

The Impact of Transmission Power on Network Throughput in a Congested Environment

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Motivation

- Connectivity is everything
- Congestion
- Conferences
- Too much noise
- Whisper

Related Work

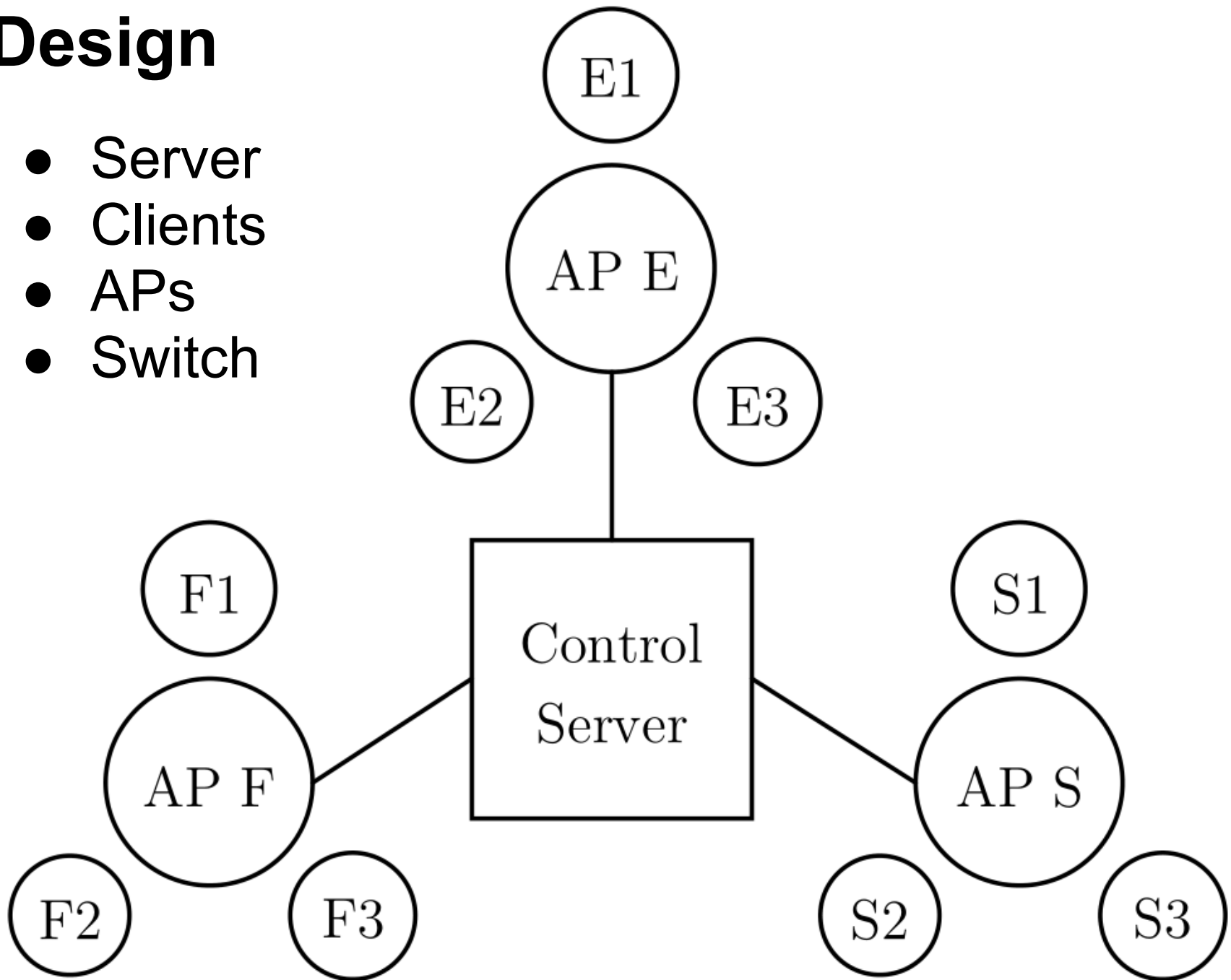
Self-management in chaotic wireless deployments

Interference Mitigation through Power Control in
High Density 802.11 WLANs.

Implications of Power Control in
Wireless Networks: A Quantitative Study.

Design

- Server
- Clients
- APs
- Switch

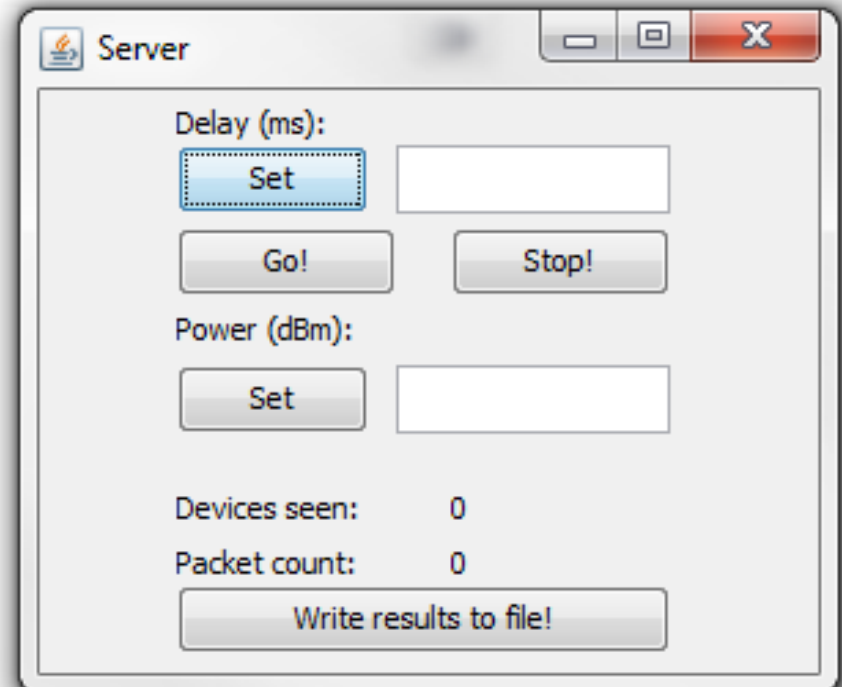


Design and Implementation

- TCP
- UDP
- DHCP
- Java
- Android



Testing



Results

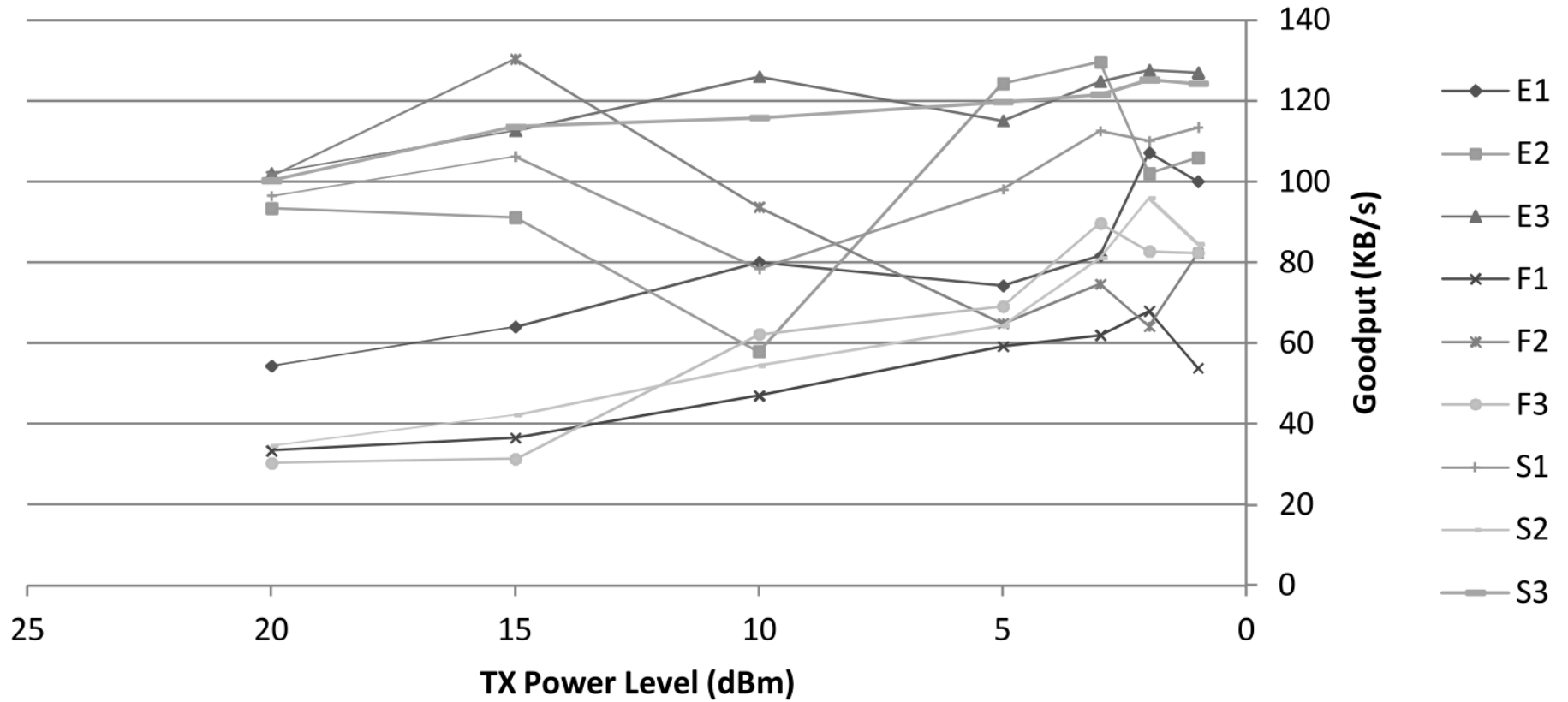
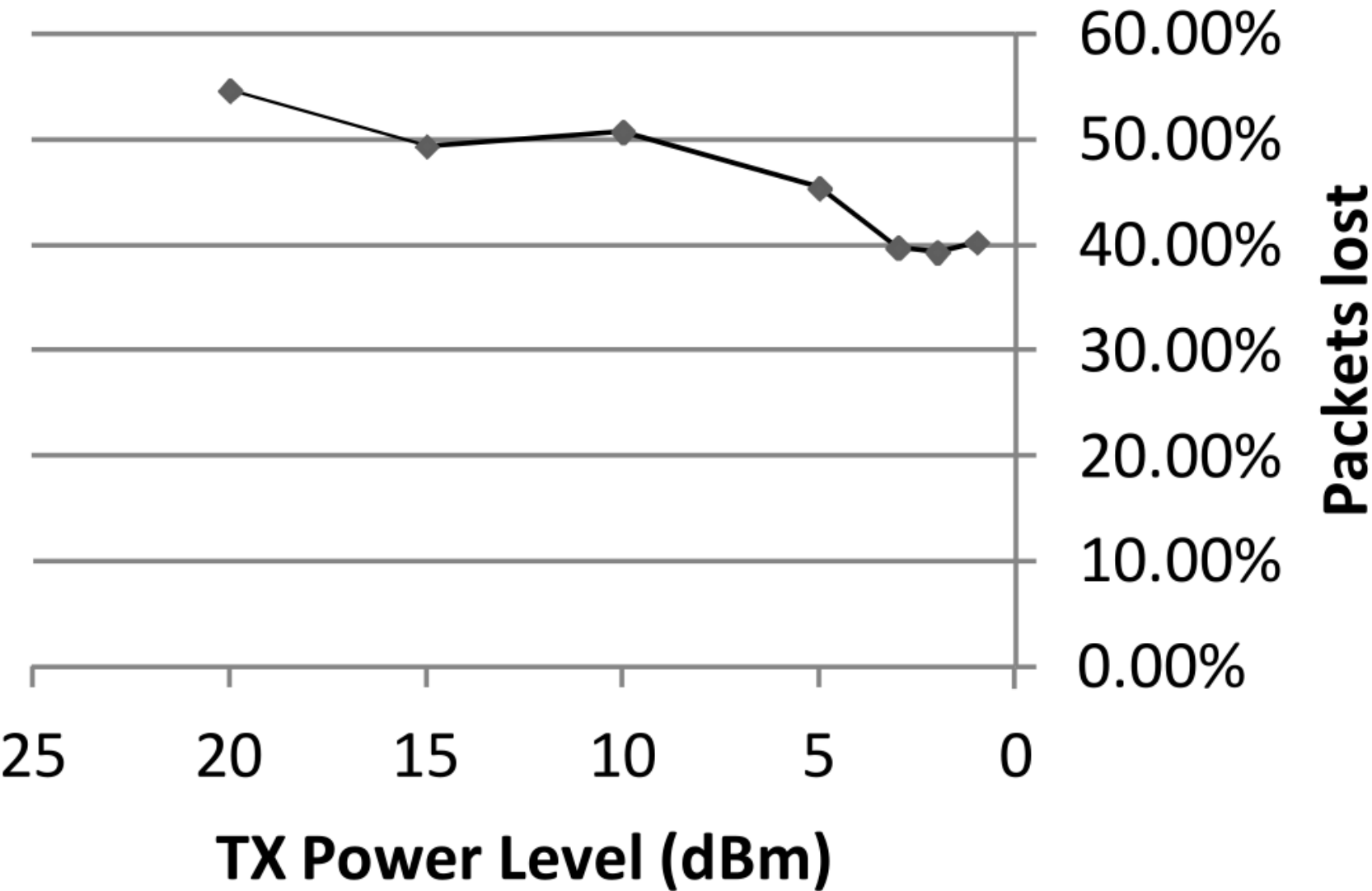
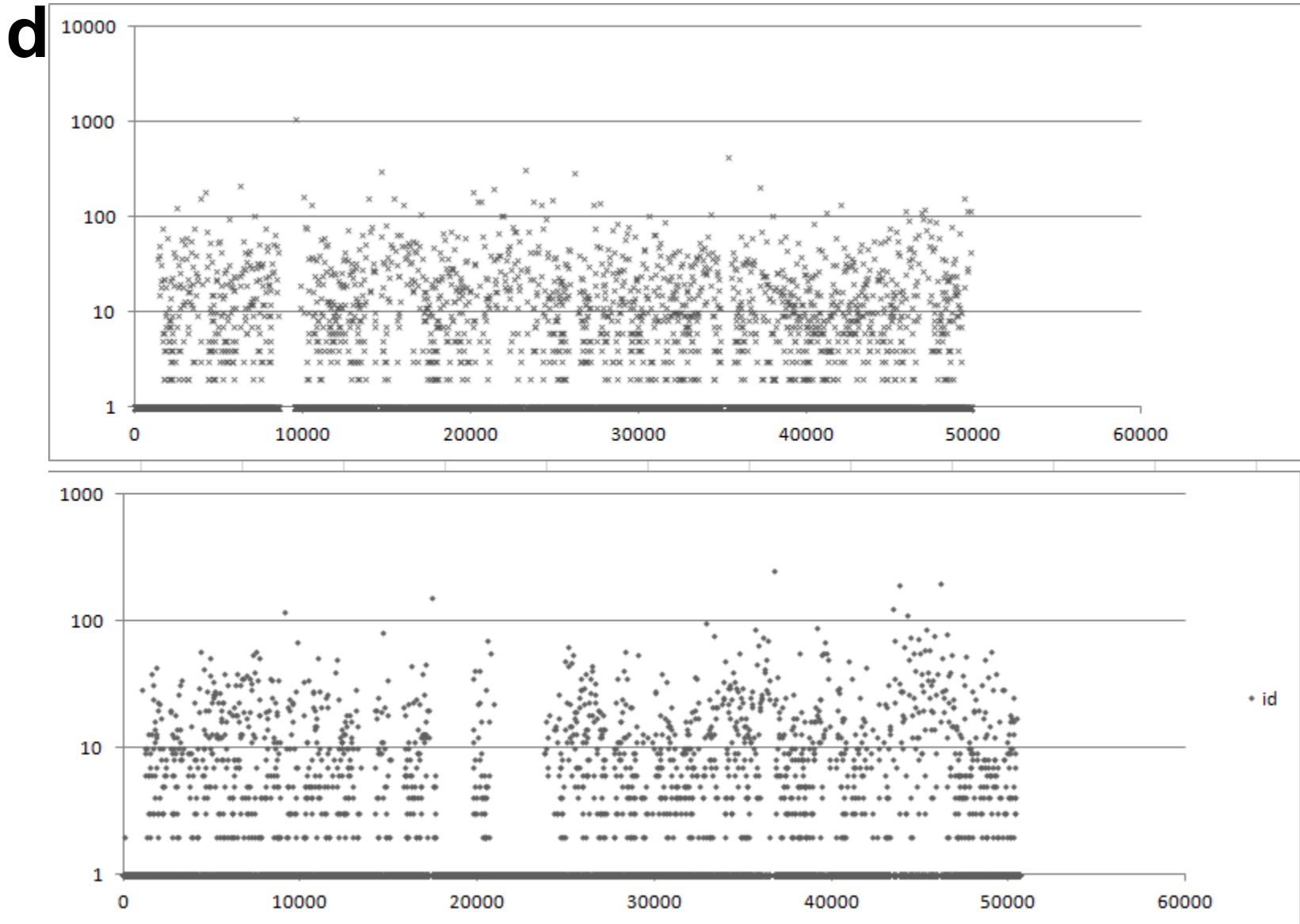


Fig. 2: Per-client goodput at each power level.

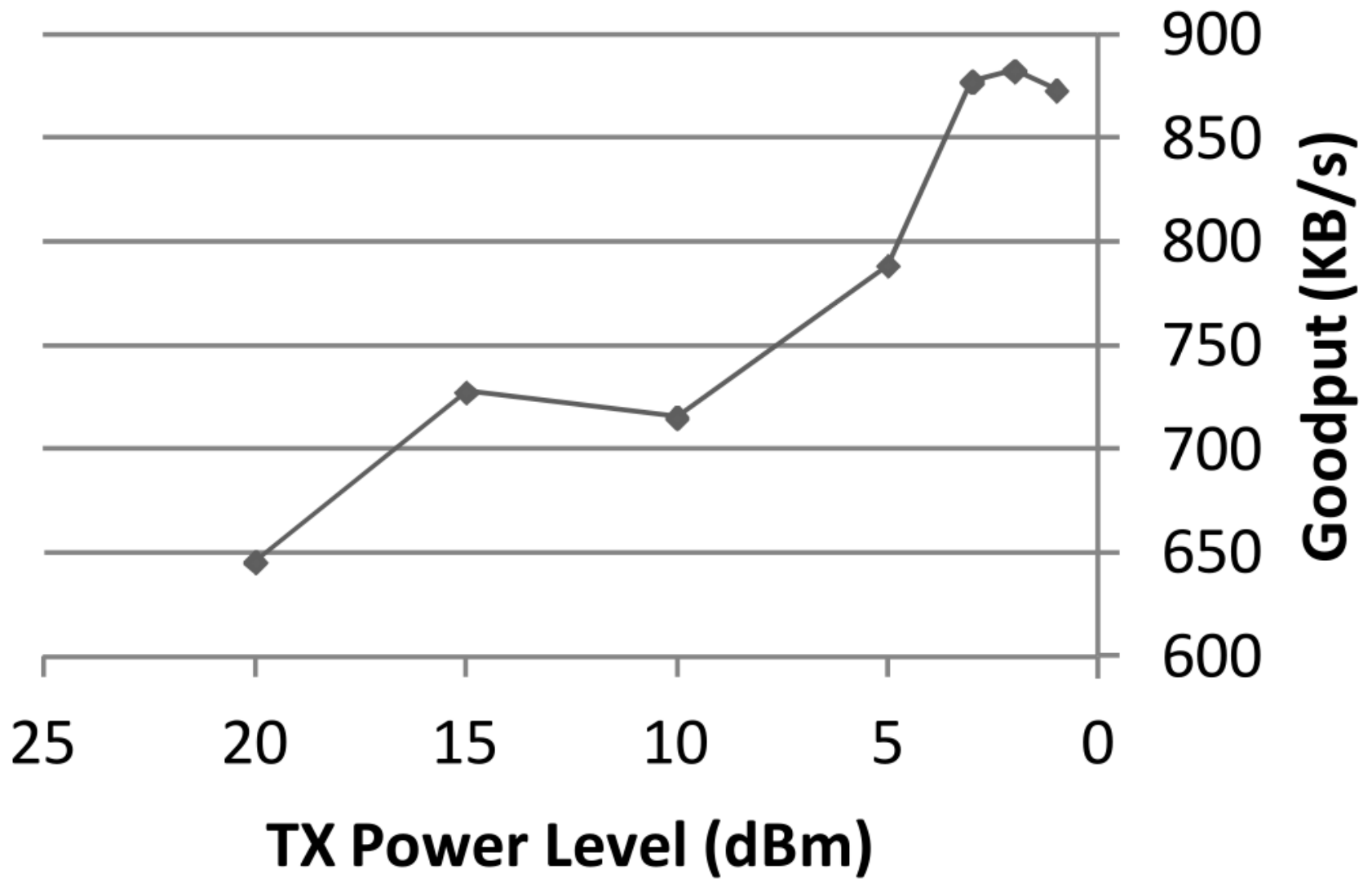
Results



Device F2: Packet loss at 20 and 3



Results



Discussion

How could this be implemented?

- Driver level
- App
 - Network key

Any Questions