ETRI Proposal to IEEE 802.11 TGn

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  - MIMO-OFDM
  - Dual band

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Proposed technologies
for >200Mbps in PHY

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Candidate technologies

- Legacy IEEE 802.11a => 20MHz BW, 54Mbps
- To achieve more than 100Mbps at the top of the MAC SAP, we need x3 or x4 data rate.
    - Depending on MAC efficiency
- To extend x4 transmission
    - MIMO (improve spectral efficiency)
    - Bandwidth extension
    - High order modulation
    - High rate coding

MIMO

- Data rate can be increased with the number of Tx antennas.

- We have some problem in using 3 and more stream.

  - Implementation complexity
  - Limitation on antenna spacing, high MIMO channel correlation can be a problem.

- So, we cannot fully rely on the MIMO technology for 3 or 4x data rate.

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