

## India's PARAM supercomputer among the world's most power efficient systems



India's supercomputer PARAM Yuva II, developed by the Centre for Development of Advanced Computing (C-DAC), has been ranked first in India, ninth in the Asia Pacific Region and 44th in the world among the most power efficient computer systems as per the Green500 List announced at the Supercomputing Conference (SC 2013) in Denver, Colorado, in the US last month.

Supercomputers, in general, consume a lot of electrical power and produce much heat that necessitates elaborate cooling facilities to ensure proper operation. This adds to increase in the total cost of ownership (TCO) of a supercomputer. To draw focus towards development of energy efficient supercomputers, Green500 ranks computer systems in the world according to compute performance per watt, thus providing a world ranking based on energy efficiency. Kapil Sibal, minister for communications and information technology, said that the government is planning a big impetus for capacity-building and advanced research and development in this area.

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### Cisco Announces Desktop as a Service (DaaS) Solution

Cisco's DaaS Solution adds highly agile, cloud-based desktop virtualization solutions to Cisco's existing desktop virtualization product portfolio. The Cisco DaaS solution is built on the Cisco Desktop Virtualization Solution, enabling cloud providers to offer their customers a Cisco Powered, virtual desktop subscription service. With the Cisco DaaS solution, cloud providers can offer their business customers scalability, security, performance, and efficiency. At the same time, these cloud providers gain operational capabilities such as management tools, licensing components and the ability to deliver desktops to multiple customers from one platform. It provides fast, easy and economical entry for cloud providers to this rapidly growing market and brings new service and revenue opportunities.



### Sony announces pen drives for Android smartphones, tablets

Sony has launched new pen drives that are compatible with smartphones and tablets, bringing USB on-the-go functionality to these devices. The flash drives are "2-in-1 devices" with both USB 2.0 and microUSB connectors. So, buyers can connect them to phones and tablets as well as laptops and desktops. The new Sony drives can be used with Android devices running on Ice Cream Sandwich and Jelly Bean. The company says that it is working to bring support for devices running on the newest Android KitKat version. The pen drives can be used to copy data between devices, and also as additional storage.



### F5 Launches LineRate® Focused on Delivering Solutions for DevOps

The LineRate application proxy software, running on commodity hardware or virtual machines, eliminates the need for DevOps to manually set up complex proxies or incorporate networking logic into applications, freeing their time to focus on core business logic and develop new value-added product capabilities. This will save companies significant time and effort when developing and deploying new or updated applications. The LineRate software makes it simple to create and deploy a broad range of complex networking functionality that helps DevOps scale, manage, and optimize their applications. With LineRate, DevOps can now solve complex problems such as steering and transforming XML/SOAP messages in the network.

# The Future is Now



## IBM Reveals Five Innovations That Will Change Our Lives within Five Years

IBM unveiled a list of innovations that have the potential to change the way people work, live and interact during the next five years. This year's IBM 5 in 5 explores the idea that everything will learn – driven by a new era of cognitive systems where machines will learn, reason and engage with us in a more natural and personalized way. These innovations are beginning to emerge enabled by cloud computing, big data analytics and learning technologies all coming together, with the appropriate privacy and security considerations, for consumers, citizens, students and patients. Over time these computers will get smarter and more customized through interactions with data, devices and people, helping us take on what may have been seen as unsolvable problems by using all the information that surrounds us and bringing the right insight or suggestion to our fingertips right when it's most needed. A new era in computing will lead to breakthroughs that will amplify human abilities, assist us in making good choices, look out for us and help us navigate our world in powerful new ways.



### IBM 5 in 5

Here are the five predictions that will define the future and impact us at a personal level:

**The classroom will learn you :** The classroom of the future will give educators the tools to learn about every student, providing them with a tailored curriculum from kindergarten to high school and on to employment. In the next five years the classroom will learn about each student using longitudinal data such as test scores, attendance and student's behaviour on e-learning platforms, not just aptitude tests. Sophisticated analytics delivered over the cloud will provide decision support to teachers so they can predict students who are most at risk, their roadblocks, and then suggest measures to help students conquer their challenges based on their individual learning style.

**Buying local will beat online :** In five years, new innovations will make buying local du jour once again. Savvy retailers will use the immediacy of the store and proximity to customers to create experiences that cannot be replicated by online-only retail. They will magnify the digital experience by bringing the web right to where the shopper can physically touch it. In five years, retailers could rely on Watson-like technologies to equip sales associates to be expert about every product in the store. With technologies such as augmented reality and the recently announced plan to open

Watson as an app development platform, IBM is providing shoppers' with better in-store browsing and buying experiences. As mobile devices supported by cloud computing enable individuals to share what makes them tick, their health or nutritional needs, virtual closets and social networks, retailers will soon be able to anticipate with incredible accuracy the products a shopper most wants and needs. As a result, stores will transform into immersive destinations with experiences customized for each individual. And given their proximity and multiple footprints, stores will be able to offer shoppers a variety of fast pick-up or delivery options, wherever the customer is. Two day shipping will feel like snail mail.

**Doctors will routinely use your DNA to keep you well :** Cancer is a complicated disease and despite tremendous advances in research and treatment, the incidence of cancer has risen more than 10 percent since 2008, striking more than 14 million patients and claiming the lives of 8.1 million every year around the world. Imagine if treatment could be more specific and precise – where computers could help doctors understand how a tumor affects a patient down to their DNA and present a collective set of medications shown to best attack the cancer. In five years, advances in big data analytics and emerging cloud-based cognitive systems coupled with breakthroughs in genomic research and testing could help doctors to accurately diagnose cancer and create personalized cancer treatment plans for millions of patients around the world. Smart machines will take the output of full genome sequencing and scour vast repositories of medical records and publications to learn and quickly provide specific and actionable insights on treatment options for oncologists.

**A digital guardian will protect you online :** Today we have multiple IDs and devices than ever before, yet security is highly fragmented, leaving us vulnerable. Traditional approaches to security – passwords, anti-virus or a firewall - are not comprehensive. These rules-based approaches fall short in several ways – they are designed to recognize only known viruses or known fraudulent activity and typically only look at a single source of data. In five years, each of us could be protected with our own digital guardian that will become trained to focus on the people and items it is entrusted with, offering a new level of identity theft protection. Security will assimilate contextual, situational and historical data to verify a person's identity on different devices. By learning about users, a digital guardian can make inferences about what's normal or reasonable activity and what's not, acting as an advisor when they want it to. In the future, security is going to become more agile and contextual with a 360 degree of data, devices and applications, ready to spot deviations that could be precursors to an attack and a stolen identity.

**The city will help you live in it :** In five years smarter cities understand in real time how billions of events occur as computers learn to understand what people need, what they like, what they do, and how they move from place to place. Soon it will be possible for cities and their leaders to understand and digest new information freely provided by citizens, knowing which city resources are needed, where and when, so the city can dynamically optimize around the needs of the citizens. Mobile devices and social engagement will enable citizens to strike up a relationship with their city leaders.

## Technology Focus



### Top 9 things any NAC solution must do and do well

When evaluating any NAC solution you first need to figure out what features and functions are most important for your environment. In order to proactively defend the internal networks from malicious users, unauthorized users, botnets, viruses, worms, and other malice a NAC solution must support the following:

**Authentication** - Controlling who is allowed access. This is typically done by forcing the user to login or authenticate before network access is granted. This authentication could be in the form of a username and password, a unique MAC address, or a system fingerprinting result.

**Host posture assessment** - Determining if the client meets your host security requirements before allowing them onto your network. The end goal is to reduce your exposure to risk by checking the host's security posture. This typically involves making sure the host has up-to-date operating system security patches, anti-virus software, anti-Spyware software, and is not actively infected with a virus or worm. Ongoing, continuous, host posture assessment is also desirable.

**Quarantine and Remediation** - Any client that does not meet the client security requirements must be quarantined and offered remediation steps. While in network quarantine a host's

network access would be isolated to only those remediation resources that are needed for them to come into compliance. Since the remediation actions will be performed by the end-user the remediation process must be intuitive and undemanding. The more automated it is the better.



**Authorization** - Controlling the amount of network access given to a connecting client. The end goal is to restrict network access, as much as is practical, to only those resources that the user truly needs. The amount of network access is typically determined based on the user's identity and the security posture of their host.

**Automated hotfix/version updating** - The solution must be able to regularly update its security checks. The purpose of using auto updating checks is to remove the huge burden of manually having to track down what vendor released what updates and for what version of their product. Without automating this process, the cost of ongoing maintenance required to find and maintain this information manually could prove prohibitive.

**Centralized Management** - Any NAC solution must be manageable but the key here is centralized management. Typically, a large NAC solution will involve several individual components. Ideally, a centralized management system should be able to manage all of the individual components.

**Collaborative** - A NAC solution must be able to interoperate with other network, security, and authentication devices.

**Adaptable** - A NAC solution must support being implemented pervasively throughout your internal network to be most effective.

**Highly Available** - All critical components of the NAC solution must have the option to be made redundant and fault-tolerant.

## Tech News

### India will have 185 million mobile Internet users by June: IAMAI

Mobile Internet in India has exploded over the past few months. In October last year, 86 million users in India were found accessing the Internet via mobile devices. And in just six months since then, that number is all set to be nearly double. A new Internet and Mobile Association of India (IAMAI) report now suggests that the number of users in India accessing the web on their mobile handsets is expected to reach 155 million by March this year. The user base will grow further to 185 million by June this year, so nearly 100 million new users will be added in the eight months since the October data. The number of users accessing Internet via mobile until December 2013 was 110 million, says the report.

### India's 'eye in the sky' Netra to fly soon; will detect Internet keywords to prevent attacks

The Indian government will soon launch 'Netra', the defence ministry's internet spying drone. The UAV is reportedly capable of detecting words such as "attack", "bomb", "blast" or "kill" within seconds of it being deployed. It can detect such words from almost all online communication, including, but not restricted to, tweets, Facebook status updates, emails, instant messaging chats, internet calls and blog posts. Netra is a light-weight, autonomous UAV or a drone, designed for surveillance and reconnaissance operations. It comes with an on-board wireless transmitter that allows it to carry out surveillance in an area of 1.5 km Line of Sight (LOS) at the height of 300m, and for about 30 minutes on a single battery charge. It can fly up to a distance of 2.5km from the take-off point, once it is launched from a small clearing.

### Reliance Jio tests 4G video calls and TV service at IIT Mumbai Techfest

Reliance Jio Infocomm Ltd tested its 4G network at the Techfest in IIT Mumbai by running trials of video calls on the high-speed network and also demonstrating the forthcoming Jio TV service, among others. RJIL is country's only pan-India 4G spectrum holder. The company also deployed Wi-Fi network at select locations in the campus. Visitors to the Techfest will be able to experience benefit of high speed wireless connectivity for handheld devices (smartphones and tablets) over a blend of LTE and Wi-Fi networks. The company at the event demonstrated Live TV and video on demand, with HD viewing experience. Live TV has 16 HD channels and total 101 channels. Video on demand has more than 400 movies. Jio television has a feature that eliminates the need for recording content.

# Special Focus

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## VISION

*"To become the most preferred technology solution partner by listening to our customers, anticipating their needs and providing reliability, flexibility, responsiveness and innovative products and services.*

*Achieving market leadership and operating excellence in every segment of our company."*

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*"We understand the need of a common vendor for all your IT needs. Hence, we are committed to long-term partnerships by delivering on our commitments."*

## IBM MobileFirst Solutions : IBM Transforms Mobile Management and Security Market

IBM announced it has completed the acquisition of Fiberlink Communications, a privately held mobile management and security company. Fiberlink's MaaS360 offering expands IBM MobileFirst solutions with new cloud-based capabilities to deliver a comprehensive mobile management and security solution for global organizations of all sizes. This acquisition supports IBM's expanding vision for enterprise mobility management, which encompasses secure transactions between businesses, partners and customers. This acquisition builds on the IBM MobileFirst strategy of bringing all mobile resources together to support a full range of capabilities. Those capabilities include managing "bring

your own device" (BYOD) initiatives, improving the user experience, and delivering trusted transaction and security intelligence capabilities for mobile apps, users, content and data. "With the acquisition of Fiberlink, no other company can match the high level of mobile management and security capabilities that IBM MobileFirst provides across a full range of users. Building on Fiberlink's rapid time to value, clients now gain additional solutions to quickly and confidently embrace mobility," said Deepak Advani, general manager, Cloud and Smarter Infrastructure, IBM. "IBM continues to expand the number of cloud-based services we offer clients to help eliminate barriers to

adoption and speed results." The MaaS360 product will enable IBM to offer cloud-based or on-premise mobile device management, mobile content management, and mobile application management including containerization. With MaaS360 and its approach to mobile application containers, organizations will gain the building blocks to separate personal from enterprise data and content on mobile devices. Additionally, the combination of IBM Endpoint Manager and the MaaS360 offering will allow IBM to offer Unified Device Management, supporting either SaaS or on-premise deployments for all of an organization's endpoints – from laptop, desktop and server to mobile devices.

## About Galaxy

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