



WiFD² WHITE PAPER

No. BE201009HC001

Date: Sep' 24' 2010'

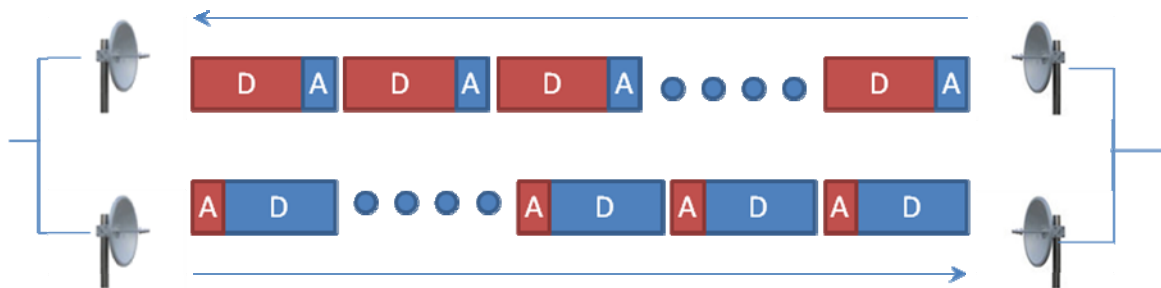
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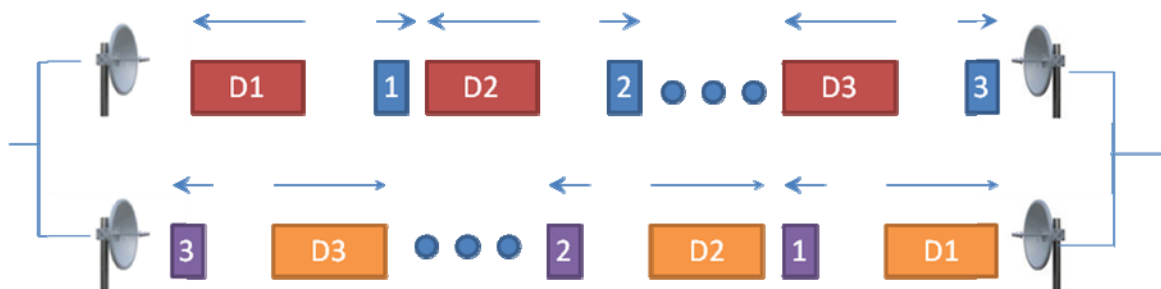
WiFD², one technology of FDD (Frequency-Division Duplex), is suitable for the wireless long distance backbone: point to point, high throughput and ultra low latency.

WiFD² is composed by two pairs of one-way wireless transmission, see the diagram below:



Even though the data is transmitted continuously in one way, the packet of ACK is brought back by another way to achieve the mechanism of ARQ (Automatic Repeat Request). In this framework, the effective bandwidth would not be lowered due to a long distance.

Using 802.11 to achieve FDD is another method in the market, however, its each direction is not merely radiating or receiving, it needs to wait for the response of opposite ACK to decide whether it will retry or not after sending out the packet (as the graph shows). Not only the transmission efficiency will be enormously reduced, but also the influence resulted from the distance will be so deep.





As for the real-time E1 / T1 application, *WiFD²* offers more reliable QoS optimization module to ensure all four E1 / T1 and Fast Ethernet will operate more reliably for a long period and fulfill the needs from Telecom operators (end to end latency < 20ms).

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