Agencia Nacional del Espectro

XI CONGRESO INTERNACIONAL DE ESPECTRO

HABILITADOR DE DESARROLLO Y COMPETITIVIDAD

Prashant Agarwal
vRAN Business Development Director, Intel

El futuro digital es de todos

MinTIC

Radio ACCESS Network (RAN)

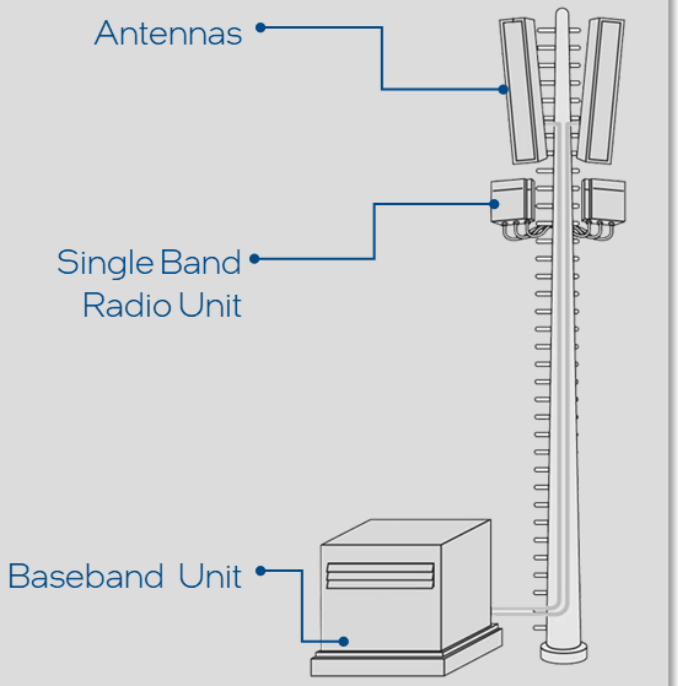
- Mobile networks serve more than 9 billion connections and generate almost $1 trillion in service revenue annually[1].
- Radio access network (RAN) is the most important distributed network infrastructure in the world.
- RAN is most expansive part of mobile networks in terms of CAPEX and OPEX.
- Challenge to deliver additional capacity, cost savings, service agility, and scalability to meet future demand.
- Core networks are already using the benefits of virtualization however RAN is lagging.
- RAN architectural is evolving in stages from the traditional distributed model to centralized to fully virtualized implementations.

1 According to research firm Omdia

2 Covering active base station equipment and antennas, but excluding power supplies, cable, install costs, civils, passive antennas, etc.

Transforming the Network for Open RAN

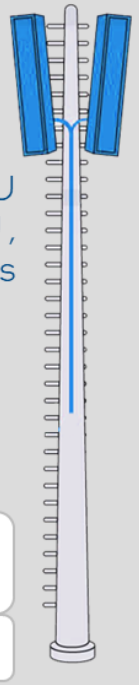
Existing System



NEW System – Cloud RAN

- Cloud Native for Flexible Network Infrastructure
- Centralization for improved pooling gains

RRU
Multi-band RRU ,
Antenna **Integrated** Radios



Virtualized Centralized Unit

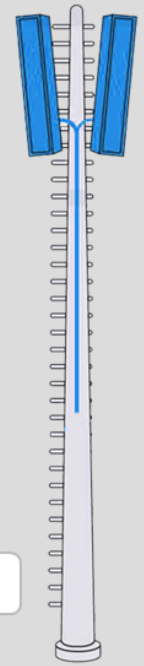
COTS HW

Virtualized Distributed Unit

COTS HW

NEW System – Open RAN

- Open Interfaces for domain innovation
- RIC for cloud based Network AI



Top Reasons for Adopting Open, Virtual RAN

Common Hardware Platform

Hardware and Software Disaggregation

Faster Innovation

More Robust 5G Ecosystem

Cloud Native Benefits

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