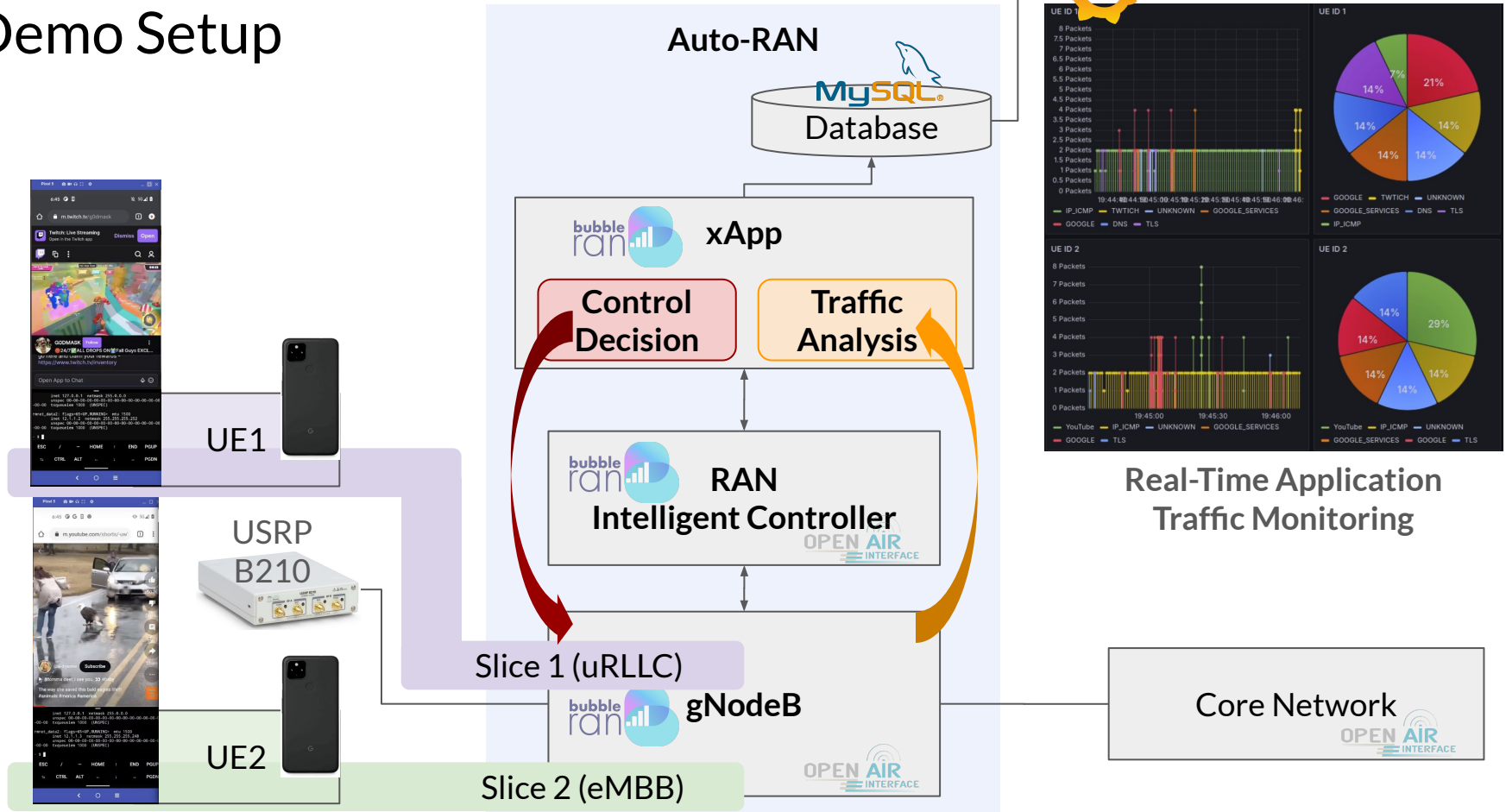# Auto-RAN: Automated Application-Driven RAN Slicing

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Demo Setup

Introduction

- **RAN Slicing**
  - Legacy QoS Profile:
    - Service-driven approach
    - Simple and static application traffic profile
  - Growing complexities within RAN:
    - Radio Resource Allocation across multiple UEs
    - Traffic management across multiple applications with diverse traffic flows
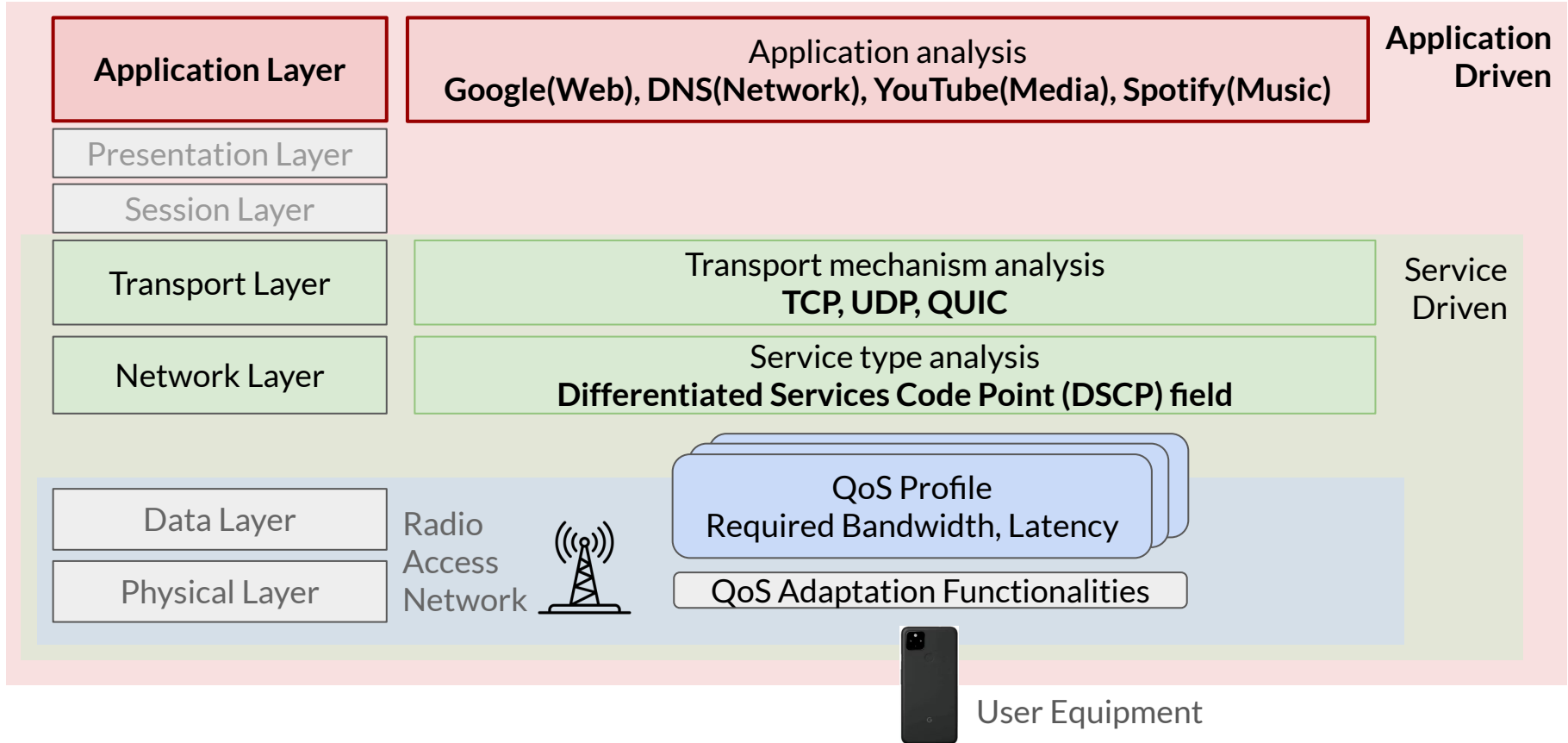- **Application Driven**
  - Fine-grained traffic analysis from network layer to application layer
  - Extend QoS Profile into application domain
- **Automating Control Action in xApp**
  - Application classification: low latency (e..g, gaming, live video streaming), high throughput (e,g., video streaming), reliability (e.g., network connection)
  - Intelligent control decision making, e.g., rule-based, machine learning model
    - Enforce policy with required bandwidth and latency for an application within a UE
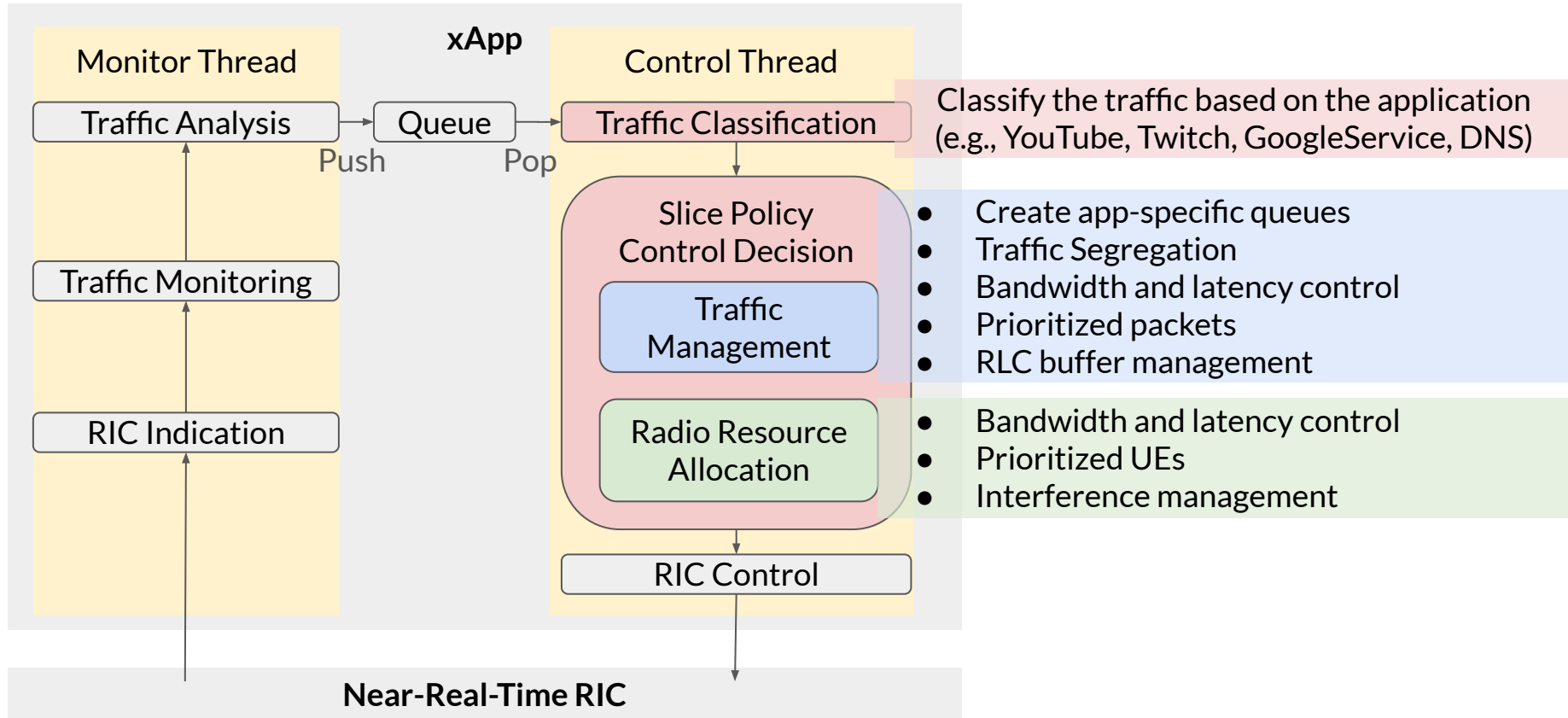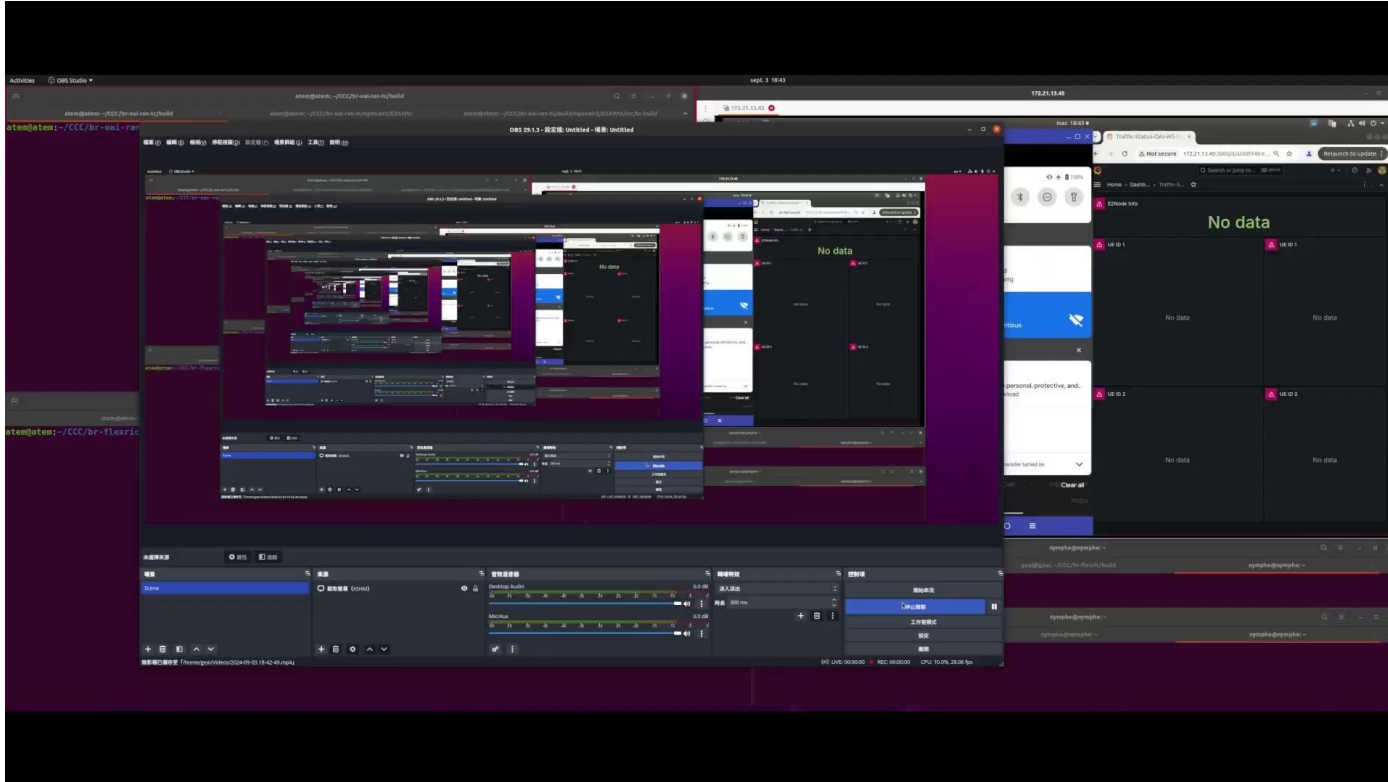
Application Driven

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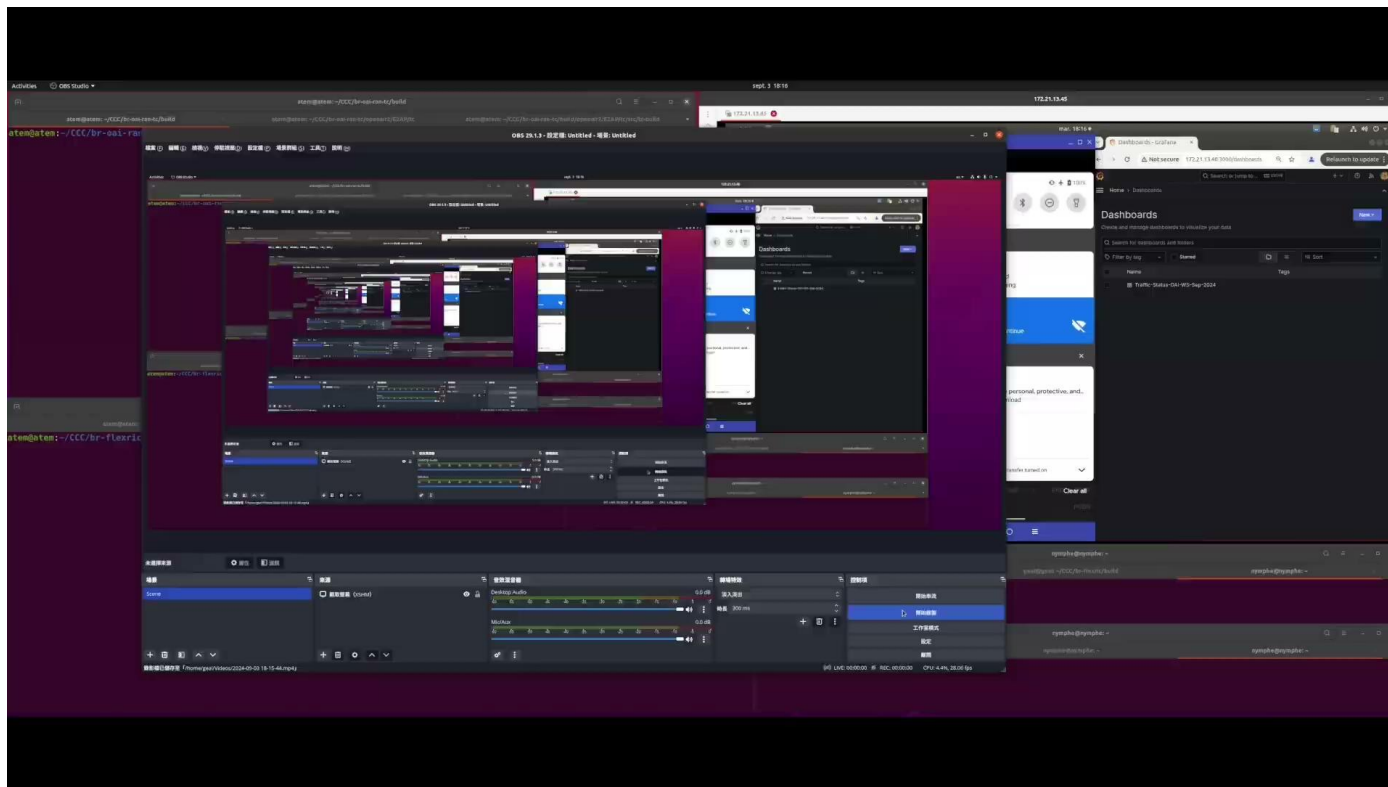# Automating Control Action in xApp

Real-Time Application Traffic Monitoring xApp

Video link: https://youtu.be/HSSDp7Dtvb8

Application-Driven Control xApp

Video link: https://youtu.be/iwwC9Tw21OM