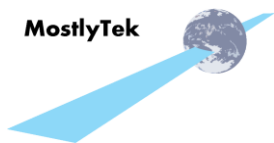

RONIT: Fronthaul/Backhaul B5G system design based on VLC-Radio integration for very dense small cell deployments

30 June 2016 5G PPP PHASE 2:

Presenting: Dr. Moshe Ran, MostlyTek Ltd.& H.I.T



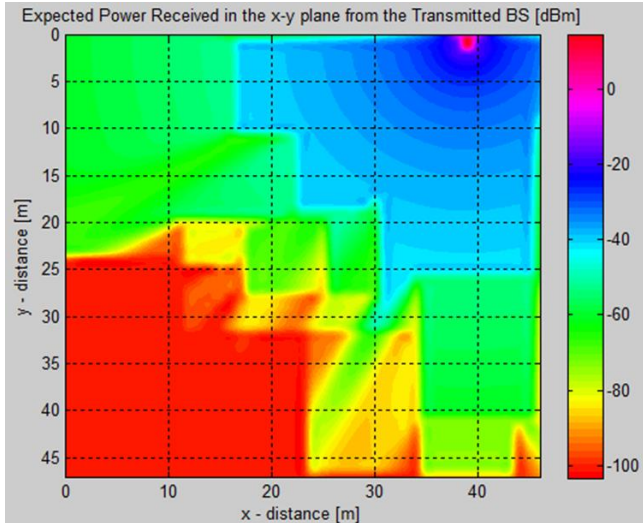
RONIT Key Goals

Analysis, design and integration of fronthaul /backhaul and B5G access technologies for ultra-dense small cell deployments based on:

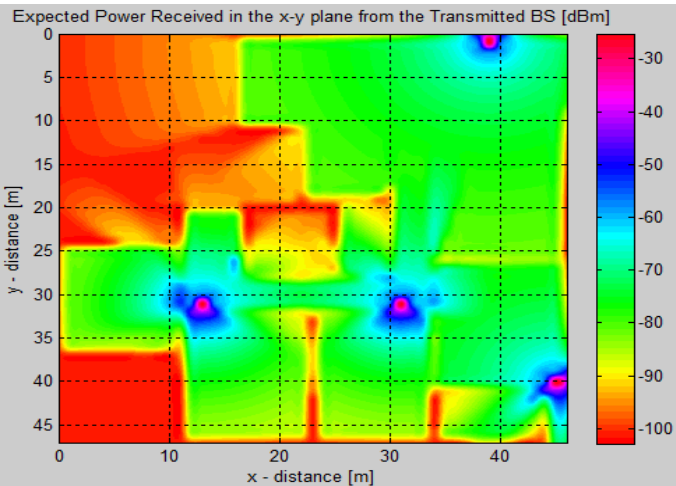
1. seamless integration of heterogeneous access technologies (LTE-A/WLAN/VLC-IR/PLC) with wireline optical (SMF, POF) backhaul/fronthaul technologies
2. Solutions for both indoors and outdoors
3. Research for generic building blocks RONIT access nodes (SCAN=Small Cell AN, CAN=cognitive AN) to meet B5G specs
4. Unique topologies to support **very low radiation (“green”)** for applications as hospitals

Power Vs. space

Concept and approach –Indoor (1)



Traditional Small cell



Green Small cell new concept

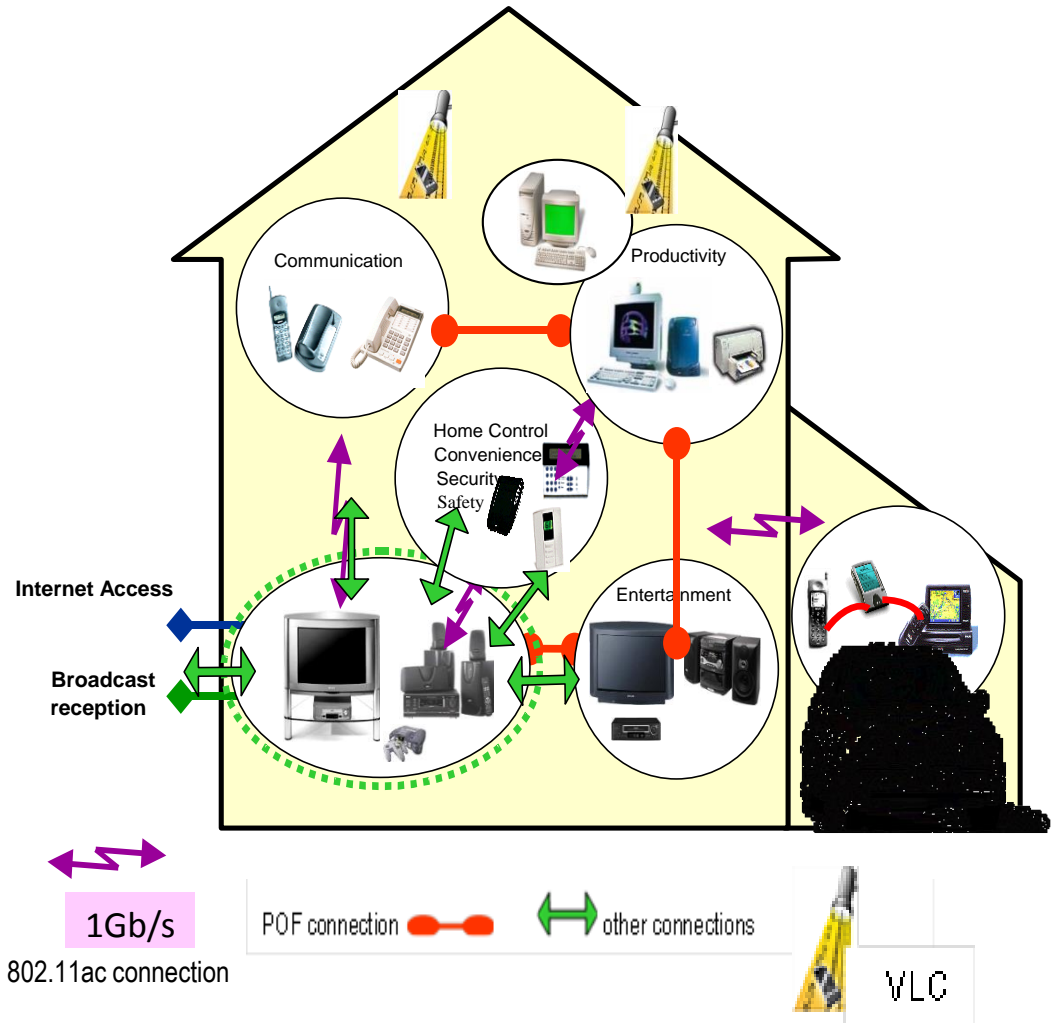
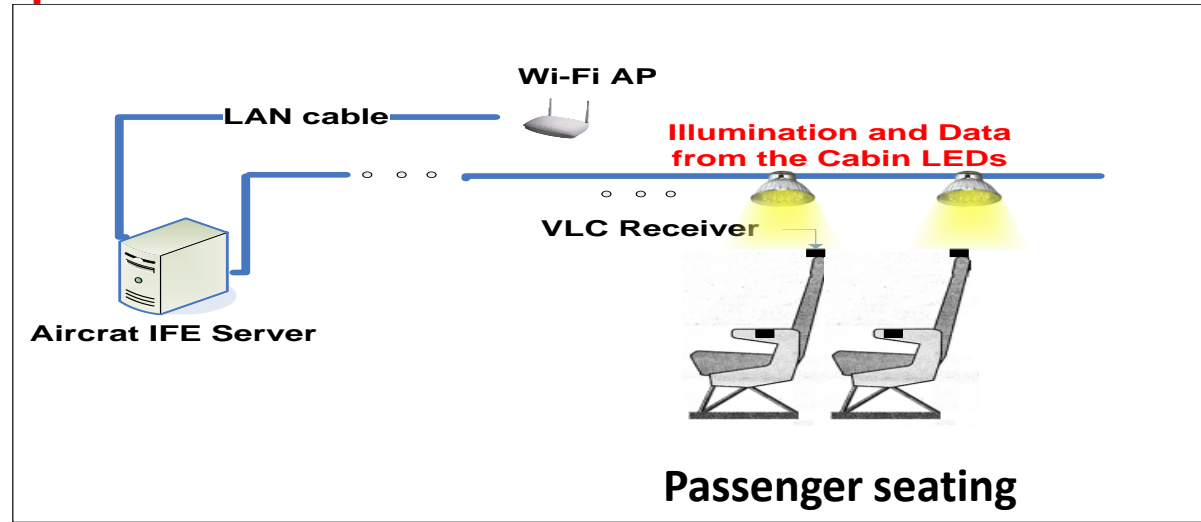


Fig 1: RONIT multi-gigabits indoor network

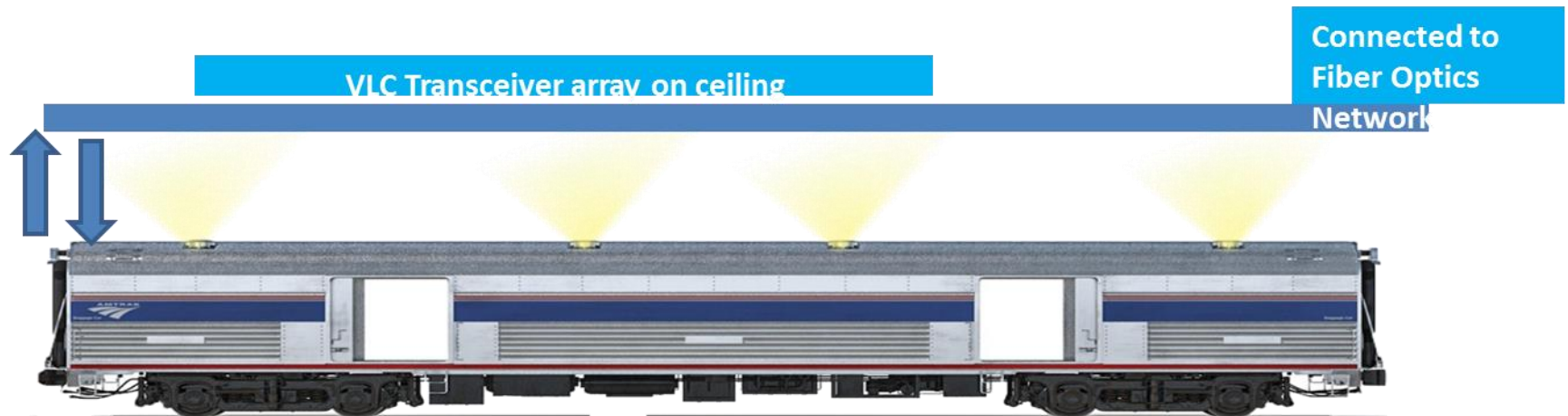
Concept and approach –In Flight (2)

Cooperative Wi-Fi / Li-Fi Airborne Cabin Infotainment Network



Concept and approach – Offloading Large Data Capture (3)

(Off loading video data and measurement data from Trains - 1TB)



4. Hospital Concept: System Architecture (preliminary)

