IEEE P802.11
Wireless LANs

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### Overview

This submission proposes a press release for P802.11z-2011

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**IEEE Publishes the 802.11zTM Amendment**

Extending the base IEEE 802.11TM WLAN Specification for Direct Link Setup.

**PISCATAWAY, N.J., USA, 10 October** 2011 – The IEEE today announced that it has published IEEE Std 802.11zTM, Wireless LAN: Extensions to Direct Link Setup. (1)

IEEE 802.11TM client devices are usually connected to an access point in what is known as a star topology.Data moving from one of the clients to another is transferred though the access point. This amendment defines mechanisms that allow IEEE 802.11 to set up a direct link between client devices while also remaining associated with the access point (AP). These mechanisms are referred to as Tunneled Direct Link Setup (TDLS). A TDLS direct link is set up automatically, without need for user intervention, while the connection with the AP is maintained

 The direct client to client communication provides several benefits:

1. IEEE 802.11z reduces the number of times a packet gets transmitted over the air from 2 to 1.
2. The shorter transmission times on TDLS direct links will provide power savings as well.
3. If client devices are perhaps newer and capable of operating at data rates or in frequency bands not supported by the access point they can do so.
4. TDLS direct links, bypassing the access point, eliminates one of the transmissions and the client –to-client transmissions will often occur at much higher data rates both of which result in shorter transmission times and client device power savings.
5. There is no need to upgrade APs to support TDLS direct links. TDLS is a client-only feature.
6. TDLS is designed to enhance the communication between clients, especially mobile handheld devices, with limited battery capacity.

Wi-Fi networks are increasingly required to carry traffic between client devices that currently gets routed through the access point, and therefore traverses the air twice. TDLS provides an automated means for the devices to set up a (secure) direct link between themselves. TDLS also allows the use of enhanced capabilities that may not be supported by the access point, so the connection speed between the devices will typically be much faster via a TDLS direct link; for example a TDLS direct link can use a wider channel bandwidth, more spatial streams, faster PHY rates, etc. Depending on the specific situation, a 10-fold increase of the data rate between the devices is well within the realm of possibilities with TDLS. In addition, eliminating the hop through the AP significantly reduces the latency of the connection between the client devices.

TDLS suits the need of portable devices.

For further information on IEEE 802.11z, visit http://standards.ieee.org/findstds/standard/802.11z-2011.html. The standard is available at no charge through “[IEEE Get Program](http://standards.ieee.org/about/get/802/802.11.html)”.

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