



## JAPAN WIRELESS INFRASTRUCTURE FY22 – APRIL 2023

**Yokoso to the world's first open vRAN nation! Don't worry about dismal 5G rollouts, open vRAN is chugging along...**



## Table of Contents

<b>ABSTRACT .....</b>	<b>4</b>
<b>KEY TAKEAWAYS .....</b>	<b>5</b>
<b>2022 WAS GREAT FOR 4G BUT DISMAL FOR 5G; NEVER MIND, JAPAN'S RAN MARKET REMAINS VIBRANT AND IS LOOKING UP .....</b>	<b>6</b>
<i>As a result, Actual 5G units were 77% below our forecast.....</i>	6
<i>There is no strong motivation to invest in 5G .....</i>	7
<i>We believe the ongoing migration work to open virtual RAN is part of the equation .....</i>	7
<i>Open RAN BTS accounted for 46% of total units deployed in 2022.....</i>	7
<i>Fujitsu was the hardest hit, followed by NEC; the other vendors faired well in 2022.....</i>	8
<i>As predicted, Samsung gained 1 percentage point to end 2022 with 11% market share and continued its ascension in 2022.....</i>	8
<i>Ericsson is hanging in there .....</i>	9
<b>2023 IS LOOKING UP, 5G LOADED AND SHAPING UP AS THE PEAK.....</b>	<b>9</b>
<i>The MIC's roadmad leads to a peak followed by a huge drop.....</i>	11
<i>The Japanese government's initial 5G plan was published in April 2019.....</i>	11
<i>Outdoor 5G deployments will remain above 70% throughout the forecast period.....</i>	12
<b>OPEN VIRTUAL RAN HAS THE POTENTIAL TO ACCOUNT FOR 80% OF TOTAL 5G RAN UNITS BY 2028.....</b>	<b>13</b>
<i>The open vRAN ramp up is expected in 2025.....</i>	13
<i>The 4 service providers pointed out that the availability of the RAN intelligent controller (RIC) is fundamental for the success of open vRAN moving forward .....</i>	14
<i>Japan's open RAN-based 5G BTS configuration simplifies the counting process, it is site counting .....</i>	15
<i>Japan's 5G looks like 1 site = 1 CU (including the DU).....</i>	15
<b>JAPAN IS SHOWING THE WORLD WHAT A 5G OPEN VRAN ISLAND LOOKS LIKE... .....</b>	<b>16</b>
<b>OVER THE PAST 2 YEARS, RAKUTEN SYMPHONY QUICKLY EXPANDED AND STARTED TO CONQUER THE WORLD.....</b>	<b>17</b>
<i>The telecom world welcomes symworld, the nf app marketplace.....</i>	17
<i>Rakuten Symphony conquers the world.....</i>	18
<i>Qualcomm came to the 5G open ran massive mimo rescue.....</i>	19
<i>AT&amp;T turned to Rakuten Symphony for network planning help.....</i>	20
<i>Cisco brought its mobile, switching &amp; routing, and automation portfolio to Rakuten Symphony.....</i>	20
<i>Rakuten Symphony added robin.io to its quiver.....</i>	21
<i>Rakuten Symphony selected nokia's cloud native software as first symworld partner .....</i>	21
<i>Perhaps the icing on the cake? Ajit Pai joined the party.....</i>	22
<i>Lastly, Rakuten Symphony went to africa with MTN .....</i>	22
<b>...SO ARE FUJITSU AND NEC AS RU SUPPLIERS AND SI CHAMPIONS .....</b>	<b>22</b>
<b>KDDI AND NTT DOCOMO ARE DOING THEIR PART .....</b>	<b>23</b>
<i>In February 2022, KDDI successfully turned on the world's first 5G SA open vRAN site .....</i>	24
<i>In March 2022, NTT DOCOMO adopted the Rakuten Symphony playbook .....</i>	24
<i>DOCOMO's Shared Open Lab leverages its OREC initiatives.....</i>	25
<i>At MWC23, DOCOMO rebranded its OREC project OREX.....</i>	26

AND LASTLY, DOCOMO, KDDI, SOFTBANK AND RAKUTEN MOBILE FORMED OTIC TO COMBINE EFFORTS AND ACCELERATE OPEN RAN ADOPTION.....27

**2018 WAS THE YEAR JAPAN DECIDED TO SHAKE UP ITS OLIGOPOLISTIC MOBILE MARKET, WHICH KICKED OFF THE OPEN RAN AGENDA..... 28**

INFLUENCED BY THE U.S., THE JAPANESE GOVERNMENT QUICKLY ADOPTED THE OPEN RAN AGENDA.....28

...AND GIVING INCENTIVES TO FUJITSU AND NEC TO STRENGTHEN THEIR MARKET POSITION.....28

THE U.S. ALSO ASKED NTT AND NEC TO BE FOUNDING MEMBERS OF THE OPEN RAN POLICY COALITION .....29

AND NOW THE U.S. AND JAPAN ARE COLLABORATING ON MULTIPLE FRONTS, INCLUDING 6G.....29

## Abstract

This report focuses on Japan's wireless infrastructure 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 (KDDI, NTT DOCOMO, Rakuten Mobile, and Softbank) provide their interim report so that we can gather many details about 2022 and provide 2023 outlook, a 5-year RAN forecast, and a capex outlook. This report also includes subscriber and base station (BTS) numbers and RAN vendor market shares and analysis.