

DATA PATH ENHANCEMENT AND VALIDATION

A **\$7bn**
Network
Equipment
Manufacturer

Overview

Customer is a \$100mn US multinational, software based telecommunication networking provider. Customer wants to enhance the functionality of control plane and user plane separation architecture of EPC nodes

Challenges

Evolved Packet Core (EPC) enables the mobile network operator to create a new set of services to the users. EPC flat architecture enables network deployments to be built for bandwidth-intensive services. Data path enhancement and validation of EPC features are critical for performance improvement.

Solution

- L2TPv2 Tunneling between P-GW and PDN
- GTPU and L2TPv2 tunneling Control and Fast/User Plane features on VPP platform
- Fast path manager/agent implementation for control to fast plane communication based on VPP binary interface.
- DPI, Charging, Rule matching (e.g. 1. SDF derivation and PDR matching). QER processing in Fast path.
- 4G and 5G feature testing on Local test bed and Spirent setups.

Outcomes

- Optimization of control to fast path communication by leveraging VPP platform using shared memory.
- Feature implementation based on Control and User Plane Separation (CUPS architecture) of EPC nodes.