



National Institute of Information and Communications Technology

IEEE802 Wireless 標準化推進・リーダーシップ育成セミナー
2015-9-4

TKP赤坂駅カンファレンスセンター ホール**14B**

講演**4**(ショートプレゼンテーション)
IEEEや**Wi-Fi Alliance**における標準化の現状と課題
(IEEE802.15.3d)

独立行政法人 情報通信研究機構未来ICT研究所
IEEE802.15.3d TG Vice Chair
寶迫 巖

CSD: CRITERIA FOR STANDARDS DEVELOPMENT >>> IEEE 802.15-13-0522-06-0thz

PAR: PROJECT AUTHORIZATION REQUEST >>>>>>> IEEE 802.15-13-0523-07-0thz

PAR

5.2.b. Scope of the project:



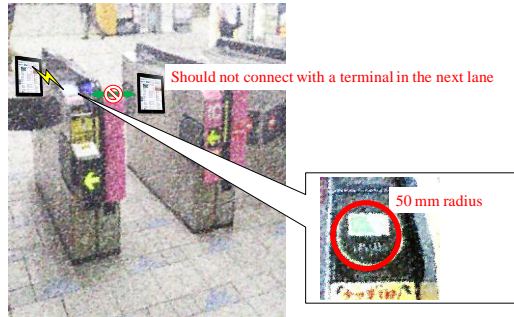
300 GHz band

This amendment defines a wireless switched point-to-point physical layer to IEEE Std. 802.15.3 operating at **a nominal PHY data rate of 100 Gbps** with fallbacks to lower data rates as needed. **Operation** is considered in **bands from 60 GHz up to and including optical wireless at ranges as short as a few centimeters and up to several 100m**. Additionally, modifications to the Medium Access Control (MAC) layer, needed to support this new physical layer, are defined.

5.5 Need for the Project:

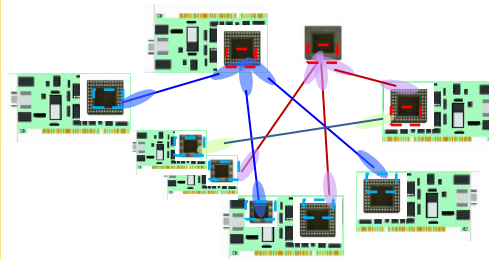
In **data centers wireless links** will make frequent reconfiguration easier and more cost-effective. In the case of **backhaul and fronthaul**, wireless solutions will reduce costs for the case when installing a fiber network is not cost-effective. In the cases of **close-proximity kiosk-downloading** and **intra-device communication**, a minimum data rate achievable with high probability, is required, which should be possible because of the operation in a controlled environment. No wireless standard with all these properties, operating at **a primary data rate of 100 Gbps**, with fallbacks to lower data rates as required and suitable for operation in a **switched point-to-point-configuration** exists today.

Close Proximity P2P



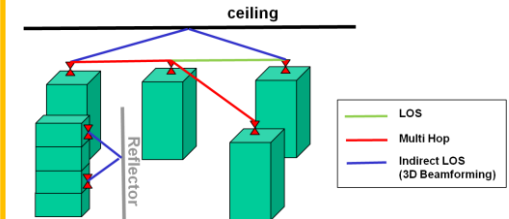
File downloading at toll gates in a train station

Intra-Device Communication

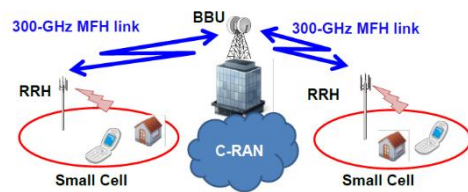


Wireless board to board communication

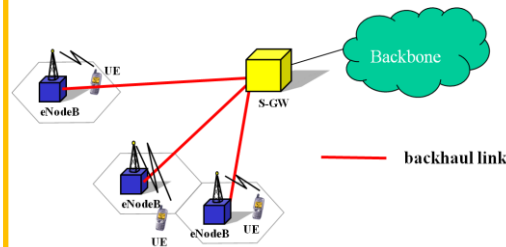
Data Center



Wireless Fronthaul



Wireless Backhaul





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