SRv6MUP
A Mobile User Plane Network Evolution with SRv6

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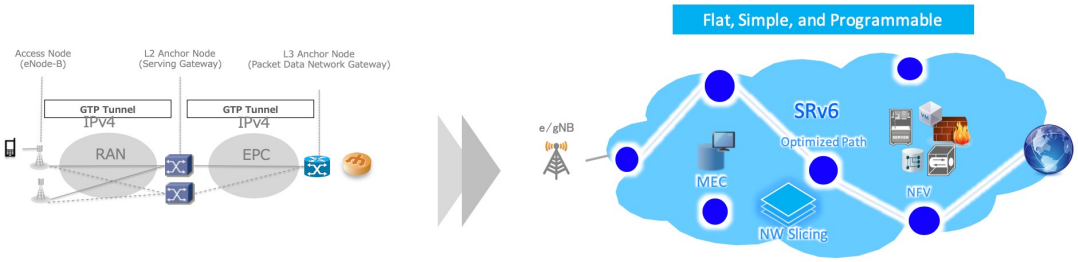
4 Years Ago

MPLS+SDN+NFVWORLD @PARIS2018

What if SRv6 Becomes An Alternative of GTP-U Tunnel?

- ~~Well fragmented to RAN, EPC and SGi.~~
- ~~Per-session tunnel creation and handling.~~
- ~~Non-optimal data-path.~~
- **IPv6 integrates networks of the mobile and others.**
- **A SID represents data-plane role and function.**



3 Years Ago

SoftBank mobile the Internet energy robot Corporation Company / IR

Company / IR news Company information Growth strategy IR information CSR Human resource measures and recruitment

Press release 2019

Started operation of "SRv6 (segment routing IPv6)" in mobile IP network

New Technologies for Network Innovation in the 5G Era

April 24, 2019 Softbank Corporation

SOFTBANK CORP. (Hereinafter referred to as "SOFTBANK") is a new technology that realizes simpler and scalable network configuration in mobile IP networks and implements various functions for the 5th generation mobile communication system (5G) era We introduced SRv6 (segment routing IPv6) and began full-scale operation on a commercial network from April 2019.

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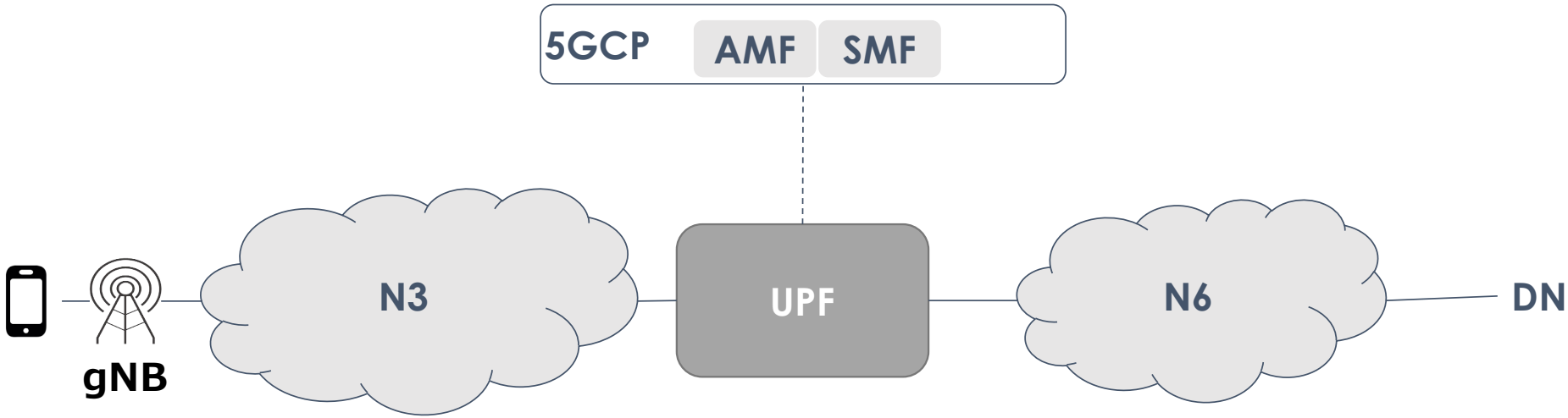
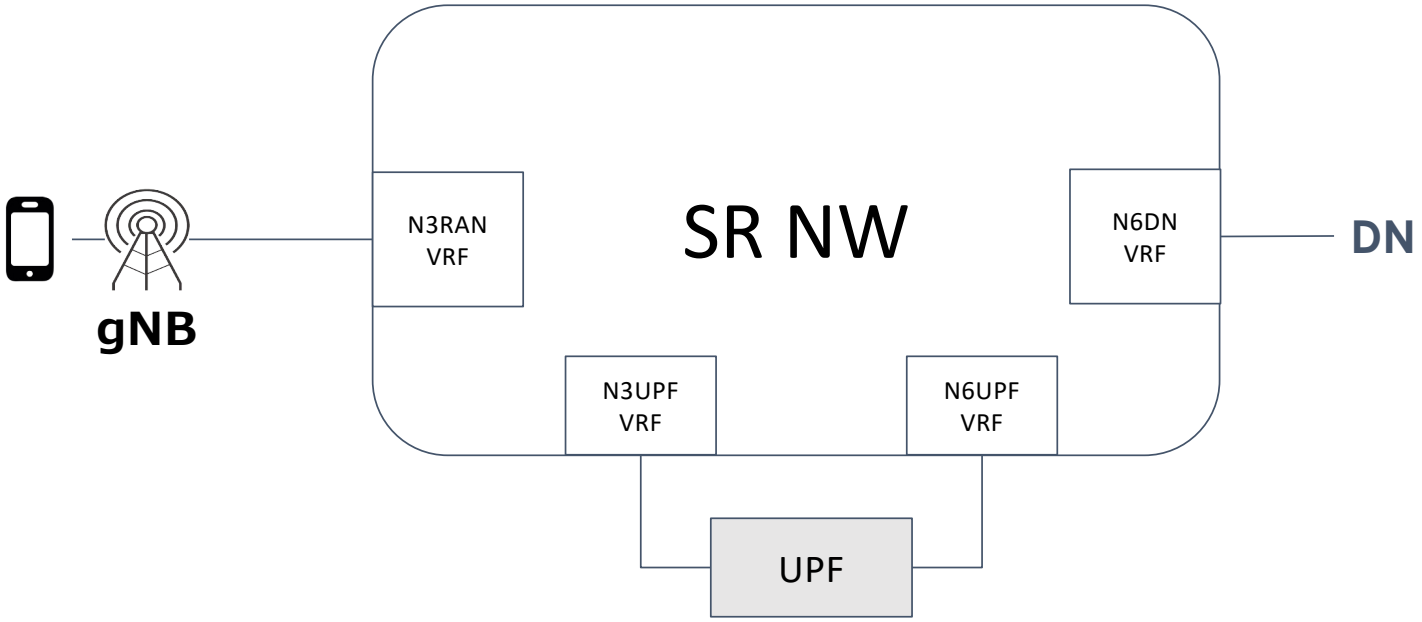
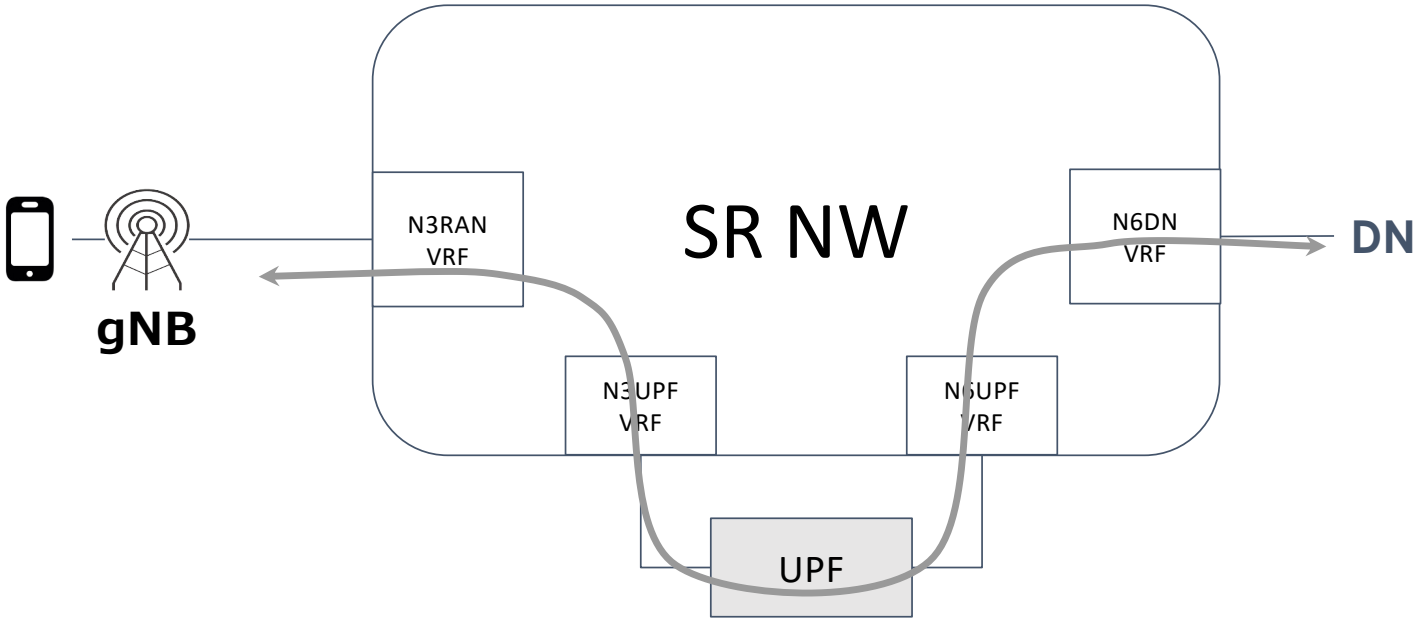
Now MNOs are building 5G Network..



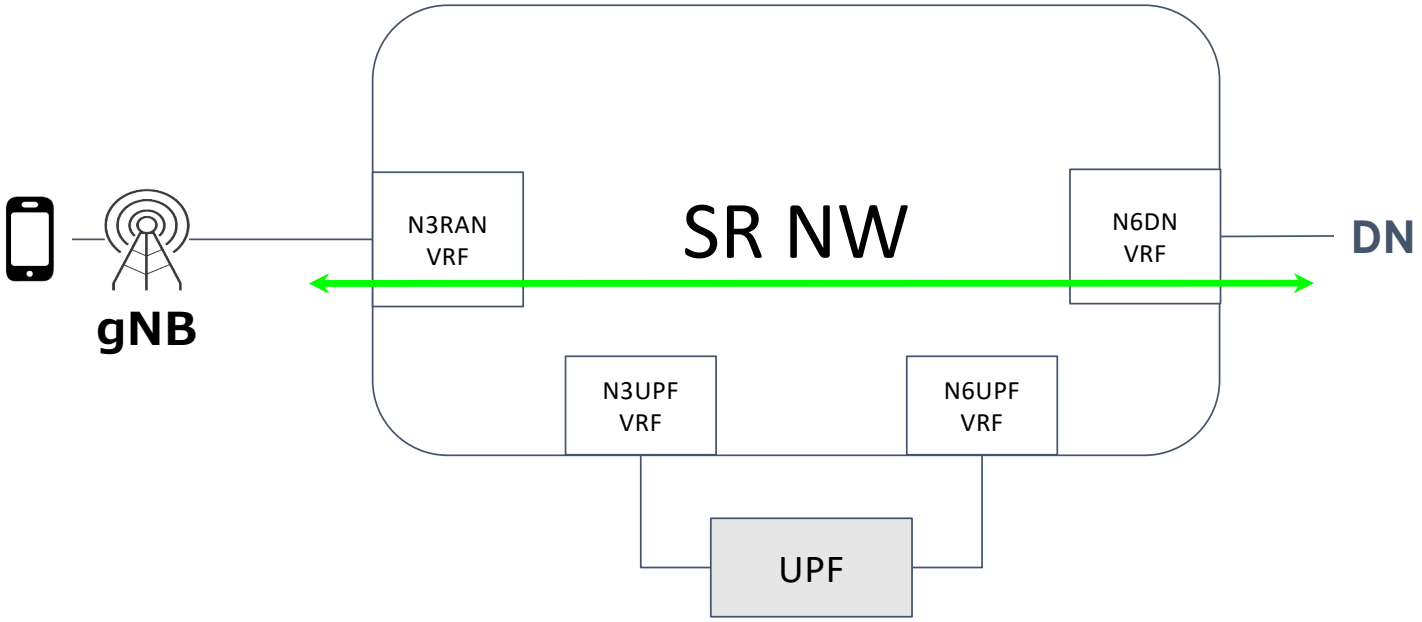
An MNO May Build 5G Network over SR Like This..



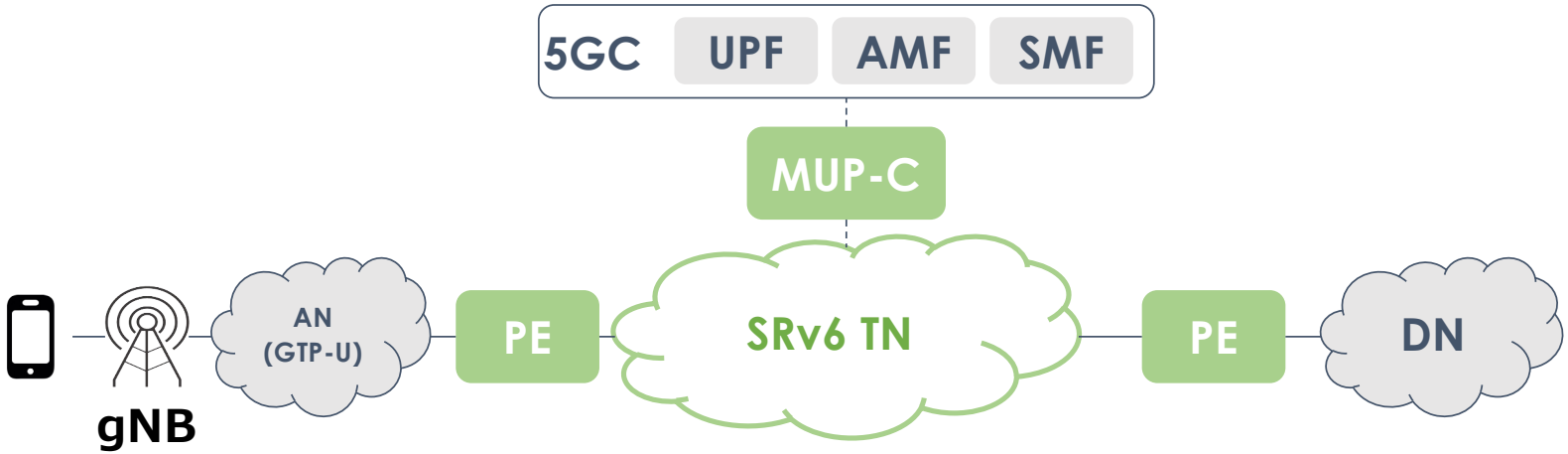
The User Plane Data-Path Looks Not Optimal..



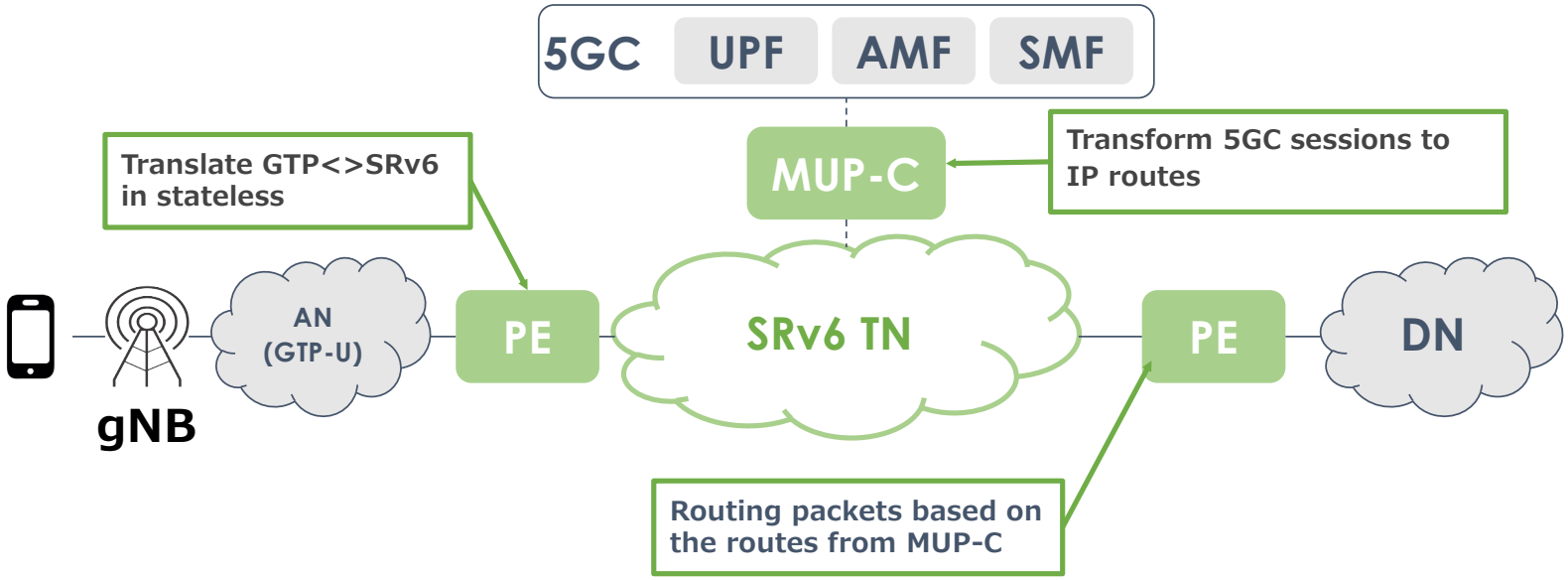
What if We Could Do This.. SRv6MUP!



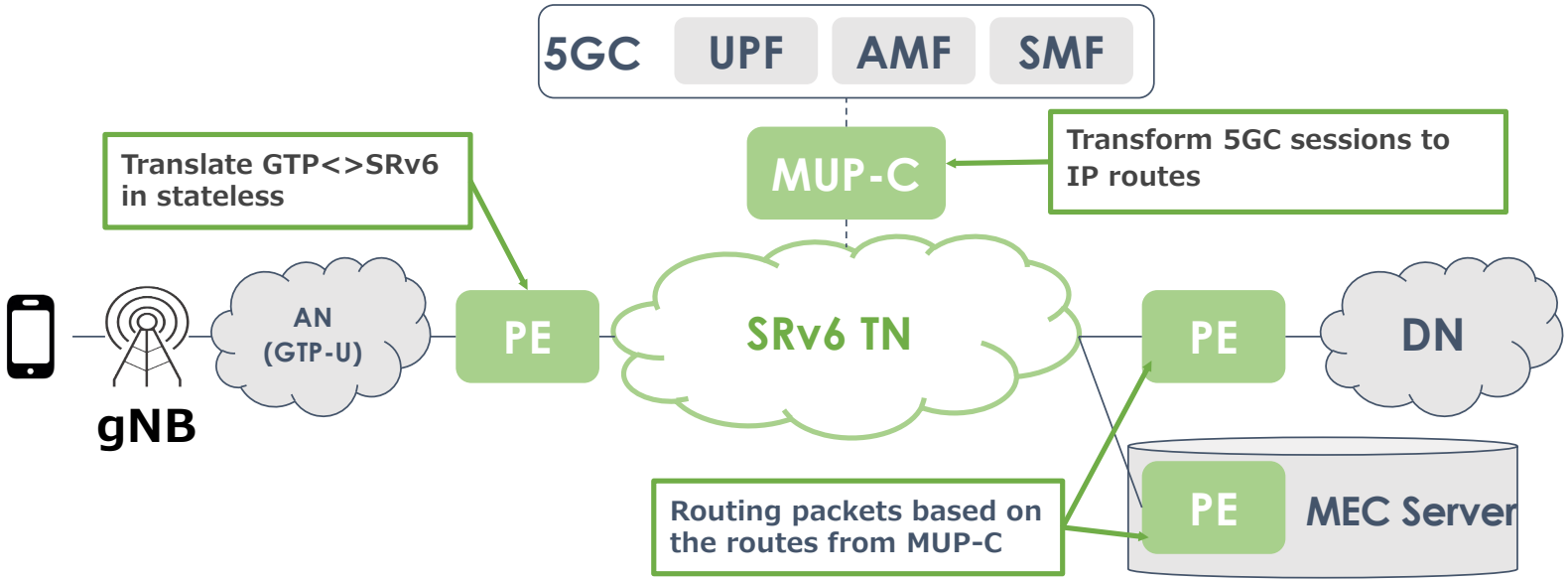
SRv6 MUP Architecture.. No Change 5G, Just Plug-in



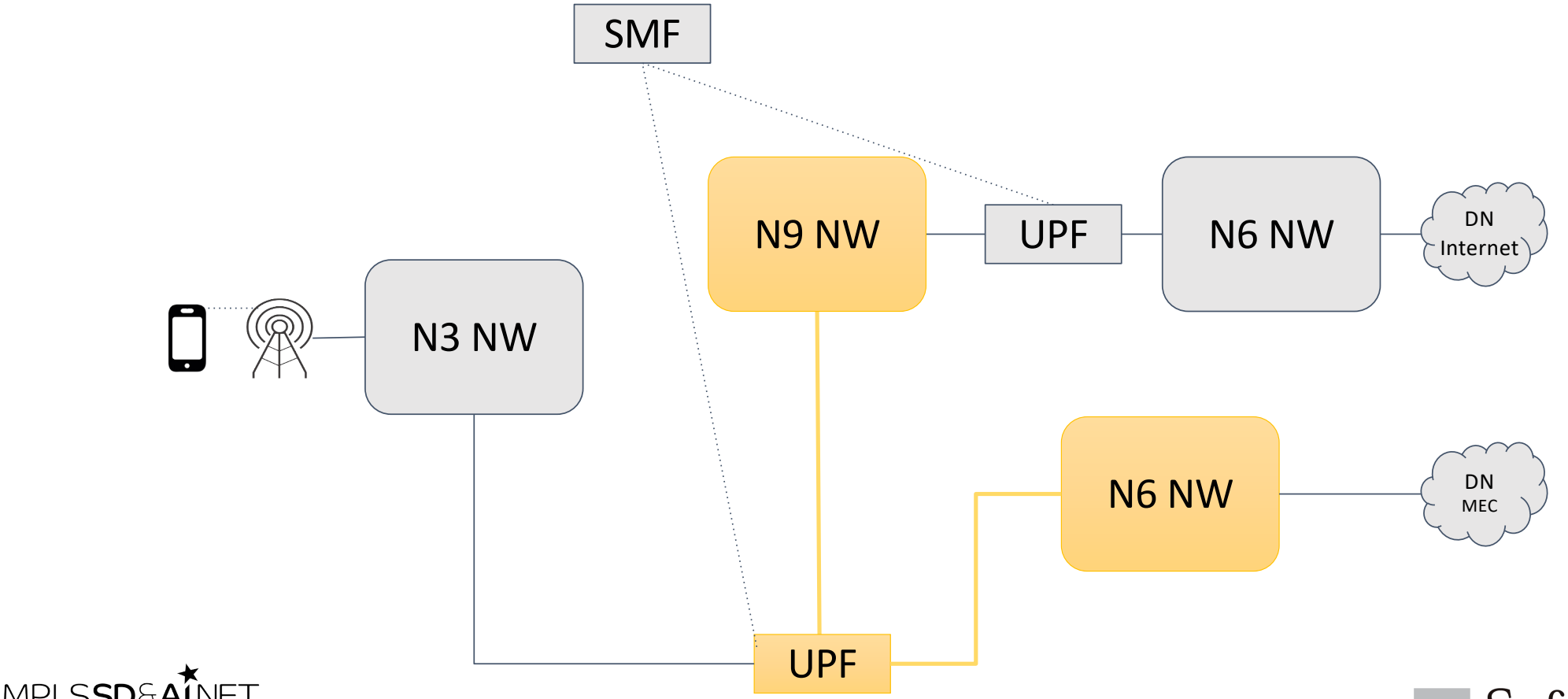
SRv6 MUP Architecture.. No Change 5G, Just Plug-in



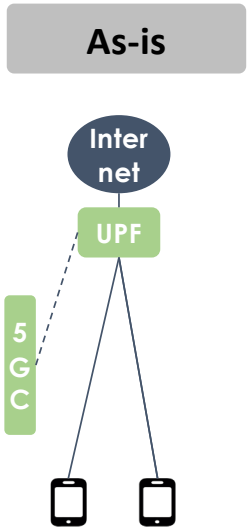
SRv6 MUP Architecture.. No Change 5G, Just Plug-in



Additional UPFs and N6/N9 NWs for MEC w/o SRv6MUP..



Toward the Future of Massive Distributed Computing



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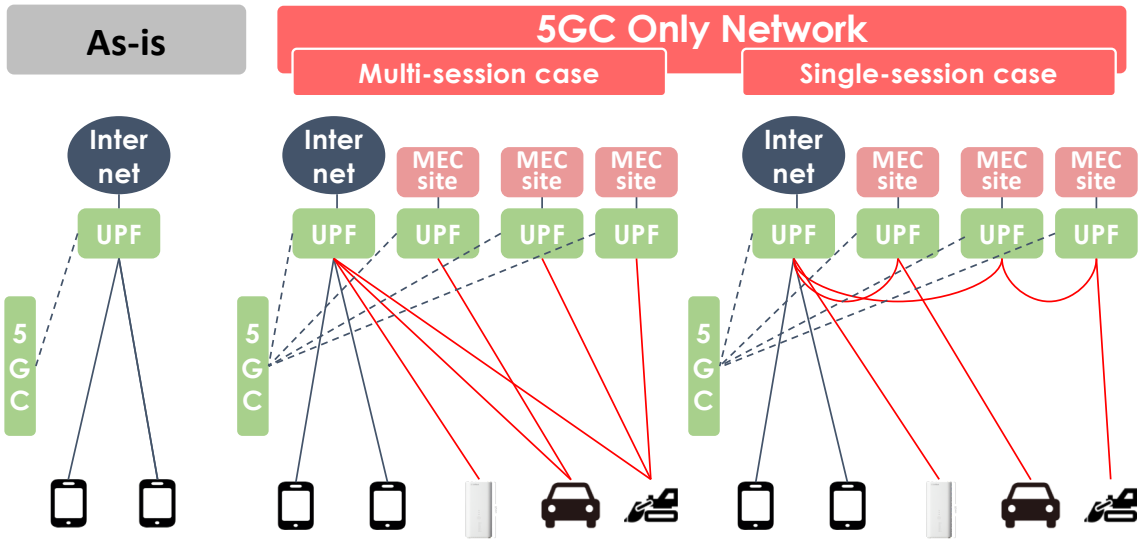
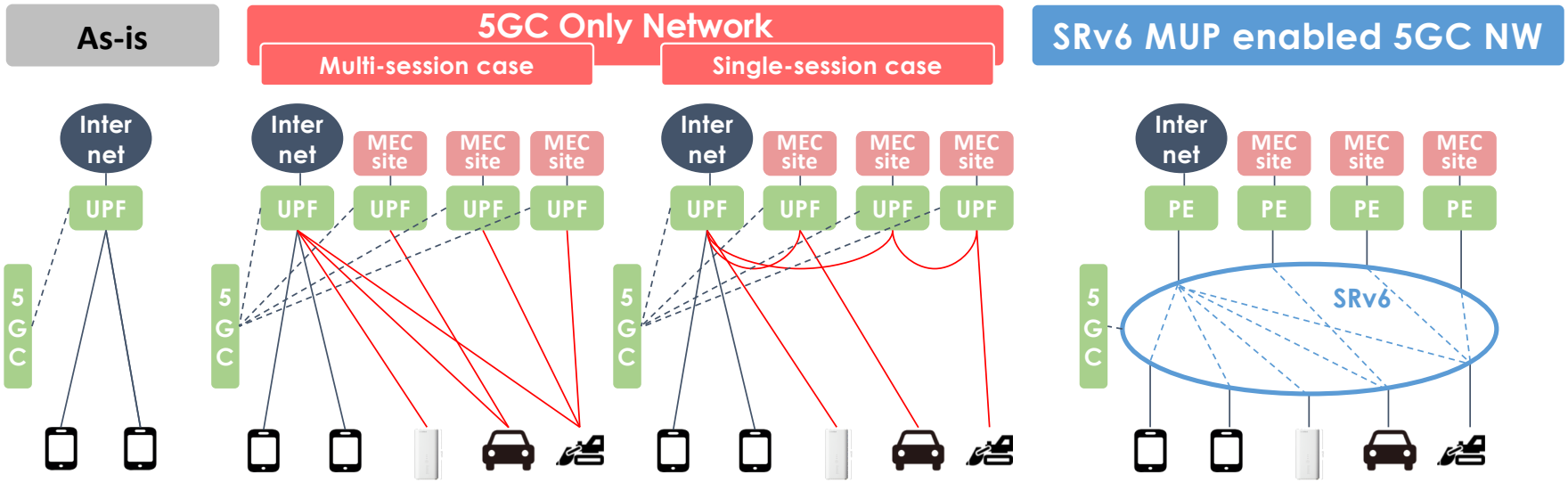
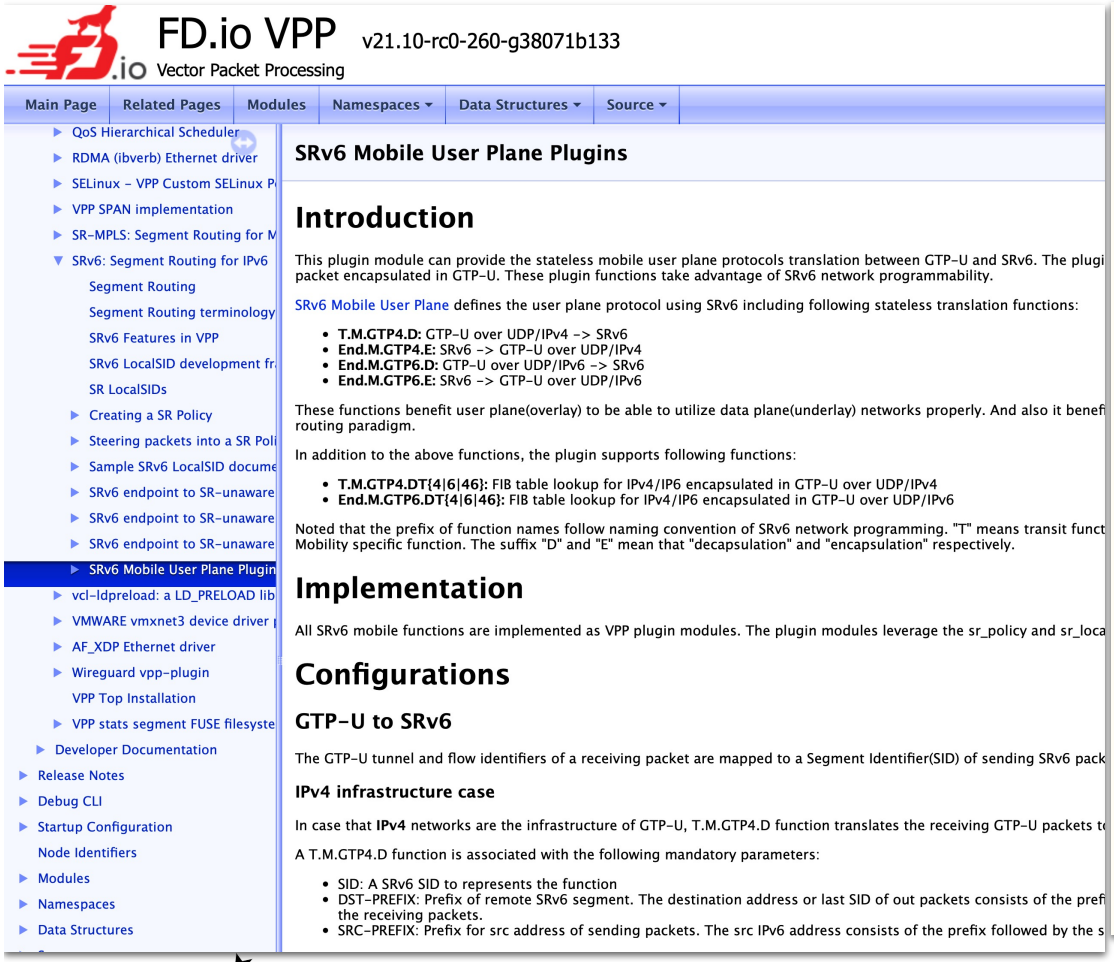


Toward the Future of Massive Distributed Computing



SRv6MUP is Open To Be Implemented and Standardized.



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K. Perumal
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J. Horn
Cisco Systems, Inc.
19 March 2022

Segment Routing IPv6 Mobile User Plane Architecture for Distributed Mobility Management
draft-mhkk-dmm-srv6mup-architecture-03

Abstract

This document defines the Segment Routing IPv6 Mobile User Plane (SRv6 MUP) architecture for Distributed Mobility Management. The requirements for Distributed Mobility Management described in [RFC7333] can be satisfied by routing fashion.

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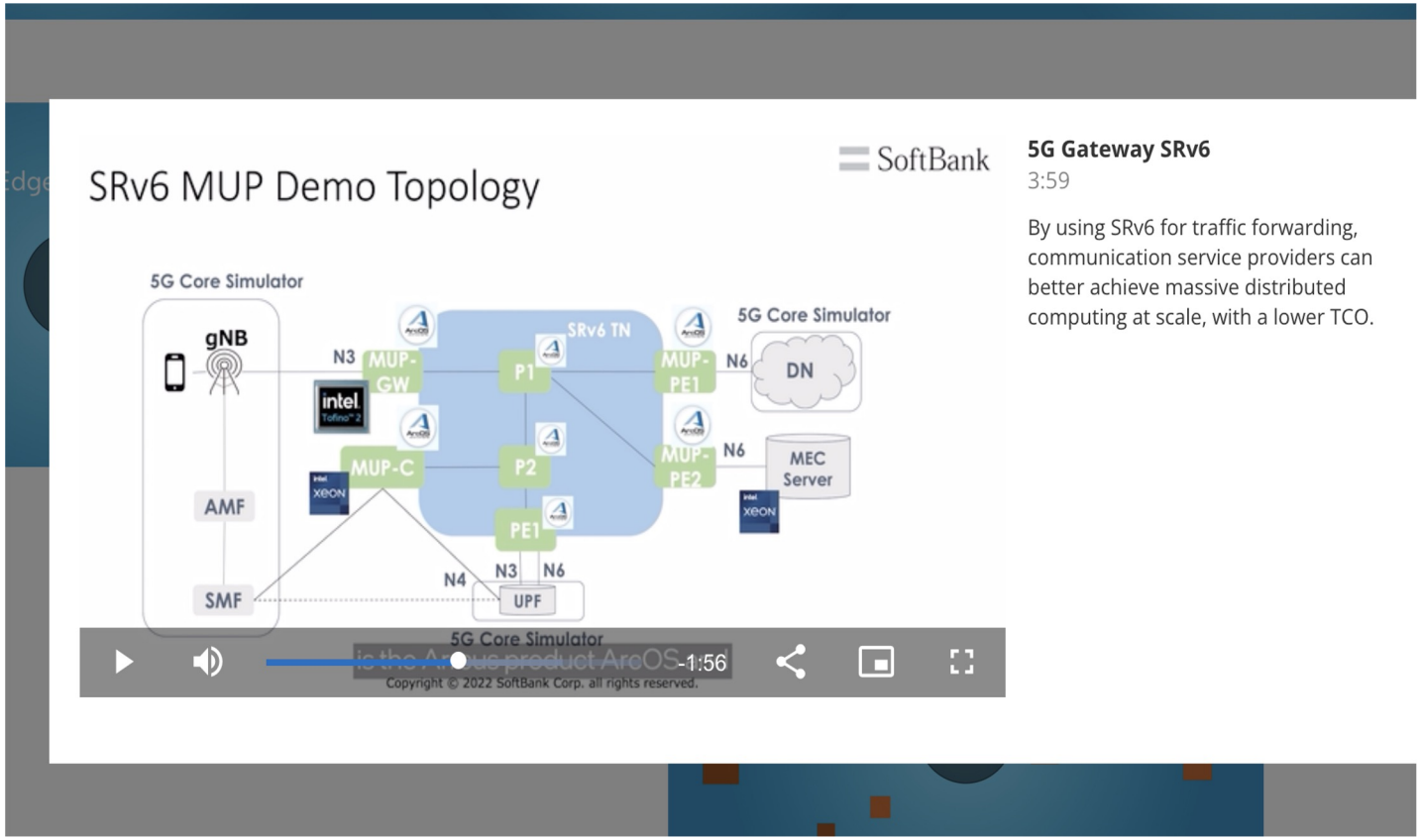
SRv6 MUP Demo Movie



https://www.intel.com/content/www/us/en/events/mobile-world-congress.html?videoId=6298415001001

Summary

- Mobile Operators who are building 5G over SR networks can get a chance to evolve your Mobile User Plane
- SRv6MUP is a plug-in to optimize the data-path for 5G Mobile User Plane
- SRv6MUP is open to be implemented and standardized with much industry supports

Thank you

Question/Comments?

FAQ

Q: Is SRv6MUP available over SR-MPLS?

A: SRv6MUP is an application of IPv6. So SRv6MUP can run over any IPv6 VPN solutions, not only over SR-MPLS, but also legacy MPLS.

EoF