



TÉRAL RESEARCH
— WIRELESS INDUSTRY ANALYSIS —



3Q23 WIRELESS INFRASTRUCTURE – NOVEMBER 2023

Quarterly Update – 2G/3G/4G/5G Radio Access & Core Networks

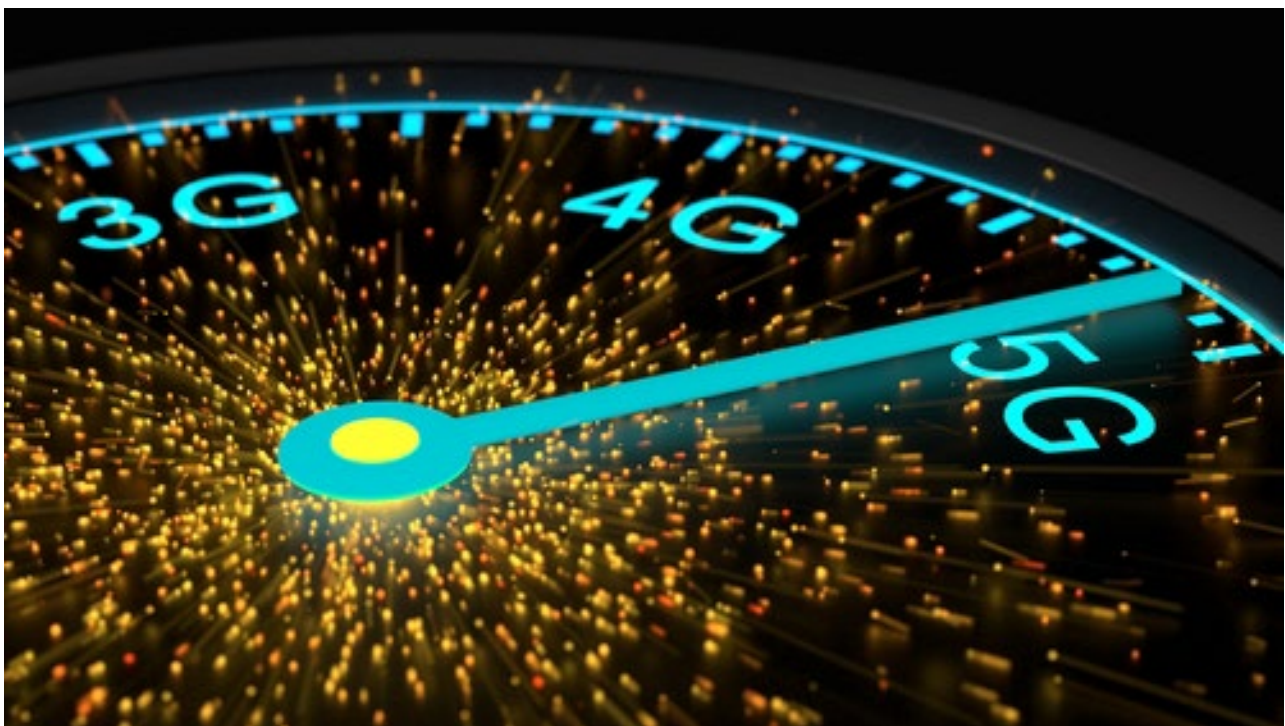


Table of Contents

ABSTRACT3

KEY TAKEAWAYS: THE FUNK GOES ON AND ON.....4

ONCE AGAIN, NO SURPRISE: 3Q23 IS DOWN BOTH YOY AND QOQ.....5

THE VIBRANT SECONDHAND MARKET FOR 4G AND 5G EQUIPMENT COMING FROM THE REMOVAL OF THE CHINESE VENDORS BANNED IN SPECIFIC COUNTRIES IS NOT HELPING EITHER..... 5

With Germany gearing up to remove Huawei’s 5G equipment, we expect another cycle of used kits to flood the secondhand market sometime in 2024-2025..... 5

HERE IS THE BRIGHT SPOT: TOGETHER, CHINA AND INDIA DEPLOYED 362,632 5G BTS IN 3Q23!..... 6

5G CORE AND OPEN RAN ARE THE ONLY 2 CATEGORIES THAT GREW YOY 6

EVEN WITH A SLOWER PACE OF ROLLOUTS, 5G REMAINS THE BRIGHT SPOT..... 7

As mentioned in the previous 5G core section, a faster migration to SA is greatly desired..... 7

The potential for LTE-A and VoLTE upgrades remains phenomenal..... 7

The need for IMS has never been greater, what’s wrong with voice? 8

The need for new EPC is vanishing but capacity expansion continues..... 8

HUAWEI KEPT ITS LEAD BUT ERICSSON GAINED SHARE 8

*For RAN market share, Huawei and Ericsson stay neck and neck, and Nokia falls by 2 percentage points ...*12

IN CORE NETWORKS, THE BULK OF 5G CORE SALES AGAIN CAME FROM CHINA IN 3Q23: HUAWEI AND ZTE COMBINED COMMAND A 62% MARKET SHARE12

The prolonged slow migration to 5G SA continues to hinder 5G core sales.....13

There is a huge disconnect between what Ericsson reports and the reality.....13

In 4G core, Huawei maintained its lead, followed by Ericsson14

Gaining or keeping market share in the EPC/vEPC market is a tough balancing act.....15

WE HAVE PASSED THE PEAK AND WE HAVE ENTERED THE DISINVESTMENT CYCLE, 2023 WILL BE ITS SECOND YEAR 16

HOWEVER, LIKE 4G, 5G WILL HAVE A LONG TAIL16

2022 ENDED 4% BELOW OUR 3Q22 UPDATED FORECAST17

VERY LOW 3Q23 NUMBERS TRIGGERED A DOWNWARD REVISION FOR OUR SHORT-TERM FORECAST.....17

As we don’t foresee any improvement in 4Q23 and 1H24, our model lowered the forecast for 2023.....18

OUR LONG-TERM WIRELESS INFRASTRUCTURE MARKET FORECAST POINTS TO A DECLINING TREND 19

OPEN RAN WILL CONTINUE ITS SLOW ASCENSION AND WILL LIKELY PASS THE \$1.5B BAR THIS YEAR20

Ironically, geopolitics fueled both the open RAN ecosystem and traditional 5G RAN rollouts led by Ericsson, Nokia, and Samsung21

HOME TO THE WORLD’S LARGEST WIRELESS NETWORK FOOTPRINTS, ASIA PACIFIC WILL REMAIN THE LARGEST MARKET.....23

NORTH AMERICA WILL REMAIN THE WORLD’S SECOND LARGEST WIRELESS INFRASTRUCTURE MARKET AFTER ASIA PACIFIC 24

EMEA’S 5G WILL REMAIN FLAT THROUGH 202425

AND CALA IS BOUNCING BACK WITH STRONG GROWTH AHEAD26

Abstract

This report analyzes the 3Q23 wireless infrastructure market worldwide and covers 2G, 3G, 4G and 5G radio access network (RAN) and core network nodes. It presents historical data from 2016 to 2022, quarterly market size and vendor market shares, and a detailed market forecast through 2028 for 2G/3G/4G/5G RAN, including Open vRAN, and core networks (EPC, vEPC, and 5GC), for each region (North America, Europe Middle East Africa, Asia Pacific, Caribbean Latin America). The historical data accounts for the sales of more than 30 wireless infrastructure vendors, including a few vendors that shared confidential sales data with LightCounting/TÉRAL RESEARCH. The market forecast is based on a model correlating wireless infrastructure vendor sales with 20 years of service provider network rollout pattern analysis, and upgrade and expansion plans.