

## **Achieving extended displays prototype via Wi-Fi direct technology**

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### Abstract

Wi-Fi Direct is considered as the way to connect people by offering a wider connectivity to the authorized devices. This paper presents a prototype that connects more than two displays wirelessly to create a VGA host by integrating the Miracast Application Program Interface (API) with Wi-Fi direct technology. This achievement supports high-quality multimedia streaming, audio and video conferencing, texts, gaming and more other applications. The behavior of the proposed prototype is measured by assessing the minimum number of connected group of devices, as well as the expected throughput in real life scenario. The experimental results show a remarkable overall performances measured by throughput, significance and applicability of the proposed prototype.

**Sahar Idwan**, Ebaa Fayyumi, Hiba A. Muhared, Izzeddin Matar, Obaidah A. Rawashdeh (2014) "Achieving Extended Displays Prototype via Wi-Fi Direct Technology", Proceedings IEEE 11th HONET-PfE2014, North Carolina, USA