

## Japan, Other Countries Developing ‘Open Standards’ for 5G to Get Huawei Out of the Game

NTT DoCoMo Inc., Japan’s largest mobile phone operator, is at the center of a movement to forge ahead with “open standards” for 5G — the fifth generation of mobile communications system. The aim is to bring together different countries to build a low-cost communication network without Huawei technology.

The moves come against the background of the United States and Europe ramping up steps to eliminate the technology of Chinese telecom giant Huawei Technologies because of national security concerns. Currently, Huawei has the largest share of the global wireless base station market.

According to one senior DoCoMo executive, manufacturers are reviewing their diverse network formulae, and if they reach a consensus, “We will be able to improve our comparative position, coming close to Huawei on the cost front.” DoCoMo hopes it will provide an opportunity to globally expand the inclusion of Japanese firms’ base station equipment.

Manufacturers currently have different specifications for connecting components of telecom base stations. Once specifications are standardized, it will become possible to link devices manufactured by different companies. If procurement of the components from various makers becomes available under common standards, competition will be spurred among them, tending to bring costs down.

The initiative for open specifications is driven by mounting moves in the United States and Europe to get Huawei out of development of 5G technologies.

Thus far, Huawei’s 5G products are said to be of high quality and 20% to 30% cheaper than foreign alternatives — the reason many countries adopt its technology. However, it is not only the United States, vying with China over world hegemony, that has prohibited the use of Huawei products in national systems. The British government announced on July 14 its policy of removing Huawei products from the country’s 5G mobile telecom systems. France’s intentions to keep out Huawei have also become clear.

These developments have provided a boost for Japanese base station manufacturers, such as NEC Corp. and Fujitsu Ltd. Britain has asked the Japanese government for cooperation in creating its 5G wireless networks. If Japanese companies can meet the technological levels and cost efficiency being sought by Britain, they will have a chance in this market.

NEC and Fujitsu each have less than 1% of the global market for base stations, compared with about an 80% market share held by the big three of Huawei, Sweden’s Ericsson, and Finland’s Nokia combined. To play catch-up in the face of such a huge gap, Docomo must take a leading advocacy role.

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Referring to the initiative, NEC president Takashi Niino recently voiced his resolve to expand to 20% the share of the Japanese electronics giant in the global 5G base station market. “Opening the technology standards could be the last chance for us to be able to compete globally with foreign competitors,” he said.

## The O-RAN Alliance

To lead the way, DoCoMo will work on shareable specifications used in the development of 4G mobile base station equipment.

“Regarding openness, DoCoMo will work on creating its own specifications from the 4G stage. In 2018, we established an organization called ‘O-RAN’ with major mobile phones in the world such as AT&T in the United States, and started international standardization of specifications. Excluding Huawei, more than 200 companies participate in this group,” said one DoCoMo executive.

In 2018, DoCoMo, along with American provider AT&T and other major mobile operators around the world, established an organization called the O-RAN (Open Radio Access Network) Alliance. The group embarked on the task of working out unified international standards for the communications networks. More than 200 firms, excluding Huawei, are set to take part in the group.

A DoCoMo executive pointed out that the success of the O-RAN effort would hinge on “increasing the number of equipment manufacturers producing equipment that satisfies the unified global standards.” To bring down the cost for each device, it is vital that multiple manufacturers accelerate research and development, as well as the production and sales of each of the system’s components.

Manufacturers taking part in the O-RAN Alliance will set up facilities in as many countries as possible where product compliance with the open specifications can be verified and encourage wide participation in the production process, the DoCoMo official said.

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## 5 G基地局を共通仕様 ファーウェイ並みコストで日本勢復権へ

N T T ドコモが中心となり、第5世代（5 G）移動通信システムの通信網をめぐる、携帯電話基地局の機器を共通仕様にする「オープン化」を進めている。基地局でシェアトップ、中国の華為技術（ファーウェイ）を安全保障を理由に排除する動きが米欧で強まる中、華為抜きでも低コストな通信網が求められていることが背景にある。通信網の方式が見直されれば「コストで華為に引けをとらなくなる」（ドコモ幹部）見通しで、日本勢の採用が拡大する好機にもなる。

基地局を構成する機器同士を接続する際の仕様はメーカーごとに異なるが、仕様を共通化することで、複数のメーカーの機器を組み合わせることで接続することができる。多様なメーカーから調達が可能になれば、競争が進んでコストが下がりやすくなる。

オープン化への期待の背景には、米欧による華為排除の動きがある。

華為製品の価格は競合より2～3割安いとされ、品質も高いことから各国で採用が進んできた。だが、中国と覇権争いする米国だけでなく、英政府も14日、5 Gの移動通信システムから華為製品を排除する方針を発表。フランスも華為を排除する意向であることが明らかになっている。

N E Cや富士通など日本の基地局メーカーには追い風だ。華為排除の方針を決めた英国は日本政府に5 Gの通信網構築で協力を要請。日本勢も英国の求める技術やコストの水準を達成できれば、売り込める可能性が出てくる。

N E Cや富士通の基地局の世界シェアは1%未満。一方、華為とスウェーデンのエリクソン、フィンランドのノキアの3社でシェア8割を握る。ここまで大きく開いた差を挽回するためには、ドコモが旗振り役となって取り組むオープン化がカギとなる。

オープン化について、N E Cの新野隆社長は「グローバルに出ていく最後のチャンス」と強調し、基地局で20%の世界シェアを目指す考えだ。

オープン化をめぐるのはドコモが4 Gの段階から独自の仕様をつくって取り組む。2018年には米国のA T & Tなど世界の携帯大手とともに「O - R A N」という団体を設立し、仕様の国際標準化に着手。華為を除き、計200社超がこの団体に参画する。

オープン化の今後の課題は「国際標準に適合する機器の製造メーカーをいかに増やすかだ」とドコモの担当者は指摘する。コストを下げるには、機器ごとに複数のメーカーによる技術開発や販売拡大が欠かせない。O - R A Nでは世界各国にメーカーが新たな機器の仕様を検証できる拠点を設置し、広く参加を促していく方針だ。

出典：5 G基地局を共通仕様 ファーウェイ並みコストで日本勢復権へ  
<https://www.sankei.com/economy/news/200724/ecn2007240008-n1.html>