



BBF and ONF Collaboration – Mapping & Alignment Analysis

Broadband Meetup, October 19th, 2023

Multi-Company Contribution (BBF & ONF members)



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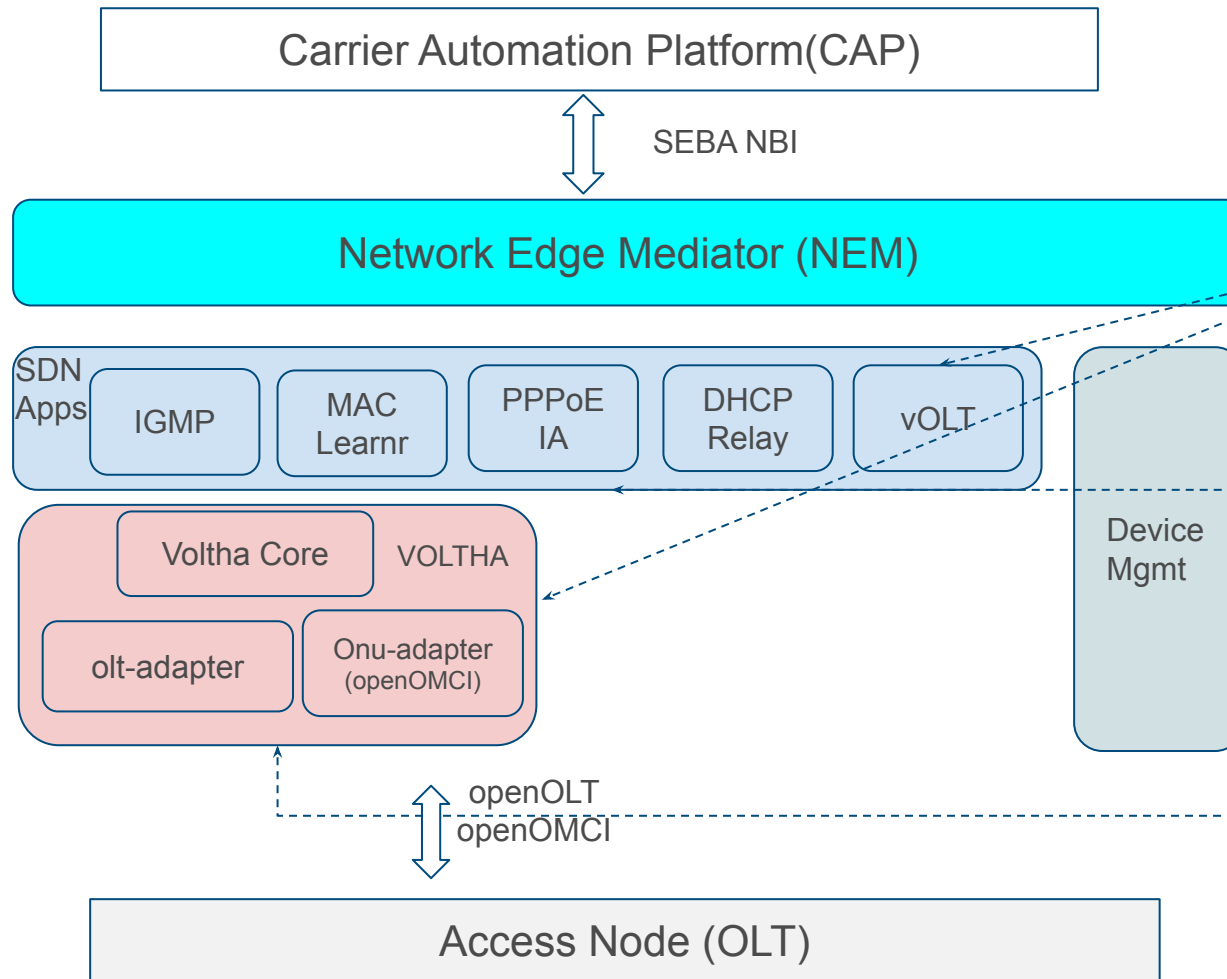
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Motivations and Business Drivers

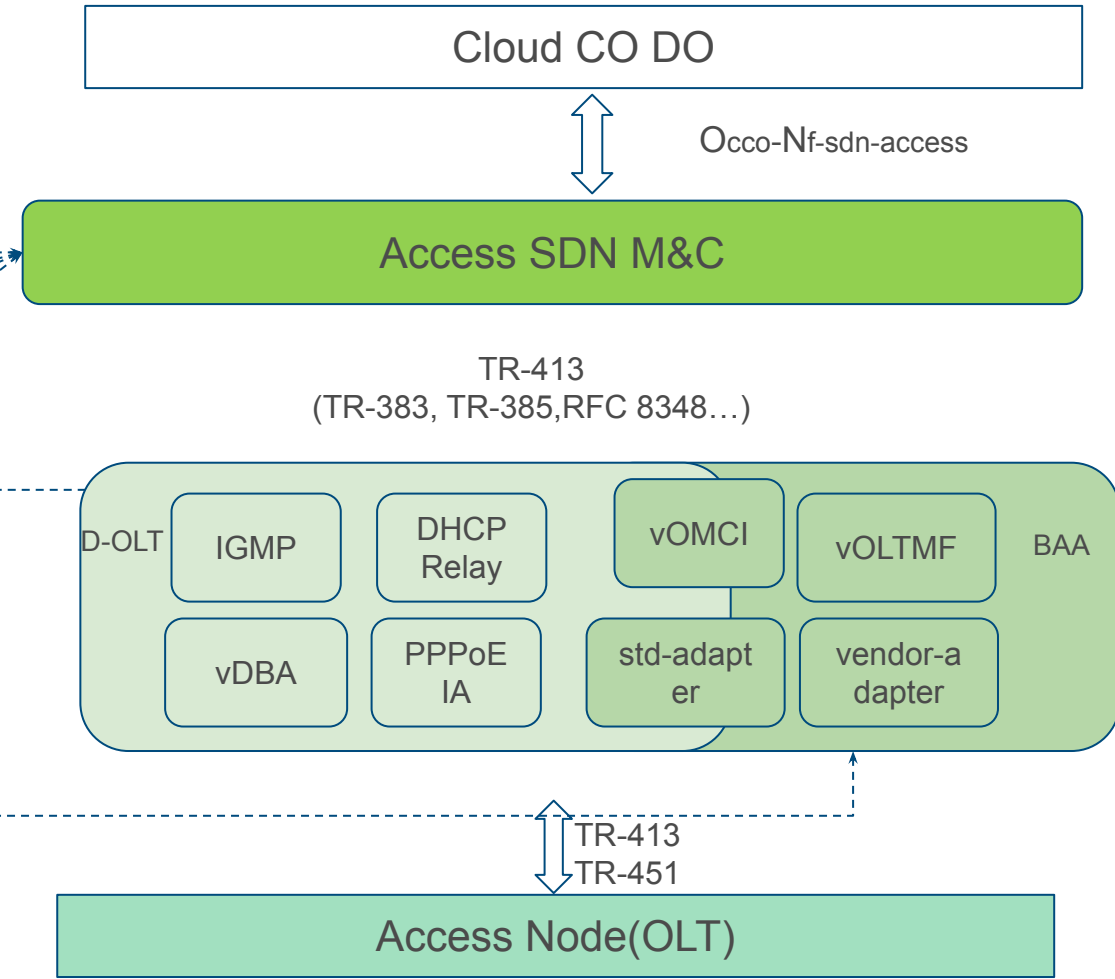
- Service Providers require underwriting of their solution requirements against standards definitions in order to safeguard their investment, ensure a wide community of suppliers and avoid vendor-lock
- Ability to source different solutions enhance competitiveness and the convergence of requirements and standards protect investment
- Disaggregated SDN solutions, opensource or otherwise, are no different and the ONF community embraces this requirement, understanding that solutions need to be able to demonstrate written evidence

Mapping: ONF Reference Design and Cloud-CO Technical Report(s)

SEBA Reference Design



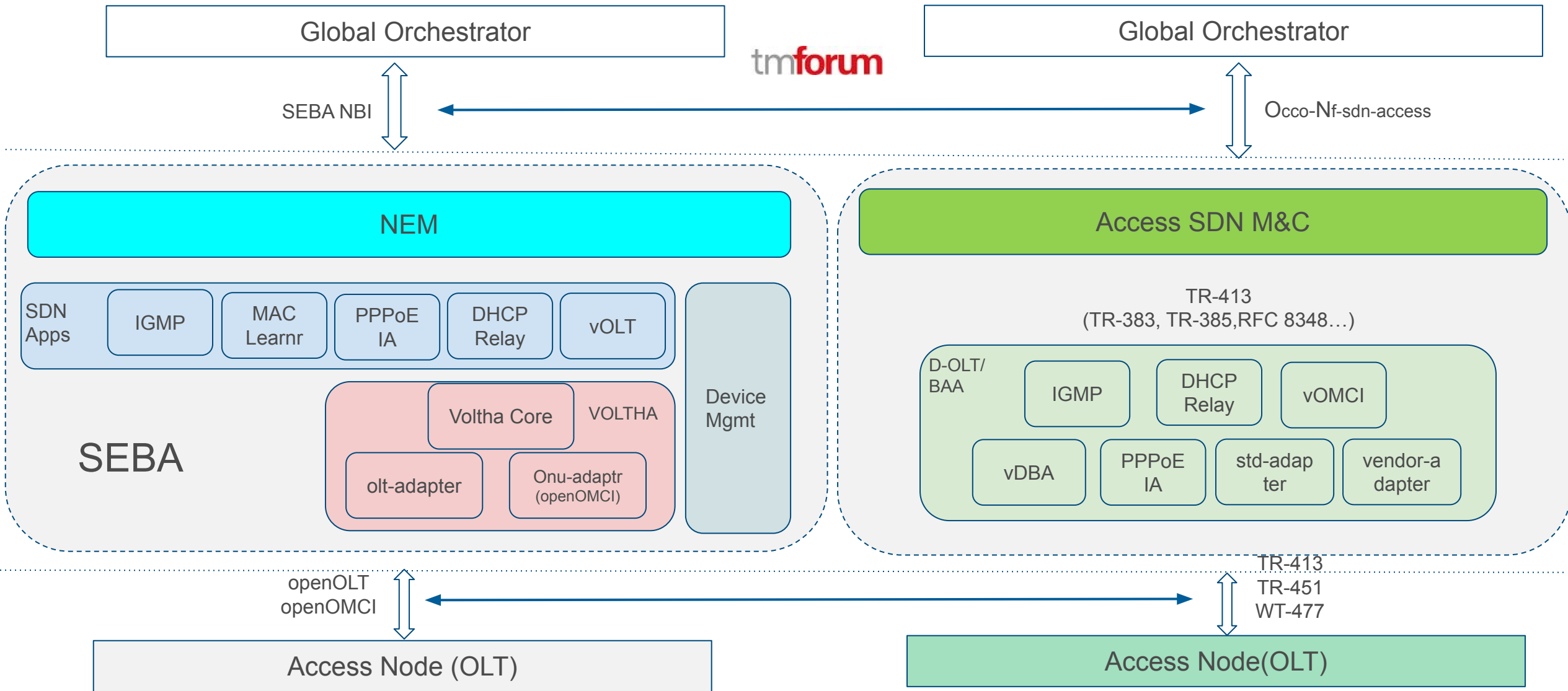
Cloud CO Arch. Framework



Functional Coverage

Functionality Covered	SEBA Component	Related Logical Block in CloudCO	TRs, WTs and other Documents (not an exclusive list)
SDN Orchestration (inc. Full FCAP features)	<ul style="list-style-type: none"> NEM (Access SDN M&C aspects) 	<ul style="list-style-type: none"> Access SDN M&C 	TR-384, Cloud-CO Architectural Framework SEBA Reference Design
Programming Flow rules for services	<ul style="list-style-type: none"> vOLT 	<ul style="list-style-type: none"> Access SDN M&C or D-OLT 	TR-384, Cloud-CO Architectural Framework WT-477, Dis. Acces Node, SEBA Reference Design
L1 PON Configuration,	<ul style="list-style-type: none"> OLT Hardware Abstraction (VOLTHA) 	<ul style="list-style-type: none"> Access SDN M&C Cloud-CO components (BAA, D-OLT etc..) 	TR-413 and associated YANG models Opensource openOLT, openOMCI, VOLTHA TR-451, SEBA Reference Design, TR-181/xPON
Vlan Configuration, Qos Configuration	<ul style="list-style-type: none"> OLT Hardware Abstraction (VOLTHA) 	<ul style="list-style-type: none"> Access SDN M&C Cloud-CO components 	WT-477 TR-413
Device adaptation	<ul style="list-style-type: none"> OLT Hardware Abstraction (VOLTHA) 	<ul style="list-style-type: none"> BAA (optional) 	WT-484, WT-477 Opensource openOLT, openOMCI, VOLTHA
OMCI	<ul style="list-style-type: none"> OLT Hardware Abstraction (VOLTHA) 	<ul style="list-style-type: none"> BAA or D-OLT vOMCI 	TR 384, WT 484, TR-451 Opensource openOLT, openOMCI, VOLTHA
L2/L3 Applications (DhcpRa, pppoela, mcast..)	<ul style="list-style-type: none"> SDN Apps 	<ul style="list-style-type: none"> D-OLT 	WT-477 Opensource openOLT, openOMCI, VOLTHA
Device Management	<ul style="list-style-type: none"> Device Management 	<ul style="list-style-type: none"> SDN M&C, vOMCI 	TR-413, TR-451, openOMCI
Domain Orchestration	SEBA NBI	Occo-Nf-sdn-access	TR-411, Defn of interfaces CloudCO SEBA Reference Design and opensource NBI

Integration Points



Resourcing the work areas

Functionality	Subject Matter Expert(s)	TRs, WTs and other Documents (not an exclusive list)	Expected workplan (SMEs to verify)
OMCI	Andre Brizido, Altice Labs Ilias Gravalos, Nokia Mahir Gunyel, Netsia	TR-384, WT-484, TR-451 Opensource openOLT, openOMCI, VOLTHA	Review TR-451, vOMCI and OpenOMCI implementations Identify synergies and gaps Recommend actions to align TR-451 and vOMCI with OpenOMCI Recommended actions to align OpenOMCI implementation with (new proposal) for TR-451
Device Adaptation	Serkant Uluderya, Netsia <Abhilash?>	WT-484, WT-477 Opensource openOLT, openOMCI, VOLTHA	Review WT-477 and VOLTHA API Identify alignment actions including requirements, protocol support, message flows for SBI
SEBA NBI	<SEBA RD Team?> <VOLTHA TST?>	SEBA Reference Design TR-411, TR Forum specs.	Review TR-411 and TR Forum specs Identify the changes need to be done in SEBA NBI. Recommend the related changes to SEBA RD.

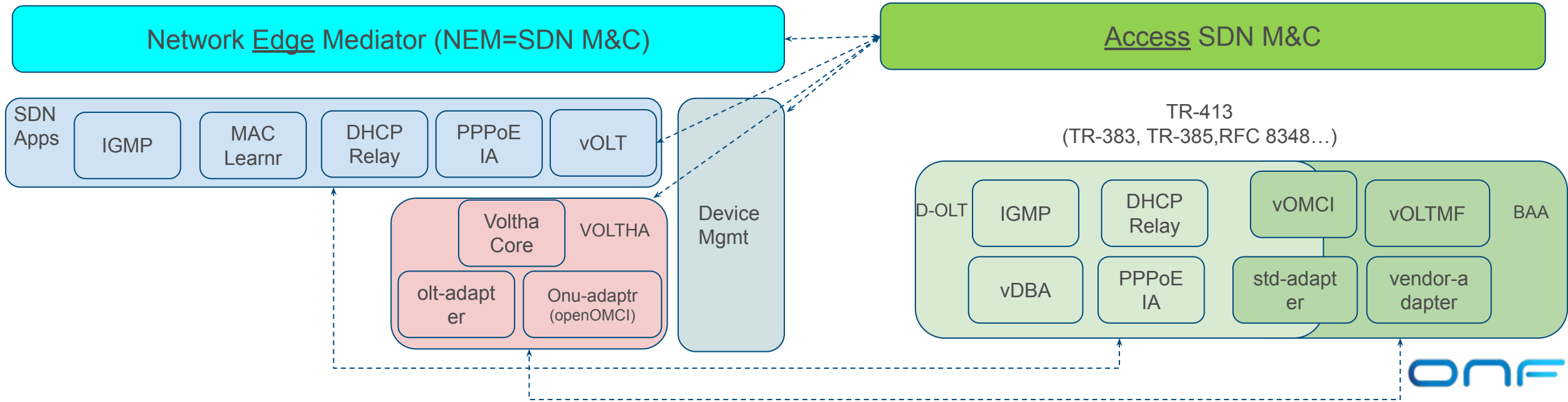
Alignment Actions

- Subject Matter Experts in individual component areas are required to take the lead and support
- Review of the BBF TRs/WTs and ONF Designs with concrete proposals for amendments
 - Requirements
 - Protocols
 - YANG models
 - Encoding
 - Opensource SW changes
- Create, review and submit BBF Contributions for peer review and adoption
- Create, review and submit ONF amendments for peer review and adoption

High Level Component Association

BBF Components	SEBA Components
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Access SDN M&C (multiple logical components)	NEM, vOLT App, VOLTHA, DM (NEM and DM in minimum)
D-OLT	SDN Apps, VOLTHA (SDN Apps in minimum)
BAA	VOLTHA





ONF

Open Networking Foundation

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