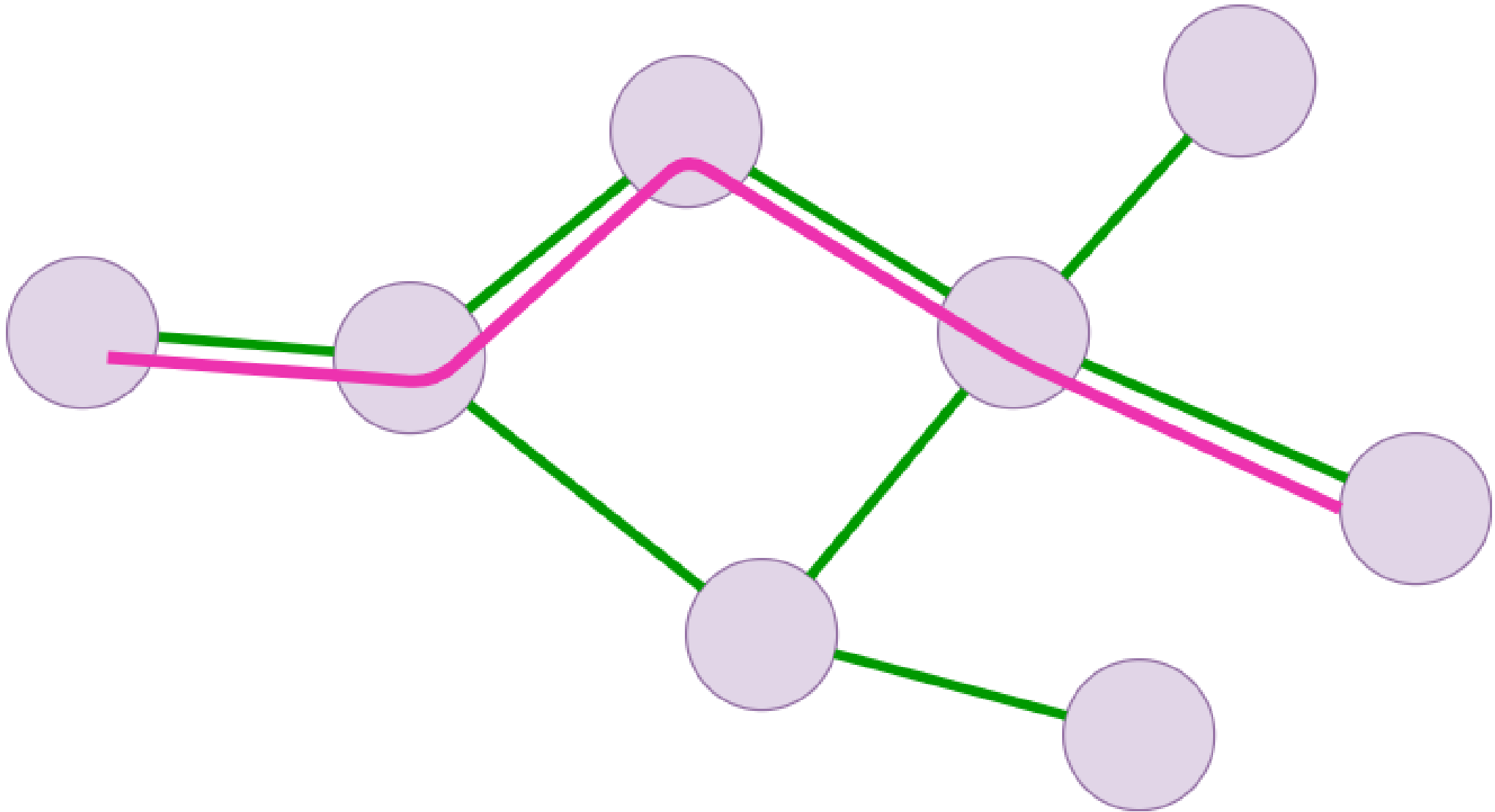


Multipath Wi-Fi bridging with transparent MPTCP proxy on LEDE

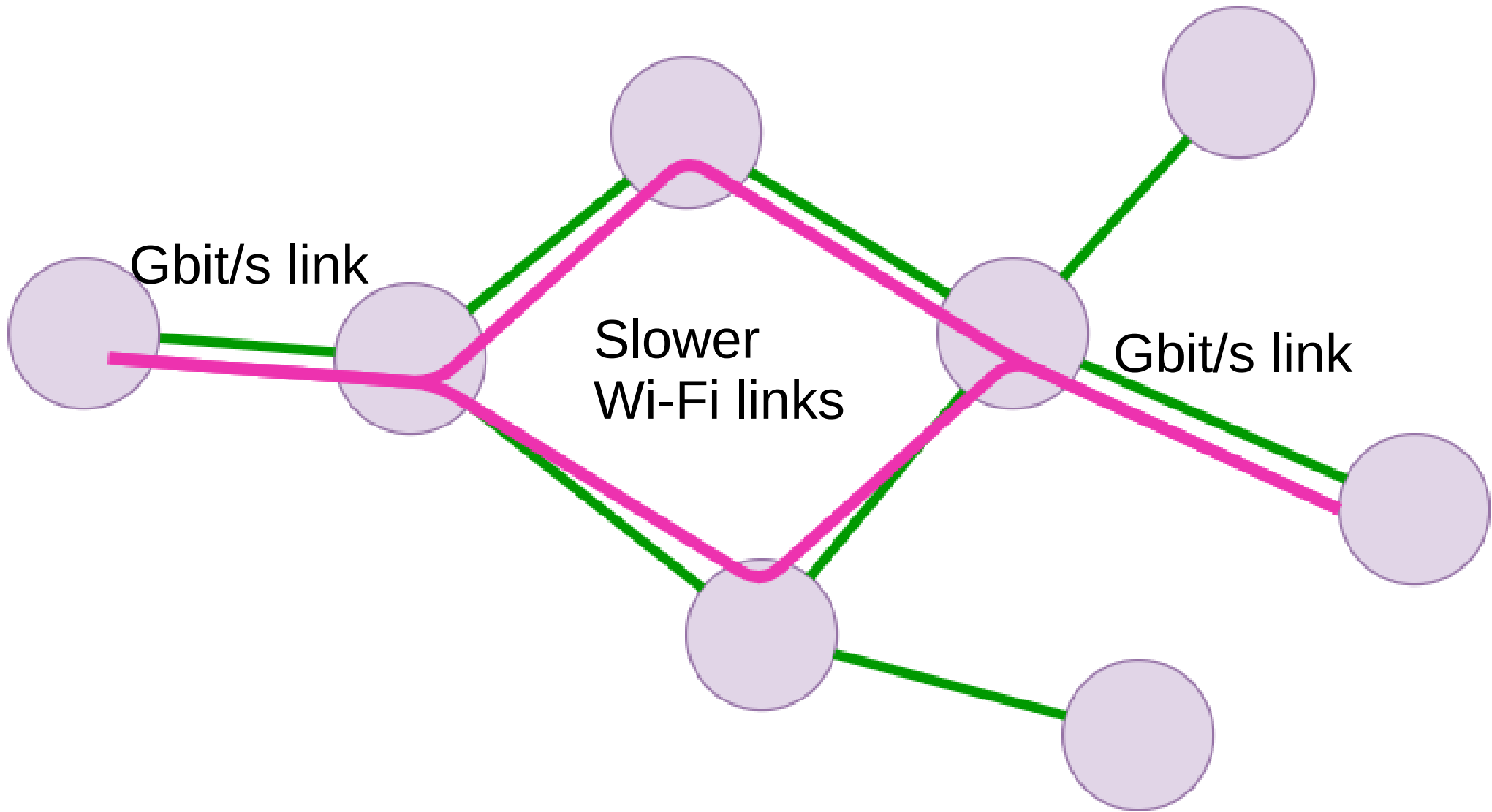


GSoC 2017 project of Ferenc Fejes
GSoC mentor: Benjamin Henrion

Main idea



Main idea



What is MPTCP?

- Multipath extension of TCP (RFC6824)
- Suitable for aggregating the bandwidth of multiple network paths
- Available by default only in iOS 11
- But there is Linux implementation

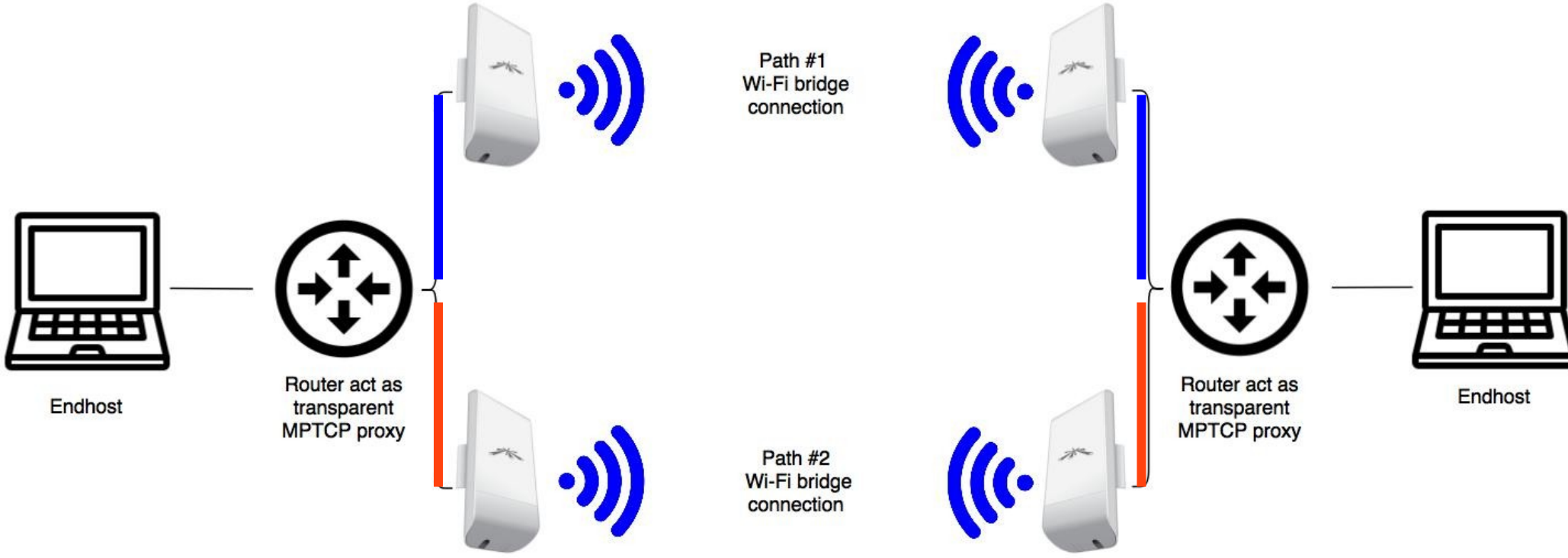
Requirements

- Transparent for clients (zero configuration)
- Aggregating the speed of multiple Wi-Fi links
- If one link fails, the communication session should stay alive for the client
- Implementation on LEDE

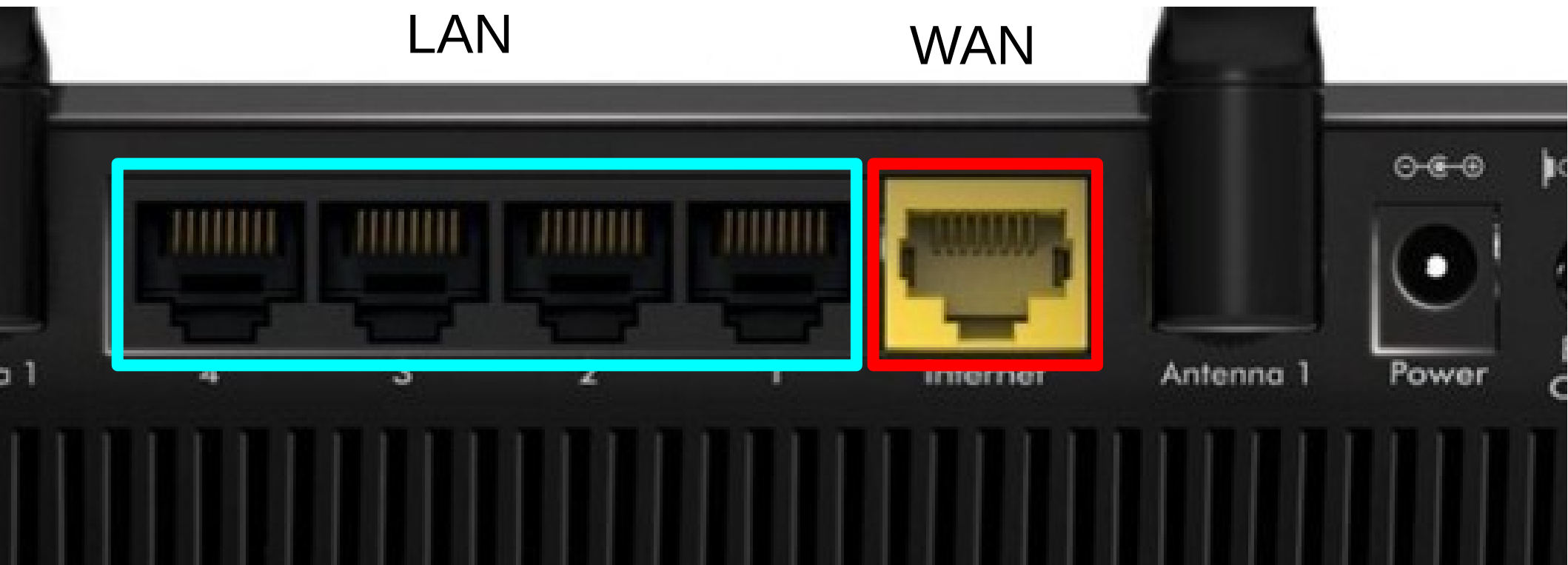
In the following

- Cloning & building the project
- Flashing into the routers
- Building the test topology (next slide)
- Configure the routers
- Iperf3 tests

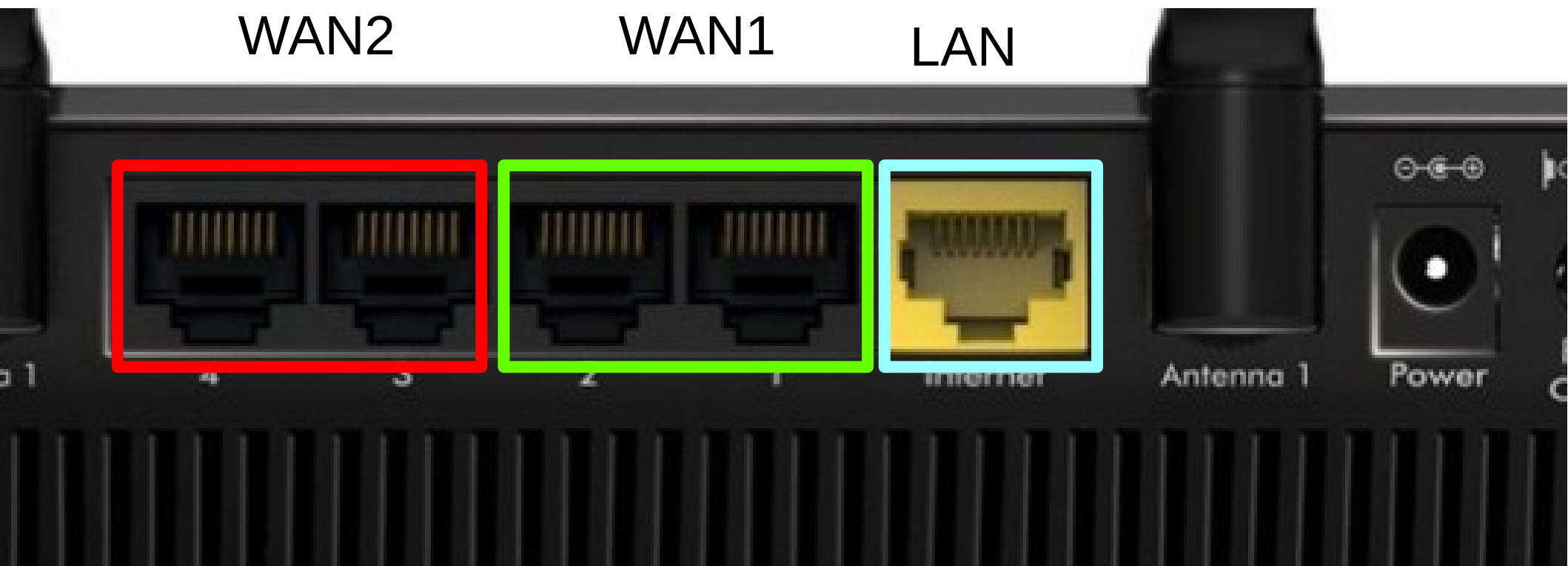
Test topology



VLANs (original)



VLANs (multiple WAN)



Resources

- <https://spyff.github.io/mptcp/2017/08/27/transparent-mptcp-proxy/>
- <https://github.com/spyff/lede-mptcp>
- <https://www.youtube.com/embed/1xQQuT9BGul>

Thank You for the attention!

Prague, 2017. 10. 27.



EMBERI ERŐFORRÁSOK
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