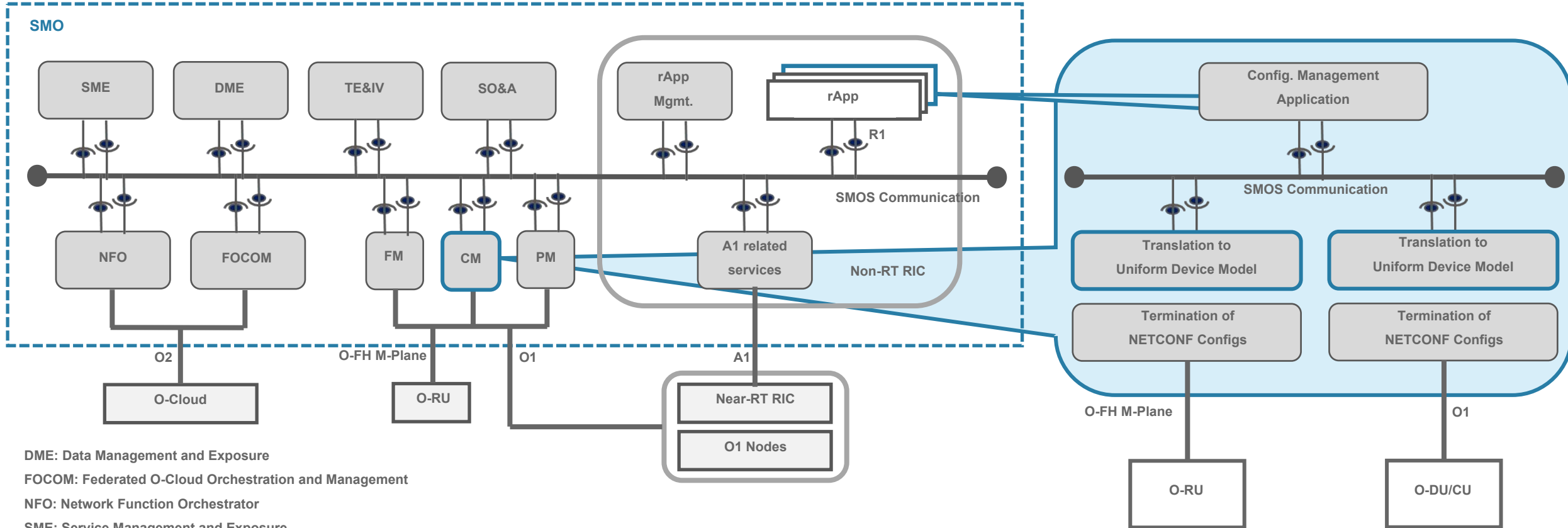
# Decoupled Fault Management for O-FH M-Plane and O1



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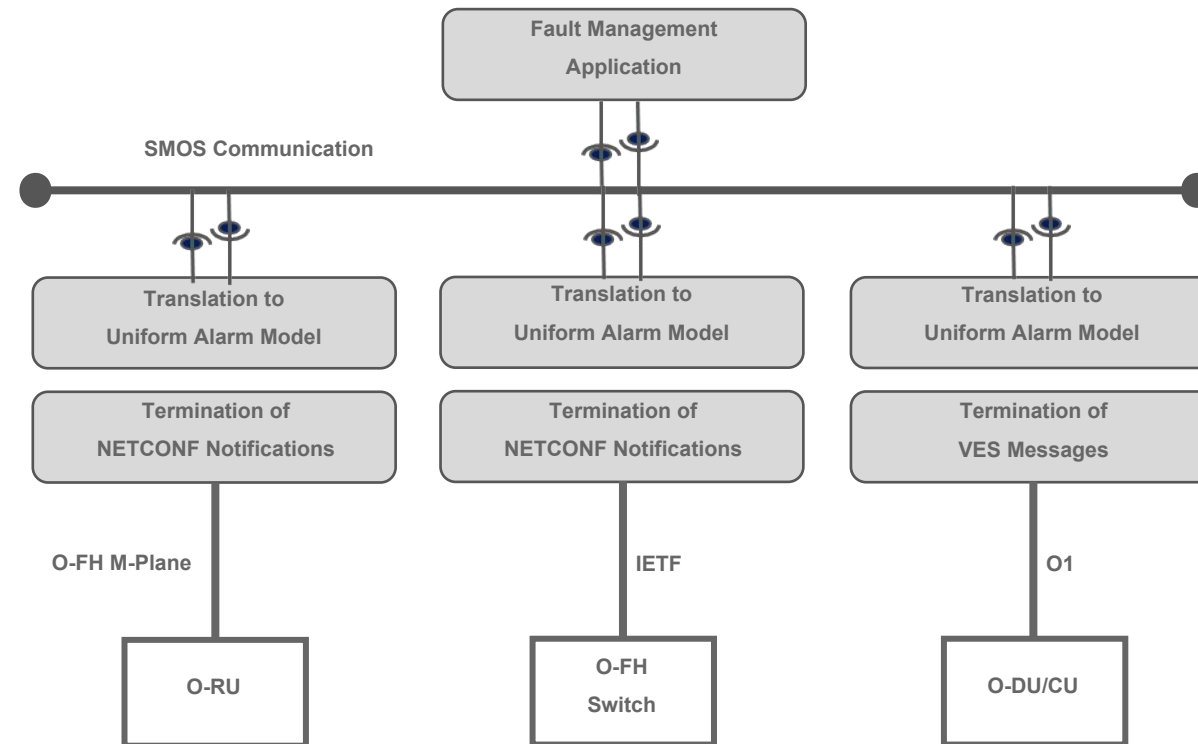
# Decoupled Config. Management for O-FH M-Plane and O1



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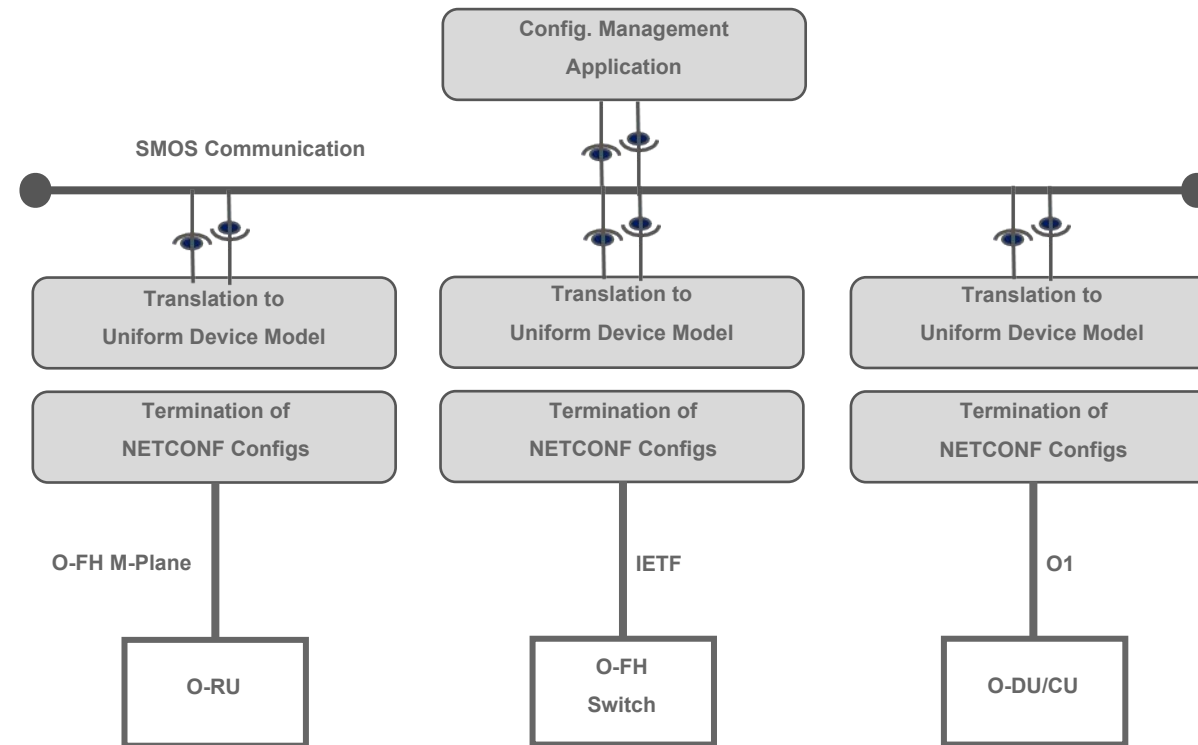


# Decoupled Fault Management for Open RAN and Ethernet

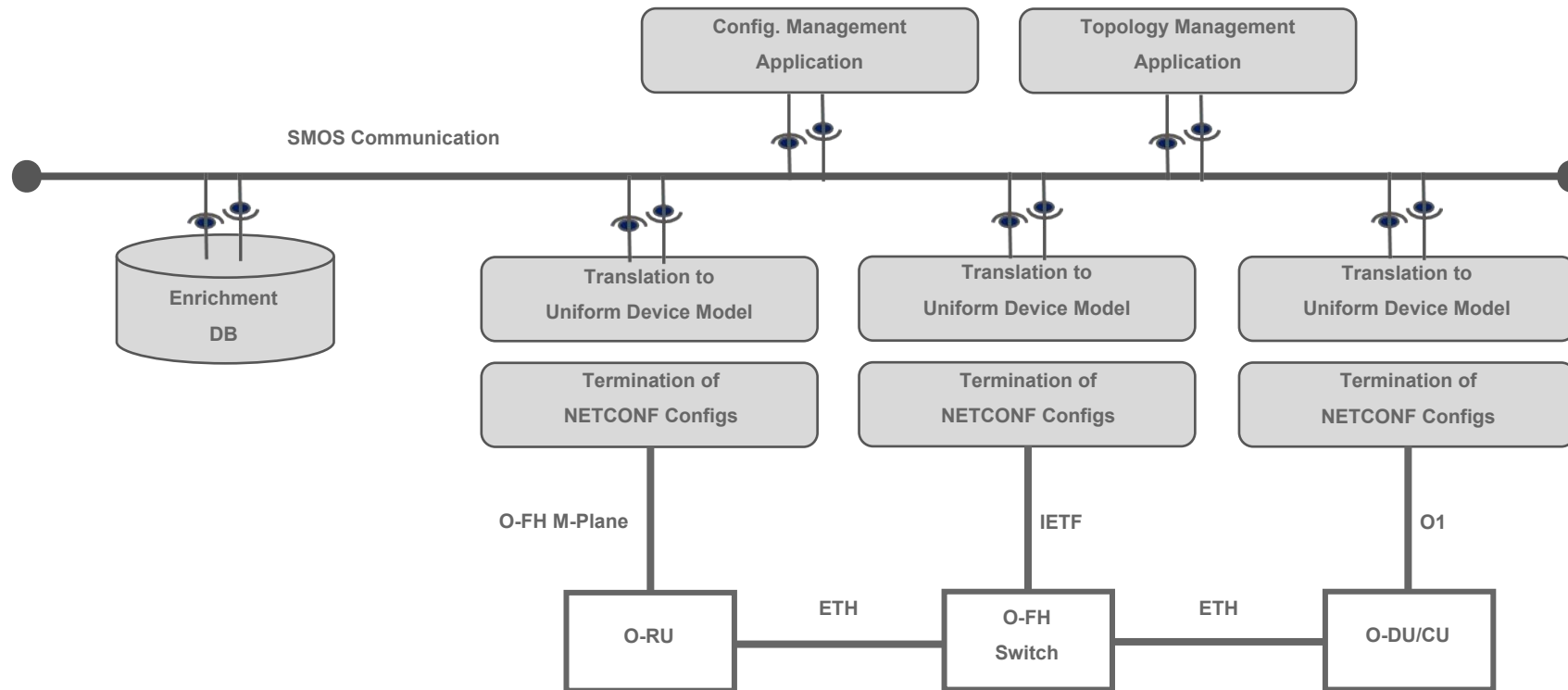




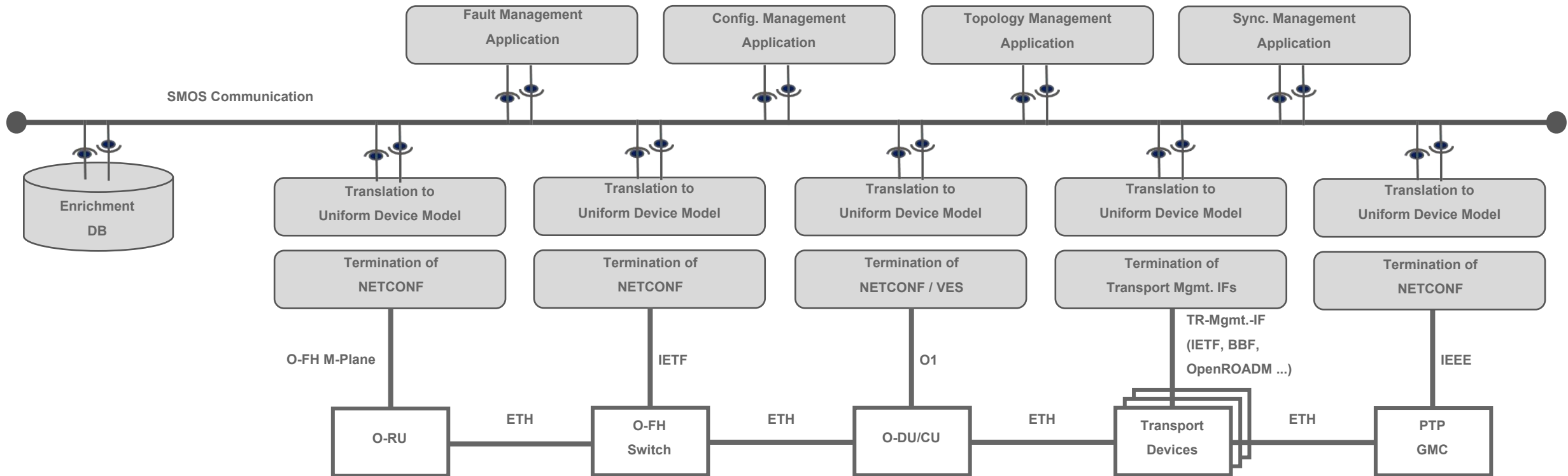
# Decoupled Config. Management for Open RAN and Ethernet



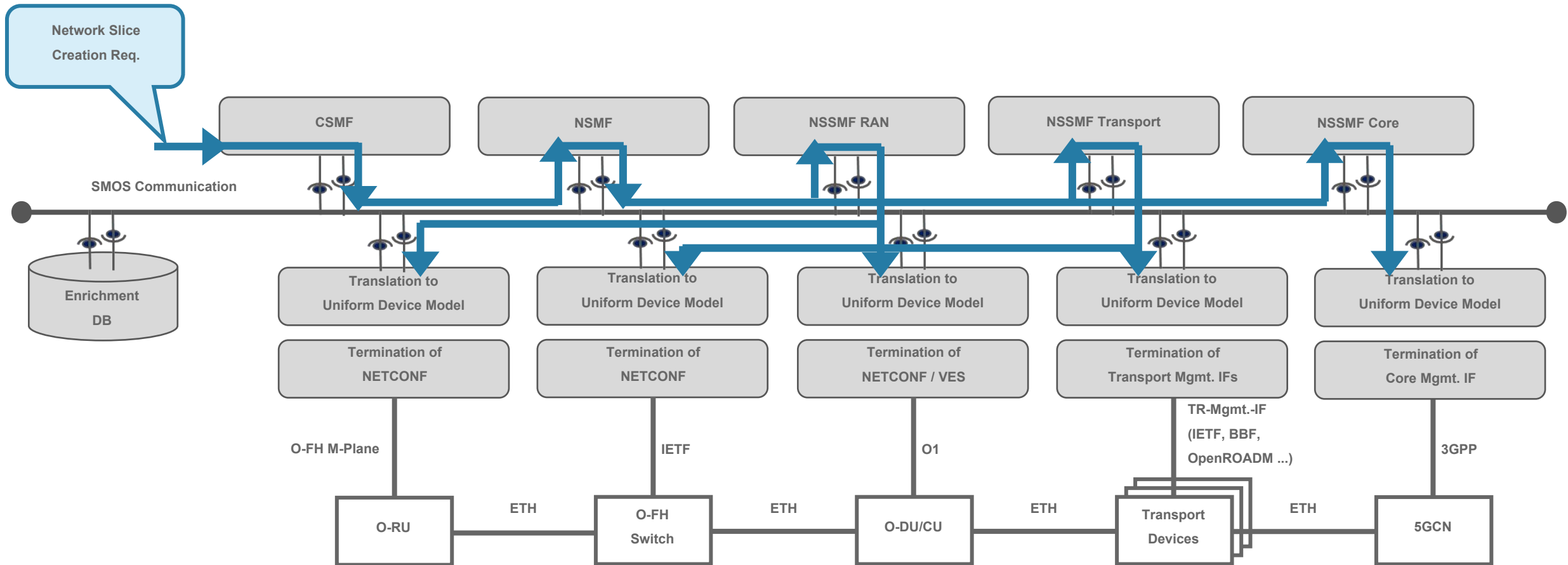
# Decoupled Topology Management for Open RAN and Ethernet



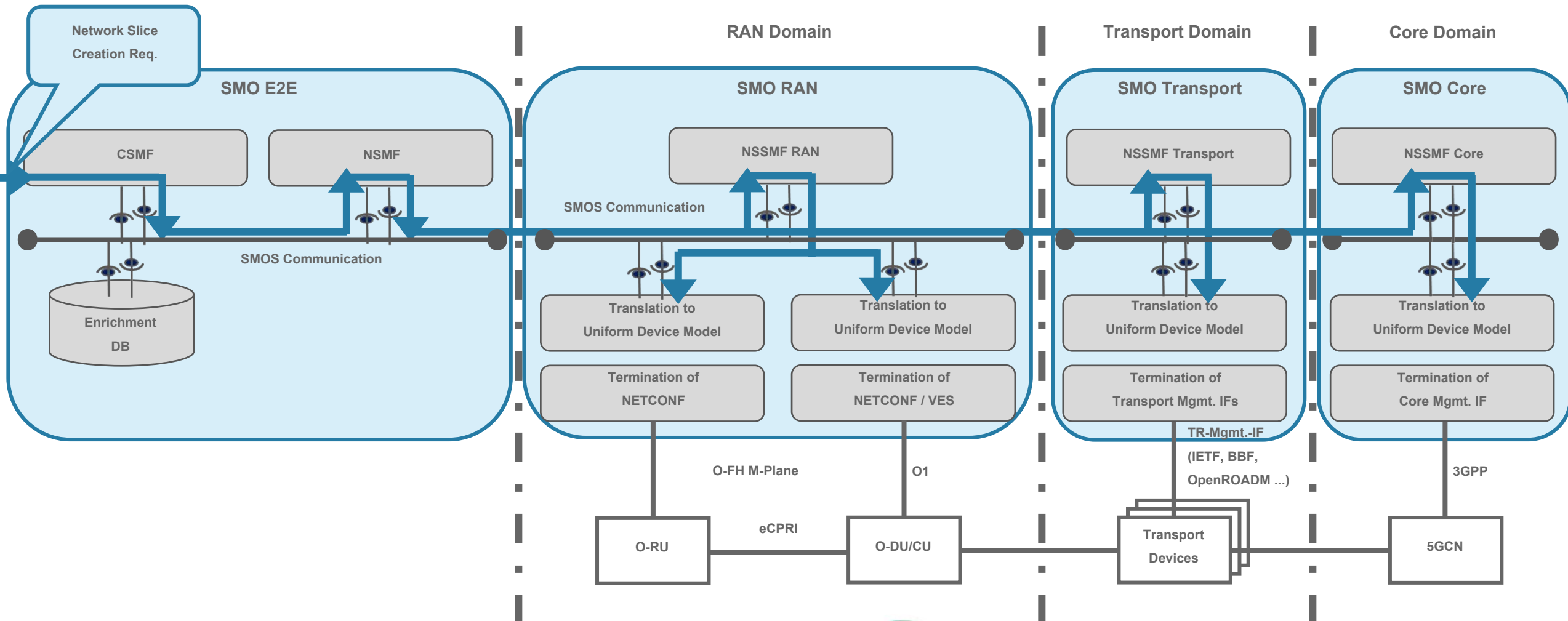
# Decoupled Sync. Management for Open RAN and Ethernet



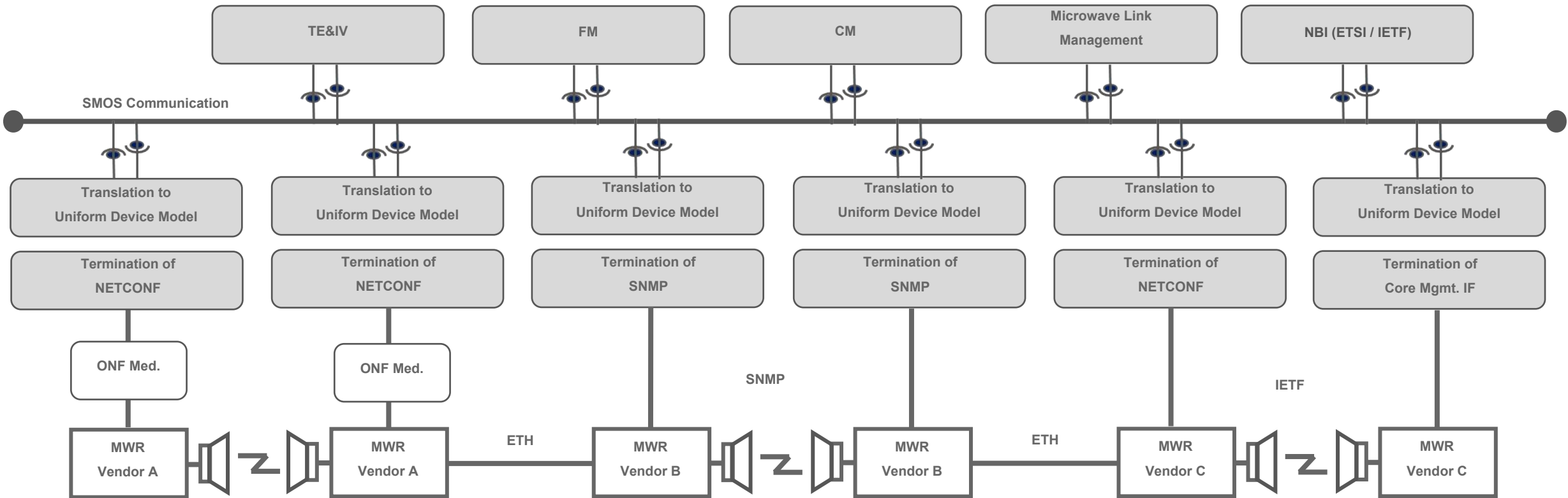
# Decoupled Network Slicing Management



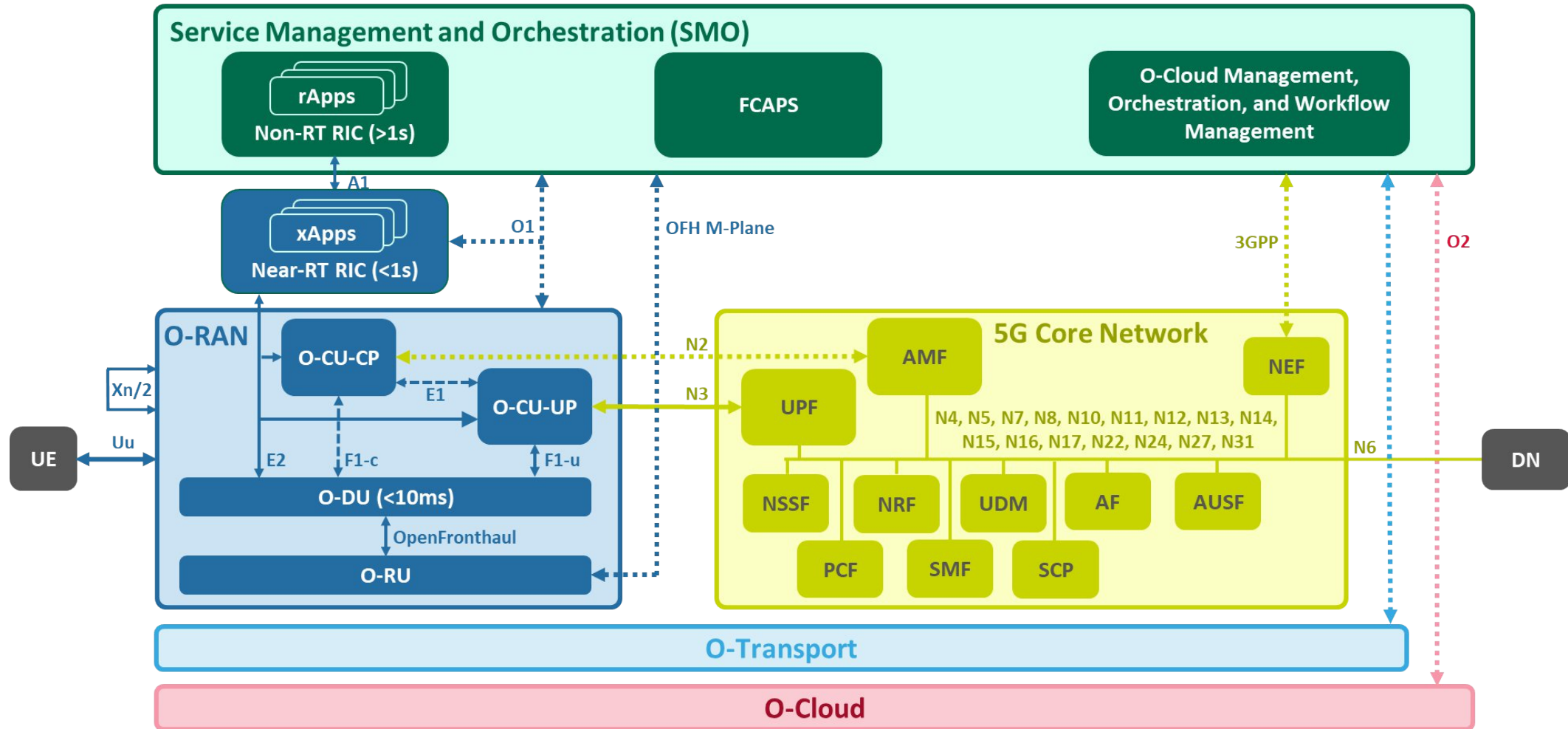
# Decoupled Network Slicing Management



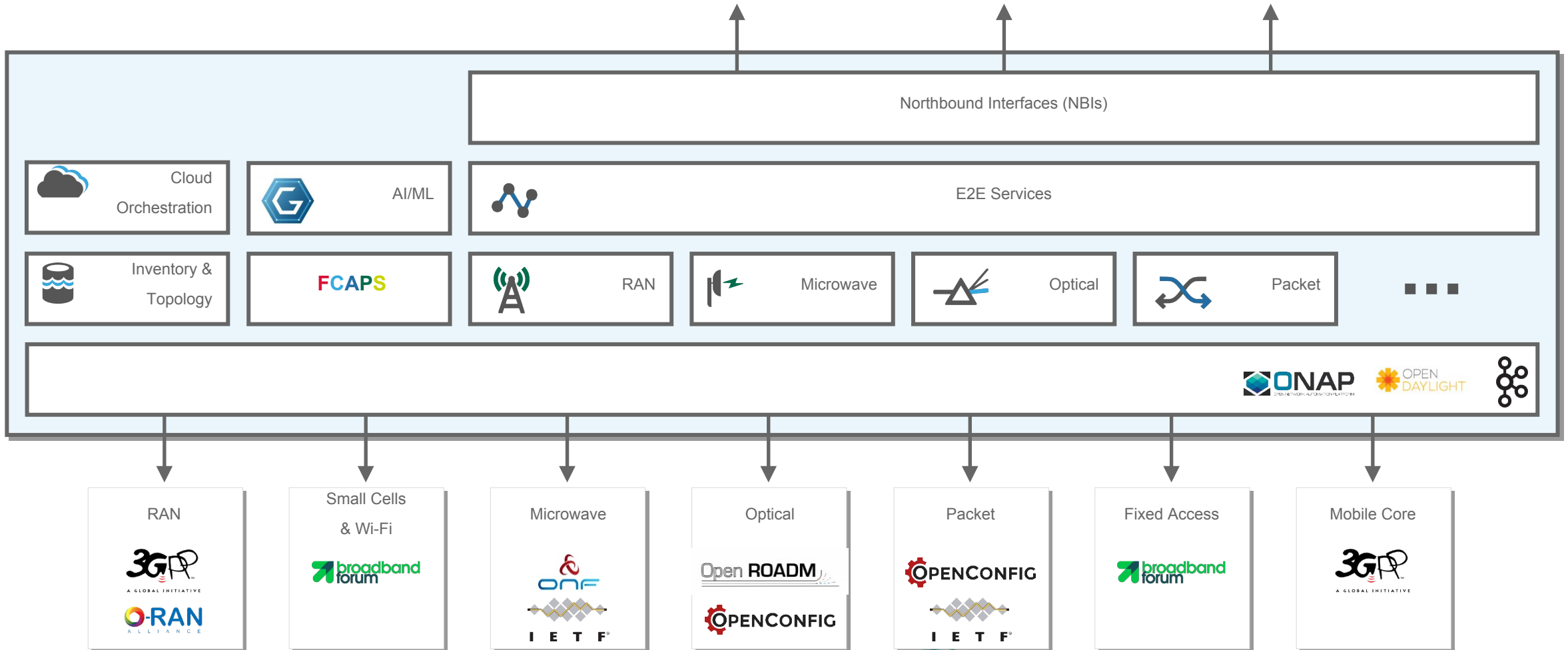
# Decoupled SMO as Microwave Domain Ctrl.



# O-RAN Architecture extended to Transport and Core

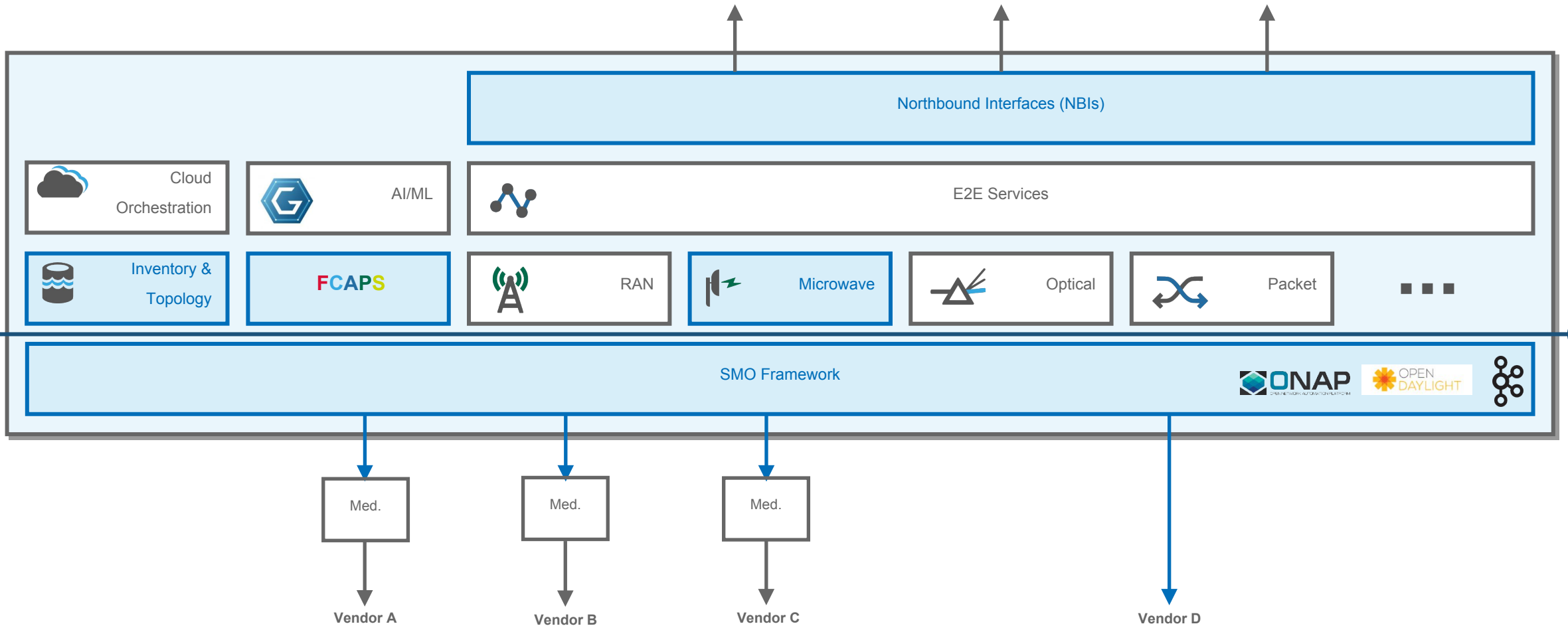


# Extended Decoupled SMO based on open source software





# Microwave Domain Controller based on Ext. Decoupled SMO



# Key Takeaways

- Decoupled SMO Framework is vendor-independent and technology-agnostic. And can therefore be used for the management of any kind of network.
- Open APIs allow integration of third-party applications (rApps).
- Operators benefit from work done by OTICs like i14y Lab.

**Extended Decoupled SMO / Non-RT RIC is much more than just a management system for Open RAN. It's a game changer!**



# Thank you!

