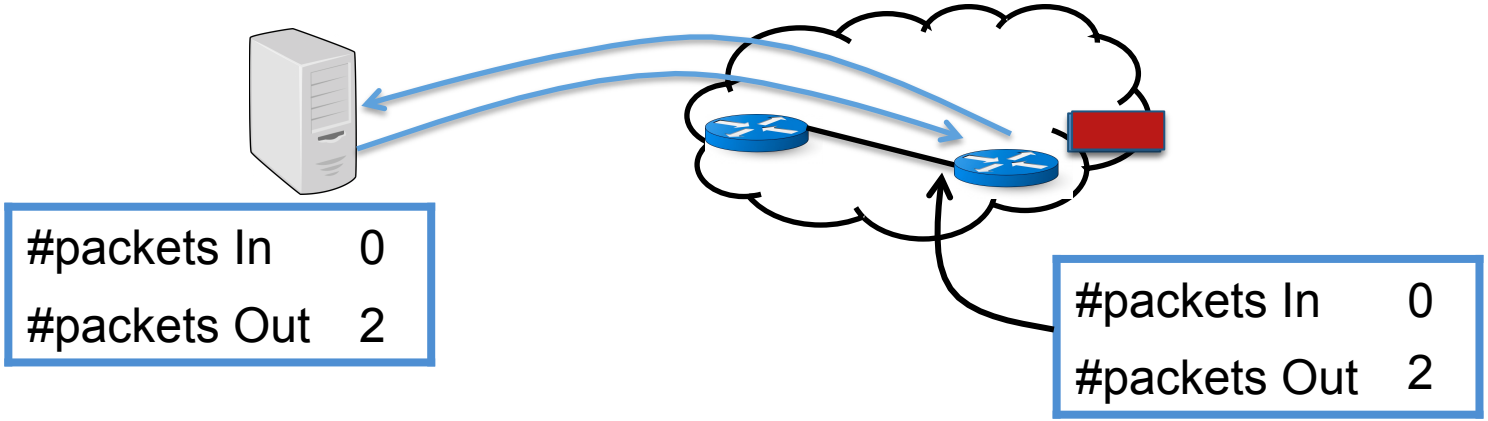
Week 5: Traffic measurements

1. Introduction
2. Packet capture
3. **Interface counts**
4. Flow capture
5. Traffic matrix
6. Anonymization of packet traces
7. Conclusion

Interface counts

- Basic method
  - Routers log simple statistics (bytes/packets)
    - ✓ Total values since interface initialized
  - Request statistics using SNMP (MIB-II MIB)



Example properties

- Number of In/Out bytes (total, unicast, non-unicast)
- Number of In/Out packets (total, unicast, non-unicast)
- Number of In/Out discarded/corrupted packets

Interface counts: Pros and Cons

- Pros
  - Supported on all networking equipment
  - Little performance impact on routers
  - Little storage needs
- Cons
  - Missing data (SNMP uses UDP)
  - Polling makes it hard to synchronize data from multiple interfaces
  - Coarse-grained measurements

Picture credits

- **Router clip art** by www.openclipart.org (public domain) (slide 2)
- **Server Linux box clip art** by OCAL, www.clker.com (public domain) (slide 2)