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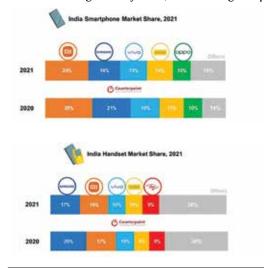
India Smartphone Market Records Highest Ever Shipments, Revenue in 2021

India's smartphone shipments grew 11% YoY to reach 169 million units in 2021, according to the latest research from Counterpoint's Market Monitor service. However, the shipments declined 8% YoY in the December quarter due to supply issues plaguing the smartphone manufacturing ecosystem.

Commenting on the market dynamics, Senior Research Analyst Prachir Singh said, "The Indian smartphone market witnessed high consumer demand in 2021, making it the best-performing year. This feat came in a year that witnessed supply constraints due to a multitude of reasons - a second and more virulent COVID-19 wave, global component shortages and price hikes due to these shortages. The high replacement demand fuelled by increasing smartphone affordability in the mid and high-price tiers due to promotions and discounts, as well as better financing options, led to an 11% YoY growth in 2021. The demand outstripped the supply in the last two quarters of 2021. During Q4 2021, the smartphone market declined 8% YoY. We expect the supply situation to get better going forward and reach normalcy by the end of Q1 2022."

Commenting on the competitive landscape and pricing, Research Analyst Shilpi Jain said, "India's smartphone market retail ASP (average selling price) grew 14% YoY in 2021 to reach its highest ever at \$227. The price hikes in the budget segment due to component price rise, increasing focus of OEMs on the premium segment, and increased demand for mid-range and premium smartphones due to increasing uses and availability of financing options contributed to the increasing ASP. This resulted in the Indian smartphone market revenue crossing \$38 billion in 2021, registering a growth of 27% YoY."

On the developing manufacturing ecosystem, she added, "Local manufacturing bounced back, contributing 98% shipments in 2021, compared to 90% in 2020. The PLI scheme has been a great booster for the Indian mobile manufacturing ecosystem, attracting top



players like Apple and Samsung to increase their 'Make in India' footprint and make India their export hub. Therefore, handset exports saw 26% YoY growth in 2021. Seeing the PLI scheme's success in the mobile manufacturing ecosystem, the government has launched similar schemes for different product verticals like CIOT and IT hardware."

India's overall mobile handset market grew 7% YoY in 2021. Samsung captured the top position in the handset market in 2021, taking 17% share. Feature phone shipments reached 86 million units to show flat growth in 2021. itel led the feature phone market, taking 24% share followed by Lava, Samsung and Jio. itel has been leading the feature phone market for the last two consecutive years.





Market Summary:

- Xiaomi maintained the top position in India's smartphone market in 2021 with 2% YoY growth. Component shortage in the second half of the year, which affected volumes in the mass market segment, led to slower growth.Xiaomi grew 258% in the premium segment (>INR 30,000, ~\$400) in 2021 with the Mi 11x series. Going forward, it will keep focusing on the premium segment and offline expansion.
- Samsung remained at the second position in 2021 with an 8% YoY decline in shipments. Supply chain disruptions, absence of new Note series, reduced focus on the entry-level segment and fewer launches in the mid segment compared to the previous year led to an overall decline. However, Samsung was the top brand in 5G smartphone shipments in Q4 2021. Its campaign on providing maximum bands in 5G smartphones facilitated this growth. It also led the INR 20,000-INR 45,000 (~\$267-\$600) segment with a 28% share. Samsung's foldable device (Fold and Flip series) shipments grew 388% YoY in 2021.
- Among the top five brands, realme was the

fastest growing in 2021 with 20% YoY growth. It also captured the second spot in Q4 2021 for the first time ever. Switching to 'Unisoc' to manage component shortages, production expansion through partnerships with EMS, focus on the premium segment with newly launched 'GT series' and high demand for its revamped C series and Narzo series favored this high growth for realme. Going forward, realme is aiming to provide 5G in all smartphones priced above INR 15000 (~\$200). It also plans to enter the ultra-premium segment.

- vivo emerged as the top 5G smartphone brand in 2021 with a 19% share. It grew 2% YoY in 2021 driven by a strong performance of its Y series and V It remains the leading player in the offline segment while simultaneously strengthening its hold in the online segment through its sub-brand iQOO.
- OPPO held the fifth position in 2021 with 6% YoY growth. It now has a leaner portfolio in the budget segment as it is focusing on the upper, mid and premium segments. In the premium segment, it was the fastest growing brand in 2021.
- Transsion Group brands (itel, Infinix and TECNO) registered 55% YoY growth in 2021 and crossed 10 million shipments for the first time ever in a single year. They also maintained their third position in the overall handset market, with itel being the largest player in the feature phone market. Aggressive launches with a strong value proposition, strong demand in Tier 2 and Tier 3 cities and hybrid channel strategy were some of the factors behind this growth.
- Apple was one of the fastest growing brands in 2021 with 108% YoY growth in shipments. It maintained its lead in the premium segment (>INR 30,000, ~\$400) with a 44% share. Aggressive offers during the festive season, strong demand for the iPhone 12 and iPhone 13 and increased 'Make in India' capabilities drove high growth. We expect strong momentum for Apple in 2022 as well with increased manufacturing and retail footprint.
- OnePlus reached its highest ever shipments in 2021, crossing the 5-million mark with 59% YoY growth driven by the OnePlus Nord Series. It led the affordable premium segment (INR 30,000-INR 45,000, ~\$400-\$600).It also captured the second position in the premium segment (>INR 30,000, ~\$400) with a 19% share. Camera innovations will be a key focus for OnePlus in 2022.

Note: OPPO excludes OnePlus shipments in this publication as the integration is still in process at the regional level. We have already integrated OPPO and OnePlus shipments at the global level.

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India's Union Budget 2022-23 focusses on a technology driven economy

India's Finance Minister, Nirmala Sitharaman presented the Union Budget 2022-23 recently and she declared that India would report an economic growth of 9.5%, which would be the highest among



all economies. This year's budget is laying foundation for the beginning of 25 years to India's 100 years of Independence in 2047, termed as Amritkaal.

The Union Budget 2022-23 presented the vision for new India in a progressive light with emphasis on technology for all round development and a smart way to drive the nation towards future. "Under sunrise opportunities, Artificial intelligence, geospatial systems and drones, semiconductor and its eco-system Space Economy, Genomics and Pharmaceuticals, Green Energy, and Clean Mobility Systems have immense potential to assist sustainable development at scale and modernize the country. They provide employment opportunities for youth, and make Indian industry more efficient and competitive," said Sitharaman.

Aligning geospatial technologies with modern needs FM Sitharaman has announced government's support to use Kisan drones for land assessment, digitization of land records, spraying insecticides and nutrients as well as to provide NABARD loans to agri-startups. She also stated that 163 lakh farmers have received INR 2.73 lakh crores in direct payments for the 2021-22 crop procurement by the Centre.

Union Budget 2022 has announced the PM Gati Shakti program as one of the priority areas of the government. Seven engines of the PM Gati Shakti initiative are roads, railways, airports, ports, mass transport, waterways and logistics infra. As the Indian economy moves towards strengthening these initiatives, geospatial technology will gain more prominence in the process. As shared by the Hon'ble Finance Minister, the Gati Shakti program would involve huge investments in construction of about 25,000 Kms of highways, multimodal transport, and modernization of land records. These are welcome steps, and GIS and other geospatial technologies will facilitate efficient implementation of these schemes.

To reap the full benefits of this policy shift, Digital India should prioritize the creation of 3D national digital twins of our environments (water, road, rail, cities & rural) to track and monitor ailing structures and utilities, transportation project planning

and maintenance, 5G digital connectivity, disaster response and recovery, autonomous vehicle and intelligent transportation, land records management, ecology and biodiversity conservation, and sustainable resource management.

National Digital Twin ecosystem increases efficiency, generates high economic values, and facilitates better decision making for maintaining the social-economic-and environment continuum.

Efficient use of land resources

In her budget presentation Sitharaman emphasized on efficient use of land resources. She said, "States will be encouraged to adopt Unique Land Parcel Identification Number to facilitate IT-based management of records. The facility for transliteration of land records across any of the Schedule VIII languages will also be rolled out."

She also focused on the adoption or linkage with National Generic Document Registration System (NGDRS) with the 'One-Nation One-Registration Software' will be promoted as an option for uniform process for registration and 'anywhere registration' of deeds and documents.

Department of Land Resources has been engaged in creating a pan-India platform of digitally integrated land records management and information system, with active support of all states and Union Territories. Land Records digitization and modernization under DILRMP is a monumental work for generations of people of India. All these initiatives like ULPIN, NGDRS and multilingual land records are citizen friendly initiatives to bring in more transparency, accessibility and accountability in governance and to achieve ease of living and ease of doing business for an Atma-nirbhar Bharat.

Making India digitally equipped

Sitharaman also confirmed that the Reserve Bank of India will issue a digital rupee soon. The digital currency by RBI will be based on blockchain technology, the tech behind Bitcoin and other popular cryptocurrencies.

She said, "Digital currency will also lead to a more efficient and cheaper currency management system. It is therefore proposed to introduce a digital rupee using blockchain and other technologies, to be issued by the Reserve Bank of India, starting 2022-23."

She further added that a new crypto tax will be introduced under which virtual digital assets will be taxed at 30 percent. She clarified that no set off will be allowed in case of losses.

Covid 19 pandemic accelerated the process of digital transformation. It has pushed people and businesses to adopt new ways to do things and reorient their behaviors. The government's announcing the Drone Rules 2021 and production-linked incentive (PLI) scheme for the drone industry has given a push to drone industry. Many drone companies in India have signed new deals to start large-scale, commercial business-to-business (B2B) drone operations in 2022.

She also added that start-ups will be promoted to facilitate 'drone shakti' through varied applications

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and for drone-As-A-Service (DrAAS).

As announced by the Honorable Finance Minister in the Union Budget, the focus on using drones to drive sustainable development through Drone Shakti and Kisan Drones initiatives is a welcome move by the Indian government. This will kickstart the fourth industrial revolution by leveraging drone technology for digitization in agriculture, infrastructure and rural development and generate new-age employment opportunities for the youth of the country.

The Union Budget presented by the Hon'ble Finance Minister ensures supercharged growth for the drone industry in India in the years to come. The budget duly recognizes the key role drone technology is playing in solving some really tough to solve problems for sectors like land records, infrastructure, mining, disaster management, and agriculture. Furthermore, the announcement of Drone Rules 2021, the PLI scheme for the drone industry, and subsidies for drones to be used for agriculture applications have provided a fillip to the sector. In Budget 2022, the announcement of the 'Drone Shakti' program will continue to strengthen the sector further making it at least a \$5B market in India available primarily for domestic companies. This will enable further innovation in the sector and fuel growth with further adoption of drone tech and 'drone-as-a-service'. The opportunities, emphasis, and support being provided to this emerging sector will help drone start-ups extend their portfolio across agriculture, digitization of land records, railways, mining, renewable energy, telecom, etc., and will lead to a paradigm shift for a new Digital India. Sitharaman also said the Credit Guarantee trust for Micro and Small Enterprises (CGTMSE) scheme will be revamped with required infusion of funds. This will facilitate additional credit of INR 2 lakh crore for MSE and expand employment opportunities.

"Department of space has been allocated approx. INR 1,000+cr more than last fiscal's estimates which is a good sign for the growing space sector. This will be helpful in making sure Gaganyaan keeps on track and will translate into the stability and growth of the entire sector, with the sustenance of existing business and birth of new ones.



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Budget 2022-23: A Capex Bonanza

By Abheek Barua, Chief Economist, HDFC Bank



The 2022-23 Budget has somewhat successfully managed to balance fiscal retreat and support for economic recovery. The budget deserves a somewhat favourable verdict. It has a

gameplan premised on credible numbers. The fiscal deficit target of 6.4 per cent, prima facie, suggests that the FM has grabbed some much-needed fiscal space to nurture the nascent recovery and not been tempted to "over-consolidate".

Pump-Prime Keynesian style: The underlying macro-economic strategy behind this budget is one of pump priming the economy through public investments, hoping that economic buoyancy would crowd-in private sector capex. The aim is to kick-start the investment cycle with multiplier effects on employment and income in turn addressing fragile consumption growth and uneven recovery. Thus, instead of redistributive direct fiscal support, an investment-led growth remains the government's economic management mantra. This is reflected in a 35 per cent increase in capital expenditure outlay (at INR 7.5 lakh cr) and a large increase in financial support to states for investment plans in the coming fiscal (INR 1 lakh cr).

Support for covid hit sectors: There are also some direct measures to address the worst affected sectors by the pandemic. The extension of the credit guarantee scheme (ECLGS— that gives a government back-stop to bank loans to the medium and small-scale sector) by a year and an increase in the guaranteed amount earmarked for the hospitality sector (INR 50,000 cr) is a welcome move.

Atmanirbhar Bharat amidst global supply chain disruptions: The budget tilts further in the direction of self-reliance, offering tariff protection to capital goods that feed a range of sectors from coal mining to power to footwear, textiles, and

food processing. This is accompanied by commitments of higher government procurement from local producers in areas like defence. This is important as inter-regional trade has been shrinking (apart from trade with China) since the Great Financial Crisis. Differences in the incidence of Covid and in containment strategies has further exposed the fragility of globalized supply chains. Increased localization (or self-reliance) might just emerge as a new paradigm for production. In this scenario, the case of unharnessed free trade and its presumed benefits perhaps need to be re-examined.

Digital currency on its way: The introduction of

a Central Bank Digital Currency, an electronic fiat currency (not to be confused with the box-standard "Crypto") was widely anticipated. However, it could have a significant impact on banks - on their deposit base for instance – and needs careful attention both from bankers and policy makers. Credibility of fiscal math: The budget is surprisingly conservative on the GDP growth assumptions, factoring in 11.1 per cent nominal (at current market prices) growth for 2022-2023 compared to 17.2 per cent in 2021-22. The disinvestment target too is subdued at Rs 65000 and hence more credible that previous budgets that saw large shortfalls. The big punt is on increasing tax buoyancy with the tax-to-GDP ratio estimated at 10.7 per cent instead of 9.9 per cent previously in FY22 BE. This increase is primarily due to an assumed increase in GST collections that is projected to yield INR 1.3 lakh crores a month compared to an average of INR 1.13 lakh cr assumed for the current year. This might well be achieved. There are reports that the technical glitches in the GST backbone have been fixed leading to better compliance and coupled with a sustained momentum in the economy should do the trick.

Concerns – Will the capex punt work? There are some concerns around the current capex led strategy. For one thing, absorption of funds allocated

to projects has been a long-standing problem in India. The big question then is —does the government have enough shovel-ready projects to absorb the allocated funds to make a difference in the near term? Also, by focussing primarily on capex the budget has perhaps overlooked some key revenue expenditures. For instance, the allocation to MNREGA been reduced by a good Rs 25000 crores when demand for these jobs still exceeds supply and indeed there were suggestions of an urban employment guarantee.

Financing of the deficit and Bond View

For the bond market, a significantly higher than expected borrowing of INR 14.95 lakh crore in FY23 is likely to put further pressure on yields at a time when both global and domestic interest rate cycles are at the cusp of turning this year. The absence of any announcement around a tax relief for foreign bond investors was a disappointment and led to further pressure on yields. The 10-year yield rose by 14bps post the budget announcement to 6.83%.

Bond View: For the coming fiscal year, we expect the 10-year bond yield to rise to 6.9-7% by H1 FY23 with a breach of the 7% level now likely. Although, we expect the RBI to continue with operation twists and signals through auctions to try and keep a cap on yields, with liquidity tightening the room for plain vanilla OMOs is likely to reduce. We expect policy normalisation and interest rate hike expectations to get priced in well before hand and we could see some moderation in yields in the second half of the year, despite the RBI delivering rate hikes by that time (expect 25bps hike in August 22 and 25bps in Dec 22). This relief we think is also likely to be driven by lower inflation prints in H2 (expect average of 4.5-5%), some cool-off in commodity prices as supply capacities catch up with demand, and the announcement of an inclusion in the global bond index. We see the 10-year between 6.7-6.8% by H2 FY23.

Union Budget 2022 continues to pave the way for a sustainable economic growth

By Manish Sharma, CEO, Panasonic India "Union Budget 2022 continues to pave the



way for a sustainable economic growth in Amrit Kaal, backed by consistent structured approach. It underscores the Govt commitment towards Digital India and investment in

Public Private Partnership through game changing initiatives like Gati Shakti programme, investment in the sunrise sectors and MSMEs, introducing policies for clean energy, among others. Infact, the seven engines defined under Gati Shakti initiative is bound to have a multiplier effect as it

will help aid in reduction of logistics costs, enable supply-chain efficiencies, create employment generation all this, while using technology.

It was encouraging to see the focus on clean energy. In line with Panasonic's business strategy, we are looking forward to details on the Battery Swapping Policy and participate in India's Electric Vehicle (EV) story. Also, the commitment on building a circular economy is the need of the hour as the world looks at sustainable solutions in a phased manner.

In my experience with the current regime, policy conversations are not limited to Budget day but take place through the year. So we are hoping for discussions on how exports can be further incentivized

and policy can be enhanced for design led local manufacturing. From an electronics sector standpoint, we expected reforms in the Union Budget FY 2022 - 23 that would accelerate growth channelized by consumer demand. For instance, rationalizing the GST from 28% to 18% on ACs and large screen size (>105cm) TVs will improve affordability and penetration as these are no longer considered luxury items. We will look forward to hearing from the GST Committee on this. From the individual's perspective, no changes in tax structure can also be a relief as it defines stability in current times. Though more money in the hands of the tax-payers could have helped drive consumption over short term.



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Digital Engineering is the future and steps taken today will shape the country's journey

By Amit Chadha, CEO and MD, L&T Technology Services

Digital Engineering is the future and steps



taken today will shape the country's journey ahead on this. And the announcements under Union Budget appear to precisely embrace this proactive approach as the fundamental impetus has been

on leveraging digital technologies to further the nation's growth and march ahead. As a pure-play ER&D services provider, our belief is that such a mass scale enablement of the digital ecosystem will also result in complementing uptake of digital engineering capabilities resulting in the country maintaining its strong hold as a global preferred destination for engineering services. By Nikhil Sahni, Country Corporate Officer, India & Division President, South Asia, Mastercard

Mastercard welcomes the continued focus on digital and financial inclusion in the Finance



Minister's Budget 2022 speech. Setting up Digital Banking Units (DBUs) and bringing post offices into the core banking system, will help expand the reach of financial services to the last mile. The extension

of Emergency Credit Line Guarantee Scheme (ECLGS) will boost MSME recovery and growth by providing them with liquidity and helping them meet working capital requirements. Start-ups will benefit from tax benefits that will spur further innovation and boost employment in the country.

By Kavitha Subramanian, Co-Founder, Upstox "The Hon'ble Finance Minister has presented a digital-first Budget that focuses on quick, holis-



tic, and inclusive economic growth. The focus on startups and fintech in this year's Budget is a fantastic step that will help these sectors grow further.

The introduction of 5G and the spread of optical fiber

to villages would provide a boost to the Fintech industry. It encourages digital investment platforms like ours to expand their services, resulting in an increase in retail activity in Tier 2-Tier 3 cities and towns. The Central Bank Digital Money (CBDC) will help to enhance the digital economy by making currency management more efficient and less expensive. The capping of surcharge at 15% on Long-Term Capital Gains (LTCG) tax for all listed and unlisted corporations responds to a long-standing demand for new-age businesses."

India's manufacturing industry has incredible potential to place the country on the global manufacturing

By Kishan Jain, Director, Goldmedal Electricals

"We welcome the measures announced by the

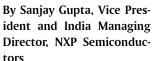


honourable Finance Minister Nirmala Sitharaman and the Government of India in the Union Budget towards boosting electronic manufacturing in the country. The Union Budget 2022 has announced the eas-

ing of policies and has pledged to allocate INR. 19,500 crore for PLI for manufacturing of high-efficiency modules. PLI in 14 sectors will help in generating 60 lakh new jobs and additional production of Rs 30 lakh crore in the next five years which is laudable. Today, India's manufacturing industry has incredible potential to place the country on the global manufacturing map, concurrently boosting several employment opportunities for India's youth. Further to this, the Finance Minister also announced duty concession for electronic items, this will in return further boost the sec-

tor, and enable domestic manufacturing of high growth electronic items. The budget features a vigorous, expansionary attitude toward the manufacturing industry, as seen by the government's incentives and enhancement of the PLI schemes. As a brand, Goldmedal Electricals has always been at the forefront of introducing ground-breaking and sustainable solutions that make our planet not only smarter but also sustainable for generations to come and support

the government's vision of Atmanirbhar Bharat."



"The Union Budget 2022 has recognized the digital

growth of the country as a primary focus. In order to promote cleaner mobility, the battery swapping policy and interoperability standards that government plans to introduce, incorporates the concept of energy/battery as a service. This will also help in developing the charging station ecosystem which is imperative for massification of EVs. The announcement will give impetus to the private sector to develop sustainable and innovative business models for battery and energy as a service."

He further added, "The scheme for design led manufacturing to be launched for 5G ecosystem as part of PLI will be a boost to the overall telecom and electronic sectors. It will also provide and promote research and development of technology and solutions and will enable affordable broadband and mobile communication.

The plan to roll out E- passports with embedded chip and futuristic technology, digital rupee using blockchain by RBI, Drone Shakti and Kisaan Drones and opening Defence R&D for industry, startups and academia are welcome moves that will accelerate the growth and development of the semiconductor industry in the country. As the government continues to accentuate focus on Atmanirbhar Bharat and Digital India, we are hopeful that this year's budget will propel India towards becoming a global electronic hub."

Government has been consistent in giving emphasis on the overall growth

By Rajesh Goenka, Director, Sales & Marketing, RP tech India

"This is a very progressive budget focused



on giving a boost to the infrastructural development and attracting global investments in form of FDIs. The government has been consistent in giving emphasis on the overall growth and development

of industries rather offering sector-specific incentives. The budget will create employment opportunities across the industry verticals and accelerate the GDP growth. We hail the government for its strategic decisions and futuristic approach for the self-reliant India"

By Alok Dubey, Chief Financial Officer, Acer India



"The Union Budget announced today show-cased the government's initiative towards Digital Transformation. From announcing a Digital University, for online learning to high-quality e-content

across languages will enable the youth to skill, upskill and reskill themselves. These programs

under digital learning and the connectivity expansion will further strengthen the availability and accessibility of internet in rural areas.

With Govt infrastructure spending push, we are likely to see more employment and growth opportunities and enhanced private sector investment in manufacturing. We are confident that the exemption of duty on parts of select electronic items will further boost the domestic manufacturing of electronics goods under the PLI scheme. Overall, the Union Budget 2022-23 is a promising budget and a step forward towards 'Aatmanirbhar Bharat'."

The emphasis of digitised skilling will help make our country's youth future-ready

By Kunal Nagarkatti, CEO, Clover Infotech

"The Government's focus on creating a strong digi-



tal ecosystem to enhance banking and financial inclusion is a step in the right direction. Bringing all post office banks under the core banking ambit will enable seamlessness in digital payments and online transfer of funds and acceler-

ate financial inclusion. The setting up of the Digital DESH e-portal for skilling initiatives is the need of the hour as it will bridge the gap between the supply and demand for digitally skilled and technically strong resources."

"I am excited to see the government's focus on technology sector, as a whole. The incentives towards creating digital infrastructure, education, and skilling, spell out the intent on developing the country's human capital. The emphasis of digitised skilling will help make our country's youth future-ready. Additionally, the announcement on RBI introducing digital currency and the government providing infrastructure status to data centers, will help create a framework for emerging technologies making the digital India Inc better and stronger."



By Puneet Gupta, Managing Director & Vice President, NetApp India

"The Union Budget 2022 presented by the Government of India is built on the foundation of introducing new technologies across sectors. From

education to finance, logistics, and healthcare, the bedrock of change will be driven by tech. The Government has further proposed the introduction of the digital rupee. While this will definitely enhance efficiency and promote growth, increased digital penetration also brings with it additional cyber risks that one should be vary of. As a step towards mitigating cyberattacks, the Government plans to set up broadband in villages as well as the Digital DESH e-portal. This will help equip youth with the right skills, including cybersecurity skill sets, needed to operate safely in today's tech-driven world." By Sunil Sharma, managing director – sales, Sophos India & SAARC

"We welcome the move by the Government of India



to boost logistics as a means towards ensuring economic growth. The proposal to set up a Unified Logistics Interface Platform is a welcome move. Leveraging technology to complement the development of infrastructure will

help bring in better efficiency. Furthermore, with real-time tracking, and inventory management as a part of the platform, this will go a long way in bringing India at par with global supply chain networks. LogiNext has always been an advocate for digitisation of supply chains, and it is reassuring to see the Government work towards this. The decision taken to extend the tax incentives provided to startups till March 31, 2023 is a reflection of the Government's commitment towards ease of doing business in India."

By Dhruvil Sanghvi, Founder & Chief Executive Offi-

cer, LogiNext



"The advancement in enhanced transparency of payments is a huge stride forward for India in terms of fintech innovation. The proposed end-to-end online e-Bill system will enable increased

productivity for industries that go completely paperless. This will prove to be extremely fruitful for digitization. Furthermore, the acknowledgement that India's GST collection stands at Rs.1.4 lakh crore for the month of January 2022, exemplifies the growing need for digital taxation solutions that promise to take the Indian economy to the next level."



By Niraj Hutheesing, Founder and Managing Director, Cygnet Infotech

"It is encouraging to see the government's support for the startup sector in the Union Budget for 2022 through tax incentives and easing of regu-

latory frictions in venture capital investments. Additionally, the impetus towards the rollout of 5G and broadband services in 2022 will catalyze an entrepreneurial culture and expand India's presence on the global map of technology innovation."

General Budget 2022-23 to boost economic activities, create jobs, and help India transition to a digital economy

By R Arun Prasath, CIO, EverestIMS Technologies

"A number of measures have been introduced in



the country's General Budget 2022-23 to boost economic activities, create jobs, and help India transition to a digital economy. Through the use of emerging technologies, the budget focuses on promoting technology-enhanced

development, energy and climate action, trustbased governance, upskilling and digital education. Through online training, industry collaborations, and the establishment of a simulated learning environment using e-labs, the government is focusing on developing avenues for digital skills, sustainability, and employability.

The importance of 5G technology for growth and development in the country was also emphasized. The provision of broadband and mobile services in rural and remote areas of the country by allocating 5 percent of the annual collections under the universal service obligations fund is highly commendable."

Indian IT Leaders Take on the Union Budget 2022-23

By S Sriram, Chief Strategy Officer, iValue InfoSolutions

"It was a consistent and pragmatic budget with a lot



of thrust around infrastructure spending to enhance growth. Despite multiple elections around the corner, great to see no populist announcement with focus on reducing fiscal deficit starting next fiscal. 5G rollout and extension

of sops around "make-in-India" for new start-ups should augur well for the tech enabled industry. Central Government focus around Digitization will offer business opportunities for domestic focused ITeS players with the Government taking the lead role on capex investment recovery post pandemic. Overall exciting times ahead as India is poised to be the fastest growing economy for the next few years."

By Rajendra Chitale, CFO, Crayon

"India's General Budget 2022-23 introduced sev-



eral measures ranging from taxation to investment to help boost the country's economic activities, digital governance, ease of doing business, creating jobs, and ensuring the country's tran-

sition to a digital economy. The budget promotes technology-enabled development, energy transition, public-private partnerships, skilling, and climate action, along with the use of emerging technologies.

The news on the 5G roll-out is commendable as it will be a key enabler for digital growth and development in the country. Also, glad to see that the government is focusing on expanding the digital horizon in the country. This shall encourage continuous skilling avenues, sustainability, and employability through online training programs, and simulated learning environments using e-labs. The budget also focuses on emerging technologies, such as drones, deep tech, fintech, health tech, and Ed-tech, highlighting India's commitment to exploring change and innovation."

By Prashanth G J, CEO, TechnoBind

"It is commendable that the government in the



new budget is coming up with modern and progressive concepts like trust-based governance. This is in the best interests of both the society and enterprises. It will also help in building

more coordination between the government and enterprises, and provide more empowerment to enterprises, and certainly help with the ease of doing business.

Also, the 5G roll out will open the gates for aggressive digitisation in the country which will help the Indian IT landscape to expand further in all tier markets. Better internet connectivity will ramp up digitisation making inroads for datafication and AI-based technologies. We can expect the IT expansion to go pan-India and new avenues of digitisation will see light in the coming year."

This is the Digital Revolution Budget

By Kunal Bahl, Co-founder & CEO, Snapdeal

"This is the Digital Revolution Budget. We wel-



come the government's emphasis on creating new digital touchpoints to empower multiple aspects of our society and supercharge the startup ecosystem. New initiatives across currency, banking, educa-

tion, skilling, health, passports, and logistics will enable a large part of the country to benefit from India's growing digital revolution. The government's focus on augmenting India's road, rail, and telecom infrastructure will help further accelerate growth opportunities across Bharat."

By Venkatraman Narayanan, Managing Director & CFO, Happiest Minds Technologies



"A capex heavy, investment push and demand generating budget. I expect the private sector to more than match the capital spend of the Government thus supporting GDP growth of 9% plus, leaving enough

headroom for expenditure on farms, health, education and other social sectors. The theme of continued ease of doing business, consistency and stability in tax rates, rebates, push to further digitise the economy, issue of RBI backed digital currency, legitimising digital assets, etc. seem

to aid and support the all and in specific the IT Industry which is expected by NASSCOM to grow to become \$350 billion in size in 5 years. In all sounds like a 'financial budget' of the Country". By Lalit Mehta, Co-founder & CEO, Decimal Tech-

"The focus on fintech and technology enabled



development right at the outset of the budget speech set an encouraging tone for the industry and the overarching vision of an all-inclusive digital economy.

Starting with the paperless budget, the common thread

throughout the Finance Minister's speech was the focus on promoting digital and technological innovations across sectors, which will spell accelerated growth for technology led development, energy transition and climate action, while ensuring an inclusive welfare society. It is heartening to see a sustained push towards making the benefits of digital banking reach every corner of our country with an initiative that marks the 75th year of independence by establishing 75 digital banking units across 75 districts. Core banking across hundred percent of the 1.5 lakh post offices by 2022, financial support for digital payments ecosystem, and a 6,000 crore rupees programme to rate MSMEs to be rolled out over 5 years, are some much needed steps in this direction."

All villages should have the same access to digital resources as urban areas: Anand Kumar Bajaj, Founder, MD & CEO, PayNearby

"The Ministry of Finance has presented a well-rounded, futuristic and optimistic Union Budget 2022 to propel the digital economy and boost



the MSME sector. Given that 'inclusive development' and 'financing of investments' were two of the seven pillars of the Budget, it laid the foundation for faster financial inclusion and expansion of the credit ecosystem. In a

bid to make MSMEs more resilient and competitive, the extension of the Emergency Credit Line Guarantee Scheme (ECLGS) till March 2023 is a critical step. This measure will ensure the continued handholding of MSMEs, which accounts for more than 30% of India's GDP and remains an important engine of economic growth, job creation, income generation and livelihood support. In addition, the proposal to skill both entrepreneurs and students with the help of technology will empower and enhance the productivity of the country altogether.

For India to become a digital economy, all villages should have the same access to digital resources as urban areas. To augment this, the setting up of 75 digital banking units in 75 districts of the country is a commitment to taking high-end tech to the bottom of the pyramid.

The 2022 Budget is one that has its eye set firmly on the future

By Dr. Ajai Chowdhry, Founder, HCL

"There was definitely much that was expected



from this budget for FY 2022-23. Some of my personal favourite points include moving tax incentives from the last date to 2023, supporting drone manufacturing and services, reducing surcharge on LTCG

for any assets to 15 percent. With respect to the manufacturing sector, a special 15 percent tax rate for new companies has extended to 2024. For the electronics sector, our government has proposed reduction in component duty, introducing e-passport, improving logistics through Gati Shakti and incentives for design led manufacturing of 5G devices.

The Indian government has undoubtedly presented a strong growth oriented budget amidst the pandemic. We must continue to invest across industry segments leading the country towards a progressive growth chart. There is a great need to focus on Make-in-India, continued investment in healthcare infrastructure and promoting Atmanirbhatra as we go along."

By Arundhati Bhattacharya, Chairperson & CEO Salesforce India

"Overall, this is a budget with a long-term vision

supported by growth oriented policies driving job creation, digital inclusion, climate action and



infrastructure development and therefore, is very timely for our country. As we continue to digitally transform, the focus on bolstering digital payments with a consumer-friendly lens, will continue to augment digital

adoption across regional India. As a knowledge economy, I cannot emphasise enough on the importance of skilling to lead the digital disruption. Initiatives to drive skilling, reskilling and upskilling, digitally, will ensure we are ready for the digital future much ahead of the curve. Lastly, climate change is the most pressing global crisis that humanity is facing today impacting every individual, institution, government, community, and business. Investments in energy transition and climate action will take us on our path to sustainable development."



By Kulmeet Bawa, President and Managing Director, SAP Indian Subcontinent

"The budget announcement deserves applause as it takes a stance to address the two biggest needs of the hour: inclusive digital development and climate action. This monumental decision will help drive the country towards a self-reliant future, by prioritizing positive economic growth and an optimistic outlook towards sustainability. Overall, India is setting itself up for a digital first approach by focusing on the much needed digital push that results in holistic job creation, skilling and overall improvement of the population's livelihood as the nation recovers from the impact of the pandemic,"

By David Li, CEO, Huawei India



"The 2022 Budget is one that has its eye set firmly on the future, with technology-driven sustainable development at the core of its vision. The budget provides for digital enablement for all sectors from

digital education, digital university, telehealth, and digital banking among others. It also looks at boosting the economy with provisions for the start-up ecosystem, infra, clean energy. The focus on skilling, digital learning and clean mobility will create opportunities for Indian youth and will also go a great way in addressing the skill gap in various industries leading for an inclusive development"

Pure Storage to Contribute to "Make in India" by Expanding Research & Development Capabilities in the Country

Pure Storage, the IT pioneer that delivers storage as-a-service in a multi-cloud world, announced today plans to expand its Research & Develop-



Ajay Singh Chief Product Officer, Pure Storage

ment (R&D) capabilities in India. The company also announced the appointment of Ajeya Motaganahalli as Managing Director for India R&D. The announcements mark another milestone in Pure's continued commitment to innovation and global growth plans. Pure will also contribute to

the Indian Government's "Make in India" initiative and help spur innovations for the country's fast growing digital economy.

Two of Pure's core values are innovation and a customer-first mind-set. The new India R&D site will contribute significantly to Pure's global innovation engine, and further accelerate time-to-market. Currently comprising developers for its Portworx division in Bangalore and Pune, Pure is

already ramping up the recruitment of engineers to support R&D across the portfolio.

As site leader, Ajeya Motaganahalli will drive this expansion across India. Ajeya joins Pure from Honeywell where he served as the Chief Technology Officer for their Safety and Productivity Solutions business in India. Ajeya is a well-regarded leader in the India engineering community with deep expertise in enterprise storage, having served in leadership roles at several other multinational technology companies.

The India R&D site will join Pure's Global R&D Centers which include Mountain View, CA, Bellevue, WA, and Vancouver, Canada in North America; and Prague, Czech Republic in EMEA.

"This is an exciting development for Pure Storage. With our roots in innovation and India's incredible pool of engineering talent, we will mutually benefit from each other. With an experienced leader like Ajeya, I'm confident India can be an engine of innovation growth for Pure Storage and we can in turn contribute to the government's 'Make in India' initiative."

JIO Announces Investment Of US\$ 15 Million In Two Platforms INC

Jio Platforms Limited ("Jio") announced an investment of US\$ 15 million in Two Platforms Inc. ("TWO"), a Silicon Valley based deep tech startup founded by Pranav Mistry, for a 25% equity stake on a fully diluted basis.

TWO is an Artificial Reality company with focus on building interactive and immersional Al experiences. After text and voice, TWO believes the next chapter of Al is visual and interactive. TWO's Artificial Reality platform enables real-time Al voice and video calls, digital humans, immersive spaces and lifelike gaming. TWO plans to bring its interactive Al technologies first to consumer applications followed by entertainment and gaming, as well as enterprise solutions including retail, services, education, health and wellness. The founding team at TWO has several years of leadership experience in research, design

and operations with leading global technology companies.

TWO will work collaboratively with Jio to fasttrack the adoption of new technologies and build disruptive technologies such as Al, metaverse, and mixed realities.



Speaking on the investment, Akash Ambani, Director of Jio, said, "We are impressed with the strong experience and capabilities of the founding team at TWO in the areas of Al/ ML, AR, metaverse and Web 3.0. We

look forward to working together with TWO to help expedite development of new products in the areas of interactive AI, immersive gaming and

Pranav Mistry, CEO of TWO, said, "Jio is founda-



tional to India's digital transformation. We at TWO are excited to partner with Jio to push the boundaries of Al and introduce applications of Artificial Reality to consumers and businesses at scale."

Sophos Announces Plans for a New Data Center in India

Sophos, a global leader in next-generation cybersecurity, announced plans for a new data center in Mumbai, India in March. The new data center



is planned to enable organizations across the country to meet strict data sovereignty laws and regulations, which are increasingly required for those in banking, government and other tightly regulated market sectors. The new data center would expand Sophos' existing base of data centers around the world in the U.S., Canada, Ireland, Germany, Japan, and Australia.

"The data center in Mumbai would help Indian organizations accelerate digital transformation

and cloud migration," said Sunil Sharma, managing director of sales for India and SAARC, Sophos. "India is one of the most important markets for us and we have heavily invested in the country. We already have a large base of our research and development in India, and the data center would enable Sophos to further build its leadership presence in the region by providing local data sovereignty and security solutions."

The new Sophos data center in India would also provide organizations across all industries with the ability to store, manage and access data locally from Sophos Central, the cloud management platform that supports Sophos' portfolio of advanced, next-generation cybersecurity solutions and services. Products and services with access to the new data center would initially include Sophos Extended Detection and Response (XDR), Sophos Intercept X, Intercept X for Server, Sophos Encryption, and Sophos Managed Threat Response services. Other offerings within the Sophos portfolio are planned to be enabled over time.

LTI's Brand Value Crosses \$1 Billion

Larsen & Toubro Infotech, a global technology consulting and digital solutions company has consolidated its position as one of the fastest-growing IT Services brands of the year, as per the latest report by leading brand valuation and strategy consultancy firm, Brand Finance. LTI has been ranked 22 among the top 25 most valuable IT services brands in the Brand Finance IT Services 25 2022 ranking.

LTI's brand value reached \$1.1 Billion, and its

brand strength has increased to 67/100. The report highlights exceptional growth of 83% in LTI's brand value since 2020. The research from Brand Finance noted that LTI has consistently delivered growth year-on-year and shows no signs of slowing down. LTI's brand value is rising quickly within a highly competitive space and the company is fast becoming one of the most exciting brands in the sector. Sanjay Jalona, CEO and Managing Director, LTI, said, "We are proud and inspired by this recog-



nition from Brand Finance. It is our relentless focus on customer satisfaction that facilitated this exponential growth in LTI's brand value while earning respect and distinction as a world leading IT services brand. We

will continue to strengthen brand LTI through our technology expertise, our unique culture beginner's mind, and by being a good neighbor in the communities that we operate in."

Top 10 Semiconductor Buyers Increased Chip Spending by 25.2% in 2021

The semiconductor shortage and the COVID-19 pandemic disrupted global original equipment manufacturers (OEMs)' production in 2021, but the top 10 OEMs increased their chip spending by 25.2% and accounted for 42.1% of the total market, according to preliminary results by Gartner, Inc.

"Semiconductor vendors shipped more chips in 2021, but the OEMs' demand was far stronger than the vendors' production capacity," said Masatsune Yamaji, research director at Gartner. The semiconductor shortage prevented OEMs from increasing production not just of vehicles

but also various electronic equipment types, including smartphones and video game consoles. However, the chip shortage significantly increased selling prices, which meant OEMs spent much more on semiconductor procurement in 2021 than in prior years.

The average selling prices (ASPs) of semiconductor chips, such as microcontroller units, general-purpose logic integrated circuits (ICs), and a wide variety of application-specific semiconductors, increased by 15% or more in 2021. "The semiconductor shortage also accelerated OEMs' double booking and panic buying, caus-

ing a huge spike in their semiconductor spending," said Yamaji.

Apple and Samsung Electronics have retained the top two spots since 2011 while swapping ranks through the years. Huawei struggled to buy chips and dropped down from the No.3 spot to the No. 7 position in 2021. Other Chinese smartphone OEMs, such as BBK Electronics and Xiaomi, significantly increased their semiconductor spending as they successfully compensated for the loss of market share by Huawei in the smartphone market in 2021 (see Table 1).

Table 1. Top 10 Companies by Semiconductor Design TAM, Worldwide, 2021 (Millions of U.S. Dollars)

| 2021 Rank | 2020 Rank | Vendor | 2021 Spending | 2021 Market Share (%) | 2020 Spending | 2020-2021 Growth (%) |
|--------------|--------------|----------------------------|------------------|--------------------------|------------------|-------------------------|
| 1 | 1 | Apple | 68,269 | 11.7 | 54,180 | 26.0 |
| 2 | 2 | Samsung Electronics | 45,775 | 7.8 | 35,622 | 28.5 |
| 3 | 4 | Lenovo | 25,283 | 4.3 | 19,023 | 32.9 |
| 4 | 6 | BBK Electronics | 23,350 | 4.0 | 14,258 | 63.8 |
| 5 | 5 | Dell Technologies | 21,092 | 3.6 | 16,814 | 25.4 |
| 6 | 8 | Xiaomi | 17,251 | 3.0 | 10,254 | 68.2 |
| 7 | 3 | Huawei | 15,382 | 2.6 | 22,710 | -32.3 |
| 8 | 7 | HP Inc. | 13,789 | 2.4 | 10,745 | 28.3 |
| 9 | 9 | Hon Hai Precision | 8,855 | 1.5 | 7,387 | 19.9 |
| 10 | 10 | Hewlett-Packard Enterprise | 6,736 | 1.2 | 5,395 | 24.8 |
| | | Others (outside top 10) | 337,695 | 57.9 | 269,849 | 25.1 |
| | | Total semiconductor | 583,477 | 100.0 | 466,237 | 25.1 |

TAM = total available market Source: Gartner (February 2022)

Apple remained at the top of the semiconductor spending customer ranking in 2021. Apple increased its spending on memory by 36.8% and on nonmemory chips by 20.2% in 2021. How-

ever, it decreased its demand for computing micro processing units (MPUs) due to the shift to its own in-house-designed application processors.

Samsung Electronics increased its memory spending by 34.1% and nonmemory chip spend-

ing by 23.9% in 2021. The increase of memory spending was the result of not just a rise of memory price, but also Samsung's growth in its target electronic equipment markets, especially the smartphone and solid-state drive (SSD) markets.

Intel Launches \$1 Billion Fund to Build a Foundry Innovation Ecosystem

Intel announced a new \$1 billion fund to support early-stage startups and established companies building disruptive technologies for the foundry ecosystem. A collaboration between Intel Capital and Intel Foundry Services (IFS), the fund will prioritize investments in capabilities that accelerate foundry customers' time to market – spanning intellectual property (IP), software tools, innovative chip architectures and advanced packaging technologies. Intel also announced partnerships with several companies aligned with this fund and focused on key strategic industry inflections: enabling modular products with an open chiplet platform and

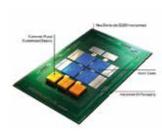
supporting design approaches that leverage multiple instruction set architectures (ISAs), spanning x86, Arm and RISC-V.

"Foundry customers are rapidly embracing a modular design approach to differentiate their products and accelerate time to market. Intel Foundry Services is well-positioned to lead this major industry inflection. With our new investment fund and open chiplet platform, we can help drive the ecosystem to develop disruptive technologies across the full spectrum of chip architectures."

-Pat Gelsinger, Intel CEO

As a key part of its IDM 2.0 strategy, Intel recently established IFS to help meet the

growing global demand for advanced semiconductor manufacturing. In addition to



providing leading-edge packaging and process technology and committed capacity in the U.S. and Europe, IFS is positioned to offer the foundry

industry's broadest portfolio of differentiated IP, including all of the leading ISAs.

CELL IT, VOL-16, ISSUE - 7 12 KRISHNA, February -2022

Worldwide Semiconductor Revenue Grew 25.1% in 2021, Exceeding \$500 Billion For the First Time

Worldwide semiconductor revenue increased 25.1% in 2021 to total \$583.5 billion, crossing the \$500 billion threshold for the first time, according to preliminary results by Gartner. Inc.

"As the global economy bounced back in 2021, shortages appeared throughout the semiconductor supply chain, particularly in the automotive industry," said Andrew Norwood, research vice president at Gartner. "The resulting combination of strong demand as well as logistics and raw material

price increases drove semiconductors' average selling price higher (ASP), contributing to overall revenue growth in 2021.

"The 5G smartphone market also helped drive semiconductor revenue, with unit production more than doubling to reach 555 million in 2021, compared to 250 million in 2020. U.S. sanctions imposed on Huawei resulted in other Chinese smartphone OEMs gaining share and fueling growth for 5G chipset vendors such as Qualcomm, MediaTek and Skyworks. Meanwhile HiSili-

con, Huawei's chip subsidiary, saw revenue decline from \$8.2 billion in 2020 to around \$1 billion in 2021."

Samsung Electronics regained the top spot from Intel for the first time since 2018, with revenue increasing 31.6% in 2021 (see Table 1). Its memory revenue grew 34.2% in 2021, in line with the growth rate of the overall memory market. Intel dropped to the No. 2 position with 0.5% growth in 2021, delivering the lowest growth rate among the top 25 vendors.

Table 1. Top 10 Semiconductor Vendors by Revenue, Worldwide, 2021 (Millions of U.S. Dollars)

| 2021 Rank | 2020 Rank | Vendor | 2021 Revenue | 2021 Market Share (%) | 2020 Revenue | 2020-2021 Growth (%) |
|--------------|--------------|-------------------------|--------------|--------------------------|--------------|-------------------------|
| 1 | 2 | Samsung Electronics | 75,950 | 13.0 | 57,729 | 31.6 |
| 2 | 1 | Intel | 73,100 | 12.5 | 72,759 | 0.5 |
| 3 | 3 | SK Hynix | 36,326 | 6.2 | 25,854 | 40.5 |
| 4 | 4 | Micron Technology | 28,449 | 4.9 | 22,037 | 29.1 |
| 5 | 5 | Qualcomm | 26,856 | 4.6 | 17,632 | 52.3 |
| 6 | 6 | Broadcom | 18,749 | 3.2 | 15,754 | 19.0 |
| 7 | 8 | MediaTek | 17,452 | 3.0 | 10,988 | 58.8 |
| 8 | 7 | Texas Instruments | 16,902 | 2.9 | 13,619 | 24.1 |
| 9 | 10 | NVIDIA | 16,256 | 2.8 | 10,643 | 52.7 |
| 10 | 14 | AMD | 15,893 | 2.7 | 9,665 | 64.4 |
| | | Others (outside top 10) | 257,544 | 44.1 | 209,557 | 22.9 |
| | | Total semiconductor | 583,477 | 100.0 | 466,237 | 25.1 |

Memory was again the best-performing device category, primarily due to increased server deployments by hyperscale cloud providers to satisfy remote working, learning and entertainment needs, as well as a surge

in end-market demand for PCs and ultramobile. Revenue increased \$42.1 billion over 2020, which amounted to 33.8% of overall semiconductor revenue growth in 2021. Within memory, DRAM had the best per-

formance with revenue growth of 40.4% in 2021, increasing revenue to \$92.5 billion in 2021. Strong demand from servers and PCs created a DRAM undersupply that drove double-digit ASPs through most of the year.

MeitY to recruit top officials for India Semiconductor Mission

The Ministry of Electronics and IT (MeitY) will hire top officials to fill various posi-



tions like CEO, CTO and CFO a mong others for the 'India Semicondu ctor

Mission' (ISM) as it looks to build an electronic chip and display ecosystem in the country.

The selection will be done through a

search-cum-selection committee headed by the MeitY Secretary. The window for application is open till February 20.

The ministry is looking for a person with over 25 years of experience in the semiconductor industry and more than 10 years of experience at global level to serve as Chief Executive Officer (CEO) of ISM. The applicant for CEO position should have served in a leadership position earlier at least at the position of vice-president. The CEO will head the mission.

MeitY is looking for a person with over 20 years of experience in the semiconductor

industry with minimum 10 years of global experience and at least 10 years experience in consulting in the semiconductor segment and related areas of electronics manufacturing for the position of Chief Technology Officer. The CTO should have served at least at the position of Vice-President or as CTO, CSO or Chief Operating Officer.

Last year, the Union Cabinet approved the Semiconductor India programme with a total outlay of Rs 76,000 crore for the development of semiconductor and display manufacturing ecosystem in the country.

VMware Welcomes New Leadership to Help Accelerate Company's Multi-Cloud Strategy

VMware, Inc., a leading innovator in enterprise software, announced the appointment of two executives to the company's Go-To-Market Leadership team. Laura Heisman has joined the com-



pany as chief marketing officer, and Sylvain Cazard will lead the Asia Pacific and Japan (APJ) region as general manager.

As CMO, Heisman is responsible for leading all aspects of the Global Marketing

organization, which includes Corporate and Brand, Partner, Developer, Segment and Field Marketing. She brings to the role more than 25 years experience in reaching enterprise, developer, consumer and corporate audiences through her prior leadership roles at GitHub, where she elevated awareness and built developer fans of the largest and most advanced development platform in the world, and Citrix.

As general manager for VMware's business in APJ, Cazard oversees VMware's sales, business strategy and services across the region. With more than 12 years at VMware, he is adept at execut-



ing go-to-market strategy across multi-product and multi-cloud platforms to enable enterprise digital transformation. Prior to this, Cazard was vice president for the Central Europe, Middle East and Africa

(EMEA) region. Sylvain takes over the reins of VMware's APJ business from Duncan Hewett, who is retiring from his role at the company.

Honeywell Names Rajesh Rege President for India

Honeywell announced the appointment of Rajesh Rege as country president for India. He assumes office on February 7, 2022 and will be based in Bengaluru.

"Rajesh Rege joins a highly capable leadership team in Honeywell's High Growth Regions (HGR) and Honeywell India and will help build strong stakeholder engagements, offer innovative solutions to customers, and develop winning teams that can drive strong growth." said Ben Driggs, President, HGR, Honeywell.

As the country leader, Rege will spearhead Hon-



eywell's India strategy that focuses on the company's growth pillars of shaping a diversified portfolio of products and solutions tailored to the India market, driving key customer engagements, and build the

talent and leadership pipeline for India.

Rege will be responsible for the continued

growth of India operations across Honeywell's four strategic business groups: Aerospace, Honeywell Building Technologies (HBT), Performance Materials and Technologies (PMT), and Safety and Productivity Solutions (SPS). He will represent Honeywell India in the market and across industry forums to explore new business opportunities, while focusing on market trends and adjacencies to strengthen Honeywell's position in the country.

NexGen Power Systems Appoints Guruswamy Ganesh as Chief Systems Officer

NexGen Power Systems, Inc., a leading designer, developer and U.S.-based manufacturer of pro-



prietary power electronics and conversion systems using patented Vertical GaN™ technologies, today announced the appointment of 30+ year industry veteran, Ganesh Guruswamy,

as Chief Systems Officer.

Guruswamy will oversee NexGen's Global Systems Engineering group, with established engineering facilities located in Santa Clara, California and Syracuse, N.Y., and a Center of R&D Excellence in Bangalore, India. The Bangalore R&D Center brings together experts in power electronics, mechanical design, software, testing and board layout. Guruswamy joins NexGen from Western Digital, where he served for six years as Senior

Vice President for Product Development. He brings more than thirty years of senior semiconductor engineering experience, with earlier roles at both AMD and Freescale. Guruswamy expects to accelerate NexGen's already fast growth in Bangalore, where he previously helped to expand Western Digital's significant engineering presence.

B.J. Arun Appointed as Chairman of the TiE Global Board



TiE Global recently announced that B.J. Arun was elected as the Chairman of the Global Board of Trustees.

San Jose-based investor and entrepreneur B.J. Arun was the Vice-Chairman of Global

Board in 2021 and the President of the Silicon

Valley (2019-2020). Before this, Arun was the CEO of July Systems (acquired by Cisco in 2018). He co-founded and was CEO of Librato (acquired by Solar Winds in 2015) and was also the founder and CEO of California Digital, a market leader in the space of Linux-based High-Performance Computing (acquired the assets of VA Linux in 2001).

Newly appointed TiE Global Chair B.J. Arun said, "The COVID-19 pandemic has inflicted massive job

losses and impacted economies around the world. As we work together to build back better, TiE is uniquely qualified and positioned to help entrepreneurs innovate and create jobs in their respective geographies. While plenty of resources exist for entrepreneurs today, TiE is unparalleled in that it is built on the core value that the most accomplished business leaders have an obligation to help the next generation of entrepreneurs succeed.

IT Veteran Shrikant Shitole Appointed CEO of iValue InfoSolutions



iValue InfoSolutions, India's premium technology enabler, has announced the appointment of IT veteran Shrikant Shitole as its chief executive officer (CEO). Shrikant has built a

Shrikant has built a strong reputation in the industry on the back

of his management leadership roles in B2B businesses across the IT, telecommunications, value-added services (VAS), software, and cyber security industries over the past 30+ years.

In this new role, Shrikant will be responsible for heading iValue's business and operations in the areas of cloud services, cyber security, Internet of Things (IOT), Smart City, data centre services, IT infrastructure planning & management, as well as outsourcing services. The combination of Shrikant's experience and iValue's strong capabilities in these areas are expected to result in a win-win for both. Welcoming Shrikant into the new role, Sunil Pillai, Founder & Managing Director of iValue InfoSolutions said, "I am delighted to welcome Shrikant as CEO of iValue. I have known him for a long time, and value his ability to develop, manage and grow product and solutions businesses.



