IT Hardware

CSP solid capex to support AI server demand

Key message

1. During recent earnings calls, all CSPs noted strong capex for 2024 and expect capex to rise in 2025.

2. GB200 shipments will start in late 4Q24 and enter mass production in 1H25F, boosting CSPs' capex and Taiwan's rack assembler business.

3. Microsoft (US) and Meta (US) to see relatively strong capex growth in 2025F, coupled with ZT's (US) GB200 switchover, ODM Hon Hai Precision (2317 TT, NT$208, OP) and Quanta Computer (2382 TT, NT$305, OP) will benefit the most from over NT$1.0tn in additional sales in 2025F.

Event

The top US CSPs posted 3Q24 earnings and capex results, and also announced that they expect capex to rise in 4Q24 and 2025, which will support AI server demand. However, a high comparison base in 2024 will likely cause capex growth to slow in 2025, thus causing their share prices to mostly react negatively, except for Amazon Web Services (US; AWS).

Impact

Top US CSPs' 2024F capex to grow over 40% YoY; 2025F capex guidance to rise. According to top US CSPs' during recent earnings calls, AWS and Google (US) revise up 2024 capex growth to 55-60% YoY. After AWS posted 3Q24 capex of US$22.6bn, up 28% QoQ and 81% YoY mainly for infrastructure demand and generative AI demand, the firm said 2024 capex will rise to around US$75bn, up 56% YoY, while 2025 capex will rise further, beating consensus. Google 3Q24 capex arrived at US$13.1bn, up 62% YoY, but down 1% QoQ, and the firm stated 4Q24 capex will remain largely flat QoQ, thus boosting 2024 capex to US$51-52bn, up around 60% YoY, also beating consensus of 55% YoY growth. Microsoft (US) announced 3Q24 capex of US$14.9bn, up 8% QoQ and 50% YoY, with over 50% of capex related to AI server investment. The firm expects 4Q24 capex to grow QoQ on rising AI demand, while some facilities will delay shipments to 1H25, so the market expects 2025 capex growth to continue at 15-20% YoY. Meta (US) 3Q24 capex totaled US$8.3bn, up 26% YoY and 1% QoQ, missing consensus by 16%. However, the firm slightly raised 2024 capex guidance to US$38-40bn from US$37-40bn, implying 4Q24 capex will grow significantly QoQ and YoY, which we believe is due to delayed shipments and payment for cloud servers. The firm guides 2025 capex will grow on AI server demand, and the market expects 23% YoY growth. Overall, the top four US CSPs' 2024 capex continues to be revised up, and current growth is expected to total 54-55% YoY to around US$220bn, following a 2% decline in 2023, mainly for AI server investments. 2025 consensus is around 12% YoY growth to around US$247bn, with Meta and Microsoft's growth relatively stronger at over 15% YoY. We think GB200 NVL36/72 demand of 50-60k racks mainly from four US CSPs will require US$100-130bn, comprising around 50% of the present capex value forecast, which will be the main driver of the 2025 capex uptrend.

Strong 2025F capex from Microsoft & Meta to mainly benefit Hon Hai Precision & Quanta Computer. Based on our forecast of around 55k racks of GB200 shipments in 2025, Microsoft will account for 15-20k racks, making it the major consumer. Its NVL72 design is mainly assembled by Hon Hai Precision (2317 TT, NT$208, OP). We forecast this order will contribute over NT$1.5tn to Hon Hai's cloud server sales in 2025, versus cloud and networking sales of around NT$2.0tn in 2024F. As for other CSPs' GB200 orders, Quanta Computer is the major rack assembler, which should boost its sales by over NT$1.0tn in 2025F. After AMD (US) acquired ZT (US), ZT's GB200 rack assembler orders for Meta were transferred to Quanta, totaling 3-5k racks, with some likely going to Wiwynn (6669 TT, NT$1,865, OP) in 2025F, while others to Google and AWS will likely benefit Hon Hai and Inventec (2356 TT, NT$45.7, OP). We expect Hon Hai and Quanta to receive 70-80% of GB200 rack demand in 2025F. Therefore, strong capex from CSPs will continue to boost ODM sales and EPS growth in 2025F, despite margin dilution from the GB200.

Stocks for Action

On booming AI server demand and GB200 shipments starting in late 4Q24, related firms' sales will grow significantly. Hon Hai Precision, Quanta Computer, Asia Vital Components (3017 TT, NT$637, OP), and Delta Electronics (2308 TT, NT$390.5, OP) will be the main beneficiaries.

Risks

CSPs' AI server capex plan; AI server GPU supply constraints.

Figure 1: Upward revision of top four US CSPs' capex in 2024F to 54% YoY; capex uptrend to continue in 2025F

Capex (US$mn)	1Q23	2Q23	3Q23	4Q23	1Q24	2Q24	3Q24	4Q24F Company Guidance	2019	2020	2021	2022	2023	2024F	2025F	2026F
Meta (Facebook)	6,842	6,216	6,543	7,665	6,400	8,173	8,258	16,169	15,102	15,115	18,567	31,431	27,266	39,000	48,019	53,218
Amazon	14,207	11,455	12,479	14,588	14,925	17,620	22,620	19,835	16,861	35,044	55,396	58,321	48,133	75,000	77,919	83,468
Microsoft	6,607	8,943	9,917	9,735	10,952	13,873	14,923	15,411	13,546	17,592	23,216	24,768	35,202	55,159	64,616	69,447
Google	6,289	6,888	8,055	11,019	12,012	13,186	13,061	13,061	23,548	22,281	24,640	31,485	32,251	51,320	56,633	60,047
US hyperscale subtotal	**33,945**	**33,502**	**36,994**	**43,007**	**44,289**	**52,852**	**58,862**	**64,476**	**69,057**	**90,032**	**121,819**	**146,005**	**142,852**	**220,479**	**247,186**	**266,181**
YoY (%)	1Q23	2Q23	3Q23	4Q23	1Q24	2Q24	3Q24	4Q24F	2019	2020	2021	2022	2023	2024F	2025F	2026F
Meta (Facebook)	25.7	(17.9)	(30.2)	(15.2)	(6.5)	31.5	26.2	110.9	8.0	0.1	22.8	69.3	(13.3)	43.0	23.1	10.8
Amazon	(5.0)	(27.1)	(23.8)	29.5	5.1	53.8	81.3	36.0	25.6	107.8	58.1	5.3	(17.5)	55.8	3.9	7.1
Microsoft	23.7	30.2	57.8	55.2	65.8	55.1	50.5	58.3	(4.8)	29.9	32.0	6.7	42.1	56.7	17.1	7.5
Google	(35.7)	0.9	10.7	45.1	91.0	91.4	62.1	18.5	(6.3)	(5.4)	10.6	27.8	2.4	59.1	10.4	6.0
US Hyperscale subtotal	**(4.4)**	**(9.4)**	**(5.9)**	**25.8**	**30.5**	**57.8**	**59.1**	**49.9**	**3.4**	**30.4**	**35.3**	**19.9**	**(2.2)**	**54.3**	**12.1**	**7.7**
QoQ (%)	1Q23	2Q23	3Q23	4Q23	1Q24	2Q24	3Q24	4Q24F	2019	2020	2021	2022	2023	2024F	2025F	2026F
Meta (Facebook)	(24.3)	(9.1)	5.3	17.1	(16.5)	27.7	1.0	95.8								
Amazon	26.1	(19.4)	8.9	16.9	2.3	18.1	28.4	(12.3)								
Microsoft	5.3	35.4	10.9	(1.8)	12.5	26.7	7.6	3.3								
Google	(17.2)	9.5	16.9	36.8	9.0	9.8	(0.9)	-								
US Hyperscale subtotal	**(0.7)**	**(1.3)**	**10.4**	**16.3**	**3.0**	**19.3**	**11.4**	**9.5**								

Source: Company data; Bloomberg; KGI Research

Figure 2: Consensus is for CSPs' capex to grow over 43% YoY in 2024

Capex, US$mn	2019	2020	2021	2022	2023	2024F	2025F	2026F
Meta	15,102	15,115	18,567	31,431	27,266	39,000	48,019	53,218
Amazon	16,861	35,044	55,396	58,321	48,133	75,000	77,919	83,468
Microsoft	13,546	17,592	23,216	24,768	35,202	55,159	64,616	69,447
Google	23,548	22,281	24,640	31,485	32,251	51,320	56,633	60,047
Baidu	931	738	1,689	1,586	1,580	1,689	1,983	1,929
Alibaba	6,517	6,379	8,311	5,014	4,477	6,474	6,750	6,820
Tencent	3,927	5,719	4,808	4,611	3,017	6,377	6,779	7,181
Hyperscale subtotal	**80,432**	**102,867**	**136,627**	**157,216**	**151,926**	**235,019**	**262,698**	**282,111**
Apple	9,247	8,702	10,388	11,692	9,564	10,480	13,001	11,491
IBM	2,286	2,618	2,062	1,346	1,245	1,283	1,682	1,767
Oracle	1,591	1,833	3,118	6,678	6,935	10,293	15,729	15,155
Paypal	704	866	908	706	623	659	797	877
eBay	508	463	444	420	456	466	492	496
Salesforce	643	710	717	798	736	690	815	945
Netflix	253	498	525	408	349	385	461	528
Uber	588	616	298	252	223	298	347	373
Enterprise subtotal	**15,820**	**16,306**	**18,460**	**22,300**	**20,131**	**24,554**	**33,323**	**31,632**
Total	**96,793**	**119,173**	**155,086**	**179,516**	**172,057**	**259,573**	**296,021**	**313,743**
YoY growth, percent	2019	2020	2021	2022	2023	2024F	2025F	2026F
Meta	8.5	0.1	22.8	69.3	(13.3)	43.0	23.1	10.8
Amazon	25.6	107.8	58.1	5.3	(17.5)	55.8	3.9	7.1
Microsoft	6.0	29.9	32.0	6.7	42.1	56.7	17.1	7.5
Google	(6.3)	(5.4)	10.6	27.8	2.4	59.1	10.4	6.0
Baidu	(29.9)	(20.7)	129.1	(6.1)	(0.4)	6.9	17.4	(2.7)
Alibaba	(11.9)	(2.1)	30.3	(39.7)	(10.7)	44.6	4.3	1.0
Tencent	17.0	45.6	(15.9)	(4.1)	(34.6)	111.4	6.3	5.9
Hyperscale subtotal	**4.0**	**27.9**	**32.8**	**15.1**	**(3.4)**	**54.7**	**11.8**	**7.4**
Apple	(26.7)	(5.9)	19.4	12.6	(18.2)	9.6	24.1	(11.6)
IBM	(32.7)	14.5	(21.2)	(34.7)	(7.5)	3.1	31.1	5.1
Oracle	8.4	15.2	70.1	114.2	3.8	48.4	52.8	(3.6)
Paypal	(14.5)	23.0	4.8	(22.2)	(11.8)	5.8	20.9	10.0
eBay	(22.0)	(8.9)	(4.1)	(5.3)	8.5	2.2	5.5	1.0
Salesforce	8.1	10.4	1.0	11.3	(7.8)	(6.3)	18.2	15.9
Netflix	45.5	96.8	5.4	(22.3)	(14.5)	10.5	19.7	14.5
Uber	5.4	4.8	(51.6)	(15.4)	(11.5)	33.4	16.5	7.7
Enterprise subtotal	**(22.0)**	**3.1**	**13.2**	**20.8**	**(9.7)**	**22.0**	**35.7**	**(5.1)**
Total	**(1.3)**	**23.1**	**30.1**	**15.8**	**(4.2)**	**50.9**	**14.0**	**6.0**

Source: Company data; Bloomberg; KGI Research

Figure 3: Quanta Computer & Wiwynn's main server clients are CSPs; Hon Hai & Inventec have some enterprise clients

Shipments mix (%)	Inventec	Wiwynn	Wistron	Hon Hai	Quanta	Mitac
HPE	16		23	17		
Dell	10		38	14		
Inspur			3			64
Lenovo	7		1			
Google	11			2	24	
Meta		77		0	36	
Microsoft	11	20		12	19	
Amazon	17	1		25	17	7
Supermicro			20			
Others	28	2	16	31	4	29
Total	100	100	100	100	100	100

Note: Data is based on 2Q24 shipments
Source: Digitimes; KGI Research

Figure 4: Meta is mainly supplied by Wiwynn & Quanta, while Microsoft is supplied by Quanta, Inventec, & Hon Hai

Shipments mix (%)	Inventec	Wiwynn	Wistron	Hon Hai	Quanta	Mitac	Others	Total
HPE	41		23	34			2	100
Dell	23		34	25			17	100
Inspur			4			59	37	100
Lenovo	38		2				61	100
Google	36			6	58			100
Meta		51			49			100
Microsoft	26	18		22	35			100
Amazon	32	1		37	25	4	1	100
Supermicro			18				83	100

Note: Data is based on 2Q24 shipments
Source: Digitimes; KGI Research

Figure 5: Top four CSPs to account for 58% of total AI server demand in 2024F
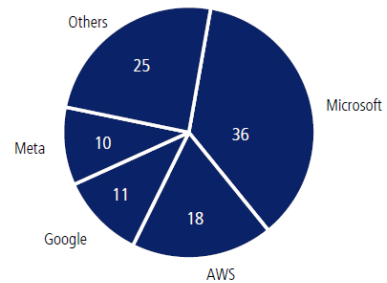
Market share, percent

Others (e.g., Chinese CSPs) 42; Microsoft 21; AWS 14; Google 12; Meta 11
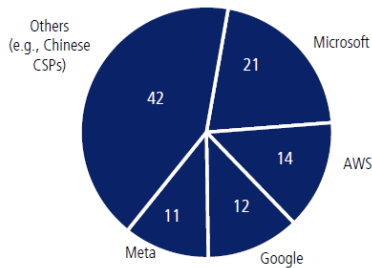
Source: KGI Research estimates

Figure 6: Top four CSPs to account for 75% of total GB200 demand in 2025F

Market share, percent

Others 25; Microsoft 36; AWS 18; Google 11; Meta 10

Source: KGI Research estimates

Figure 7: Comparison – Cloud peer valuations

Sector	Company	Ticker	Market cap. (US$mn)	Share price (LCY)	Rating	Target Price (LCY)	EPS (LCY) 2023	2024F	2025F	EPS YoY (%) 2023	2024F	2025F	PE (x) 2023	2024F	2025F	PB (x) 2023	2024F	2025F	ROE (%) 2023	2024F	2025F	Cash yield (%) 2023	2024F
ODM	Hon Hai	2317 TT	90,211	208.0	Outperform	265.0	10.25	11.32	15.21	0.4	10.4	34.4	20.3	18.4	13.7	1.9	1.8	1.7	9.7	10.3	13.0	2.6	2.9
	Inventec	2356 TT	5,129	45.7	Outperform	58.0	1.71	2.36	3.41	0.0	38.3	44.2	26.7	19.3	13.4	2.7	2.6	2.5	10.2	13.7	19.1	3.3	4.1
	Quanta	2382 TT	36,857	305.0	Outperform	390.0	10.29	15.11	18.79	37.0	46.9	24.4	29.6	20.2	16.2	6.3	6.0	5.5	22.3	30.3	35.3	3.0	4.0
	Wistron	3231 TT	10,423	115.0	Outperform	150.0	4.08	6.20	8.85	1.7	51.9	42.7	28.2	18.6	13.0	3.2	2.8	2.5	11.4	15.9	20.0	2.3	3.4
	Wiwynn	6669 TT	10,843	1,865.0	Outperform	3,020.0	68.88	125.64	160.57	(15.0)	82.4	27.8	27.1	14.8	11.6	7.7	4.4	3.7	29.7	37.1	34.5	2.3	3.6
	Gigabyte Tech	2376 TT	5,910	282.0	Outperform	345.0	7.46	18.03	20.43	(27.5)	141.6	13.3	37.8	15.6	13.8	4.8	3.9	3.8	12.9	27.3	27.8	2.4	5.6
	Asrock	3515 TT	793	204.5	Outperform	270.0	7.54	10.90	13.62	(13.2)	44.6	24.9	27.1	18.8	15.0	3.1	3.0	3.0	11.3	16.2	19.9	3.4	4.8
	Mitac Holdings*	3706 TT	1,750	46.4	Not rated	N.A.	1.48	N.M.	N.M.	(80.9)	N.A.	N.A.	31.3	N.A.	N.A.	0.9	N.A.	N.A.	2.9	N.M.	N.M.	2.8	N.A.
Socket/ Connector/cable	Lotes	3533 TT	5,824	1,670.0	Outperform	1,930.0	50.65	81.13	103.86	(13.7)	60.2	28.0	33.0	20.6	16.1	6.7	5.8	4.9	22.1	30.2	33.0	1.6	2.4
	Fit Hon Teng Ltd*	6088 HK	2,372	2.53	Not rated	N.A.	0.08	0.13	0.20	222.3	70.5	47.4	32.4	19.0	12.9	7.6	7.0	6.3	5.4	7.6	10.3	0.0	0.1
	Argosy*	3217 TT	462	164.0	Not rated	N.A.	8.11	10.61	10.98	19.3	30.8	3.5	20.2	15.5	14.9	3.4	N.A.	N.A.	17.9	23.1	22.0	3.3	4.9
	Alltop	3526 TT	520	276.0	Outperform	297.0	11.68	15.60	19.69	24.2	33.5	26.2	23.6	17.7	14.0	6.3	6.2	6.2	26.9	35.5	44.6	4.2	5.6
Rail kit	King Slide Works	2059 TT	3,801	1,275.0	Outperform	1,700.0	28.38	57.58	63.88	(33.3)	102.9	10.9	44.9	22.1	20.0	7.4	6.2	5.3	16.9	30.5	28.6	1.1	2.3
Thermal module	Sunonwealth	2421 TT	842	98.4	Outperform	130.0	5.16	5.83	7.23	18.9	12.9	24.1	19.1	16.9	13.6	3.7	3.5	3.2	21.5	21.4	24.8	3.6	4.2
	Auras	3324 TT	1,744	613.0	Outperform	990.0	14.28	22.02	38.30	(2.7)	54.2	73.9	42.9	27.8	16.0	11.4	7.1	5.7	20.2	26.9	38.9	1.1	1.6
	AVC	3017 TT	7,639	637.0	Outperform	885.0	14.11	21.40	31.61	19.7	51.7	47.7	45.2	29.8	20.2	11.1	9.3	7.6	28.3	34.1	41.6	1.1	1.7
	Kaori	8996 TT	865	305.0	Outperform	460.0	6.45	7.60	15.99	0.0	17.9	110.3	47.3	40.1	19.1	10.1	9.9	7.1	25.0	25.0	43.6	1.3	1.3
Heat spreader	Jentech*	3653 TT	6,348	1,420.0	Not rated	N.A.	16.59	24.73	38.80	(15.1)	49.1	56.9	85.6	57.4	36.6	17.4	N.A.	N.A.	21.9	N.M.	N.M.	0.7	N.A.
BBU	Simplo Tech	6121 TT	1,982	342.5	Outperform	460.0	30.67	28.77	32.61	(21.6)	(6.2)	13.4	11.2	11.9	10.5	1.9	1.8	1.7	16.9	15.2	16.5	6.3	6.0
	AES-KY	6781 TT	1,363	510.0	Outperform	570.0	23.04	22.05	27.49	(38.8)	(4.3)	24.7	22.1	23.1	18.6	3.4	3.1	2.9	15.4	14.1	16.2	2.3	2.2
Chassis	Chenbro	8210 TT	1,086	287.0	Outperform	345.0	9.03	15.45	19.15	8.5	71.1	24.0	31.8	18.6	15.0	6.3	5.4	4.6	20.8	31.1	33.1	1.7	2.8
BMC	Aspeed Tech*	5274 TT	5,088	4,300.0	Not rated	N.A.	26.66	62.35	89.77	(52.2)	133.9	44.0	161.3	69.0	47.9	42.4	31.2	24.4	24.2	51.6	57.0	0.5	1.0
Silicon photonics	Land Mark Opto	3081 TT	993	343.0	Neutral	340.0	(2.31)	(0.36)	8.49	N.M.	N.M.	N.M.	N.M.	N.M.	40.4	8.2	8.3	7.5	(5.1)	(0.9)	19.7	0.1	0.1
CCL	Iteq*	6213 TT	896	78.9	Not rated	N.A.	1.86	3.03	5.48	(62.3)	62.7	80.9	42.4	26.1	14.4	1.5	1.4	1.3	3.4	5.4	9.1	1.9	2.6
	Elite Material	2383 TT	4,603	427.0	Outperform	595.0	16.35	27.05	33.14	7.3	65.5	22.5	26.1	15.8	12.9	5.5	4.8	4.2	22.5	32.6	35.2	2.3	3.8
ABF	Unimicron Tech	3037 TT	7,920	166.0	Outperform	205.0	7.88	4.32	12.78	(60.7)	(45.2)	195.8	21.1	38.4	13.0	2.8	2.7	2.4	13.6	7.1	19.3	1.8	1.0
PCB	Gold Circuit	2368 TT	2,893	188.0	Outperform	275.0	7.25	12.96	17.22	(18.2)	78.8	32.9	25.9	14.5	10.9	5.5	5.3	4.4	22.7	37.1	43.8	1.9	3.4
Power	Delta	2308 TT	31,734	390.5	Outperform	512.0	12.86	15.56	18.97	2.2	21.0	22.0	30.4	25.1	20.6	5.1	4.4	3.9	17.3	18.8	20.1	1.6	2.0
	Lite-On Tech	2301 TT	7,417	101.0	Outperform	120.0	6.36	5.53	6.64	2.8	(13.1)	20.1	15.9	18.3	15.2	2.8	2.6	2.4	17.6	14.6	16.4	4.5	4.0
	Chicony Power	6412 TT	1,599	127.5	Not rated	N.A.	8.27	8.90	10.75	0.6	7.6	20.8	15.4	14.3	11.9	3.7	3.7	3.4	24.9	27.3	31.6	4.7	4.9
	AcBel Polytech*	6282 TT	895	33.2	Not rated	N.A.	0.07	1.44	2.14	(94.0)	1957.1	48.6	474.3	23.1	15.5	1.2	1.2	1.1	0.3	5.2	7.3	1.5	0.3
Foundry	TSMC	2330 TT	831,593	1,025.0	Outperform	1,450.0	32.3	45.23	57.87	(17.5)	39.9	27.9	31.7	22.7	17.7	7.7	6.3	5.0	26.2	30.4	31.5	1.5	1.6
Design service	Alchip Tech	3661 TT	5,074	2,030.0	Outperform	3,345.0	45.5	80.98	83.60	77.0	78.1	3.2	44.6	25.1	24.3	8.4	4.5	4.1	21.4	23.8	17.7	1.1	2.0
	Global Unichip	3443 TT	4,947	1,180.0	Neutral	1,430.0	26.2	26.76	32.02	(5.5)	2.2	19.6	45.1	44.1	36.9	16.3	13.9	11.5	39.5	34.0	34.0	1.2	1.2
IC package/testing	Winway	6515 TT	1,414	1,300.0	Outperform	865.0	15.9	34.57	N.A.	(50.7)	117.8	N.A.	81.9	37.6	N.A.	12.7	10.4	N.A.	15.1	30.4	N.A.	0.9	2.0
	Chroma	2360 TT	5,655	425.0	Not rated	N.A.	10.9	12.72	N.A.	(10.3)	16.8	N.A.	39.0	33.4	N.A.	7.9	7.3	N.A.	20.7	22.5	N.A.	1.7	2.0
Networking	Luxnet	4979 TT	628	142.5	Underperform	98.0	3.3	4.23	5.51	63.0	26.7	30.1	42.7	33.7	25.9	6.6	5.8	4.8	19.9	17.9	19.3	1.0	1.4
	Accton Tech	2345 TT	9,698	553.0	Outperform	700.0	16.0	20.80	23.26	9.2	30.1	11.8	34.6	26.6	23.8	12.3	10.4	8.8	39.1	42.3	40.2	1.8	2.3

* Bloomberg consensus
Source: Bloomberg; KGI Research estimates

Figure 8: Global server shipments by brand

Vendor	Server shipments ('000 units)																			
	1Q21	2Q21	3Q21	4Q21	1Q22	2Q22	3Q22	4Q22	1Q23	2Q23	3Q23	4Q23	1Q24	2Q24	2019	2020	2021	2022	2023	1H24
Dell EMC	489	529	499	548	542	496	526	484	366	362	343	366	332	365	2,050	1,950	2,064	2,048	1,437	697
HPE	322	339	316	342	300	269	345	380	252	238	209	212	231	235	1,546	1,392	1,319	1,294	911	466
Inspur Electronics	231	348	356	388	343	340	348	337	212	285	333	275	319	329	1,131	1,230	1,323	1,368	1,105	648
Lenovo	169	202	216	186	126	197	236	216	173	152	160	150	168	173	755	702	773	775	635	340
Supermicro	133	157	152	171	171	208	227	217	151	120	116	161	147	127	N.A.	496	614	823	548	274
xFusion Digital Technologies	N.A.	N.A.	N.A.	154	120	136	139	144	90	114	105	135	120	142	N.A.	N.A.	154	539	444	262
H3C	86	109	129	134	88	109	92	132	73	90	79	96	99	113	254	345	458	422	339	211
Cisco	55	48	46	51	40	48	40	31	35	29	36	37	32	28	279	228	200	160	136	60
PowerLeader	20	22	27	81	61	60	62	75	47	54	57	65	46	60	109	119	150	258	222	106
Fujitsu	41	42	36	31	28	23	33	37	36	26	26	24	26	27	212	168	150	122	113	52
Sugon	30	34	48	101	28	36	50	46	29	52	50	55	31	42	347	209	213	160	186	74
Others	1,023	1,333	1,248	1,585	1,452	1,455	1,268	1,634	1,182	1,265	1,267	1,371	1,242	1,274	5,107	5,048	5,189	5,808	5,085	2,516
Total	2,739	3,245	3,140	3,794	3,307	3,387	3,379	3,754	2,664	2,809	2,805	2,980	2,820	2,947	12,537	12,672	12,918	13,827	11,259	5,767
YoY (%)																				
Dell EMC	3.1	22.3	(0.9)	1.3	11.0	(6.3)	5.6	(11.7)	(32.6)	(26.9)	(34.8)	(24.2)	(9.3)	0.9	(9.6)	(4.9)	5.8	(0.8)	(29.8)	(4.3)
HPE	(0.2)	(7.1)	(4.6)	(8.3)	(7.1)	(20.6)	9.0	11.2	(16.0)	(11.6)	(39.3)	(44.2)	(8.3)	(1.1)	(8.6)	(10.0)	(5.2)	(2.0)	(29.6)	(4.8)
Inspur Electronics	(3.0)	(4.6)	10.3	27.4	48.8	(2.3)	(2.3)	(13.2)	(38.2)	(16.2)	(4.2)	(18.5)	50.4	15.6	6.6	8.8	7.5	3.4	(19.2)	30.5
Lenovo	9.2	6.0	34.1	(4.9)	(25.4)	(2.4)	9.1	16.2	37.2	(22.7)	(32.3)	(30.6)	(3.0)	13.4	(1.3)	(7.1)	10.1	0.3	(18.1)	4.7
Supermicro	16.9	7.2	37.7	37.4	28.8	32.2	49.0	26.6	(12.1)	(42.3)	(48.7)	(25.7)	(2.5)	6.0	N.A.	N.A.	23.8	34.1	(33.4)	1.3
xFusion Digital Technologies	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	(6.3)	(25.0)	(15.8)	(24.9)	(6.4)	33.8	24.3	N.A.	N.A.	N.A.	250.5	(17.7)	28.5
H3C	56.6	23.6	36.4	24.3	2.4	0.4	(28.3)	(1.3)	(16.8)	(17.3)	(14.2)	(27.4)	34.4	25.0	43.1	35.7	32.6	(7.8)	(19.7)	29.2
PowerLeader	7.7	(3.4)	(19.9)	84.2	206.8	171.3	126.1	(7.2)	(22.6)	(10.6)	(8.2)	(13.3)	(1.6)	11.5	26.4	9.6	25.9	71.4	(13.6)	5.4
Fujitsu	(12.8)	1.2	1.1	(29.3)	(30.9)	(44.7)	(8.5)	20.9	28.3	11.3	(20.9)	(35.4)	(28.8)	2.2	(5.1)	(20.6)	(10.7)	(18.7)	(7.9)	(15.8)
Sugon	(52.6)	(46.4)	19.3	137.8	(5.0)	6.0	3.9	(54.7)	4.8	43.2	(0.9)	20.3	5.9	(18.4)	4.3	(39.8)	1.9	(24.8)	16.1	(9.6)
Others	(17.6)	2.7	20.6	7.6	41.9	9.1	1.6	3.1	(18.6)	(13.1)	(0.1)	(16.1)	5.0	0.7	(1.3)	(1.2)	2.8	11.9	(12.5)	2.8
Total	(6.1)	(0.1)	7.6	5.7	20.7	4.4	7.6	(1.1)	(19.4)	(17.1)	(17.0)	(20.6)	5.9	4.9	(3.2)	1.1	1.9	7.0	(18.6)	5.4
QoQ (%)																				
Dell EMC	(9.6)	8.3	(5.8)	9.9	(1.0)	(8.6)	6.2	(8.1)	(24.4)	(1.0)	(5.2)	6.8	(9.5)	10.2						
HPE	(13.6)	5.0	(6.7)	8.2	(12.4)	(10.2)	28.1	10.4	(33.9)	(5.4)	(12.1)	1.4	8.8	2.0						
Inspur Electronics	(24.3)	51.0	2.3	9.0	(11.6)	(0.9)	2.3	(3.2)	(37.1)	34.4	17.0	(17.5)	16.1	3.3						
Lenovo	(13.8)	19.5	7.3	(14.0)	(32.3)	56.3	20.0	(8.4)	(20.1)	(11.9)	5.0	(6.1)	11.8	3.0						
Supermicro	6.8	18.4	(3.3)	12.4	0.1	21.5	9.0	(4.6)	(30.5)	(20.3)	(3.0)	38.3	(8.9)	(13.3)						
xFusion Digital Technologies	N.A.	N.A.	N.A.	N.A.	(22.0)	13.1	2.8	3.3	(37.6)	26.9	(8.3)	28.7	(10.7)	17.9						
H3C	(20.1)	26.0	18.7	3.9	(34.1)	23.5	(15.2)	43.1	(44.5)	22.9	(12.1)	21.1	2.8	14.2						
PowerLeader	(55.2)	11.8	23.9	196.9	(25.4)	(1.2)	3.2	21.8	(37.8)	14.3	6.0	15.0	(29.3)	29.4						
Sugon	(30.3)	15.3	40.9	109.9	(72.1)	28.6	38.1	(8.4)	(35.6)	75.9	(4.4)	11.1	(43.3)	35.5						
Total	(23.7)	18.5	(3.2)	20.8	(12.8)	2.4	(0.2)	11.1	(29.0)	5.4	(0.1)	6.2	(5.4)	4.5						
Global market share (%)																				
Dell EMC	17.8	16.3	15.9	14.4	16.4	14.6	15.6	12.9	13.7	12.9	12.2	12.3	11.8	12.4	16.4	15.4	16.0	14.8	12.8	12.1
HPE	11.8	10.4	10.1	9.0	9.1	7.9	10.2	10.1	9.4	8.5	7.5	7.1	8.2	8.0	12.3	11.0	10.2	9.4	8.1	8.1
Inspur Electronics	8.4	10.7	11.3	10.2	10.4	10.0	10.3	9.0	8.0	10.1	11.9	9.2	11.3	11.2	9.0	9.7	10.2	9.9	9.8	11.2
Lenovo	6.2	6.2	6.9	4.9	3.8	5.8	7.0	5.8	6.5	5.4	5.7	5.0	5.9	5.9	6.0	5.5	6.0	5.6	5.6	5.9
Supermicro	4.9	4.9	4.9	4.5	5.2	6.1	6.7	5.8	5.7	4.3	4.2	5.4	5.2	4.3	N.A.	3.9	4.8	6.0	4.9	4.8
xFusion Digital Technologies	N.A.	N.A.	N.A.	4.1	3.6	4.0	4.1	3.8	3.4	4.1	3.7	4.5	4.3	4.8	N.A.	N.A.	1.2	3.9	3.9	4.5
H3C	3.1	3.3	4.1	3.5	2.7	3.2	2.7	3.5	2.8	3.2	2.8	3.2	3.5	3.8	2.0	2.7	3.5	3.1	3.0	3.7
PowerLeader	0.7	0.7	0.9	2.1	1.8	1.8	1.8	2.0	1.8	1.9	2.0	2.2	1.6	2.0	0.9	0.9	1.2	1.9	2.0	1.8
Sugon	1.1	1.1	1.5	2.7	0.9	1.1	1.5	1.2	1.1	1.8	1.8	1.8	1.1	1.4	2.8	1.7	1.6	1.2	1.7	1.3
Others	44.0	44.9	43.0	43.2	45.0	43.9	38.9	45.1	46.4	46.7	47.0	47.9	46.0	43.2	48.4	47.3	43.7	43.3	47.0	45.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Gartner, KGI Research

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