WLAN Performance Measurement

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Overview

Why Network performance Measurement
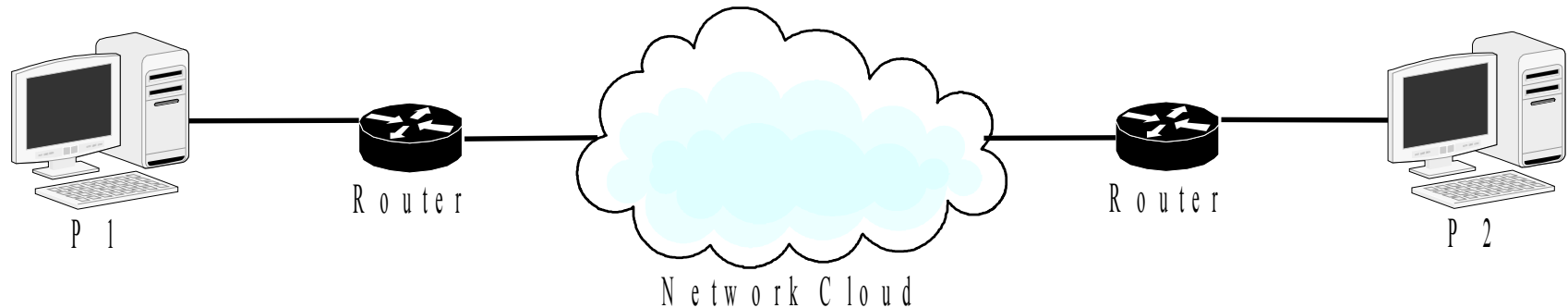
How Network performance is Measured

Iperf

Jperf

Test Setup

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Why Network performance Measurement

Network performance metrics

- One-Way Delay (OWD)
- Round-Trip Time (RTT)
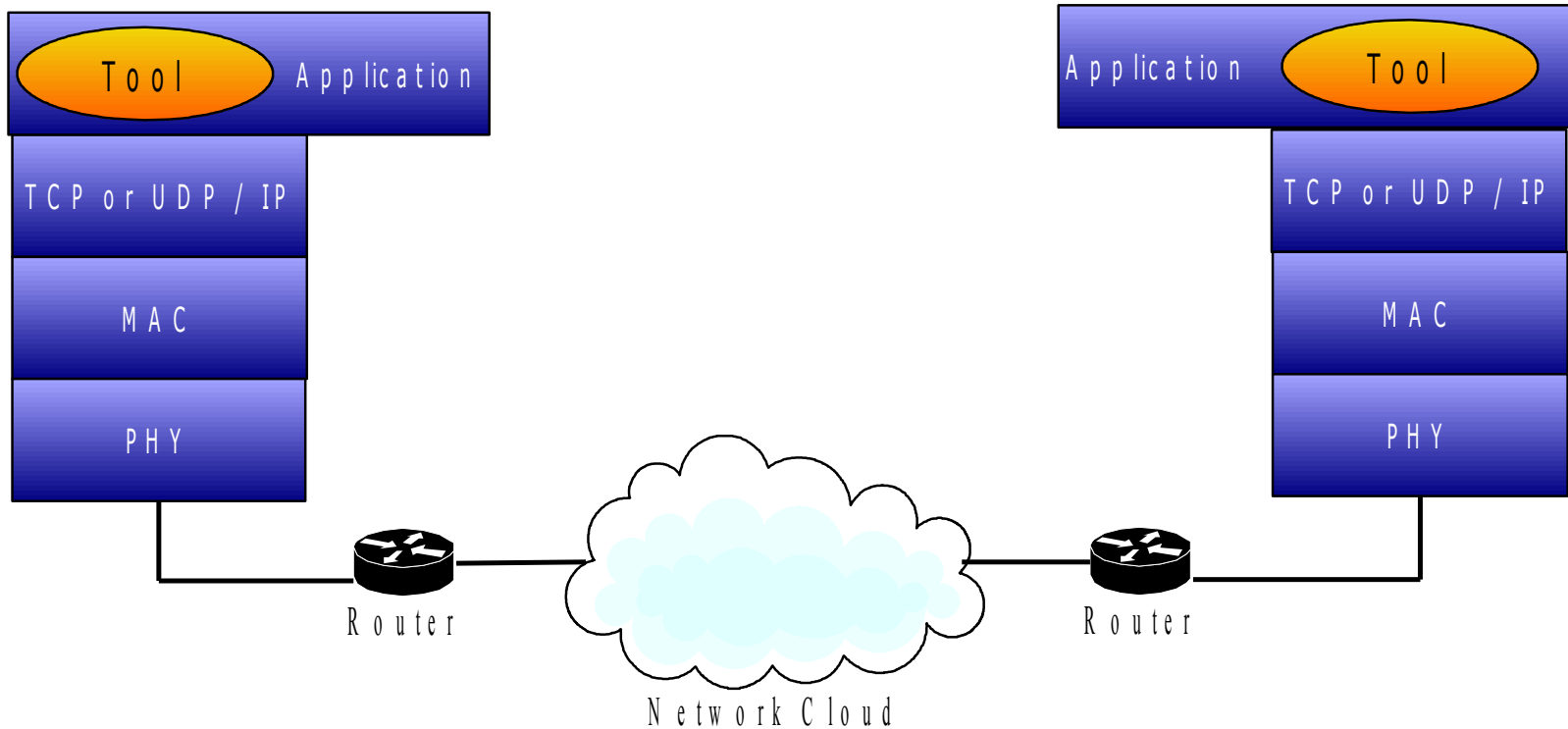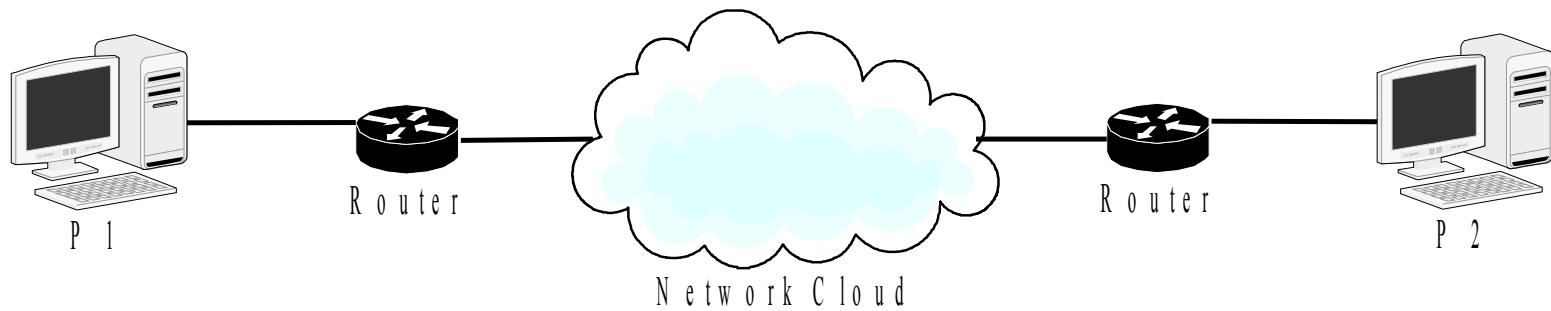- **Delay Variation (Jitter)**
- **Packet Loss**
- Packet Reordering
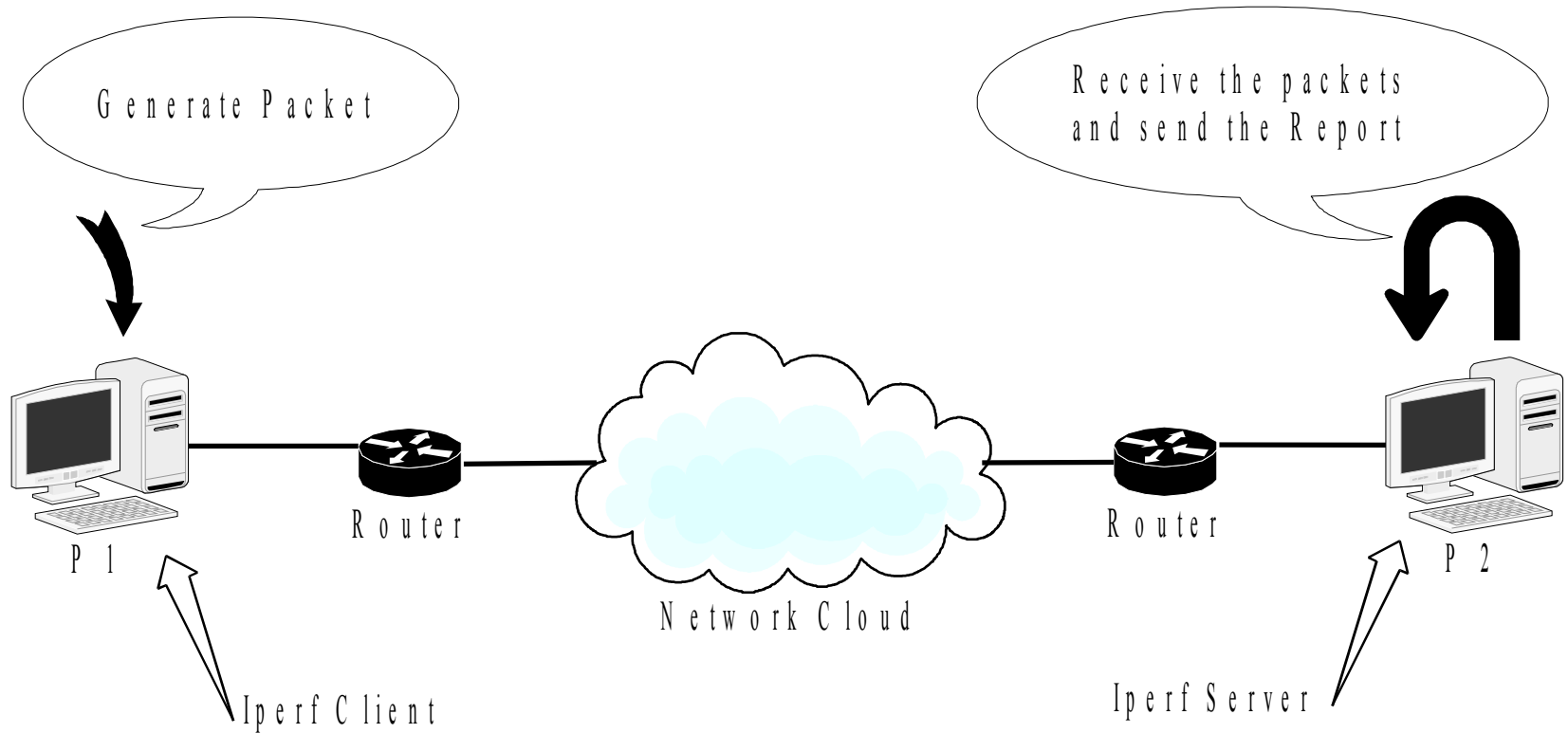- Maximum Transmission Unit (MTU)
- **Available Bandwidth** *(Throughput)*
- Link Capacity
- Bandwidth Delay Product (BDP)

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How Network performance is Measured

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Iperf

Generate Packet

Receive the packets and send the Report

P 1

Router

Network Cloud

Router

P 2

Iperf Client

Iperf Server

Modes	Components
TCP	Server
UDP	Client

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Network Performance Measurement in WLAN

Linux Laptop
+
Iperf / Jperf

(P1)

Access Point   Access Point

Linux Laptop
+
Iperf / Jperf

(P2)

Commercial   Commercial
off the shelf products   off the shelf products
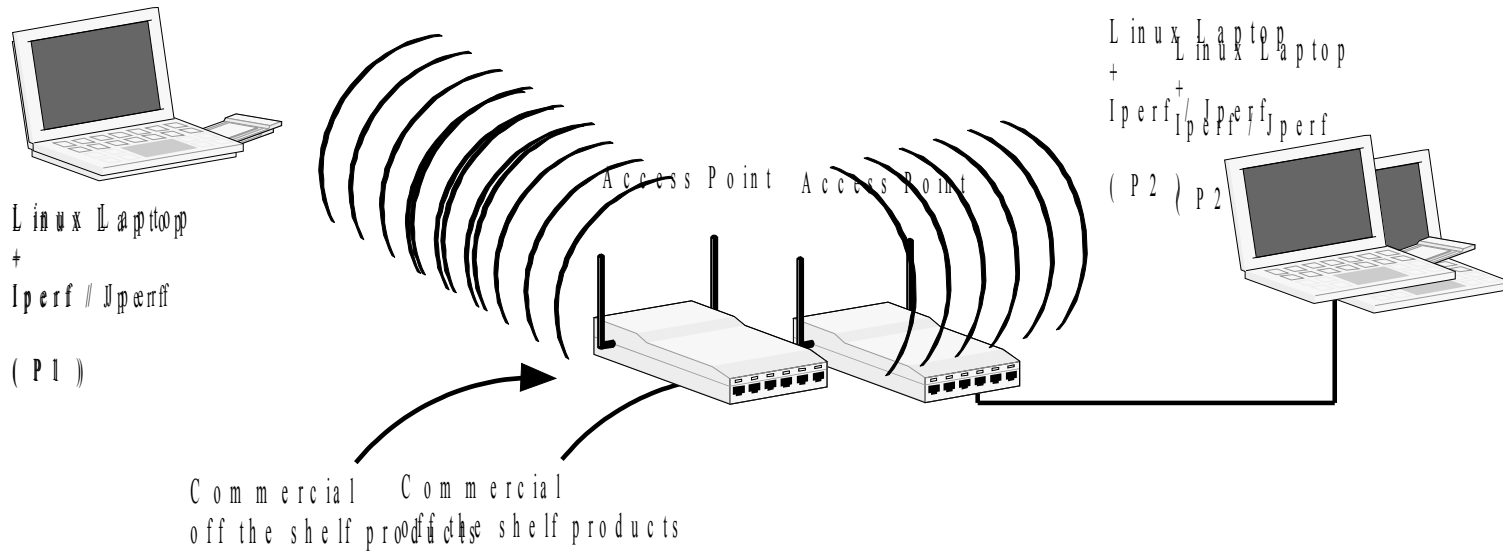
Performance Measurement

P1 in Wireless and P2 in Wired Network

Both P1 and P2 in Wireless

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Jperf

GUI interface for Iperf

Provide all options as a parameter entry

Also plot the throughput graph
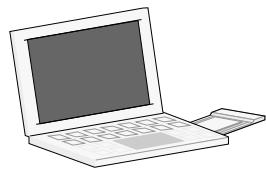
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Test Setup

Linux Laptop
+
Iperf / Jperf
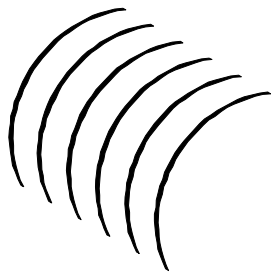
(P 1)

Access Point

Linux Laptop
+
Iperf / Jperf

(P 2)

Commercial
off the shelf products

"Iperf – c < host > "
Iperf -c 192.168.2.73

-p < num_streams> test with parallel TCP streams
-w < buffer_size > set socket buffer size

"Iperf -s -D > iperfLog "
Iperf -s -D /var/log/iperfLog

Iperf can run as a daemon

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