

5G CORE & SERVICE-BASED ARCHITECTURE – JULY 2022

WORSENING GLOBAL UNCERTAINTIES AND THE LACK OF 5G BUSINESS CASES BEYOND MOBILE BROADBAND CONTINUE TO CRIPPLE THE MIGRATION TO STANDALONE MODE





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THE LACK OF 5G BUSINESS CASES BEYOND MOBILE BROADBAND CONTINUES TO DIVIDE THE 5G WORLD: CHINA VS. THE REST	
FROM 20 5GC SBA NETWORKS TO JUST 24 IN 1H22	
Although disappointing, there is no shortage of 5G SA activity	7
CHINA ALONE ACCOUNTED FOR 65% OF THE TOTAL 5GC SBA MARKET IN 2021	
China is ahead of the network slicing game	
HOWEVER, THE 5GC SBA ROLLOUT PLAYBOOK IS UNIVERSAL	
In 5G core, NRF, NEF, and NSSF kept CSPs busy	
In 5G Data Management, we found 3 distinct approaches to implement UDM	
And interworking between 4G and 5G is the most challenging part of UDM rollout	
But overall, CSPs tend to stick with their traditional mobile packet core vendors	
As expected, China sustained the predominance of Huawei and ZTE, which shrunk in 2021	
Overall, the usual 5GC suspects launched their platforms around 2020	
Huawei continues to rule the 5GC SBA world, at least for now	
ZTE comes in second for 5GC SBA sales market share	
Meanwhile, Ericsson has the highest number of 5GC SBA contracts worldwide	
With its core platform, Nokia comes second in 5GC SBA contracts	
LITTLE HAS CHANGED, LACK OF BUSINESS CASES AND NETWORK ARCHITECTURE ISSUES CONTINUE TO INHIBIT 5 GC SB	
ROLLOUTS	
Stuck in MBB land, the monetization of 5G use cases is a chief business challenge	
Like with LTE 10 years ago, a gain in spectral efficiencies is the 5G killer app so far!	
Meanwhile, there is light at the end of the tunnel: the rise of 5G private mobile networks	
The lack of clear 5G business cases leads CSPs to sweat their 4G core assets	
and delay the move to a cloud native-based architecture	
Crippled with legacy network elements, many CSPs are reluctant to enter the new SBA world	
And finally, global uncertainties may compound the listed issues all together, propeling cost efficience	
as the main driver to deploy 5GC SBA	17
BEARING IN MIND ALL THE FOREGOING, EVEN AFTER CUTTING OUR FORECAST, THE 5GC SBA	
MARKET WILL GROW AT SOLID DOUBLE DIGITS THROUGH 2027	
Fixed wireless access (FWA) is currently seen as the chief driver for 5GC SBA deployments	
All this means we're far from attacking the long tail of 5G use cases	
We are in operating region 1 (R1) and stuck in it for some time!	
Consequently, the ongoing slow migration to 5G SA prompted us to cut our initial forecast	
The nature of our model also contributed to the revisions	
5G CORE WILL CONTINUE TO MAKE THE BULK OF SALES THROUGH 2027	
ASIA PACIFIC WILL BE THE LARGEST MARKET THROUGHOUT THE FORECAST PERIOD	
THE MULTI-DOMAIN NATURE OF 5G CORE SBA BRINGS A BROAD RANGE OF VENDORS	



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Abstract

As 5G goes far beyond mobile and will eventually become the network that bridges all networks together, a new sophisticated service-based architecture (SBA) is being designed by the Third Generation Partnership Project (3GPP). Although many of the network functions featured in the 5G 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. Based on a service provider survey and discussions with many vendors, this report analyzes dozens of functions and then sizes and forecasts the 5G Core SBA market by focusing on the most imminent functions to be implemented by service providers in each region.