

**DIRECTORATE GENERAL**  
**OF**  
**OPERATIONAL LOGISTICS AND STRATEGIC MOVEMENT**



**GIS IN DEFENCE LOGISTICS**  
**04 JUN 2018**



# **CHALLENGES : GIS IN DEF LGS**



- **NO COMMON OPERATIONAL LOGISTICS PICTURE**
- **LACK OF INTEGRATED DEFENCE LOGISTICS INFORMATION SYSTEM**
- **NON INTEGRATION OF GIS WITH THE EXISTING INFORMATION SYSTEM**
- **LACK OF INTEROPERABILITY OF DATA AMONG THE EXISTING INFORMATION SYSTEMS – IMMOLS(IAF)/ ILMS(IN)/ CICP(IA)**
- **LACK OF ASSET VISIBILITY AND INVENTORY TRACKING**



# **DESIRED CAPABILITY ENVISAGED : GIS IN DEF LGS**



## **FLEXIBLE, AGILE & RESPONSIVE DEF LGS SYS**

- **INTEGRATION OF CONSUMER WITH SUPPLIER (FORWARD TROOPS - LOGISTICS NETWORK)**
- **AUTOMATED DEMAND GENERATION & DIRECT DELIVERY OF SUPPLIES**
- **NO NEED OF WAREHOUSING LARGE INVENTORY – REDUCE RANGE AND DEPTH**
- **UNINTERRUPTED SUSTENANCE OF FIGHTING FMNS DIRECTLY**

## **DESIRED AUTOMATED & INTEGRATED SYSTEM**

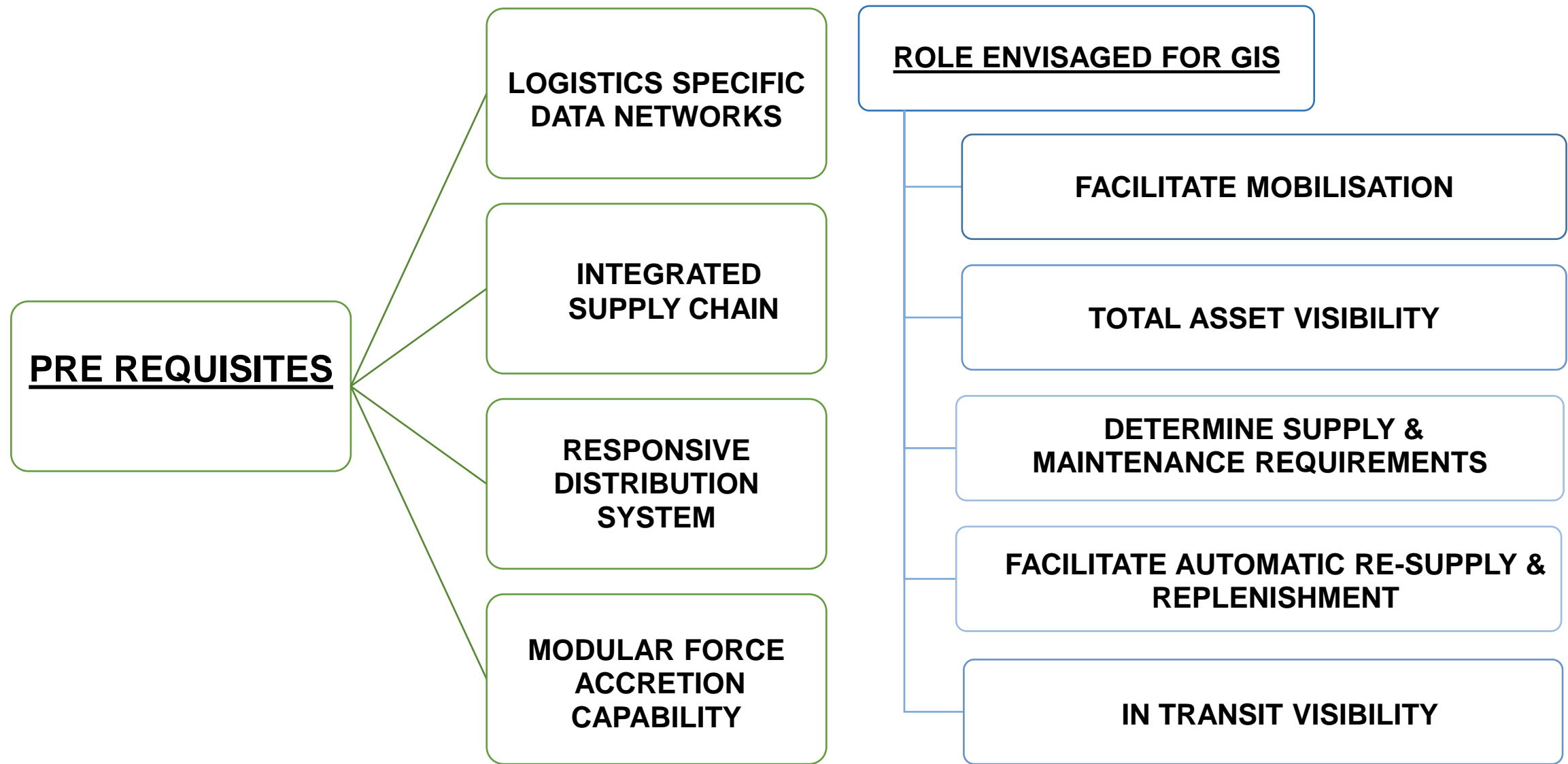
- **RAPID LOGISTICS RESPONSE TO CRISIS**
- **DEPLOYMENT OF ASSETS – JUST IN TIME**
- **DELIVERY – TAILORED LOGISTICS PACKAGES**
- **DISTRIBUTION MANAGEMENT STRUCTURE- ASSET VISIBILITY & DECREASE IN THEATRE SPECIFIC STOCKING**



# FOCUSSED DEF LGS : ROLE OF GIS

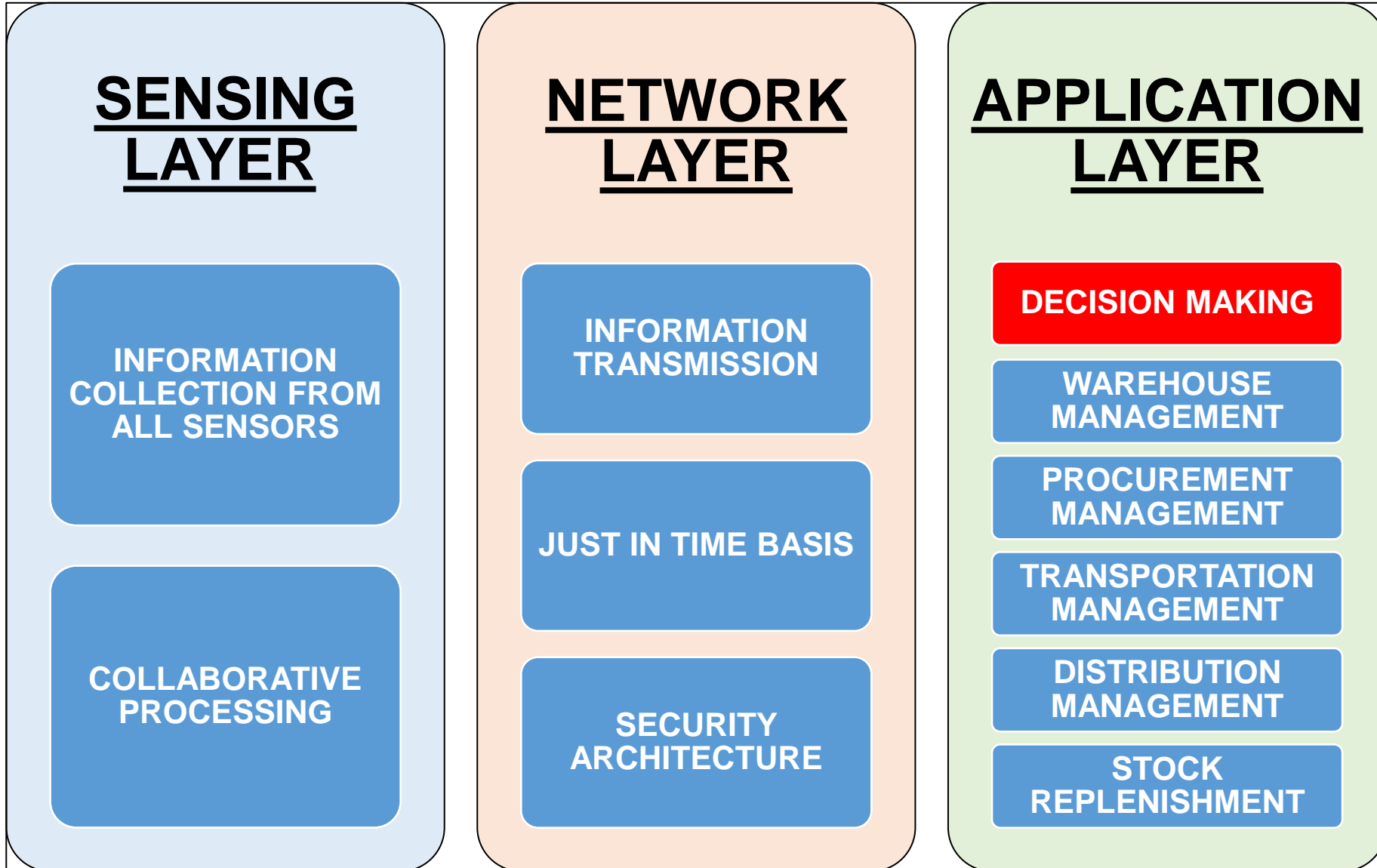


## FUSION OF GEO SPATIAL LOGISTICS INFORMATION, INFORMATION TECHNOLOGY & TRANSPORTATION TECHNOLOGY





# FRAMEWORK : GIS TECH IN DEF LGS



# EXISTING MODEL : TRANSPORTATION SYSTEM



## TN ASSETS

COMPANY OWNED AND ATTACHED  
VEHICLES



## COMN SYS

GSM/CDMA



## MAP

GOOGLE MAPS



## NAVIG SYS

GPS



## SOFTWARE

PROPRIETARY APP

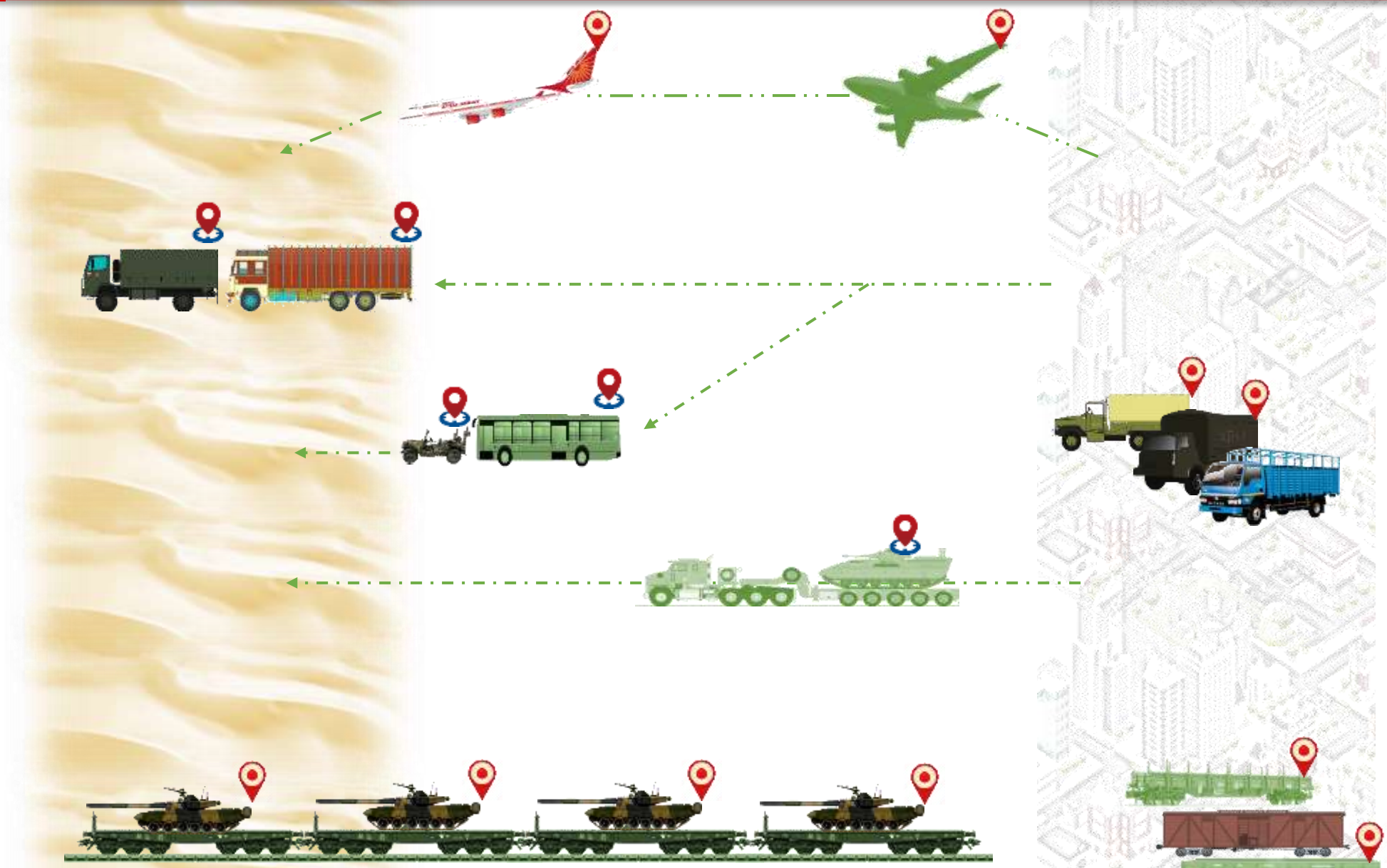


## WAN

WWW - INTERNET



# WAY AHEAD : MOBILISATION



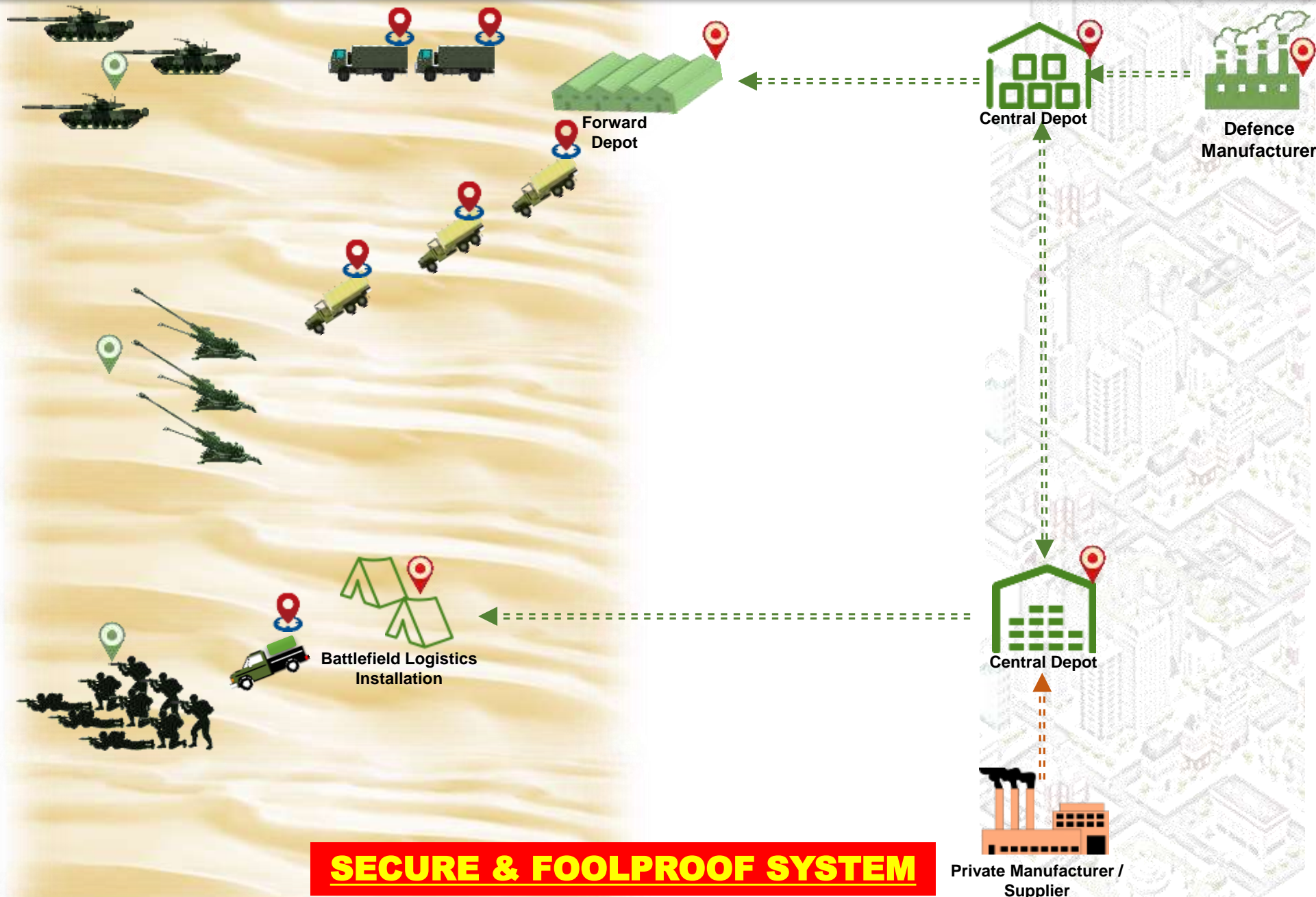
**SECURE & FOOLPROOF SYSTEM**

# EXISTING MODEL : SUPPLY CHAIN MANAGEMENT





# WAY AHEAD : STOCKING & MAINTENANCE



**SECURE & FOOLPROOF SYSTEM**





# 'R' : TRANSPORTATION SYSTEM



## TN ASSETS

VEHS/AC/SHIPS; SERVICE OR/AND HIRED



## COMN SYS

GSM/CDMA/SATL/MW/FOC/WIRED



## MAP

PERMT AND REAL-TIME LAYERS



## NAVIG SYS

IRNSS/GPS/GLONASS



## SOFTWARE

PROPRIETARY/HIRED AS SERVICE



## WAN

SERVICE OWNED OR INTERNET OR MIX



# SECURE SYSTEM WHICH IS FREE FROM INTERFERENCE BY ADVERSARY

- GPS
- GSM / SATCOM FOR MOB COMN
- BASE MAP FROM GOOGLE EARTH
- TR - CVY/ SORTIES/ TRAINS/ AC

- IRNSS
- INDIGENOUS COUNTRY WIDE BASE MAP
- TR - VEH/ AC/ WAGON & VESSEL

- TR ALL ASSETS AND ALL MAJOR INVENTORY ITEMS
- ALL MAJOR INVENTORY ITEMS TAGGED; TRACKERS WITH ALL ASSETS



# 'R' : FUTURE DEF LGS SYS



- **AUTOMATION OF LOGISTICS ECHELONS**
- **DEVELOPMENT OF AN INTEGRATED DEFENCE LOGISTICS INFORMATION SYSTEM**
- **INTEGRATION OF GIS - IN HOUSE SOFTWARE DEVELOPMENT/ STRAT PARTNERSHIP**
- **DEVELOPMENT OF COMMUNICATION NETWORK WITH REDUNDANCY**
- **PRECISION DELIVERY OF LOGISTICS SUPPORT - 'JUST IN TIME' AGAINST 'JUST IN CASE'**
- **MACHINE LEARNING FOR AIDING DECISION MAKING**

**INTEGRATION OF TRANSPORTATION LOGISTICS, REAL TIME TRACKING AND  
INFRASTRUCTURE DATA ON A GIS PLATFORM - A SINGLE SECURE WEB  
APPLICATION - LOGISTICS DATA NETWORK**



**JAI HIND**