# Datagrams

October 16, 2024

## Properties

**Connectionless**

- Each datagram is treated independently.

- Consecutive datagrams may take different routes.

**Unreliable**

- Datagrams can be lost, duplicated, delayed or delivered out of order.

- Higher-level protocols (TCP) handle these deficiencies.

**Best-Effort Delivery**

## Explicit Congestion Notification (ECN)

Routers can set this field if they are overloaded, signaling the sender to reduce transmission rate.

## Fragmentation

**Transparent Fragmentation**  Routers reassemble fragments.

**Non-Transparent Fragmentation**  Only destination host reassembles fragments.