

# Global server market

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# Introduction

Worldwide server shipments reached 3.66 million units (based on motherboards shipped) in the fourth quarter of 2017, accounting for more than a quarter of the annual volumes in 2017 mainly thanks to peak season effect. For the first quarter of 2018, shipments are estimated to stay flat or drop slightly because of seasonality.

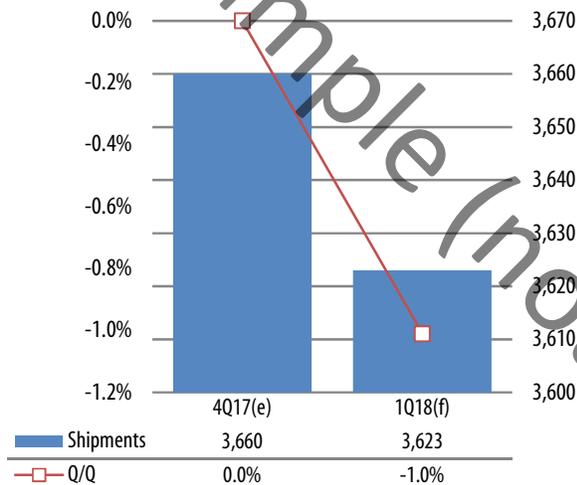
Demand from large-size datacenter clients remains the key shipment contributor and orders from Microsoft, Amazon and Facebook are expected to rise sequentially in the first quarter of 2018.

With China-based Huawei Technologies, which manufactures all its servers in house, expected to see on-quarter shipment increase in the first quarter of 2018, Taiwan's share of worldwide server shipments is expected to slip modestly from a quarter ago.

The Wistron group – including Wistron and its subsidiary Wiwynn – was the largest server maker in the fourth quarter of 2017, but its overall output is expected to decline sequentially in the first quarter of 2018.

Having lost a substantial volume of orders in 2017, Foxconn Electronics (Hon Hai Precision Industry) is aggressively vying for orders for 2018. It is expected to achieve a significant sequential growth in its first-quarter-2018 shipments.

**Chart 1: Global server market shipments, 4Q17-1Q18 (k units)**



Source: Digitimes Research, February 2018

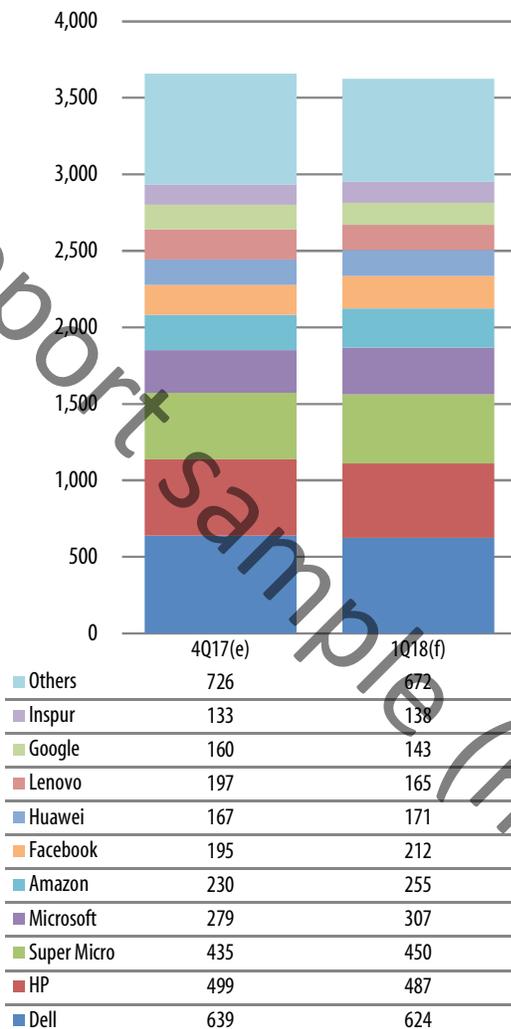
Worldwide server shipments stood at 3.66 million units in the fourth quarter of 2017, accounting for 28-29% of the annual volumes in 2017. Shipments will drop less than 40,000 units from a quarter ago in the first quarter of 2018 to reach 3.62 million units. With the exception of large-size datacenter clients, which have increased orders for the first quarter of 2018, demand from most of the clients will be weak in the low season.

Tight components supply, including passive components and memory, has been troubling the server industry since the second half of 2017. In response to the tight supply, server players are extending their delivery schedules. But the tight supply has not yet worsened to levels that could seriously undermine the server makers' shipments.

For the platform transition, Purley-based models are currently accounting for 20-30% of the overall worldwide shipments and the percentage is estimated to rise to 50% by the third quarter of 2018.

# Shipment breakdown

Chart 2: Global server shipments by top-10 player, 4Q17-1Q18 (k units)



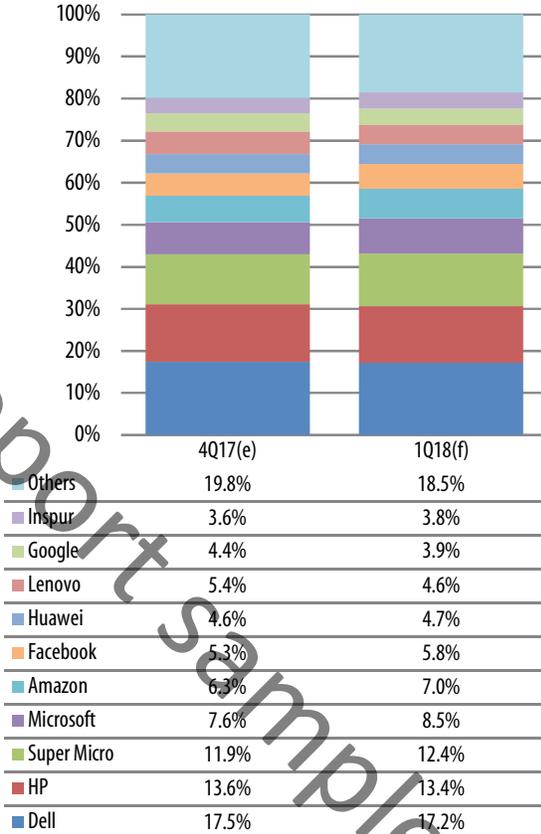
Source: Digitimes Research, February 2018

Dell and Hewlett-Packard (HP) remained the top-2 server brands worldwide in the fourth quarter of 2017 and were also the top-2 clients of Taiwan's server makers. Super Micro Computer rounded out the worldwide top-3.

Dell and HP are expected to experience small sequential drops in their first-quarter 2018 shipments, while Super Micro's volumes will rise 3-4% on quarter to help the company narrow its shipment gap on second-place HP.

Several large-size datacenter players like Microsoft, Amazon and Facebook will see their shipments pick up 8-11% sequentially in the first quarter of 2018. Of the shipments, the share of Purley-based models is on the rise.

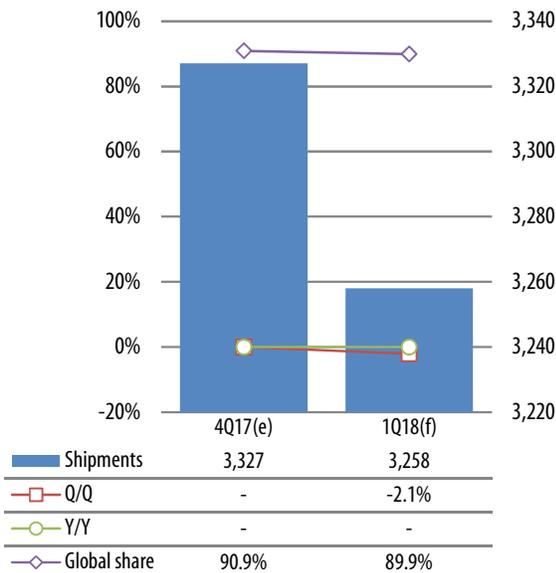
**Chart 3: Global server shipment share by top-10 player, 4Q17-1Q18**



Source: Digitimes Research, February 2018

### Shipments from Taiwan makers

**Chart 4: Taiwan server shipments and global share, 4Q17-1Q18 (k units)**

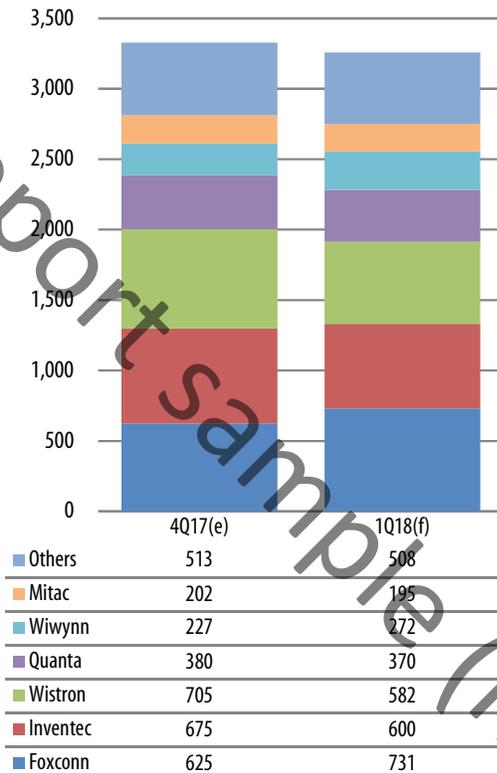


Source: Digitimes Research, February 2018

Taiwan's server shipments were 3.33 million units in the fourth quarter of 2017, accounting for 90.9% of the worldwide volume.

Shipments will slide 2.1% to arrive at only 3.26 million units in the first quarter of 2018, while the worldwide share is also expected to drop to 89.9% because of increases in shipments from Huawei, which manufactures all its servers in house. Huawei will see its server shipments grow 2.4% sequentially to reach 170,000 units in the first quarter.

**Chart 5: Taiwan shipments by top maker, 4Q17-1Q18 (k units)**



Source: Digitimes Research, February 2018

Wistron and subsidiary Wiwynn together shipped 930,000 units of servers in the fourth quarter of 2017, making the Wistron group the largest server manufacturer in Taiwan. Wistron alone shipped 700,000 servers in the quarter.

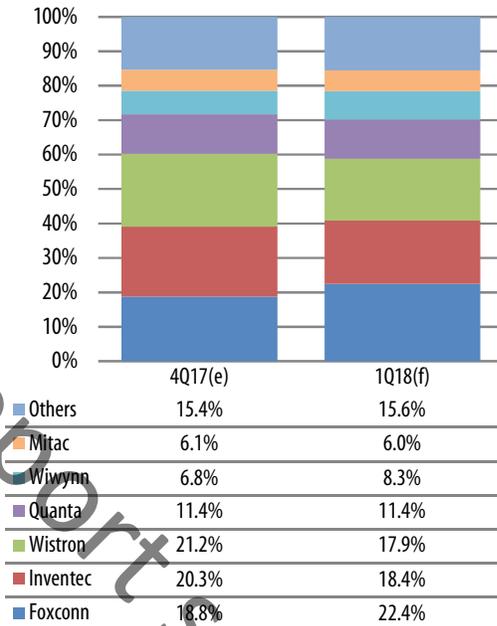
The Wistron group's shipments are expected to slump to 850,000 units in the first quarter of 2018. Despite increasing shipments from Wiwynn, they will not be sufficient to offset Wistron's decline.

Inventec shipped 670,000 servers in the fourth quarter of 2017, only 30,000 units less than Wistron's.

Foxconn is expected to become the largest server supplier in Taiwan in the first quarter of 2018 by shipping 730,000 units, followed by Inventec in second place and Wistron in third.

In 2017 Foxconn saw major drops in orders from Dell and HP and has been aggressively looking to regain the lost orders. Its effort is expected to show some results and help Foxconn achieve steady growth in 2018 shipments.

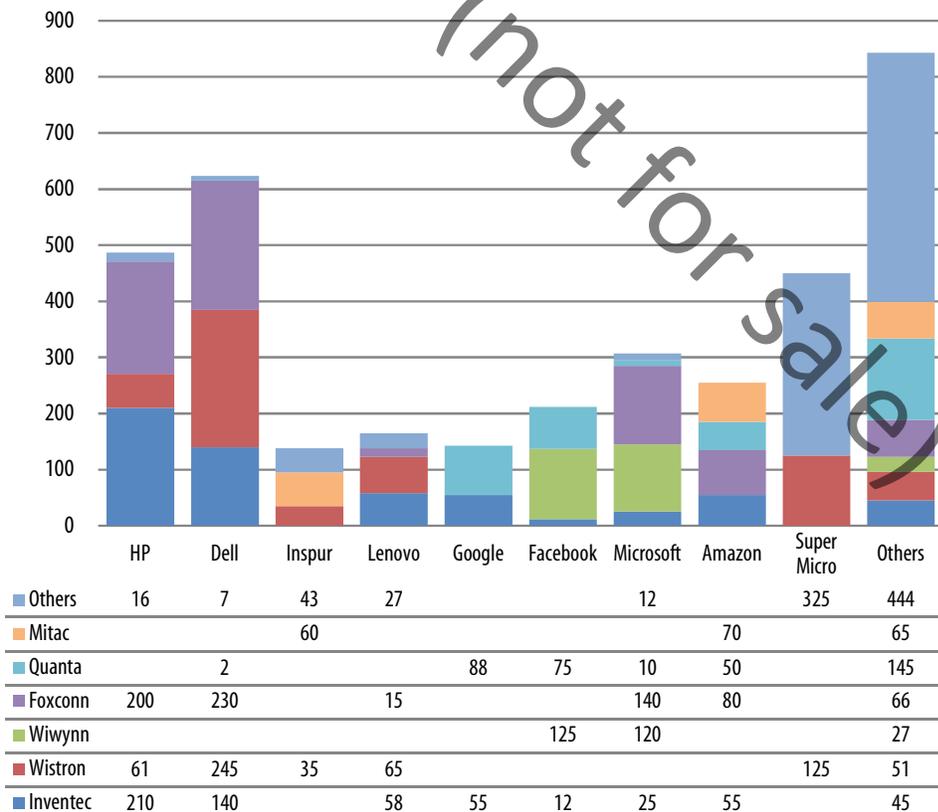
Chart 6: Taiwan shipment share by top maker, 4Q17-1Q18



Source: Digitimes Research, February 2018

## Client-maker server shipment matrix

Chart 7: Client-maker partnership matrix, 1Q18 (k units)



Source: Digitimes Research, February 2018

Wistron's shipments to Dell will be the largest partnership in first-quarter 2018.

In the quarter, HP and Dell have shifted some of their orders from Inventec and Wistron to Foxconn.

**Chart 8: Client shipment share by maker, 1Q18**



Source: Digitimes Research, February 2018

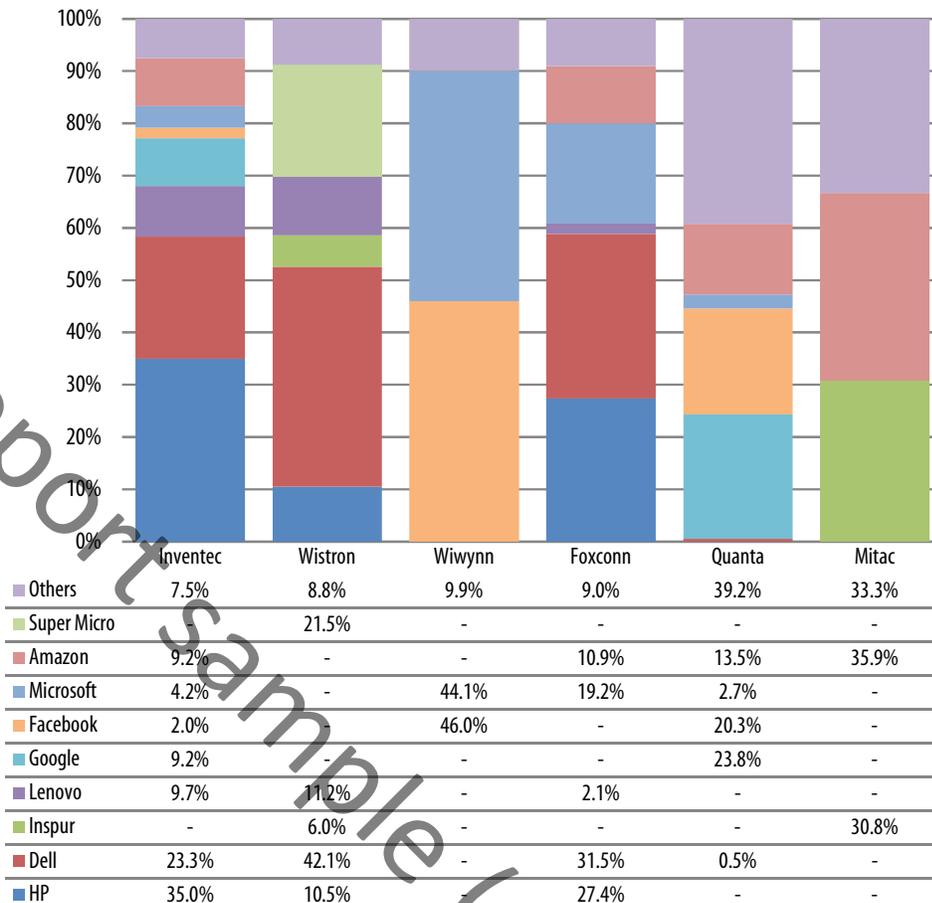
Foxconn will see increases in its shares of orders from HP and Dell in the first quarter of 2018, up 5pp and 13.4pp on quarter to reach 41.1% and 36.9%, respectively.

HP has shifted a small portion of orders from Inventec to Foxconn, while Dell mainly has cut its orders for Inventec and Wistron and given them to Foxconn.

Google's outsourcing ratio to Inventec and Quanta will change from 56:44 in the fourth quarter of 2017 to 39:61 in the first quarter of 2018, with Quanta winning more orders.

Wiyynn will see increases in its shares of orders from Facebook and Microsoft by 5.2pp and 3.3pp sequentially to reach 59% and 39%, respectively in the first quarter of 2018.

Amazon's orders will be more evenly shared among its four Taiwan suppliers – Inventec, Foxconn, Quanta and Mitac. Inventec's proportion will rise 10.7pp sequentially to arrive at 21.6%, while Mitac's share will reach 27.5%, up 3.6pp sequentially.

**Chart 9: Maker shipment share by client, 1Q18**

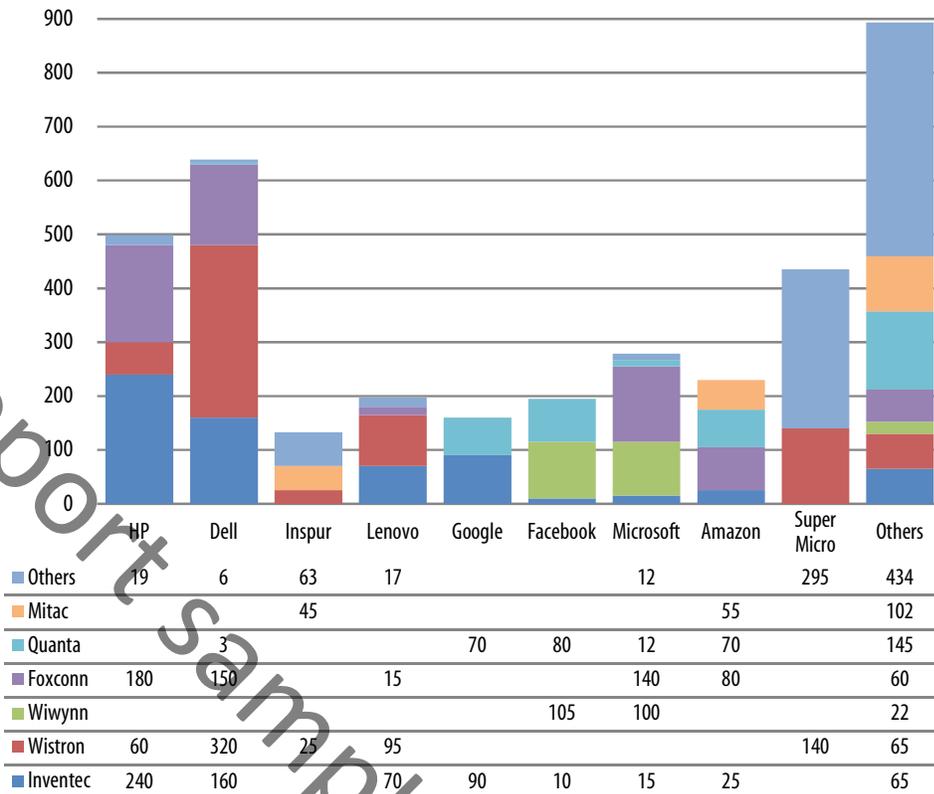
Source: Digitimes Research, February 2018

With Foxconn expected to obtain more orders from Dell, Dell's share of Foxconn's shipments will rise 7.5pp sequentially to 31.5% in the first quarter of 2018.

Inventec and Mitac will both see rising orders from Amazon in the first quarter of 2018. Amazon's share of Inventec's shipments will rise 5.5pp sequentially to reach 9.2% and its share of Mitac's shipments will increase by 8.7pp to hit 35.9%.

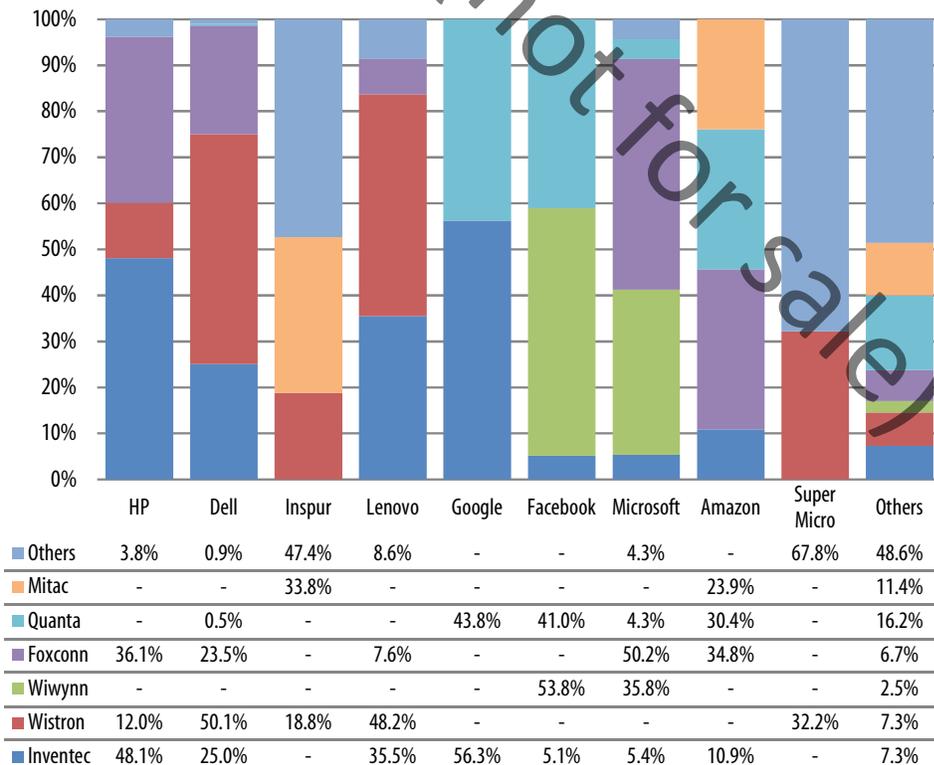
Quanta will also see Google's share of its shipments go up 5.4pp sequentially to 23.8% in the first quarter of 2018.

Chart 10: Client-maker partnership matrix, 4Q17 (k units)



Source: Digitimes Research, February 2018

Chart 11: Client shipment share by maker, 4Q17



Source: Digitimes Research, February 2018

Most server players preferred placing the majority of orders with only 1-2 suppliers in order to benefit from the economies of scale in the fourth quarter of 2017.

HP mainly placed its orders with Inventec and Foxconn, which accounted for 48% and 36% of the US-based vendors' server demand in the fourth quarter of 2017, respectively.

Dell gave Wistron around 50% of its server orders in the fourth quarter of 2017 with the rest shared primarily between Inventec and Foxconn.

As for Internet service providers, Google continued relying on the supplies from Inventec and Quanta; Facebook primarily outsourced its orders to Wiwynn and Quanta; and Microsoft placed over 50% of its orders with Foxconn in the fourth quarter of 2017.

Amazon had more diversified sources of supplies, and its top-3 upstream partners were Foxconn, Quanta and Mitac International in the fourth quarter of 2017.

**Chart 12: Maker shipment share by client, 4Q17**



Source: Digitimes Research, February 2018

Wiwynn heavily relied on orders from Facebook and Microsoft in the fourth quarter of 2017 with the two together contributing over 90% of Wiwynn's shipments.

Dell was Wistron's largest client accounting for over 45% of the maker's shipments in the fourth quarter of 2017.

Inventec had 35% of its server shipments delivered to HP and 24% to Dell in the fourth quarter of 2017, while Foxconn had 29% of shipments to HP, 24% to Dell and 22% to Microsoft.

Quanta's business operation of own-brand Quanta Cloud Technology (QCT) servers has deterred orders from first-tier server brand vendors including HP and Dell. The maker's top-3 clients were Facebook, Google and Amazon in the fourth quarter of 2017. QCT-branded products accounted for around 27% of Quanta's shipments in the fourth quarter of 2017.