

## **DISAGGREGATED CELL SITE GATEWAYS – DECEMBER 2022**

## DISAGGREGATION CROSSES A WINDING ROAD BUT WILL EVENTUALLY HAPPEN!





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AS TELECOM NETWORK ELEMENT DISAGGREGATION IS À L'ORDRE DU JOUR, THE CELL SITE GATEWAY IS NO EXCEPTION	5
META, TELEFÓNICA AND VODAFONE HAVE BEEN AND REMAIN THE MAJOR DRIVING DISAGGREGATION FORCE	5
But the market needs more CSPs to take the plunge and create a viable DCSG market	6
In many places in the world, the DCSG can't beat the CSG!	6
A reminder, this report solely focuses on cell site gateways, the backhaul section of telecom transpor networks	
Some say cell site gateway, other say router; our research indicates CSG have routing capabilities an	ID FIT
THE ROUTER BILL	7
These CSGs reside between the RAN and the aggregation router	7
Calling a DCSG a white box is an unambiguous strong statement	8
At some point, aggregation and core routers will be next	
Tiers 1 CSPs support and through TIP, drive the disaggregation journey	
The elimination of vendor lock in and the abundance of NOS software are the chief DCSG drivers	10
In addition, for European CSPs, the need to find hardware alternatives to Chinese vendors was a sec	6
driver	
IN THIS EMERGING DCSG ECOSYSTEM, NOS SOFTWARE SUPPLIERS ARE BOTH MUSHROOMING AND CONSOLIDATING	
But no worries, NOS suppliers keep the handful of hardware specialists busy	
Whatch out NOS suppliers, software too can be disaggregated	
So far, the Traditional telecom vendor establishment remains unfazed	
With its Silicon One and IOS XR7 launched in December 2019, Cisco maintains its lead	
Forget the hardware, software is king	
However, all agree that with 5G reaching critical mass, the viability of the DCSG remains to be prove	
RAN architecture and topology and 5G use cases are the key factors for consideration	
Ericsson neither envisions routing functionality at the gNB nor at the cell site	
3GPP Rel. 16 features IAB, a new backhaul concept that eliminates the need for CSGs/CSRs	
Compared to 4G, 5G mmWave is a CSG/CSR game changer	
And at the end of the day, the more disaggregation, the more integration	
Cisco says a majority of its router customer base will stick with the fully integrated model	
The nascent DCSG market is slowly taking off, from $45M$ in $2022$ to half a billion dollars in $2027$	
2022 is a carbon copy of 2021, leading to flatness at best	
The long-term forecast is looking up	
DCSG unit volumes are ramping up to account for 15% of the worldwide existing footprint, excluding	
The notable absence of China makes the worldwide market more balanced across regions	
CSG replacement will remain predominant throughout the forecast period	
Once 5G becomes ubiquitous, densification will trigger a phase of new DCSG addition	
But ultimately, 5G use cases will dictate the DCSG addition rate	22



## Abstract

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 including 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.