

VIRTUAL AND OPEN RADIO ACCESS NETWORKS – JUNE 2022

The skeptics and open RAN/vRAN detractors are wrong, open RAN/vRAN is a reality, and the end of the RAN world as we know it has begun





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Front runners Telefónica and Vodafone scaled down, after all	
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THE THORNY HUAWEI REMOVAL ISSUE THAT LED TO UNPRECEDENTED MULTINATIONAL COOPERATION IS THE POSITIVE	
FORCE	
For most of the world, the mission to ban the Chinese vendors is accomplished	
And international cooperation is at its best	
This also drove the creation of a flurry of regional and national initiatives	
All this led to a rapid expansion of a crowded open RAN ecosystem	
that also reshuffled the chipset landscape that has been all about Intel and its partners DELL, HPE a	
Supermicro	
BUT THE FAST 5G COMMERCIAL NETWORKS ROLLOUT CYCLE IS THE NEGATIVE FORCE	
And that evokes George Stigler's survivorship principle	
We expect the open RAN/vRAN market to experience the Stigler principle	
Consequently, consolidation is ramping up	
Ironically, the creation of Rakuten Symphony and Symworld gave birth to the world's largest open RA	
consolidator	
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Like last year, don't expect India to kick in this year for either 4G or 5G open RAN	
WE MAINTAIN OUR PREDICTION THAT THE "GLOBAL" SWITCH TO OPEN RAN WILL OCCUR BETWEEN 2023 AND 2025	29



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Consequently, we expect the global open vRAN market to account for 12.6% of the total RAN m 2027	
OPEN VRAN IS A STRONG CANDIDATE FOR INDOOR USE CASES IN GENERAL AND AS A DAS REPLACEMENT IN PARTICULAR	
CURRENT C-RAN-BASED DAS ARCHITECTURES OFFER PLENTY OF OPPORTUNITIES FOR OPEN VRAN UPGRADES In 2026, the indoor open vRAN/open DAS market will surpass indoor DAS The neutral host capability has been protecting the DAS market so far but open vRAN can kill is	32 t all together
Private wireless networks remain an open vRAN niche for now but 95% of large enterprise inst traditional RAN	
However, as DAS replacement shifts to smaller venues, open vRAN will eventually penetrate the at some point Indoor 5G coverage is the vRAN driving force	
The shift from DAS to C-RAN to open vRAN architecture is shaking the traditional DAS vendor e Interestingly enough, Airspan, Comba, and CommScope have become leading open RAN RU and suppliers	ecosystem.35 I antenna
In this DAS bucket, JMA Wireless is unique	



Abstract

This report takes a deep dive into the virtualization and disaggregation of radio access networks and analyzes the various schools of thoughts ranging from basic virtualization of RAN functions (vRAN) to new open architectures such as open RAN, following the TIP initiative and the O-RAN Alliance specifications, designed to cut the dependency on proprietary RAN equipment supplied by the traditional vendors. The vRAN segment is taken from our existing RAN size and forecasts and broken down by 2G/3G/4G versus 5G, as well as by vCU/vDU and RU for each region, and also looks at the potential for indoor DAS replacement. The report covers a wide emerging ecosystem of vendors.