

2023-06 - L3AF: Integration with 5G-UPF(User Plane Function)

Topic Leader(s)

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Topic Description

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In this Event we will be showing the Integration of L3af with 5G-UPF(User Plane Function)

Topic Overview

In this event we will demonstrate the Integration of L3af with 5G-UPF (User Plane Function). This session will cover important aspects such as:

L3af Architecture:

The L3af architecture provides a novel approach to UPF by leveraging eBPF and AFSDP.

UPF Architecture With L3af:

L3af introduces a comprehensive UPF architecture with support for hooks through AFSDP. This allows developers to integrate custom multiple eBPF programs to enhance packet processing capabilities, offering greater control and flexibility in handling network traffic.

Limitations and Solutions:

Initially, L3af faced certain limitations. However, continuous improvements have addressed these challenges. The L3af project has actively worked to overcome limitations related to packet processing and performance, ensuring a seamless integration of eBPF and AFSDP into the UPF architecture.

Advantages of the L3af Approach:

The L3af approach brings several advantages. It enables developers to create multiple eBPF programs to enhance UPF functionality, resulting in efficient packet processing and improved network performance. Additionally, L3af provides horizontal and vertical scaling options, allowing the deployment of multiple UPFs with multiple eBPF programs.

Future Plans:

The L3af project has ambitious future plans, including the integration of Bess (a modular framework for dataplane processing) into the UPF architecture. This integration will enable more advanced packet processing capabilities and further enhance the overall performance of L3af. Additionally, L3af aims to explore the potential of packet processing solely within the kernel using eBPF, offering improved efficiency and reduced overhead.

Slides & Recording

Recording: [2023-06-07 - L3AF Integration with 5G-UPF.mp4](#)

Slides: [L3AF Integration with 5G UPF.pdf](#)



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- Session Type: Informational

Agenda

Awesome presentation

- Point 1
- Point 2

Minutes

Action Items

