


PLMN Infographic

Understanding Public Land Mobile Network (PLMN)

A concise, mobile-first infographic that explains what PLMNs are, how they're built, where they're used, and why they matter.


- Cellular
- Core
- Subscriber
- Services

Definition

 **Public Land Mobile Network** PLMN

A PLMN is a public cellular network operated by a carrier that provides mobile services (voice, messaging, data) to subscribers using standardized technologies (e.g., 4G/5G). Each PLMN is uniquely identified by a Mobile Country Code (MCC) and Mobile Network Code (MNC).

Identifier

 **MCC-MNC (e.g., 310-260)**

Defines the unique PLMN a device attaches to.

Components



Radio Access Network (RAN)

Base stations and antennas connect devices to the network (eNodeB/gNodeB).



Core Network

Controls sessions, mobility, authentication, and routes traffic (EPC/5GC).



Subscriber Management

SIM/eSIM, HSS/UDM, and policy systems identify users and enforce plans.



Service Platforms

Voice, messaging, and data services; exposure APIs and edge compute.



Transport

Backhaul and core interconnects linking sites, data centers, and the internet.

Tip: Think of a PLMN as "towers + brain + subscriber records + services," glued by transport.

Use Cases



Consumer Mobile

Voice, SMS, and data for smartphones and tablets.



Connected Vehicles

Telematics, infotainment, and OTA updates.



Industry & IoT

Sensors, robotics, and private network interconnects.



Public Safety

Mission-critical push-to-talk and priority services.



Illustrative coverage footprint where devices attach to a PLMN.

Benefits



Secure & Trusted

Standards-based authentication (SIM/eSIM) and encrypted access.



Wide Coverage

Nationwide reach with seamless mobility and roaming.



Performance

Broadband 4G/5G capacity, low latency options, and QoS control.



Service Variety

Voice, messaging, data, IoT slices, and edge services.

All visuals are simplified; rely on text labels for accessibility and print clarity.

[Download PDF](#)[Share](#)[Infographic](#)[Components](#)[Coverage](#)[Share](#)