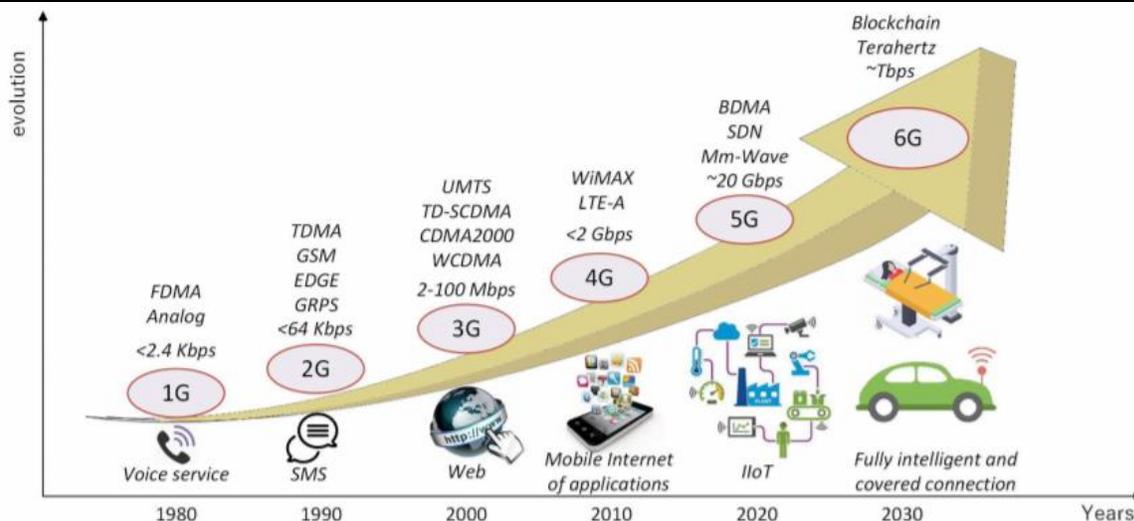




6G networks - Expected to achieve commercialization by 2030

Figure 1: Evolution of mobile wireless system



Source: IEEE Access, AMTD Research

AMTD views: On July 14, Samsung released a white paper entitled “The Next Hyper-Connected Experience for All”, highlighting the company’s ambition for the next generation communication system – 6G. The white paper covers various aspects related to 6G, including technical and societal megatrends, new services, requirements, candidate technologies and an expected timeline of standardization. Comparing to 5G’s base stations-terrestrial architecture, one of 6G’s goals is to achieve ubiquitous connectivity by integrating satellite communication networks and underwater communications to provide global coverage. New technologies, including space-air-ground-sea integrated communication, THz communication will support 6G deployment in blockchain, smart IoTs, AR/VR, etc. In addition, Samsung expects that the completion of the 6G standard and its earliest commercialization date could be as early as 2028, while mass commercialization may occur around 2030.

AMTD Research
Brian Li
 +852 3163-3384
 brian.li@amtdgroup.com

AMTD Research
Halsey Wu
 +852 3163-3220
 halsey.wu@amtdgroup.com

AMTD Research
Alyssa Han
 +852 3163 3231
 alyssa.han@amtdgroup.com

News update

23 July 2020

Cloud

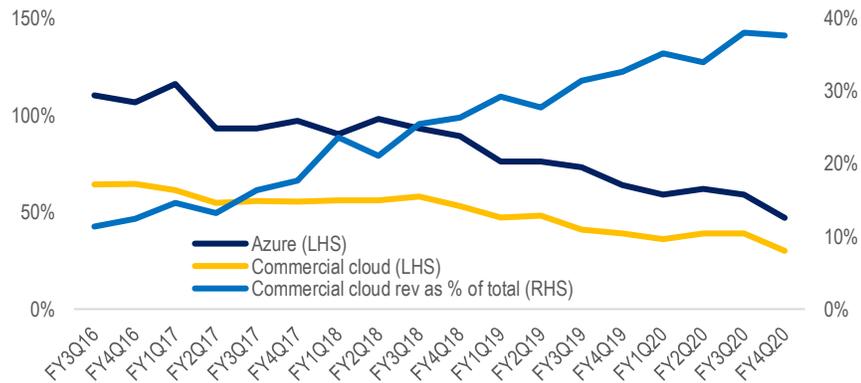
Microsoft

Q4 cloud revenue growth slowed down but LT growth story intact

Microsoft reported FY4Q20 results. Revenue grew by 12.8% YoY to US\$38.0bn, 4% ahead of the consensus. MPC segment revenue grew strongly by 14.5% YoY, while cloud related business growth slowed down. Commercial cloud and Azure YoY growth decelerated to 30%/47% in Q4 from 39%/59% last quarter, respectively. Gross margin was down by 110pts sequentially to 67.6%, mainly due to revenue mix shift to lower-margin MPC segment. Non-GAAP EPS came in at US\$1.46, up 7% YoY. For FY21, the company expected total revenue of US\$35.6bn (8% YoY) at mid-point. Commercial cloud gross margin will increase, helped by new rule of extending the depreciable life of fixed assets. Overall COGS and expenses were guided to US\$10.75-10.95bn and US\$10.7-10.8bn, respectively. (Source: [Microsoft](#))

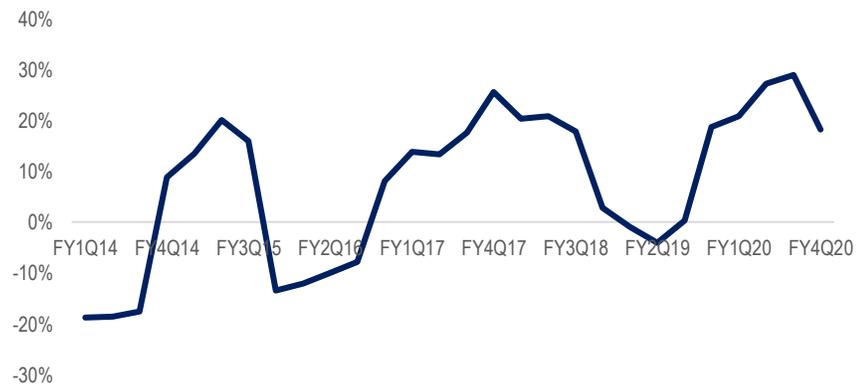
AMTD views: Despite deceleration of cloud revenue growth this quarter, we see Microsoft's LT growth story intact. Commercial cloud surpassed US\$50bn (up 36% YoY) in revenue for the first time, and based on our estimates, Azure annual run rate was close to US\$24bn this quarter. Commercial bookings growth was healthy, accelerating to 12% YoY from 7% YoY last quarter. Commercial RPO increased by 23% to US\$107bn, driven by strong Azure demand. Thanks to healthy cloud billings and collections, the company generated US\$18.7bn (16% YoY)/US\$13.9bn (13% YoY) OCF/FCF this quarter, respectively. In the meanwhile, the company expected capex to be in line with last quarter to support future growth. For the downside, given the pandemic, the small and medium business weakness will continue and impact primarily in Office and Windows OEM, according to the company guidance.

Figure 2: Microsoft's commercial cloud growth, YoY, and its revenue contribution



Source: Company data, AMTD Research, FY4Q20 ended 30 Jun, 2020

Figure 3: Microsoft's TTM FCF growth, YoY



Source: Company data, AMTD Research, FY4Q20 ended 30 Jun, 2020

24 July 2020

Semiconductor

Intel

Strong 2Q but the delay on 7nm product causing uncertainty ahead

Intel reported strong 2Q revenue of US\$19.7bn, up 19.5% YoY, well above its strong guidance of US\$18.5bn in 1Q. The strength mainly came from the atypical seasonal effects of COVID-19 related demand for mobility products and data center infrastructure. DCG was the largest driver and its revenue grew strongly by 42.8% YoY to US\$7.1bn. CCG's revenue came in at US\$9.5bn, up 7.4% YoY. Non-GAAP gross margin was 54.8%, lower than the guidance of 56.0% in 1Q, due to 10nm ramping, which has lower margin than an old 14nm. Thanks to spending efficiency, operating margin was flat YoY at 31%. Non-GAAP EPS came in at US\$1.23, US\$0.13 above its guidance in 1Q. For the next quarter, revenue and non-GAAP EPS was guided to US\$18.2bn and US\$1.10, respectively. For the full year 2020, revenue was expected to be US\$75bn with gross margin to be 58% due to 10nm acceleration, and EPS was expected to be US\$4.85, below its expectation in 1Q. (Source: [Intel](#))

AMTD views: Although Intel delivered a strong quarterly results, its stock was tripped up by the announcement of 6-month delay on 7nm product ramp due to the yield degradation. Following 2 years delay on its current 10nm process, the 7nm delays would raise concern on Intel's LT competitiveness in manufacturing. The company indicated they were preparing an external foundry (like TSMC) contingency plans for its first 7nm GPU product (Ponte Vecchio) to hedge against schedule uncertainty. On the CPU side, Intel's 7nm delay may help key rival AMD continue to gain market share, in our view. With the help of TSMC, AMD has ramping its 7nm products, which are competing with Intel's current 10nm products, and AMD accounted for 17%/10% market share in PC/server in 1Q2020. However, Intel's next-gen 7nm client CPU (Meteor Lake) would be delayed to late '22 or early '23, and server CPU (Meteor Lake) would be released as early as late '23.

16 July 2020

Semiconductor

TSMC

Q2 net profit beat with full year outlook lifted

TSMC reported solid Q2 results despite macro headwinds. Revenue reached NT\$311bn, flat QoQ/ up 28.9% YoY, at the upper end of company's guidance in Q1. Continued 5G infrastructure deployment and HPC products offset weakness in other platforms. HPC revenue contribution rose to 33% in Q2 from 30% last quarter. Gross margin increased 1.2ppts sequentially to 53%, thanks to high utilization and inventory revaluation despite unfavorable FX. Operating margin rose by 0.8ppts to 42.2% and net profit came in at NT\$121bn, 10% ahead of consensus. (Source: [TSMC](#))

AMTD views: Despite the macro uncertainties ahead, the company have increased the full year revenue YoY guidance to +20% (prev. mid to high teens), on back of: 1) raised 5G penetration rate forecast to high-teens; 2) strong HPC-related demand; 3) expected to outgrow semi industry with the leading edge technology on 7nm/5nm. In terms of technology node, 5nm is expected to contribute 8% of wafer revenue in 2020, compared to 10% from previous guidance, mainly due to Huawei restriction, in our view. Gross margin was guided to 50-52% for the full year of 2020, primarily due to 5nm ramp up in second half. On the other hand, the company lifted 2020 capex budget to US\$16-17bn (prev. US\$15-16bn) to meet continued increase of 5nm demand, in the meanwhile, the 3nm development is on track and volume production is targeted in 2H2022.

23 Jul 2020

Semiconductor

MediaTek

MediaTek announced Dimensity 720 chipset aims even lower for 5G phones

MediaTek launched Dimensity 720, another mid-range SoC with an integrated 5G modem. In terms of specific 5G capabilities, the Dimensity 720 is manufactured on a 7nm process by TSMC, supporting SA and NSA networks and sub-6GHz connectivity. The first phones with the new affordable chipset should arrive in the next few months, priced at approximately RMB1,000. Huawei, Xiaomi, OPPO products will all adopt this chip. (Source: [AndroidAuthority](#))

23 July 2020

Semiconductor

Japan

Sales of semiconductor equipment in Japan surged 30% to JPY180.4bn in Jun

Sales of Semiconductor manufacturing equipment made in Japan rose 31.1% YoY in June to JPY 180.4 billion, according to SEAJ. The reason is thought to be a trend to localize semiconductors in China market, where investment by big semiconductor makers has remained strong. Regionally, Mainland China, Taiwan and Korea are expected to lead the pack in spending in 2020. Robust spending in Mainland China in the foundry and memory sectors is expected to vault the region to the top in total semiconductor equipment spending in 2020 and 2021. (Source: [EEworld](#))

22 July 2020

Cloud/SaaS

Salesforce

Salesforce quietly killed off Einstein Voice Assistant and Voice Skills

Salesforce was shutting down two of its AI-powered voice services - Einstein Voice Assistant and Voice Skills - as it shifts resources toward its newly released Salesforce Anywhere app. Salesforce has killed off both products less than two years after they first debuted. However, the greater Einstein AI platform is not going away and Salesforce will continue to release updates and add new features. (Source: [Cloudpro](#))

22 July 2020

Smartphone

Xiaomi

Redmi Note 10 to be powered by Dimensity 820

According to AI Benchmark, the Redmi Note 10 is powered by MediaTek's Dimensity 820 processor which is the same chipset inside the China-exclusive Redmi 10X 5G and Redmi 10X Pro 5G. (Source: [Gizmochina](#))

21 July 2020

Smartphone

One Plus

One Plus Nord launched in India, priced at Rs 24,999 (RMB2,355)

The OnePlus Nord smartphone has been launched in India, with Snapdragon 765G chipset, a 6.44-inch FHD+ (1,080 x 2,400p) Fluid AMOLED display, quad rear cameras and dual selfie cameras. It is a 5G offering. The OnePlus Nord has been priced in India at Rs 24,999 (RMB2,355). (Source: [91mobiles](#))

21 Jul 2020

Smartphone

Apple

iPhone 12 support dual-mode 5G, single-mode version launched in 2021

iPhone 12, launched in 2020, is reported to support dual-mode 5G networks - mmWave and sub-6GHz 5G networks. According to DigiTimes, Apple is considering support sub-6GHz or mmWave 5G networks, but not both in its iPhone lineup in 2021. (Source: [DigiTimes](#))

21 Jul 2020

Display

BOE/Huawei

BOE is reportedly supplying on-cell OLED panels for Huawei Mate 40 series

For the first time ever, BOE is supplying on-cell OLED panels that have the touch sensor embedded in the panel itself, for Huawei's upcoming Mate 40 flagship series. BOE is exclusively supplying on-cell OLED panels for the Huawei Mate 40 while the company is a co-supplier for the display panels of Mate 40 Pro, along with Samsung Display and LG Display. (Source: [Gizmochina](#))

15 July 2020

Display

Xiaomi

Xiaomi Curved Gaming Monitor 34" launched in Europe, priced at €399

Xiaomi's 34-inch Curved Gaming Monitor is officially introduced in Europe. It is clocked at 144Hz, comes with a resolution of 3440 x 1440, a curvature of 1500R, an aspect ratio of 21:9, and covers 121% of the sRGB spectrum. The monitor is priced at €399. (Source: [Xiaomi](#))

15 July 2020

Smartphone

Google/Jio

Google invested US\$4.5 bn in Jio to jointly develop affordable 5G smartphones

Google has invested US\$4.5 billion for a 7.73% stake in India's Reliance Jio Platforms, the top Indian telecom operator. Google and Reliance Jio Platforms will work on a customized-version of Android operating system to develop low-cost, entry-level smartphones. These phones will support Google Play and future wireless standard 5G. (Source: [Techcrunch](#))

15 July 2020

Cloud

Alibaba Cloud

AliCloud released 3rd generation of X-Dragon cloud server

AliCloud announced the launch of the third-generation X-Dragon cloud server. Compared with the previous generation, its comprehensive performance has increased by up to 160%, which is more than 30% faster than the current world's top cloud server, and the overall computing power is the strongest in the world. The third-generation X-Dragon cloud server family provides up to 208 cores, up to 6TB of memory, cloud disk IOPS up to 1 million, network forwarding up to 24 million, and network bandwidth up to 100G, supporting CPU and GPU, NPU, FPGA, etc. with the extremely fast expansion capability of delivering 500,000 core vCPUs in 3 minutes; it is the best carrier for cloud native. (Source: [AliCloud](#))

14 July 2020

Smartphone

Realme

Realme C11 launched in India, priced at Rs7,499 (RMB697)

Realme C11 has been launched in India, priced at Rs 7,499 (RMB 697) for the lonesome variant with 2GB of RAM and 32GB of storage. The latest entry-level smartphone from Realme comes with dual-camera and a MediaTek Helio G35 processor. (Source: [Indiatoday](#))

13 Jul 2020

Cloud

Microsoft/Samsung

Microsoft to trial Azure IoT platform with Samsung smart home tech

Samsung and Microsoft announced a global collaboration intended to "digitally transform" the real estate and property management industries, by leveraging on Microsoft's Azure IoT platform and cloud services along with the Samsung's smart devices. This joint foray into the smart home market will bring together Microsoft's digital platforms including its digital twins technology and Microsoft Dynamics 365 Field Service to aggregate and analyze IoT data gathered from interconnected smart sensors located around the building, and from integrated Samsung's smart home appliances, HVAC systems and smart TVs. (Source: [Microsoft](#))

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AMTD Global Markets Limited

Address: 23/F - 25/F, Nexxus Building, 41 Connaught Road Central, Hong Kong

Tel: (852) 3163-3288 **Fax:** (852) 3163-3289

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