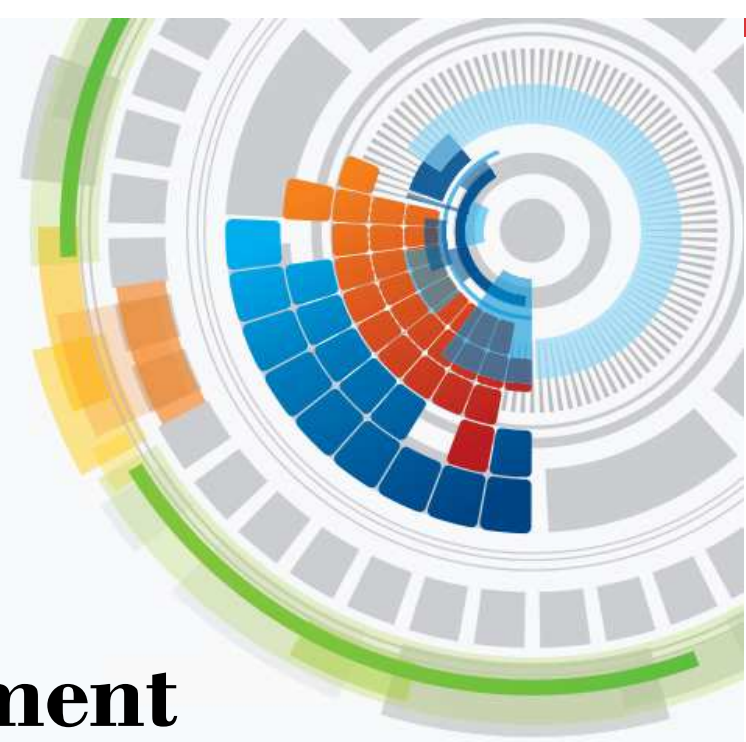




PT Len Industri (Persero)

Competitive Technological Independence



Independent Industrial Development

**Seminar Tahunan BK Elektro PII
ICT untuk Bangsa (IuB)
Jakarta, 14 Desember 2016**

Ir. Adi Sufiadi Yusuf, M.Eng., FIRSE., IPM.

**Direktur Keuangan & SDM
PT Len Industri (Persero)**

www.len.co.id

Jl. Soekarno Hatta 442 Bandung, Indonesia

Who we are ...

History :

- LEN - LIPI (10/6/1965) – A National Research Center under Indonesian Institute of Sciences
- PT Len Industri (Persero) (7/10/1991) – State Owned Enterprise

Facilities :

- Bandung : 15.654 m2 / 32.089 m2
 - Subang : Len Technopark 10 Ha
- Employees : 800 personnels



Annual Revenue (2017 plan): app. 300 Million USD

SBU's :

- Len **Defence Electronics**
- Len **Information and Communication Technologies (ICT)**
- Len **Transportation Systems**
- Len **Renewable Energy and Consumer**

Subsidiaries (fully owned):

- PT Eltran Indonesia
- PT Surya Energi Indotama
- PT Len Railway Systems
- PT Len Telekomunikasi Indonesia
- PT Len Sunseap Energy



EPC Oil & Gas
EPC Navigation Systems



EPC Renewable Energy



Total Solutions in Railway
Transportation Technology



Independent Industrial Development

- **“Independent”**
 - Made in Indonesia
 - Designed in Indonesia
 - IPR owned by Indonesia
 - Indonesian Brand
- **Challenges:**
 - Economic of Scales
 - Supply chain of components and material
 - Global competition
- **Why “Independent”**
 - Economic reasons
 - Technological reasons
 - Strategic issues :
 - Cyber Defence and Security
 - Network Centric Warfare

Elektronika Pertahanan

Defense Electronics

CMS (Combat Management System) Mandhala



Len Radar

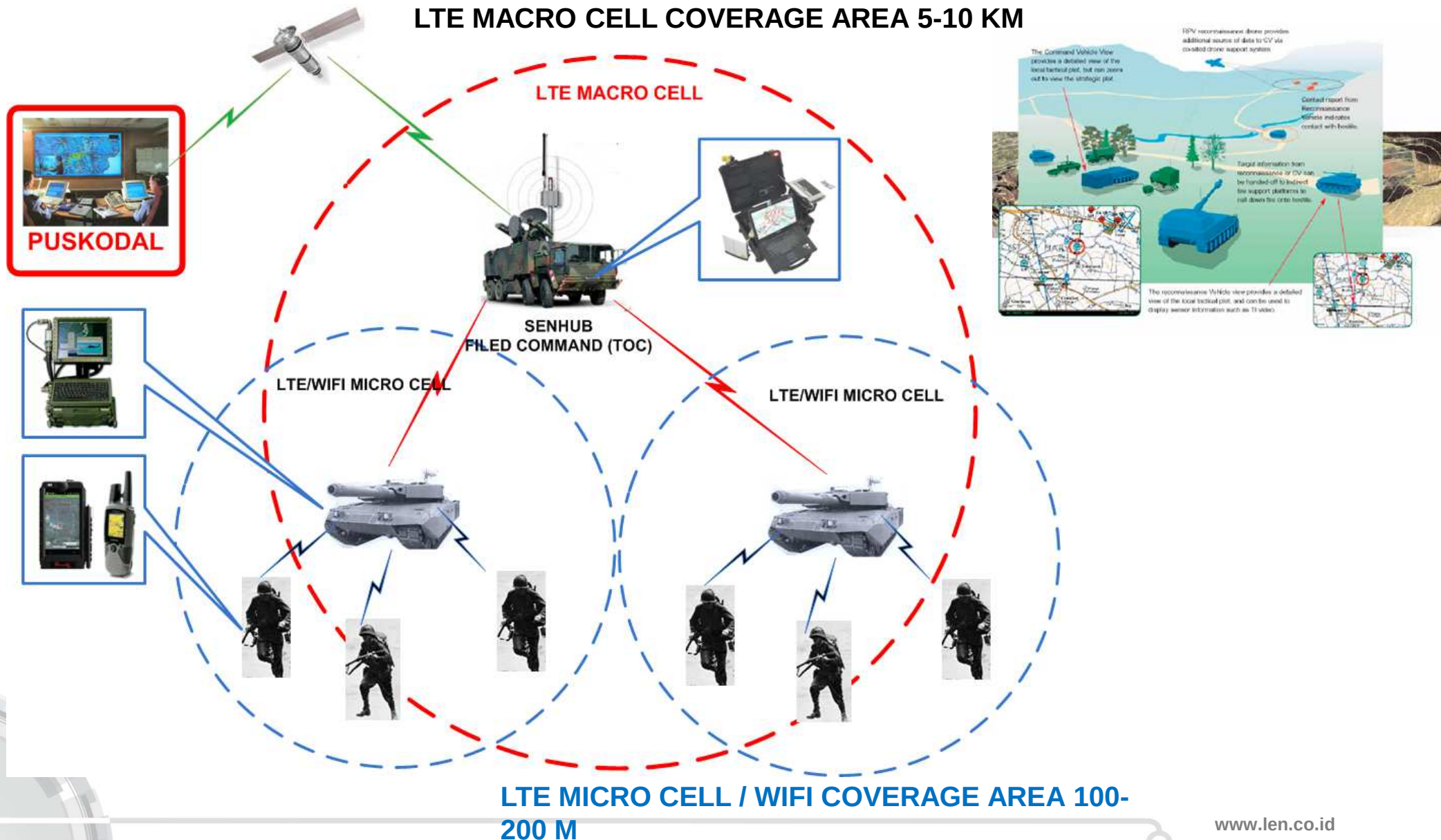


Elektronika Pertahanan

Defense Electronics

BMS (Battlefield Management System)

Konfigurasi jaringan taktis BMS

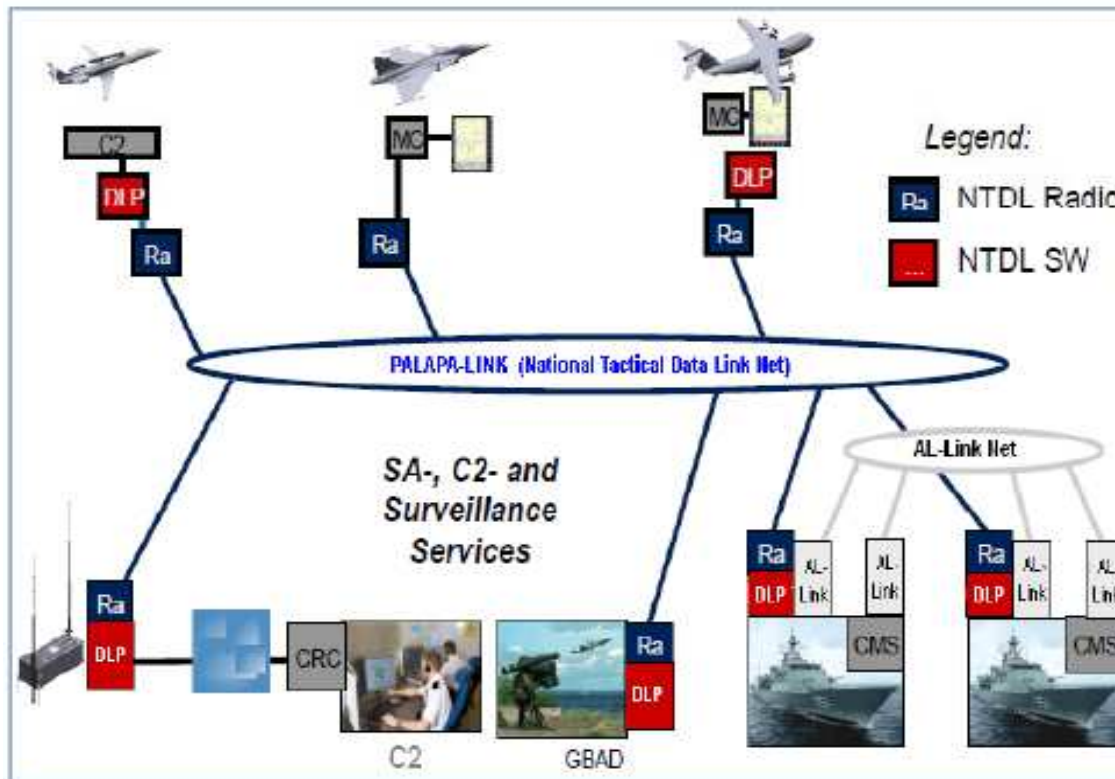


Elektronika Pertahanan

Defense Electronics

TDL (Tactical Data Link)

National Tactical Data Link



Arsitektur Palapa-Link TNI (future)

(Backbone : Satelit/ SatKomHan atau PALAPA RING)



Arsitektur AU-Link

(Identik untuk AD-Link & AL-Link)

Palapa-Link adalah National Tactical Data Link untuk mendukung operasi tri-matra terpadu masa depan. Yang terdiri dari : **AU-Link, AD-Link & AL-Link**



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Defense Electronics

CMS Mandhala (Combat Management System)
MMS (Mission Management System)
LenLink - Tactical Data Link
Marine Radar - Lenradar S-256/S-1000/S-5000/S-20000
LenCRYPTOSYS - Crypto Device Solution
NAVINSYS Intercom System
Radio Base Station

RETIMAX 2000 (Surveillance & Reconnaissance)
ATCS (Automatic Traffic Counting System)
ESM (Electronic Support Measure)
Alkom - Radio Manpack
Fire Control System
IFF (Identify Friend or Foe)
Transponder Sasaran Torpedo



Teknologi Informasi & Komunikasi

Information & Communication Technology

KTP Elektronik



Len Tracking System



DVB - T2
Digital TV Transmitter
Telah Ujicobakan pada
acara APEC 2013 di Bali



Teknologi Informasi & Komunikasi

Information & Communication Technology

KTP-el Banking System



LED Display



SID



DVR - T2 Digital TV Transmitter





PT Len Industri (Persero)
Competitive Technological Independence

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Mobile Enrollment KTP-el

Pembaca KTP-el

KTP-el

Printer KTP-el



4G LTE

Digital TV Transmitter

Set Top Box



Fiber Optic - TITO Project

Len Tracking System

WiMAX



Energy Terbarukan

Renewable Energy



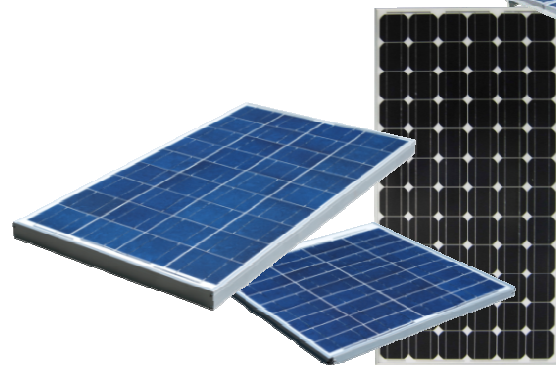
Solar Street Light



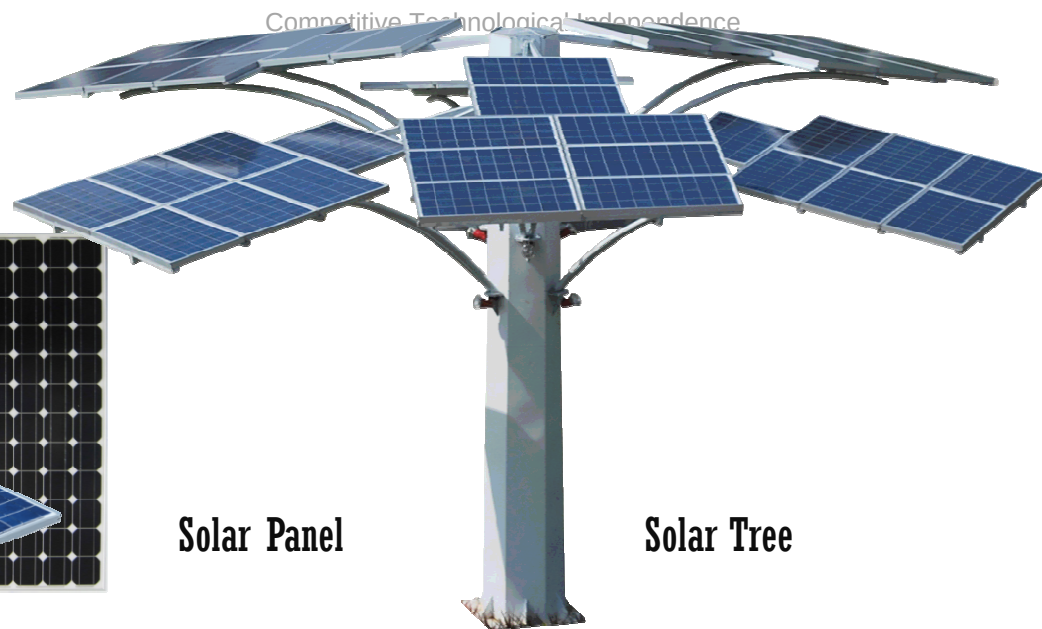
Roof Top Solar System



PLTS Off Shore
5 KWp



Solar Panel



Solar Tree

Grid Connected System 2 x 1MWp
in Bangli & Karangasem, Bali



Transportasi Perkeretaapian

Railway Transportation



SIL-02
(Sistem Interlocking Len-02)

Substation System



Traction System

LED Signal



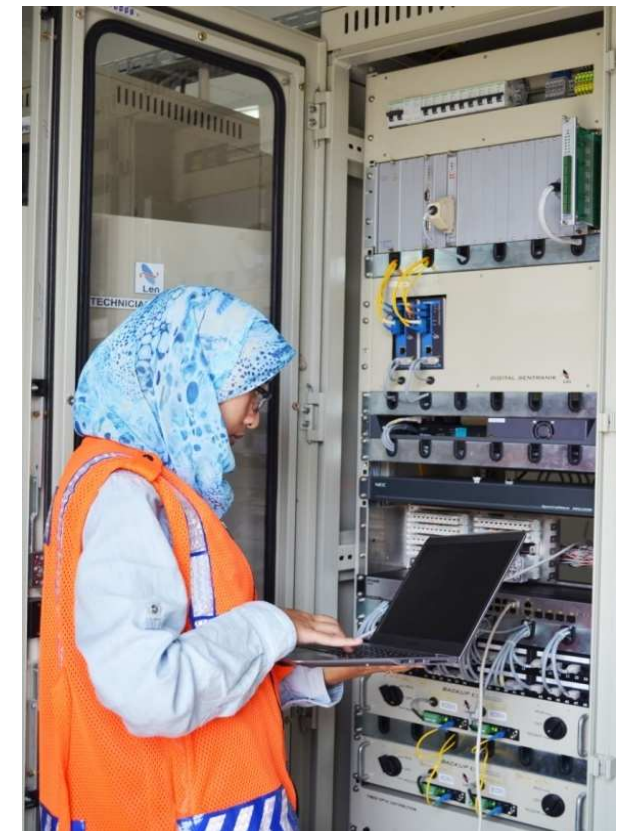
SIL-03 (Sistem Interlocking Len-03 atau CBI)
di Stasiun Gumilir, Cilacap Jawa Tengah



SIL-02 (Interlocking System Len-02) is applied on the Northern Line Cirebon Java-Surabaya along the 435 km across more than 55 stations with fiber optic telecommunication systems.



CTC (Centralized Traffic Control)



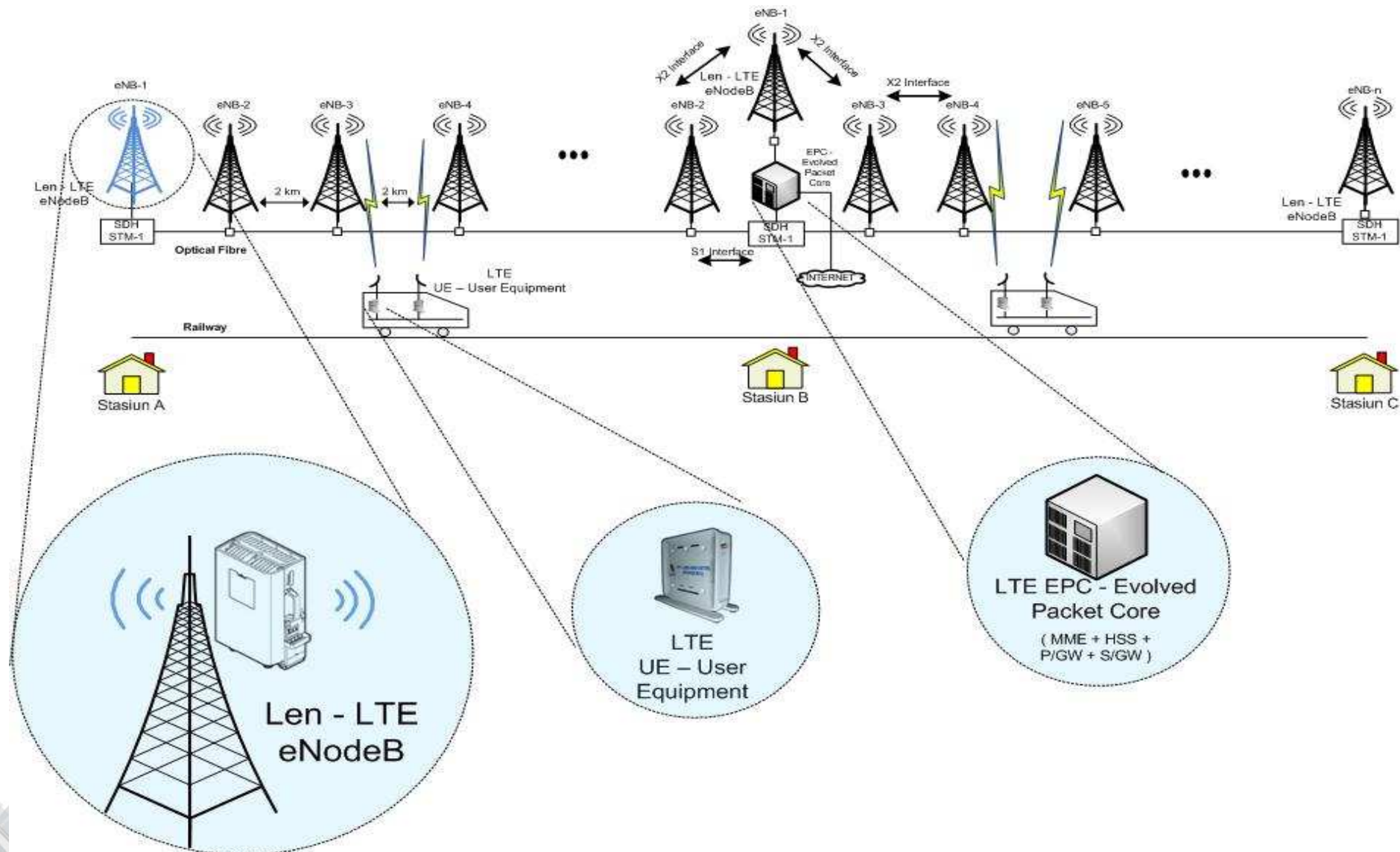


Monorel, APMS (Automatic People Mover System), ACT (Automatic Container Transporter)





Len LTE-based Railway Communications



Thank You

Terimakasih