Evolution of NGN Control Plane for Future Telecommunications Networks

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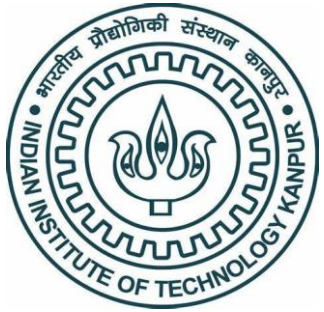

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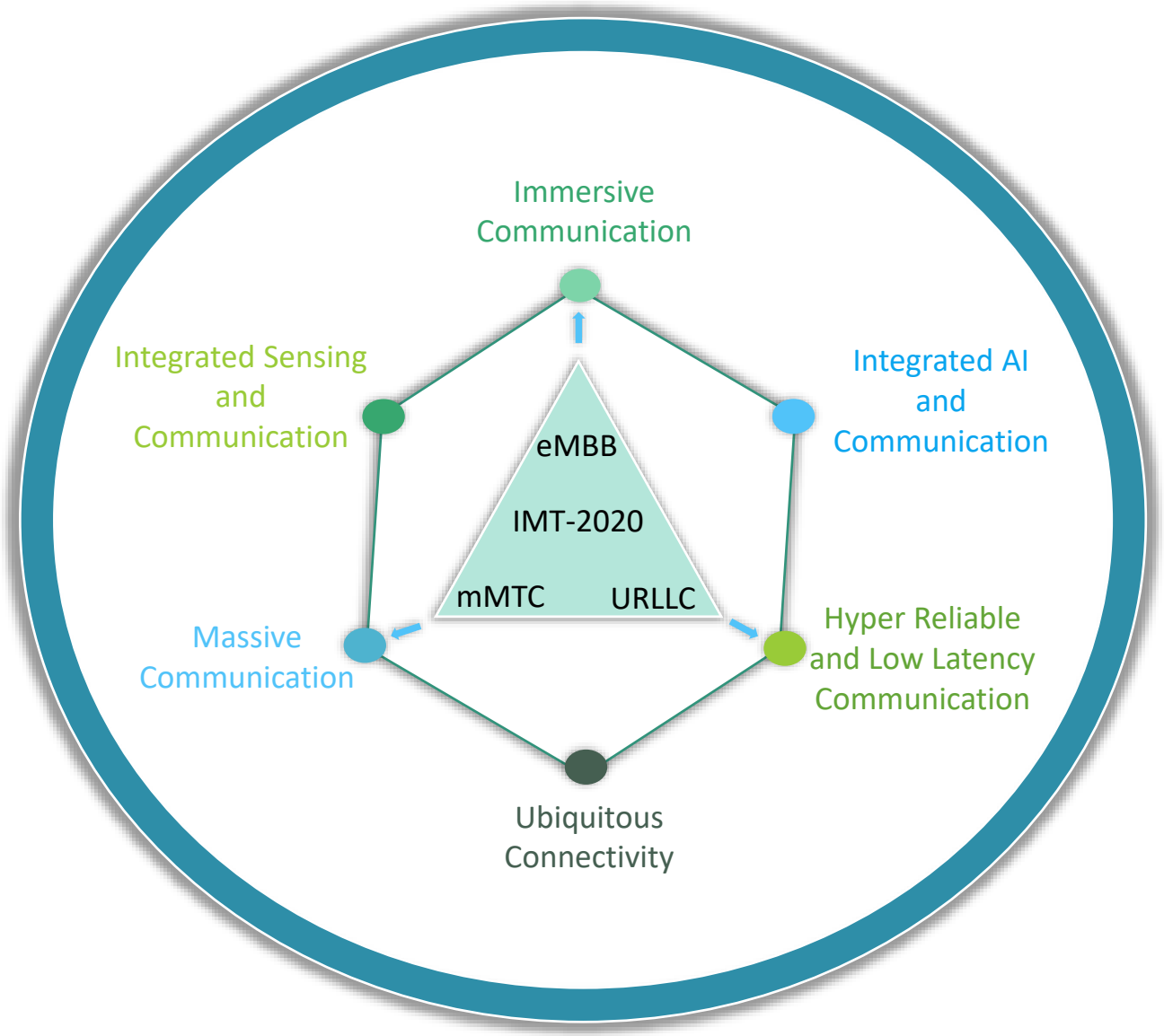
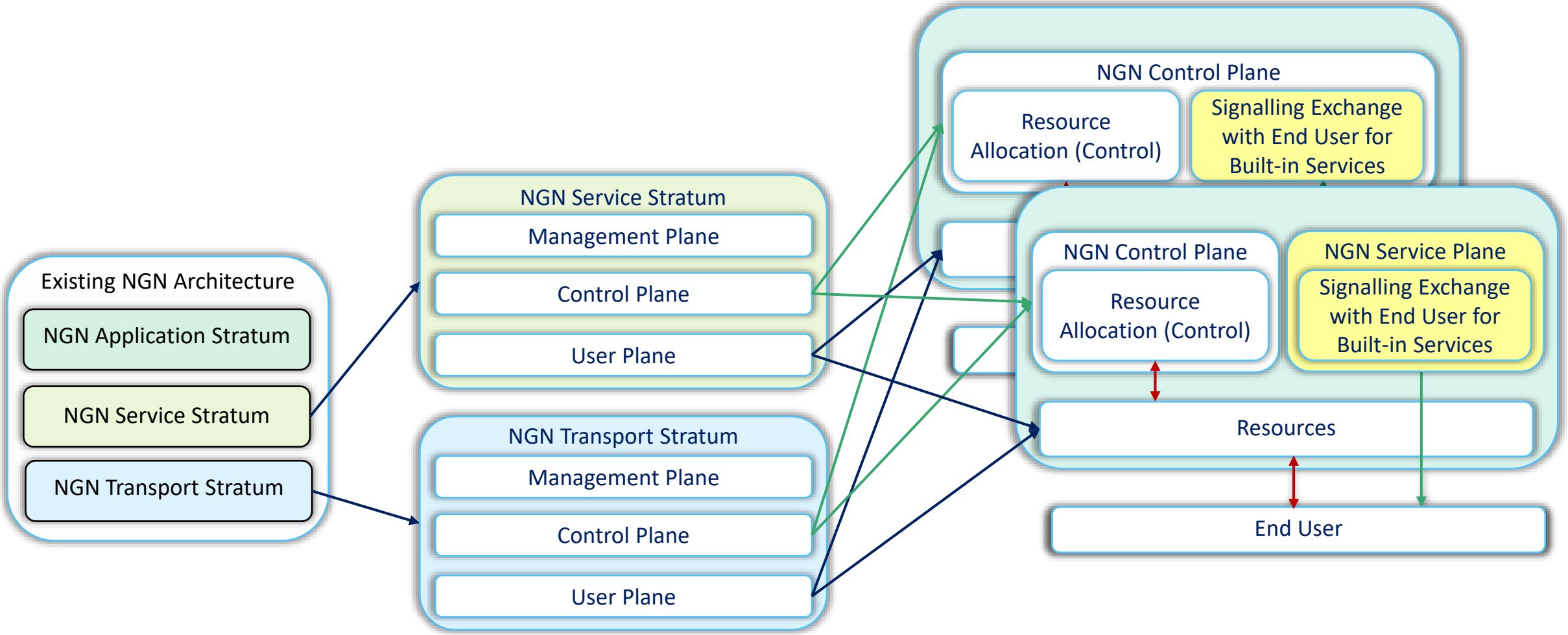
IMT-2030 and Beyond Use Cases

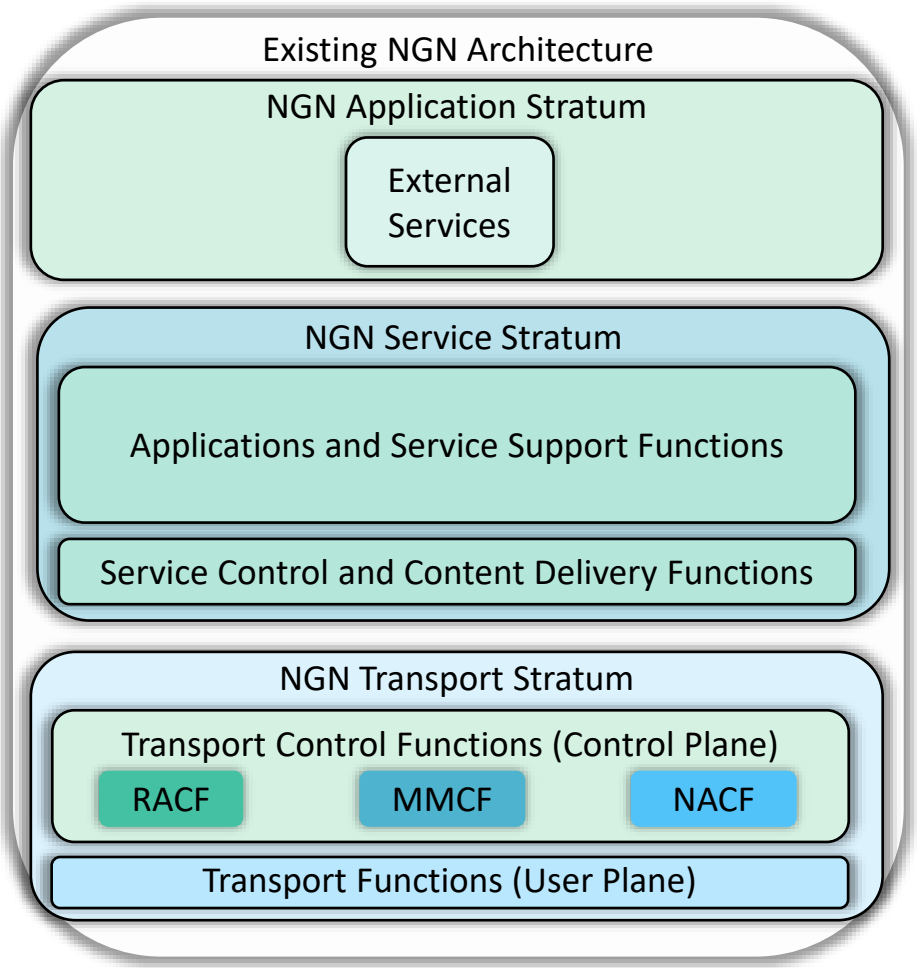


ITU-R, DRAFT NEW RECOMMENDATION, "Framework and overall objectives of the future development of IMT for 2030 and beyond," June 2023.

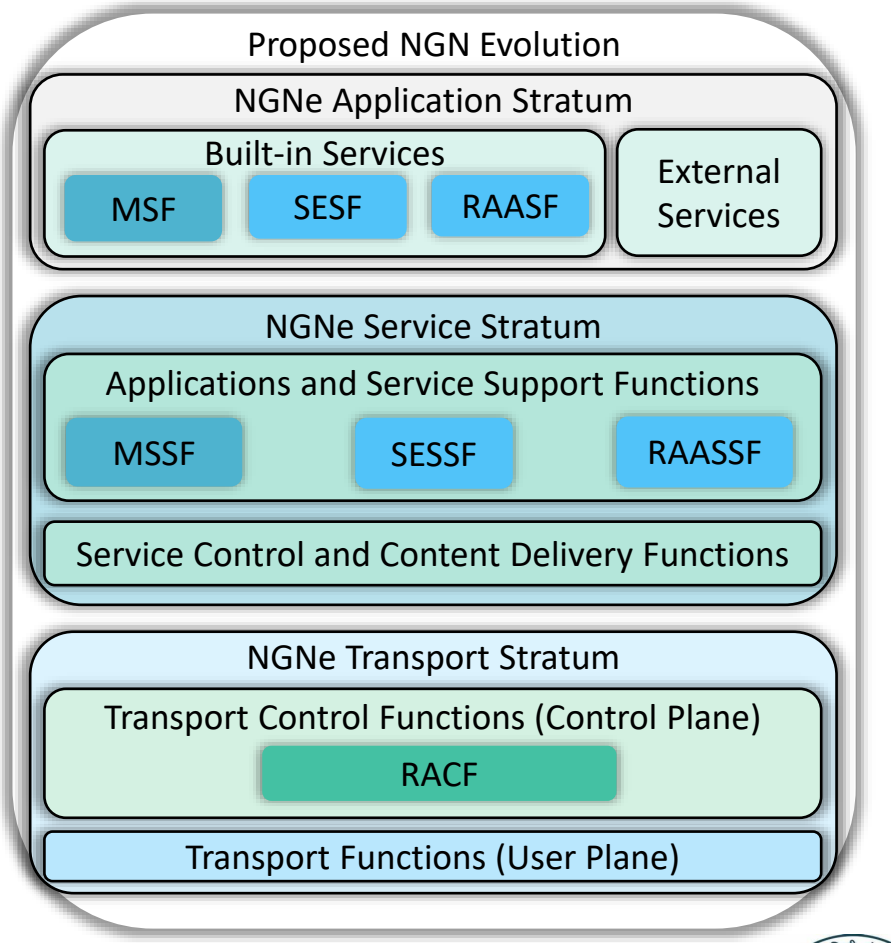
Existing NGN Architecture Overview and its Limitations



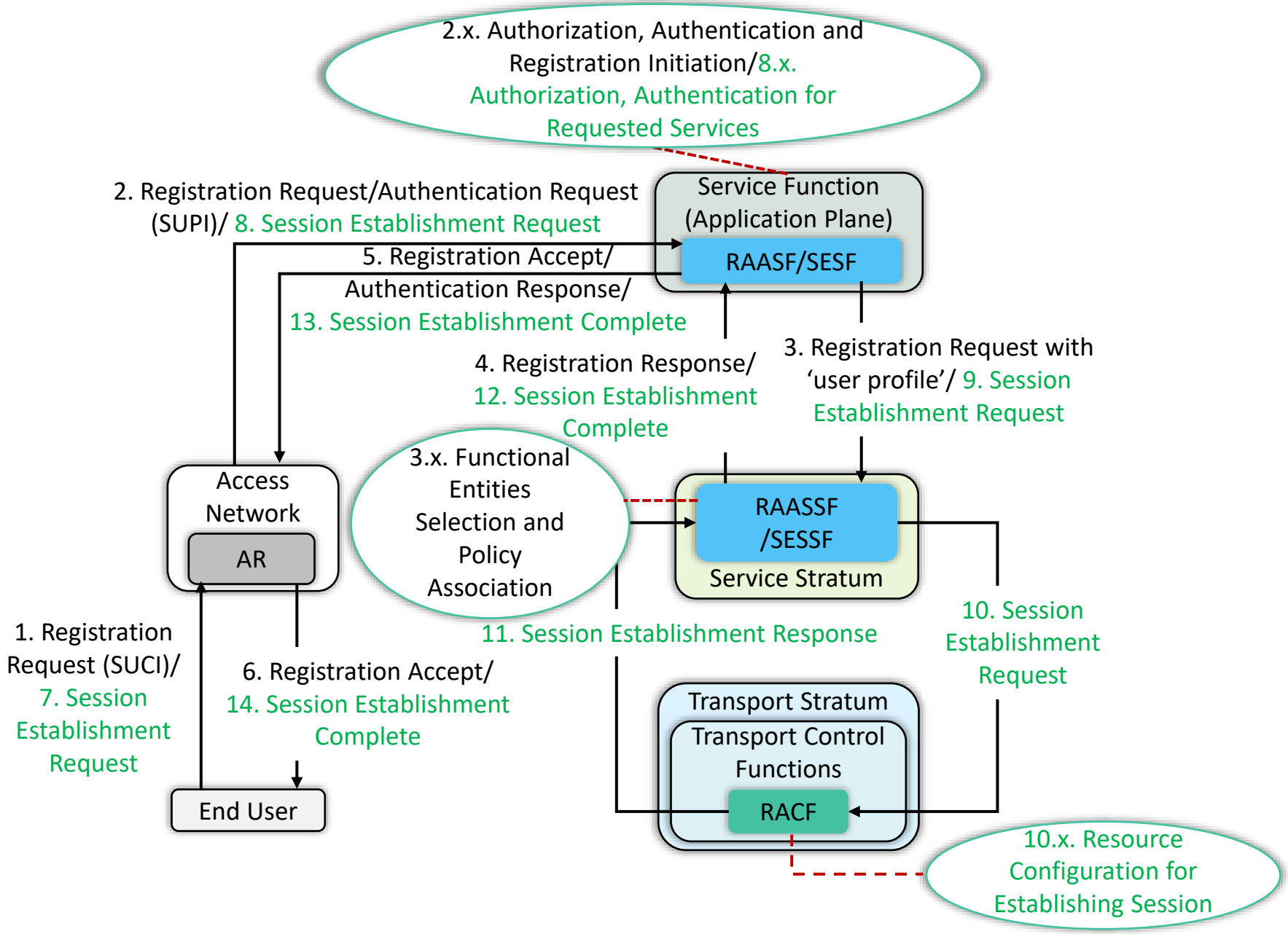
Comparison of Existing NGN Architecture and Proposed Architecture For NGN Evolution



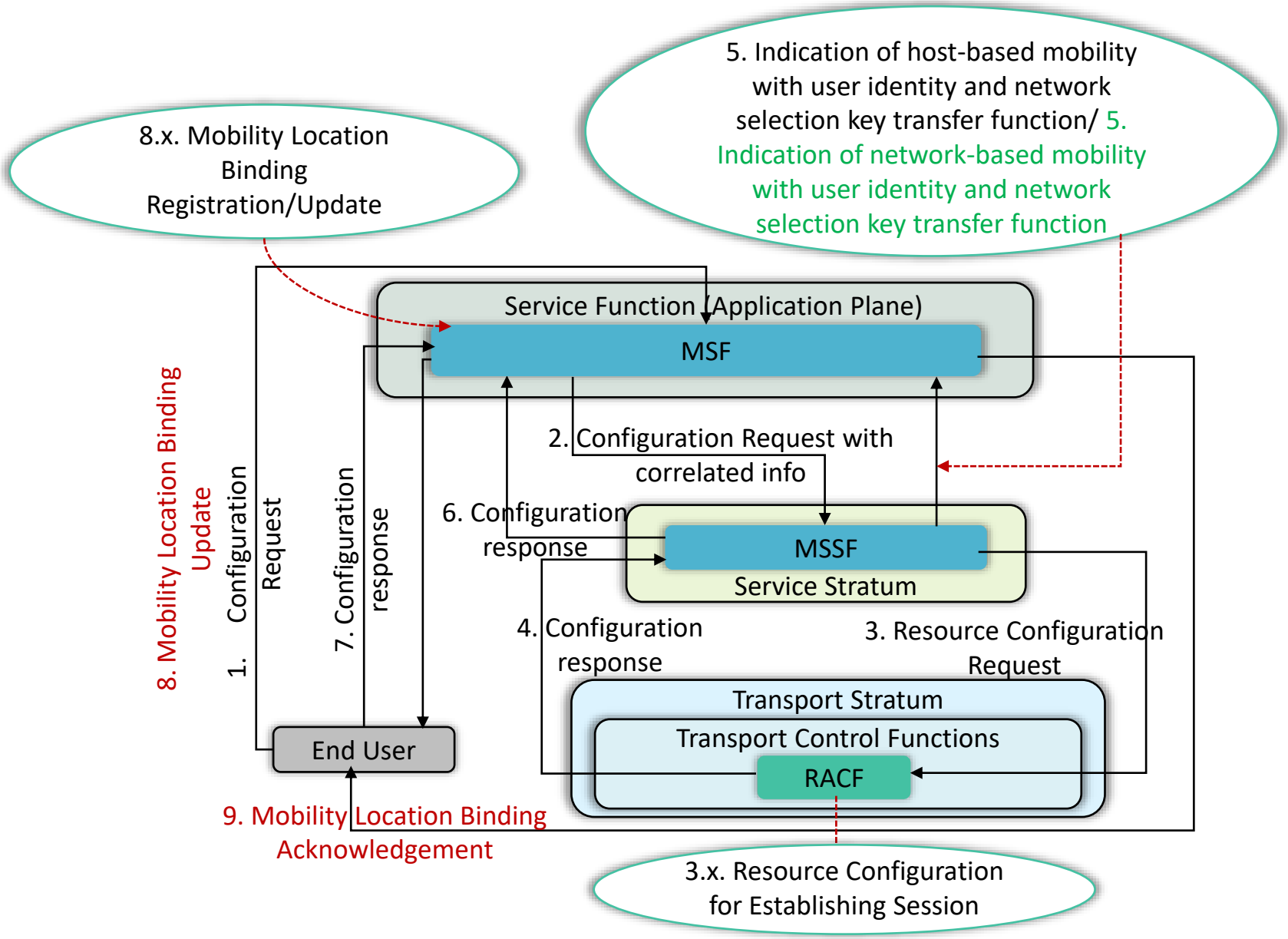
- NGN NACF (transport stratum) mapping to NGN Evolution SESF (application stratum) and SESSF (service stratum)
- NGN NACF (transport stratum) mapping to NGN Evolution RAASF (application stratum) and RAASSF (service stratum)
- NGN MMCF (transport stratum) mapping to NGN Evolution MSF (application stratum) and MSSF (service stratum)



Information Flow for RAA and Session Establishment Procedures



Information Flow for Host-based/Network-based Mobility Service



Conclusion

The proposed NGN architecture offers the following advantages:

- Segregates user-associated signalling functionality (control signalling) from the user plane control functionality
- Treats user-associated signalling exchange as a type of payload facilitated via a service function situated outside the control plane
- Simplifies the network design and its procedures
- Improves scalability and flexibility
- Highly compatible with the demands of future networks

Thank You