

Network In a Box (NIB)

NIB

- While NIB generally stands for Network in a Box, network in a Bag and backpack are used as well
- The terms Network In a Box is generally used with 4G/LTE networks



Source: [3G4G Small Cells Blog](#)

Nokia Network In a Bag



More details:

[Nokia Compact LTE Solutions](#)

Pic Source: Zahid Ghadialy at MWC 2018

Parallel Wireless Network In a Backpack

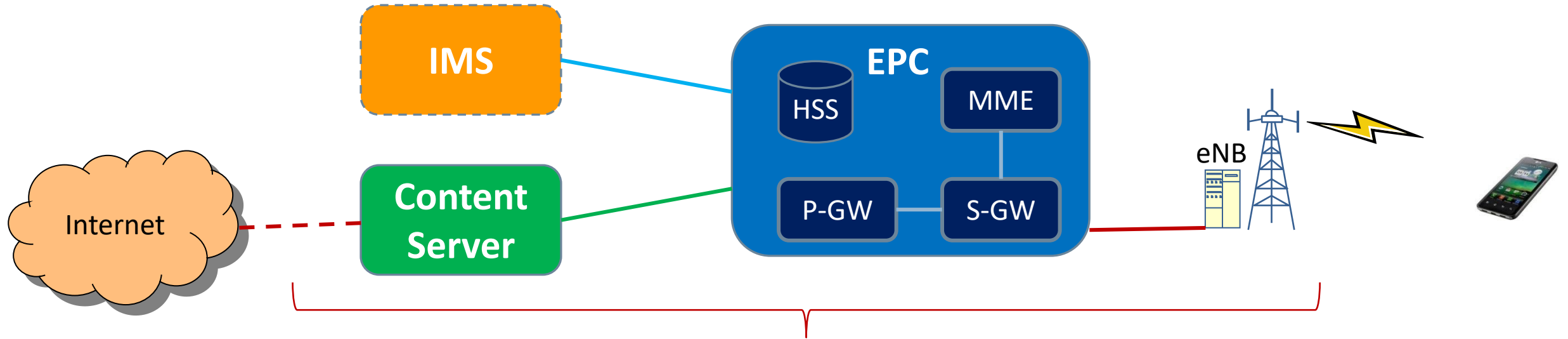


More Details:

[Parallel Wireless Public Safety LTE](#)

Pic Source: Zahid Ghadialy at MWC 2018

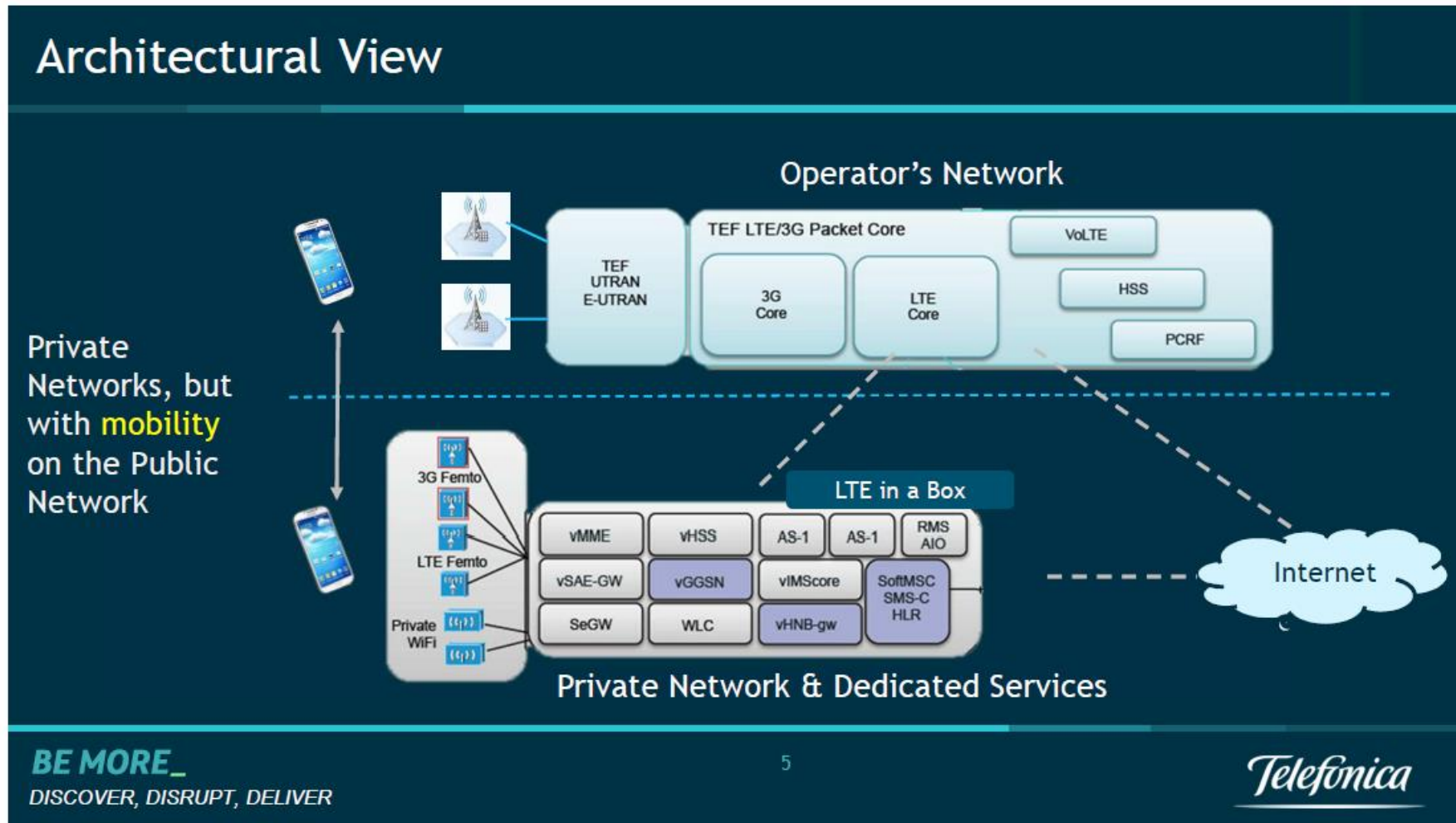
What exactly is NIB?



Network In a Box

- NIB typically consists of eNodeB, EPC & Content Server
 - There can be many other optional components including IMS
- NIB can be used in many scenarios including PPDR (Public Protection and Disaster Relief), Private Networks, Enterprises, etc.

Telefonica LTE In a Box Architecture



Source [Presentation](#)

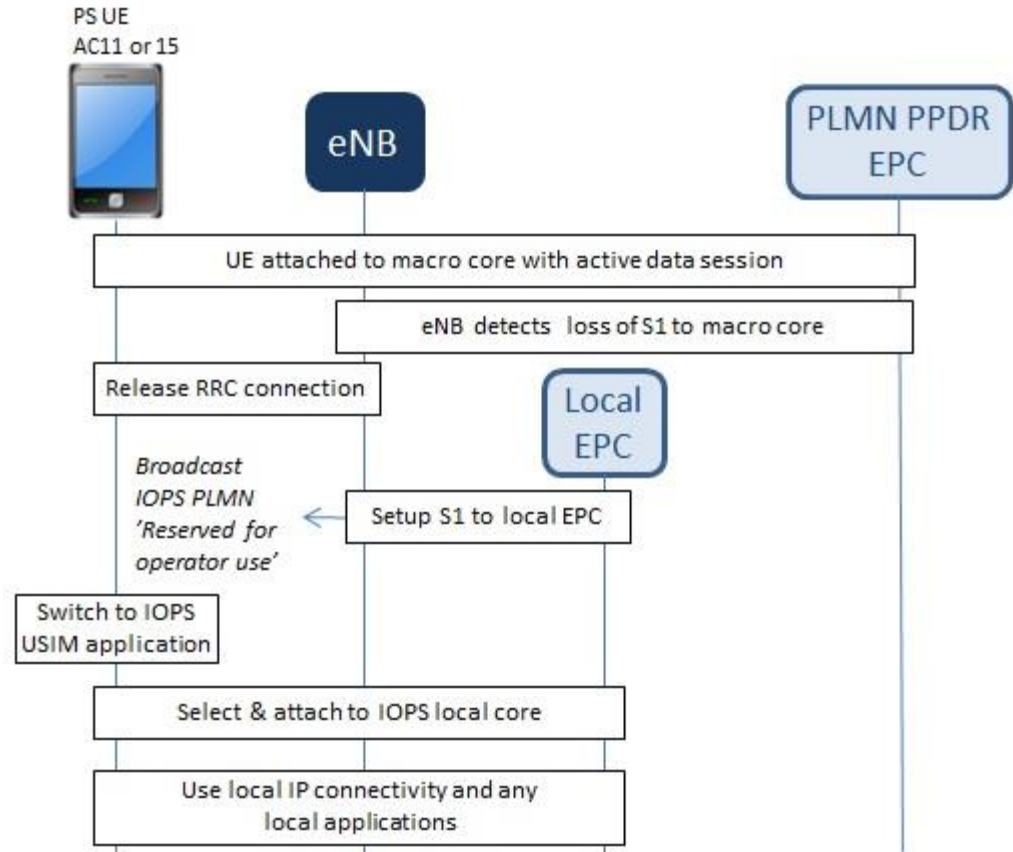
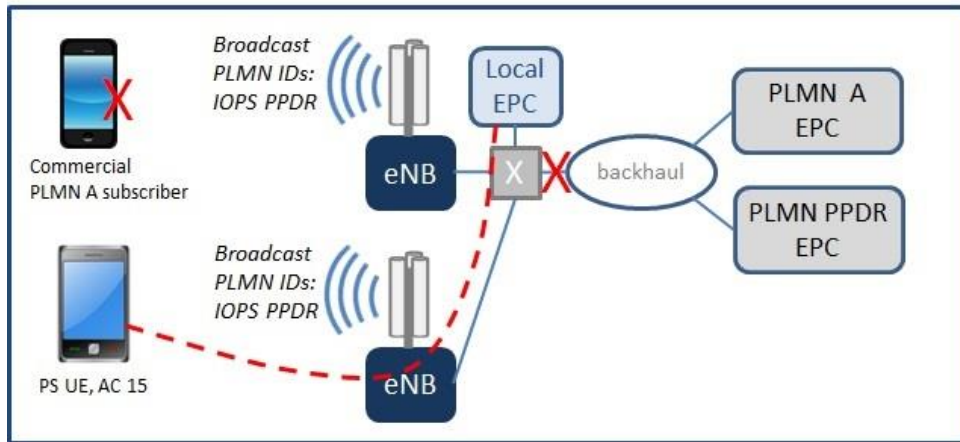
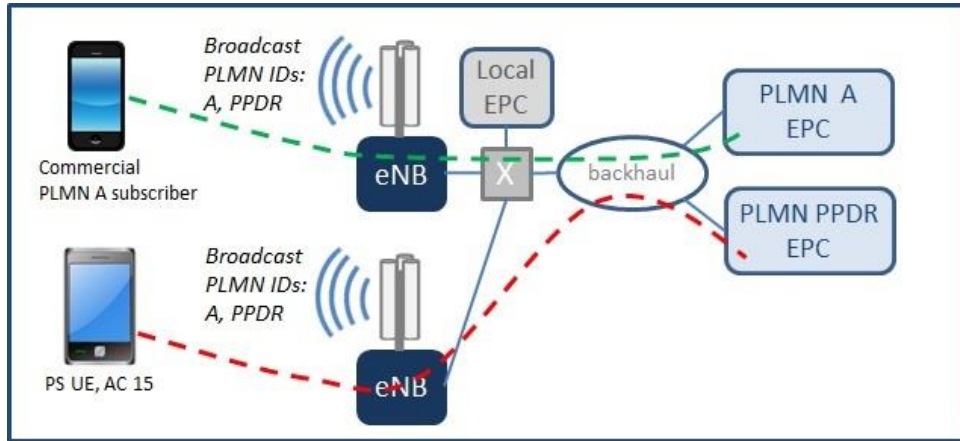
Isolated E-UTRAN operation for public safety (IOPS)

- IOPS is a more formalised 3GPP defined solution for NIB.
 - Defined in detail in 3GPP TS 23.401 Annex K.
- The following is from 3GPP Specs

“Isolated E-UTRAN Operation for Public Safety (IOPS) provides the ability to maintain a level of communications for public safety users, via an IOPS-capable eNB (or set of connected IOPS-capable eNBs), following the loss of backhaul communications.

The Isolated E-UTRAN mode of operation is also applicable to the formation of a Nomadic EPS deployment, i.e. a deployment of one or more standalone IOPS-capable eNBs, creating a serving radio access network without backhaul communications and also providing local IP connectivity and services to public safety users in the absence of normal EPS infrastructure availability.”

IOPS Operation Basics



Source: [Public Safety LTE Blog](#)

Further Reading

- Telrad: [LTE-in-a-Box](#)
- Tecore Networks: [Network in a Box[®] \(NIB\)](#)
- Quortus: [Network in a box solutions](#)
- Aricent: [LTE in a Box](#)
- Nutaq: [Pico LTE – eNodeB and EPC in a box for Test & Measurement](#)
- Telefonica: [LTE in a Box - Your own LTE network for your Enterprise](#)
- Public Safety LTE by Mika Aalto: [Isolated E-UTRAN operation for public safety \(IOPS\)](#)

Thank You

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Telecoms Infrastructure Blog – <https://www.telecomsinfrastructure.com/>

Operator Watch Blog – <https://www.operatorwatch.com/>

Connectivity Technology Blog – <https://www.connectivity.technology/>

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