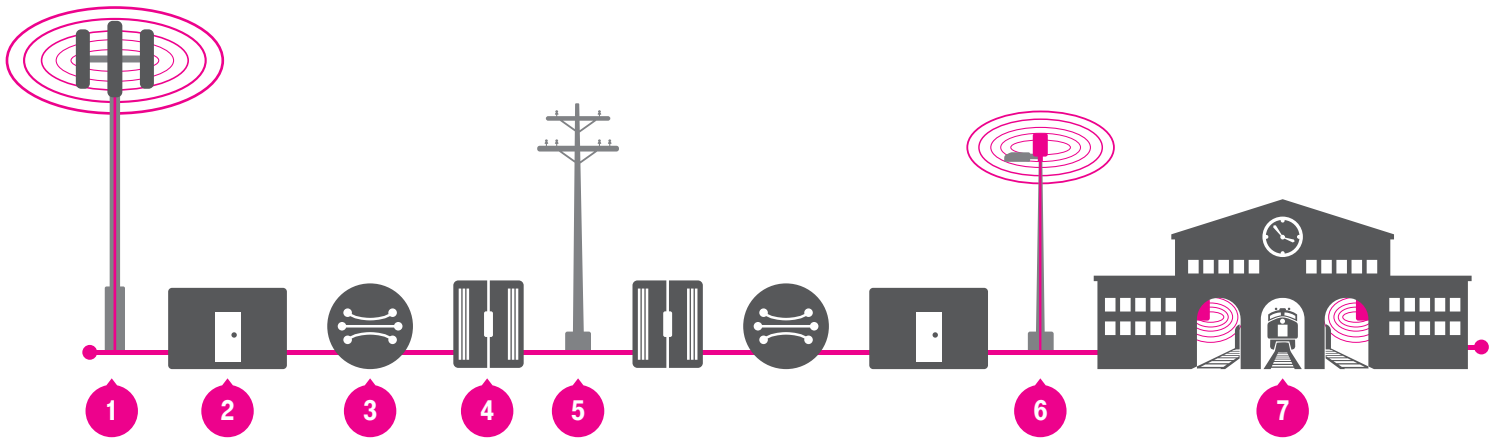


# ANATOMY OF A NETWORK

Billions of calls, texts, videos & connections handled by billions of pieces of technology.



## 1 MACRO ANTENNA SITES

Traditional macro sites are installed on rooftops, building facades, monopoles and other structures. This provides coverage over a broad area, while handling capacity demands from many mobile device users.

## 3 BACKHAUL

High-speed connectivity from cell sites back to the core telecommunications network is called “backhaul.” Fiber optic cable is the fastest technology. When sending signals over long distances, we may use microwave transmissions.

## 5 PUBLIC TELEPHONE NETWORK

Plain Old Telephone Service (POTS) refers to all the voice-oriented public telephone networks, both commercial and government-operated. Telephone calls from mobile phones are routed onto the POTS via the switch.

## 7 INDOOR SMALL CELLS

As mobile devices replace land lines, offices, stadiums, and retail buildings must have indoor wireless networks. Small cells help distribute radio signals throughout the building.

## 2 BASE STATION

Base stations house radio transceivers and amplifiers that provide linkage to the site's antennas and to the high-speed connections (usually fiber optic cable) back to the core telecommunications network.

## 4 SWITCH

Switches channel data and send information to its destination. Circuit-switching (used for voice connections) creates a dedicated path between callers. Packet-switching (used for data) sends a message concurrently to all network users.

## 6 OUTDOOR SMALL CELLS

Small cells are miniature versions of traditional cell sites. These self-contained sites add network capacity while being lightweight and low power. They're simply mounted, connected to a power source, and to fiber connections as an extension of the macro network.

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