KONGU ARTS AND SCIENCE COLLEGE (AUTONOMOUS), ERODE – 638107

DEPARTMENT OF COMPUTER TECHNOLOGY AND INFORMATION TECHNOLOGY

IT Bulletin

Volume 13   *Issue 1*   *October 2022*

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DEPARTMENT OF COMPUTER TECHNOLOGY AND INFORMATION TECHNOLOGY

IT BULLETIN   **DATE : 02.08.2022**

SCIENTIFIC ADVANCE LEADS TO A NEW TOOL IN THE FIGHT AGAINST HACKERS

People have used codes and encryption to protect information from falling into the wrong hands for thousands of years. Today, encryption is widely used to protect our digital activity from hackers and cybercriminals who assume false identities and exploit the internet and our increasing number of digital devices to steal from us.As such, there is an ever-growing need for new security measures to detect hackers posing as our banks or other trusted institutions. Within this realm, researchers from the University of Copenhagen's Department of Mathematical Sciences have just made a giant leap.

"There is a constant battle in cryptography between those who want to protect information and those seeking to crack it. New security keys are being developed and later broken and so the cycle continues. Until, that is, a completely different type of key has been found.", says Professor Matthias Christandl.

For nearly twenty years, researchers around the world have been trying to solve the riddle of how to securely determine a person's geographical location and use it as a secure ID. Until now, this had not been possible by way of normal methods like GPS tracking."Today, there are no traditional ways, to determine where another person is situated geographically with one hundred percent accuracy. Current methods are not unbreakable, and hackers can impersonate someone you trust even when they are far far away. However, quantum physics opens up a few entirely different possibilities," says Matthias Christandl.

Using the laws of quantum physics, the researchers developed a new security protocol that uses a person's geographical location to guarantee that they are communicating with the right person. Position-based quantum encryption, as it is called, can be used to ensure that a person is speaking with an actual bank representative when the bank calls and asks a customer to make changes to their account.

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IT BULLETIN   **DATE : 04.08.2022**

ONLINE GAMING PLATFORMS TREATED ILLEGAL WHEN GAME OF CHANCE IS INVOLVED

Betting and gambling are unlawful in most parts of the country and online gaming platforms are treated as illegal when game of chance is involved in those platforms. Minister of State for Electronics and IT Rajeev Chandrasekhar, in a written reply in the Lok Sabha, said all forms of gambling and betting come under the purview of state governments and they have enacted laws to deal with the same within their jurisdiction under List-II of the Seventh Schedule of the Indian Constitution.

"MeitY regulates all the intermediaries as per the IT Act and the Rules therein. Online gaming platforms are treated as illegal when game of chance is involved in those platforms," the minister said. In response to a question on steps being taken by the government to prevent crimes occurring due to spread of online gambling and betting, Chandrasekhar said 'police' and 'public order' are state subjects and states and union territories are primarily responsible for the prevention, detection, investigation and prosecution of crimes through their Law Enforcement Agencies (LEAs). "The Law Enforcement Agencies (LEAs) at Centre and States take appropriate legal action as per provisions of law and when appropriate," the minister said.

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IT BULLETIN   **DATE : 04.08.2022**

DELL UNVEILS STORAGE INNOVATION FOR INCREASED INTELLIGENCE, AUTOMATION

Dell Technologies launched software-driven modern storage solutions across its industry-leading storage portfolio to drive increased intelligence, automation, cyber resiliency and multi-cloud flexibility.

The company said that these advancements PowerStore, PowerMax, and Dell PowerFlex will give businesses a secure and flexible environment to derive critical insights to grow in the digital era.

Business with a future-driven outlook in the age of digital progress have the unique opportunity to avail our industry-leading offerings such as PowerMax, PowerStore and PowerFlex, which give them better cyber-resiliency and optimise their processes across environments, Dell PowerMax continues to be the world's most secure mission-critical storage solution for businesses in a Zero-Trust environment. The new upgrades will introduce cyber resiliency advancements, including cyber vaults for traditional and mainframe deployments. DellPowerFlex software-defined infrastructure consolidates traditional and modern workloads with new file services that allow for unified block and file capabilities on a single platform. It simplifies multi-cloud and DevOps with the broadest file and block support for all major Kubernetes and container orchestration platforms from Amazon, Google, Microsoft, Red Hat, SUSE and VMware.

The company mentioned that PowerStore and available for customers. PowerFlex advancements will be available in the third quarter of 2022

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RESEARCH FIRM PINPOINTS STANDARDISATION AND UNIFORM PRACTICES AS KEY TO UNLOCKING THE FULL POTENTIAL OF 5G SLICING

Of all the key end-user benefits expected from 5G networks, the ability to control dedicated portions of spectrum and make customised use of it has always been ranked highly, and enterprises' willingness to pay for it is set to drive a boom in the global 5G slicing market, says a study from ABI Research.

ABI said there is an expectation that enterprises will pay a premium for 5G slices that guarantee SLAs for diverse services, as opposed to uniform offerings. It also stressed that enterprises have differentiated requirements for isolation and security that can be satisfied by slicing. The analyst regards this last facet as especially important given that for connected devices, such as dumb internet of things (IoT) terminals, cost and time to market are typically prioritised over security.

"5G slicing adoption falls into two main categories," said Don Alusha, 5G Core and Edge Network's Senior Analyst at ABI Research. One, there is no connectivity available. Two, there is connectivity, but there is not sufficient capacity, coverage, performance or security.

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IT BULLETIN   **DATE : 16.08.2022**

STUDY PROGRAMMES IN METAVERSE TO BE PART OF TOKYO UNIVERSITY'S CURRICULUM

The University of Tokyo, Todai, has decided to offer a bunch of study programmes in the metaverse. The courses that will be introduced by Todai in the virtual world will be available for students in high school classes as well as for those studying at the university level. Todai's foray into the metaverse is aimed at addressing the lack of trainers, skilled to help Japan undertake its digital transformation into the Web3 world. The project will be set by Todai's engineering vertical.

In a bid to tune its students, especially girls, in new age technologies, Todai will be offering courses in the fields of artificial intelligence (AI), entrepreneurial education, as well as nextgeneration communication technology, Japanese publication Asahi said in a recent report.Earlier this month, the Faculty of Science and Technology at the Tokyo University of Science also hosted a virtual reality (VR)-based event exploring the metaverse and advanced tech sector.

In conversation with Gadgets 360, former Twitter India Head Manish Maheshwari had called the metaverse technology, "a solution to combat the education crisis in India and around the world."Maheshwari quit Twitter in 2021 and jumped into developing a promising Web3 projectInvactMetaversity. The aim of this project is to establish a university in the virtual world, where students from India and around the world can come together for educational and training courses. The developers are currently transfixed to the tagline "Campus from Couch" for this project.Research reports expect the market opportunity for the metaverse to reach $800 billion (roughly Rs. 59,58,719 crore) by 2024.Currently, the UAE is gearing up to launch the world's first hospital in the metaverse, where patients will be able to visit for consultations as avatars. With the launch of this medical metaverse, the UAE is looking to boost dical tourism in the country.

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IT BULLETIN   **DATE : 16.08.2022**

MULTICLOUD MATURITY REPORT

The Multicloud Maturity Report from Seagate Technology Holdings a world leader in data storage and management solutions demonstrates that it is crucial and possible to both minimize data costs and maximize data-driven innovation in the multicloud. The report also provides steps organizations can take to level up. Drawing on an original global survey of senior IT and business leaders, commissioned by Seagate and conducted by Enterprise Strategy Group (ESG), the report constructs a unique Multicloud Maturity Model. The model shows how organizations navigate the growing multicloud complexity. It reveals that the most multicloud-mature companies derive the greatest business benefits.

Multicloud-mature organizations—ones that best manage cloud costs and foster innovation with the cloud—outperform their peers at business. Among other results, they:

- Beat their revenue goals by nearly twice as much as their less mature counterparts.
- Are 6.3× more likely to go to market months or quarters ahead of their competition.
- Are almost 3× more likely to report that their organization is in a very strong business position.
- Are more than 3× more likely to expect their companies' valuation to increase fivefold over the next 3 years.

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IT BULLETIN   **DATE : 17.08.2022**

GOOGLE TO ADD PLAY STORE'S APP PERMISSIONS SECTION BACK AFTER REMOVING IT

After removing the app permissions section from the Play Store, Google has announced that it is being brought back in. The company had removed the app permissions info on the Play Store with its Data Safety section which as The Verge explains was supposed to "give you an idea of what data apps are collecting and how that data is used".

Now, as many have pointed out, the information in the Data Safety section came from developers which meant that they could pretty much put in anything there without verification. The information in the app permissions section is generated by Google. When Google removed this section, it basically made it impossible for users to compare the information in the app permissions section with that in the Data Safety section and get a more complete idea about what data an app is collecting and has access to.

Android Developers explained in a series of tweets that Google is bringing the app permissions section soon and that the decision was made based on user feedback.

"The Data safety section provides users with a simplified view of how an app collects, shares, and secures user data, but we also want to make app permissions information easily viewable for users to understand an app's ability to access specific restricted data and actions too," the handle explained.

Once it does come back on, can be able to see it along with the Data Safety section on the Play Store. Google announced the Data Safety section in May last year and it started rolling out in April this year. It is similar to what Apple calls privacy labels on the App Store and for this, developers have to tell Google what they do with the data they collect from users and provide other information like if users can ask for this data to be deleted and if the data is encrypted.

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IT BULLETIN   **DATE : 18.08.2022**

RESEARCHERS FIND THE MISSING PHOTONIC LINK TO ENABLE AN ALL-SILICON QUANTUM INTERNET

The research, published in *Nature*, describes the observations of over 150,000 silicon 'T centre' photon-spin qubits, an important milestone that unlocks immediate opportunities to construct massively scalable quantum computers and the quantum internet that will connect them. Quantum computing has enormous potential to provide computing power well beyond the capabilities of today's supercomputers which could enable advances in many other fields, including chemistry, materials science, medicine and cybersecurity.

In order to make this a reality, it is necessary to produce both stable, long-lived qubits that provide processing power, as well as the communications technology that enables these qubits to link together at scale.

Past research has indicated that silicon can produce some of the most stable and long-lived qubits in the industry. Now the research published by Daniel Higginbottom, Alex Kurkjian, and co-authors provides proof of principle that T centres, a specific luminescent defect in silicon, can provide a 'photonic link' between qubits. This comes out of the SFU Silicon Quantum Technology Lab in SFU's Physics Department, co-led by Stephanie Simmons, Canada Research Chair in Silicon Quantum Technologies and Michael Thewalt, Professor Emeritus.

"This work is the first measurement of single T centresin isolation, and actually, the first measurement of any single spin in silicon to be performed with only optical measurements," says Stephanie Simmons. "An emitter like the T centre that combines high-performance spin qubits and optical photon generation is ideal to make scalable, distributed, quantum computers, because they can handle the processing and the communications together, rather than needing to interface two different quantum technologies, one for processing and one for communications," Simmons says.In addition, T centres have the advantage of emitting light at the same wavelength that today's metropolitan fibre communications and telecom networking equipment use.

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IT BULLETIN   **DATE : 22.08.2022**

WORDLE IS SOON GOING TO BECOME A MULTIPLAYER BOARD GAME

The New York Times is partnering with Hasbro to create Wordle: The Party Game later this year. Wordle, the hit online word puzzle is going to become a multiplayer board game soon. The New York Times which bought over Wordle earlier this year is partnering with Hasbro to create Wordle: The Party Game that's expected to launch later this year.

Wordle became wildly popular, at least for a while because most players were sharing their results on Twitter. However, it is still a single player game that now is going to turn into one that requires more players.

One player will think of a five letter word and other players will have to guess what it is. Once people have shared their guesses, the person who thought of the word will slide translucent yellow and green tiles over the letters. The guesses are going to be made with dry-erase markers on a dry-erase board so once a round is over it can be wiped off and played again. Hasbro has shared a video to show how it is going to work.

Wordle: The Party Game is going to be available in North America in October and preorders are open. The game is going to cost $19.99 (Rs 1,596 approx) and the game's website says it is going to start shipping on October 1, but this date might change as the website warns.

The good thing about Wordle: The Party Game is that we can play it as many times as we want unlike the online version which can be played only once a day, so on those grounds we see how this can be fun. However, sitting around and manually putting translucent tiles on letters might not appeal to everyone at a party.

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IT BULLETIN   **DATE : 23.08.2022**

GITHUB OFFERS NEW CODE SCANNING FEATURE

GitHub has recently introduced a code scanning feature designed to help programmers automatically detect vulnerabilities in their codebases. Currently, it is experimental and allows working only with JavaScript and TypeScript repositories. it will be possible to hunt down common security issues such as path injection, cross-site scripting, SQL injectionetc..

This scanning tool utilizes the new machine learning for analyzing code. If we are interested in learning more about this feature and testing it in our project, check out this GitHub blog post. There is one more good news from GitHub. We all know that it is much easier to explain complex concepts and processes in software development with various charts, graphs, and diagrams. That is why the world's largest hosting provider added support for the JavaScript-based diagramming tool named Mermaid. If previously developers could use just images, now Mermaid allows visualizing data via Markdown inspired text definitions and JavaScript code. Learn how it works from this article.

DHTMLX continues delivering updates for its JavaScript components to provide programmers with new functionalities for achieving their web development goals. In February, the DHTMLX development team rolled out new versions of the Kanban and diagram components.

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THE GOOGLE WALLET APP

In 39 countries, users of Android and Wear OS devices are already receiving the 'new and better Google Wallet that Google had teased at this year's Google I.O. Where applicable, the current Google Pay app will be replaced by the new Google Wallet. Users will still be able to use Google Pay and Google Wallet in the US and Singapore with the former still available for payments made to friends. India will continue to utilize the Google Pay app as of now, despite XDA Developers' assertion that this will also apply to that country.

Reportedly, the Google Wallet is more of a tool to organize important information like IDs, boarding tickets, transport cards, loyalty cards, hotel keys etc.. in one location, though it can also accommodate a variety of other products. Furthermore, Google has backed the Google Wallet with Android security features like password protection and face recognition because so much sensitive data has to be kept secure. Data saved and sent by users of the new Google Wallet will likewise be encrypted. The Google Wallet app can keep pertinent information about activities or events you could be attending via the other app in question if users opt to link it to other applications.

For instance, the Google Wallet will be able to monitor airline schedule changes and time changes as well as let you know whether your transport cards have enough money for a journey. The Verge notes that Google has released the Google Wallet in a number of variants over time. The Google Wallet was an NFC payment program that was ultimately enhanced to incorporate other payment functions including "peer-to-peer money transfers."

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IT BULLETIN   **DATE : 24.08.2022**

MEET NODE-RED 2.0

Node-Red is a useful tool commonly utilized in flow-based development tool for visual programming developed originally by IBM for wiring together hardware devices, APIs and online services of the Internet of things. The main goal of this tool is to put together services, APIs and IoT devices.

Based on Node.js, it comes with a browser-based editor that allows developers to easily wire flows together. Node-RED has been updated to version 2.0.

When preparing this major update, the Node-RED team concentrated efforts on discounting support for old versions of Node.js and introducing some vital dependency updates. There are no major new features, but the release still includes some useful plugins for developers.

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IT BULLETIN   DATE: 25.08.2022

ARTIFICIAL INTELLIGENCE

The AI is moving into new such as concept design , tiny technology ,and multimodal applications-discoveries that will expand AI's range in various sectors. It's also critical for business to keep an eye on the cutting-edge AI technologies that present great potential and are now accessible for experimentation.

MORE POWER TO LANGUAGE MODELING:

Machine understanding and generating natural languages are two areas of natural language processing that employ model-based techniques. Natural language focuses on CREATING,ANALYZING, and interpreting human language to accomplish tasks such as SPEECH RECOGNITION,QUESTION ANSWERING, and INFORMATION RETRIEVAL.

AI-BASED CYBERSECURITY:

Cybercrime has been identified as a major threat to global prosperity by the World Economic Forum, which urged nations worldwide to work together to address it.

AI AND THE METAVERSE:

The metaverse is a term used to describe a single, persistent digital environment where people may collaborate and play. It's a virtual world similar to the internet, but with an emphasis on creating realistic experiences that the users themselves often create.

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IT BULLETIN   **DATE : 26.08.2022**

QUALCOMM INTRODUCES THE NEXT SNAPDRAGON WEAR CHIP

Qualcomm has not launched a new chip for wearables for a while now. After the Snapdragon Wear 4100, a significant amount of time has passed and now it looks like Qualcomm is finally ready to launch a new chip.

The company shared a short video on Twitter along with the caption – "The clock is ticking on something big." The video shows a chip dying, a smartwatch and there is a tagline that states – "wear what matters". This ideally ties the Snapdragon Wear theme in place.

What one can expect from the next Snapdragon Wear chip has been speculated for quite some time now and what we might see launch could be the Snapdragon Wear 5100 and the Snapdragon Wear 5100 Plus, thought we are not a 100 per cent certain on the nomenclature. These new chips might be built on Samsung's 4nm process which would make them more efficient than the 12nm-based Snapdragon Wear 4100 chips.

We might see Qualcomm continue to use the ARM Cortex-A53 cores as it did on the Snapdragon Wear 4100, clocked to 1.7GHz, as Android Police suggests adding that the "move to the new node could extend all-important battery life on future wearables".

Qualcomm is yet to share more details regarding this chip but ideally one can expect better performance, an upgraded GPU and support for faster RAM and flash storage along with a boost in battery life thanks to the QCC5100 coprocessor. This coprocessor will also be handling Bluetooth sync, Wi-Fi connectivity and notification delivery.

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IT BULLETIN   **DATE : 29.08.2022**

ULTRA-THIN FILM CREATES VIVID 3D IMAGES WITH LARGE FIELD OF VIEW

Researchers have developed a new ultra-thin film that can create detailed 3D images viewable under normal illumination without any special reading devices. The images appear to float on top of the film and exhibit smooth parallax which means they can be clearly viewed from all angles. With additional development, the new glass-free approach could be used as a visual security feature or incorporated into virtual or augmented reality devices"Our ultra-thin, integrated reflective imaging film creates an image that can be viewed from a wide range of angles and appears to have physical depth," said research team leader Su Shen from Soochow University in China. "It can be easily laminated to any surface as a tag or sticker or integrated into a transparent substrate, making it suitable for use as a security feature on banknotes or identity cards.
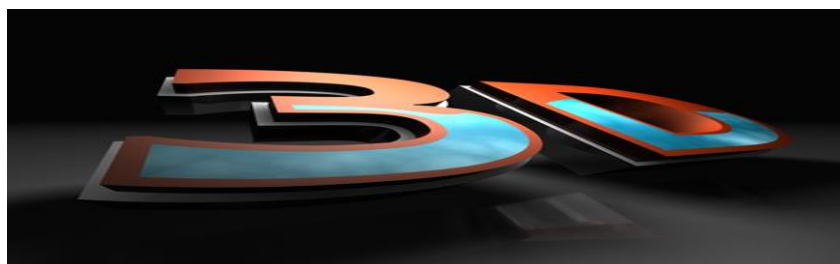
In the Optica Publishing Group journal Optics Letters,the researchers describe their new imaging film. At just 25 microns thick, the film is about twice as thick as household plastic wrap. It uses a technology known as light-field imaging which captures the direction and intensity of all rays of light within a scene to create a 3D image. "Achieving glass-free 3D imaging with a large field of view, smooth parallax and a wide, focusable depth range under natural viewing conditions is one of the most exciting challenges in optics," said Shen. "Our approach offers an innovative way to achieve vivid 3D images that cause no viewing discomfort or fatigue, are easy to see with the naked eye and are aesthetically pleasing." A realistic 3D image The researchers demonstrated their new film by using it to create a 3D image of a cubic die that could be viewed clearly from almost any viewpoint. The resulting image measures 8 x 8 millimeters with an image depth that ranges from 0.1 to 8.0 millimeters under natural lighting conditions. They have also designed and fabricated an imaging film with a floating logo that can be used as a decorative element, for example on the back of a mobile phone.

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IT BULLETIN   **DATE : 30.08.2022**

JOSHUA SCHULTE: FORMER CIA HACKER CONVICTED OF 'BRAZEN' DATA LEAK

A former CIA hacker has been found guilty of leaking a trove of classified hacking tools to Wikileaks.

- Joshua Schulte was convicted of sending the CIA's "Vault 7" cyber-warfare tools to the whistle-blowing platform. He had denied the allegations.
- The 2017 leak of some 8,761 documents revealed how intelligence officers hacked smartphones overseas and turned them into listening devices.
- Prosecutors said the leak was one of the most "brazen" in US history.
- Damian Williams, the US attorney for the Southern District of New York, said Mr Schulte's actions had "a devastating effect on our intelligence community by providing critical intelligence to those who wish to do us harm".
- After joining the CIA in 2010, Mr Schulte soon achieved the organisation's highest security clearance. He went on to work at the agency's headquarters in Langley, Virginia, designing a suite of programmes used to hack computers, iPhones and Android phones and even smart TVs.
- Prosecutors alleged in 2016 that he transmitted the stolen information to Wikileaks and then lied to FBI agents about his role in the leak.
- They added that he was seemingly motivated by anger over a workplace dispute in which his employer ignored his complaints. The software engineer had been struggling to meet deadlines and Assistant US Attorney Michael Lockard said one of his projects was so far behind schedule that he had earned the nickname "Drifting Deadline".
- The prosecutors said he wanted to punish those he perceived to have wronged him and said in "carrying out that revenge, he caused enormous damage to this country's national security".
- His original case was declared a mistrial after jurors were deadlocked on some of the most serious charges.
- The conviction comes as Wikileaks founder Julian Assange faces extradition to the US over documents leaked in 2010 and 2011, which officials say broke the law and endangered live.

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IT BULLETIN   **DATE : 01.09.2022**

ORACLE AND MICROSOFT ANNOUNCE AVAILABILITY OF ORACLE DATABASE SERVICE FOR MICROSOFT AZURE

Microsoft Corp announced the general availability of Oracle Database Service for Microsoft Azure. With this new offering, Microsoft Azure customers can easily provision, access, and monitor enterprise-grade Oracle Database services in Oracle Cloud Infrastructure (OCI) with a familiar experience. Users can migrate or build new applications on Azure and then connect to the high-performance, high-availability, managed Oracle Database services such as Autonomous Database running on OCI.

Offering Customers Choice with Azure and OCI Multicloud Capabilities

Over the last two decades, thousands of customers have relied on Microsoft and Oracle software working well together to run their business-critical applications. As customers migrate applications and data to the cloud, they continue to look for joint solutions from their trusted software partners. Since 2019, when Oracle and Microsoft partnered to deliver the Oracle Interconnect for Microsoft Azure, hundreds of organizations have used the secure and private interconnections in 11 global regions.

Microsoft and Oracle are extending this collaboration to further simplify the multicloud experience with the announcement of Oracle Database Service for Microsoft Azure. Many joint customers, including some of the world's largest corporations such as AT&T, Marriott International, Veritas and SGS, want to choose the best services across cloud providers to optimize performance, scalability and ability to accelerate their business modernization efforts.

The Oracle Database Service for Azure builds upon the core capabilities of the Oracle Interconnect for Azure and enables any customer to more easily integrate workloads on Microsoft Azure with Oracle Database services on OCI. There are no charges for using the Oracle Database Service for Microsoft Azure, the Oracle Interconnect for Microsoft Azure or data egress or ingress when moving data between OCI and Azure. Customers will pay only for the other Azure or Oracle services they consume, such as Azure Synapse or Oracle Autonomous Database.

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JAVASCRIPT NEWS AND UPDATES OF FEBRUARY 2022

Hello to all JavaScript devotees! It's excited to continue our quest for interesting news and articles from the multifaceted JavaScript world. In this article, you will learn about key takeaways from the latest State of JS report, new features on GitHub and updates from DHTMLX, Babel, Express.js. As a cherry on top, I would like to share with you a pack of useful articles to help us make one more step forward in mastering JavaScript.

STATES OF JS 2021:BETTER LATE THAN NEVER

By now, we have probably learned a lot of useful information on JavaScript trends by analyzing popular surveys on the subject. However, the picture will be incomplete without the State of JS 2021. The report is finally here and we should certainly bookmark its landing page.

Apart from a new approach to visualizing statistical data, this report also includes new question types, the possibility to cross-reference data points, and other things to give us a deeper insight into the JavaScript landscape.

When talking about the results, it is interesting to mention that the majority of respondents (about 80%) agree that JavaScript is moving in the right direction, but at the same time many of them (37%) consider JavaScript to be too complex for building.

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GOVT PROPOSES REVAMP OF TELECOM RULES TO KEEP PACE WITH MODERNISATION

The Department of Telecom has floated a consultation paper on the revamp of telecom rules mainly to keep pace with the change in technology like 5G, simplify laws and promote investments, according to an official document.

The new rules will not be applicable with retrospective effect to cause any adverse impact on the relevant entity, according to the consultation paper

"A new law on telecommunication needs to aim at establishing an enabling future-ready framework for the development of telecommunication sector and deployment of new technologies. Such a law needs to consolidate the existing laws governing telecommunication sector, while keeping in view global best practices," the consultation paper dated July 23 said.

The government has proposed that the new framework should be drafted in a plain and simple language so that any citizen is able to understand the rules. "This would mean continuity of licenses and authorizations under the old regime. To minimize policy disruption, such a law needs to provide for continuation of rules, guidelines, administrative orders issued under the existing regime until superseded by new rules. Furthermore, a new law needs to ensure that the terms and conditions will not be modified with retrospective effect to the detriment of the relevant entity," the paper said. The proposal has come at a time when the country is gearing up to start a spectrum auction for rolling out 5G services. Along with existing players like Bharti Airtel, Reliance Jio, and Vodafone Idea, Adani Group has applied to bid for the airwaves and enter the wireless telecom services business.

The DoT officials at present impose the highest permissible penalty of Rs 50 crore per offence to avoid alleged biasedness in their work and save their neck from any subjective interpretation of law enforcement agencies or the auditors

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IT BULLETIN   **DATE : 06.09.2022**

RXNT NAMED TO THE TOP 100 COMPANIES IN HEALTHCARE TECHNOLOGY

Awardees on this year's list were recognized for finding groundbreaking solutions to the most critical issues in healthcare. RXNT, a fast-growing absolutory medical software company, announced that it has been recognized as one of the Top 100 Healthcare Technology Companies of 2022 by the Healthcare Technology Report. The exclusive report represents organizations in the healthtech space around the globe that are changing the face of the industry and finding "innovative solutions to the most pressing issues in healthcare."

Awardees on this year's list including Novartis, Stryker, Edwards Life sciences, Hologic, Access Healthcare, Integra and many more are recognized for their impact on the healthcare technology space and the broader healthcare industry across the United States, whether through direct treatment or by providing advanced, game-changing products and services to treatment providers. "We're honored to be included among the top organizations in healthcare," said Randy Boldyga, Chief Executive Officer, President, and Founder of RXNT. "For over twenty years, we've been committed to improving patient health and with the introduction of our newest solution, MyRXNT, patients can now stay better connected to their health from anywhere." This award comes just months after two members of RXNT's senior leadership team were recognized by the Healthcare Technology.

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IT BULLETIN   **DATE : 07.09.2022**

5G AUCTION IN INDIA

5G rollout in India will not just be a talking point, but reality soon. The first major phase of the rollout process began on July 26 with four giants bidding for 72GHz of radio waves worth Rs 4.3 lakh crore. The 5G auction will be commenced at 10 AM, while the entire sale process may take days, depending upon the actual demand for radio waves and the strategy of individual bidders. It was revealed that four companies – Adani Enterprises, Bharti Airtel, Reliance Jio, and Vi (formerly Vodafone Idea) will participate in the bidding process.

Ahead of the 5G auction, all these four companies had deposited Earnest Money Deposit (EDM) a term mainly associated with property purchase. In this case, each of these companies has deposited a certain amount that even indicates their plans on purchasing 5G radio waves. To put it simply, the more one deposits as EDM, the likelihood of them purchasing the property (in this case 5G spectrums) is higher.

Out of the four companies participating in 5G auction, the smallest share of EDM comes from Gautam Adani's unit, while the highest deposit is made by Reliance Jio. This also secures Jio's purchasing capabilities among the rest of the buyers.

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IT BULLETIN   **DATE : 08.09.2022**

CHINA TO ORDER CYBERSECURITY REVIEWS FOR FIRMS SEEKING OVERSEAS LISTINGS

China has announced it will establish new rules to increase its oversight of plans by Chinese platform firms to list on overseas stock markets. It's the nation's latest move to tighten its grip on its sprawling technology sector.

According to the Cyberspace Administration of China (CAC), the new rules come into effect on 15 February and will require platform companies with data on over one million users to undergo a security review before listing their shares overseas.

"With stock market listings there is a risk that key information infrastructure, core data, important data or a large amount of personal information could be impacted, controlled or maliciously used by foreign governments," said the CAC in a statement, reiterating a concern flagged in July 2021, when the changes were first proposed.

The CAC said it would also implement new rules on 1 March on the use of algorithm recommendation technology to increase oversight of news providers that use the technology to disseminate information. The rules will also give users the right to switch off the service if they choose.

Both sets of rules were proposed last year and are expected to impact a large swathe of companies, such as TikTok owner ByteDance, e-commerce giant Alibaba Group and many smaller players.

The CAC move comes amid a slew of regulatory changes in China over the past year that have dampened the appetite of firms to list overseas, but bankers hope the new rules will provide more clarity in 2022. It has not been specified whether the rules will apply to companies seeking listings in Hong Kong, but lawyers and bankers said that based on the wording of the rules, Chinese companies with over one million users seeking to list there would not be required to seek the cybersecurity review.

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IT BULLETIN   **DATE : 09.09.2022**

HCL

HCL Technologies reported a marginally rise by 2.43 cent year-on-year in its consolidated net profit at Rs 3,283 crore for the quarter ended 30 June, 2022. The company had posted a net profit of Rs 3,205 crore in the year-ago period.Revenue from operations also grew 16.9 per cent YoY to Rs 23,464 crore for the first quarter of 2022-2023 as against Rs 20,068 crore in the same quarter last fiscal.

Further, HCL Tech also added that the board has declared an interim dividend of Rs 10 per equity share of Rs 2 each for the financial year 2022-2023."As technology becomes central to lives and businesses, HCL is accelerating the digital transformation journeys of its clients. We continue to pursue our growth strategy with a sense of purpose and responsibility toward our stakeholders and communities.", said RoshniNadar Malhotra, Chairperson, while commenting on the results.

Further, C Vijayakumar, CEO & Managing Director, added, "We have started FY'23 on a strong note with an overall growth of 2.7% QoQ and 15.6% YoY in Constant Currency. Our services business continues to have robust growth momentum, growing at 2.3% QoQ and 19.0% YoY in constant currency, driven by our digital engineering and digital application services with cloud adoption being a horizontal theme across all services and verticals".

"Our new bookings grew 23.4% YoY supported by a good mix of large and mid sized deals and our pipeline remains near record high. Our operating margin came in at 17.0%. We have put in place the right measures that will improve our profitability going forward," he added."The key highlight of the quarter is the stellar growth in Services at 19% YoY in CC. Products & Platforms was 1.4% up YoY in CC, excluding the divested.discontinued business. The board has approved a dividend on INR 10 per share in accordance with our Capital Allocation Policy.", said Prateek Aggarwal, Chief Financial Officer.

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IT BULLETIN   DATE : 12.09.2022

DEVOPS

DevOps is a set of practices, tools, and a cultural philosophy that automate and integrate the processes between software development and IT teams. It emphasizes team empowerment, cross-team communication and collaboration, and technology automation.

The DevOps movement began around 2007 when the software development and IT operations communities raised concerns about the traditional software development model, where developers who wrote code worked apart from operations who deployed and supported the code. The term DevOps, a combination of the words development and operations, reflects the process of integrating these disciplines into one, continuous process.

A DevOps team includes developers and IT operations working collaboratively throughout the product lifecycle, in order to increase the speed and quality of software deployment. It's a new way of working, a cultural shift, that has significant implications for teams and the organizations they work for.

Under a DevOps model, development and operations teams are no longer "siloed." Sometimes, these two teams merge into a single team where the engineers work across the entire application lifecycle from development and test to deployment and operations and have a range of multidisciplinary skills.

DevOps teams use tools to automate and accelerate processes, which helps to increase reliability. A DevOps toolchain helps teams tackle important DevOps fundamentals including continuous integration, continuous delivery, automation, and collaboration.

DevOps values are sometimes applied to teams other than development. When security teams adopt a DevOps approach, security is an active and integrated part of the development process. This is called DevSecOps.

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HCL TECH TO DOUBLE WORKFORCE IN NEARSHORE LOCATIONS

IT services company HCL Tech plans to double its headcount in nearshore locations over the next 3-5 years, CEO C Vijayakumar said and asserted that the Russia-Ukraine war has not impacted demand from Europe. HCL Tech employs about 10,000 people in all its nearshore locations, globally.

"We expect that number to double over the next 3-5 years," Vijayakumar told PTI.The company operates from 20 nearshore locations including Mexico, Toronto, Vancouver, Costa Rica and Romania. HCL Tech's top honcho said the company will continue to expand in these locations.The company does not have any presence in Russia or Ukraine. Its Eastern European centres are inPoland, Romania and Bulgaria and "all of them are continuing tooperate at similar capacity levels"."Whatever ongoing ramp-up plans in these locations, they are on track and these locations are also growing for us," he said.


Demand from Europe remains "quite robust", he said, adding that the company has not seen Russia-Ukraine conflict impacting demand.On the blueprint for expansion and new centres for FY23, Vijayakumar said some of the HCL's existing locations may expand."It's not completely new locations, some of our existing locations may expand, like Vietnam, Romania, Costa Rica, Mexico and a few centres within the US these are the locations where we will expand," he said. HCL Technologies had recently reported over three fold jump in its consolidated net profit for fourth quarter ended March 2022 at Rs 3593 crore.

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IT BULLETIN   **DATE : 14.09.2022**

DHTMLX

DHTMLX continues delivery updates for its JavaScript components to provide programmers with new functionalities for achieving their web development goals. In February, the DHTMLX development team rolled out new version of the Kanban and diagram components.
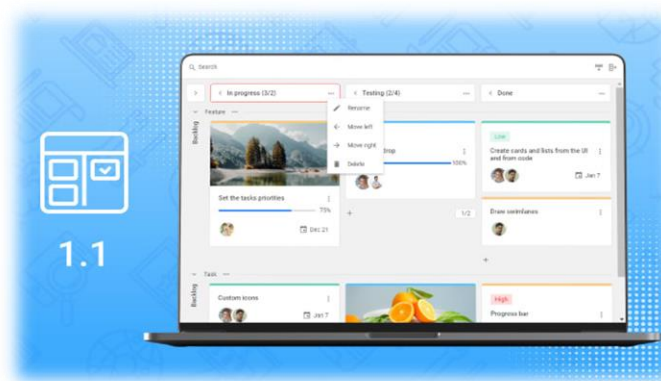
DHTMLX Diagram is a client side chart component that allows to display relations between some objects, concepts or living being in a visual form as a scheme, chart, organization chart, mind map, etc. the diagrams makes it easier to present tangled and bulky information in a simple and accessible way. The minor update of the DHTMLX Diagram library (v4.2) also comes with a set of novelties for visualizing data in a web page in a more convenient way.

The most important thing is that diagrams built with DHTMLX now render well on touch devices without additional configuring. The release also includes several API changes enabling developers to specify default setting for connector lines in diagrams as well as in the Diagram Editor. Apart from that, there is a new way to specify preview sections in the left panel of the Diagram Editor.

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PRIVACY-ENHANCING TECHNOLOGIES

The UK and US governments have launched a set of prize challenges to accelerate the adoption and development of privacy-enhancing technologies (PETs) to combat global societal challenges. The PETs challenges were first announced at the Summit for Democracy last year and will see innovators from academia, industry, and the broader public find new solutions in up to two separate tracks: tackling financial crime and forecasting public health emergencies. Such challenges are based on the use of artificial intelligence (AI) tools to examine large and potentially sensitive datasets – the challenges themselves will use synthetic financial and medical data. There will also be options for participants to design one generalised solution that works for both scenarios for broader applicability, according to the organisers of the challenges.

It comes amid concerns China is outpacing Western countries with its AI research which some experts believe is at least, in part, hindered in the West by stricter privacy laws as well as technical and ethical concerns.“I'm delighted that we are launching joint UK-US prize challenges to accelerate the adoption of privacy-enhancing technologies (PETs),” said Nadine Dorries, the UK's digital secretary. “These cutting-edge technologies can help us harness the power of data to tackle global challenges like international money laundering and to plan for subsequent public health emergencies while respecting citizens' rights,” “as well as to ensuring that our vision of the tech revolution – one that is open and democratic prevails”. Competing for cash prizes from a combined UK-US prize pool of $1.6m (£1.3m), innovators will develop privacy-preserving federated learning solutions that enable AI models to be trained on sensitive data without organisations having to reveal, share, or combine their raw data. Winning solutions from the new challenges will be showcased at the second Summit of Democracy, whereby US President Joe Biden plans to convene in the first half of 2023.

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IT BULLETIN   **DATE : 16.09.2022**

MICROSOFT BECOMES FIRST MULTINATIONAL TECHNOLOGY FIRM TO JOIN ONDC

The US-based technology behemoth intends to introduce social e-commerce or a group buying experience in the Indian market through the entry,"By utilizing the strength of our open network users, Microsoft, too, can implement their creative ideas like social commerce swiftly," said T Koshy, Managing Director of ONDC.

"As we lay the foundation of a level-playing field for every stakeholder in the industry, joining hands with Microsoft is a testament to our credibility to foster an open e-commerce ecosystem with numerous possibilities," he added,According to analysts, this is a multi-faceted partnership that will give the company access to micro, small and medium enterprises as well as mid-market customers.

"This move fits into Microsoft's agenda and strategy in a big way," said Sanchit Vir Gogia, CEO of Greyhound Research. "Microsoft is entering the ecommerce space not as a retailer, but as a tech stack provider, enabling those who fuel ecommerce," he added.

In addition to driving analytics based on the data that it will collect through its app, this will also allow Microsoft to reach people who need digitisation and sell its products and services at a much more affordable price point.

By 2030, the Indian e-commerce industry is anticipated to touch $400 billion, increasing at a 19% Compounded Annual Growth Rate, ONDC aims to catalyse and accelerate this by enabling all kinds of buyers and sellers to leverage the digitisation of commerce through its network, as it is based on the concepts of decentralisation, openness and greater user utility.

The network "is a win-win for both buyers and sellers as it will enable them to connect without dependency on any e-commerce solution,", ET reported that technology leaders such as Microsoft and Oracle were looking to partner with ONDC to offer technology solutions that would enable companies to get onboard the platform, allow it to operate smoothly and scale up in future.

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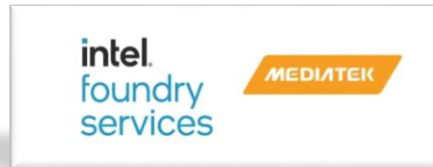
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INTEL AND MEDIATEK ENTER INTO A FOUNDRY PARTNERSHIP

Intel and Mediatek recently announced that they have formed a strategic partnership to manufacture chips using Intel Foundry Services' (IFS) advanced process technologies. According to a statement that Intel shared, the agreement is designed to help MediaTek build a more balanced, resilient supply chain through the addition of a new foundry partner with significant capacity in the United States and Europe. Last year, Intel had also announced a similar partnership with Qualcomm as well.

IFS offers a broad manufacturing platform with technologies optimized for high performance, low power and always-on connectivity built on a roadmap that spans production-proven three-dimensional FinFET transistors to next-generation breakthroughs.

MediaTek plans to use Intel process technologies to manufacture multiple chips for a range of smart edge devices."As one of the world's leading fabless chip designers powering more than 2 billion devices a year, MediaTek is a terrific partner for IFS as we enter our next phase of growth," said IFS President Randhir Thakur.

"We have the right combination of advanced process technology and geographically diverse capacity to help MediaTek deliver the next billion connected devices across a range of applications," Thakur added.NS Tsai, corporate senior vice president of Platform Technology & Manufacturing Operations at MediaTek, said, "MediaTek has long adopted a multi-sourcing strategy. We have an existing 5G data card business partnership with Intel, and now extend our relationship to manufacturing smart edge devices through Intel Foundry Services. With its commitment to major capacity expansions, IFS provides value to MediaTek as we seek to create a more diversified supply chain."

IFS has a major advantage as of now, because of the fact that they are based in the western hemisphere. With a majority of the current silicon manufacturing coming out of the eastern hemisphere from countries like Taiwan, China, and Thailand, issues such as the ongoing chip shortages were inevitable, especially when something as disruptive as the current pandemic would have taken place.

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MICROSOFT INTRODUCES WINDOWS COMMUNITY TOOLKIT LABS

The team at Microsoft recently announced that the Windows Community Toolkit Labs is now the primary way that the company will be developing new features for Windows Community Toolkit. It is intended to act as a safe space for collaboration and engineering solutions from the prototyping stage all the way through polished and finalized component.

According to Microsoft, the Windows Community Toolkit Labs will make it easier for users to contribute to the toolkit, try out new features still in development, and cooperate together on the development process. The new "Labs" repository will hold discussions about new items and development along with initial 'experiments' that will each represent a new component (or set of related components)that will begin its journey from an initial implementation to a well-tested feature working through defined set a criteria and quality gates along the way. With Windows community Toolkit Labs users can make changes in Labs, try out new ideas, not have to worry about having code needing to be 'shippable' in order to make its way to the repository.

With this the company can more easily gather feedback from developers, collaborate with users on the component, tests and documentation and reduce the overhead on reviewing monolithic PRs. Several experiments have already been set up, including CanvasLayout, a prototype virtualized canvas view on top of items Repeater; Canvas view, a panel based templated Item Control using a canvas which supports basic manipulation out of the box; Settings card, a component for providing a consistent settings experience for our app and more.

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IT BULLETIN   **DATE : 27.09.2022**

WHATSAPP BRINGING THE ABILITY TO KEEP MESSAGES FROM DISAPPEARING CHATS: ALL DETAILS

Meta-owned messaging app WhatsApp is working on a feature that will let users keep disappearing messages even after they have expired and disappeared from your chats. WhatsApp is said to be bringing a new "Kept Messages" section that will store all disappearing messages that the user wants to hold on.

According to a report by WhatsApp tracker WABetaInfo, disappearing messages will be stored in a new section called 'Kept messages' which will be accessible to all people in the conversation. Currently, there is no way of storing messages in disappearing chats and users can not even star messages in a disappearing chat. The Kept Messages feature, however, is set to change that and users can "Keep" a message, which will go to the "Kept Messages" section like archives or bookmarks.

The report mentioned that this feature is still under development and even beta testers don't have access to the feature so far. This feature is under development, so it is unclear when it will be released to beta testers.

WhatsApp is also working on bringing a feature that will allow users to hide their online status from everyone or make it default for all those who cannot see their last seen status. The feature was first spotted by WABetaInfo on the iOS version and now it is moving to the Android beta version, suggesting that a public release might be on the cards.

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IT BULLETIN   **DATE : 28.09.2022**

HOW CONTINUOUS SOFTWARE INTELLIGENCE CAN SAVE THE SOFTWARE WORLD

Over a decade ago, internet and tech enterpreneur Marc Andreesen penned a prescient article for The wall Street Journal, Why Software is Eating the World. In the thesis, that software allowed for visit cost reductions in business and enabled the complete disruption of once-staid markets, has been proven many times over. But while Mr. Andreesen's observation was focused on what the ubiquity of software meant for market winners and losers, there is a correlated impact on the very nature of software development. Specifically, the universality software, across business, and the entry technology landscape, has resulted in a level of complexity never before seen by humans.

Software is, literally, everywhere. From the loT microcontrollers of intelligent lightbulbs to vast massively parallel supercomputers, virtually every aspect of how the world operates depends on software. When software-driven systems work, they make our lives easier, less expensive and, arguably, more fulfilling. But in order to realize these outcomes, software has become immense in scale, both in terms of breadth and depth. It has been abstracted, componentized.

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IT BULLETIN   **DATE : 29.09.2022**

REALME

Realme launched its third tablet in India– the Realme Pad X, which is the most powerful tablet in the company's existing portfolio. This is no longer just about offering an affordable big-screen experience for digital learning or home entertainment.

Instead, the Pad X is a full-fledged 5G tablet with a mid-range chip at the core and exclusive accessories like a keyboard case and a stylus to enhance the experience. But is that enough to justify the price of the Realme Pad X which starts at Rs 19,999?

How does the Pad X stack up against its competition. Find out in my full review below. The Realme Pad X comes with solid build quality and this is noticeable the moment you pull it out of the box.

The back is plastic, but it does not feel flimsy as such. There are no wobbly or mushy buttons. The tablet feels pretty premium in hand given the price. This is great to see because the build quality is usually one of the first areas to get the axe on affordable tech.

Realme also has a new screen-cast feature that not only lets users cast the display of their Realme phone on one side of the tablet. We can then access this virtual projection of the phone to directly use the phone itself. In this mode, we can also use drag and drop to quickly transfer files to the mobile device from the tablet.

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IT BULLETIN   **DATE : 30.09.2022**

JDK19: THE NEW FEATURES IN JAVA 19

A non-LTS release due in September, Java19 will feature structured concurrency, virtual threads, pattern matching for switch expressions, avector API and a Linux. RISC-V port.

Java Development Kit 19, is now feature-complete and is now in a second ramp down phase. Seven features target the release including structured concurrency, record patterns, a preview of a foreign function and memory API, and support for the opensource Linux. RISC-V Instruction Set Architecture(ISA).

With this latest milestone in the release process for standard Java, other planned capabilities such as universal generics and value objects will have to wait for a later version of the platform. JDK19 follows the March22 arrival of JDK18. Standard Java is on a six-month release cadence.

The JDK 19 features include:

- Structured concurrency

- Preview of record patterns

- Preview of foreign function

- Preview of virtual ritual threat

- Third preview of pattern matching for switch expression and statement

- Vector API

- Linux / RISC-V Port

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