

MPTCP Proxy Support

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Explicit Proxies

- The MPTCP host knows about the proxy (e.g. via DHCP)
- All connections are made to the proxy
 - Signaling to tell real destination
- Ideal solution: put address in SYN options
 - No space even for IPv4
 - IPv6 – don't even mention it

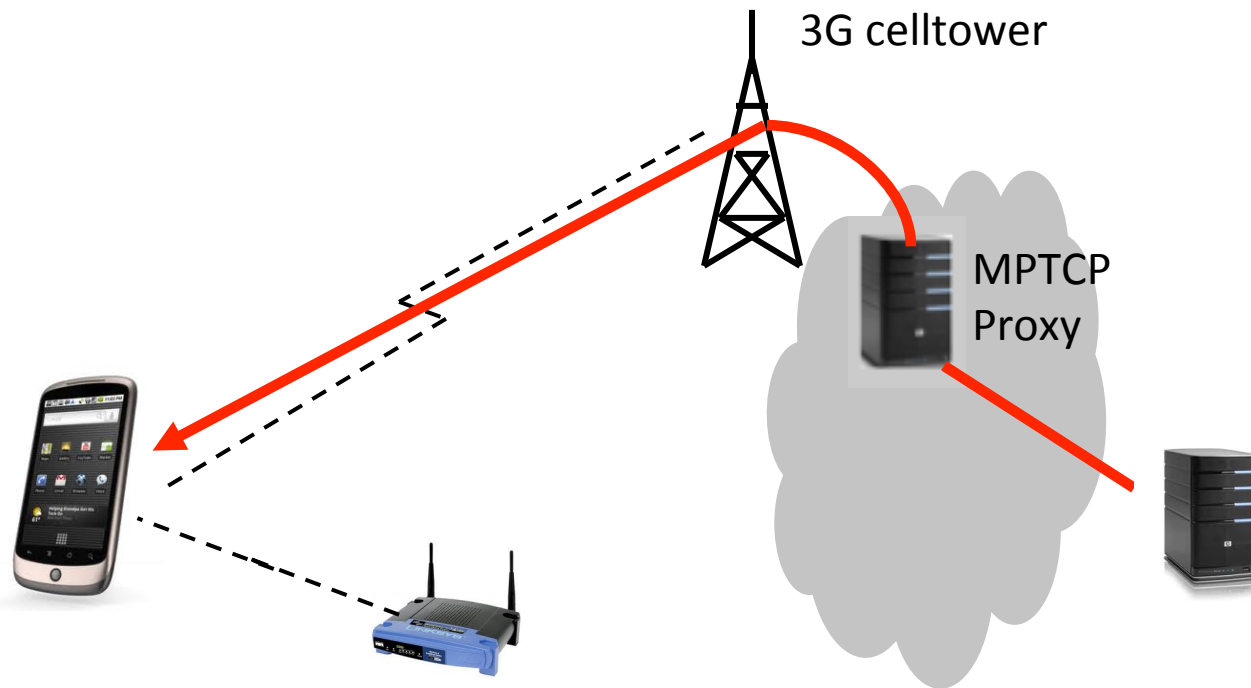
Application Explicit Proxies

- Use SOCKS for HTTP, etc.
- Not ideal, but gets the job done

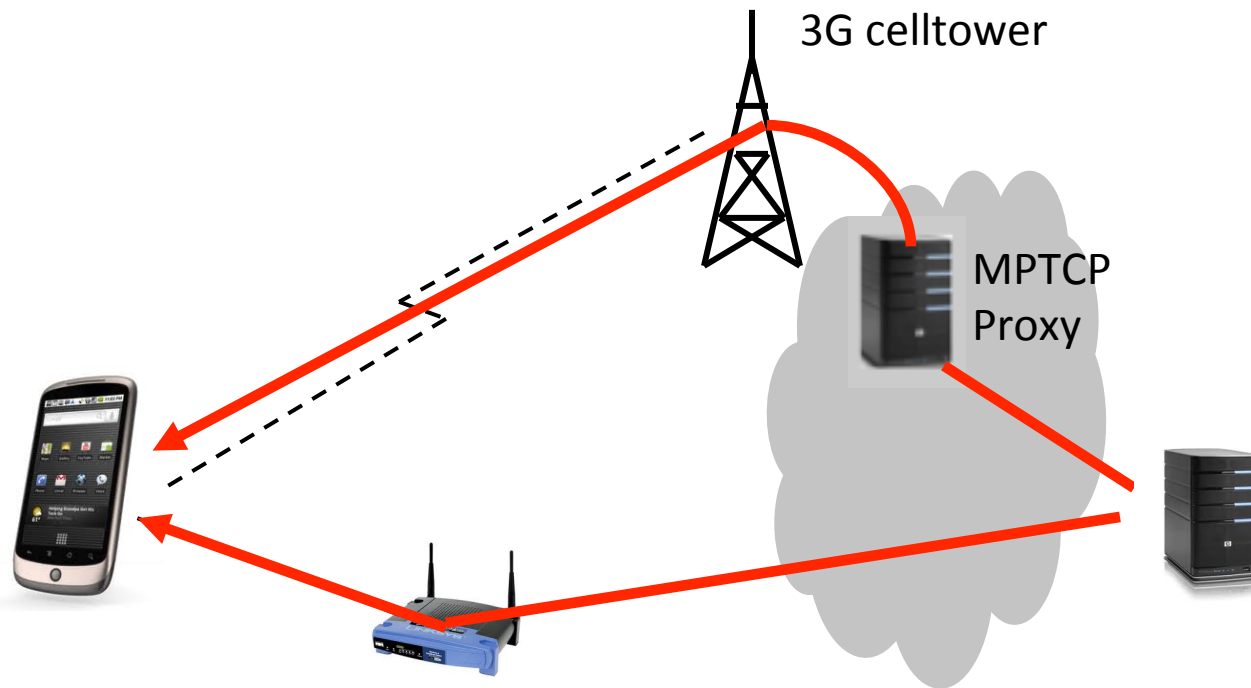
Implicit Proxies

- Proxy is on-path for the first subflow
 - 3G operators could deploy a proxy on path of traffic

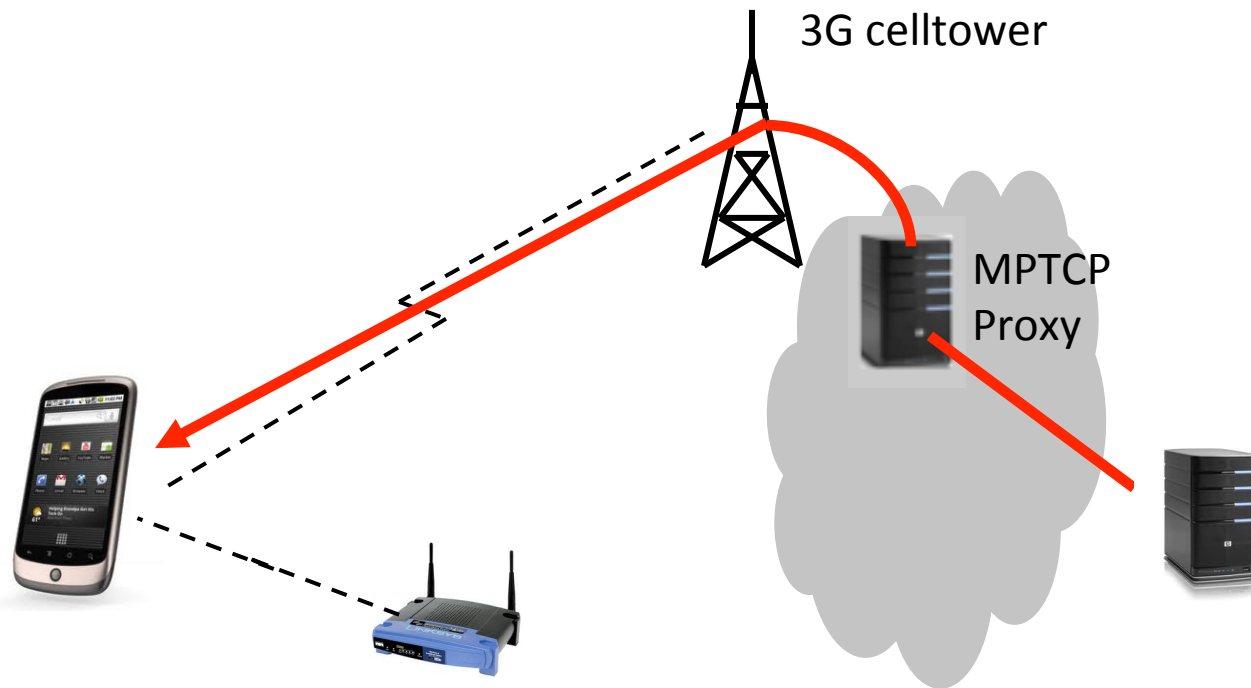
Implicit Proxy: Server Speaks MPTCP



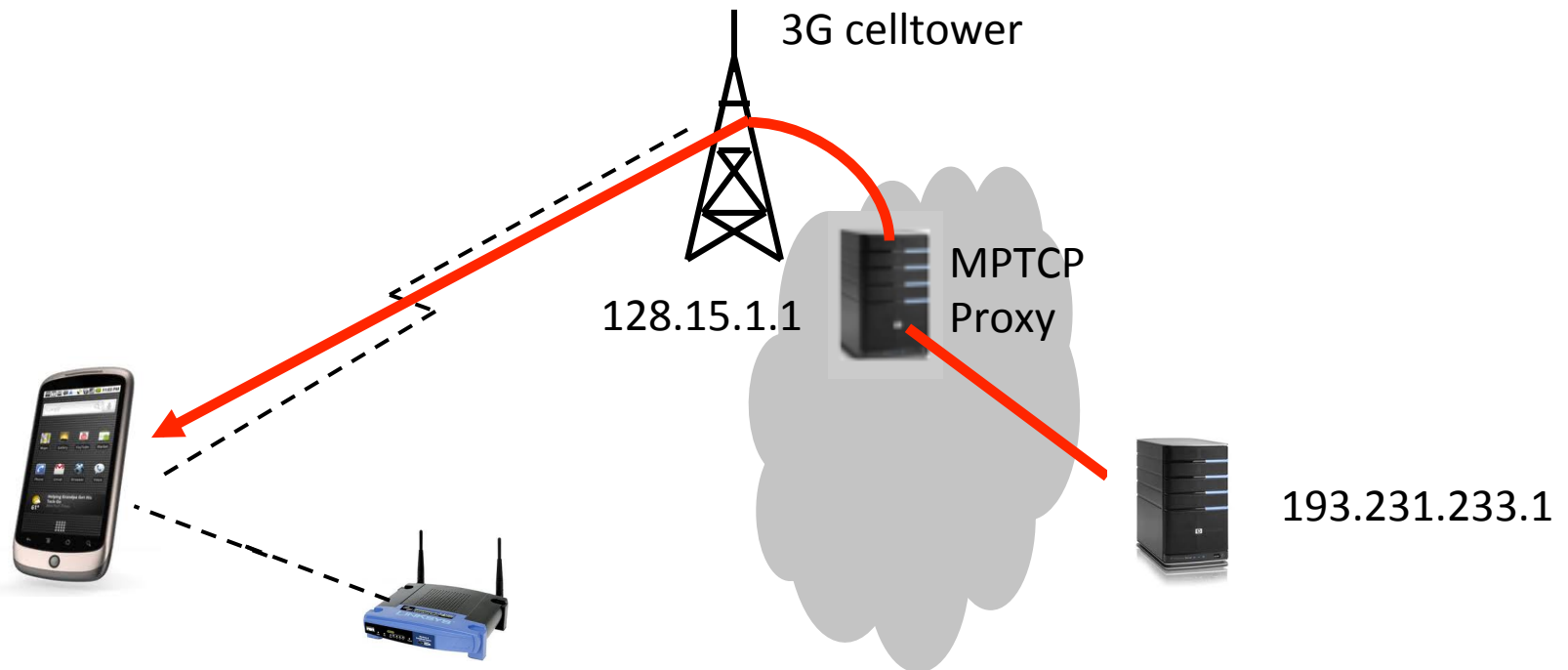
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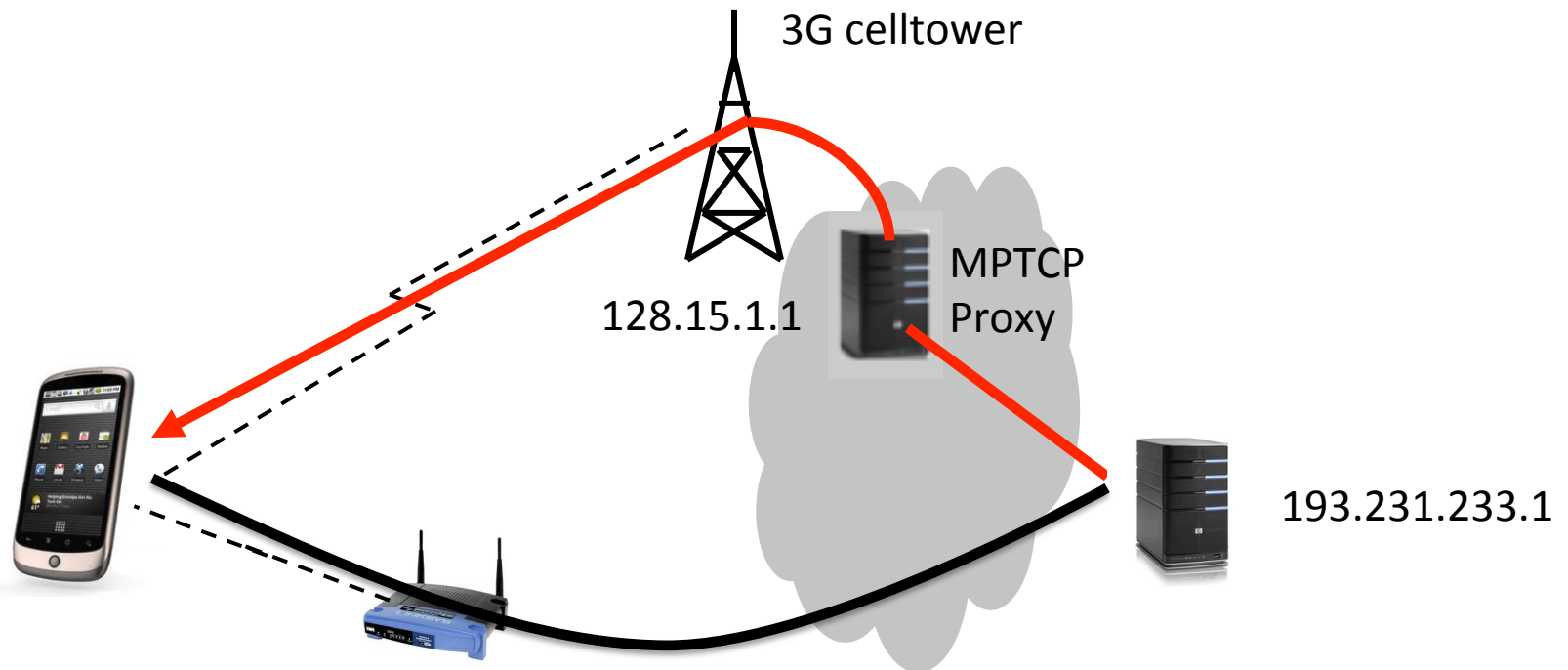
Implicit Proxy: Server Does Not Speak MPTCP



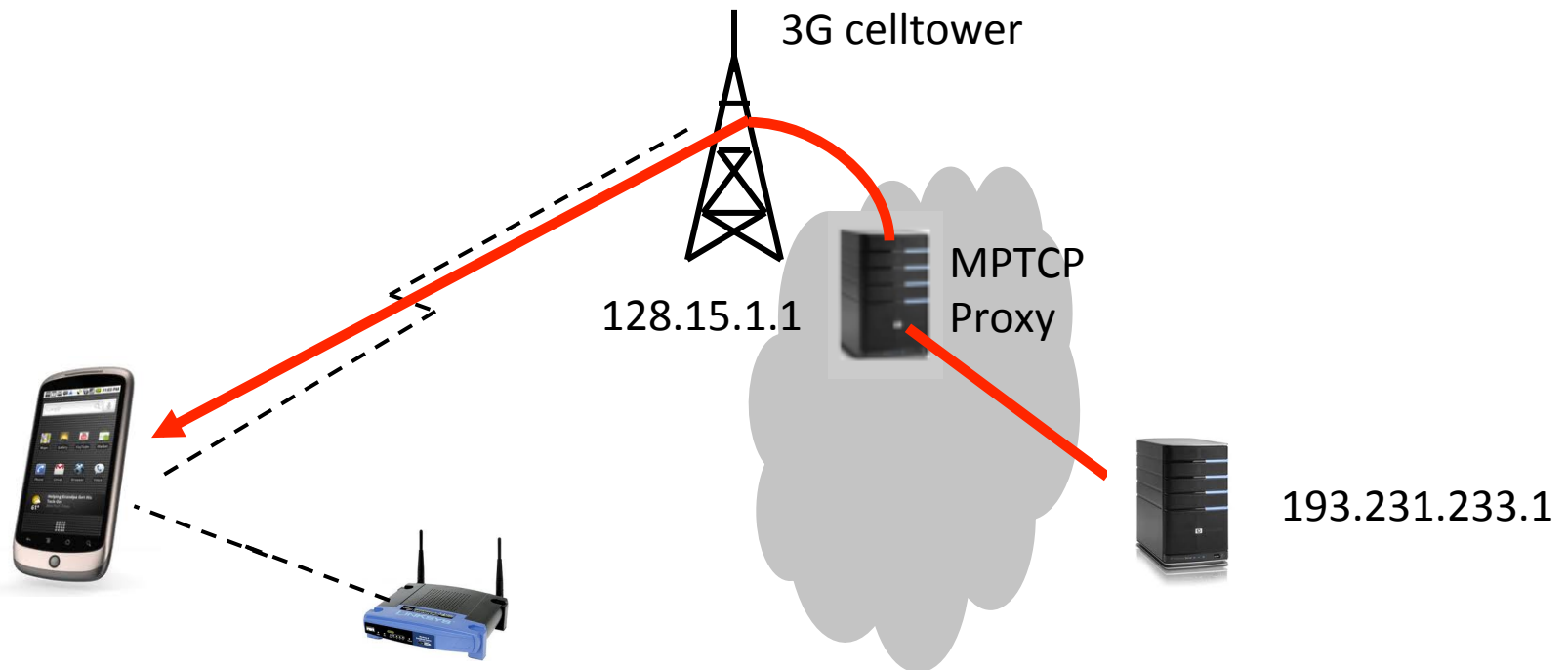
Implicit Proxy: Server Does Not Speak MPTCP



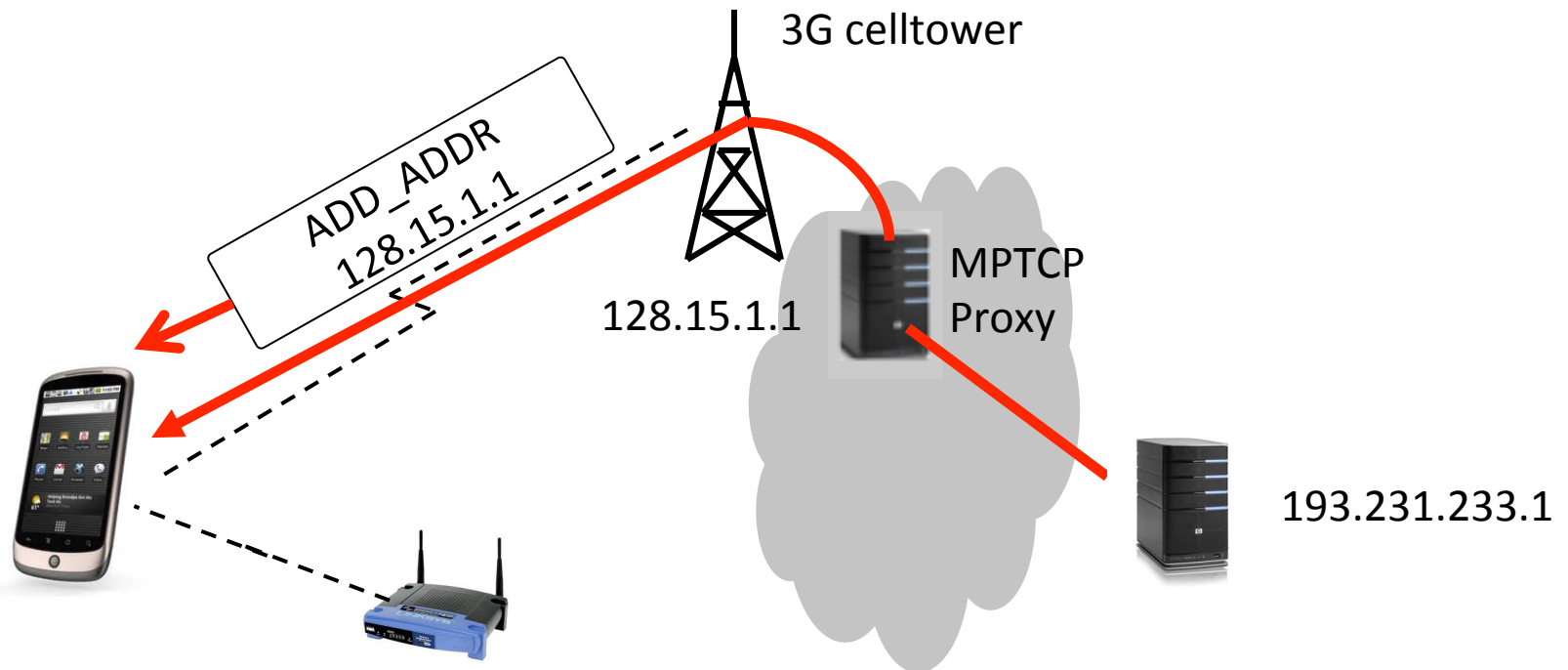
Implicit Proxy: Server Does Not Speak MPTCP



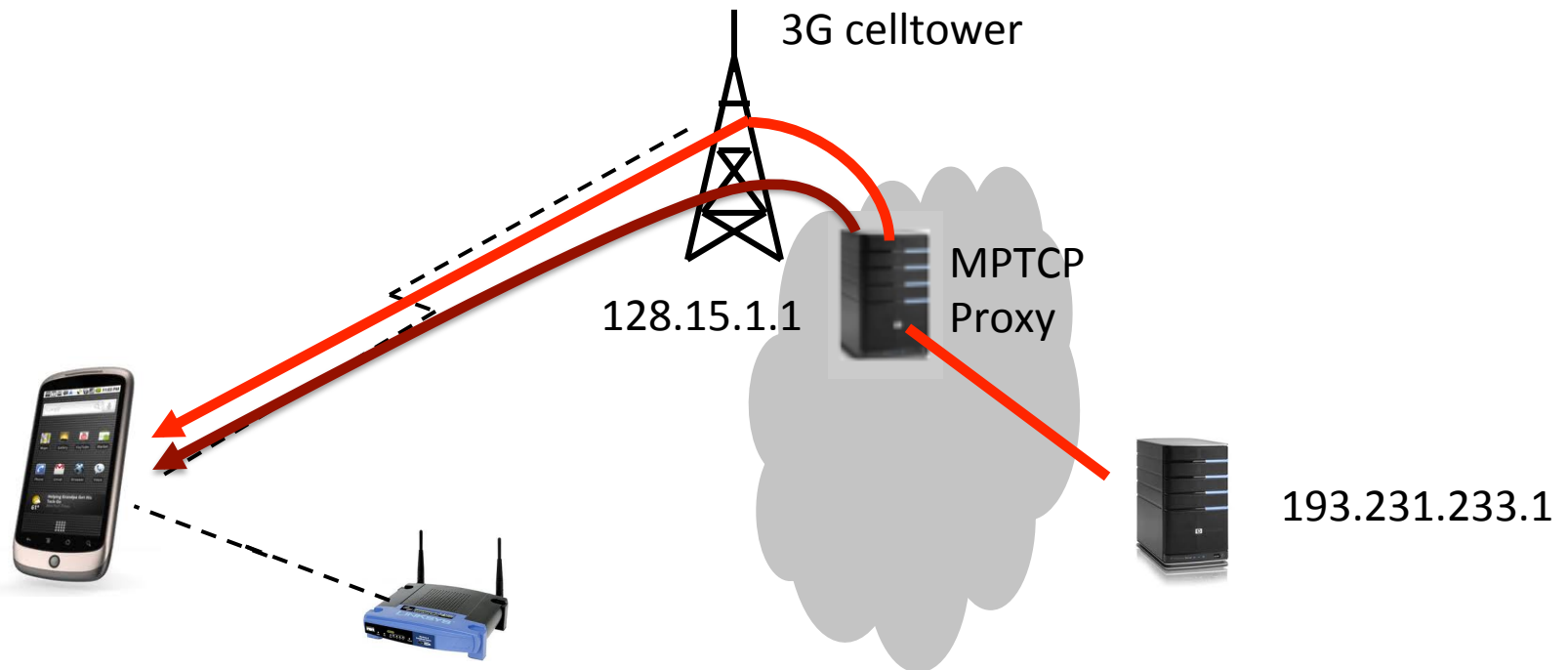
Implicit Proxy: Server Does Not Speak MPTCP



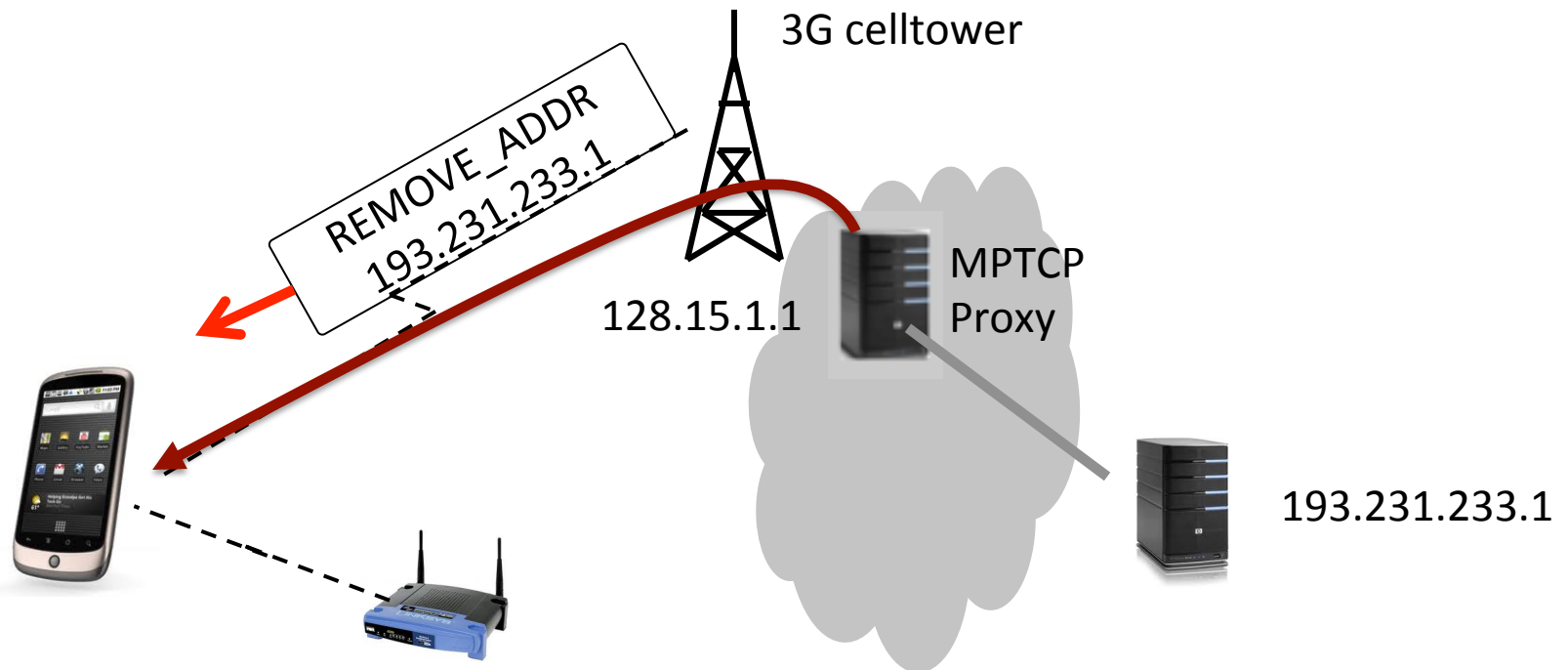
Implicit Proxy: Server Does Not Speak MPTCP



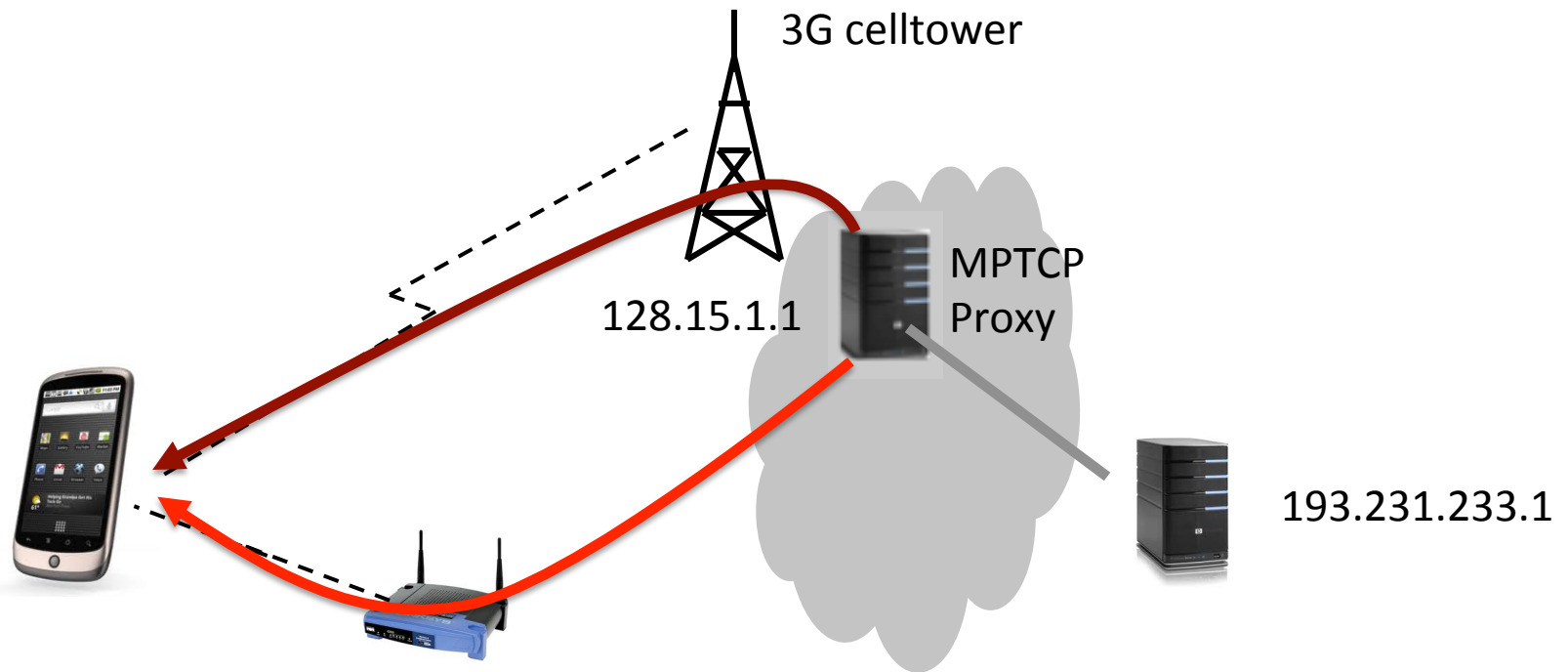
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Implicit Proxy Address Signaling

- We could optimize this
 - I am a proxy bit could stop additional subflow setup
 - But still need add_address
 - Could avoid three way handshake?