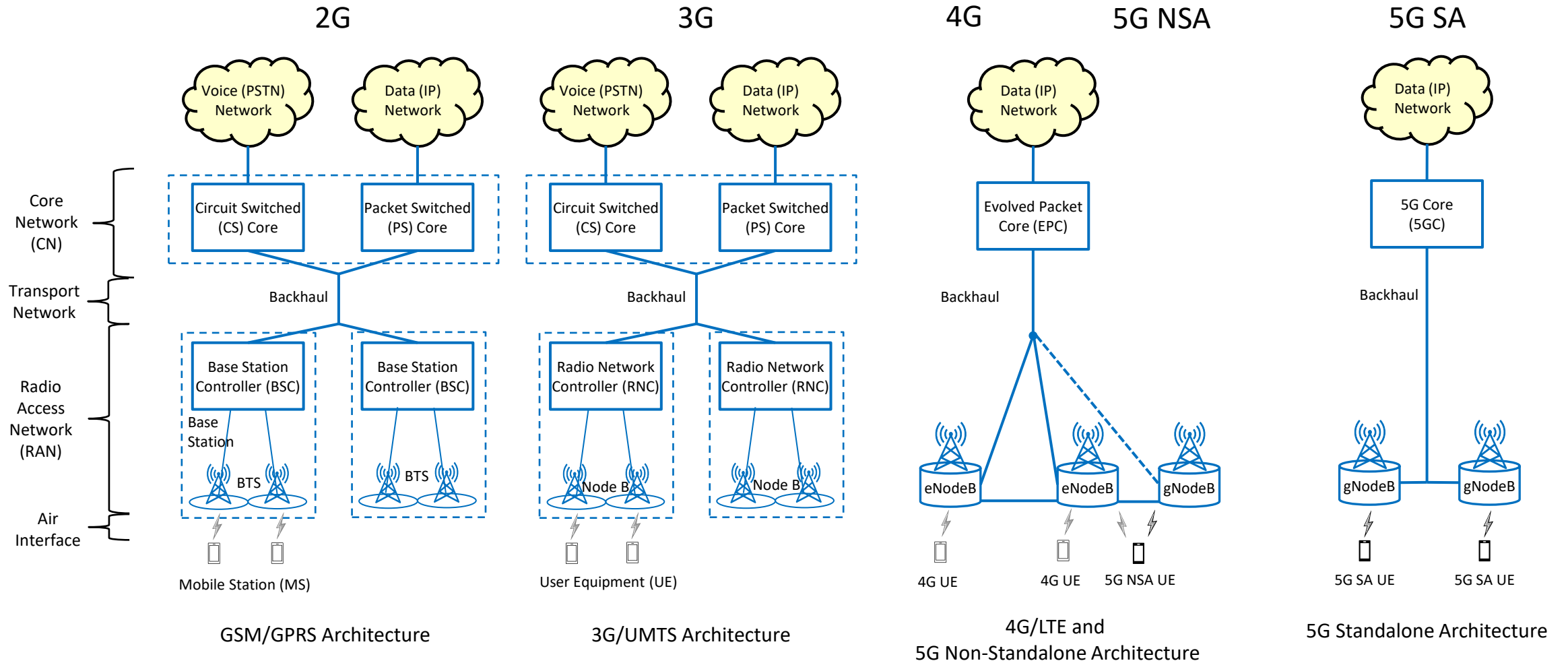


Beginners:

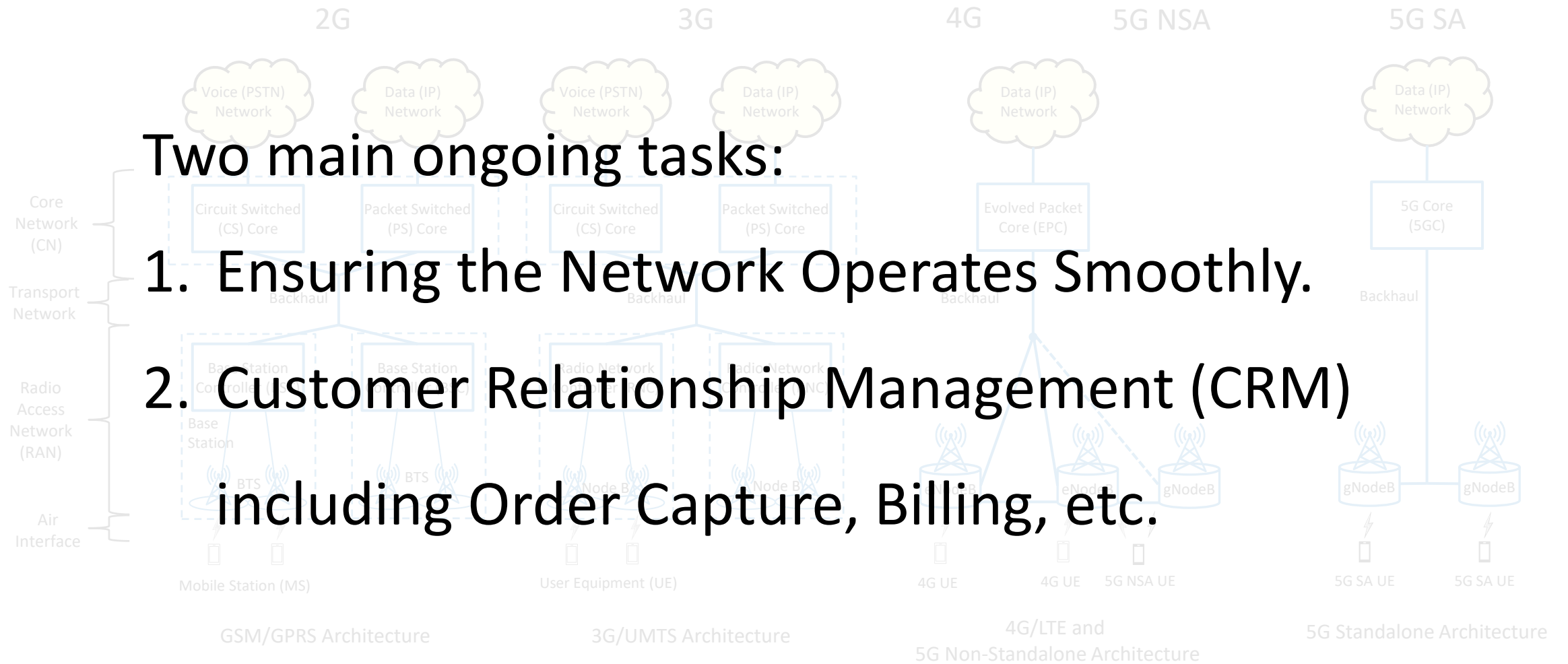
# Introduction to OSS/BSS in Mobile Networks

*Operations/Business Support Systems (OSS/BSS)*

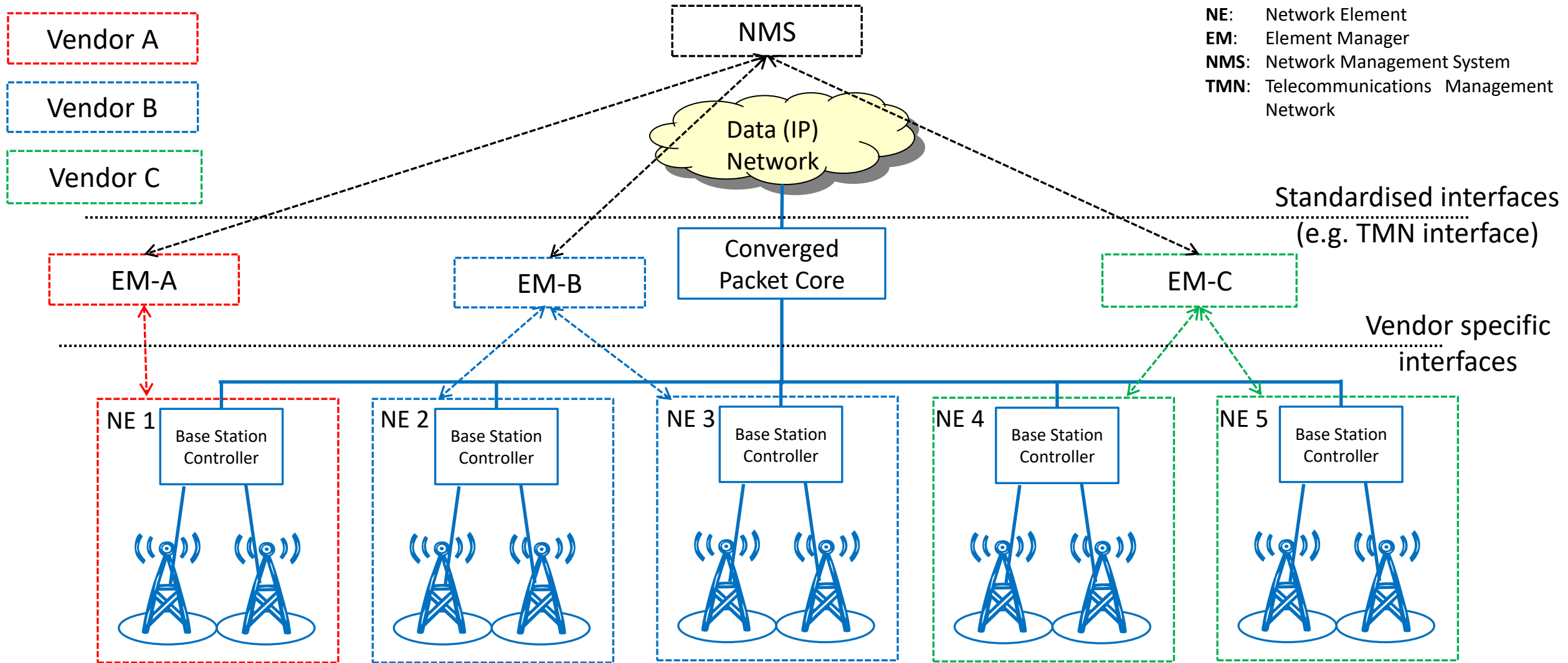
# Mobile Network Architecture in General



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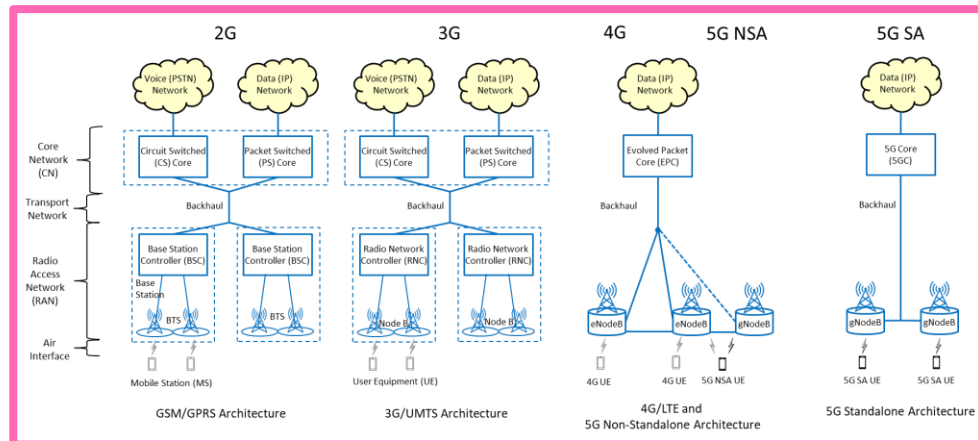
# Multi-Vendor Mobile Network



# Holistic View of the Network

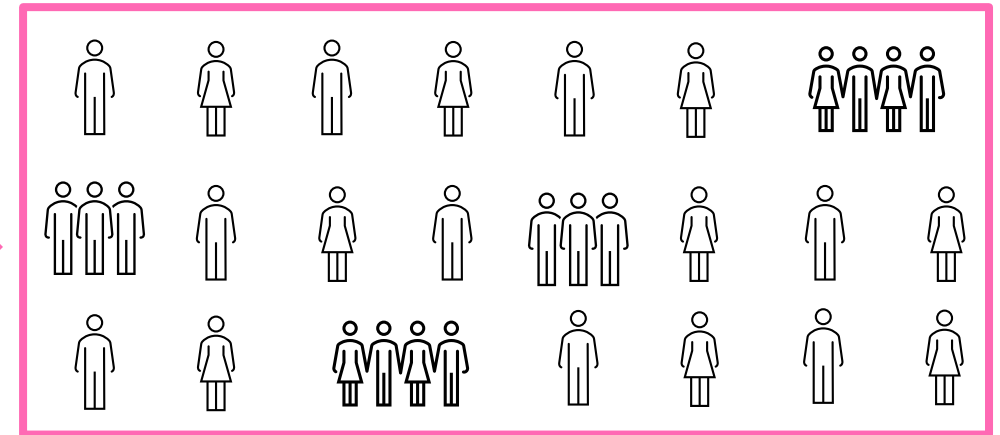
Image based on "Fundamentals of EMS, NMS and OSS/BSS" by Jithesh Sathyan

## Infrastructure



Deliver Services

## Customer



Network Planning and Development

Network Provisioning

Service Planning and Development

Service Provisioning

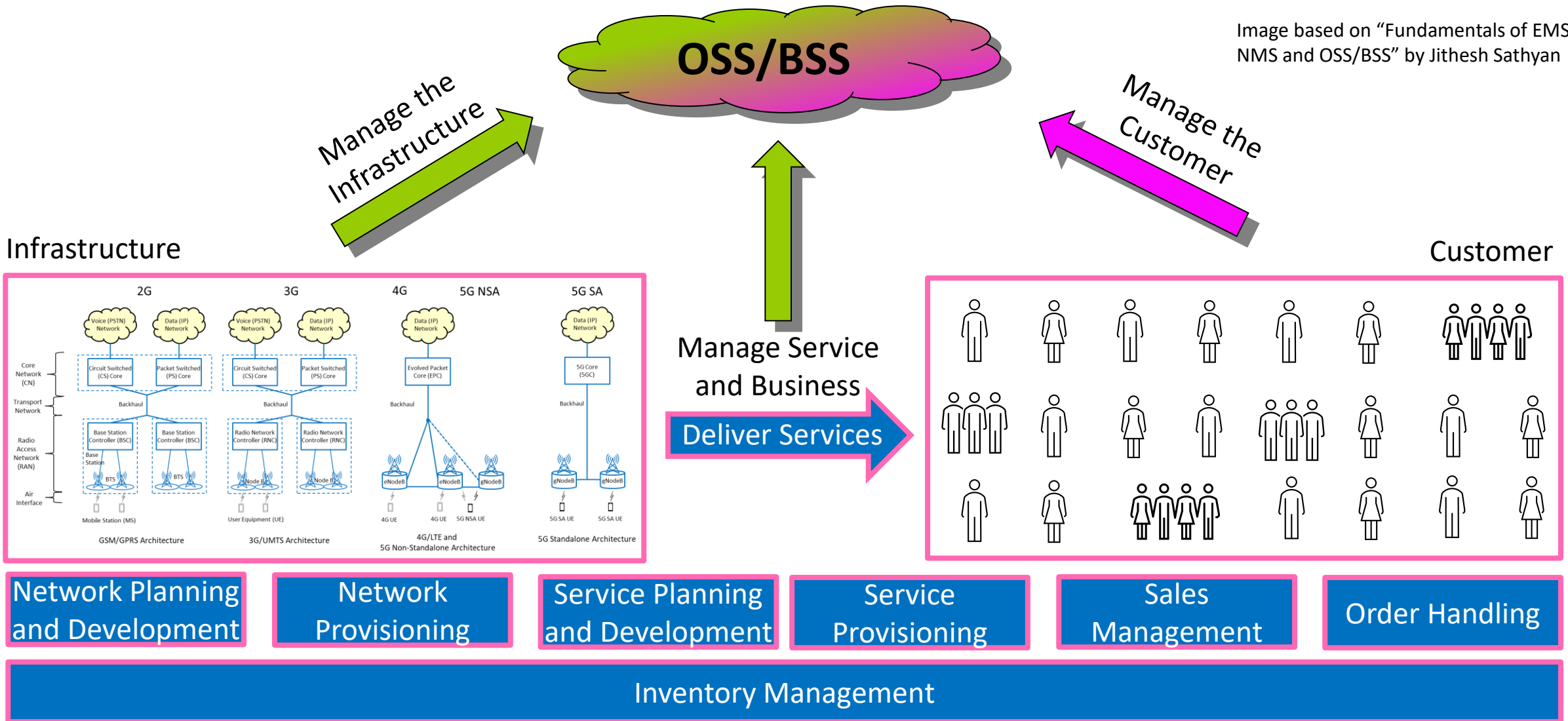
Sales Management

Order Handling

Inventory Management

# Holistic View of the Network and Support Systems

Image based on "Fundamentals of EMS, NMS and OSS/BSS" by Jithesh Sathyan



# Operations Support System (OSS)

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An Operations Support System (OSS) is essential for Communication Service Providers (CSPs) to transform digitally. There are two ways to look at OSS: from a network perspective and a business perspective.

## Network Perspective (FCAPS):

- **Fault Management:** Detecting, correcting, isolating and recovering from faults.
- **Configuration Management:** Defining network component characteristics and managing their lifecycle.
- **Accounting:** Managing network/system usage, quotas, audits, costing, and fraud management.
- **Performance Management:** Understanding network performance and capacity planning.
- **Security:** Managing access, audits, incident reporting, and compliance.

## Business Perspective:

- **Service Fulfilment:** Planning, building, provisioning, and activating services.
- **Service Assurance:** Optimizing the Quality of Service (QoS) for networks and services.
- **Operations Support and Readiness (OSR):** Providing tools and environment for efficient fulfilment and assurance processes.

# Business Support Systems (BSS)

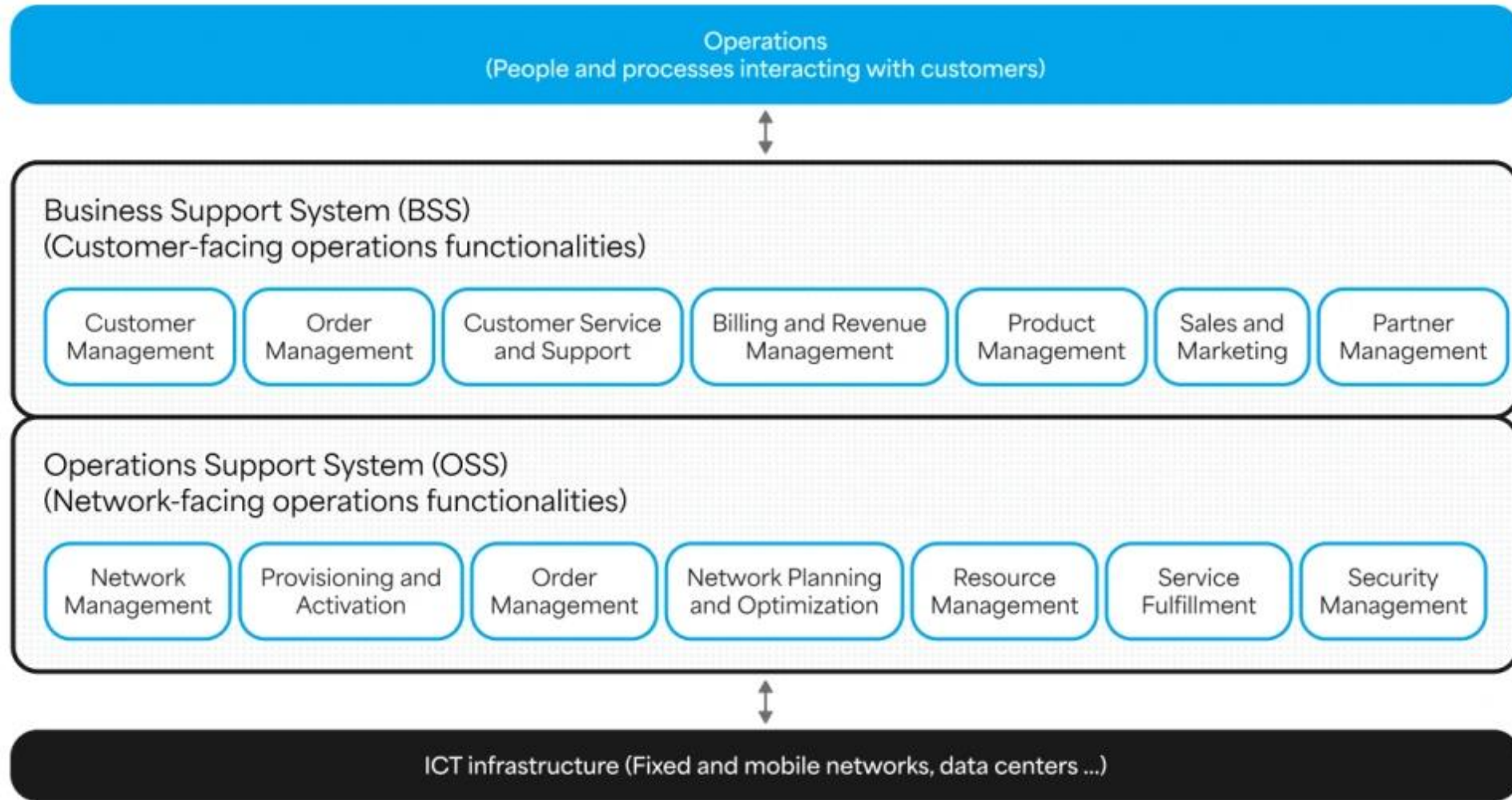
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Business Support Systems (BSS) are crucial for CSPs as they handle customer-facing activities. BSS includes:

- **Customer Relationship Management (CRM):** Handling customer interactions and maintaining data accuracy.
- **Order Management:** Handling customer orders from initiation to fulfilment.
- **Billing:** Generating invoices and managing payments.
- **Revenue Management:** Ensuring accurate revenue collection and preventing revenue leakage.



# Traditional view of OSS and BSS



Source: [UMBOSS](#)

# The Importance of OSS and BSS

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OSS and BSS enable CSPs to deliver reliable services and maintain strong customer relationships.

## Why OSS Matters:

- **Network Efficiency:** OSS helps CSPs monitor, control, and analyse their network operations, ensuring everything runs smoothly and efficiently.
- **Service Quality:** By managing faults, configurations, performance, and security, OSS ensures high-quality service delivery and quick resolution of issues.
- **Operational Automation:** OSS automates many operational tasks, reducing manual intervention and the risk of errors.

## Why BSS Matters:

- **Customer Management:** BSS handles all customer-facing activities, from managing customer data and interactions to handling orders and billing.
- **Revenue Assurance:** BSS ensures accurate billing and revenue collection, preventing revenue leakage and ensuring financial stability.
- **Enhanced Customer Experience:** By efficiently managing customer relationships and services, BSS helps CSPs provide a better customer experience, which is crucial for customer retention and satisfaction.

# References & Further Reading

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- Fundamentals of EMS, NMS and OSS/BSS by Jithesh Sathyan
- ITU-T Recommendation M.3400 : TMN management functions ([link](#))
- UMBOSS Blog: What is OSS (Operational Support System)? ([link](#))
- Telecoms.com: The evolution of BSS and OSS in the telecoms sector ([link](#))

# Thank You

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

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

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