

Distributed Mobility Management (DMM) WG

DMM Work Item:
Deployment Models & Architectural
Considerations

DMAC work team

IETF91, Honolulu

2014-11-13

Scope of the Work Item

- Provide the high-level architectural model for DMM
- Identify the functional entities in the DMM architecture
- Provide the definitions for each function, its purpose and its location in the mobility network
- Identify the possible deployment scenarios based on operator inputs

Brief status update

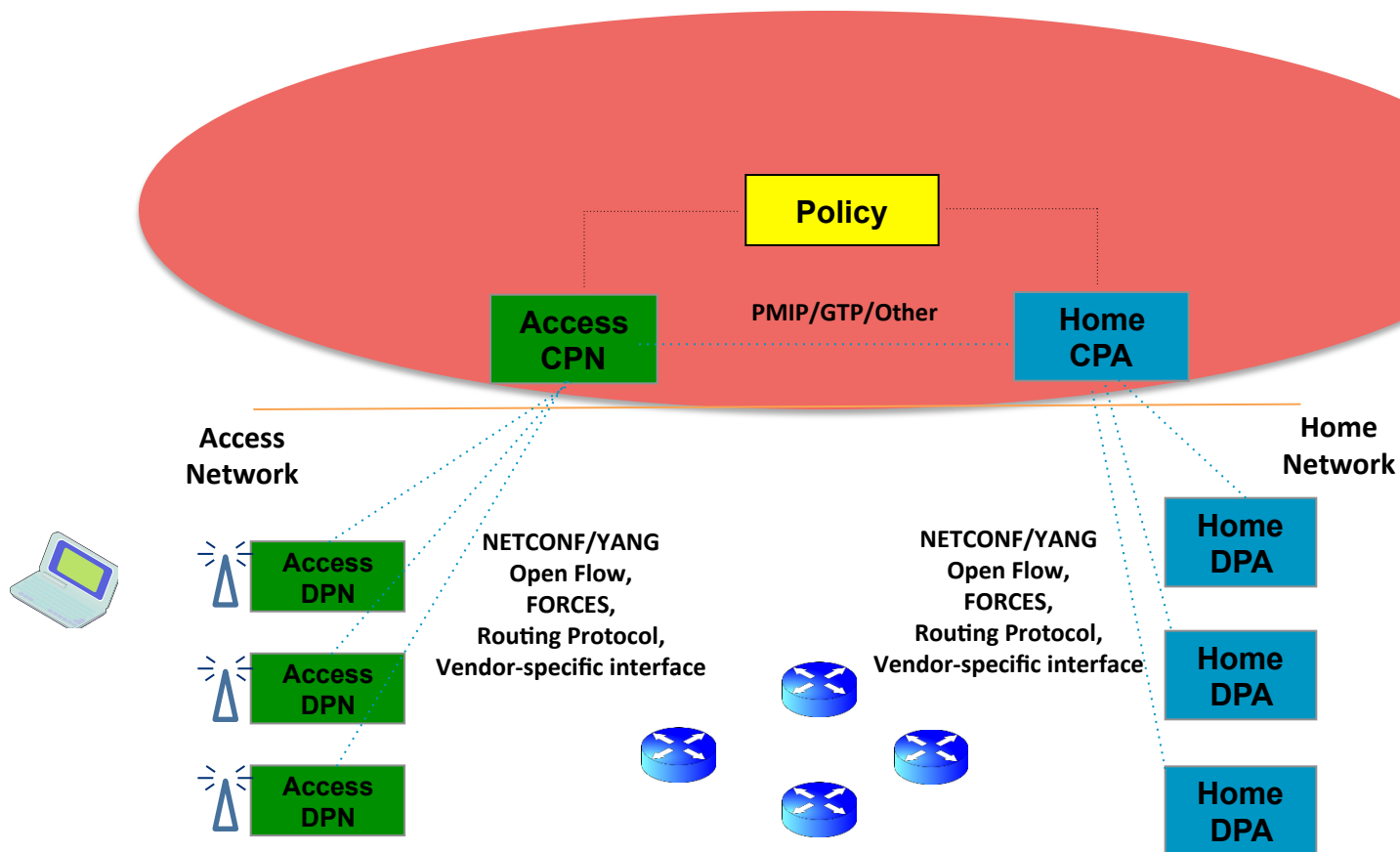
- ❑ Work team was created just prior to IETF91
- ❑ No formal meetings were held after the chairs created the work team. However, three telephone conference calls and one white-boarding sessions were held prior to IETF-90 on an informal basis
- ❑ Discussions on the DMM architectural models and functional entities. The CP/DP interface WI came out of these discussions
- ❑ In the discussion so far involved:
Marco Liebsch, Pierrick Seite, Jouni Korhonen, Satoru Matsushima, Danny Moses, Alper Yegin, Georgios Karagiannis, Fred Templin, Charlie Perkins, Sri Gundavelli ...

DMM – Functional Elements

- Home Control Plane Anchor (Home-CPA)
- Home Data Plane Anchor (Home-DPA)
- Access Control Plane Node (Access-CPN)
- Access Data Plane Node (Access-DPN)
- Mobility Controller (MC) = { Home-CPA + Access-CPN }

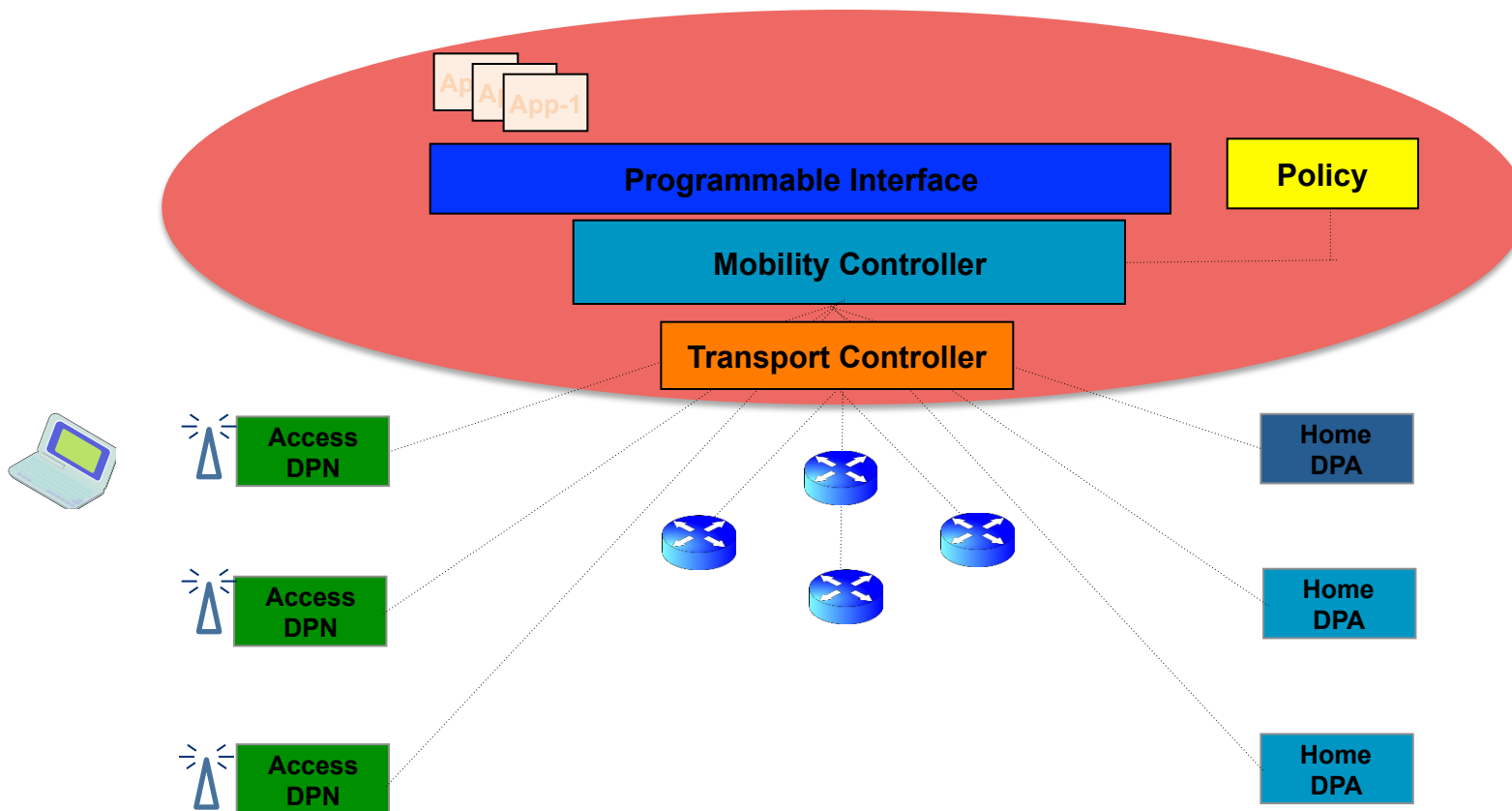
Functional Architecture with Home and Access Distinction

- Split Control and Data Plane; Simplified data-plane with no mobility state; Classic mobility protocol-use localized to CP functions.



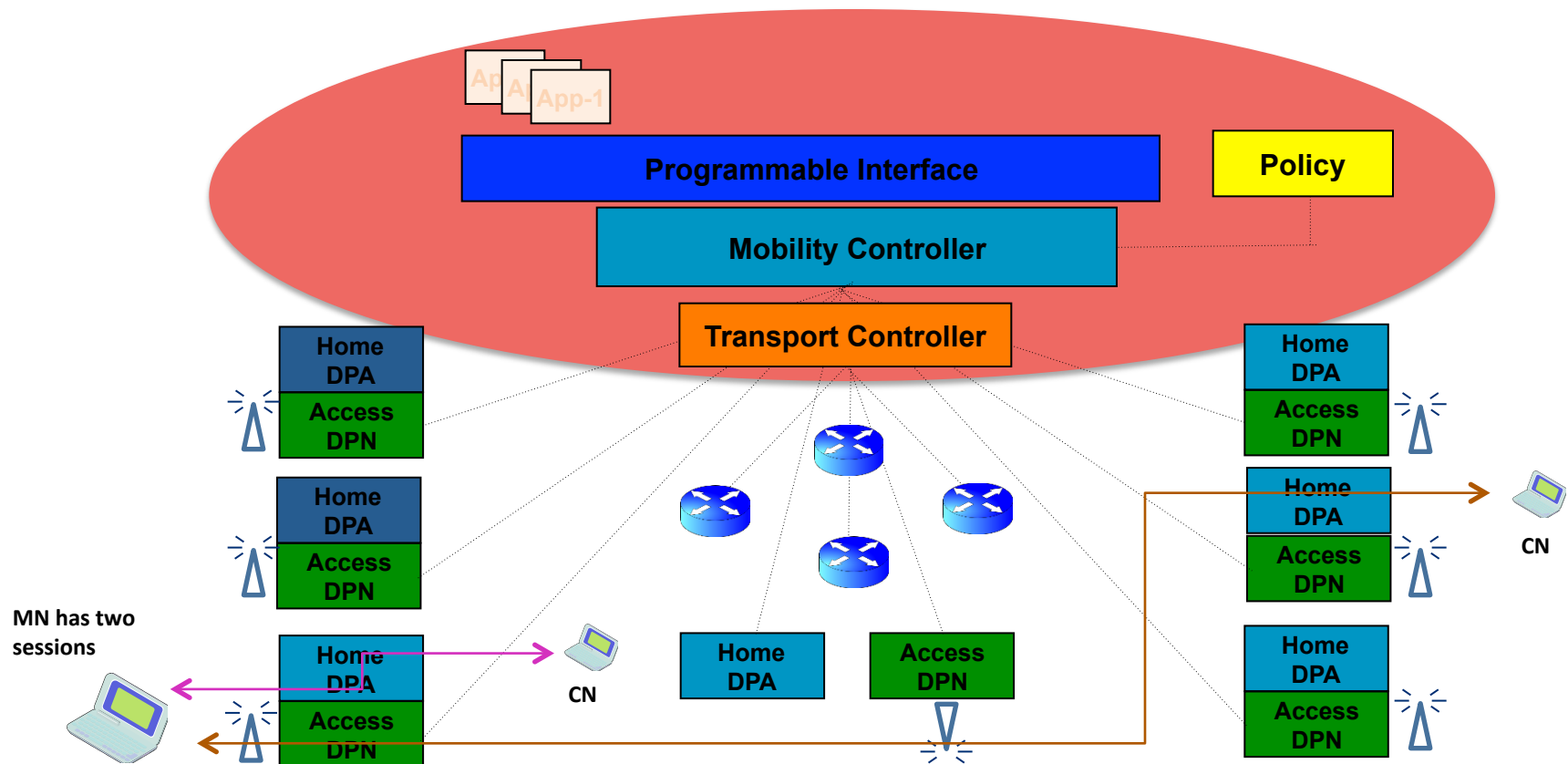
Converged Home & Access Control Plane Functions

- The Control-plane functions for Home-DPA and Access DPN are converged into a single entity, Mobility Controller. The distinction, “Access” and “Home” is removed for CP functions



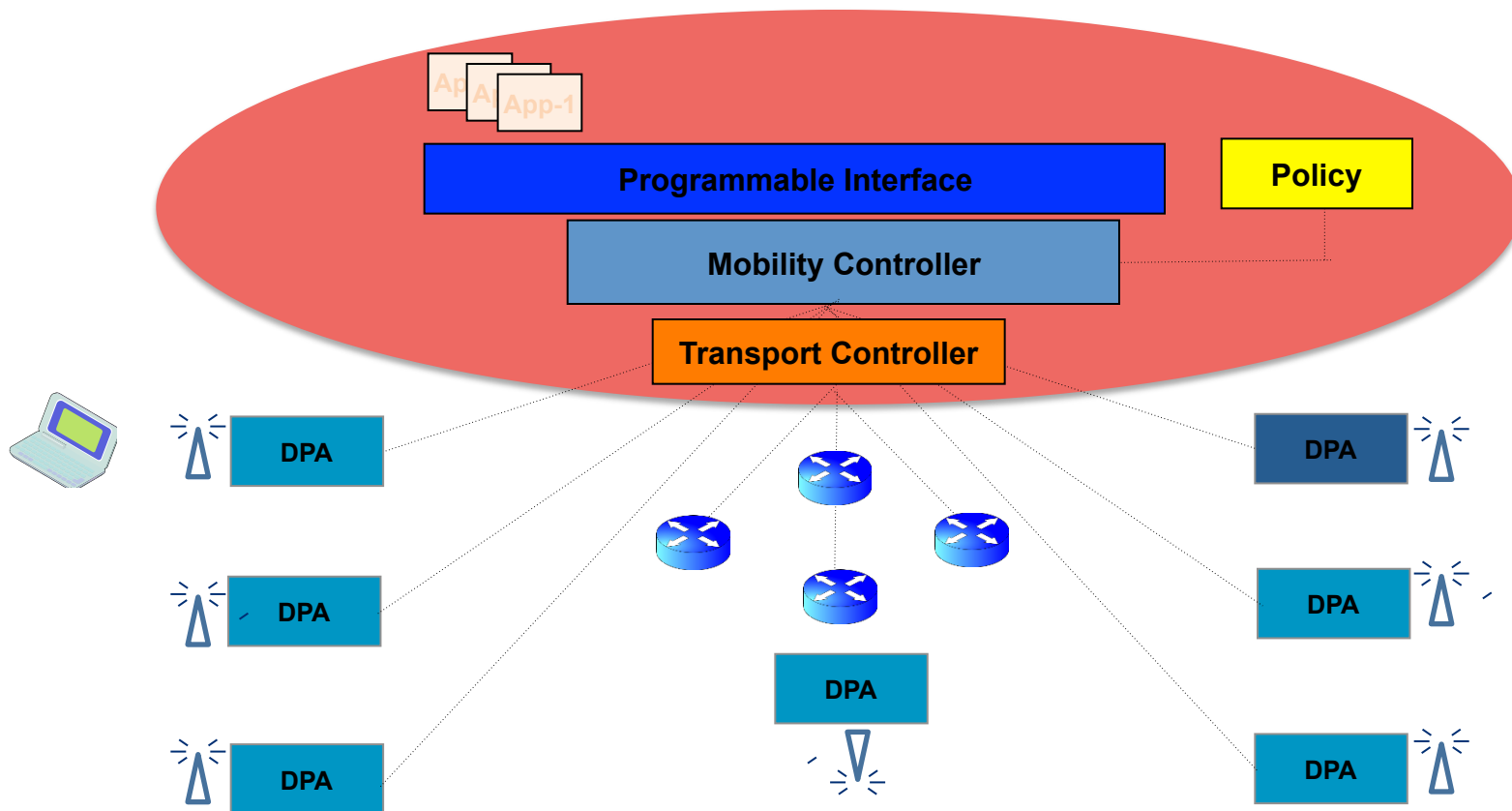
Home-DPA/Access-DPN Collocation

- The Access-DPN and Home DPA functions can be hosted on the same node.
- On a session basis, the respective functions are activated for a given MN's session.



Converged Home and Access Data Plane Functions

- The access gateway always assumes the Home-DPA role. The converged Home-DPA and Access-DPA is referred to as the “DPA”.



Next Steps

- Discussions and inputs to find consensus
- Seek inputs from operators
- Agree on (initial) description format
- Write-up of first documentation