Netweb Technologies India Limited

Initiating Coverage

Stands out in the HCS market

January 09, 2024

Sandeep Shah (sandeep.shah@equirus.com, +91-22-4332 0673)
Deep Modi (deep.modi@equirus.com, +91-79-6901 5019)

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

Netweb Technologies India Limited

Stands out in the HCS market

CMP	Target Price
Rs 1,263	Rs 1,360
Rating	**Upside**
ADD	8% (↑)

- Netweb provides end-to-end high-end computing solutions (HCS) to its established enterprise clients, both in the Indian government and private sectors. As a branded OEM vs. most of its EMS (electronic manufacturing services) peers who operate as sub-contractors, Netweb enjoys superior margins/RoEs (Exhibits 75-76).
- We believe Netweb is poised to leverage (a) the high growth potential of its IT hardware products/related services market in India (estimated at US$8.9bn in 2023 with a 14% CAGR likely over FY23F-FY29F; Exhibit 11), (b) conducive government policies (Netweb holds PLI certificate for manufacturing IT hardware & telecom products; Exhibit 57), (c) its growth strategies (such as its recent tie-up with Nvidia on AI-based server architecture; to be a long-term growth driver) given its solid track record (note that 3 of its super computers are listed 11 times in the world's top-500 SPCs-Exhibit 40).
- We see Netweb as an emerging challenger in the HCS market with a rising wallet share and believe that it is poised for robust long-term growth. We estimate strong sales/PAT CAGR of 38%/44% over FY23-FY26E. Given these arguments, Netweb should trade at premium valuations vs. its EMS peers (Exhibit 75-76) in our view. Given the recent stock rally, we initiate coverage on Netweb with ADD and a Mar'25 TP of Rs 1,360 set at a fwd. PE of 55x (vs. EPS CAGR of 50% over FY24E-FY26E).

Stock Information	
Market Cap (Rs Mn)	70,818
52 Wk H/L (Rs)	1,310/739
Avg Daily Volume (1yr)	NA
Avg Daily Value (Rs Mn)	361.4
Equity Cap (Rs Mn)	112
Face Value (Rs)	2
Share Outstanding (Mn)	56.1
Bloomberg Code	NETWEB IN
Ind Benchmark	BSE IT

Ownership (%)	Recent	3M	12M
Promoters	75.5	75.5	NA
DII	7.5	7.5	NA
FII	10.3	10.3	NA
Public	6.7	6.7	NA

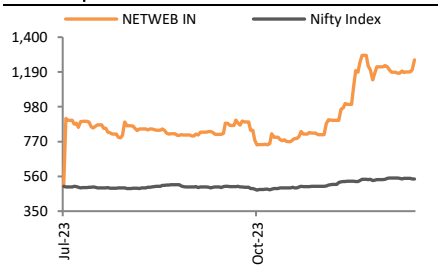
Stands out in the HCS market: Netweb designs (complex 16-24 layers motherboard; Exhibit 50), manufactures, integrates/assembles, and deploys complex computing products (see Exhibit 1-4 for its sales segments), comprising its proprietary middleware/software solutions (Exhibit 47). Understanding changing designs and implementation of HCS offerings require technical expertise – a significant entry barrier in the industry. Netweb however has surmounted this barrier, thanks to its partnership with tier-I global technology leaders, its in-house design/R&D efforts built over time, and experience gained from executing many mission-critical projects.

Longstanding relations with marquee clients, diverse customer base with high repeat business: Netweb caters to marquee customers across various end-user industries. Its end-to-end offerings help in client retention and facilitate high repeat business (Exhibit 58-65).

Expect healthy earnings growth ahead: We forecast a 38%/44% revenue/PAT CAGR over FY23-FY26F with robust margins and return ratios (exhibit 68-74) for Netweb driven by (a) high growth potential of India's HCS market, (b) the company's differentiated and established track record, (c) a healthy order book/pipeline, and (d) expansion strategies (to offer network switches, 5G ORAN solutions and expand in different industries, segments and export markets; Exhibit 66).

Initiate coverage with ADD: Considering the above arguments, we believe Netweb should trade at premium valuations versus its EMS peers. Given the recent run-up in the stock, we initiate coverage with ADD and a Mar'25 TP of Rs 1,360 based on forward PE of 55x (vs EPS CAGR of 50% over FY24E-FY26E).

Relative price chart



Source: Bloomberg

Financial Summary

YE Mar Rs mn	Sales	EBITDA	Recurring PAT	EPS (Rs)	P/E (x)	P/B (x)	EV/ EBITDA (x)	ROE (%)	Core ROIC (%)	EBITDA Margin (%)
FY23A	4,450	700	469	9.2	137.0	68.7	101.4	68.0	53.2	15.7
FY24E	6,051	828	615	10.8	116.9	17.6	82.7	24.5	37.8	13.7
FY25E	8,762	1,364	1,005	17.6	71.6	14.4	50.1	22.2	41.7	15.6
FY26E	11,718	1,927	1,405	24.7	51.2	11.7	35.3	25.2	42.9	16.4

Source: Company, Equirus Securities

Analysts

Sandeep Shah
sandeep.shah@equirus.com
022-43320673
Deep Modi
deep.modi@equirus.com
079-69015019

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

Table of Contents

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

Netweb - One of India's leading high-end computing solutions (HCS) providers

Netweb brief business overview

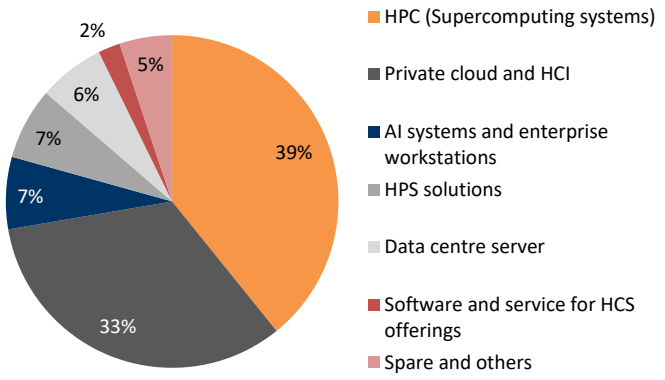
Netweb is one of India's leading HCS provider, with fully integrated design, manufacturing, and integration capabilities.

Netweb designs, manufactures, integrates/assembles and deploys high end computing IT hardware along with solutions comprising proprietary middleware solutions, end user utilities and pre-compiled application stack.

Netweb's HCS products/solutions offerings comprise (i) high performance computing (Supercomputing / HPC) systems – 36% of 1HFY24 revenue (ii) private cloud and hyperconverged infrastructure (HCI)- 33% of 1HFY24 revenue (iii) AI (artificial Intelligence) systems and enterprise workstations-10% of 1HFY24 revenue (iv) high performance storage (HPS / Enterprise Storage System) solutions - 5% of 1HFY24 revenue (v) data centre servers - 6% of 1HFY24 revenue (vi) software and services for their HCS offerings - 4% of 1HFY24 revenue and (vii) Spare and others – c.6% of 1HFY24 revenue.

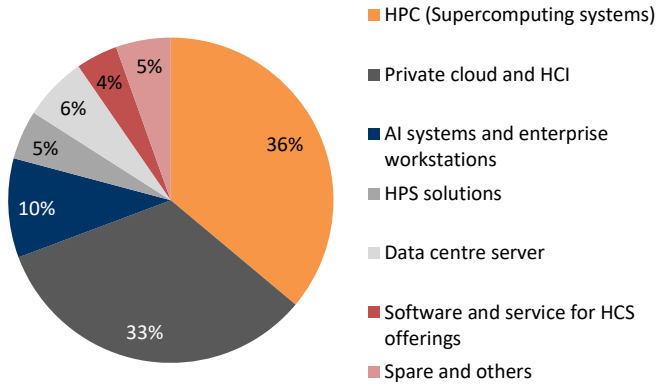
These products/solutions offerings are provided to largely domestic clients (government clients – comprises c.51% of its 1HFY24 revenues and non-government clients – comprises c.49% of 1HFY24 revenues) operating into application industries including i) higher education and research – 30% of 1HFY24 revenues, ii) Space and Defence – 13% of 1HFY24 revenues, iii) IT & ITES – 36% of 1HFY24 revenues, iv) others - 21% of 1HFY24 revenues.

Exhibit 1: Revenue breakup by business verticals (%) for FY23



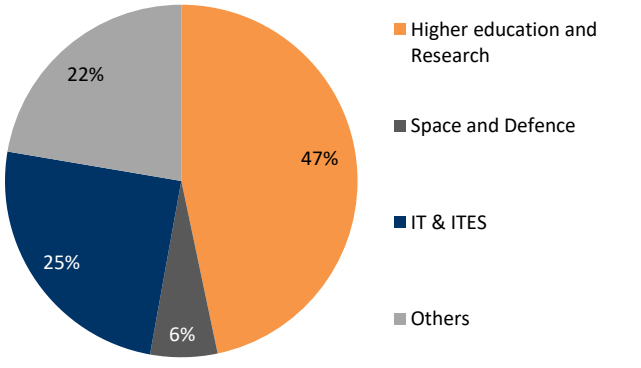
Source: Company data

Exhibit 2: Revenue breakup by business verticals (%) for 1HFY24



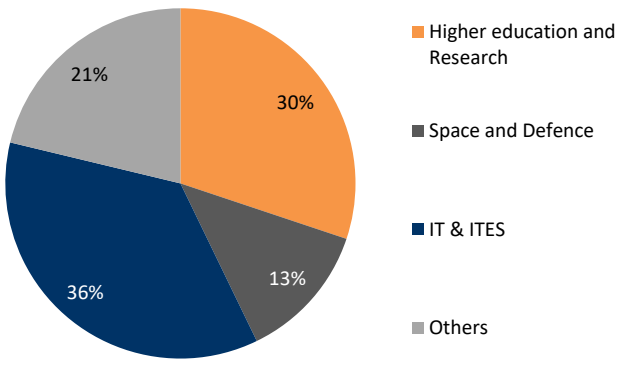
Source: Company data

Exhibit 3: Revenue breakup by Application industries (%) for FY23



Source: Company data

Exhibit 4: Revenue breakup by Application industries (%) for 1HFY24



Source: Company data

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

In terms of number of HPC installations, Netweb is one of the most significant OEMs in India amongst others. (Source: F&S Report i.e. Frost & Sullivan Report). Since the inception of the erstwhile sole proprietorship, one of Netweb's Promoters, Sanjay Lodha, M/s Netweb Technologies, which Netweb had acquired in August, 2016, until today it has undertaken installations of (i) over 300 Supercomputing systems (note that three of its super computers are listed 11 times in the world's top-500 SPCs), (ii) over 50 private cloud and HCI installations; (iii) over 4,000 accelerator / GPU based AI systems and enterprise workstations; and (iv) HPS solutions with throughput storage of up to 450 GB/ sec and & designs that can be extended up to 1,000 petabytes.

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

India HCS market expected to register robust growth.

Conducive government policies

Government of India's 'Make in India' initiative to boost local hardware manufacturing.

In 2014, the government of India announced the initiative to make India a global manufacturing hub, by facilitating both domestic as well as international companies to set up manufacturing bases in India. As per the scheme, the government released special funds to boost local manufacturing of mobile phones, electronic components, hardware amongst many other sectors. Since its launch, Make in India initiative has made significant achievements and presently focuses on around 27 sectors under Make in India 2.0 which is implemented across various Ministries/Departments, Central Government and State Government. It has also introduced multiple new initiatives, including promoting foreign direct investment, implementing intellectual property rights, and developing the manufacturing sector. Government has taken a series of policy initiatives to improve the economic situation and convert the disruption caused by COVID 19 into an opportunity for growth. These includes the Atmanirbhar Bharat packages and introduction of Production Linked Incentive (PLI) Scheme in fourteen (14) sectors amongst various other initiatives. The Make in India initiative along with these policies and schemes would provide an additional boost to the country's business operations by encouraging the substitution of imports of low-technology products from other countries and generating demand for local manufacturing.

Production Linked Incentive (PLI) Scheme (Policy initiatives driving Domestic Production of IT hardware in India)

Production Linked Incentive (PLI) Schemes for 14 key sectors (with an incentive outlay of Rs. 1.97 lakh crore) are under implementation to enhance India's manufacturing capabilities and exports. With announcement of PLI Schemes, significant improvement in production, skills, employment, economic growth and exports is expected over the next five years and more.

While the Production Linked Incentive Scheme (PLI) for IT Hardware was notified in March 2021, the PLI Scheme 2.0 for IT Hardware, effective as of May 2023, is anticipated to result in broadening and deepening of the manufacturing ecosystem by encouraging the localization of components and sub-assemblies and allowing for an extended period to develop the supply chain within the country. In addition to providing applicants with increased flexibility and options, the scheme is attached to incremental sales and investment thresholds to further encourage growth. In addition, the PLI Scheme 2.0 for IT Hardware includes incentive-based components for semiconductor design, IC manufacturing, and packaging. The scheme seeks to incentivise companies to utilise the existing installed capacity to fulfil the increasing domestic demand. ***The PLI scheme for this second phase has a budget of INR 170 billion spread over a tenure of six years and aims to boost electronics manufacturing in India.***

Exhibit 5: Comparative summary of Production Linked Incentive (PLI) Scheme and PLI 2.0 Scheme for IT Hardware

	Production Linked Incentive (PLI) Scheme	Production Linked Incentive 2.0 (PLI) Scheme:
Govt Notified Scheme	The Production Linked Incentive Scheme (PLI) for IT Hardware was notified vide notification No. W-18/28/2020-IPHW-MeitY dated 3rd March 2021.	Government of India (Ministry of Electronics & IT) has notified PLI Scheme 2.0 for IT Hardware vide notification No. CG-DL-E-30052023-246165 dated 29th May 2023.
Objective	The PLI Scheme for IT Hardware proposes a financial incentive to boost domestic manufacturing and attract large investments in the value chain. The scheme seeks to incentivise companies to utilise the existing installed capacity to fulfil the increasing domestic demand.	PLI 2.0 Scheme for IT Hardware proposes a financial incentive to boost domestic manufacturing and attract large investments in the value chain. PLI Scheme 2.0 for IT Hardware, effective as of May 2023, is anticipated to result in broadening and deepening of the manufacturing ecosystem by encouraging the localization of components and sub-assemblies and allowing for an extended period to develop the supply chain within the country. In addition to providing applicants with increased flexibility and options, the scheme is attached to incremental sales and investment thresholds to further encourage growth. In addition, the PLI Scheme 2.0 for IT Hardware includes incentive-based components for semiconductor design, IC manufacturing, and packaging.

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

	Production Linked Incentive (PLI) Scheme	Production Linked Incentive 2.0 (PLI) Scheme:
Quantum Of Incentive	The Scheme shall extend an incentive of 4% to 2% / 1% on net incremental sales (over base year) of goods manufactured in India and covered under the target segment, to eligible companies.	PLI 2.0 Scheme for IT Hardware shall extend an average incentive of around 5% for localization of items (given in Annexure- 2 of the scheme guidelines).
Budget and Tenure of Scheme	Support under the Scheme shall be provided for a period of four (4) years from financial year 2021-22 with base year as financial year 2019-20 and it has expected outlays of Rs. 73 billion.	The PLI 2.0 scheme has a budget of Rs. 170 billion spread over a tenure of six (6) years and aims to boost electronics manufacturing in India.
Target Segments	The Target Segment under PLI for IT Hardware shall include (i) Laptops (ii) Tablets (iii) All-in-One PCs and (iv) Servers.	The Target Segment under PLI 2.0 Scheme shall include (i) Laptops (ii) Tablets (iii) All-in-One PCs and (iv) Servers and (v) Ultra Small Form Factor.

Source: Ministry of Electronics and Information Technology (MEITY), https://pliithw.com/

Exhibit 6: IT Hardware PLI 2.0 Scheme expected outlay

Financial Year	Expected annual incentive outlay and cumulative incentive outlay (Rs.bn)
Year 1*	3.21
Year 2	7.54
Year 3	14.31
Year 4	35.55
Year 5	47.59
Year 6	61.18
Total	169.38

*Source: Ministry of Electronics and Information Technology (MEITY). Note: *Incentives shall be applicable from July 1, 2023, or April 1,2024 or April 1,2025 for 6 years depending upon the applicants' choice to commit incremental investment and incremental sales under the PLI 2.0 Scheme.*

Exhibit 7: PLI 2.0 Scheme Summary and Eligibility Threshold Criteria of Incremental Investment and Sale of IT Hardware: Products – laptops, tablets, all-in-one PCs, servers & Ultra Small Form Factor (USFF)

Category	Incremental Investment after 31.03.2023	Incremental Sales of Manufactured Goods over Base Year
Global IT Hardware Companies (i) Laptops (Invoice value of Rs.30,000 and above), (ii) Tablets (Invoice value of Rs.15,000 and above), (iii) All-in-One PCs (iv) Servers (v) Ultra Small Form Factor (USFF)	Rs.5.00 bn over 6 Years Cumulative Minimum: Year 1: Rs.0.50 bn Year 2: Rs.1.50 bn Year 3: Rs.2.50 bn Year 4: Rs.3.50 bn Year 5: Rs.4.50 bn Year 6: Rs.5.00 bn	Year 1: Rs.10 bn Year 2: Rs.25 bn Year 3: Rs.50 bn Year 4: Rs.100 bn Year 5: Rs.120 bn Year 5: Rs.150 bn
Hybrid (Global/Domestic) companies (i) Laptops (Invoice value of Rs.30,000 and above), (ii) Tablets (Invoice value of Rs.15,000 and above), (iii) All-in-One PCs (iv) Servers (v) Ultra Small Form Factor (USFF)	Rs.2.50 bn over 6 Years Cumulative Minimum: Year 1: Rs.0.25 bn Year 2: Rs.0.75 bn Year 3: Rs.1.25 bn Year 4: Rs.1.75 bn Year 5: Rs.2.25 bn Year 6: Rs.2.50 bn	Year 1: Rs.5.00 bn Year 2: Rs.12.50 bn Year 3: Rs.25.0 bn Year 4: Rs.50.00 bn Year 5: Rs.60.00 bn Year 6: Rs.75.00 bn
Domestic Companies (i) Laptops (ii) Tablets (iii) All-in-One PCs (iv) Servers (v) Ultra Small Form Factor (USFF)	Rs.0.20 bn over 6 Years Cumulative Minimum: Year 1: Rs.0.04 bn Year 2: Rs.0.08 bn Year 3: Rs.0.12 bn Year 4: Rs.0.15 bn Year 5: Rs.0.18 bn Year 6: Rs.0.20 bn	Year 1: Rs.0.50 bn Year 2: Rs.1.00 bn Year 3: Rs.2.00 bn Year 4: Rs.3.00 bn Year 5: Rs.4.00 bn Year 6: Rs.5.00 bn

Source: Ministry of Electronics and Information Technology (MEITY)

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

Quantum of Incentive under PLI 2.0:

The Production Linked Incentive Scheme – 2.0 for IT Hardware shall extend an average incentive of around 5% for localization of items given in Annexure-B. The applicant will localize PCBA and assembly during the first year and thereon at least one component/sub-assembly need to be added every year from the bouquet of optional components/ sub-assemblies provided. Most of the target segments under PLI IT Hardware are also made from semiconductors hence components/sub-assemblies such as SSD, memory module, display panel are also part of localization and higher incentive has been provided to incentivize manufacturing of Semiconductors in India. Incentive offered for localization shall taper down every year as per the trajectory in Annexure-B of the notification on PLI 2.0 for IT Hardware.

Exhibit 8: List of Items for localization (Annexure B) under PLI 2.0

Sr No.	Components/Sub-assemblies	% Incentive
1	Assembly of IT Hardware – Laptop / Tablets/ AIOs (Year-1/Year-2/Year-3/ Year 4/Year 5/Year 6))	3/2/1/1/1/0
2	Assembly of IT Hardware – Server / USFF (Year-1/Year-2/Year-3/Year 4/Year 5/Year 6)	3/2/2/1/1/0
3	PCBA of IT Hardware (Target Segment)	1.20
4	Add on Controllers assembled in India – (For Servers)	0.41
5	Bare PCB	0.57
6	Memory Modules assembled in India	0.95
7	Memory Modules assembled in India – (For Servers)	1.89
8	Solid State Drive (SSD) assembled in India	0.95
9	Display panel – Assembled in India (Not for Servers/USFF)	1.49
10	Power Adapter / SMPS	0.41
11	Power Adapter / SMPS – (For Servers)	0.54
12	Battery	0.41
13	Cabinets / Chassis / Enclosures	1.49
14	Memory Modules additional incentive for ATMP in India (over and above incentive for item 6)	+0.25
15	Memory Modules additional incentive for ICs manufactured in India (over and above incentive for item 6)	+0.25
16	Memory Modules additional incentive for ATMP in India (over and above incentive for item 7) (For Servers)	+0.50
17	Memory Modules additional incentive for ICs manufactured in India (over and above incentive for item 7) – (For Servers)	+0.50
18	Solid State Drive (SSD) additional incentive for ATMP in India (over and above incentive for item 8)	+0.25
19	Solid State Drive (SSD) additional incentive for ICs manufactured in India (over and above incentive for item 8)	+0.25
20	Display Panel – Additional incentive for ICs manufactured in India (over and above incentive for item 9)	+0.60
21	System on Chip (SoC) Processors designed in India (IP ownership/Co-ownership in India) including but not limited to SHAKTI and VEGA (IC manufactured outside India) for Laptop, Tablet, AIO and Server/USFF)	+3.24/3.78
22	System on Chip (SoC) Processors designed in India - Additional incentive for ATMP/ICs manufactured in India (over and above incentive for item 21) for Laptop, Tablet, AIO and Server/USFF)	+1.49/1.62

Source: Ministry of Electronics and Information Technology (MEITY)

Separate PLI scheme for Telecom and Networking Products:

With the objective to boost domestic manufacturing, investments and export in the telecom and networking products, Department of Telecommunications (DoT) notified the "Production Linked Incentive (PLI) Scheme" on 24th February 2021.

- **About the Scheme and Objective:** Department of Telecommunications (DoT) notified the "Production Linked Incentive (PLI) Scheme for Telecom and Networking Products" on 24th February 2021 with objective to boost domestic manufacturing, investments and export in the telecom and networking products.

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

- **Budget and Tenure of Scheme and Target Segments:** The PLI Scheme will be implemented within the overall financial limits of Rs. 12.2bn for implementation of the scheme over a period of 5 years FY 2021-22 to FY 2025-26. For MSME category, financial allocation will be Rs.1000 Crores. Small Industries Development Bank of India (SIDBI) has been appointed as the Project Management Agency (PMA) for the PLI scheme. The scheme will be effective from 1st April 2021. Support under the Scheme will be provided to companies who will manufacture specified telecom and networking products - Enterprise Equipment: Switch and Router; Core transmission Equipment; 4G/5G, Next Generation RAN & Wireless Equipment; and Access & CPE, IoT Access Devices and Other Wireless Equipment.
- **Quantum of Incentive and Eligibility Threshold Criteria for Telecom and Networking Products:** (Refer Exhibit 9 below).

Exhibit 9: Summary of PLI scheme Eligibility Threshold Criteria for Telecom and Networking Products

Year	Proposed incentive rate on incremental sales	Cumulative investment (other than land and building)	Minimum Incremental Sales of Manufactured Goods Net of Taxes over the Base Year	Maximum Eligible Sales of Manufactured Goods Net of Taxes over the Base year
MSMEs- Minimum Threshold of Investment Rs. 0.10 bn				
1	7%	>= 20% of investment committed	60% of investment committed	4.0x of investment committed
2	7%	>= 40% of investment committed	1.2x of investment committed	8.0x of investment committed
3	6%	>= 70% of investment committed	2.1x of investment committed	14.0x of investment committed
4	5%	>= investment committed	3.0x of investment committed	20.0x of investment committed
5	4%		3.0x of investment committed	20.0x of investment committed
Other than MSMEs- Minimum threshold of investment Rs.1.00 bn				
1	6%	>= 20% of investment committed	60% of investment committed	4.0x of investment committed
2	6%	>= 40% of investment committed	1.2x of investment committed	8.0x of investment committed
3	5%	>= 70% of investment committed	2.1x of investment committed	14.0x of investment committed
4	5%	>= investment committed	3.0x of investment committed	20.0x of investment committed
5	4%		3.0x of investment committed	20.0x of investment committed

Source: Ministry Of Communications

Import Restriction on IT Hardware to also boost the demand for local IT hardware manufacturing.

- On August 3, 2023, via Notification No. 23/2023, India's Directorate General of Foreign Trade (DGFT) imposed immediate restrictions on importing several items, including laptops, tablets, and personal computers (PCs) falling under HSN 8741 category. The import of these restricted items would now require a valid license.
- On August 4, amending the above notification, the DGFT deferred the implementation of these import restrictions till October 31, 2023 [Notification No. 26/2023]. This meant that starting November 1, 2023, the clearance of import consignments of laptops, tablets, all-in-one PCs, ultra small form factor computers, and servers, among others, falling under the HSN 8471 category would require a valid 'Licence for Restricted Imports'.
- Further vide Notification No. 38/2023 dated 19 October 2023 and Policy Circular No. 6/2023-24 dated 19 October 2023 DGFT clarified, exemption from obtaining Import Authorization for importing stated IT hardware is extended to following cases:
  - Such hardware manufactured in Special Economic Zone (SEZ) units and imported by Domestic Tariff Area (DTA) unit.
  - Import by private entities on behalf of Central Government (CG), State Government and agencies/ undertakings owned and controlled by CG for Defence and Security purposes.
  - Hardware imported after sale for repair/ return/ replacement as well as re-import of repaired IT hardware. And further, it is clarified that:

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

- SEZ units and Export Oriented Units (EOUs)/ Electronics Hardware Technology Park (EHTP) units/ Software Technology Parks of India (STPI) units/ Bio-technology Park (BTP) units are not required to obtain Import Authorization, provided the imported hardware is used only for captive consumption.
- There are no import restrictions on spares, parts, assemblies, sub-assemblies, components, and other inputs necessary for IT hardware devices.
- IT hardware items essential for capital goods are exempt from import licensing requirements. However, if such hardware itself are primary capital goods, the exemption would not apply.

These restrictions will result into likely higher demand for IT hardware manufactured in India not only from clients from India government segment but also from domestic private enterprise segment over medium to long term in our view.

Data Protection and Digital Privacy (DPDP) regulations to boost the demand IT hardware/servers.

In 2023, India's Data Protection and Digital Privacy (DPDP) regulations that spell out new sovereignty and localisation imperatives for enterprises received the President's assent, and DPDP Act will be implemented on a date to be decided by the central government. Silent features of DPDP acta are as follows:

- DPDP act is likely to shape the way businesses collect, secure and use personal data. Specifically, it will require organisations that process personal data to seek consent from individuals before they can use it. The law will also apply to the processing of personal data outside India – if such processing is related to the offering of goods or services to individuals in India.
- There are also special provisions for India's central government to restrict the transfer of personal data from India to another territory for processing. A Data Protection Board of India is also being established with special powers and functions.
- DPDP regulation necessitates stringent data governance, demanding compliance with data handling practices and reinforcing cyber security measures.

Above often leads to infrastructure adjustments for enhanced data privacy. Companies across industries (especially those in the financial and e-commerce sectors) are required to store customer data locally, necessitating the expansion of datacentre capabilities. This is also implied from the recent increasing investment by the international companies to set up and/or expand their datacentres in India to comply with these regulations. Also, organisations may need to establish or reconfigure datacentres to comply with localisation requirements, and that complying with the DPDP's security and privacy standards may lead to significant changes in datacentre infrastructure and practices. Overall if DPDP becomes an act then we believe that demand for data centres in terms of compute, storage and networking will increase over the long term.

Make AI in India & Make AI work for India – Initiative of the Government of India.

As per the Union Budget 2023, media reports are citing that the Indian government plans to set up three Centres of Excellence for Artificial Intelligence in top educational institutions. These centres will be collaborations between educational institutions and leading industries with the goal of researching and developing practical AI applications in agriculture, health, and sustainable cities. The aim is to establish a strong AI ecosystem in India and to train skilled AI professionals. Policy entails leading industry players will partner in conducting interdisciplinary research, develop cutting-edge applications and scalable problem solutions in the areas of Agriculture, Health and sustainable cities.

The adoption of AI holds the potential to revolutionize various sectors of the Indian economy, from farming to manufacturing, to further India's commitment to sustainability. Hence, we believe that these initiatives will further increase the demand for compute, storage and networking infrastructure in India both from government enterprise and also from private enterprise in India.

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

Healthy growth expected for HCS offerings in India market.

As per F&S report India market for HPC / Private Cloud and HCI / AI Systems and EW / Enterprise Storage System / Data Centre Servers / Cloud Managed Services is forecasted to grow at a CAGR of 9.3% / 19.2% / 27.8% / 5.0% / 5.0% / 23.1% respectively over 2023F-2029F.

Exhibit 10: Segment wise Global HCS offerings market summary

Global Segments	Market (USD Bn)			CAGR (%) FY19-FY23F	CAGR (%) FY23F-FY29F
	FY19	FY23F	FY29F		
Global High-Performance Computing Market	38	45	58	4.5%	4.4%
Global Private Cloud & Hyperconverged Infrastructure (HCI) Market	123	228	593	16.7%	17.3%
Global AI Systems & Enterprise Workstations (AI & EW) Market	5	6	8	8.8%	4.5%
Global Data Centre Server Market	78	114	198	9.7%	9.7%
Global Enterprise Storage Systems Market	56	65	79	3.9%	3.3%
Global Cloud Managed Services Market	55	90	190	13.0%	13.2%
Global Enterprise Networking Market	58	71	97	5.0%	5.3%

Source: Frost & Sullivan Analysis

Exhibit 11: Segment wise India HCS offerings market summary

India Segments	Market (USD Mn)			CAGR (%) FY19-FY23F	CAGR (%) FY23F-FY29F
	FY19	FY23F	FY29F		
India High-Performance Computing Market	378	539	919	9.3%	9.3%
India Private Cloud & Hyperconverged Infrastructure (HCI) Market	1,454	2,797	8,007	17.8%	19.2%
India AI Systems & Enterprise Workstations (AI & EW) Market	161	334	1,456	20.1%	27.8%
India Data Centre Server Market	2,741	3,414	4,564	5.6%	5.0%
India Enterprise Storage Systems Market	670	709	948	1.4%	5.0%
India Cloud Managed Services Market	488	1,121	3,901	23.1%	23.1%
India Enterprise Networking market	902	1,382	1,984	11.3%	6.2%

Source: Frost & Sullivan Analysis

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

High-Performance Computing (HPC) Market

Scope & Definition

High Performance Computing (HPC) technology uses clusters of powerful processors, working in parallel, to process massive multi-dimensional datasets (big data) and solve complex problems at extremely high speeds. There are three different types of high-performance computation - parallel computing, distributed computing and exascale computing.

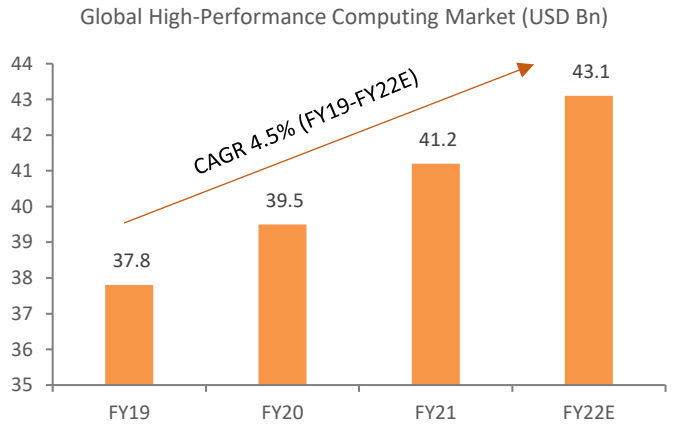
Global High-Performance Computing Market

The global high-performance computing (HPC) market was USD 43.1 Bn in FY2022. The market is forecasted to be USD 45.0 Bn in FY2023 and is expected to reach USD 58.2 Bn by FY2029 with a CAGR of 4.4% over the forecast period (FY2023-2029).

Adoption of HPC in the automobile sector, increased usage of HPC products and services to drug discovery and healthcare and Increasing investments in the Industrial Internet of Things (IIoT), artificial intelligence (AI), and engineering, which demand electronic design automation (EDA), are likely to drive the global HPC market over the forecast period (FY 2023-2029).

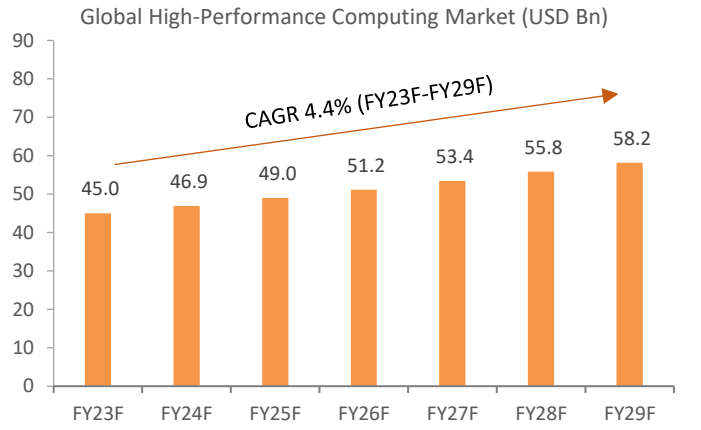
Major players in the global HPC market are HPE, IBM, DELL Technologies, and Lenovo.

Exhibit 12: Global HPC market – FY 2019-2022E



Source: Frost & Sullivan Analysis

Exhibit 13: Global HPC market – FY 2023F-2029F

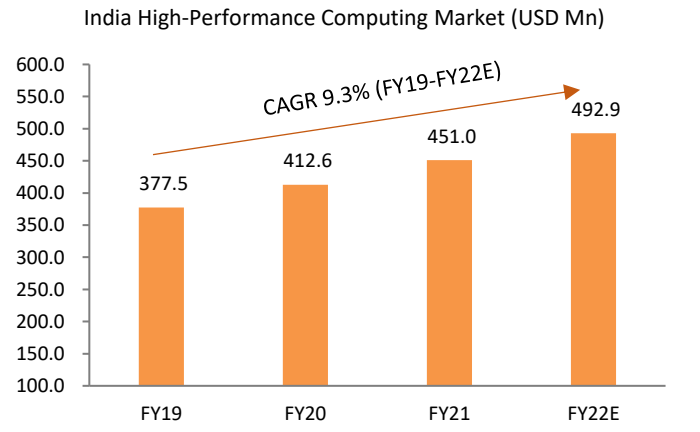


Source: Frost & Sullivan Analysis

India High-Performance Computing Market

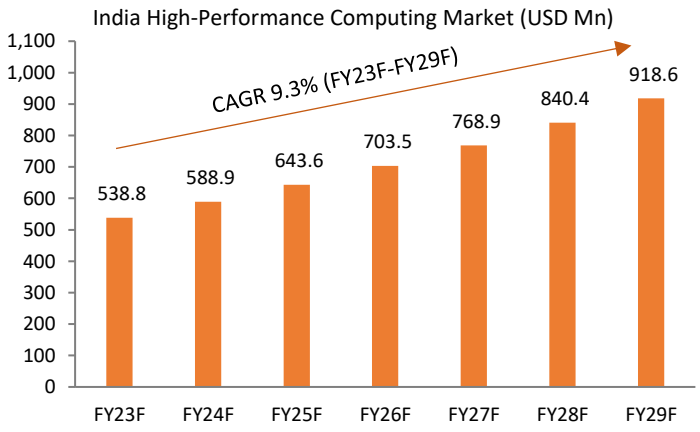
The India high-performance computing (HPC) market was USD 492.9 Mn in FY 2022. The market is forecasted to be USD 538.8 Mn in FY 2023 and is expected to reach USD 918.6 Mn by FY 2029 with a CAGR of 9.3% over the forecast period (FY 2023-2029).

Exhibit 14: India HPC market – FY 2019-2022E



Source: Frost & Sullivan Analysis

Exhibit 15: India HPC market – FY 2023F-2029F



Source: Frost & Sullivan Analysis

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

Indian HPC Market Outlook focused on national supercomputing mission.

The National Supercomputing Mission was announced in 2015, with an aim to connect national academic and R&D institutions with a grid of more than 70 high-performance computing facilities at an estimated cost of ₹4,500 crores over the period of seven years. Only 16.67% of the total budget of ₹4,500 crore, was utilised during the first four-and-a-half years for execution of the mission. The remaining allocation would be used in next few years.

The National Supercomputing Mission is setting up a grid of supercomputing facilities in academic and research institutions across the country, with National Knowledge Network (NKN) as the backbone. The Mission is being jointly steered by the Department of Science and Technology (DST) and the Ministry of Electronics and Information Technology (MeitY) and implemented by the Centre for Development of Advanced Computing (C-DAC), Pune, and the Indian Institute of Science (IISc), Bengaluru.

Powered by the National Supercomputing Mission, India's network of research institutions, in collaboration with the industry, is scaling up the technology and manufacturing capability to make more and more parts in India, taking indigenous manufacturing to 85%.

This mission will provide access to High-Performance Computing (HPC) Facilities to 100 several institutions and more than thousands of active researchers, academicians working through Nation Knowledge Network (NKN) - the backbone for supercomputing systems.

India HPC market by application industry

HPC power is leveraged by both public and private sectors in India. Presently, some of the key sectors like Education, Agriculture, Energy and Power, Drug Design are adopting HPC for their growth while many Automobile Industries, Construction Industries, Atmospheric Sciences, Bioinformatics, and Computational Fluid Dynamics domains etc., are making continuous progress by utilizing HPC.

India HPC market by application is segmented into Government & Defence, BFSI, IT & ITES, Telecommunications, Media, Oil & Gas, and Others. Adoption of HPC in the Government and IT & ITES sectors held the largest share in FY2022.

Exhibit 16: India HPC market by application

Industry Vertical	Revenue (USD Mn)			CAGR (FY23F to FY29F)
	FY22E	FY23F	FY29F	
Government & Defense	136.5	145.30	211.3	6.4%
BFSI	52.1	58.00	110.2	11.3%
IT & ITES	111.3	126.70	275.6	13.8%
Telecommunications	70.8	76.30	119.4	7.7%
Media	23.0	24.60	36.7	6.9%
Oil & Gas	26.0	29.00	55.1	11.3%
Others	73.1	78.80	110.2	5.7%
Total	**493**	**539**	**919**	**9.3%**

Source: Frost & Sullivan Analysis

Following factors across industry will lead to higher adoption and growth of HPC in India

- Government & Defense - Nov 2022, EU and India signed an "Intent of cooperation on High Performance computing and Quantum Technologies". The intent of cooperation is aimed at establishing collaboration using HPC application using Indian European supercomputers in the areas of Biomolecular medicines, COVID Therapeutics, mitigating climate change, predicting natural disasters and quantum computing.
- India dominates the Fintech market in terms of technological innovation and acceptance, with a high adoption rate of 87% (India Fintech report by E&Y). Beyond temporary solutions to ensure business continuity, artificial intelligence, and high-performance computing (HPC) enable financial institutions to further streamline and automate processes, improve data management and utilisation, and ultimately enjoy efficiencies and build resilience to weather future storms.

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

- Telecommunications - Given the prospects provided by machine and deep learning, businesses and telecom firms are now having difficulty managing the enormous and complicated data sets as well as the specific number of simultaneous activities. Thanks to the rising HPC workloads and the efficiently accelerated infrastructure, businesses may completely own their data. It is intended to aid in the development of the following generations of these multifunctional supercomputing systems. Ceremorphic has created a novel architecture that can support next-generation applications such as AI model training, HPC, drug discovery, and metaverse processing.

Exhibit 17: List of some of the top supercomputers deployed in India

Sr No	Name of the supercomputer	Deployed at	Built in Year	Rank (when commissioned)	Designed / Commissioned by	Speed
1	PARAM Siddhi-AI	CDAC	2015	Rank 63 (Global, Nov-2022)	C-DAC	4.6 PF (Rmax) / 5.26 PF (Rpeak)
2	Pratyush	IITM, Pune	2018	78 (Global)	NA	6.8 PF (Rpeak)
3	Mihir	NCMRWF	2018	120 (Global)	NA	2.5 PF (Rpeak)
4	SAHASRAT	IISc, Bengaluru	2015	NA	Cray Inc.	901.54 TF (Rpeak)
5	AADITYA	IITM, Pune	NA	116 (Global)	IBM	719.2 TF (Rpeak)
6	Color Blossom	TIFR, Hyderabad	NA	145 (Global)	Cray Inc.	558.7 Tf (Rpeak)
7	PARAM YUVA-II	CDAC	2013	69 (Global, June-2013)	Netweb	529.438 TF (Rpeak) / 386.71(Rmax)
8	PADUM	IIT, Delhi	NA	166 (Global)	NVIDIA+IIT Delhi	NA
9	VIRGO	IIT Madras	2015	NA	IBM	97 Tf (Rpeak)
10	PARAM Shivay	IIT BHU	2015	NA	CDAC	0.43 (Rmax) / 0.84 (Rpeak)
11	Agastya	IIT Jammu	2020	27th fastest supercomputer in India	Netweb	161 TF (Rmax) / 256 TF (Rpeak)
12	PARAM Ambar	ISRO	2019	4th fastest supercomputer in India	Netweb	919.6 TF (Rmax) / 1384.85 TF (Rpeak)
13	PARAM Shakti	IIT-Kharagpur	2022	NA	C-DAC	1.66 PF (Rmax)
14	PARAM Brahma	IISER, Pune	2019	NA	C-DAC	.85 (Rmax) / 1.7 (Rpeak)
15	PARAM Yukti	JNCASR, Bengaluru	NA	NA	C-DAC	833 TF
16	PARAM Sanganak	IIT Kanpur	2020	NA	C-DAC	1.67 PF (Rmax)
17	PARAM Pravega	IISC	2022	NA	C-DAC	3.3 PF (Rmax)
18	Kohinoor 3	TIFR – TCIS, Hyderabad	2016	20th fastest supercomputer in India	Netweb	43.59 TF (Rmax) / 70.85 TF (Rpeak)
19	Kalinga, Upgrade	NISER, Bhubaneshwar	2016, 2020	26th fastest supercomputer in India	Netweb	161.42 TF (Rmax) / 249.37 TF (Rpeak)
20	Hartree	NISER, Bhubaneshwar	2018	29th fastest supercomputer in India	Netweb	38.87 TF (Rmax) / 51.9 TF (Rpeak)
21	Airawat	CDAC	2023	Rank 75 (Global, May-2023)	Netweb	8,500,000 GF (Rmax) / 13,169,860 GF (Rpeak)

Source: Secondary sources, Analytics Drift, 2021 and Secondary sources. Rpeak – maximum theoretical performance, Rmax – maximum performance achieved, 1 teraflop = one trillion (10^{12}) floating-point operations per second; Note: The list is complete but not exhaustive. The list covers some of the top as well as fastest supercomputers of India.

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

Private Cloud and Hyperconverged infrastructure (HCI) market

Scope & Definition

Hyperconverged infrastructure (HCI) is a combination of servers and storage into a distributed infrastructure platform with intelligent software to create flexible building blocks that replace legacy infrastructure consisting of separate servers, storage networks, and storage arrays. More specifically, it combines commodity datacentre server hardware with locally attached storage devices (spinning disk or flash) and is powered by a distributed software layer to eliminate common pain points associated with legacy infrastructure.

Private cloud is the public cloud experience like flexibility, consumption model, scalability, usability in a private data centre. A private cloud is a cloud computing infrastructure that is exclusively used by one client (sometimes referred to as an internal cloud or corporate cloud). Private clouds combine the access control, security, and resource customisation of on-premises infrastructure with many of the advantages of cloud computing, such as elasticity, scalability, and ease of service delivery.

Global Private Cloud and Hyperconverged Infrastructure (HCI) Market

The global private cloud & Hyperconverged infrastructure (HCI) market was USD 194.7 Bn in FY 2022. The market is forecasted to be USD 228 Bn in FY 2023 and is expected to reach USD 592.6 Bn by FY 2029 with a CAGR of 17.3% over the forecast period (FY 2023-2029).

Private cloud & Hyperconverged infrastructure is expected to witness wider adoption in the forecast period as it provides solutions to some of the issues businesses run into when implementing technology in tiny offices, branch offices, or distant sites. It is expected that in coming years and with wider adoption of Private Cloud and HCI, companies may reduce operating and capital costs, boost business and information technology (IT) agility, and enhance application performance.

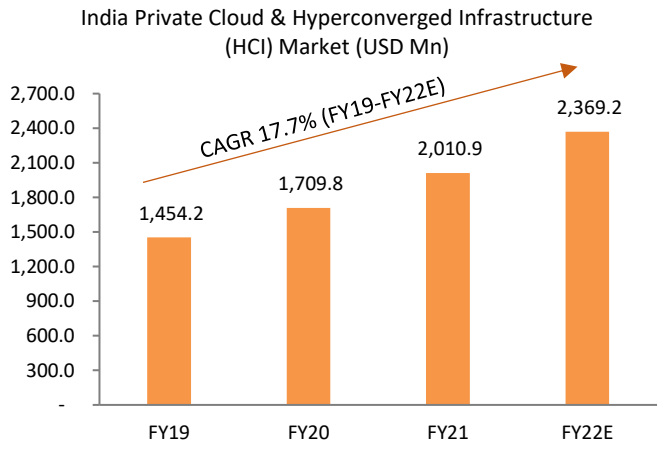
Since, Private Cloud and HCI is a software-defined, unified system that incorporates all the components of a typical data centre: storage, computation, networking, and administration; it is expected to efficiently compute, store, and manage data with its adoption.

Major players operating in the global private cloud & Hyperconverged infrastructure market are HPE, Dell, Nutanix, and others.

India Private Cloud and Hyperconverged Infrastructure (HCI) Market

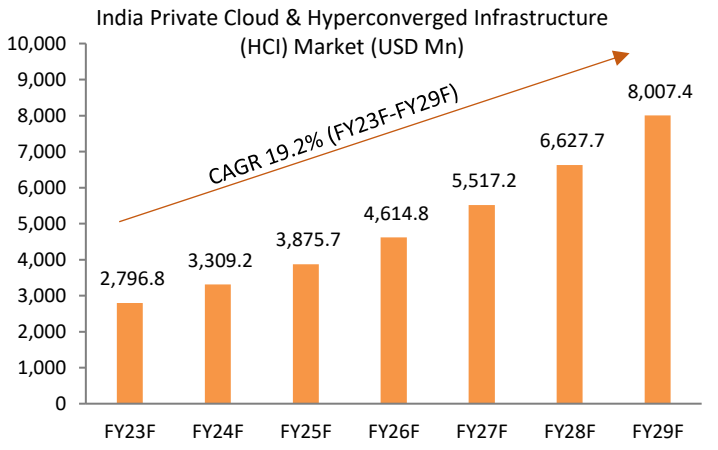
The India private cloud & Hyperconverged infrastructure (HCI) market was USD 2,369.2 Mn in FY 2022. The market is forecasted to be USD 2,796.8 Mn in FY 2023 and is expected to reach USD 8,007.4 Mn by FY 2029 with a CAGR of 19.2% over the forecast period (FY2023-2029).

Exhibit 18: India Private Cloud & HCI Market – FY 2019-2022E



Source: Frost & Sullivan Analysis

Exhibit 19: India Private Cloud & HCI Market – FY 2023F-2029F



Source: Frost & Sullivan Analysis

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

Why adoption of private cloud has been increasing in India.

Private Clouds offer the same control and security as traditional on-premises infrastructure. Here are some reasons why organizations opt for private cloud computing:

- **Security:** Traffic to a private cloud is often restricted to the organization's own transactions, which enhances private cloud security. The company has superior control over the server, network, and application security because private clouds are made up of specialised physical infrastructure.
- **Predictable performance:** Workload performance is predictable and unaffected by other businesses sharing infrastructure or bandwidth because the hardware is dedicated rather than multi-tenant.
- **Long-term savings:** The infrastructure needed to host a private cloud can be costly to set up, but it may be worthwhile in the long run.
- **Predictable costs:** Based on consumption, storage fees, and data egress fees, public cloud expenses might vary greatly. Regardless of the workloads a business is running or how much data is transported, private cloud prices are the same every month.
- Government initiatives are also expected to drive the adoption of HCI in India. For example, in collaboration with Nuntanix, a virtual roundtable on "Building a Digital India through Hyperconvergence (HCI) and Multi-Cloud" was organized, which focused on the evolution of digital transformation through data centers, modernization of the role of hyperconvergence in PSU environments, and how to simplify and unify PSU cloud management strategy.

India Private cloud and HCI market by application industry

India private cloud and HCI market by application is segmented into Government & Defence, BFSI, IT & ITES, Telecommunications, Media, Oil & Gas, and Others. Adoption of HCI in the Government and Defense sector witnessed maximum growth in FY 2022 and is expected to reach USD 1,203.8 Mn by FY 2029 with a CAGR of 20.4% over the forecast period (FY2023-2029).

Exhibit 20: India Private Cloud & HCI Market by application

Industry Vertical	Revenue (USD Mn)			CAGR (FY23F to FY29F)
	FY22E	FY23F	FY29F	
Government & Défense	330.8	395.0	1,203.8	20.4%
BFSI	144.8	181.7	806.1	28.2%
IT & ITES	548.3	639.9	1,665.1	17.3%
Telecommunications	193.1	227.8	662.6	19.5%
Media	206.9	243.1	701.3	19.3%
Oil & Gas	164.2	193.8	560.5	19.4%
Others	781.1	915.5	2,407.9	17.5%
Total	**2,369**	**2,797**	**8,007**	**19.2%**

Source: Frost & Sullivan Analysis

AI Systems and Enterprise Workstations (AI &EW) Market

Scope & Definition

An artificial intelligence (AI) workstation is a computer system that is specifically designed for AI-related tasks, such as machine learning, deep learning, natural language processing, and computer vision. AI workstations typically feature powerful processors, large amounts of memory, and high-performance graphics processing units (GPUs) to enable faster and more accurate training of machine learning models. They also often have specialized hardware such as Tensor Processing Units (TPUs) or Field-Programmable Gate Arrays (FPGAs) that can accelerate specific AI workloads. In addition to hardware, AI workstations may also come with pre-installed software, libraries, and frameworks optimized for AI development. NVIDIA DGX Station is an example of AI workstation. Overall, an AI workstation provides a powerful and dedicated platform for data scientists, researchers, and developers to design, test, and deploy advanced AI applications.

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

Global AI Systems & Enterprise Workstations (AI & EW) Market

The global AI Systems & Enterprise Workstations (AI & EW) market was estimated to be USD 6.0 Bn in FY 2022. The market is forecasted to reach USD 6.3 Bn in FY 2023 and is expected to reach USD 8.2 Bn by FY 2029 with a CAGR of 4.5% over the forecast period (FY 2023-2029).

GPU demand is driven by a range of reasons, including an increase in gaming demand and the cryptocurrency mining market. According to analysts, growth in the GPU market can increase anywhere from 25%-35% over the next 5–6-year period. Therefore, the growing demand of GPUs in high-end gaming consoles and personal computers is expected to drive the AI systems and enterprise workstation market.

Due to the sharp increase in 3D animation, networking and graphics, and digital content creation; the global market for AI workstations is expanding at a very rapid rate.

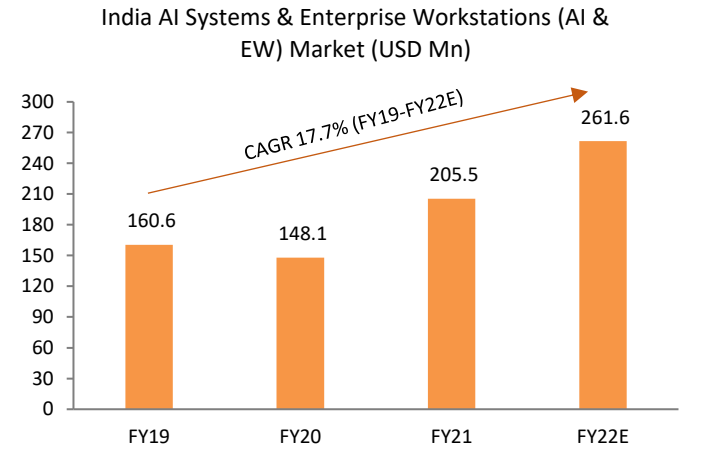
Blockchain and artificial intelligence is transforming industries across globe. Blockchain is a solution to provide insights into AI's framework and model to meet the challenge of transparency and data integrity may be through the immutable digital records. By storing and disseminating AI with an integrated audit trail, blockchain technology can improve data security and integrity. The Global Blockchain market is estimated to be USD ~11 Bn in 2022. The market is forecasted to reach USD ~71 Bn by 2025 at a CAGR of ~86%.

Major players operating in the global AI & EW infrastructure market are NVDIA, AMD, HPE, Dell, and Lenovo.

India AI & Systems & Enterprise Workstations (AI & EW) Market

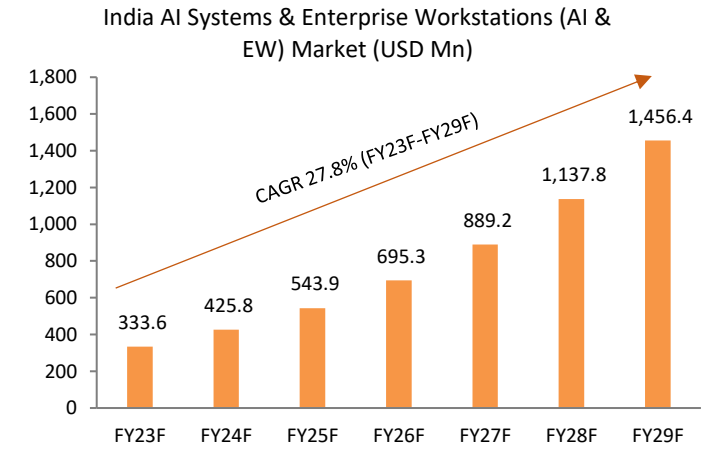
The India AI Systems & Enterprise Workstations (AI & EW) market was USD 261.6 Mn in FY 2022. The market is forecasted to reach USD 333.6 Mn in FY 2023 and is expected to reach USD 1,456.4 Mn by FY 2029 with a CAGR of 27.8 % over the forecast period (FY 2023-2029).

Exhibit 21: India AI Systems & Enterprise Workstations Market-FY 2019-2022E



Source: Frost & Sullivan Analysis

Exhibit 22: India AI Systems & Enterprise Workstations Market-FY 2023F-2029F



Source: Frost & Sullivan Analysis

India AI & Systems & Enterprise Workstations (AI & EW) Market by application

India AI Systems & Enterprise Workstations (AI & EW) market by application is segmented into electronics, IT & Telecommunications, Defense & Intelligence, Media & Entertainment and Others. Adoption of AI Systems & Enterprise Workstations (AI & EW) in the Defense & Intelligence sector is expected to grow with the CAGR of 28.7% during the forecast period (FY 2023 –2029).

India is becoming a hub for research, online gaming, and digital content creation. As per Yotta media release, AI adoption in India is expected to grow at a compound annual growth rate of more than 20% to reach US$14 billion by 2030. The Indian gaming industry is similarly expected to furiously grow to reach US$5 billion by 2025. All these industries rely heavily on GPU computing to meet expected customer demands.

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

In this regard, as per Yotta Data Services announcement, Yotta Data Services in Dec 2023 announced a collaboration with NVIDIA to deliver cutting-edge GPU computing infrastructure and platforms for its Shakti-Cloud platform. The collaboration will advance the development of AI solutions in India by bringing state-of-the-art AI capabilities within reach of numerous organizations, businesses, AI researchers, and a multitude of startups across the country. With this offering, Yotta customers will be able to train large language models (LLMs) and other AI workloads serving the growing needs of Indian, Asian, and broader global markets. Yotta has already placed a large order for NVIDIA H100 Tensor Core GPUs, a powerful GPU for AI and HPC workloads, and plans to go operational with 4096 GPUs by January 2024 and 16,384 GPUs by June 2024. With complete support from NVIDIA and a shared vision to develop India's sovereign AI landscape, Yotta also plans to massively scale up its GPU stable to 32,768 by the end of 2025. This will directly address the huge demand for high-performance GPUs by research labs, enterprises, and startups for HPC and AI workloads. Yotta's Shakti-Cloud AI platform will include various PaaS services from day one, including foundational AI models and applications that will help Indian enterprises create powerful AI tools and products. Yotta will deploy the first cluster of 16,384 GPUs at NM1, Yotta's highly acclaimed and Asia's largest Uptime Tier-IV data center, located in Navi Mumbai. Next, Yotta will deploy a similar-sized cluster at D1, Yotta's newest and largest hyperscale data center in Greater Noida, near Delhi.

Exhibit 23: India AI Systems & Enterprise Workstations (AI & EW) market by application:

Industry Vertical	Revenue (USD Mn)			CAGR (FY23F to FY29F)
	FY22E	FY23F	FY29F	
Electronics	8.3	10.6	48.1	28.7%
IT & Telecommunications	161.5	205.1	873.8	27.3%
Defense & Intelligence	49.9	64.1	291.3	28.7%
Media & entertainment	30.3	38.8	174.8	28.5%
Others	11.6	15.0	68.5	28.8%
Total	**261.6**	**333.6**	**1,456.4**	**27.8%**

Source: Frost & Sullivan Analysis

Defense & Intelligence - Defense and government activities are supported by AI & EW systems for enhanced decision-making and productive work performance in India. Additionally, it aids in enhancing government payment schemes that make precise, practical, and safe payments for child support, pensions, and unemployment insurance. The GPU that is an integral part of the AI & EW is utilised in government supercomputers and hyper converged infrastructure applications to boost mobility, increase security, and cut maintenance costs. Additionally, it fortifies the Cybersecurity position against an increasing number of online attacks. In the government IT sector, AI & EW solutions are utilised to provide seamless, secure, and dependable services, reduce costs, and boost operational effectiveness. The GPU-intensive AI is expected to be a key component of numerous military deployments. Typically, geospatial visualisation, video filters, and Geo-fuses FMV analytics with intelligence data, real-time full motion video, and WAMI augmentation and analytics, require the usage of defence and intelligence software. As a result, the segment's rise, which in turn propels the growth of the AI & EW market in the years to come, is being fuelled by the widespread deployment of AI & EW in government organisations.

Others – The Indian BFSI sector is dominating the global market in terms of technology adoption. In the financial services sector, next-generation GPU computing is creating new possibilities for intelligent, real-time analytics. The BFSI industry's usage of AI & EW for analytics and machine learning on massive, streaming datasets aids in the financial sector's ability to make more effective judgements. A growing number of applications in the banking and financial sector use AI and ML to improve client experience, portfolio management, risk management, automation, and process efficiency. As a result, it generates a lot of data that needs to be processed and examined with the use of AI & EW. Thus, growth prospects in the Indian BFSI industry are anticipated to drive the demand for AI & EW over the coming years.

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

Data Centre Server Market

Scope & Definition

Data centers usually store, process, and manage data. They're more cost-effective than deploying and maintaining application software on individual client systems. Data centre servers are solutions that are designed to reduce the complexity of managing critical and heavy workloads. These servers can deploy & integrate different cloud services.

These servers are advanced AI powered that allow intelligent and efficient data processing and storage. They are most critical systems as they are essential for the continuity of daily tasks such as storage, continuity and processing.

Businesses either operate on their own servers or rent them out from data centers, enabling them to store online files and make them globally accessible. On the lower end, a small, in-house data center could have somewhere near 1000 servers. Most data centers are quite large, however, and a more typical number is close to 100,000 servers.

Global Data Centre Server Market

The global data centre server market was USD 103.5 Bn in FY 2022. The market is forecasted to be USD 113.6 Bn in FY 2023 and is expected to reach USD 198.3 Bn by FY 2029 with a CAGR of 9.7% over the forecast period (FY 2023-2029).

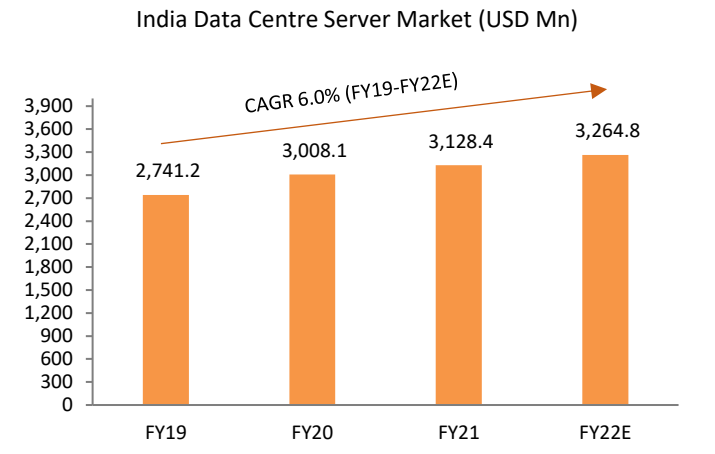
A server in a data center is essentially one of its most important components, as it is a specialized computer that handles computational workloads for the data center as one unit of many. Not only this, but the servers also communicate together to handle the demands of applications and storage via high-speed networking connections. These are two of the most important reasons why the adoption of data centre servers has grown over the years.

Major players operating in the global data centre server market are HPE, Dell Inc., Lenovo, IBM, Cisco, Inspur, Huawei Technologies.

India data centre server market

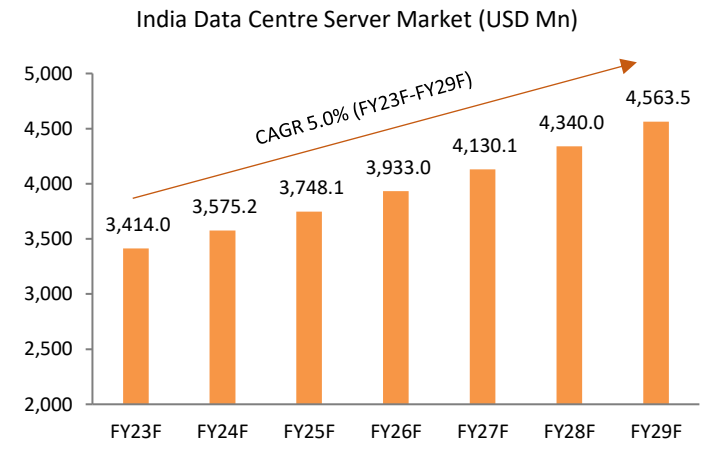
The India data centre servers' market was USD 3264.8 Mn in FY 2022. The market is forecasted to be USD 3,414.0 Mn in FY 2023 and is expected to reach USD 4,563.5 Mn by FY 2029 with a CAGR of 5.0% over the forecast period (FY 2023-2029).

Exhibit 24: India Data Centre Server Market – FY 2019-2022E



Source: Frost & Sullivan Analysis

Exhibit 25: India Data Centre Server Market – FY 2023F-2029F



Source: Frost & Sullivan Analysis

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

How Indian Data Centre Server Market has transformed over the years?

From being behind in the race for digital adoption, India currently has 166 data centres spread across 25 locations (as per datacentermap.com).

Strong data centres are required as India's digital population increases. India is dedicated to becoming a hub for global data centres and a digital economy.

Considering the areas of development addressed in the budget of 2022, the Ministry of Electronics and Information Technology put forth a draft data centre policy in 2020 with the goal of making India a global hub for data centres, encouraging investment in the field, fostering the expansion of the digital economy, enabling the provision of reliable hosting infrastructure, and facilitating the provision of cutting-edge services to the public.

The Data Protection Bill, which may soon become law, may lead to a significant onshoring of Indian citizen's data from offshore data centres to Indian data centres (as stored on the servers of social media platforms, gaming platforms, etc., where Indian users make up a significant percentage of users). This presents a significant opportunity for the Indian data centre industry and will ultimately drive India data centre server market during the forecast period (FY2023-2029).

Tier 2 and Tier 3 cities, for instance, are virtually untapped in terms of data centre investments in India, according to a whitepaper from Yotta Data Services Pvt. Ltd. For instance, Yotta Infrastructure intends to spend Rs. 900 crores over the course of three to four years to build 100 Edge data centres throughout the nation. Tier 2 and Tier 3 cities, including Nagpur, Coimbatore, Ranchi, and Jaipur, are the focus of the first phase.

Government support:

The Indian government is doubling down on digital initiatives to create conducive conditions for data centres. The big push towards data localisation would ensure 75% of the data remains within the country.

Sensing the prospects in the industry, the Ministry of Electronics and Information Technology, or MEITY, created a data centre policy in 2020 that accords data centres an equivalent level of "infrastructure status" to that of highways, railroads, and power. The new policy intends to streamline the data centre clearance procedure. Right now, opening a data centre in the nation requires up to 40 clearances. Cloud data centres would be designated as special economic zones, or SEZs, according to MEITY. Land, water, and power would be provided by the government to make doing business easier. States like Maharashtra, Telangana, Karnataka, and Uttar Pradesh also provide concessions on land costs for data centres, as well as exemptions from stamp and electricity duty.

India Data Centre market by application

India Data Centre Server market by application is segmented into Government & Defence, BFSI, IT & ITES, Telecommunications, Media, Oil & Gas, and Others. Government and Defense application held the largest share in FY 2022 and is expected to reach USD 912.7 Mn by FY 2029. Maximum adoption of data center server will happen in the BFSI sector with a highest CAGR of 11.4% during the forecast period (FY 2023-2029).

Exhibit 26: India Data Centre Server market by application:

Industry Vertical	Revenue (USD Mn)			CAGR (FY23F to FY29F)
	FY22E	FY23F	FY29F	
Government & Défense	881.5	887.6	912.7	0.5%
BFSI	424.4	478.0	912.7	11.4%
IT & ITES	604.0	614.5	684.5	1.8%
Telecommunications	460.3	471.1	547.6	2.5%
Media	212.2	239.0	456.3	11.4%
Oil & Gas	182.8	198.0	319.4	8.3%
Others	499.5	525.8	730.2	5.6%
Total	**3,265**	**3,414**	**4,564**	**5.0%**

Source: *Frost & Sullivan Analysis*

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

Enterprise storage systems Market

Scope & Definition

The most popular and widely used technique of storing digital data is enterprise storage. It serves as a central store for corporate data and offers connectivity to other computer systems as a shared resource for data sharing, management, and security. It is intended to process significant workloads of important business data.

Enterprise storage comprises of High-performance storages such as cloud storage & high-performance storage area network (SAN). They are a storage management system designed for moving large files and large amounts of data around a network. High performance storage is especially valuable for moving around large amounts of complex data or unstructured data like large video files across the network. Used with both direct-connected and network-attached storage, high performance storage supports data transfer rates greater than one gigabyte per second and is designed for enterprises handling large quantities of data - in the petabyte range.

Global Enterprise Storage System Market

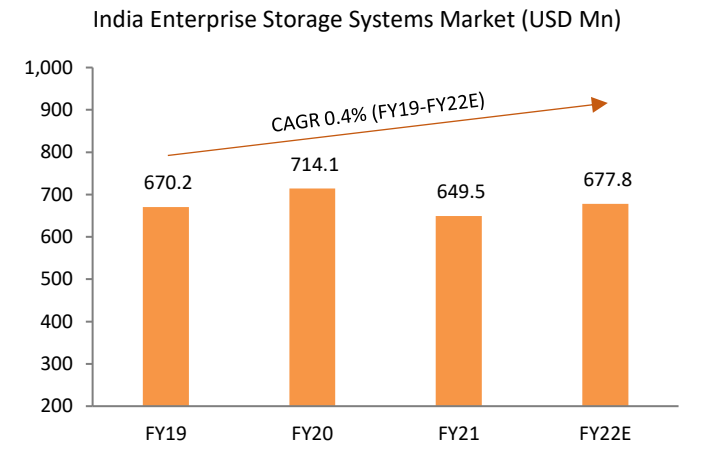
The global Enterprise Storage Systems market was USD 63.0 Bn in FY 2022. The market is forecasted to be USD 65.0 Bn in FY 2023 and is expected to reach USD 78.8 Bn by FY 2029 with a CAGR of 3.3% over the forecast period (FY 2023-2029).

Major players in this space are Dell Technologies, HPE Incorporated, NetApp, Lenovo, Hitachi Data Systems Corporation.

India Enterprise storage market

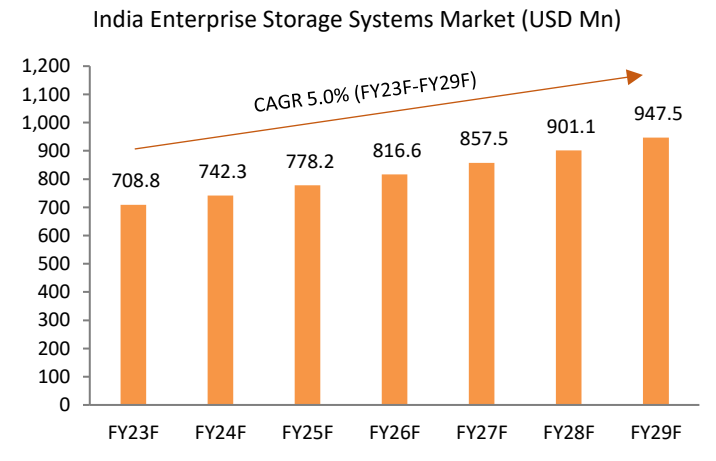
The India Enterprise Storage Systems market was valued at USD 677.8 Mn in FY 2022. The market is forecasted to be USD 708.8 Mn in FY 2023 and is expected to reach USD 947.5 Mn by FY 2029 with a CAGR of 5.0% over the forecast period (FY 2023-2029). The market witnessed a muted growth between FY 2019-22 due to the pandemic, but going forward it is expected to witness a CAGR of 5% over the forecast period owing to increased investment in the Indian data center market.

Exhibit 27: India Enterprise Storage Systems Market – FY 2019-2022E



Source: Frost & Sullivan Analysis

Exhibit 28: India Enterprise Storage Systems Market – FY 2023F-2029F



Source: Frost & Sullivan Analysis

India Enterprise storage market by application

India Enterprise Storage Systems market by application is segmented into Government & Defence, BFSI, IT & ITES, Telecommunications, Media, Oil & Gas, and Others. BFSI application had the largest share in FY 2022 and is expected to reach USD 265.3 Mn by FY 2029 with a CAGR of 3.6% over the forecast period (FY 2023-2029).

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

Exhibit 29: India Enterprise Storage Systems Market by application:

Industry Vertical	Revenue (USD Mn)			CAGR (FY23F to FY29F)
	FY22E	FY23F	FY29F	
Government & Defense	125.9	133.1	189.5	6.1%
BFSI	208.4	215.0	265.3	3.6%
IT & ITES	131.3	135.9	170.5	3.9%
Telecommunications	107.4	114.4	170.5	6.9%
Media	32.8	34.0	42.6	3.8%
Oil & Gas	47.4	49.6	66.3	5.0%
Others	24.5	26.8	42.6	8.0%
Total	**678**	**709**	**948**	**5.0%**

Source: Frost & Sullivan Analysis

The use of SSDs (Solid State Drives) over HDDs (Hard Disk Drives) has grown in popularity across industries due primarily to their superior performance, increased durability, and cost-effective power efficiency. Additionally, to support both capacity and performance in a single array, Hybrid Flash Arrays (HFA) are continuously increasing the ratio of SDD to HDD. For their performance-critical applications, the Telecom, Banking, and IT/ITeS industries all saw a considerable growth in the adoption of All Flash arrays.

Cloud managed services Market

Scope & Definition

Cloud Managed Services are the partial or complete management and control of a client's cloud platform, including migration, maintenance, and optimization. Cloud deployment includes deploying an application through one or more hosting models.

Software as a service (SaaS), platform as a service (PaaS) and/or infrastructure as a service (IaaS) leverage the cloud. Cloud migration is a process of moving a company's digital assets, services, databases, IT resources, and applications either partially, or wholly, into the cloud. Cloud migration is also about moving from one cloud to another. The optimization of cloud includes correctly selecting and assigning resources to a workload or application. By using a managed cloud service provider, a business can ensure its cloud resources run efficiently. Outsourcing cloud management also allows businesses to avoid new hiring and training costs. Managed cloud services can provide private, public and hybrid cloud environments. Working with a managed cloud services provider is a collaborative process.

Global cloud managed services market

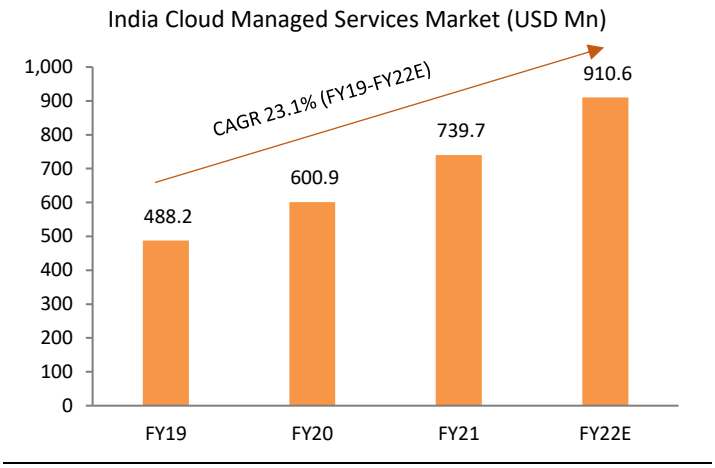
The global Cloud Managed Services market was USD 79.7 Bn in FY 2022. The market is forecasted to be USD 90.0 Bn in FY 2023 and is expected to reach USD 189.5 Bn by FY 2029. The market is expected to grow at a CAGR of 13.2% over the period (FY 2023-2029).

India cloud managed services market

The India Cloud Managed Services market was USD 910.6 Mn in FY 2022. The market is forecasted to be USD 1,121 Mn in FY 2023 and is expected to reach USD 3,900.7 Mn by FY 2029 with a CAGR of 23.1% over the forecast period (FY 2023-2029).

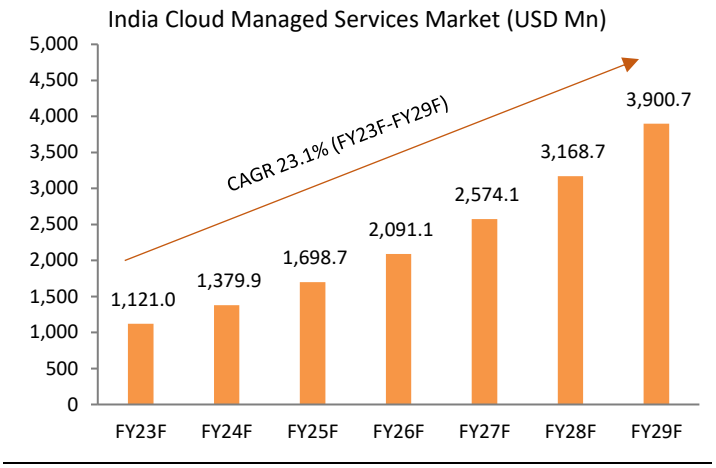
sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

Exhibit 30: India Cloud Managed Services Market -FY 2019-2022E



Source: Frost & Sullivan Analysis

Exhibit 31: India Cloud Managed Services Market -FY 2023F-2029F



Source: Frost & Sullivan Analysis

India cloud managed services market by application.

India Cloud Managed Services market by application is segmented into Government & Defence, BFSI, IT & ITES, Telecommunications, Media, Oil & Gas, and Others. Adoption of Cloud Managed Services in the IT & ITES and Government sectors held the largest share in 2021

Exhibit 32: India Cloud Managed Services Market by application:

Industry Vertical	Revenue (USD Mn)			CAGR (FY23F to FY29F)
	FY22E	FY23F	FY29F	
Government & Defense	121.0	150.1	546.1	24.0%
BFSI	52.4	67.6	312.1	29.0%
IT & ITES	212.9	259.8	858.1	22.0%
Telecommunications	71.5	87.4	292.6	22.3%
Media	80.6	98.6	331.6	22.4%
Oil & Gas	63.7	78.5	273.0	23.1%
Others	308.5	378.9	1,287.2	22.6%
Total	**911**	**1,121**	**3,901**	**23.1%**

Source: Frost & Sullivan Analysis

Enterprise networking Market

Scope & Definition

Enterprise Network is made up of routers, switches, and wireless access points and works by mediating data transfers between desktop, servers, and other devices. It is the backbone for any organization's communication channels and helps in connecting devices within departments. They are usually configured to facilitate access to data and gain insights, which help employees in finding solutions in analytics.

A network switch is a networking tool used to link several computer network devices together. It forwards data between devices, unlike routers, which forward data between networks. It connects users, applications, and equipment across a network so that they can communicate with one another and share resources. The simplest network switches offer connectivity exclusively to devices on a single local-area network (LAN). Some of the different types of network switches include managed, modular, unmanaged, and stackable.

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

Global enterprise networking market

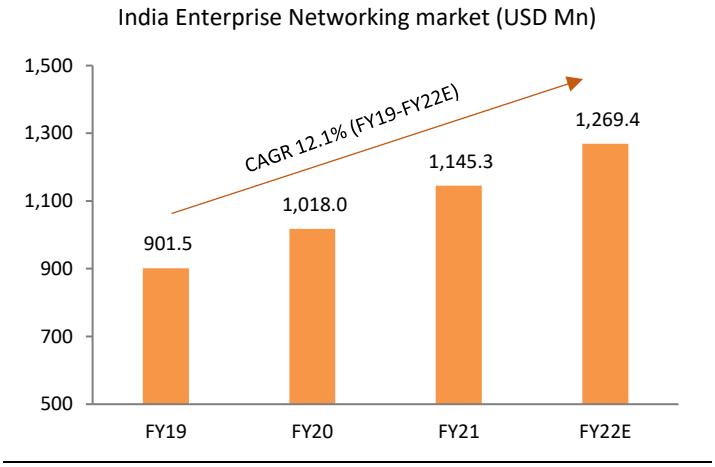
The global enterprise networking market was USD 67.3 Bn in FY 2022. The market is forecasted to be USD 70.8 Bn in FY 2023 and is expected to reach USD 96.7 Bn by FY 2029 with a CAGR of 5.3% over the forecast period (FY 2023-2029).

One of the markets expected to grow under enterprise network is the enterprise network switches market.

India enterprise networking market and outlook

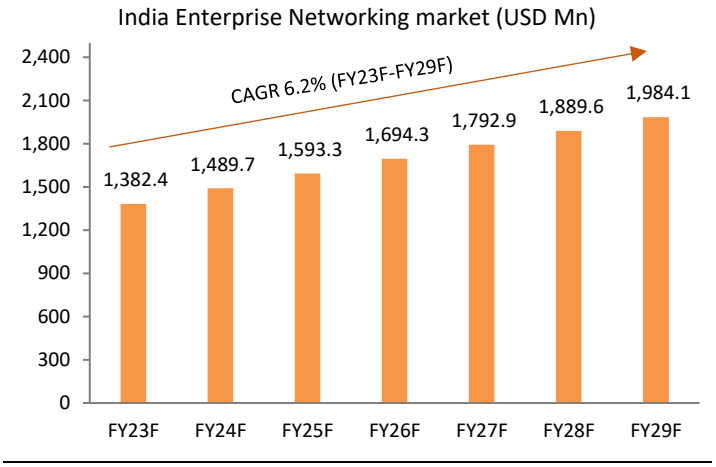
The India Enterprise Networking market was 1,269.4 Mn in FY 2022. The market is forecasted to be USD 1,382.4 Mn in FY 2023 and is expected to reach USD 1,984.1 Mn by FY 2029 with a CAGR of 6.2% over the forecast period (FY 2023-2029).

Exhibit 33: India Enterprise Networking market – FY 2019-2022E



Source: Frost & Sullivan Analysis

Exhibit 34: India Enterprise Networking market – FY 2023F-2029F



Source: Frost & Sullivan Analysis

India enterprise networking market by product type.

India Enterprise Networking market by product is segmented into Ethernet Switches, Routers and WLAN. Ethernet Switches held the largest share in FY 2022 and is expected to reach a value of USD 1011.9 Mn by FY 2029 at a CAGR of 5.6% over the forecasted period (FY 2023 - FY2029).

Exhibit 35: India Enterprise Networking market by product type:

Products	Revenue (USD Mn)			CAGR (FY23F to FY29F)
	FY22E	FY23F	FY29F	
Ethernet Switches	672.8	728.6	1,011.9	5.6%
Routers	323.0	354.8	535.7	7.1%
WLAN	273.6	299.0	436.5	6.5%
Total	**1,269.4**	**1,382.4**	**1,984.1**	**6.2%**

Source: Frost & Sullivan Analysis

India Network Switches market

The growth of network switches in India is driven by several factors, including the increasing adoption of digital technologies, the growing demand for cloud-based services, and the rise of the Internet of Things (IoT) and edge computing. Indian organizations across industry verticals are increasingly embracing digital transformation. This is driving the adoption of cloud-based services, which in turn is driving the need for high-speed and reliable network infrastructure. Network switches are a critical component of this infrastructure, and the demand for them is expected to grow in line with the growth of cloud-based services. The adoption of IoT and edge computing is on the rise in India, driven by the need for real-time data analytics and decision-making. These technologies require a high-speed and low-latency network infrastructure, which again drives the demand for network switches.

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

Key players in the India network switches market are Arista, Cisco Systems, Nvidia, Juniper and Tejas.

Make in India initiative to drive network switches market in India

India imports a significant portion of its network switches, which leads to high import costs. By promoting local manufacturing, "Make in India" initiative can reduce these costs and make network switches more affordable for Indian consumers. The initiative will help develop local expertise in the manufacturing of network switches and lead to development of local supply chains, research and development facilities, and a pool of skilled workers. Overall, "Make in India" initiative has the potential to create a positive impact on the manufacturing of network switches in India by promoting local manufacturing, reducing import costs, boosting the economy, and developing local expertise.

Supplier displacement to benefit indigenous manufacturers

The growth in the network switches market for Indian manufacturers is also expected to be driven by supplier displacement as more and more switches get sourced locally from indigenous manufacturers. This will also result in higher than industry growth rate for Indian manufacturers of network switches. Supplier displacement can occur for reasons such as change in demand pattern, new technology adoption, and the need to improve supply chain efficiency. But one of the main drivers for supplier displacement in India is concerns around security. This bodes well for indigenous companies manufacturing network switches in the country.

India 5G Market

5G ORAN Services in India

In preparation for upgrading their networks to 5G technology, Indian telecoms are looking at Open RAN as a potential way to reduce network-related expenses and customise. Indian software developers, equipment manufacturers, and system integrators now have more options to gain market share in the expanding global 5G market thanks to the open RAN architecture. Telecom players can now choose to use products from other manufacturers due to Open RAN.

In order to innovate with Open RAN and reduce reliance on existing providers, they are going beyond established vendors. Companies would likely have to deal with a large number of base stations in order to have extensive coverage with the introduction of 5G, leaving little room for them to save money in that area. By supplying verified stack templates, virtualized, open networks will then make automation simpler. These will be automated to be safe, dependable, and maintained, making Open RAN deployment and upkeep of parallel wireless networks simpler and more affordable. For instance, in August 2022, Bharti Airtel announced its collaboration with Intel to accelerate 5G network rollout. They plan to leverage vRAN (virtualized Radio Access Network) and O-RAN to transform Airtel's network and provide their customers with next generation technology.

Network Switches and 5G ORAN Appliances are critical to the data center industry for enterprise IT, and the telecommunication industry for enabling 5G services, and are expected to (i) address the dearth in Indian network switch market which is devoid of an Indian network switch OEM; and (ii) reduce India's dependency on foreign OEMs. Adoption of high throughput – low latency network switches in data centres and 5G networks has been proliferating at a very high pace which further necessitates higher security, reliability, and greater operational efficiencies with lower latencies.

5G as service in India

Reduced latency and greater bandwidth are two benefits of 5G. Numerous applications require a large bandwidth and low latency. Application examples include telemedicine, remote surgery in healthcare, driverless vehicles, video streaming, the broader entertainment business, and sophisticated gaming, to name a few. Additionally, as the main focus of 5G is improved connectivity, it is anticipated that the deployment of enterprise private 5G networks will quicken during the next several years. A company is likely to have two options for forming business relationships. It can choose to connect to either a public or a private 5G network. In the second scenario, it can either build and maintain its own infrastructure or purchase its own infrastructure and hire a mobile operator to provide operational support.

A private 5G network gives businesses the ability to allocate bandwidth for extremely dependable, low-latency use cases like robotics and industrial IoT since it gives them control over data, security,

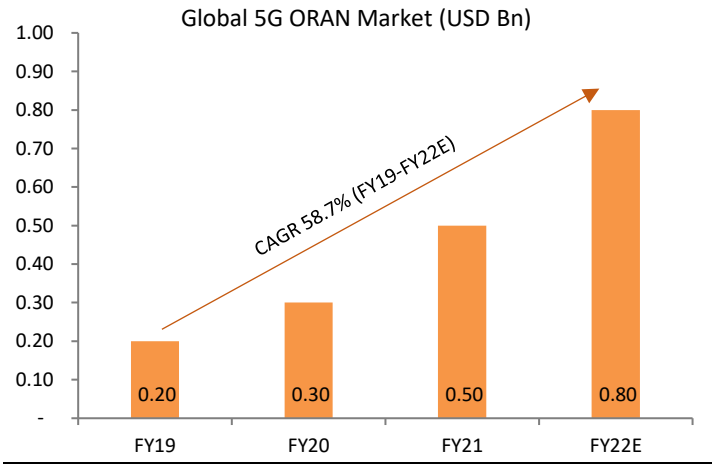
sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

and networks. The majority of Indian businesses believe that 5G will be a key enabler of their digital transformation, hastening the process and significantly affecting their goals and business operations. The most important digital technology in the eyes of Indian enterprises is 5G, according to Ericsson India, even though commercial 5G services won't be accessible all throughout India for several more months. 32% of responding organisations viewed 5G as the most important technology for the following two years, according to the Omdia poll results. They ranked 5G higher than cloud services, robotic process automation, artificial intelligence, and machine learning, among other technologies. According to the report, 53% of CEOs favour 5G for outdoor use cases. The survey estimates that 39% of Indian businesses will spend between $10 million and $50 million to improve their wireless technology infrastructure.

Global 5G ORAN Market and outlook

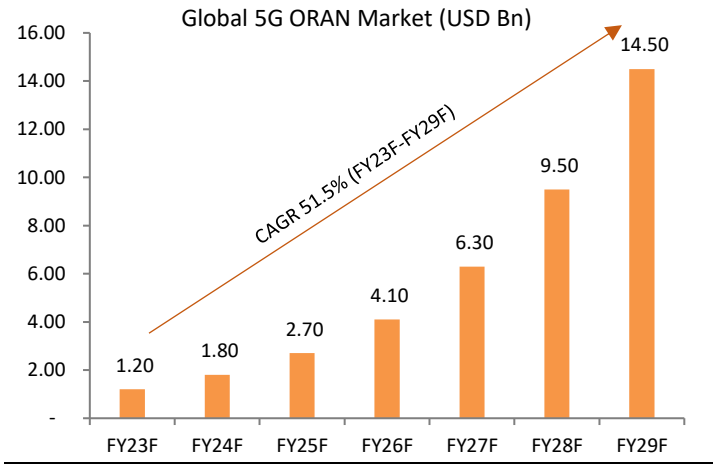
The Global 5G ORAN market was USD 0.80 Bn in FY 2022 and same is forecasted to be USD 1.20 Bn in FY 2023 and is expected to reach USD 14.50 Bn by FY 2029 with a CAGR of 51.5% over the forecast period (FY 2023-2029).

Exhibit 36: Global 5G ORAN Market – FY 2019-2022E



Source: Frost & Sullivan Analysis

Exhibit 37: Global 5G ORAN Market – FY 2023F-2029F



Source: Frost & Sullivan Analysis

India 5G market by application

- **Government & Defense** - The Indian armed forces would gain a lot from 5G during the coming ten years. It is widely acknowledged as state-of-the-art technology that will affect military operations. The Government of India (GoI) has not yet made a final choice over where to get 5G, though, however, made it clear in its most recent statement that it will not accept 5G equipment from "untrusted" sources, implying that Huawei and another Chinese company, ZTE, will not pass muster.
- **BFSI** - Companies in India including Netweb are expanding the range of their product offerings in the 5G space and, in particular, to focus on the BFSI segment, which is expected to emerge as the largest industry vertical for enterprise networking in India by 2027. New Digital Era in Banking and Finance to Begin with 5G - A single tap on a smartphone screen is all that is necessary to make a transaction, pay a bill, or check the most recent bank statement. Banking and financial services are expected to change as a result of the adoption of cloud computing as the new norm, as well as the growing use of AI/ML, Edge Computing, Virtual Reality (VR), Augmented Reality (AR), and other upcoming technologies, along with 5G.
- **IT & ITeS** - The advent of 5G ushers in a new era of connectivity, allowing business to take advantage of its potential to digitally transform every facet of corporate operations. Edge computing, private networks, and other technologies, including 5G, would encourage organisations who don't often invest heavily in building digital capabilities to do so. The Indian industry has already embraced digitization, which could open the door for upcoming 5G business applications.

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

- **Telecommunications** - In order to expand their networks, telecom service providers have invested billions of rupees and will continue to do so. 30–40% of industry revenue comes from enterprise services. The Indian telecommunications market has grown exponentially and is expected to grow at a CAGR of 9.4% from 2020 to 2025. Fiscal 2023 witnessed the introduction of 5G network in the Indian market and the 5G market in India is expected to witness a high growth rate in the years to come and is projected to grow at a CAGR of over 90% from Fiscal 2024 to Fiscal 2028. The projected growth in the 5G market in India is also expected to result in an increased demand for servers and private cloud infrastructure in India.
- **Media & Entertainment** - Since the number of people watching digital media has surpassed that of traditional television programmes, media and entertainment companies are investing more money in digital platforms

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

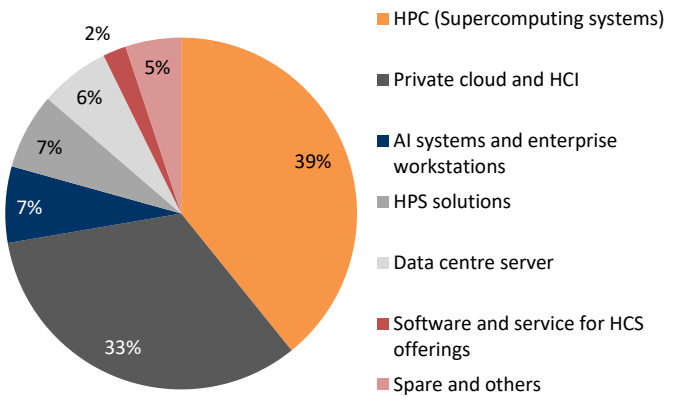
Netweb – Stands out in the HCS market.

Netweb is focused on providing HCS offerings rather than commodity hardware products/solutions.

Netweb is focused on providing high end computing solution (HCS) offerings (encompassing high end compute hardware along with middleware and software solution to manage such hardware) rather than focussing on providing commodity hardware including PC, desktop, mouse and keyboards etc. Netweb's HCS products/solutions offerings comprise (i) high performance computing (Supercomputing / HPC) systems – 36% of 1HFY24 revenue (ii) private cloud and hyperconverged infrastructure (HCI)- 33% of 1HFY24 revenue (iii) AI (artificial Intelligence) systems and enterprise workstations-10% of 1HFY24 revenue (iv) high performance storage (HPS / Enterprise Storage System) solutions - 5% of 1HFY24 revenue (v) data centre servers - 6% of 1HFY24 revenue (vi) software and services for their HCS offerings - 4% of 1HFY24 revenue and (vii) Spare and others - 5% of 1HFY24 revenue.

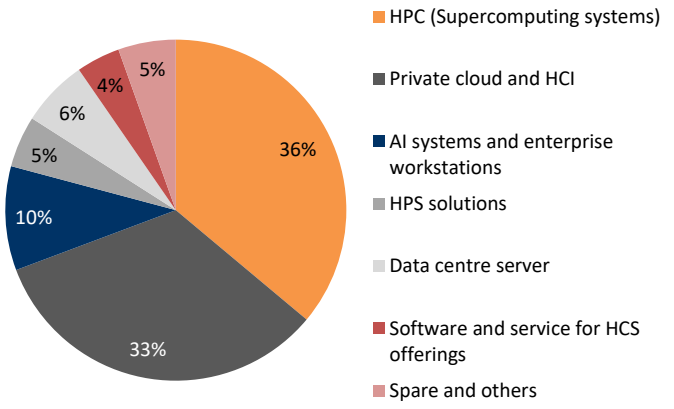
Netweb is one of India's leading domestic companies providing high-end computing solutions (HCS), with fully integrated design, manufacturing, integration/assembly capabilities. Netweb is one of India's largest manufacturers of Supercomputing systems (Source: F&S Report). Netweb designs, manufactures integrates/assembles and deploys abovementioned HCS/hardware comprising proprietary middleware solutions, end user utilities and pre-compiled application stack.

Exhibit 38: Revenue breakup by business verticals (%) for FY23



Source: Company data

Exhibit 39: Revenue breakup by business verticals (%) for 1HFY24



Source: Company data

Netweb's HCS offerings – Supercomputing systems / HPC – high performance computers

Netweb is one of India's largest manufacturers of Supercomputing systems. (Source: F&S Report). They have a specialised Supercomputing testing facility through which they test parallel codes for quality assurance of their Supercomputing systems. Over the years, they have designed, developed, and deployed some of India's most powerful Supercomputing systems including Airaawat and PARAM Ambar. Further, one of their Supercomputing systems, AIRAWAT is India's largest and fastest AI supercomputing system and ranked 75th fastest SPC in the world and has been included in the 61st edition of Top 500 Global Supercomputing List released in June 2023.

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

Exhibit 40: Some of India's most powerful Supercomputing systems designed, developed and deployed by Netweb:

Supercomputer	Year of Deployment	User	Speed in teraflops (Rpeak)	Speed in teraflops (Rmax)	Particulars
AIRAWAT	2023	Centre for Development of Advanced Computing, India (CDAC)	13169.86	8500.00	India's largest and fastest AI supercomputing system. Ranked 75th in the world and has been included in the 61st edition of Top 500 Global Supercomputing List released in June 2023
Agastya	2020	IIT Jammu	256	161	At the time of commissioning, it was India's 27th fastest supercomputer.
PARAM Ambar	2019	Indian Space Research Organisation (ISRO), Government of India	1,384.85	919.61	At the time of commissioning, it was India's 4th fastest supercomputer.
Hartree	2018	National Institute of Science Education and Research (NISER), Bhubaneshwar	51.9	38.87	At the time of commissioning, it was India's 29th fastest supercomputer.
Kalinga upgrade	2016 and 2020	NISER, Bhubaneshwar	249.37	161.42	At the time of commissioning, it was India's 26th fastest supercomputer.
Kohinoor 3	2016	TIFR-TCIS Hyderabad	70.85	43.59	At the time of commissioning, it was India's 20th fastest supercomputer.
PARAM YUVA-II	2013	Centre for Development of Advanced Computing, India (CDAC)	529.38	386.71	At the time of its commissioning, it was. the 69th most powerful supercomputer in the world.
Kabru	2004	The Institute of Mathematical Sciences, Chennai	1.38	1.00	First supercomputing system which was, then, one of the top 500 most powerful supercomputing systems in the world.

Source: Company data, Netweb RHP, Rpeak – maximum theoretical performance, Rmax – maximum performance achieved, 1 teraflop = one trillion (10^{12}) floating-point operations per second

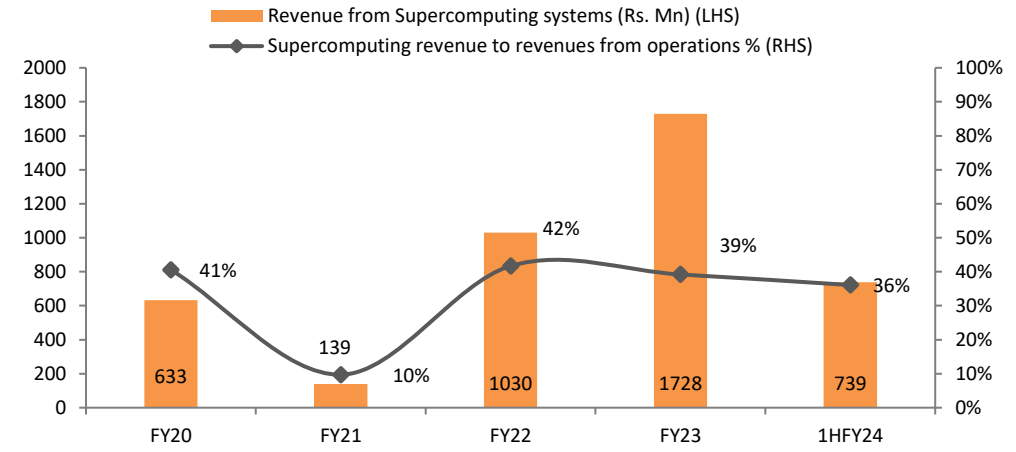
Netweb's Supercomputing systems are bespoke and tailored with specialised hardware designs and architecture and cater to varied customer specifications. Their Supercomputing systems use their 'Tyrone' cluster management (TCM) suite which is an integrated set of software components that can be deployed in a variety of configurations. They have deployed diverse Supercomputing systems ranging from 10 nodes to 400 nodes, to cater to different requirements of their customers and their Supercomputing systems are scalable up to 1000 nodes.

Netweb has established a Supercomputing testing facility where they test parallel computing codes. Since inception until today they have undertaken installations of over 300 Supercomputing systems to various government institutions including various IITs such as IIT Jammu, IIT Kanpur, INST and IIIT Naya Raipur, Hemvati University and JNU, and leading scientific and research development institutions of the government of India such as the NMDC Data Centre.

Further, the global Supercomputing systems market is expected to grow from USD 45 billion in Fiscal 2023(F) to USD 58 billion in Fiscal 2029(F) at a CAGR of 4.4% and the Indian Supercomputing systems market is expected to grow from USD 539 million in Fiscal 2023(F) to USD 919 million in Fiscal 2029(F) at a CAGR of 9.3%. (Source: F&S Report)

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

Exhibit 41: Netweb's Revenue from Supercomputing systems



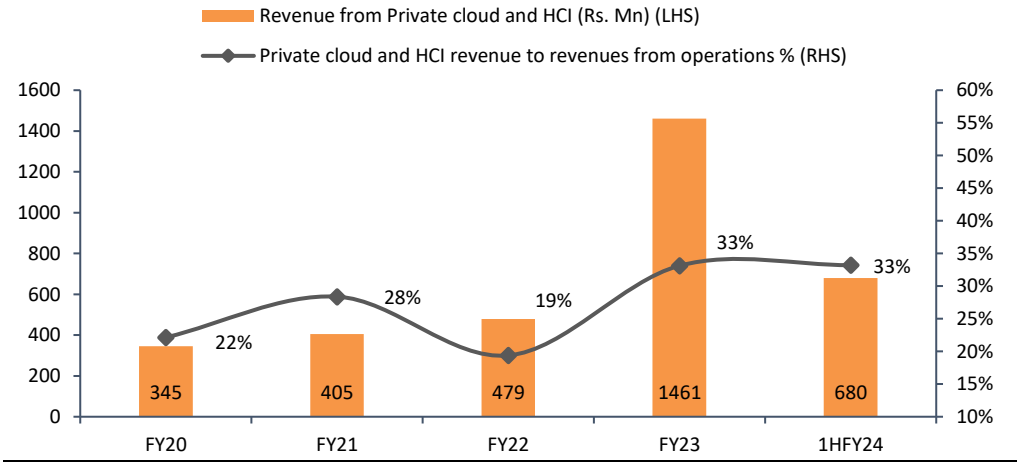
Source: Company data; Note: FY21was impacted due to Covid related disruptions.

Netweb's HCS offerings – Private Cloud and HCI

Netweb's private cloud and HCI offering, which is built and sold under their Tyrone Skylus brand, offers hyper-converged capabilities i.e., combining compute, storage, and network, thereby enabling it to provide a bespoke hardware and curated software stack. Their private cloud and HCI offerings comprise (i) private cloud; (ii) hybrid cloud; (iii) cloud tools; (iv) HCI; and (v) cloud native storage. Tyrone Skylus based private cloud and HCI offerings have emerged as an efficacious product offering in a short time frame and has enabled Netweb to compete with foreign HCI OEMs, virtualization ISVs, private cloud platforms and general computing rigs. Since inception until today, Netweb has undertaken installations of over 50 private cloud and HCI to marquee Customers such as Graviton, Akmai, A.P.T. Portfolio and Yotta Data.

Further, the global private cloud and HCI market is expected to grow from USD 228 billion in Fiscal 2023 (F) to USD 593 billion in Fiscal 2029 (F) at a CAGR of 17.3% and the Indian private cloud and HCI market is expected to grow from USD 2,797 million in Fiscal 2023 (F) to USD 8,007 million in Fiscal 2029 (F) at a CAGR of 19.2%. (Source: F&S Report)

Exhibit 42: Netweb's Revenue from Private cloud and HCI



Source: Company data

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

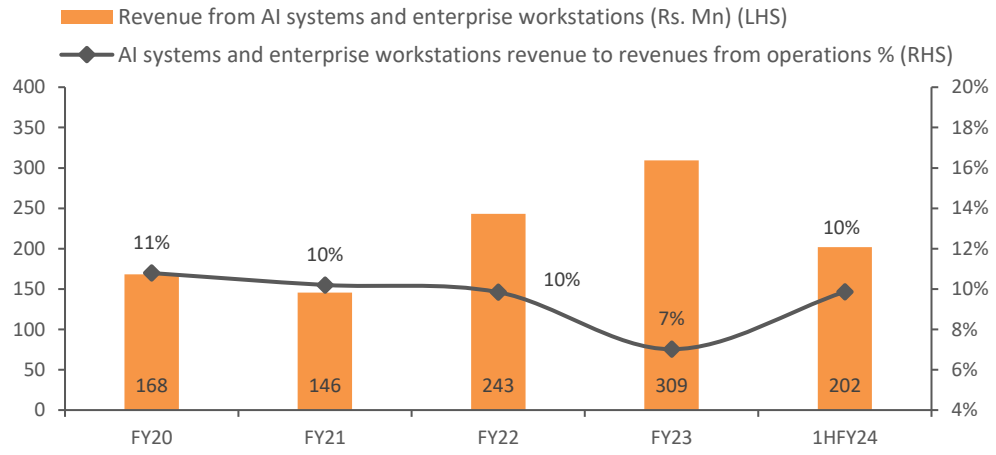
Netweb's HCS offerings – AI systems and enterprise workstations

Netweb's AI systems and enterprise workstations address requirements of Supercomputing systems, machine learning and deep learning, and are equipped with their proprietary containerised application solution (viz., Tyrone Kubyts) to standalone parallel compute intensive applications. Their AI systems and workstations are designed to support wide range of applications such as CFD (computational fluid dynamics), CAD (computer aided design) and CAM (computer aided manufacturing). Since inception until today, they have undertaken installations of over 4,000 accelerator / GPU based AI systems and enterprise workstations for marquee Customers such as IIT Jammu, IIT Kanpur, IIIT Naya Raipur, JNU, HL Mando, Hemvati University and Airamatrix.

Netweb's enterprise workstations which contain in-built liquid cooling facilitate a quieter work environment with low level acoustics and are designed to work across different use cases including high performance graphics, 3D designs and animation, and a multitude of scientific activities such as engineering design and data science. They have designed and developed a wide range of over 50 workstation models and deployed these to Customers such as Airamatrix and HL Mando.

Further, the global AI systems and enterprise workstations market is expected to grow from USD 6.30 billion in Fiscal 2023 (F) to USD 8.20 billion in Fiscal 2029 (F) at a CAGR of 4.5% and the Indian AI systems and enterprise workstations market is expected to grow from USD 333.6 million in Fiscal 2023 (F) to USD 1,456.40 million in Fiscal 2029 (F) at a CAGR of 27.8%. (Source: F&S Report).

Exhibit 43: Netweb's Revenue from AI systems and enterprise workstations



Source: Company data; Note: FY21 was impacted due to Covid related disruptions.

Netweb's HCS offerings – HPS (high performance storage) solutions

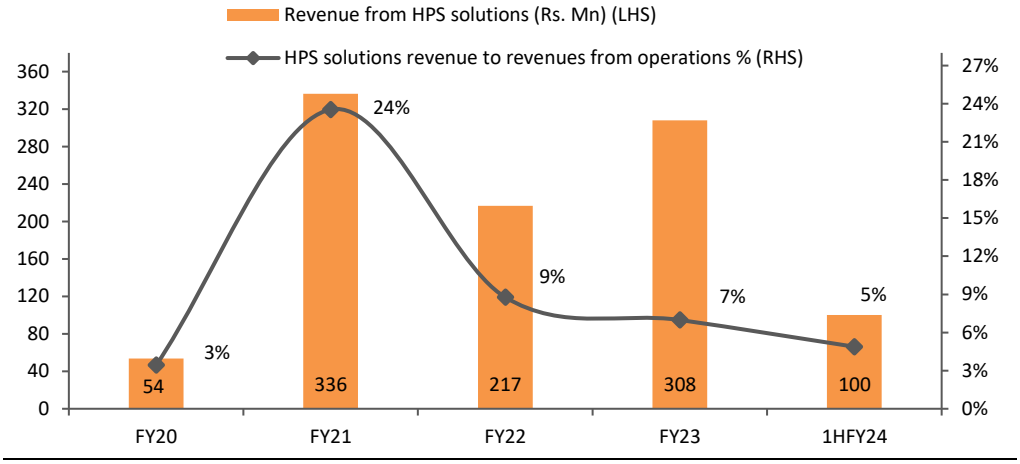
Netweb provide high throughput and high input/output operations per second (IOPs) storage for enterprise computation users. Netweb's HPS solutions comprise unified storage solution (viz., Tyrone Verta - an upgraded version of Opslag FS2), cloud native storage (viz., Tyrone Collectivo), parallel file system storage (viz., Tyrone ParallelStor) and surveillance and object storage (viz. Tyrone Collectivo with Fluid Input Output). Other salient features of their HPS solutions include 'no single point of failure' (i.e., a system will not fail if an individual part or component fails), scalable up to Exabytes (i.e., 1 exabyte equals 1 trillion megabytes), and built in high availability. Its HPS solutions are capable of being integrated into private and public cloud environment. Their HPS solutions are used across various industries such as media and entertainment, IT and ITES, academia, BFSI, e-commerce, defence and media streaming. Their hardware, software has been developed in-house and are compliant with the 'Make in India' initiative and comprises a management suite and hardware controller units with input-output benchmarking and application scaling capabilities and have proprietary middleware.

Their HPS solutions facilitate 10 million IOPS and 100 GBps (scalable upto 450GBps) throughput and designs that can be extended up to 1,000 petabytes. It provides HPS solutions to marquee Customers including Graviton, A.P.T. Portfolio and INST.

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

Further, the global HPS solutions market is expected to grow from USD 65 billion in Fiscal 2023 (F) to USD 78.80 billion in Fiscal 2029 (F) at a CAGR of 3.3% and the Indian HPS solutions market is expected to grow from USD 709 million in Fiscal 2023 (F) to USD 948 million in Fiscal 2029 (F) at a CAGR of 5%. (Source: F&S Report)

Exhibit 44: Netweb's Revenue from HPS solutions



Source: Company data

Netweb's HCS offerings – Data centre server offering.

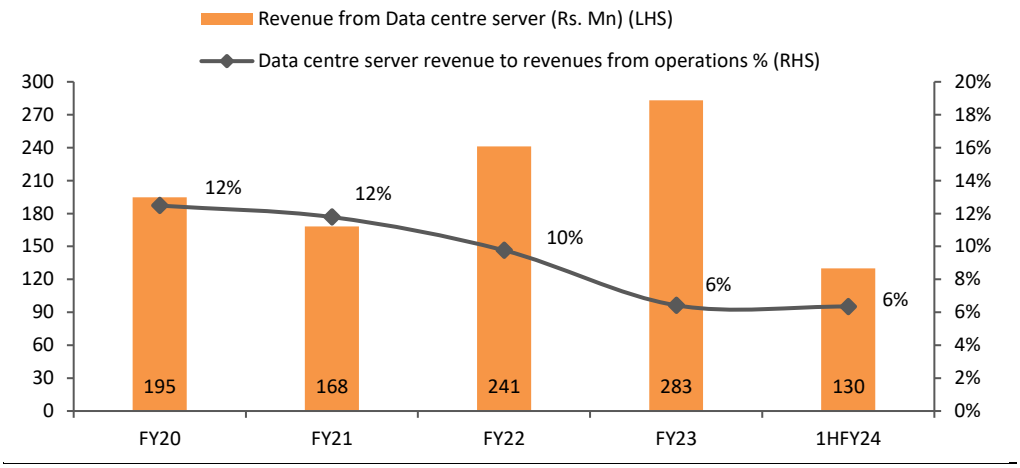
Netweb has designed and built an extensive range of over 200 dual processor server models under their brand 'Tyrone Camarero'. Their servers are designed and built with the intent of providing operational flexibility and have built servers to cater to disparate customer needs from entry level servers to high-end 'mission-critical' servers. The motherboard in their dual processor servers comprise 2 CPU sockets instead of 1 and Netweb consider their systems design and architecture to be one of the key distinguishing features of their servers. Processors with 2 CPU sockets can cater to 'mission-critical' server requirements due to inter alia 2 CPUs with 2 separate sets of cache memory and 2 sets of RAM providing high computing power. Their ability to design the systems platform enables them to constantly improve and customise their offerings to address specific requirements such as low rack space consumption, high energy efficiency, wide accelerator/GPU support, high in-built storage capability (up to 1petabyte, i.e. one million gigabytes (10^{15})) and 'all flash storage servers'. Their current server models are typically designed and built with the dual processor configuration. Dual processors enable multiple operations simultaneously, leading to low latency and also enable better physical space utilisation.

A reflection of the high quality of Netweb's servers is evidenced by the certificate of appreciation awarded to Netweb by the Ministry of Electronics and Information Technology, Government of India, for 'Outstanding Contribution in Promotion of Electronics – Manufacturing of Servers' in December 2021.

Further, the global data centre servers' market is expected to grow from USD 113.60 billion in Fiscal 2023 (F) to USD 198.30 billion in Fiscal 2029 (F) at a CAGR of 9.7% and the Indian data centre servers market is expected to grow from USD 3,414 million in Fiscal 2023 (F) to USD 4,564 million in Fiscal 2029 (F) at a CAGR of 5%. (Source: F&S Report)

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

Exhibit 45: Netweb's Revenue from Data centre server



Source: Company data; Note: FY21revenues was impacted due to Covid related disruptions.

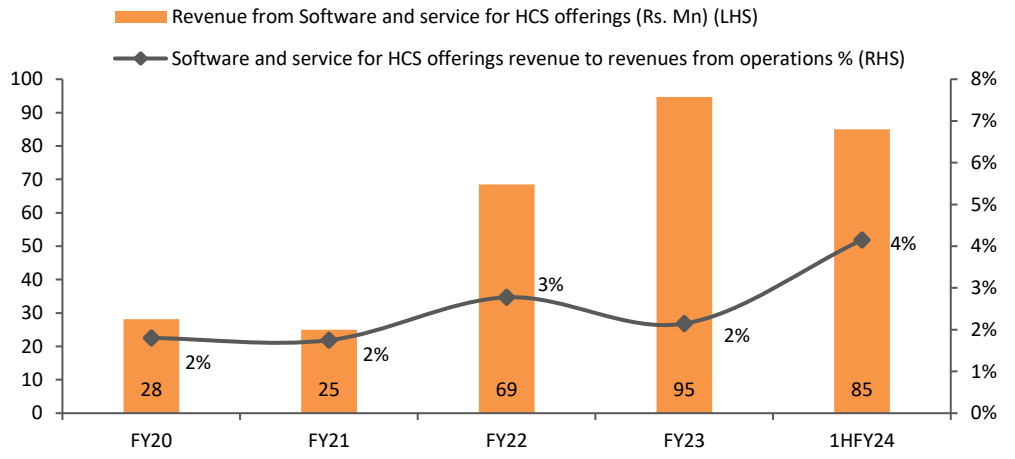
Netweb's HCS offerings – Software and services for HCS

Netweb provide private (on-premises and off-premises) cloud software stack designed for managed Kubernetes, open stack services, AI-machine learning and deep learning as a service, containers as a service, and handle complex workloads (including 5G enterprise cloud, 5G edge compute, private 5G and enterprise IT). Netweb's cloud solutions comprise deployment services which includes designing, application migration, virtual machine migration to application porting services.

Netweb 'Big Data' centric solutions use Tyrone Camarero dense systems, Tyrone Cluster Management Suite and Tyrone Collectivo range of specialized storage systems and are designed to cater to data intensive distributed applications under a single umbrella. Their 'Big Data' centric solutions comprise, inter alia, various algorithms, APIs including Java APIs, file systems such as MapReduce, Hadoop distributed file systems. These aspects combined with their in-house hardware architecture are aimed at making Netweb's 'Big Data'/Hadoop based solutions comprehensive. Further, Netweb's machine learning solutions extensively use their 'Big Data' systems. Netweb provide software and services for HCS to marquee Customers including NMDC Data Centre and Graviton.

Revenues in this segment is booked only for projects involving these services/solutions as standalone offering vs. contracts involving hardware product along with services and software solutions. Revenues from such contracts are booked in the respective product segment.

Exhibit 46: Netweb's revenues from Software and services for HCS offerings



Source: Company data; Note: FY21revenues was impacted due to Covid related disruptions.

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

Exhibit 47: Netweb's engineered solutions supporting product and solution sold under Tyrone brand :

Sr No.	Product name	Description	Engineered Solutions Bundled with
1	Tyrone Cluster Manager	Tyrone Cluster Manager is a suite which assists in simplified cluster deployment and cluster management at HPC data centers. The cluster deployment capabilities include building and monitoring the clusters as a single entity and provisioning the hardware and operating system from a unified interface. The cluster management capabilities include cluster provisioning, monitoring all nodes of the clusters, reporting and management to make the clusters agile, speedy and reliable to deliver high throughputs.	HPC, Data Centre servers
2	KUBYTS	Kubyts is a curated catalogue of GPUs and CPUs accelerated container applications and images for deep learning software, HPC applications and HPC visualization tools. Containers are a way to package applications, libraries, and configurations and run them as a self-contained and isolated environment agnostic of the software installed on the host system (Containers). Kubyts, through the use of Containers, assists applications involved in machine learning and deep learning and can run multiple applications simultaneously. Kubyts can run on a system as well on a private or a public cloud.	HPC, AI systems and Enterprise workstations
3	VERTA	Verta (an upgraded version of Opslag FS2) has been designed to modern enterprise storage requirements. Verta is a unified storage solution which assists in agility and flexible scaling, and high performance. Verta comprises 3 aspects viz. storage area network, network attached storage and virtual tape library, and offers fault-tolerant architecture, remote replication, data deduplication, adaptive read ahead, solid-state drive cache and silent data corruption protection. Verta's end use industry includes data rich enterprises and industries involved in video surveillance and media.	HPS solutions
4	ParallelStor	ParallelStor is a range of storage system which provides high throughput storage for high end and enterprise computation users.	HPC, AI systems, Enterprise workstation and HPS solutions.
5	Collectivo	Collectivo is a parallel file system which assists in meeting archival and storage requirements and is designed with the intent of meeting the requirement of true enterprise-grade storage. Collectivo offers storage space of up to Exabytes (i.e., 1 exabyte equals 1 trillion megabytes)	HPS solutions
6	SKYLUS	Skylus is a private cloud solution with hyper-converged capabilities i.e., combining compute, storage, and network i.e. 'HCI Cloud in box'. Skylus is an integrated hardware and software solution. Skylus is designed for quick deployment and assists in providing scalability, multitenancy, migration between nodes and a single management dashboard.	Private cloud solutions, HCI, and data centre servers.
7	Tyrone Camarero	Dual/ Multi processor server, AI Systems and Enterprise Workstation models	Tyrone Camarero range of Data centre servers, Enterprise workstations and AI Systems are supplied with multiple engineered solutions.

Source: Company data; Netweb RHP

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

Netweb end to end strengths solution providing differentiates it vs. its peers.

Netweb's provides end to end HCS offerings as domestic OEM …

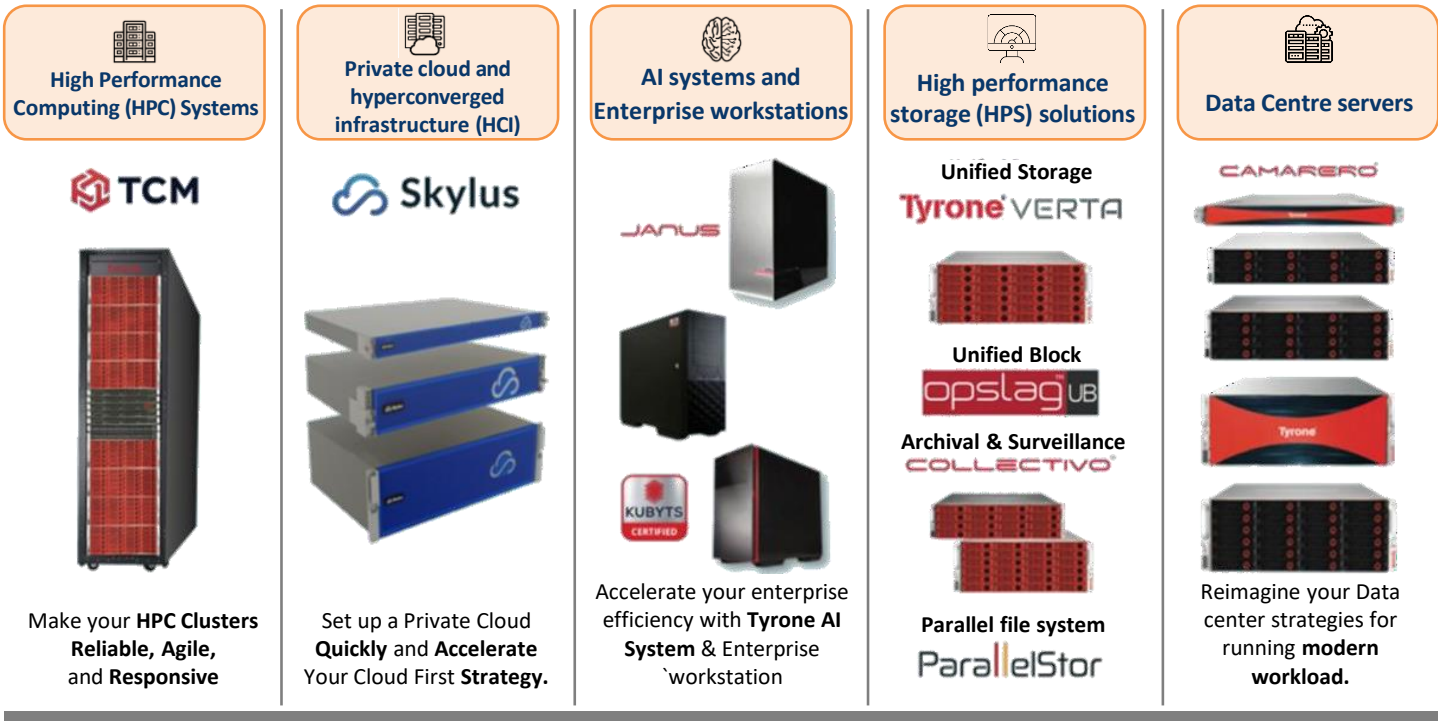
Unlike some of the other established EMS vendors who cater to their OEM clients as sub-contractors by manufacturing products / PCBA based on design provided by OEM clients largely, Netweb provides HCS offerings as domestic OEM and sell its products and solutions directly to end users who are large enterprises.

Netweb is one of India's leading Indian origin, owned and controlled OEM for HCS with integrated design and manufacturing capabilities. Netweb designs, manufactures, integrates/assembles, and deploys their HCS comprising proprietary middleware solutions, end user utilities and pre-compiled application stack. Netweb through their technical innovation and design capabilities offer a full stack of product and solution suite from design and assembly of printed circuit boards to manufacture of complete electronic systems. Its deep expertise in system design and architecture, has helped them innovate and build bespoke solutions. Further, their proprietary designs are cloud native which, in addition to technological benefits, are capable of catering to the evolving needs of Customers.

While they typically integrate their proprietary software into the product and solution suite that they offer, their operational framework is flexible enough to also integrate third party software into their solutions, in accordance with the customer's needs and requirement.

Netweb products and solutions offerings sold under 'Tyrone' brand are supported by their engineered solutions as shown in the following exhibit.

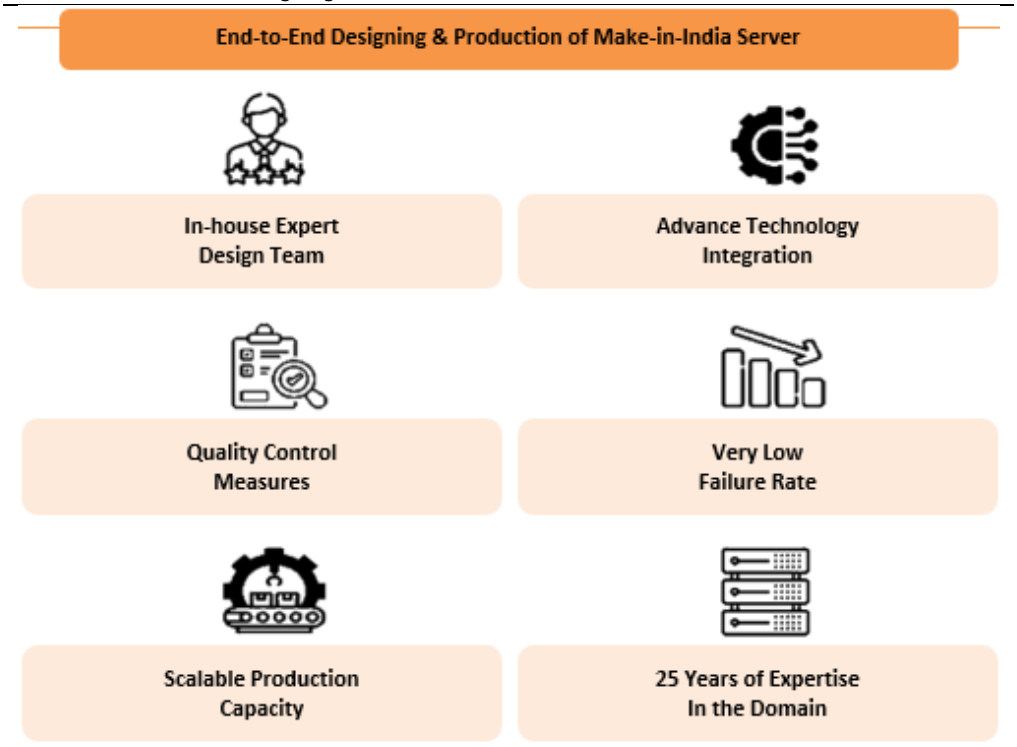
Exhibit 48: Netweb's HCS Offerings



Source: Company data

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

Exhibit 49: End-to-End Designing & Production of Make-in-India HCS hardware / Server



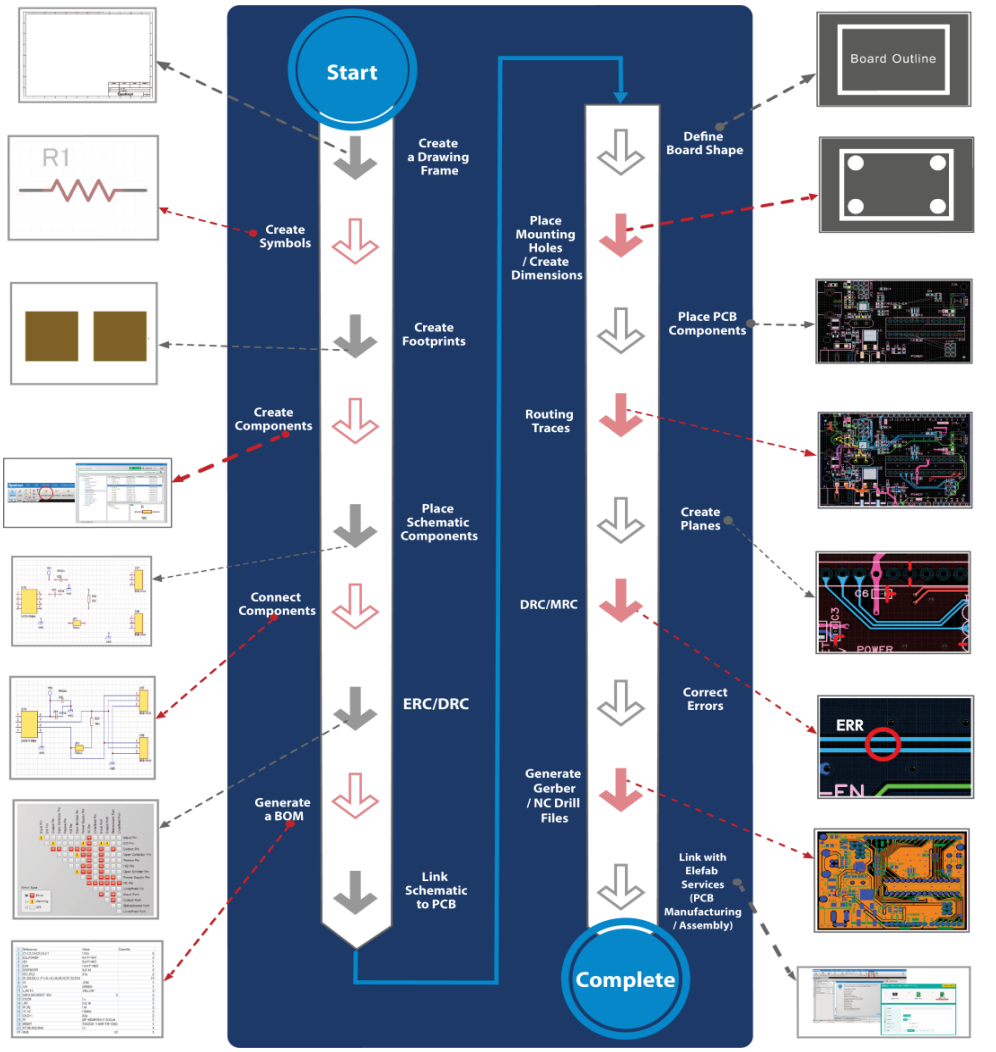
Source: Company data

Netweb's designs and manufacturers multi-layer complex PCB – key differentiator.

Netweb operates in manufacturing of high-end computing hardware products. It differentiates most of its peers by designing PCBA goes into the same. These PCBA are complex 16-24 layers board with many circuit connections encompassing CPU and/or GPUs taking into consideration the size of the equipment, form of the equipment, connections, power voltage, design of schematics, connectors, cooling systems, firmware etc amongst many other elements.

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

Exhibit 50: Netweb's end to end design and manufacturing of PCBA board



Source: Company data

Assembly and integration of components to make the finish product as per custom design.

Once the PCB/mother board is manufactured, Netweb integrates and assembles other hardware components including CPU/GPU (sourced from best of the MNC vendors including Intel, Nvidia, AMD amongst others), hard drives, RAM, SSDs, cache memories, server chassis etc. to make the final product as per the customised design of the hardware product agreed with the enterprise client. It also provides cooling systems attached to these hardware products. Then these systems are tested in the high air-conditioning facilities of Netweb as per the required standards of performance before it is shipped and installed at the client site.

The key components used in their manufacturing operations comprise PCB and PCB assemblies using surface mount technology, chassis, microprocessors, hard disk drives, dynamic RAM, and solid-state drives. Netweb has a robust supplier network which includes vendors, in India and overseas. They also rely on imports of certain components such as chassis, PCB, microprocessors, and hard disk drives amongst others from overseas vendors. They have comprehensive documented procedures for vendor selection and certification. They also conduct periodic audits to ensure compliance with their quality standards and specifications. Netweb also collaborate with various technology partners, such as Intel Americas, Inc (Intel), Advanced Micro Devices, Inc. (AMD), Samsung India Electronics Private Limited, Nvidia Corporation (Nvidia), and Seagate India Private Limited to design and innovate products and provide services tailored to specific customer requirements.

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

Also provides its middleware, software stack and services….

Exhibit 47 shows that Netweb not only provides high end computing hardware/PCB design, manufacturing and integration/assembling the final hardware product but also provides its in-house developed middleware stacks, application porting as a services and software to manage the complex hardware esp. for HPC/SPC, Pvt Cloud HCI offerings and AI/Workstation.

…with product/solution development done through in-house R&D.

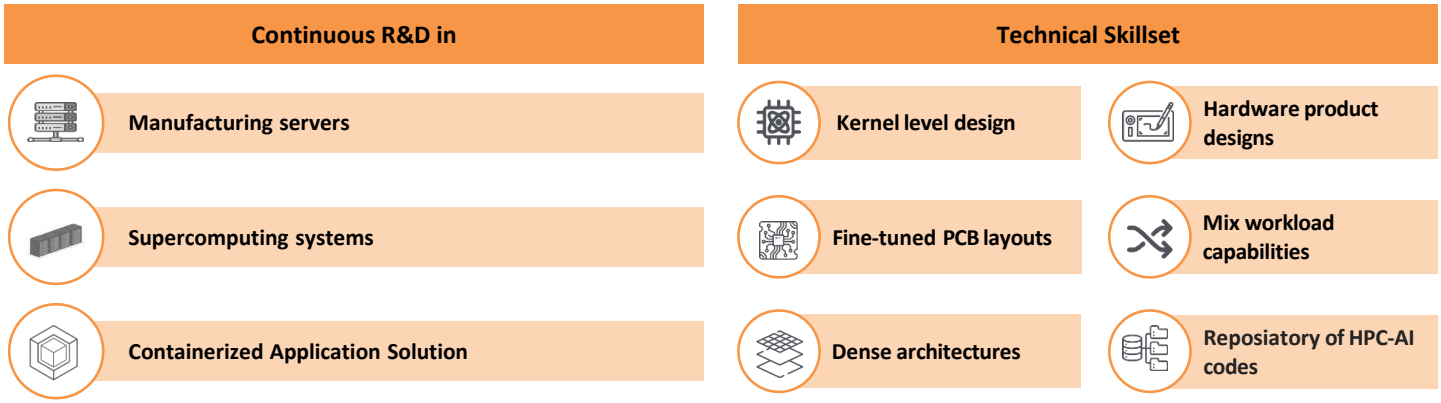
The industry in which Netweb operates is R&D intensive and relies significantly on technically qualified resources. Netweb has endeavoured to inculcate a culture of innovation and instil a firm belief that R&D is a key element of their growth and will continue to remain so. Netweb has continued to strive towards innovation in their product range and have continued to build their R&D capabilities by continuously developing their R&D team to improve their systems design and architecture and to expand their products and solutions suite.

Netweb has dedicated R&D Facilities which, comprised more than 35 member technically skilled R&D team all of whom are professionally qualified. Netweb's R&D team is led by Mr Mukesh Golla, Chief Research & Development Officer, who holds a bachelor's degree in technology (computer science and engineering) from the Jawaharlal Nehru Technological University, Hyderabad and has been associated with Netweb's HCS since 2004. Its dedicated R&D teams are based in Faridabad, Hyderabad and Gurgaon. Since April 1, 2019, Netweb's R&D team strength has grown from 12 to more than 35 currently.

Netweb's R&D team's in-depth understanding of high-end solutions, their ability to meet the advanced technological challenges and their constant efforts at innovation, coupled with experience in working on innovative products in India, enables it to stay at the forefront of technological evolution and anticipate and envision the future needs of their customers and the market.

Netweb's dedicated R&D facilities have enabled them to increase their product lines to 8 viz., Tyrone Cluster Manager, KUBYTS, VERTA, ParallelStor, Collectivo, SKYLUS and Tyrone Camarero AI Systems and GPU System.

Exhibit 51: Netweb's capabilities



Source: Company data

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

Exhibit 52: Netweb's key awards, accreditations, and recognition

Fiscal Year	Awards and Accreditations
2017	Partner Performance Award - Data Center Group at the Intel Solutions Summit 2017 MACAU
2017	Intel Technology Provider Platinum 2017 Retailer Specialist
2018	Intel Technology Provider Platinum 2018 Best HPC Data Center Specialist
2020	Seagate Certificate for Appreciation - In Recognition for a record of outstanding Accomplishments
2019	Partner of the Year- Data Center Group at the Intel Partner Connect Asia 2019
2020	In recognition of outstanding contribution towards growing AMD EPYC Business H1 for FY20.
2021	Top Software Tools Bundled with IA Partner of the Year 2021 at the Intel Software India Partner Summit, 2021
2021	Partner of the Year 2021, System Integrator by Seagate
2021	Outstanding Contribution in Promotion of electronics and manufacturing of servers - Ministry of Electronics and Information Technology, Government of India, Celebration of Azadi ka Amrit Mahotsav
2022	MAIT – India's Apex Industry body empowering IT, Telecom and Electronics and Hardware for outstanding leadership and guidance to the Electronics Industry of India
2022	The best 'Software Tools Bundled with IA' Partner for 2022 by Intel Developer Tools Submit 2022
2023	Awarded by Government e-Marketplace as a winner in 'Top Sellers (MSE)' Category
	In addition to the above mentioned awards and accreditations, Netweb has been awarded with the following: Recognition for longstanding partnership with Intel; Recognition of Outstanding Revenue Contributor for Server - South Asia by Intel; Certificate of Appreciation awarded by the Institute of Mathematical Sciences, Chennai in relation to building of the teraflop supercomputer 'Kabru' at the Institute of Mathematical Sciences, Chennai which has made it twice to the top 500 list of supercomputers internationally; the First APAC Big Data Design Win - The Intel Elite Awards Our Partners, Our Champions Asia Pacific by Intel; and Intel Outstanding Leadership in Vertical Design Win - Asia Pacific.

Source: Company data

Netweb operates in a rapidly evolving and technologically advanced industry with high entry barriers.

Netweb operates in a rapidly evolving and technologically advanced industry which requires them to stay abreast of the developments and improve and customise their designs, and hardware and software offerings. The nature of the industry and the rapidity of technological advancement necessitates continual innovation, improvement, and customisation of their solutions. Modification of designs and changes in implementation of the offerings requires technical skill set and expertise which is a significant entry barrier in the industry for new entrants.

Netweb has through the technical and technological expertise that they have built over time, the experience gained from executing various projects across sectors, large collection of problem sets, wide range of problem-solving solutions, surmounted these entry barriers.

Netweb has fully integrated design, manufacturing and integration/assembly capabilities enabled by their blend of proprietary hardware designs, middleware stack and software solutions. As a result of their continuous R&D in data centre server development, they have the capabilities of manufacturing servers that are suitable for building private cloud solutions, Supercomputing systems clusters, and modern data centres. Their association with companies operating in different Application Industries and catering to their specific needs has honed their technical expertise and they have devoted time, energy and resources, to constantly innovating and developing their skill-sets which today comprises kernel level computing (i.e, establishes complete and unrestricted access between software and the underlying hardware) and development capabilities, hardware product designs, fine-tuned printed circuit board layouts, optimized operating systems, dense architectures, mix workload capabilities and a repository of HPC-AI codes.

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

Exhibit 53: Netweb surmounted Industry Entry Barriers

Rapidity of technological advancement necessitates:	Modification of designs and changes in implementation requires
• Hardware, Middleware & Application-level Innovation • Application Optimization • Track Record of Customer Service • Fine tuning of Architectures	• Deep Expertise in system design & architecture • Expertise in Hardware & middleware • Exposure to large problem sets • Technical skill set & expertise

Source: Company data

Exhibit 54: Segment wise Netweb's track record

Segment wise Netweb's track record	
300+ Supercomputing systems installed	4000+ Accelerator / GPU based AI systems & enterprise workstations
50+ Private cloud & HCI installations	3 Supercomputers listed eleven times in the world's top 500 supercomputers

Source: Company data

Hence, Netweb differentiates it peers despite high competition.

Netweb faces competition from various competitors across business verticals. Set out below are the details of their competitors in each of the business vertical:

Exhibit 55: Netweb's Key Competitors

Sr. No.	Business Vertical	Key Competitors
1.	HPC	Hewlett Packard Enterprise, International Business Machines Corporation, Atos SE, and Lenovo Group Limited.
2.	Private cloud and HCI	VMware, Inc., Nutanix Inc., Suse SA, and RedHat Inc.
3.	AI systems and enterprise workstations	Nvidia.
4.	Enterprise storage systems	Hewlett Packard Enterprise, NetApp Inc., HITACHI Data Systems Corporation, and Dell Technologies Inc.
5.	Data centre server	Hewlett Packard Enterprise, Lenovo Group Limited, International Business Machines Corporation, and Dell Technologies Inc.
6.	Cloud managed services	HCL Technologies Limited, Accenture Plc, Cognizant Technology Solutions Corp, and Tech Mahindra Limited

Source: Netweb RHP, Frost & Sullivan report

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

Exhibit 56: Netweb's competitive edge in its high growth segments

	Products / Solutions	Competition	Netweb USP
1	Hardware products of Netweb:		
	HPC/SPC	IBM, Lenevo, HPE, Atos amongst others	
	Pvt Cloud & Data Centre Server	IBM, Lenevo, Dell, HPE amongst others	• Like Netweb there are very few OEMs who provides hardware, software, application porting under one umbrella brand.
	Enterprise Storage	Dell, HPE, NetApp, Hitachi Data Systems amongst others	
	AI Systems/Workstations	HPE, Dell, Lenevo amongst others	• This differentiates Netweb across its high growth areas including HPC/SPC, Pvt Cloud & HCI and AI & workstation segments vs. its most of its peers.
2	Middleware, software, application porting solutions of Netweb		
	TCM - Tyrone cluster manager	Nvidia Bright Cluster, Run:ai Atlas, Aspen Cluster Management Environment (ACME), Cluster Visor, Azure HPC, Slurm, IBM Spectrum LSF etc.	• These end-to-end capability of Netweb makes it single point of contact for clients relating to hardware needs, middleware and software needs, application porting services and other pre/post implementation services related to same.
	Skylus	VMWare, Hyper-V, Nutanix Cloud Platform, Suse, Citrix Hypervisor, Red Hat Virtualization etc.	• This differentiates Netweb vs. most of its peers and it provides flexibility to enterprise users/clients and also cost efficiencies for client by choosing Netweb.
	Kubyts	Nvidia Deep Learnings SDK & CUDA etc.	
3	Software services	Global system integrators	

Source: Company data, Equirus, various media sources

Netweb is well poised to leverage various industry catalysts and policies related to IT hardware, telecom products and HCS offerings.

Netweb is compliant with the 'Make in India' policy of the Government of India and is also one of the few OEMs in India eligible to participate in both the IT Hardware PLI and Telecom and Networking PLI schemes. Netweb is one of the 27 firms who has been approved certificate under the PLI 2.0 scheme for IT hardware manufacturing. Considering Netweb's successful execution under PLI 1.0, Netweb has a green channel entry into PLI 2.0, with the base year for incentive calculations being the same as PLI 1.0 for IT Hardware PLI for Netweb.

Exhibit 57: Netweb well poised to leverage industry growth catalysts and Government policies.

Sr No.	HCS Industry growth catalysts / Government policies	Netweb's positioning
1	Make In India	Netweb has more than 1.5 decades of experience in manufacturing of high-end computing hardware. Netweb is one of India's leading Indian origin, owned and controlled OEM for HCS with integrated design and manufacturing capabilities. Netweb designs, manufactures, and deploys their HCS comprising proprietary middleware solutions, end user utilities and pre-compiled application stack.
2	PLI 1.0 - Hardware	Netweb is one of the few domestic OEMs who is holder of PLI 1.0 for IT Hardware manufacturing and has successful track record under the same.
3	PLI 2.0 - Hardware	Netweb is one of the 27 firms who has been approved certificate under the PLI 2.0 scheme for IT hardware manufacturing. Considering Netweb's successful execution under PLI 1.0, Netweb has a green channel entry into PLI 2.0, with the base year for incentive calculations being the same as PLI 1.0 for IT Hardware PLI for Netweb.
4	PLI - Telecom and Networking products	Netweb is compliant with the 'Make in India' policy of the Government of India and is also one of the few OEMs in India who is eligible to participate in Telecom and Networking PLI schemes given it is a certificate holder for PLI for Telecom and Networking products. It is planning to launch it Networking switch brand (most likely before FY24E end) and 5G ORAN solution (most likely in FY25E). Netweb has already demonstrated their expertise in deploying 5G cloud solutions and high-speed networking solutions for an international telecommunication service provider.

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

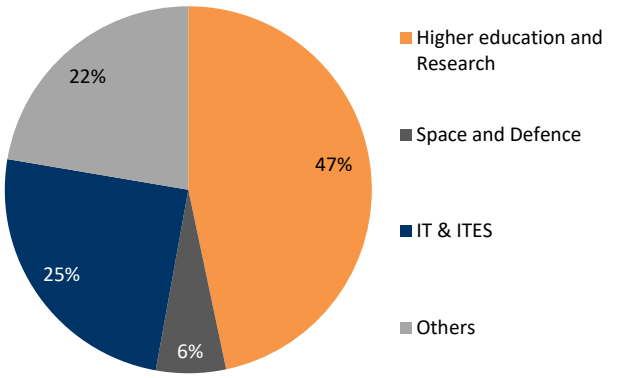
Sr No.	HCS Industry growth catalysts / Government policies	Netweb's positioning
5	Import restriction of IT Hardware	Netweb is likely to benefit from this given its successful track record in providing complete high end computing hardware solution as Indian OEM brand.
6	Data Protection and Digital Privacy (DPDP) regulations to boost the demand IT hardware/servers.	Given DPDP regulations likely to become a reality soon, we believe that Netweb's solid track record of manufacturing different range on server architecture will benefit from these regulations going forward.
7	Make AI in India & Make AI work for India	Netweb has rich experience in designing AI led server / Workstation architecture along with its AI/DL/ML led containerized application platform (Kubyts). Also, recently Netweb announced its recent tie up with Nvidia which makes it as its manufacturing partner for the NVIDIA Grace CPU Superchip and GH200 Grace Hopper Superchip MGX server designs. Netweb will build and produce more than ten server variations under its Tyrone range of AI systems meant for a wide range of AI and high-performance computing/supercomputing applications.

Source: Ministry of Electronics and Information Technology (MEITY), Ministry of Communications, Company data, Equirus

Netweb has long standing relations with a marquee and diverse customer base with higher repeat business

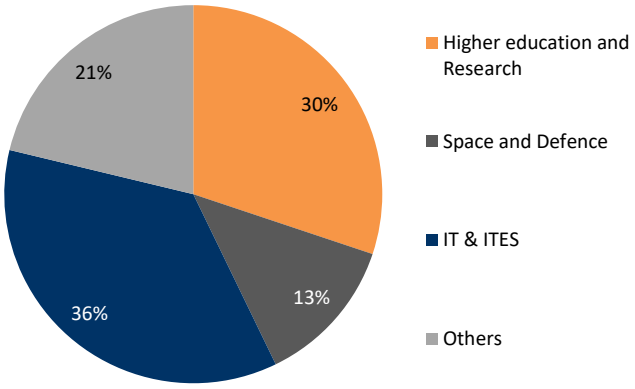
Netweb gets material portion of its sales from domestic (India) market and within domestic market it caters to marquee customers across various end-user industries such as information technology (IT), information technology enabled services (ITES), entertainment and media, banking, financial services and insurance (BFSI), national data centres and government entities including in the defence sector, education and research & development institutions.

Exhibit 58: Revenue breakup by Application industries (%) for FY23



Source: Company data

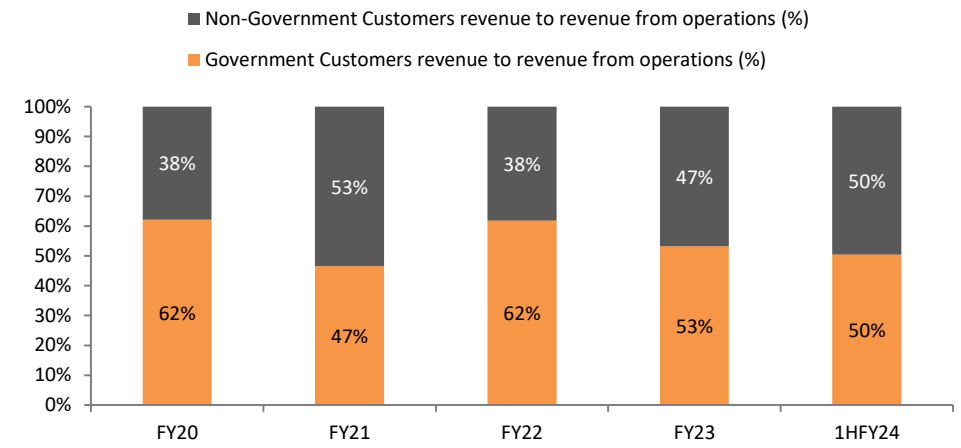
Exhibit 59: Revenue breakup by Application industries (%) for 1HFY24



Source: Company data

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

Exhibit 60: Netweb's revenue breakup between Government customers and Others (%)



Source: Company data

Exhibit 61: Netweb - Gist of client clients across industries

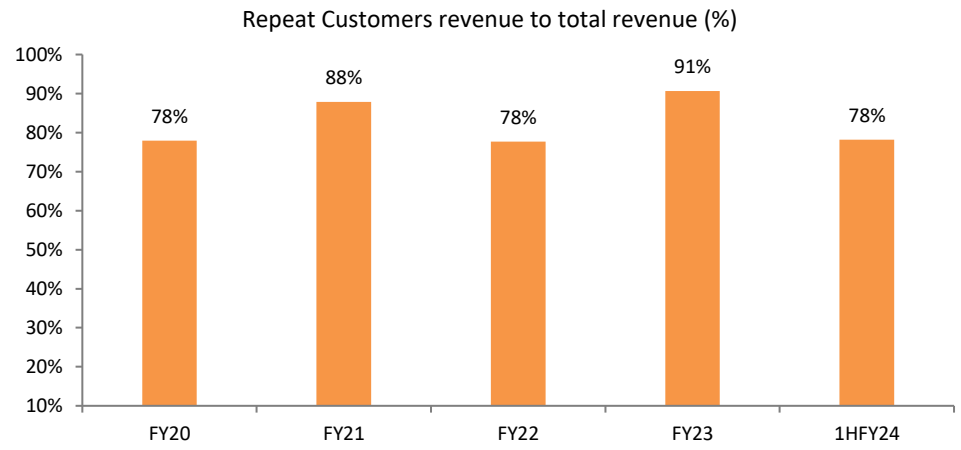
Application Industries	Customers
Higher education and Research	IIT Jammu, IIT Kanpur, Institute of Nano Science and Technology (INST), IIIT Naya Raipur, JNU, Hemvati University, CUHP University and an R&D organisation of the Ministry of Electronics and Information Technology, Government of India, Dr. Shyam Prasad Mukherjee International Institute of Information Technology, Centre for Computational Biology and Bioinformatics
Space and Defence	An Indian Government space research organisation, National Atmospheric Research Laboratory, Hindustan Aeronautics Limited
IT & ITES	Airamatrix, NMDC Data Centre, HL Mando, Akamai, Yotta Data and Zoho
Other enterprises	Graviton, A.P.T. Portfolio, Quad eye

Source: Company data, Netweb RHP

Netweb design, develop, and implement their entire solutions package which helps it engage with their customers in a more holistic manner. This enables them to embed themselves within the institutional framework of their customers and helps in customer retention and repeat business. Their diverse customer base spread across different application industries demonstrates the suitability of their systems, design, and architecture across disparate applications. Further, they also provide comprehensive implementation and service support which ensures that Netweb cater to end-to-end needs of their customers, which they consider to be one of the factors that enables them to attract new customers.

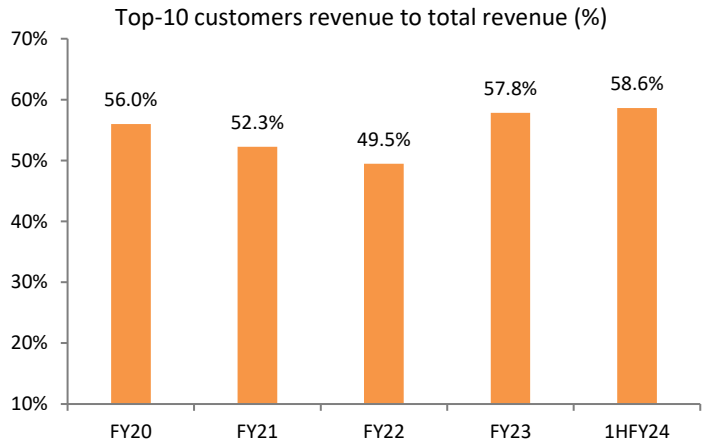
sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

Exhibit 62: Repeat customer's revenue to Netweb's revenue from operations (%)



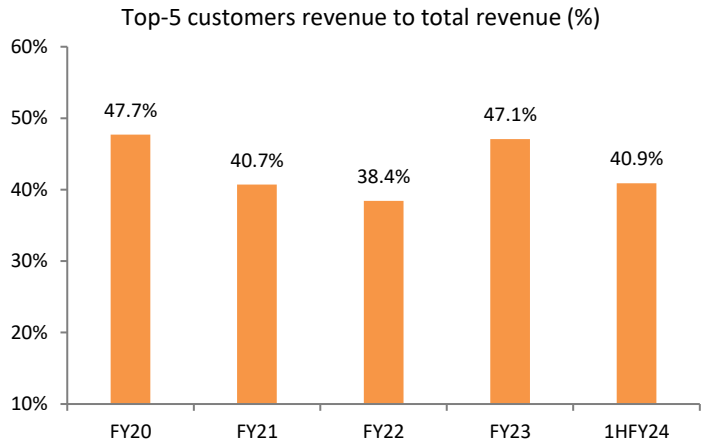
Source: Company data

Exhibit 63: Top-10 customer's revenues to Netweb's revenue from operations (%)



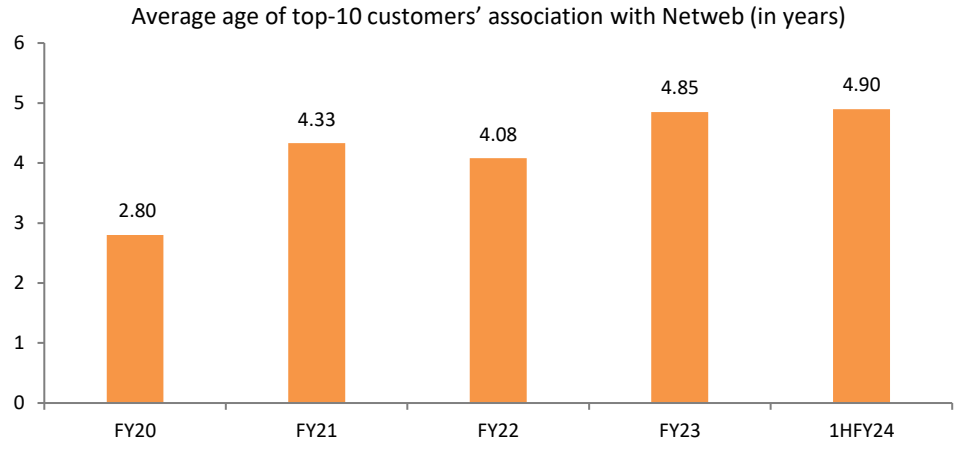
Source: Company data

Exhibit 64: Top-5 customer's revenues to Netweb's revenue from operations (%)



Source: Company data

Exhibit 65: Average age of top-10 customers' association with Netweb using FY16 as base year



Source: Company data

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

Netweb expansion strategies

Besides robust growth opportunities in domestic market for Netweb's existing products and Netweb's unique and established strength to cater this growing market as explained earlier in this report, Netweb continue to seek opportunities to realize sustainable growth of their business. To achieve this, it plans to focus on the following strategies:

Expanding and augmenting product portfolio

Netweb also proposes to continue to expand their product portfolio including by offering 5G and private 5G solutions and Network Switches. Netweb has already forayed into this market, and has, on October 31, 2022, received approval to participate in, and seek production linked incentives under, the Telecom and Networking PLI Scheme under the category of manufacturing of switches, 5G edge and enterprise equipment, and 5G RAN equipment. The said PLI Scheme was introduced to inter alia boost domestic manufacturing of telecom and networking infrastructure. Netweb has already demonstrated their expertise in deploying 5G cloud solutions and high-speed networking solutions for an international telecommunication service provider.

Network switches expected to launch before FY24E.

As per Netweb management Network switch solution under its own brand is expected to be launch before FY24E-end and we believe that demand for the same is likely to be robust given Government of India's initiatives to promote domestic brand which are very few including Tejas Networks and Netweb. We believe that scouting customer for network switches for Netweb will not be difficult task given it already has established clients sets to whom it sells high end compute server architecture along with compute, storage, and networking solutions with currently the networking solutions are outsourced, assembled and integrated by Netweb.

5G ORAN expected to launch in FY25E.

Within 5G ORAN solution building, Netweb is looking to offer private 5G network solutions to private enterprises by either tieing up with telcos or system integrators or selling directly to enterprise clients.

In an Open RAN environment, the radio access network (RAN) is disaggregated into three main building blocks:

- Radio Unit (RU)
- Distributed Unit (DU)
- Centralised Unit (CU)

The RU is where the radio frequency signals are transmitted, received, amplified, and digitized. The RU is located near or integrated into, the antenna. The DU and CU are the computation parts of the base station, sending the digitalized radio signal into the network. The DU is physically located at or near the RU whereas the CU can be located nearer the Core (Core Network). The Core has many functions. It provides access controls ensuring users are authenticated for the services they are using, it routes telephone calls over the public switched telephone network, it enables operators to charge for calls and data use, and it connects users to the rest of the world via the Internet. It also controls the network by making handovers happen as a user moves from coverage provided by one RAN tower to the next.

Netweb is looking to provide solutions around DU and CU currently and expect to launch these offerings in FY25E.

Deepen Netweb's penetration across verticals.

Currently, Netweb's HCS offerings cater to various application industries such as information technology, information technology enabled services, entertainment, and media, BFSI, and government entities including the defence, education and research development institutions, national data centres such as NMDC Data Centre. Netweb strives to expand verticals namely oil and gas in India and deepen their penetration across sectors such as the automobile sector particularly in western and southern region of India, BFSI clusters in the western region of India, and multi-sector corporates in order to expand their customer base.

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

Growth in the oil and gas industry in India is expected to get driven by the use of high-end computing solutions, such as supercomputers and AI. Oil and gas companies are increasingly relying on powerful computers / supercomputers to process complex data faster and that enables these companies to cut costs while boosting productivity and success rates of projects. Supercomputers also help these companies develop advance imaging algorithms that help fetch better images of the sub-surface where oil could be found. The major regions contributing to the growth are Telangana, Andhra Pradesh, Uttar Pradesh and Gujarat and the Union Territory of Jammu & Kashmir, where governments are proposing to / expected to make large strategic investments in technology. (Source: F&S Report). Accordingly, Netweb propose to focus on these Indian states and Netweb is in the process of aligning their HPC solutions to cater to the Indian oil and gas sector to facilitate it with the reservoir simulation and seismic data processing workloads, using Netweb's mix workload architecture and utilities.

Deepen Netweb's penetration with chip providers…

Currently, Netweb is working primarily with Intel, Nvidia and AMD. While Netweb will continue to work with Intel and AMD to augment their product portfolio with new technology architecture, they propose to also expand their portfolio to include reduced instruction set computer (RISC) architecture based HCS systems.

Exhibit 66: Netweb - Expansion strategies

Enhanced Capabilities	• **Entered into License agreement with Intel to produce Next Gen Architecture based High end computing systems.** • **Netweb is a manufacturing partner for the NVIDIA Grace CPU Superchip and GH200 Grace Hopper Superchip MGX server designs. Further Netweb will build and produce more than ten server variations under its Tyrone range of AI systems meant for a wide range of AI and high-performance computing/supercomputing applications.**
Expansion of Operations	• **Increasing investments in Generative AI infra by govt & Large enterprises to cater demand for LLM related solutions.** • **Heavy adoption of Private Cloud in the PSU Banks.** • **Increasing demand for HPC in the Oil & Gas sector.** • **Foray into Europe & Middle East – plan to setup service network in 4 countries to start with.**
Expanding Product Portfolio	• **Forayed into developing new product lines, viz., Network Switches and 5G ORAN Appliances.** • **Introduced 5G cloud on core and edge for telecom service providers.**

Source: Company data

…Netweb's tie up with Nvidia could provide material upside potential for Netweb.

Netweb in Nov 2023 announced that it is now a manufacturing partner for the NVIDIA Grace CPU Superchip and GH200 Grace Hopper Superchip MGX server designs. Netweb will build and produce more than 10 server variations under its Tyrone range of AI systems meant for a wide range of AI and high-performance computing/supercomputing applications. With NVIDIA MGX, a modular reference design, Netweb's AI systems will target complex workloads of HPC, data science, large language models, edge computing, enterprise AI, and design and simulation. The product range will also support handling a wide range of simultaneous workloads such as AI training, inference, and 5G on a single system. At the same time, the designs ensure seamless upgrades for upcoming hardware generations.

With artificial intelligence touching almost all businesses and industry verticals, building the right AI infrastructure at the right cost is one of enterprises' greatest challenges. Netweb's Tyrone AI systems based on NVIDIA MGX will help tackle these challenges and give flexibility to enterprises for a variety of applications, including generative AI, speech analytics, text analytics, automation and more.

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

Collaboration with NVIDIA will bring out the immense potential of AI in India and APAC as Netweb's NVIDIA MGX platform-based portfolio can help build sovereign AI infrastructure for India and other nations.

- Netweb's AI systems with NVIDIA MGX will give a boost to the country's 'Make in India' mission. Netweb's AI system roadmap based on NVIDIA MGX architecture offers a unique proposition that provides a new standard for modular server design by improving ROI while saving development resources and reducing time to market. It allows different configurations of GPUs, CPUs, and DPUs including x86 or Arm® CPU servers and NVIDIA OVX servers to accelerate diverse enterprise data center workloads.
- At the same time, the local manufacturing of systems will build a local ecosystem to better address the demands around AI and accelerated computing applications of both government and private enterprises.
- Ushering AI demands and the potential of India can be shown by the latest big announcements from some of the large Indian corporates to develop AI infrastructure in India.

Rise of Generative AI will impact data centres and Network infrastructures.

Although AI has been around in the form of machine learning and data analytics applications used behind the scenes by many enterprises for years, the recent rise of Generative AI applications that respond to natural language inquiries from users is taking AI into exciting new arenas. As these new applications are moving AI into the mainstream, the need for real-time, low-latency processing of Large Language Model (LLM) databases to provide on-the-fly responsiveness is having major impacts on data centers and networks. This means that existing data and communications infrastructures must undergo radical transformation and expansion to meet the new AI demands.

The rise of artificial intelligence (AI) will have a significant impact on networks and computing data centres. Here are some important ways in which AI will influence these key infrastructure elements.

Exhibit 67: AI Impacts on Data Centres and Networks

AI Impacts on Data Centers and Networks	Particulars
Increased computational demands	AI applications, particularly deep learning algorithms, require substantial computational power to process and analyze vast amounts of data. This demand for computational resources will drive the need for more powerful and efficient hardware in data centers. Processors and accelerators designed specifically for AI workloads, such as graphics processing units (GPUs) and tensor processing units (TPUs), are already being deployed to meet these requirements.
Network bandwidth requirements	AI systems often rely on large datasets for training and continuous learning. As AI models become more complex and datasets grow, the demand for high-speed data transfer within data centers and across networks will increase. This will necessitate improvements in network infrastructure, such as higher-capacity switches, routers, fiber optic cables, and internal system interconnects to ensure efficient data movement.
Edge computing and distributed AI	The growth of AI is driving the need for real-time and low-latency processing. Edge computing, where AI computations occur closer to the data source or end-users, is becoming increasingly important. By decentralizing AI processing to edge devices, such as IoT devices or local servers, organizations can reduce latency and bandwidth requirements. This shift towards edge computing will require the development of distributed AI architectures and the integration of AI capabilities into edge devices and networks.
Enhanced security measures	As AI becomes more prevalent, both in data centers and at the edge, the need for robust security measures will increase. AI can be employed to detect and respond to security threats in real-time by analyzing network traffic for anomalous behavior and identifying potential cyberattacks. Conversely, adversaries may also exploit AI techniques to launch more sophisticated attacks. Therefore, data centers and network infrastructure must incorporate AI-based security mechanisms to counter potential threats effectively.
Increasing Power Demands	Hyperscale data centers, with thousands of servers managing petabytes of data in 100,000s of square feet of space, provide efficiency for quickly processing voluminous amounts of data but have massive power requirements. According to the International Energy Agency (IEA), data center energy use was in the 220-to-330 Terawatt-hours (TWh) range in 2021, representing roughly 0.9% to 1.3% of total global electricity demand. This is more energy than some countries consume each year and will grow significantly to support AI.
Network optimization and automation	In addition to the above impacts, AI also can be utilized to optimize network performance and efficiency. Machine learning algorithms can analyze network traffic patterns, predict potential bottlenecks, and dynamically allocate resources to ensure optimal performance. AI-driven network automation can also enable self-healing networks, where AI systems detect and resolve network issues automatically, reducing the need for manual intervention and improving overall network reliability.

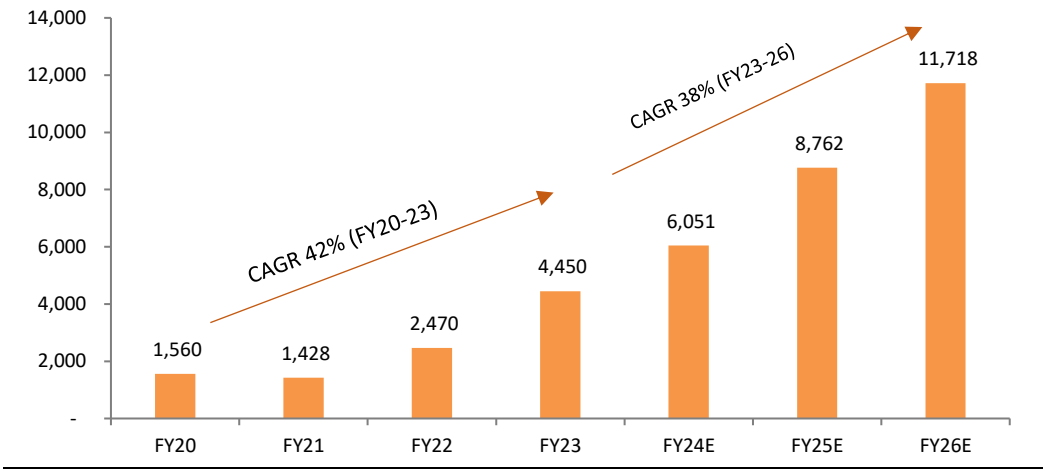
Source: https://interplex.com/

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

Financial Profile – Netweb poised for robust earnings growth even on its high growth base with high margins and return ratios.

On a base of 42% CAGR in revenues over FY20-FY23, we expect it to post another solid period of performance with our estimate of 38% growth CAGR over FY23-FY26E (vs. management optimism and expectation of 30-40% CAGR it expects over next 2-4 years). We expect higher growth in SPC, Private cloud, AI & Workstations and software services and solutions. We expect network switches to commercialise in FY24E and 5G ORAN to commercialise in FY25E.

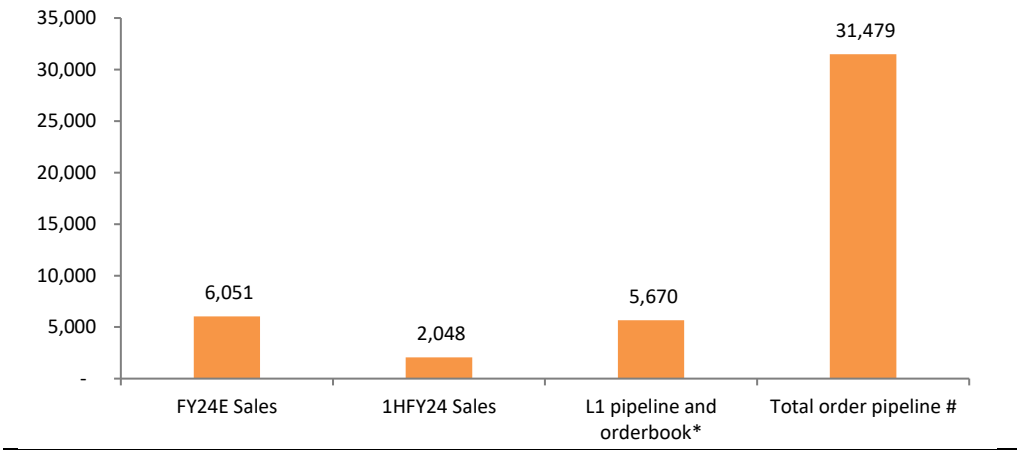
Exhibit 68: Netweb - Revenues from operations (Rs. Mn) on robust growth path…



Source: Company data, Equirus, Note: Revenues includes PLI incentive claimed/estimated if any

Netweb's growth outlook is supported by solid deal pipeline worth Rs31.48bn which generally has a life of 18-24 months. We believe that our sales estimate worth Rs6.05bn for FY24E achievable given seasonal strength in revenues in 2H (typically represents 65-70% of full year sales) vs. 1H, reported pending order book (worth Rs2.17bn at end of 2QFY24) and reported L1 order pipeline (worth Rs3.50bn at end of 2QFY24). Typically order book execution cycle for Netweb is around 2-4 months.

Exhibit 69: …supported by robust order pipeline and order intake (Rs.Mn)



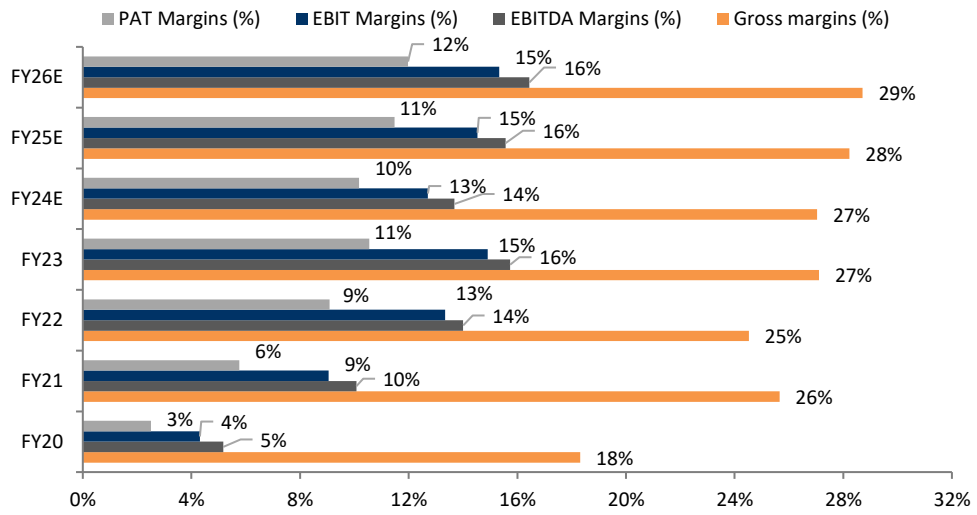
*Source: Company data, Equirus, * as at end of 2QFY24 end, # as at end of 2QFY24 end and including L1 pipeline*

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

We expect healthy margins performance across gross margins, EBITDA/EBIT and PAT margins from FY25E considering commercialisation of high margin telecom product business starting 4QFY24E/FY25E, expected lower ESOP cost amortisation starting FY25E and operating leverage.

Also, we expect PLI incentive (as part of revenues) under PLI 2.0 scheme for IT hardware business stating FY25E post first claim in FY23 under PLI 1.0 scheme, this will provide further strength to margins.

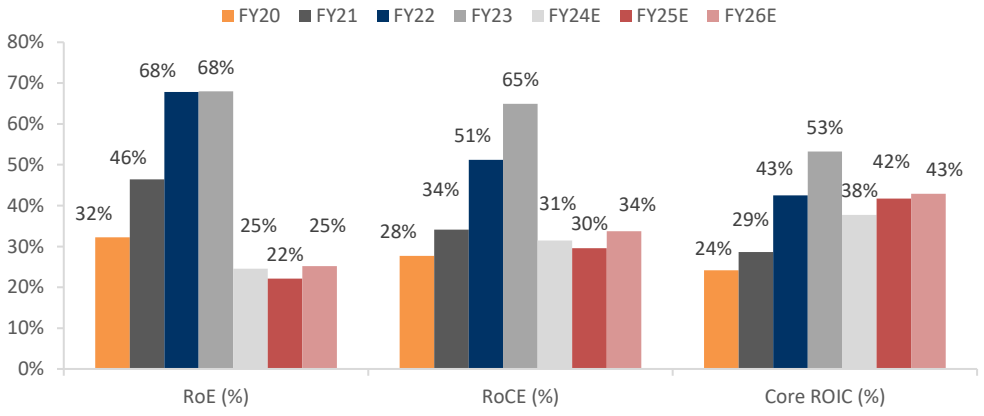
Exhibit 70: Netweb - Margin Analysis for FY20 - FY26E



Source: Company data, Equirus, Note: Margin includes PLI incentive claimed/estimated, if any as part of revenues

Netweb business is mix of design, manufacturing, assembling, integration, testing and providing services post implementation of HCS and products. Hence business is not highly capex intensive and also operates at high FA turnover ratios. Considering this and relatively higher margins, its return ratio are relatively much higher than most EMS vendors operating in India (which are subcontractors vs. Netweb operates as branded OEMs which sells its products and solutions directly to enterprises. We expect dilution in RoE starting FY24E given IPO proceeds (vs. Core ROIC remains high even in FY24E vs. earlier years

Exhibit 71: Netweb - RoE (%), RoCE (%) and Core ROIC (%)

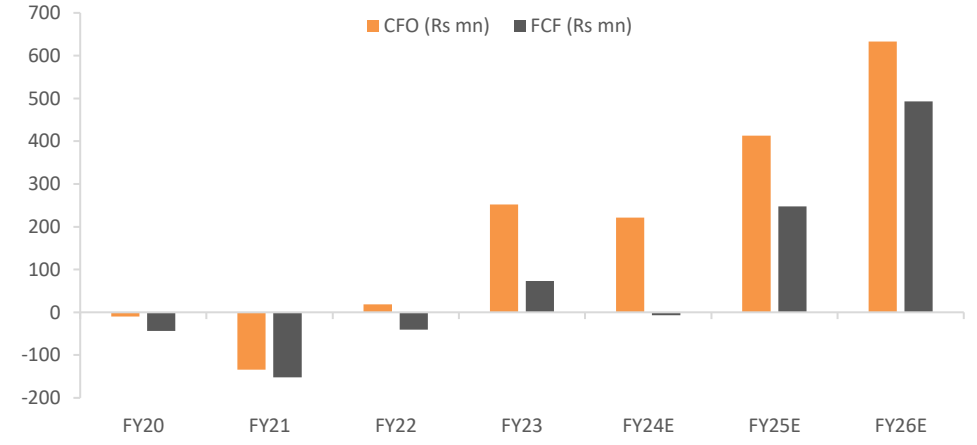


Source: Company data, Equirus, Note: ROCE = ((EBIT)/(Avg CE incl. ESH, R&S & Debt)); Core ROIC = ((EBIT Post Tax)/(Avg CE incl. Lease Liabs less cash equivalents))

We expect FCF to improve starting FY25E as i) we expect most of the expansion capex to happen in FY24E and FY25E and ii) expect margins to improve starting FY25E.

As per company's estimates current expansion capex can help company to scale its revenues till Rs18-20bn from expected revenues above Rs6bn in FY24E.

Exhibit 72: Netweb - CFO (cash flow from operation) and FCF (free cash flow) - Rs. Mn

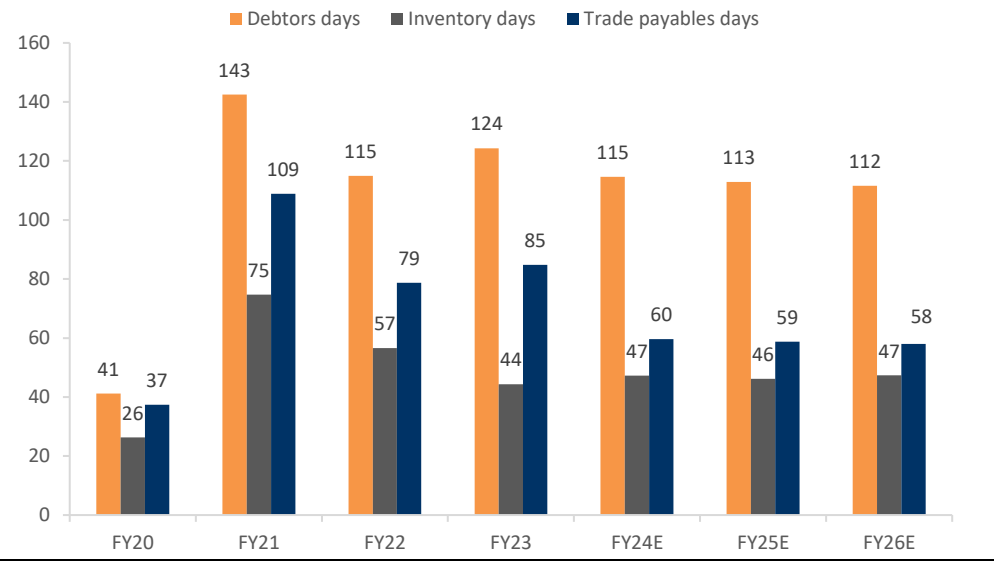


Source: Company data, Equirus

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

Despite Netweb gets around 50% of its sales from Government entities, its working capital cycle is managed better given it also has back-to-back credit period agreement with its vendors for many of its large government projects.

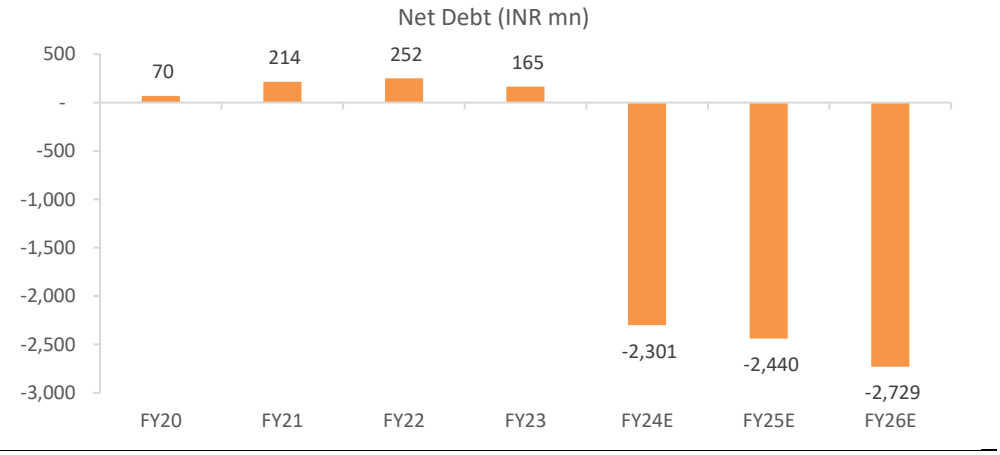
Exhibit 73: Netweb – Analysis of its key working Capital elements



Source: Company data, Equirus, Note: Debtors days = (Debtors) / (Revenues/365); Inventory days = (Inventory) / (Revenues/365); Trade payables days = (Trade Payables) / (Revenues/365)

We expect Netweb to turn into net cash positive / net debt negative starting FY24E with Gross debt (excluding lease liabilities) in the books to reduce materially starting FY24E from levels of Rs304mn as we expect above Rs270m worth of debt repayment in FY24E (material part of the repayment to happen from IPO proceeds as per IPO fund raising objectives)

Exhibit 74: Netweb – To turn into net cash positive / Net Debt negative starting FY24E



Source: Company data, Equirus. Note: Net Debt = Total debt excluding lease liabilities minus total cash and cash equivalents

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

Valuations – Netweb deserves premium valuations.

Compared with EMS vendors.

We struggle to find Indian listed companies which provide HCS offerings similar to Netweb with similar product range. Hence, we have compared Netweb Technologies with Indian electronics manufacturing (EMS) vendors (as shown in exhibit 75-76 and these companies are technology and design focused companies engaged in electronic manufacturing services) as we believe that make in India manufacturing of both electronics and IT hardware are at nascent stage and poised for high growth potential in the long term. Most of these vendors are PLI certificate holders as well like Netweb.

Netweb deserves to trade at premium valuations.

In our view Netweb deserves to trade at premium PE valuations within its peers group considering following factors

- Netweb operates as OEM (original equipment manufacturer) operating in high end compute segment vs. most of its peers operates as sub-contractors for other white label OEMs they work for. Netweb sells its product directly to end user that too in the enterprise segment which enables it to command better pricing of its products and hence handsome margins/return ratios.
- Netweb does design of its mother board/PCB (printed circuit board) on its own rather than manufacturing/doing PCBA based on the design provided by another OEM. These motherboards designed by Netweb are also complex. These PCBAs designed and manufactured by Netweb are 16-24 layers board with many circuit connections encompassing CPU and/or GPUs taking into consideration the size of the equipment, form of the equipment, connections, power voltage, design of schematics, connectors, cooling systems, firmware etc amongst many other elements.
- Netweb along with its high-end computing products, provides other solutions on its own including application porting as a service and its own software/middleware stack/solutions (as shown in exhibit 47) to manage this complex hardware post installation. Thus, it operates in most segments as end-to-end solution provider which differentiates it vs. most of its competitors (exhibit 56) and other peers and creates high entry barriers to replicate its strengths. Its unique standing as one of the few domestic brands to make SPC systems for mission critical purposes also set apart Netweb from its peers (till date it has developed 8 SPC systems most of which are ranked at the time installations as India's top ranked SPCs (within top-30 ranks) and some are ranked within top-100 fastest SPCs in the world at the time of installations.
- Netweb design, manufacturers, integrates/assembles, and test/verify its hardware products along with its middleware and software solutions. Due to this nature of product/solution development its business is not highly capex intensive. Hence its fixed asset turnover ratio is much higher than most of its peers. Besides this, it operates as OEMs and provides customised end to end solutions to clients directly. This enables it to command relatively higher margins at EBITDA/PAT level.
- Considering some of the above characteristics and business factors of Netweb it is able to generate very high RoEs vs. most if its peers. We expect dilution in RoE of Netweb starting FY24E given IPO proceeds (vs. Core ROIC to remain high even in FY24E vs. earlier years) but still higher than most of its peers.

Initiative with ADD rating.

We believe that Netweb is an emerging challenger in the HCS market with increasing wallet share and poised for robust growth over the long term. We estimate strong Sales/PAT CAGR of 38%/44% over FY23F-FY26E. Considering above arguments, we believe that Netweb should trade at premium valuations vs. that of its EMS peers (exhibit 75-76). Given recent run up in its stock price, we initiate coverage on Netweb with an ADD rating for Mar'25 TP of INR 1,360 based on forward PE of 55x vs. our estimate of EPS CAGR of 50% over FY24E-FY26E.

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

Exhibit 75: Peer Comparison analysis (Table-I)

Company	Revenue			EBITDA			PAT		
	Rs. mn - FY23	CAGR (FY21-FY24E)	CAGR (FY23-FY26E)	% - FY23	CAGR (FY21-FY24E)	CAGR (FY23-FY26E)	% - FY23	CAGR (FY21-FY24E)	CAGR (FY23-FY26E)
Kaynes Technology India*	11,261	61%	44%	14.9%	86%	45%	8.4%	161%	54%
Syrma SGS Technology*	20,484	90%	40%	9.2%	73%	40%	6.0%	71%	38%
Avalon Technologies*	9,447	14%	19%	11.9%	16%	20%	5.6%	42%	35%
Dixon Technologies*	1,21,920	41%	37%	4.2%	37%	36%	2.1%	35%	46%
Cyient DLM*	8,320	23%	37%	9.2%	37%	47%	3.8%	75%	74%
Netweb	4,450	62%	38%	15.7%	79%	40%	10.5%	96%	44%

*Source: Company data, Bloomberg, Equirus; * Financials/estimates taken from Bloomberg reported/consensus figures*

Exhibit 76: Peer Comparison analysis (Table-II)

Company	Sales Growth (%)			EBITDA %			EBIT (%)			PAT Margin (%)			RoE (%)			P/E Ratio		
	FY24E	FY25E	FY26E	FY24E	FY25E	FY26E	FY24E	FY25E	FY26E	FY24E	FY25E	FY26E	FY24E	FY25E	FY26E	FY24E	FY25E	FY26E
Kaynes Technology India*	55%	42%	35%	15%	15%	15%	14%	14%	14%	10%	10%	10%	16%	19%	22%	88.8	59.7	43.9
Syrma SGS Technology*	47%	38%	34%	8%	9%	9%	6%	7%	8%	5%	6%	6%	10%	13%	16%	66.1	48.3	35.1
Avalon Technologies*	10%	25%	23%	10%	12%	12%	8%	10%	10%	6%	8%	8%	11%	14%	16%	49.5	32.1	25.9
Dixon Technologies*	47%	40%	26%	4%	4%	4%	3%	3%	3%	2%	2%	2%	27%	30%	29%	93.6	62.8	47.0
Cyient DLM*	41%	38%	31%	10%	11%	11%	8%	9%	10%	5%	7%	8%	11%	11%	15%	85.2	45.5	31.6
Netweb	36%	45%	34%	14%	16%	16%	13%	15%	15%	10%	11%	12%	25%	22%	25%	116.9	71.6	51.2

*Source: Company data, Bloomberg, Equirus; * Financials/estimates taken from Bloomberg reported/consensus figures; priced as on 09th Jan 2024 closing prices*

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

Key Risks

Key downside risks to our EPS forecasts, target multiple/price.

- Netweb's success is dependent on long-term relationship with it's customers. In particular, Netweb is heavily reliant on their top 10 Customers. Netweb do not, generally, enter long term contracts with customers, which exposes Netweb to risks emanating from the inability to retain their established Customers as Netweb's clients.
- A significant proportion of Netweb's orders are from government related entities which award the contract through a process of tender. Tenders, typically, are awarded to the lower bidder once all other eligibility criteria are met. Netweb's performance could be adversely affected if Netweb is not able to successfully bid for these contracts or required to lower their bid value.
- Netweb incur significant expenditure on components and Netweb rely heavily on their top 10 vendors of components for a significant proportion of their components. Any adverse change in their relationship with such vendors or a significant increase in their component cost could adversely affect their profit margins.
- Netweb operate in a competitive industry. Any inability to compete effectively may lead to a lower market share or reduced operating margins.
- Netweb generally do not enter into hedging transactions in respect of their foreign currency exposure. Any losses, on account of foreign currency exchange rate fluctuations may adversely effect their business, results of operations and financial condition.
- Further, Netweb has recently forayed into developing new product lines, viz., Network Switches and 5G ORAN Appliances, and have recently introduced 5G cloud on core and edge for an international telecommunication service provider. However, setting up infrastructure for 5G solutions is capital intensive. Therefore, if they are unable to achieve the anticipated level of growth in this new venture, it could have an adverse impact on its business, results of operations, financial condition and cash flows.
- Failure to meet quality standards for Netweb's product and solutions offering required by Netweb's Customers may lead to cancellation of existing and future orders and expose Netweb inter alia to warranty claims, including monetary liability.
- Netweb's operations are heavily dependent on research and development and technology partnerships. If Netweb is unable to continuously develop new product and solutions or optimise its processes, their ability to grow and/or compete effectively, might be compromised, which would have an adverse impact on their business operations and financial condition.
- Any higher-than-expected attrition in the leadership team and /or employees especially in the R&D, S&M, IT and operations segment can impact project execution and growth prospects.
- Adverse geopolitical conditions such as an increased tension between India and its neighbouring countries, Russia-Ukraine conflict and/or any macro related risk in key markets of Netweb, could adversely affect Netweb's business, results of operations and financial condition. Political, economic, or other factors that are beyond Netweb's control may have an adverse effect on Netweb's business and results of operations.
- Any breach of the non-compete agreement executed by Netweb, and its promoters with Netweb Pte. and Mr. Sandeep Lodha, a member of the promoter group (who has a controlling interest in Netweb Pte.), which delineates the geographical territories in which Netweb, its promoters, Netweb Pte, and Sandeep Lodha can operate. Netweb and one of the members of promoter group use the identical intellectual property rights (i.e., trademarks) in their respective jurisdictions. Any adverse actions initiated against the member of the promoter group in relation to the business operations carried out under these brands (trademarks) may adversely impact Netweb's business operations including reputational harm, if any.

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

Annexures

Netweb – details regarding manufacturing facility, sales & marketing network, employee details, directors'/management profile, shareholding pattern and major events/milestones

Netweb operate out of their manufacturing facility located in Faridabad, Haryana which is equipped with capabilities to design, develop, and manufacture their product, and cater to their service, portfolio. In addition to their registered office in Faridabad, Netweb has more than 15 offices across India. Netweb's manufacturing facility has received ISO 9001:2015 (Quality Management System), ISO 14001:2015 (Environmental Management System) and ISO/IEC 27001:2013 (Information Security Management System) certificates from International Benchmarking & Certifications. Netweb's Manufacturing Facility has also received a 'ZED Bronze' certification from the Ministry of Micro, Small and Medium Enterprises, Government of India under the MSME Sustainable (ZED) Certification Scheme.

Exhibit 77: Netweb's manufacturing capacity

Particulars	FY20	FY21	FY22	FY23
Production capacity (number of server nodes)	7,500	7,500	7,500	7,500
Actual production (number of server nodes)	4,688	3,901	3,983	3,873
Capacity Utilization (%)	62.51	52.01	53.11	51.64

Source: Company data, Netweb RHP

Netweb has also entered into a manufacturing agreement with a third-party entity pursuant to which such entity has been appointed as a contract manufacturer for the purpose of manufacturing server motherboards and related PCB assemblies using SMT, for their products. The said contract manufacturing entity manufactures the products in accordance with the design and technical specifications that it provides.

Besides this, to address growth opportunities (to enable Netweb to meet one of its strategies towards expansion and augmentation of product portfolio) Netweb is looking to set up a manufacturing facility at Faridabad, Haryana, India towards setting up its new SMT line to be operated by itself. Netweb has already acquired the land on which the SMT facility will be constructed. However, considering the growing market opportunities, till the time new manufacturing facility is constructed on its own land, which is bought, Netweb is looking to set up this new SMT line from rented facilities to address the growing market opportunities sooner than later within 6-9 months itself as setting up new SMT line operated from a building to be constructed on its owned land may take little, longer time. This will help to prepone the capacity expansion sooner (rather than waiting longer) to execute the healthy demand and pipeline built up.

Sales and Marketing Network

Netweb's sales strategy is structured around a customer centric approach. The generation of customer lead is done through a mix of end user reach out programme, participation in product education symposiums, exhibitions, and conferences, by organising workshops and events and tracking tenders on the government web portals. In addition, they also engage in in-person interaction with the private sector clients to gather their specific product and solutions requirements. Netweb's sales and marketing strategy is primarily focused on client engagement for long-term relationships along with seeking to establish new relationships with Customers. This is taken care of by their sales and marketing teams, spread across various zones in India, that are tasked with business development and client relationship management. Each zone is headed by a whole-time director and comprises qualified professionals with technical background and experience in sales.

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

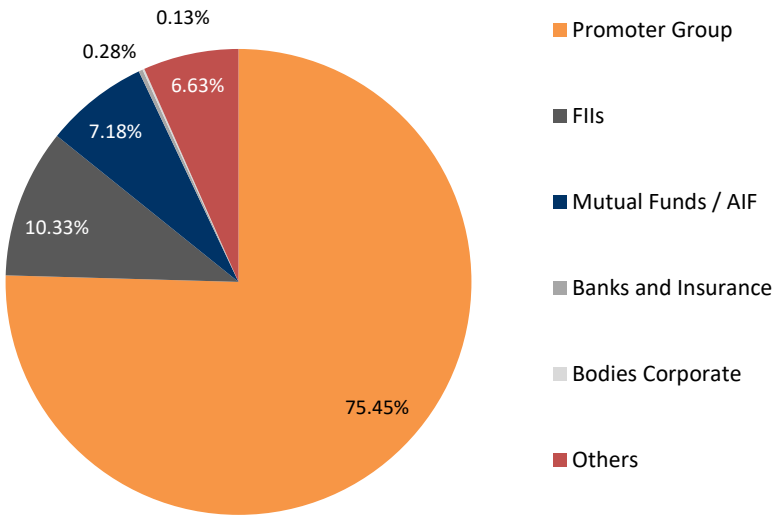
Netweb disclosed in its 2QFY24E earnings call that it is has close to 300 employees/headcount with plans to add another 70 employees in 2HFY24E largely for S&M and R&D departments to execute the growth opportunities and solid deal pipeline it has.

Exhibit 78: Netweb's number of employees as at May 31, 2023

Department	Number of Employees
Information technology	64
Operations	10
Management	5
R&D	38
Finance and legal	17
Sales and marketing (S&M)	75
Human resources and administration	20
Others	44
Total	**273**
Workers on contract	**6**
Total Headcount	**279**

Source: Company data, Netweb RHP

Exhibit 79: Netweb - Shareholding Pattern (as on 30thSeptember 2023)



Source: Company data

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

Exhibit 80: Board of Directors / Management Profile

Name	Designation	Description
Sanjay Lodha	Chairman and Managing Director	Mr.Sanjay Lodha has been associated with Netweb as a director since September 22, 1999. He holds a Bachelor of Arts (honours degree) in economics from the University of Delhi and a post-graduate diploma in business management from Apeejay School of Marketing, New Delhi. He has been leading the Strategy and Business Development department of Netweb from the year 2016. He was the sole proprietor of the proprietorship, M/s Netweb Technologies since 1996 which was acquired by Netweb in August 2016. He has been a part of the Governing Council of Manufacturers Association of Information Technology from 2016 to 2022 and currently serves as a Vice President with effect from June 30, 2022. He has also served on the Board of Advisors for Intel for the year 2020 and 2022.
Navin Lodha	Whole Time Director	Mr.Navin Lodha has been associated with Netweb as a director since September 22, 1999. He holds a bachelor's degree in commerce from Shaheed Bhagat Singh College, University of Delhi. He leads the west zone of Netweb's sales and marketing department and has over 15 years of experience in sales and marketing. Prior to joining Netweb, he was associated with, M/s Netweb Technologies (erstwhile proprietorship of Chairman and Managing Director Mr.Sanjay Lodha) since 2008 until its acquisition by Netweb in August 2016.
Vivek Lodha	Whole Time Director	Mr.Vivek Lodha has been associated with Netweb as a director since April 13, 2015. He holds a bachelor's degree in commerce from Shaheed Bhagat Singh College, University of Delhi. He leads the east zone of Netweb's sales and marketing department and has over 15 years of experience in sales and marketing. Prior to joining Netweb, he was associated with, M/s Netweb Technologies (erstwhile proprietorship of Chairman and Managing Director Mr.Sanjay Lodha) since 2008 until its acquisition by Netweb in August 2016.
Niraj Lodha	Whole Time Director	Mr.Niraj Lodha has been associated with Netweb as a director since April 13, 2015. He holds a bachelor's degree in commerce from Deshbandhu College (evening), University of Delhi (now Ramanujan College). He leads the south zone of Netweb's sales and marketing department and has over 15 years of experience in sales and marketing. Prior to joining Netweb, he was associated with, M/s Netweb Technologies (erstwhile proprietorship of Chairman and Managing Director Mr.Sanjay Lodha) since 2008 until its acquisition by Netweb in August 2016.
Mrutyunjay Mahapatra	Independent and Non – Executive Director	Mr.Mrutyunjay Mahapatra is the Independent Director of Netweb since February 23, 2023. He holds a bachelor's degree in science in physics from Berhampur University and a master's degree in science (physics) from Berhampur University. He has over 40 years of experience in banking and finance sector. He was also conferred an honorary fellowship by the Governing Council of Indian Institute of Banking & Finance in recognition of his invaluable contribution in the field of banking and finance. He has served as a deputy managing director of the State Bank of India and the managing director and chief executive officer of Syndicate Bank. He is presently associated with T A Pai Management Institute as a professor of the practice of banking.
Jasjeet Singh Bagla	Independent and Non – Executive Director	Mr.Jasjeet Singh Bagla is the Independent Director of Netweb since February 23, 2023. He holds a degree of Bachelor of Science from University of Delhi and Master of Science from University of Delhi. He has over 23 years of experience in research and academia. He was conferred with the degree of Doctor of Philosophy in physics from the University of Pune. He was associated with Mehta Research Institute of Mathematics and Mathematical Physics as a fellow in physics, Harish Chandra Research Institute, Department of Atomic Energy, Government of India, and presently he is associated with Indian Institute of Science Education and Research Mohali (established by Ministry of Human Resource Development, Government of India).
Romi Jatta	Independent and Non – Executive Director Director	Ms.Romi Jatta is the Independent Director of Netweb since February 23, 2023. She holds a bachelor's degree in engineering in electronics from the University of Pune. She has over 20 years of experience, she was associated with Whirlpool of India Private Limited from the year 2003 to 2020 where at the time of leaving, she was the global commodity director. She was also associated with Philips India Limited as procurement engineering business partner from the year 2020 to 2022 and presently she is the group chief procurement officer at Minda Corporation Limited.
Vikas Modi	Independent and Non – Executive Director	Mr.Vikas Modi is the Independent Director of Netweb since February 23, 2023. He holds a bachelor's degree in commerce from the University of Rajasthan. He is a chartered accountant and holds a certificate of membership from the ICAI. He is partner in Doogar and Associates, a Chartered Accountant firm since 2006.
Prawal Jain	Chief Financial Officer and the Chief Human Resource Officer	Mr.Prawal Jain has been associated with Netweb since January 13, 2023. He is responsible for managing the finance and accounts and the human resources department of the Company. He holds a bachelor's degree in commerce from Hemwati Nandan Bahuguna Garhwal University, Srinagar (Garhwal) and an experience of over 24 years in accountants and finance. He is a chartered accountant and holds a certificate of membership from the ICAI and the Institute of Cost and Works Accountants of India. Prior to his association with Netweb, he was associated with LML Limited as a senior accountant from the year 1996 to 2000, Flex Foods Limited as the head of finance and accounts from the year 2000 to 2006, with Bharti Airtel Limited as a manager in finance from the year 2006 to 2007, with AmSure Insurance Agency Limited from the year 2010 to 2011 and, Cryoviva Biotech Private Limited from the year 2011 to 2021, where he has served as the vice president and chief financial officer from 2017 to 2021. Thereafter, he was associated with Moeving Urban Technologies Private Limited till January 2023 as a chief finance officer. His past associations also include Claas India Limited where he served as the head of finance and accounts.
Lohit Chhabra	Company Secretary and Compliance Officer	Mr.Lohit Chhabra has been associated with Netweb since January 10, 2023. He is responsible for managing the secretarial department of Netweb. He holds a bachelor's degree in commerce from the University of Delhi. He also holds a certificate of membership from the Institute of Company Secretaries of India. He has over 8 years of experience in secretarial compliance. Prior to his association with Netweb, he was associated with CMR Green Technologies Limited from the year 2014 till 2023.
Hemant Agarwal	Chief Operating Officer	Mr.Hemant Agarwal has been associated with Netweb for over 20 years since the year 2003. He holds a bachelor's degree in commerce from the University of Calcutta.
Hirdey Vikram	Chief Sales and Marketing Officer	Mr.Hirdey Vikram has been associated with Netweb since year 2013. He holds a bachelors' degree of technology (information technology) from the Punjab Technical University, Jalandhar. He has over 11 years of work experience. Prior to his association with Netweb, he was associated with HCL Infosystems Limited.
Mukesh Golla	Chief Research & Development Officer	Mr.Mukesh Golla has been associated with Netweb since 2004. He holds a bachelor's degree in technology (computer science and engineering) from the Jawaharlal Nehru Technological University, Hyderabad. He is responsible for managing the product engineering and research and development department of Netweb. He has over 19 years of experience.

Source: Company data. Note: 50% of board members of Netweb are Independent.

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

Exhibit 81: Major events and milestones

Fiscal Year	Particulars
1999	Established
2004	KABRU -IMS CHENNAI Was, then, one of the top 500 most powerful supercomputing systems in the world.
2013	PARAM YUVA II-CDAC PUNE 69THWorld's Most Powerful supercomputer at the time of commissioning
2017	Deployment servers as part of surveillance project at 204 locations across 23 states for a public sector undertaking
2018	Awarded Intel Technology Provider Platinum 2018 Best HPC Data Center Specialist
2019	Deployed PARAM Ambar at ISRO-India's 4th Fastest Supercomputer at the time of commissioning
2020	Received Orders for Tyrone HPC Storage, Capacity 10500Terabyte from R&D Organization of MEITY, GOI
2021	Qualified for PLI Scheme of GOI for IT Hardware Outstanding Contribution in Promotion of electronics & manufacturing of servers from MEITY.
2022	Qualified for PLI -Telecom and Networking Product Deployed 5G cloud for international telecom service provider Launched container platform Kubytsenabling rapid deployment of AI & HPC
2023	Deployed AIRAWAT-India's Largest and Fastest AI Supercomputing System & Ranked 75th in the world Foraying into Network Switches & 5G ORAN
2023	Netweb Listing: Llistedon 27thJuly 2023 on BSE & NSE

Source: Company data

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

Company Snapshot

How we differ from consensus

Particular (Rs Mn)		Equirus	Consensus	% Diff	Comment
EPS*	FY24E	11.0	NA	NA	
	FY25E	17.7	NA	NA	
Sales	FY24E	6,051	NA	NA	
	FY25E	8,762	NA	NA	
PAT	FY24E	615	NA	NA	
	FY25E	1,005	NA	NA	

*Source: Company data, Equirus; *Weighted average diluted EPS; Note: Bloomberg consensus not available*

Key Estimates

Key Assumptions	FY24E	FY25E	FY26E
Revenue (Rs mn)	6,051	8,762	11,718
Gross Margin (%)	27.0%	28.2%	28.7%
EBITDA (%)	13.7%	15.6%	16.4%
EBIT (%)	12.7%	14.5%	15.3%
PAT (Rs mn)	615	1,005	1,405
PAT (%)	10.2%	11.5%	12.0%
EPS (Rs.)*	11.0	17.7	24.7

*Source: Company data, Equirus; *Weighted average diluted EPS*

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

Exhibit 82: Peer Comparison analysis (Table-I)

Company	Revenue			EBITDA			PAT		
	Rs. mn - FY23	CAGR (FY21-FY24E)	CAGR (FY23-FY26E)	% - FY23	CAGR (FY21-FY24E)	CAGR (FY23-FY26E)	% - FY23	CAGR (FY21-FY24E)	CAGR (FY23-FY26E)
Kaynes Technology India*	11,261	61%	44%	14.9%	86%	45%	8.4%	161%	54%
Syrma SGS Technology*	20,484	90%	40%	9.2%	73%	40%	6.0%	71%	38%
Avalon Technologies*	9,447	14%	19%	11.9%	16%	20%	5.6%	42%	35%
Dixon Technologies*	1,21,920	41%	37%	4.2%	37%	36%	2.1%	35%	46%
Cyient DLM *	8,320	23%	37%	9.2%	37%	47%	3.8%	75%	74%
Netweb	4,450	62%	38%	15.7%	79%	40%	10.5%	96%	44%

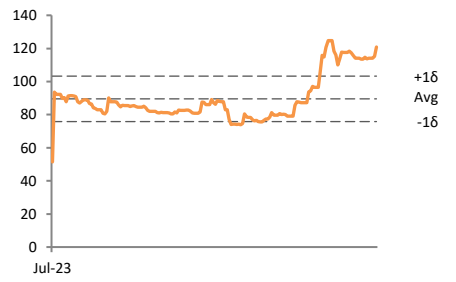
Source: Company data, Bloomberg, Equirus; Financials/estimates taken from Bloomberg reported/consensus figures*

Exhibit 83: Peer Comparison analysis (Table-II)

Company	Sales Growth (%)			EBITDA %			EBIT (%)			PAT Margin (%)			RoE (%)			P/E Ratio		
	FY24E	FY25E	FY26E	FY24E	FY25E	FY26E	FY24E	FY25E	FY26E	FY24E	FY25E	FY26E	FY24E	FY25E	FY26E	FY24E	FY25E	FY26E
Kaynes Technology India*	55%	42%	35%	15%	15%	15%	14%	14%	14%	10%	10%	10%	16%	19%	22%	88.8	59.7	43.9
Syrma SGS Technology*	47%	38%	34%	8%	9%	9%	6%	7%	8%	5%	6%	6%	10%	13%	16%	66.1	48.3	35.1
Avalon Technologies*	10%	25%	23%	10%	12%	12%	8%	10%	10%	6%	8%	8%	11%	14%	16%	49.5	32.1	25.9
Dixon Technologies*	47%	40%	26%	4%	4%	4%	3%	3%	3%	2%	2%	2%	27%	30%	29%	93.6	62.8	47.0
Cyient DLM*	41%	38%	31%	10%	11%	11%	8%	9%	10%	5%	7%	8%	11%	11%	15%	85.2	45.5	31.6
Netweb	36%	45%	34%	14%	16%	16%	13%	15%	15%	10%	11%	12%	25%	22%	25%	116.9	71.6	51.2

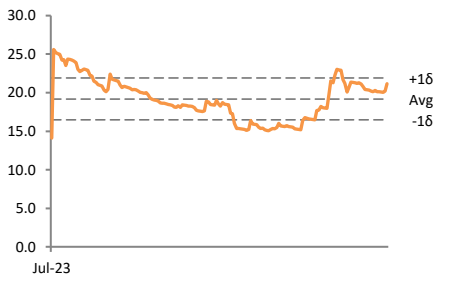
*Source: Company data, Bloomberg, Equirus; * Financials/estimates taken from Bloomberg reported/consensus figures; priced as on 09th Jan 2024 closing prices*

Price to earning chart



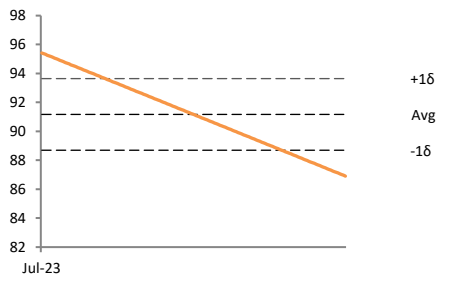
Source: Company, Equirus Research

Price to book chart



Source: Company, Equirus Research

EV-EBITDA chart



Source: Company, Equirus Research

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

Quarterly performance

Y/E Mar (Rs mn)	1QFY23A	2QFY23A	3QFY23A	4QFY23A	1QFY24A	2QFY24A	3QFY24E	4QFY24E
Revenue	**693**	**737**	**1,786**	**1,234**	**598**	**1,450**	**2,295**	**1,708**
COGS	500	509	1,327	908	376	1,058	1,733	1,248
Other Expenses	99	95	138	174	135	199	232	241
EBITDA	**94**	**134**	**321**	**152**	**86**	**192**	**330**	**219**
Depreciation	7	8	10	12	13	14	15	17
EBIT	**87**	**126**	**311**	**139**	**73**	**178**	**315**	**202**
Interest Exp.	0	0	0	0	0	0	0	0
Other Income*	(11)	(4)	(21)	2	(5)	24	19	20
Profit before Tax	**76**	**122**	**290**	**142**	**68**	**202**	**334**	**223**
Tax Expenses	20	31	74	36	17	51	86	57
Profit After Tax	**56**	**91**	**217**	**105**	**51**	**151**	**248**	**165**
Minority Interest	0	0	0	0	0	0	0	0
Profit/(Loss) from Associates	0	0	0	0	0	0	0	0
Recurring PAT	**56**	**91**	**217**	**105**	**51**	**151**	**248**	**165**
Exceptional Items	0	0	0	0	0	0	0	0
Reported PAT	**56**	**91**	**217**	**105**	**51**	**151**	**248**	**165**
Other comprehensive income.	0	0	0	0	0	0	0	0
PAT after comp. income.	**56**	**91**	**217**	**105**	**51**	**151**	**248**	**165**
FDEPS	**1.1**	**1.8**	**4.3**	**2.1**	**0.9**	**2.7**	**4.3**	**2.9**
Cost items as % of sales								
RM expenses	72.1	69.0	74.3	73.6	62.9	73.0	75.5	73.1
Other expenses	14.3	12.9	7.7	14.1	22.6	13.7	10.1	14.1
Margin (%)								
Gross Margin	27.9	31.0	25.7	26.4	37.1	27.0	24.5	26.9
EBITDA Margin	13.5	18.1	18.0	12.3	14.4	13.3	14.4	12.8
PAT Margin	8.1	12.4	12.1	8.5	8.5	10.4	10.8	9.7
YoY Growth (%)								
Sales	NA	NA	NA	NA	(13.7)	96.7	28.5	38.4
EBITDA	NA	NA	NA	NA	(8.1)	43.8	3.0	44.5
EBIT	NA	NA	NA	NA	(15.8)	41.1	1.3	45.3
PAT	NA	NA	NA	NA	(9.2)	65.9	14.3	57.1

**Other income on net basis*

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

Key Financials

Income Statement

Y/E Mar (Rs mn)	FY20A	FY21A	FY22A	FY23A	FY24E	FY25E	FY26E
Revenue	**1,560**	**1,428**	**2,470**	**4,450**	**6,051**	**8,762**	**11,718**
COGS	1,274	1,062	1,865	3,244	4,415	6,289	8,354
Other Expenses	205	222	260	506	808	1,109	1,438
EBITDA	**81**	**144**	**346**	**700**	**828**	**1,364**	**1,927**
Depreciation	13	15	16	37	59	90	130
EBIT	**67**	**129**	**330**	**664**	**769**	**1,273**	**1,797**
Interest Exp.	(16)	(22)	(27)	(26)	(15)	(2)	(2)
Other Income*	2	4	0	(8)	72	78	91
Profit before Tax	**53**	**111**	**302**	**630**	**826**	**1,349**	**1,886**
Tax Expenses	14	29	78	160	211	344	481
Profit After Tax	**39**	**82**	**225**	**469**	**615**	**1,005**	**1,405**
Minority Interest	0	0	0	0	0	0	0
Profit/(Loss) from Associates	0	0	0	0	0	0	0
Recurring PAT	**39**	**82**	**225**	**469**	**615**	**1,005**	**1,405**
Exceptional Items	0	0	0	0	0	0	0
Reported PAT	**39**	**82**	**225**	**469**	**615**	**1,005**	**1,405**
Other comprehensive income.	0	0	0	0	0	0	0
PAT after comp. income.	**39**	**82**	**225**	**469**	**615**	**1,005**	**1,405**
FDEPS	0.8	1.6	4.4	9.2	10.8	17.6	24.7
DPS	0	0	0	1	3	4	6
BVPS	3	4	9	18	72	88	108

**Other income on net basis*

YoY Growth (%)	FY20A	FY21A	FY22A	FY23A	FY24E	FY25E	FY26E
Sales	20.1	(8.5)	73.0	80.1	36.0	44.8	33.7
EBITDA	32.4	78.3	140.6	102.4	18.3	64.6	41.3
EBIT	31.9	92.2	154.9	101.3	15.9	65.6	41.1
PAT	45.7	110.7	172.8	109.0	31.1	63.3	39.8

Key Ratios

Profitability (%)	FY20A	FY21A	FY22A	FY23A	FY24E	FY25E	FY26E
Gross Margin	18.3	25.7	24.5	27.1	27.0	28.2	28.7
EBITDA Margin	5.2	10.1	14.0	15.7	13.7	15.6	16.4
PAT Margin	2.5	5.8	9.1	10.5	10.2	11.5	12.0
ROE	32.3	46.4	67.8	68.0	24.5	22.2	25.2
ROIC	20.1	24.6	37.5	47.2	22.9	21.7	24.7
Core ROIC	24.2	28.7	42.5	53.2	37.8	41.7	42.9
Dividend Payout	0.0	0.0	0.0	5.4	25.0	25.0	25.0

CAGR (%)	1 year	2 years	3 years	5 years	7 years	10 years
Revenue	80%	77%	42%	50%	NA	NA
EBITDA	102%	121%	106%	86%	NA	NA
PAT	109%	139%	129%	128%	NA	NA

Valuation (x)	FY20A	FY21A	FY22A	FY23A	FY24E	FY25E	FY26E
P/E	1,646.8	781.6	286.5	137.0	116.9	71.6	51.2
P/B	471.2	294.8	145.0	68.7	17.6	14.4	11.7
P/FCFF	(1,472.4)	(422.5)	(1,587.0)	882.8	(10,650.0)	290.5	146.0
EV/EBITDA	879.1	493.9	205.4	101.4	82.7	50.1	35.3
EV/Sales	45.4	49.7	28.8	16.0	11.3	7.8	5.8
Dividend Yield (%)	0.0	0.0	0.0	0.0	0.2	0.4	0.5

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

Balance Sheet

Y/E Mar (Rs mn)	FY20A	FY21A	FY22A	FY23A	FY24E	FY25E	FY26E
Equity Capital	57	57	57	102	112	113	113
Reserves	80	162	387	835	3,970	4,882	6,058
Net Worth	**136**	**218**	**444**	**937**	**4,082**	**4,994**	**6,171**
Total Debt	136	291	336	304	31	21	21
Other long term liabilities	17	15	10	53	102	120	140
Minority Interest	0	0	0	0	0	0	0
Account Payables	160	426	533	1,034	989	1,412	1,863
Other Current Liabilities	57	153	165	333	402	531	647
Total Liabilities	**506**	**1,102**	**1,486**	**2,660**	**5,606**	**7,078**	**8,841**
Gross Fixed Assets	57	73	107	222	371	566	691
Acc. Depreciation	(9)	(19)	(11)	(38)	(86)	(163)	(277)
Net Fixed Assets	48	54	96	184	285	403	414
Capital WIP	0	0	5	18	50	5	5
long term investments	0	0	0	0	0	0	0
Others	33	39	29	74	113	120	125
Inventory	112	292	383	541	783	1,108	1,520
Receivables	176	557	778	1,515	1,900	2,709	3,583
Loans and advances	0	0	0	0	0	0	0
Other current assets	71	83	111	189	144	272	444
Cash & Cash Equivalents.	66	77	84	139	2,332	2,461	2,750
Total Assets	**506**	**1,102**	**1,486**	**2,660**	**5,606**	**7,078**	**8,841**
Non-Cash WC	142	355	575	879	1,436	2,147	3,038
Cash Conv. Cycle	33.2	90.6	85.0	72.1	86.6	89.4	94.6
WC Turnover	11.0	4.0	4.3	5.1	4.2	4.1	3.9
Gross Asset Turnover	27.4	19.6	23.0	20.0	16.3	15.5	17.0
Net Asset Turnover	32.8	26.6	25.8	24.1	21.2	21.8	28.3
Net D/E	0.5	1.0	0.6	0.2	(0.6)	(0.5)	(0.4)

Days (x)	FY20A	FY21A	FY22A	FY23A	FY24E	FY25E	FY26E
Receivable Days	41	143	115	124	115	113	112
Inventory Days	26	75	57	44	47	46	47
Payable Days	46	146	104	116	82	82	81
Non-cash WC days	33	91	85	72	87	89	95

Cash Flow

Y/E Mar (Rs mn)	FY20A	FY21A	FY22A	FY23A	FY24E	FY25E	FY26E
Profit Before Tax	53	111	302	630	826	1,349	1,886
Depreciation	13	15	16	37	59	90	130
Others	0	0	0	23	140	60	22
Tax paid	(17)	(37)	(75)	(156)	(209)	(341)	(476)
Change in WC	(59)	(223)	(224)	(281)	(596)	(746)	(929)
Operating Cashflow	**(10)**	**(134)**	**19**	**252**	**221**	**413**	**633**
Capex	(34)	(18)	(59)	(179)	(228)	(165)	(140)
Change in Invest.	0	0	0	0	0	0	0
Others	0	0	0	0	0	0	0
Investing Cashflow	**(34)**	**(18)**	**(59)**	**(179)**	**(228)**	**(165)**	**(140)**
Change in Debt	14	155	45	(32)	(273)	(10)	0
Change in Equity	0	0	0	0	2,570	1	1
Others	8	(2)	(4)	9	(99)	(139)	(236)
Financing Cashflow	**22**	**152**	**40**	**(22)**	**2,198**	**(148)**	**(236)**
Net Change in Cash	**(21)**	**0**	**0**	**51**	**2,191**	**99**	**257**

Source: Company, Equirus Research

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM

equirus SECURITIES

Rating & Coverage Definitions:	Registered Office:
Absolute Rating • LONG : Over the investment horizon, ATR >= Ke for companies with Free Float market cap >Rs 5 billion and ATR >= 20% for rest of the companies • ADD: ATR >= 5% but less than Ke over investment horizon • REDUCE: ATR >= negative 10% but <5% over investment horizon • SHORT: ATR < negative 10% over investment horizon **Relative Rating** • OVERWEIGHT: Likely to outperform the benchmark by at least 5% over investment horizon • BENCHMARK: likely to perform in line with the benchmark • UNDERWEIGHT: likely to under-perform the benchmark by at least 5% over investment horizon **Investment Horizon** Investment Horizon is set at a minimum 3 months to maximum 18 months with target date falling on last day of a calendar quarter	Equirus Securities Private Limited Unit No. A2102B, 21st Floor, A Wing, Marathon Futurex, N M Joshi Marg, Lower Parel, Mumbai-400013. Tel. No: +91 – (0)22 – 4332 0600 Fax No: +91- (0)22 – 4332 0601 **Corporate Office:** 3rd floor, House No. 9, Magnet Corporate Park, Near Zydus Hospital, B/H Intas Sola Bridge, S.G. Highway Ahmedabad-380054 Gujarat Tel. No: +91 (0)79 - 6190 9550 Fax No: +91 (0)79 – 6190 9560

2023 Equirus Securities Private Limited. All rights reserved. For Private Circulation only. This report or any portion hereof may not be reprinted, sold or redistributed without the written consent of Equirus Securities Private Limited

Analyst Certification

I, Sandeep Shah/Deep Modi, author to this report, hereby certify that all of the views expressed in this report accurately reflect my personal views about the subject company or companies and its or their securities. I also certify that no part of my compensation was, is or will be, directly or indirectly, related to the specific recommendations or views expressed in this report.

Disclosures

Equirus Securities Private Limited (ESPL) having CIN: U65993MH2007PTC176044 is registered in India with Securities and Exchange Board of India (SEBI) as Research Analyst (Reg. No. INH000001154), Stock Broker:(Reg. No. INZ000251536), RA: INH000001154, DP: (Reg. No. IN-DP-324-2017) NSE Mem id: 13017|BSE Mem id: 3309|DP ID:84500| having its Registered office at A 2102 B, A wing, 21st Floor, Marathon Futurex, N. M. Joshi Marg, Lower Parel, Mumbai-400013.. There are no disciplinary actions taken by any regulatory authority against ESPL for Research Analyst activity. ESPL is a subsidiary of Equirus Capital Private Limited (ECPL) which is registered with SEBI as Category I Merchant Banker and provides investment banking services including but not limited to merchant banking services, private equity, mergers & acquisitions and structured finance.

As ESPL and its associates are engaged in various financial services business, it might have: - (a) received compensation (except in connection with the preparation of this report) from the subject company for investment banking or merchant banking or brokerage services or any other product or services in the past twelve months;(b) managed or co-managed public offering of securities for the subject company in the past twelve months; or (c) received a mandate from the subject company; or (d) might have other financial, business or other interests in entities including the subject company (ies) mentioned in this Report. ESPL & its associates, their directors and employees may from time to time have positions or options in the company and buy or sell the securities of the company (ies) mentioned herein. ESPL and its associates collectively do not own (in their proprietary position) 1% or more of the equity securities of the subject company mentioned in the report as the last day of the month preceding the publication of the research report. ESPL or its Analyst or Associates did not receive any compensation or other benefits from the companies mentioned in the report or third party in connection with preparation of the research report. Accordingly, neither ESPL nor Research Analysts have any material conflict of interest at the time of publication of this report. Compensation of our Research Analysts is not based on any specific merchant banking, investment banking or brokerage service transactions. ESPL has not been engaged in market making activity for the subject company.

The Research Analyst engaged in preparation of this Report:-

(a) has not received any compensation from the subject company in the past twelve months; (b) has not managed or co-managed public offering of securities for the subject company in the past twelve months; (c) has neither received any compensation for investment banking or merchant banking or brokerage services from the subject company in the past twelve months nor received any compensation for products or services other than investment banking or merchant banking or brokerage services from the subject company in the past twelve months; (d) has not received any compensation or other benefits from the subject company or third party in connection with the research report; (e) might have served as an officer, director or employee of the subject company; (f) is not engaged in market making activity for the subject company.

This document is not directed or intended for distribution to, or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject ESPL and affiliates to any registration or licensing requirement within such jurisdiction. The securities described herein may or may not be eligible for sale in all jurisdictions or to a certain category of investors. Persons in whose possession of this document are required to inform themselves of, and to observe, such applicable restrictions. Please delete this document if you are not authorized to view the same. By reading this document you represent and warrant that you have full authority and all rights necessary to view and read this document without subjecting ESPL and affiliates to any registration or licensing requirement within such jurisdiction.

This document has been prepared solely for information purpose and does not constitute a solicitation to any person to buy, sell or subscribe any security. ESPL or its affiliates are not soliciting any action based on this report. The information and opinions contained herein is from publicly available data or based on information obtained in good faith from sources believed to be reliable, but ESPL provides no guarantee as to its accuracy or completeness. The information contained herein is as on date of this report, and report and is subject to change or modification and any such changes could impact our interpretation of relevant information contained herein. While we would endeavour to update the information herein on reasonable basis, ESPL and its affiliates, their directors and employees are under no obligation to update or keep the information current. Also, there may be regulatory, compliance, or other reasons that may prevent ESPL and its group companies from doing so. This document is prepared for assistance only and is not intended to be and must not alone be taken as the basis for an investment decision. Each recipient of this document should make such investigations as it deems necessary to arrive at an independent evaluation of an investment in the securities of companies referred to in this document including the merits and risks involved. This document is intended for general circulation and does not take into account the specific investment objectives, financial situation or particular needs of any particular person. ESPL and its group companies, employees, directors and agents accept no liability, and disclaim all responsibility, for the consequences of you or anyone else acting, or refraining to act, in reliance on the information contained in this publication or for any decision based on it. ESPL/its affiliates do and seek to do business with companies covered in its research report. Thus, investors should be aware that the firm may have conflict of interest.

A graph of daily closing prices of securities is available at http://www.nseindia.com/ChartApp/install/charts/mainpage.jsp and www.bseindia.com (Choose a company from the list on the browser and select the "three years" period in the price chart).

Disclosure of Interest statement for the subject Company	Yes/No	If Yes, nature of such interest
Research Analyst' or Relatives' financial interest	No	
Research Analyst' or Relatives' actual/beneficial ownership of 1% or more	No	
Research Analyst' or Relatives' material conflict of interest	No	

Standard Warning: Investment in securities market are subject to market risks. Read all the related documents carefully before investing. | Registration granted by SEBI and certification from NISM in no way guarantee performance of the intermediary or provide any assurance of returns to investors.

Compliance & Grievance Officer: Shital Tamrakar | Tel. No. 079-61909561|email: Shital.tamrakar@equirus.com |www.equirus.com |

sandeep.shah@equirus.com - 09/01/2024 11:53:50 PM