



# Wireless Infrastructure Market Research

Publications • Calendar • Subscriptions

# 2023

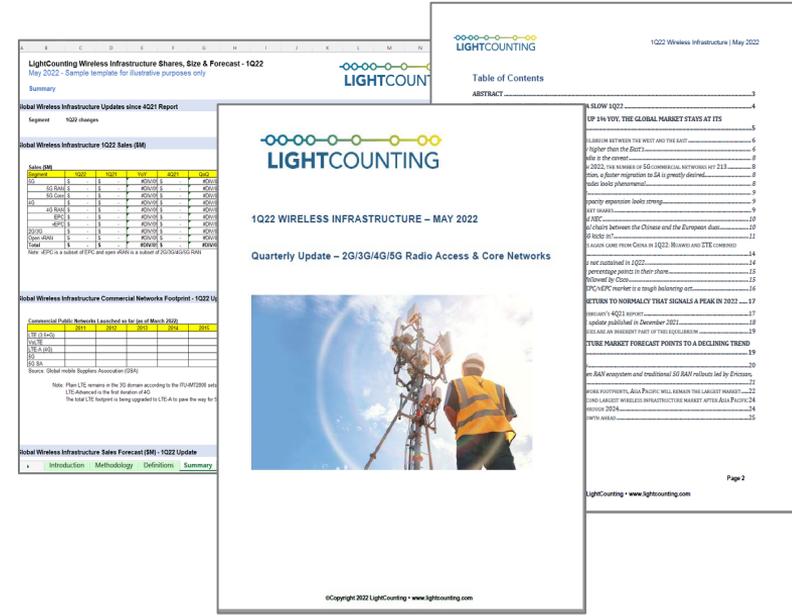


- Publication Dates
- Report Descriptions
- Subscription Options

LightCounting Wireless Infrastructure reports and services are designed to help executives plan and run their businesses. We support decision making based on facts and data with realistic projections.

Our research covers the global telecommunications industry as well as regional markets such as China and Japan.

This brochure summarizes our publications covering the wireless infrastructure: in-depth analysis of the markets for **radio access, core, network automation, and network disaggregation.**



# 2023 Research Publication Calendar



Report	Description	Date
Wireless Infrastructure 4Q22 & FY22	2G/3G/4G/5G RAN and core market size, vendor market shares, regional 5-year forecasts	February 23
Open vRAN	Ecosystem analysis, market size, vendor market shares, regional 5-year forecasts	March 30
Japan Wireless Infrastructure	Economic impact, wireless market size, vendor market shares, 5-year forecasts	April 27
Wireless Infrastructure 1Q23	2G/3G/4G/5G RAN and core market size, vendor market shares, regional 5-year forecasts	May 25
5G Core and Service-based Architecture	Ecosystem analysis, market size, vendor market shares, 5-year forecasts by network function	June 29
Telecom Network Transformation Report	Impact of 5G and cloud services on transformation of telecom networks	June
China Wireless Infrastructure	Economic & geopolitical impact, wireless market size, vendor market shares, 5-year forecasts	July 27
Wireless Infrastructure 2Q23	2G/3G/4G/5G RAN and core market size, vendor market shares, regional 5-year forecasts	August 24
Open vRAN	Ecosystem analysis, market size, vendor market shares, regional 5-year forecasts	September 14
NEW: India Wireless Infrastructure	Wireless market size, vendor market shares, 5-year forecasts	September 28
Network Automation: SON, RIC, SMO	Ecosystem analysis, market size, vendor market shares, regional 5-year forecasts	October 26
Wireless Infrastructure 3Q23	2G/3G/4G/5G RAN and core market size, vendor market shares, regional 5-year forecasts	November 30
Disaggregated Cell Site Gateways (DCSG)	Ecosystem analysis, market size, vendor market shares, regional 5-year forecasts	December 14
<i>Stéphane Téral's Perspectives</i>	<i>Fact-based opinions and insights about key industry shifts and events</i>	<i>Ongoing</i>

# Wireless Infrastructure Market

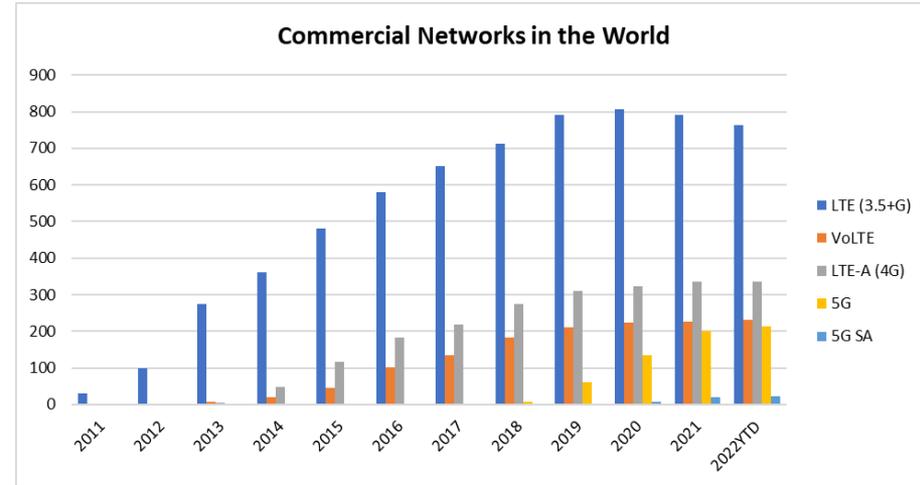
**FREQUENCY: QUARTERLY**

**DATES: FEBRUARY 23, MAY 25, AUGUST 24, NOVEMBER 30**



Every quarter, this report analyzes the wireless infrastructure market and covers 5G radio access network (RAN) and 5G Core, 4G RAN and EPC/vEPC, 2G/3G, and Open vRAN. It presents historical revenue and unit data from 2016 to 2022, quarterly market size and vendor market shares, and detailed market forecasts through 2028 for 2G/3G/4G/5G RAN, including Open vRAN, and core networks (EPC, vEPC, 5GC), for each region (North America, Europe Middle East Africa, Asia Pacific, Caribbean Latin America).

The historical data accounts for sales of more than 30 wireless infrastructure vendors, including a few vendors that share confidential sales data with LightCounting. The market forecast is based on a model correlating wireless infrastructure vendor sales with 20 years of service provider network rollout patterns analysis, upgrades and expansion plans.



**COMPANIES INCLUDED: CISCO, ERICSSON, FUJITSU, HUAWEI, MAVENIR, NEC, NOKIA, SAMSUNG, ZTE**

# Open vRAN Market

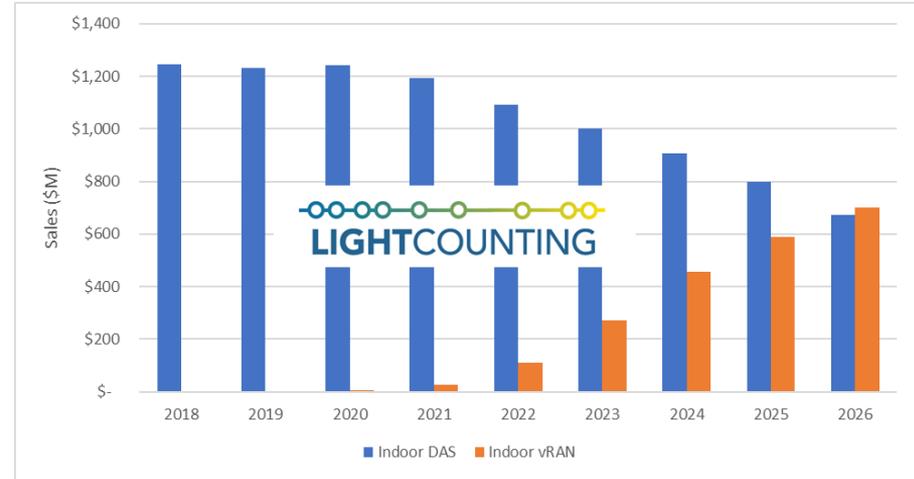
**FREQUENCY: BI-ANNUAL**

**DATE: MARCH 30, SEPTEMBER 14**



This report takes a deep dive into the virtualization of radio access networks (vRAN) and open RAN/vRAN. It analyzes the various schools of thought ranging from the virtualization of RAN functions to new open RAN architectures developed and proposed by the Telecom Infrastructure Project (TIP) initiative and the O-RAN Alliance, designed to cut the dependency on proprietary RAN equipment supplied by the traditional vendors.

Open vRAN market size and forecasts are derived from our existing quarterly RAN size and forecasts and broken down by 2G/3G/4G versus 5G Open vRAN, as well as by vCU, vDU, and RU, for each region, and looks at the potential for indoor DAS replacement. The report covers a wide emerging ecosystem of vendors.



**COMPANIES INCLUDED: AIRSPAN, ALTRAN, ALTIOSTAR, COBHAM WIRELESS, COMMSCOPE, CORNING, DELL, ERICSSON, FUJITSU, INTEL, GIGATERA, HPE, JMA WIRELESS, MARVELL, MAVENIR, MOVANDI, NOKIA, NEC, PARALLEL WIRELESS, QUALCOMM, SAMSUNG, SOLID TECHNOLOGIES**

# 5G Core & Service-based Architecture (SBA)

**FREQUENCY: ANNUAL**

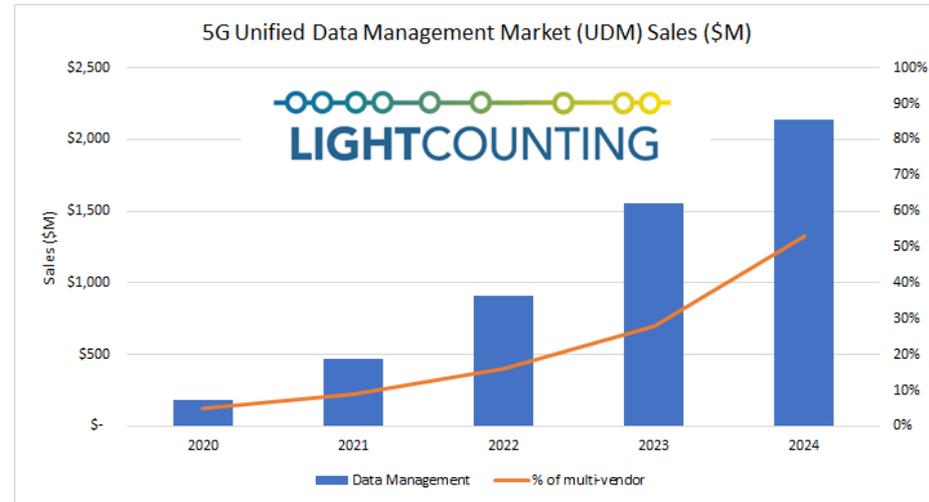
**DATE: JUNE 29**



As 5G goes far beyond mobile and will eventually become THE network that bridges all networks, a new sophisticated service-based architecture (SBA) is being designed by the 3GPP. Although many of the network functions (NFs) featured in the SBA come from existing ones currently active in 2G/3G and 4G networks, novel ones such as the network slice selection function (NSSF) are being introduced and launched.

Based on a service provider survey and discussions with many vendors, this report analyzes several of the 5G core SBA network functions and provides global and regional market size and forecasts, for the most imminent NFs to be implemented (UDM, UDR, AUSF, and PCF, BSF, CHF) the report provides market size and forecasts by region and includes global vendor market shares.

**COMPANIES INCLUDED: ALEPO, AMDOCS, CISCO, COMPUTARIS, CSG, DIGITALROUTE, ENEA, ERICSSON, FTS, HPE, HANSEN, HUAWEI, IBM, INTRACOM TELECOM, MAGNAQUEST, MAHINDRA COMVIVA, MATRIX, MAVENIR, MICROSOFT AZURE, NEC, NEXIGN, NOKIA, OPENET, OPTIVA, ORACLE, POLARIS NETWORKS, PROTEI, SAMSUNG, ZTE**



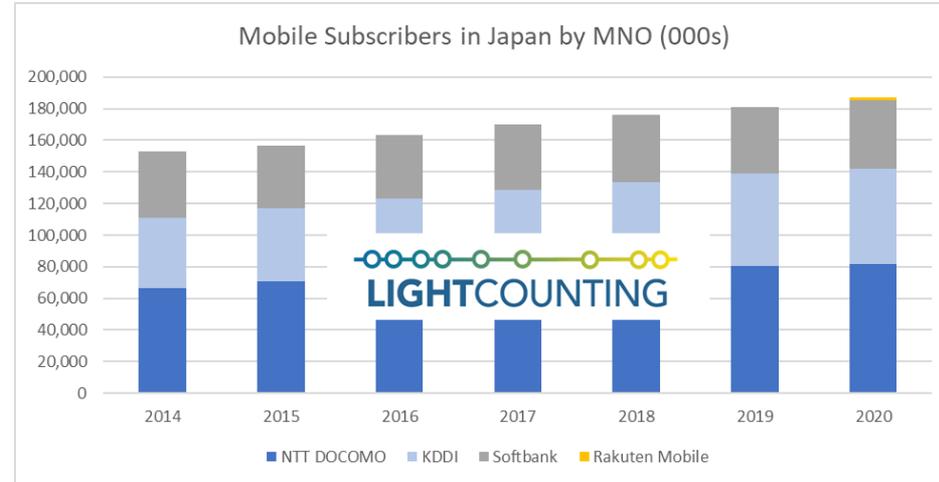
# Japan Wireless Infrastructure

**FREQUENCY: ANNUAL**

**DATE: APRIL 27**



A subset of our quarterly wireless infrastructure update, this report focuses on Japan's mobile market and analyzes the implications of the introduction of Rakuten Mobile and the Japanese government's open RAN push. The publication date is scheduled a few weeks after the 4 services providers (e.g., KDDI, NTT DOCOMO, Rakuten Mobile, and Softbank) provide their interim report so that we can gather many details about 2022 and provide a 2023 outlook, a 5-year RAN forecast, and a 3-year capex outlook. This report includes service provider capex, base station (BTS) units, subscriber numbers and RAN vendor market shares and analysis.



**COMPANIES INCLUDED: ALTIOSTAR/RAKUTEN SYMPHONY, ERICSSON, FUJITSU, HUAWEI, NEC, NOKIA, SAMSUNG, ZTE**

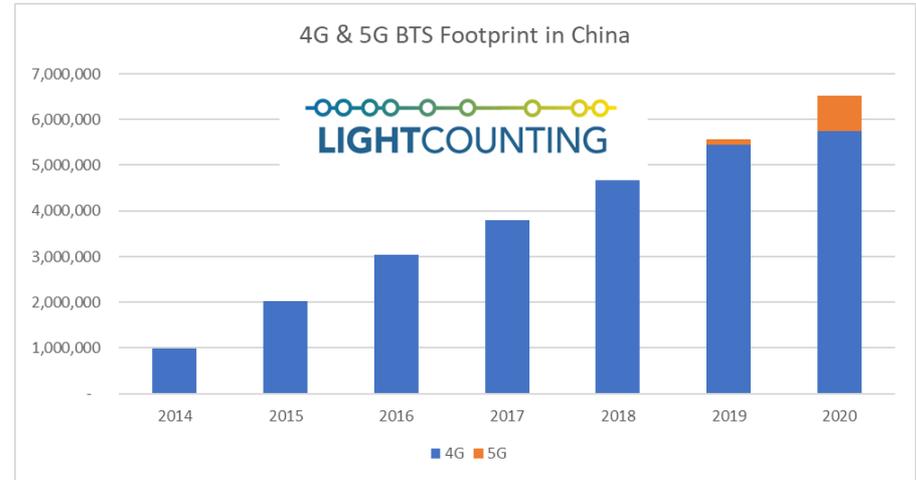
# China Wireless Infrastructure

**FREQUENCY: ANNUAL**

**DATE: JULY 27**



A subset of our quarterly wireless infrastructure update, this report focuses on 5G developments in China, including macroeconomics, geopolitics, and technology. The publication date is scheduled a few weeks after the 4 services providers (China Broadcasting Network, China Mobile, China Telecom, China Unicom) provide their interim report so that we can gather many details about 2022, 1H23 and provide a 2023 outlook and a 5-year forecast. This report includes service provider capex, base station (BTS) units, subscriber numbers and RAN vendor market shares and analysis.



**COMPANIES INCLUDED: CHINA INFORMATION AND COMMUNICATION TECHNOLOGIES GROUP (CICT), ERICSSON, HUAWEI, NOKIA, SUNWAVE, ZTE**

# India Wireless Infrastructure

**FREQUENCY: ANNUAL**

**DATE: SEPTEMBER 28**



A subset of our quarterly wireless infrastructure update, this report focuses on 5G developments in India, including macroeconomics, geopolitics, and technology. The publication date is scheduled a few weeks after the 4 services providers (Bharti Airtel, BSNL, Reliance Jio, and V! [Vodafone Idea]) provide their interim report so that we can gather many details about 2022, 1H23 and provide a 2023 outlook and a 5-year forecast. This report includes service provider capex, base station (BTS) units, subscriber numbers and RAN vendor market shares and analysis.



**COMPANIES INCLUDED: C-DOT, ERICSSON, JIO'S RADISYS, HUAWEI, MAVENIR, NOKIA, SAMSUNG, VVDN TECHNOLOGIES, WISIG NETWORKS, ZTE**

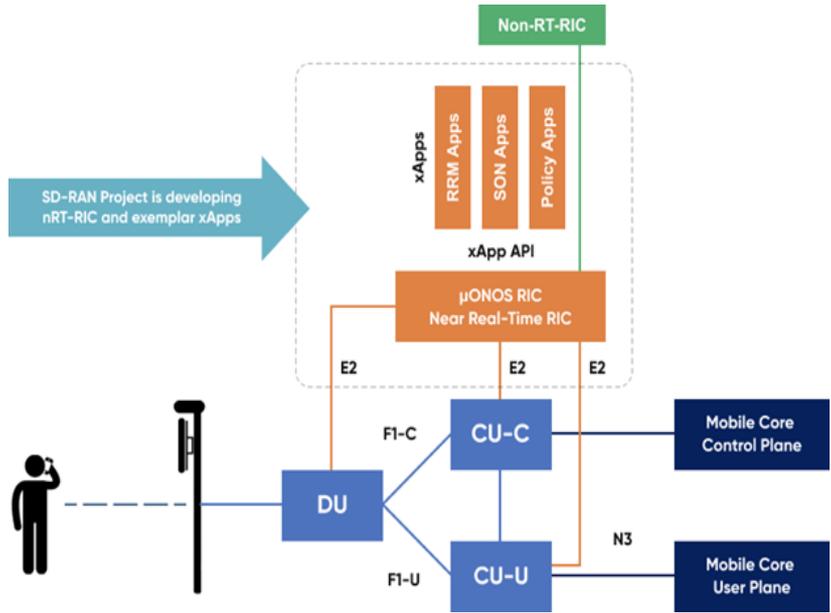
# Network Automation: SON, RIC, SMO

**FREQUENCY: ANNUAL**

**DATE: OCTOBER 26**

Defined by 3GPP at the beginning of this century, SON (self-organizing network) algorithms configure and optimize mobile networks automatically without human interaction. As networks handle vast amounts of traffic and become more and more complex through the addition of several generations, SON algorithms are blended with machine learning (ML) and artificial intelligence (AI). This report tracks the centralized SON (C-SON) software and services revenue market, provides size, forecast and vendor market shares, and analyzes the evolution of C-SON modules and use cases that are becoming RAN Intelligent Controller (RIC) and the rApps/xApps needed in open virtual RAN and software-defined RAN (SD-RAN) architectures. This report also tracks the O-RAN defined service management and orchestration (SMO) market.

**COMPANIES INCLUDED: AIRHOP COMMUNICATIONS, ALTRAN, CELLWIZE/QUALCOMM, CONTINUAL, ERICSSON, HCL TECHNOLOGIES, HUAWEI, INNOVILE, NOKIA, P.I. WORKS, VMWARE**



# Disaggregated Cell Site Gateways (DCSG)

**FREQUENCY: ANNUAL**

**DATE: DECEMBER 14**

This report explores the emergence of the Disaggregated Cell Site Gateways (DCSG) market. DCSG are white-box cell site gateways or routers based on an open and disaggregated architecture for existing 2G/3G/4G and future 5G network architectures. The report analyzes DCSG architectures and implementations, including its emerging ecosystem, and tracks white box hardware units and sales, and software sales, all broken down by regions (North America, Europe Middle East Africa, Asia Pacific, and Caribbean Latin America). It includes the total number of cell sites worldwide and a 5-year forecast. As this market is just emerging, it is too early to publish vendor market shares.

### Software

ADVA™, ALTRAN now Capgemini, ARRCUS NETWORK DIFFERENT, Aviat NETWORKS, ciena, DELL Technologies, DATACOM, DRIVENETS, exaware, Microsoft, Niral NETWORKS, Infinera™, ipinfusion

### Hardware

ALPHA, DELTA, Edge-core NETWORKS, DELL Technologies, Infinera™, ufiSpace

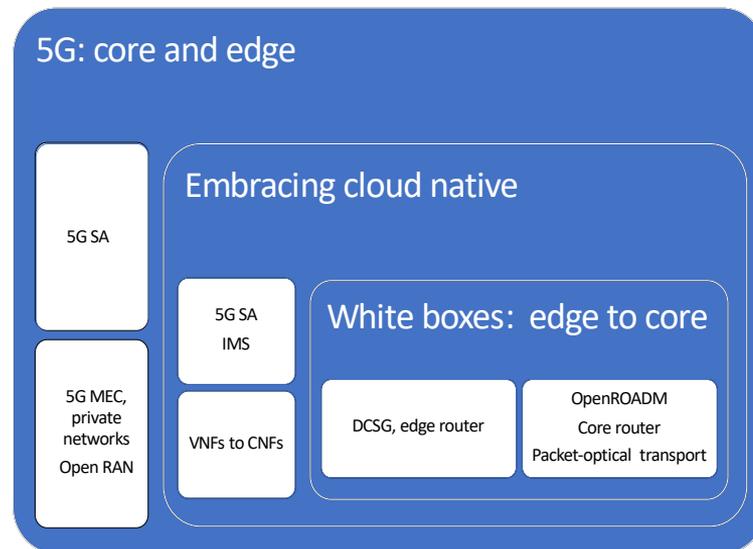
**COMPANIES INCLUDED: ADVA, ALTRAN, ALPHA NETWORKS, ARRCUS, AVIAT NETWORKS & METASWITCH (MICROSOFT), DATACOM, DELL TECHNOLOGIES, DELTA ELECTRONICS, DRIVENETS, EDGECORE, EXAWARE, IP INFUSION, INFINERA, NIRAL NETWORKS, PUREPORT, UFISPACE**

# Telecom Network Transformation

**FREQUENCY: ANNUAL**  
**DATE: JUNE**

Embracing cloud technologies represents a key inflection point for communications service providers (CSPs) as they change how they build and operate their networks. Instead of working with select systems vendors for individual service introductions and network upgrades, the CSPs are turning to software, network disaggregation and even white-box hardware to make their networks open and software-defined.

Another consequence of disaggregation and the software-defined network is the internet content providers' (ICPs) growing role in telecoms. Amazon Web Services, Microsoft Azure and Google Cloud all recognize the opportunity telecoms represent and are partnering with the CSPs as both expand their cloud footprints at the network edge.



**COMPANIES PROFILED: AT&T, BT, CHINA MOBILE, CHINA TELECOM, CHINA UNICOM, COMCAST, DEUTSCHE TELEKOM, KDDI, NTT, ORANGE, SOFTBANK, TELECOM ITALIA, TELEFONICA, VODAFONE, VERIZON**

# Stéphane Téral's Perspectives

FREQUENCY: ONGOING



As this decade starts in a fast-growing 5G world, you cannot afford to miss a piece of this revolution that is expected to change many aspects of our lives.

Stay on top of everything with timely eye-catching insightful entertaining opinion pieces of critical analysis on the events and news that telecom professionals should be aware of and pay attention to.

In the form of short yet straight to the point research notes, we unabatedly inform, inspire and provoke while being honest, fearless and startlingly original.

## Stéphane Téral's Perspective analyst notes published during 2022:

- *Tackling Disaggregation, 6G and Green at NGMN IC&E 2022*
- *How ZTE's RIS fixes millimeter waves' flimsy propagation*
- *Qualcomm's "not-so-wize" Investment in Cellwize*
- *Verizon's 5G Failed to Propel the Suns to the NBAWC Finals*
- *Qualcomm aces its Wireless Infrastructure re-entry*
- *Layer123 Reunion Congress: ETSI ZSM takes Centerstage with Nokia and Telefónica*
- *MWC22: How Rakuten Symphony Stole the Show and the Innovation Driver's Seat*
- *5G Capacity & Load Balancing*
- *The 5G Money is in your Pocket!*
- *Checking 2021 Predictions and Making Some for 2022*

# SUBSCRIPTION PACKAGES



LightCounting offers six subscription packages — **Platinum Plus, Platinum, Gold Plus, Gold, Silver and Bronze**

Make headway — subscribe to ***Stéphane Téral's Perspectives***

**2023 Wireless Infrastructure** publication calendar includes 7 annual reports, 2 bi-annual reports, and 4 quarterly market reports. In addition to these reports, subscribers receive bonus a live webinar presentation highlighting findings from a report (within two weeks after the publication date), unlimited analyst inquiries (access to analyst for further information, discussion and insights), and access to at least 8 research notes from ***Stéphane Téral's Perspectives*** during the calendar year.

Find out all details about the subscription options:

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THE NAME ALONE IS WHAT SETS US APART AND WHAT DEFINES US AS A COMPANY.

Nineteen years ago, LightCounting began with an analyst team focused on research for high-speed interconnects for the datacom, telecom, and consumer communications markets. From that time our research team has grown to cover the whole supply chain supporting Optical Networks and Datacenters. In early 2020, we added coverage of the global Wireless Infrastructure market as well. We have been defining and refining the market intelligence mix ever since, to offer our clients a unique perspective on the industry landscape ahead and a clear roadmap to navigate it with.

THAT'S OUR MARKET INTELLIGENCE. THAT'S HOW IT HELPS OUR CLIENTS GROW.