



The Race is On to Monetize 5G

A Snapshot of Global 5G Plan & Pricing Approaches

Q2 2020



Pricing 5G Right Will Be Critical

5G is launching around the world and presents a game-changing opportunity for global operators, content providers and customers. In the U.S. market alone, 5G is projected to unlock more than \$4.3 Trillion in value over the next seven years. It is imperative that operators strike the right balance of data usage, speed and content delivery as they price 5G. In this report, Tarifica looks at the early 5G pricing approaches of leading operators across ten global markets to identify dynamics and patterns at work as the race to monetize 5G begins.

About Tarifica

Tarifica is a global SaaS company that is the market leader in the real-time collection, analysis and delivery of telecom plan and pricing data worldwide. Through a mix of AI, modeling and market expertise, Tarifica tracks hundreds of thousands of plan and pricing data points daily. No other company tracks more. Tarifica's mission is to continuously convert data into the dynamic intelligence that fuels opportunities for its clients, the world's leading operators, regulators and consultants. Learn more about Tarifica at www.tarifica.com.

Global Methodology

Tarifica has taken 11 sample countries worldwide and examined the current 5G commercial plans and pricing offered by the MNOs in these markets. Markets surveyed included: China, South Korea, Australia, U.S., Japan, Canada, U.K., Germany, Finland, UAE, and Qatar. All markets were analyzed utilizing Tarifica's proprietary Arch digital intelligence platform.

Note: at this early stage of global 5G rollout, some regions such as LATAM and Africa do not yet offer 5G at significant scale and therefore are not represented.

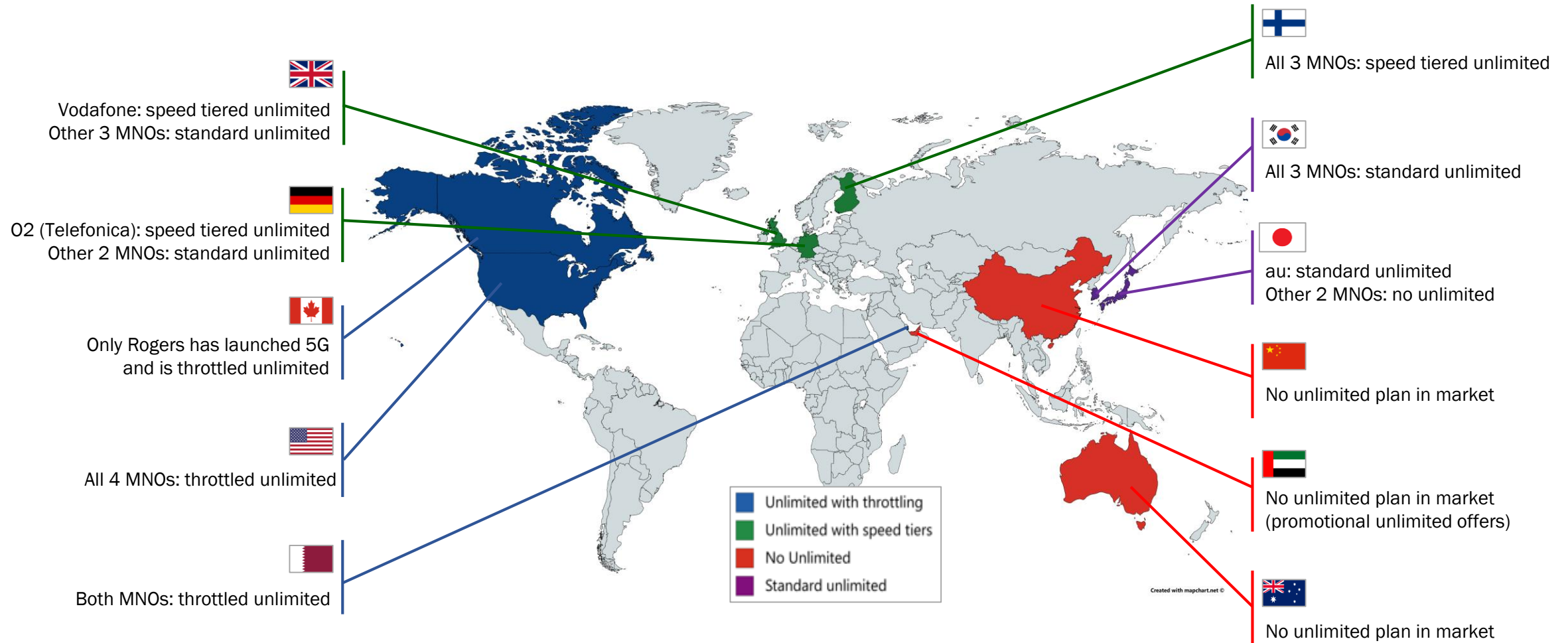


Operators Analyzed

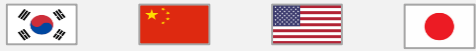

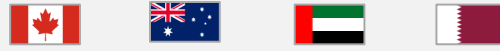
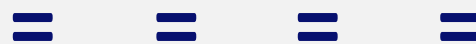




It's an Unlimited 5G World...

All markets sampled, with the exceptions of China, Australia and UAE, are offering some variant of an unlimited plan.



Distinct 5G Pricing Groups Emerged From the Analysis of Tarifica Data

	Group 1	Group 2	Group 3
Pricing of 5G Plans vs. 4G Equivalents	 	 	 
Main Pricing Characteristics	High quality add-ons, such as HD streaming and OTT contents, bundled with high-end plans	5G not strongly marketed as selling point, rather current plans are also “5G Ready”	Users have choice between unlimited plans with differing maximum speeds
Focus Of Operator Strategy	Encourage subscribers to consume more 5G content, shift them to higher-end plans to increase ARPU	Ensure current subscribers are not lost as they migrate to new technology	Market the benefits of unlimited first, then lure subscribers onto faster, higher-end plans to increase ARPU



Global 5G Pricing Approaches

Up-Sellers



- China, South Korea, United States, and Japan are examples
- Focus is on growing ARPU by driving customers to add-ons and higher-end 5G plans
- Providing content and brand partnerships are key to success
- China, South Korea and Japan are front runners
- U.S. will rely on this approach more strongly now that 5G has been launched

Migrators



- Canada, Australia, Qatar, UAE are examples
- Focus is on migrating customers from 4G to 5G and not creating pricing disruption
- Reassuring customers that 5G pricing is comparable to 4G is key to success

Speed Controllers



- Germany, U.K., and Finland are examples
- Focus is on growing ARPU by driving customers to higher speeds for unlimited plans
- Rationalizing need for increased productivity, enjoyment via higher speeds is key to success
- Finland is the front runner
- The U.K. and Germany each have an operator taking this approach now that 5G has been launched



Up-Sellers



South Korea & China: Focus on Added Value is Critical

For the most basic unlimited offer, 5G is typically priced lower than 4G...

However, the high-end 5G plans are priced higher than 4G plans and come with various add-ons.

Thus, with any add-ons to the 5G unlimited plan, total pricing becomes higher priced than 4G.

Plan Name	Price (KRW)	Key Features
슈퍼플랜 프리미엄 Plus	130,000	해외에서 데이터를 프리하게 영상 음악 VR 도 기본에 멤버십 VIP 혜택까지
슈퍼플랜 스페셜 Plus	110,000	영상 음악 VR 도 기본 스페셜 VIP 혜택에 데이터 완전 무제한
슈퍼플랜 스페셜	100,000	데이터 완전무제한 스페셜 VVIP 혜택까지, 스페셜 퍼펙트 요금제
슈퍼플랜 베이직 Plus	90,000	영상 음악 VR도 기본 데이터 완전 무제한 멤버십 VIP
슈퍼플랜 베이직	80,000	데이터 완전무제한 VIP 혜택도 챙기는 실속파 요금제
5G 슬림	55,000	데이터 소진 후에도 5G를 무제한으로 사용

5G plans | 요금제 전체보기 | 맞춤요금제 찾기

데이터ON 프리미엄	89,000	데이터 완전 무제한 미디어팩 tv쿠폰, 단말보험, 멤버십VIP 제공
데이터ON 비디오	69,000	데이터 100GB 올레tv 모바일 데일리팩, 멤버십VIP 제공
데이터ON 특	49,000	데이터 3GB 10GB 데이터 쿠폰, 올레tv 모바일 데일리팩 제공
LTE 베이직	33,000	데이터 1.4GB(+밀당)

4G plans | 요금제 전체보기 | 맞춤요금제 찾기

Lowest priced unlimited data plan

This 5G plan is unlimited "slim", which has an 8GB throttling cap

- For 4G, unlimited data plan is the highest-end plan at 89,000 KRW, while for 5G unlimited data plans start lower at 80,000 KRW
- Unlimited is a "given" for 5G, and higher-end 5G plans are differentiated through valuable add-ons (VIP status, faster roaming, content...)

South Korea & China: Operator Strategy

Rather than monetize through 5G itself, migrate subscribers onto 5G (for no additional cost for users), then upsell by selling high-end packages which come with 5G tariffs.

The strategy appears to be working. Taking KT's 2019 Q4 Earnings report as an example:

- 5G net additions of 1.4 million since 5G launch in April 2019
 - “5G subscribers met the initial target of 10% of total mobile telecom subscribers with 1.42 million subscribers”
- 0.7% YoY increase in service revenue thanks to this 5G subscriber base increase
 - “Wireless ARPU in Q4 has turned-around on an annual-basis, up 2.1% on year”

Wireless

□ Wireless Revenue up by 0.2% YoY

- Service revenue up by 0.7% YoY due to 5G subscriber increase

(Unit: KRW bn)

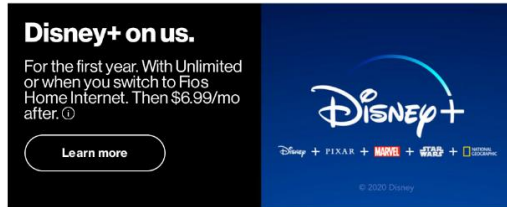
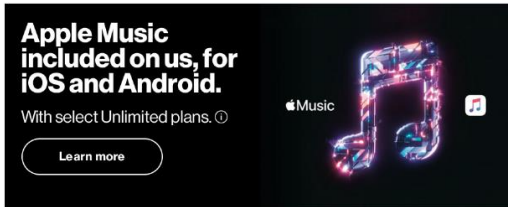
	4Q18	3Q19	4Q19	QoQ	YoY	2018	2019	YoY
Wireless	1,689.6	1,756.4	1,738.5	-1.0%	2.9%	6,954.1	6,970.7	0.2%
Service	1,616.8	1,656.0	1,640.1	-1.0%	1.4%	6,523.5	6,566.3	0.7%
Interconnection	72.7	100.4	98.3	-2.1%	35.2%	430.6	404.4	-6.1%

Will the U.S. Follow Suit More Strongly?

The USA concentrates its offerings around several choices of unlimited plans.

There is no extra charge for 5G; the main differentiator between the plans is the amount of data that can be consumed before being throttled.

Note that higher-end plans offer higher quality streaming...Disney+ free for one year and Apple Music.



...Can the US replicate the South Korea & China model?

Start Unlimited	Play More Unlimited	Do More Unlimited	Get More Unlimited
Get all the basics with unlimited talk, text and data. And never worry about overage charges again.	Our best for music and video streaming, with millions of songs, HD and premium data —all included.	When productivity is your top priority, get it all done with premium data and a discount on a connected device plan.	The very best of our Unlimited plans gives you our ultimate in performance with extra features.
\$35 Per line per month. Plus taxes & fees.	\$45 Per line per month. Plus taxes & fees.	\$45 Per line per month. Plus taxes & fees.	\$55 Per line per month. Plus taxes & fees.
Unlimited 4G LTE Data ⓘ	5G access included with a 5G phone. A \$10/mo value. ▾ Unlimited 4G LTE (+25 GB premium data)	5G access included with a 5G phone. A \$10/mo value. ▾ Unlimited 4G LTE (+50 GB premium data)	5G access included with a 5G phone. A \$10/mo value. ▾ Unlimited 4G LTE (+75 GB premium data)
480p DVD-Quality Streaming	Unlimited Mobile Hotspot (15 GB of 4G LTE)	Unlimited Mobile Hotspot (15 GB of 4G LTE)	Unlimited Mobile Hotspot (30 GB at 4G LTE)
Apple MUSIC Free for 6 mos.	Apple MUSIC Included	Apple MUSIC Free for 6 mos.	Apple MUSIC Included
		50% off Tablet or Jetpack Unlimited Plan	50% off Tablet or Jetpack Unlimited Plan
		500 GB of Verizon Cloud Storage	500 GB of Verizon Cloud Storage

U.S. Operator Strategy

The initial performance signs of this 5G strategy appear very positive.

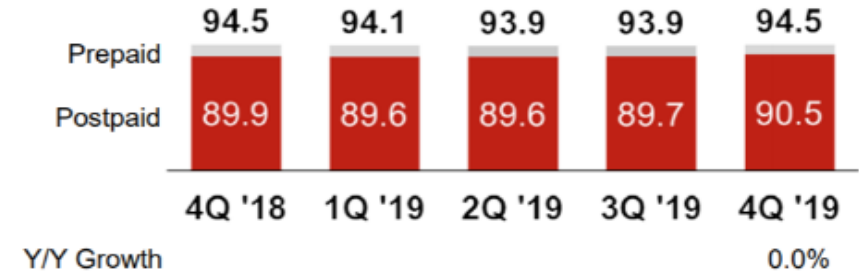
From Verizon's 4Q Earning Results:

"We are extremely pleased with the early uptake on Disney+ and the ability to partner with an iconic consumer brand and content company to bring even greater value to our unlimited customers."

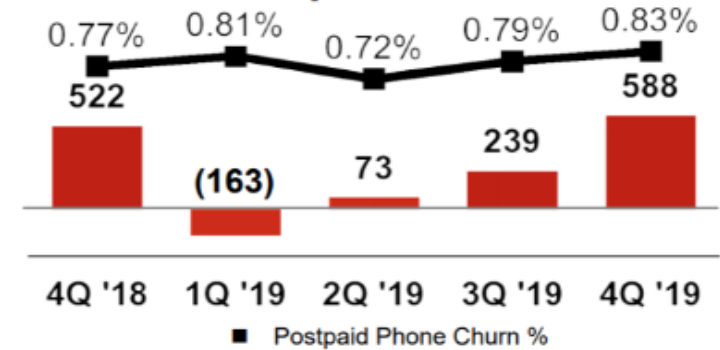
"Fourth quarter phone gross adds were up 9.3% year-over-year, and postpaid phone net adds were 588,000, up 12.6% year-over-year."

"As customers require additional data, we seek to drive step-ups to unlimited plans from metered plans, step-ups within unlimited to higher-tier plans and increasing connections per account."

Wireless Retail Connections (M)



Wireless Retail Postpaid Phone Net Adds (K)



Japan: 5G as a premium, added value content as the driver

Japan also belongs to this group as the higher-end plans are bundled with branded digital content.

UNLIMITED WORLD
au 5G
ENHANCED EXPERIENCE
2020.02.01 START

データ使い放題&楽しみ放題の **au 5G** 新料金

プラン名	月額料金 (円)	テザリング等の容量 (GB)	追加コンテンツ
データMAX 5G	3,460 (翌月から6ヵ月間)	合計 30GB	なし
データMAX 5G Netflixパック	4,260 (翌月から6ヵ月間)	合計 60GB	Netflix, TELASA
データMAX 5G ALL STAR パック	5,460 (翌月から6ヵ月間)	合計 80GB	Netflix, YouTube Premium, Apple Music, TELASA

The higher the premium, the more free contents and brands included

However, Japan prices 5G itself as a premium compared to 4G. For example, SoftBank simply charges an extra 1,000 JPY / month for its 4G smartphone plans.

SoftBank 5G 対応機種ご利用の場合

5G基本料	+1,000 円/月
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5G monthly plan: +1,000 JPY / month

WI-FI



ZONE

Migrators



Canada & Australia: Identical 4G and 5G plans

No notable differentiation between 4G and 5G (5G ready)

Canada: Only differentiator is throttling limit

Australia: No unlimited, different data limits



<p>10GB at max speed*</p> <p>Unlimited shareable data No more data overage</p> <p>5G-ready</p> <p>\$75.00 /mo</p> <p>\$10/mo. off per additional line*</p> <p>Reduced speeds beyond 10GB*</p>	<p>20GB at max speed*</p> <p>Unlimited shareable data No more data overage</p> <p>5G-ready</p> <p>\$95.00 /mo</p> <p>\$10/mo. off per additional line*</p> <p>Reduced speeds beyond 20GB*</p>	<p>50GB at max speed*</p> <p>Unlimited shareable data No more data overage</p> <p>5G-ready</p> <p>\$125.00 /mo</p> <p>\$10/mo. off per additional line*</p> <p>Reduced speeds beyond 50GB*</p>
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Small	Medium	Large	Extra Large
15 GB	60 GB	100 GB	150 GB
\$50 month to month	\$60 month to month	\$80 month to month	\$100 month to month
	Add a new service. Get \$10 off. > Learn more	Add a new service. Get \$10 off. > Learn more	Add a new service. Get \$10 off. > Learn more
T+ > Bonus 50,000 Telstra Plus points when you order online	T+ > Bonus 60,000 Telstra Plus points when you order online	T+ > Bonus 70,000 Telstra Plus points when you order online	T+ > Bonus 80,000 Telstra Plus points when you order online
> 5G network access free trial until 30 June 2020, then opt in for \$15/month	> 5G network access free trial until 30 June 2020, then opt in for \$15/month	> 5G network access included 5G available in selected areas	> 5G network access included 5G available in selected areas
5G available in selected areas > No lock-in plan > No excess data charges in Australia Unlimited standard national calls and texts	5G available in selected areas > No lock-in plan > No excess data charges in Australia Unlimited standard national calls and texts	> NO LOCK-IN PLAN > No excess data charges in Australia Unlimited standard national calls and texts	> NO LOCK-IN PLAN > No excess data charges in Australia Unlimited standard national calls and texts

Qatar & UAE: Identical 4G and 5G plans

No notable differentiation between 4G and 5G

Qatar: Only differentiator is throttling limit

UAE: Promotional unlimited but normally none



<p>You pay AED 1000 / month + 5% VAT For 12 months - Autopayment required</p> <p>You get Power Plan 1000</p> <p>Unlimited National Data Unlimited Flexi Minutes</p> <p>Carry Over data Take up to 50% unused data into next month</p> <p>Enjoy 120GB of free data on Wi-Fi UAE.</p> <p>Free Internet Calling Pack</p> <p>Roaming 5 GB</p> <p>the ENTERTAINER™ amazon prime</p> <p>See all benefits Buy Now</p>	<p>You pay AED 500 / month + 5% VAT For 12 months + activation fee. AED 125</p> <p>You get Power Plan 500</p> <p>100 GB National Data 1500 Flexi Minutes</p> <p>Carry Over data Take up to 50% unused data into next month</p> <p>Enjoy 100GB of free data on Wi-Fi UAE.</p> <p>Free Internet Calling Pack</p> <p>Roaming 2 GB</p> <p>the ENTERTAINER™ amazon prime</p> <p>See all benefits Buy Now</p>	<p>You pay AED 300 / month + 5% VAT For 12 months + activation fee. AED 125</p> <p>You get Power Plan 300</p> <p>50 GB National Data 700 Flexi Minutes</p> <p>Carry Over data Take up to 50% unused data into next month</p> <p>Enjoy 25GB of free data on Wi-Fi UAE.</p> <p>Free Internet Calling Pack</p> <p>-</p> <p>the ENTERTAINER™ amazon prime</p> <p>See all benefits Buy Now</p>	<p>You pay AED 200 / month + 5% VAT For 12 months + activation fee. AED 125</p> <p>You get Power Plan 200</p> <p>26 GB National Data 400 Flexi Minutes</p> <p>Carry Over data Take up to 50% unused data into next month</p> <p>Enjoy 15 GB of free data on Wi-Fi UAE.</p> <p>-</p> <p>the ENTERTAINER™ amazon prime</p> <p>See all benefits Buy Now</p>
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Shahry 5G M
QR-165 **QR 116 (for 4 months)**

10 GB + Endless Internet at 128kbps

Shahry 5G L
QR-220 **QR 148 (for 4 months)**

14 GB + Endless Internet at 512kbps

1000 Local calls and SMS

75 International Minutes

Free Urban Point Free Starzplay Free ErosNow

Shahry 5G XL
QR-275 **QR 185 (for 4 months)**

20 GB + Endless Internet at 2Mbps

Unlimited* Local calls and SMS

100 International Minutes

2 GB Roaming Units

Free Urban Point Free Starzplay Free ErosNow



Speed Controllers



Finland: A Pioneer in Speed Tiers

In Finland, all 3 MNOs' price structure is very similar:

- Multiple plans, all of which contain unlimited data
- The higher priced unlimited plans have higher speeds (Mbps), of which 5G positioned as premium

	Huoleton 5G 1000M	Huoleton 5G 600M	Huoleton 5G 300M	Huoleton 150M (No 5G)
Differentiation through Speed Only high end plans are 5G	1000 Mbit/s	600 Mbit/s	SUOSITUIN 300 Mbit/s	150 Mbit/s
All plans contain unlimited data	Rajaton netti 23 Gt/kk EU:ssa Bonusta 49,90 €/kk TUTUSTU >	Rajaton netti 21 Gt/kk EU:ssa Bonusta 39,90 €/kk 44,90 €/kk TUTUSTU >	Rajaton netti 20 Gt/kk EU:ssa Bonusta 31,90 €/kk 34,90 €/kk TUTUSTU >	Rajaton netti 17 Gt/kk EU:ssa Bonusta 29,90 €/kk TUTUSTU >

Finland: Operator Strategy

Finland has been home to premium high-speed pricing since the 4G era, the strategy being to shift more users onto these more lucrative plans.

Offering 5G plans as a premium is a continuation of this strategy. Operators are shifting their 3G subscribers onto higher ARPU 4G plans. And now the shift to the lucrative 5G has begun.

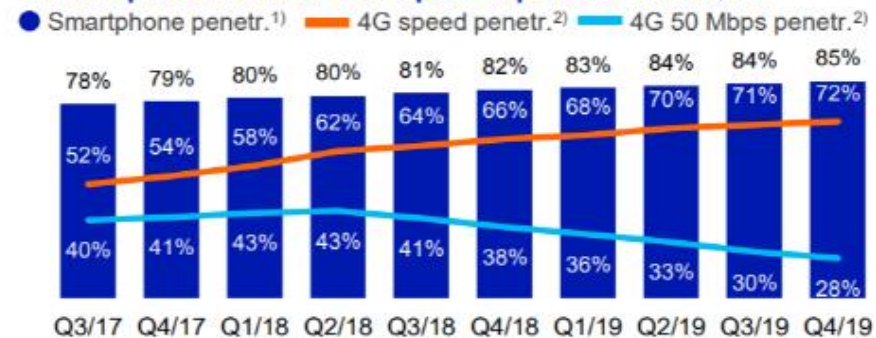
INTERIM REPORT Q4 2019

Up-selling of mobile subs continues, 5G has started

Growth in 4G smartphone penetration

- 85% of customers use a smartphone
 - 98% (96%) 4G-capable
- 72% (66%) of voice subs at 4G speeds
 - 3G to 4G up-selling continues, 5G has started
 - Up-selling from 4G 50 Mbps to higher speeds continues

Smartphone and 4G speed penetration, %



The New Disruptors with Speed Tiers: o2 Germany

Speed tiered premium pricing, however, is a new concept elsewhere.

Vodafone in the UK, and o2 in Germany, have implemented this pricing structure for the first time in their respective markets with the introduction of 5G.


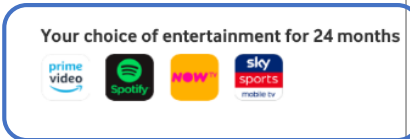
Plan Name	Speed	5G Ready	Price (monatlich*)
O ₂ Free Unlimited Max	Surfen mit LTE Max.	5G ready	49,99 €
O ₂ Free Unlimited Smart	Surfen mit bis zu 10 MBit/s	5G ready	39,99 €
O ₂ Free Unlimited Basic	Surfen mit bis zu 2 MBit/s	Not 5G ready	29,99 €

No difference between 4G and 5G
The max speed and 10 Mbps options are “5G Ready”, meaning subscribers will catch 5G if available

Differentiation through Speed
All three plans are unlimited, but the maximum speed differs according to price plan

The New Disruptors with Speed Tiers: Vodafone UK

In addition to the speed tiers, Vodafone UK has also introduced add-on options in order to push their subscribers to higher ARPU, in a similar strategy to the South Korea / China case


<p>Unlimited Max Best for super-fast downloads and UHD streaming, plus everything Unlimited can do.</p> <table border="1"> <thead> <tr> <th>Data</th> <th>Minutes & Texts</th> <th>Upfront</th> <th>Monthly</th> </tr> </thead> <tbody> <tr> <td>Unlimited</td> <td>Unlimited</td> <td>£29</td> <td>£79</td> </tr> </tbody> </table> <p>Includes <u>3-month free trial of Secure Net</u> 77 roam-free destinations Speed: Fastest available</p>	Data	Minutes & Texts	Upfront	Monthly	Unlimited	Unlimited	£29	£79	<p>Unlimited Great for watching shows and movies on-the-go, plus everything Lite can do.</p> <table border="1"> <thead> <tr> <th>Data</th> <th>Minutes & Texts</th> <th>Upfront</th> <th>Monthly</th> </tr> </thead> <tbody> <tr> <td>Unlimited</td> <td>Unlimited</td> <td>£29</td> <td>£74</td> </tr> </tbody> </table> <p>Includes <u>3-month free trial of Secure Net</u> 48 roam-free destinations Speed: Maximum download of 10 Mbps</p>	Data	Minutes & Texts	Upfront	Monthly	Unlimited	Unlimited	£29	£74	<p>Unlimited Lite Good for browsing, catching up on social media and streaming music.</p> <table border="1"> <thead> <tr> <th>Data</th> <th>Minutes & Texts</th> <th>Upfront</th> <th>Monthly</th> </tr> </thead> <tbody> <tr> <td>Unlimited</td> <td>Unlimited</td> <td>£29</td> <td>£70</td> </tr> </tbody> </table> <p>Includes <u>3-month free trial of Secure Net</u> 48 roam-free destinations Speed: Maximum download of 2 Mbps</p>	Data	Minutes & Texts	Upfront	Monthly	Unlimited	Unlimited	£29	£70
Data	Minutes & Texts	Upfront	Monthly																							
Unlimited	Unlimited	£29	£79																							
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Unlimited	Unlimited	£29	£86																							
Data	Minutes & Texts	Upfront	Monthly																							
Unlimited	Unlimited	£29	£81																							

Vodafone UK & o2 Germany: Operator Strategy

It is only in Germany and the UK that we see an MNO attempting to disrupt the market by structuring their 5G plan differently to their competitors.

In all other markets, all MNOs within a given market provide very similar pricing plans to each other.

It is still too early to judge their success at this stage, but it will be significant to watch closely whether other MNOs, and/or other markets, follow suit. This is key for market challengers, aiming to disrupt the current market order.

 Wolfgang Metze, Telefónica Germany

“We are combining endless volume with different surfing speeds, and all this at a highly attractive price-performance ratio. Our customers choose the solution that best suits their personal needs. With this new approach, we are demonstrating the consistent customer orientation of our core brand O2 and are once again assuming a pioneering role in the market.”

 **vodafone** Vodafone UK CEO Nick Jeffery

“With 5G, the demand for data is only set to increase. That is why we want to remove the limits on data, so that customers can unlock the full potential of 5G and we can really propel the U.K. into the digital age. By offering unlimited plans to our consumer and business customers, we will revolutionize the market.”




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