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LISTENING TO BUSINESS, APPLYING TECHNOLOGY

Facebook to use drones to beam internet from the sky: Mark Zuckerberg

It is no secret that Facebook CEO Mark Zuckerberg wants to see the whole humanity connected to the web. Unfortunately internet connections are just not available in many places. But Zuckerberg believes he has a solution for this pesky problem. He announced that Internet.org, an organisation that Facebook started in partnership with a few other technology companies, is experimenting with drones that are capable of beaming internet in an area from the sky. "In our effort to connect the whole world with Internet.org, we've been working on ways to beam internet to people from the sky," Zuckerberg wrote on Facebook. Internet.org was launched last year with an aim to bring down the cost of internet connectivity across the world so that more people can connect to the web and utilise web services. Last month at Mobile World Congress, Zuckerberg revealed that Internet.org was working with several telecom operators across the world to reduce the cost of internet connectivity. Facebook revealed that the team exploring variouss methods to beam internet from sky is part of Connectivity Lab, a new department within Internet.org. It is exploring various options. A solar-powered drone is one option. "For suburban areas in limited geographical regions, we've been working on solar-powered high altitude, long endurance aircraft that can stay aloft for months, be quickly deployed and deliver reliable internet connections," Internet.org noted in a statement posted on its website. "For lower density areas, low-Earth orbit and geosynchronous satellites can beam internet access to the ground."

In both cases, the internet connection will be beamed through free-space optical communication, which makes use of "light to transmit data throughh space using invisible, infrared laser beams". "Free-space optical communication is a promising technology that potentially allows us to dramatically boost the speed of internet connections provided by satellites and drones," noted Internet.org.

Citrix releases free GoToMeeting for Chrome

Citrix has released a free version of its flagship GoToMeeting product for Google's Chrome browser (*free.gotomeeting.com*). The offering, named GoToMeeting Free, allows anyone to instantly connect online through its cloud-based video conferencing tool. However, as may be expected with a free version of a normally paid-for offering, there are some limitations, such as only being able to have a maximum of three people in the conference at any one time. Nevertheless, Citrix claim the product will help more SMBs profit from the benefits of flexible working. Additionally, the company is launching a free app for iPhone and iPads that lets users create and edit Microsoft Office documents.

The Future is Now
Wireless electricity? It's here

"We're going to transfer power without any kind of wires," says Dr. Katie Hall, now Chief Technology Officer at WiTricity -- a start-up developing wireless "resonance" technology. (CNN)
Katie Hall was shocked the second she saw it: a light-bulb glowing in middle of a room with no wires attached.
Looking back, it was a crude experiment, she remembers: a tiny room filled with gigantic cooper refrigerator coils -- the kind you'd see if you cracked open the back of your freezer.

She walked in and out between the coils and the bulb -- and still the bulb glowed.
"I said: 'Let's work on this. This is the future.'"
What's the trick?
"We're going to transfer power without any kind of wires," says Dr Hall, now Chief Technology Officer at WiTricity -- a start-up developing wireless "resonance" technology.

"But, we're not actually putting electricity in the air. What we're doing is putting a magnetic field in the air."

It works like this: WiTricity build a "Source Resonator" -- a coil of electrical wire that generates a magnetic field when power is attached.If another coil is brought close, an electrical charge can be generated in it. No wires required.

"When you bring a device into that magnetic field, it induces a current in the device, and by that you're able to transfer power," explains Dr Hall. And like that, the bulb lights up.

Wireless homes

Don't worry about getting zapped: Hall assures that the magnetic fields used to transfer energy are "perfectly safe" -- in fact, they are the same kind of fields used in Wi-Fi routers.

In the house of the future, wire-free energy transfer could be as easy as wireless internet.

If all goes to WiTricity's plans, smartphones will charge in your pocket as you wander around, televisions will flicker with no wires attached, and electric cars will refuel while sitting on the driveway.

WiTricity have already demonstrated their ability to power laptops, cell-phones, and TVs by attaching resonator coils to batteries -- and an electric car refueller is reportedly in the works.

Hall sees a bright future for the family without wires: "We just don't think about it anymore: I'm going to drive my car home and I'm never going to have to go to the gas station and I'm never going to have to plug it in.

"I can't even imagine how things will change when we live like that."

World outside

Beyond these effort-saving applications, Hall sees more revolutionary steps.

When Hall first saw the wireless bulb, she immediately thought of medical technology -- seeing that devices transplanted beneath the skin could be charged non-intrusively.

WiTricity is now working with a medical company to recharge a left-ventricular assist device -- "a heart-pump essentially."

The technology opens the door to any number of mobile electronic devices which have so far been held back by limited battery lives.

"The idea of eliminating cables would allow us to re-design things in ways that we haven't yet thought of, that's just going to make our devices and everything that we interact with, that much more efficient, more practical and maybe even give brand new functionality."

What's next?

The challenge now is increasing the distance that power can be transferred efficiently. This distance -- Hall explains -- is linked to the size of the coil, and WiTricity wants to perfect the same long-distance transfers to today's small-scale devices.

For this reason, the team have high hopes for their new creation: AA-sized wirelessly rechargeable batteries.

For Hall, the applications are endless: "I always say kids will say: 'Why is it called wireless?'"

"The kids that are growing up in a couple of years will never have to plug anything in again to charge it."

Technology Focus

Security Sidebar: Defending The Internet of Things *(By John Wagnon)*

Many experts predict that the number of devices connected to the Internet will top 50 billion (with a "B") by the year 2020. In fact, the following diagram shows that, on average, every person on the globe will have ~3.5 connected devices by next year. I know I'm doing my part to contribute. After all, I have several connected devices even today: Smart TV, Blu-Ray player, PlayStation, laptop, iPad, iPhone, etc. And that's just me!

You don't have to look far to find an Internet connected device. We have connected cars, eye glasses, running gear, door locks, weight scales, refrigerators, thermostats, even basketballs!

In the near future we will see things like toothbrushes get connected to the net. Even the kids are getting involved in this. Baby monitors are already connected, but pretty soon we will connect to car seats and children's kitchen utensils. Remind me to check the upper limit of IP addresses allowed on my wireless router. I might need to upgrade pretty soon!

Clearly this is a very limited list of the many, many things that are currently or will soon be connected to the Internet. With this onslaught of connected devices, the hacking space for nefarious Internet users is getting so big that they almost can't miss when they launch their attack tools these days.

Many times it's the simple things that allow attackers to be successful. Things like default passwords that are not changed, software patches that are not installed, firmware upgrades that are not completed, etc. Some of the devices that make up the "Internet of Things" (or the Internet of Everything as some are calling it now) are very easy to configure and update; and some are not. If my laptop or router has a recommended software patch or firmware update and I fail to install it, then bad on me...I'm just keeping the door open for the bad guys to use their tools against me. But sometimes it's not that simple. The new Internet connected refrigerator you just bought might not have an upgrade even available. In that case, I'd recommend doing whatever you possibly can to secure the device...if nothing else, see what you can do to change the default password on the thing.

In my former life, I routinely analyzed cyber attacks for a major Department of Defense organization. Many times, successful attacks would have been thwarted if the admin or user had simply updated patches, changed default passwords, etc. After an attack, we would conduct a "hotwash" where we would discuss what was done correctly and what needed improvement. In some cases, we were fortunate to have a friendly attacker who would outline exactly how the attack took place and what we could do to stop it (or slow it down) the next time. Each attack was a little different, but I noticed a pattern of unpatched systems being targeted the most. I'm not saying the attackers will never get in if you apply all patches and recommended firmware updates, but it might make them look at the next guy to see if he is an easier target! So, do the little things right.

The Internet of Things is becoming (and has become) a tough landscape for security professionals. F5's own Lori MacVittie wrote a fantastic article where she highlights security challenges associated with the Internet of Things.

So what can you do in the face of this daunting road ahead? Should you just not buy any Internet connected devices? No, go ahead and buy them...just remember to do the little things right.
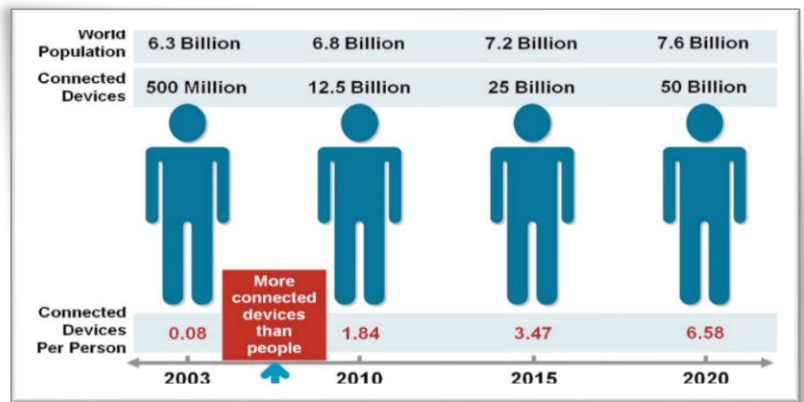
Technology that gets under your skin

Embeddables won't just be a revolution in functionality, but will dramatically alter how people fit into society

Wearables are yesterday's news; tomorrow's news will be all about embeddables, tiny computing devices implanted inside your body that monitor your health, improve your functioning, and connect you to the digital world.There is currently a lot of buzz in technology and design circles about wearables, living services, the Internet of Things, and smart materials. As designers working in these realms, we've begun to think

about even more transformative things, envisioning a future where evolved technology is embedded inside our digestive tracts, sense organs, blood vessels, and even our cells. Everyday objects will become responsive and predictive, connecting us to the data sphere and reducing the distance between our skin and the surfaces of the made world. What we see further out, beyond the realm of wearables and implants, is the future symbiosis of the human body and the machine.

Four converging technologies are going to radically transform our interaction with the world: genetics, robotics, information delivery, and nanotechnology. With a few exceptions, such as pacemakers and artificial hips, technology has always been one distance removed from our bodies and brains. Not for much longer. The interface between the made world and us is going to become almost invisible. The monolithic device with a screen may be on the verge of disappearing: it is being enhanced with numerous smaller devices, which may soon replace it as the way to access information.

Embeddables are not just going to be a revolution in functionality, but will dramatically alter how people fit into society, affect human psychology, and even propel us toward intellectual or spiritual transcendence.

Tech News

Microsoft's Office apps for iPad usher in new era

Microsoft has released an iPad version of its popular Office software suite, a breakthrough heralding a new era under a CEO who promises to focus more on the devices that people are using instead of trying to protect the company's lucrative Windows franchise.

The unveiling of the much-anticipated iPad apps for Microsoft's bundle of word processing, spreadsheet and presentation software comes nearly four years after Apple Inc released the tablet computer that has contributed to a steady decline in sales of desktop and laptop machines running on the Windows operating system.

Microsoft's decision to relent to persistent **demands to make its top-selling software** application available on the world's most popular tablet comes seven weeks after the Redmond, Washington, company anointed Sayta Nadella as its CEO after being led for 14 years by Steve Ballmer. The change in command gives Microsoft Corp an opportunity to prove it's a more nimble company adapting to evolution of computing instead of clinging to its old ways.

The availability of an Office app also could encourage more people to buy an iPad. That, in turn, could siphon more sales away from laptops running on Windows, which also generates billions in licensing fees for Microsoft each year. This year, Gartner Inc. expects 271 million tablets to be sold this year, including those running on Windows and Android, versus a total of 277 million desktop and laptop computer. By the end of 2015, tablets should be outselling PCs by a wide margin, Gartner said. Microsoft hasn't made Office apps for Android tablets yet, though the company has previously said those will be coming.

Android-x86 Just Might Make a Good Linux Desktop Alternative

Could it eventually replace a Microsoft Windows, a desktop Linux distribution or the Mac OS X? Maybe! A desktop or laptop running a more polished version of Android-x86 KitKat software easily could cash in on mobile Android's popularity and become an Android distro for PCs, said Nubo Software CTO Ron Munitz. After all, Android is Linux. It's based on the Linux kernel.

Working with the Android OS on a desktop computer environment takes personal computing in a new direction. How many will follow it remains to be seen.The release of Android-x86 version 4.4-RC1 (KitKat-x86) by the Android-x86 Project brings the viability of an Android distro as an alternative desktop several steps closer, but it is still a work in progress. This software release lets you run a live session of Android from CD or USB drive -- or you can install Android KitKat for the PC on a laptop or desktop's hard drive.This Android-x86 Project is an unofficial initiative to port Google's Android mobile operating system to run on computers powered by Intel and AMD x86 processors, including netbooks and laptops. "The Android-x86 release has great potential for both consumers to use the Android OS on their legacy computers and vendors to use it for their own branded releases," Ron Munitz, CTO of Nubo Software, told LinuxInsider.

The Business Factor : An Android-x86 desktop or laptop may not be able to handle much productivity, noted Nguyen. "This applies to both consumers and business users. On the business side, there is also the issue of supporting another ecosystem. They might already be doing this for phones or additional apps," he said.

Fi**rst Impressions** :The first run with KitKat for the PC requires creating or signing into a Google account. The process also involves configuring the WiFi connection. On several computers, the wireless connections failed. On several others, the "no connection" warning occurred even with a connection, whether wireless or LAN.

HP makes printing easier, secure in BYOD environments

HP is adding NFC and Wi-Fi Direct printing features to new office printers
Using mobile devices for one-off printing tasks on office printers may not be a big deal, but Hewlett-Packard is trying to mitigate any security risk through direct wireless printing features it is bringing to enterprise printers. HP is adding NFC (near-field communication) and Wi-Fi Direct to its new color LaserJet printers so mobile devices can establish a wireless connection directly to a printer without being logged into an office network. The printer establishes a peer-to-peer connection to tablets or smartphones, and users can send a print command direct to a printer within proximity.

The goal is to provide everyone in an office easy access to a printer, and keep rogue smartphones and tablets from a corporate network, said Todd Gregory, director at HP's Personal and Printing Systems group. Increasingly, office printers are being used to print personal documents, but rogue devices can be a security hazard in bring-your-own-device environments, Gregory said. The new peer-to-peer printing features can make BYOD environments easier to manage while ensuring document security on corporate networks.

Special Focus

How Car Makers Use Analytics for Success

In the competitive auto industry, consumer demands are exceptionally high and the costs and burdens of regulatory oversight and manufacturing demands are extreme. As in few other industries, business intelligence (BI) is a mandatory enterprise function and must work to provide real-world efficiencies and clarity of vision across the entire corporate structure.

Business Intelligence : Providing focus and relevance to the massive flow of big data circulating through the levels of pre-production, design, manufacture, delivery, marketing and more, the business intelligence that the auto industry relies on must be thorough, deep, and comprehensive to allow optimal decisions to flow from it. With the volume of informational output at the scale typical of an enterprise in the automobile industry, the value is derived in the processes of sorting, focusing, and intelligently analyzing the stream of data for presentation to decision makers and company leaders at all levels. Use of big data can be based on an in-memory architecture able to handle vast quantities with rapid response rates to allow for diverse access and document chaining, or may come from data warehoused in IT infrastructure.

Processing Big Data : The strength of the enterprise often rises on the value of its chain partners — providers of components and materials at one end and distributors and retail vendors, opposite. With the efficient capability to collaborate up and down chain, the company can decrease the timeframe within which market needs may be met to reduce cost and decrease risk during cycles of product development and rollout. With visibility in real-time over the range of an extended value chain, manufacturing and operational efficiencies can be maximized with BI acuity aimed at friction spots on the product cycle that can be reduced for smooth flow. While automotive industry enterprises function in a very strictly regulated market, and development of products come through drawn out and expensive development processes, the strength of BI flexibility and practicality can ameliorate the costly impacts of compliance and support.

Benefits of Analytics : With supply chain complexity well known in the industry, the network among industrial partners can be convoluted and difficult to perceive in complete perspective, without a robust operational intelligence platform that allows a company to:

- Maximize procurement and sourcing abilities
- Reduce waste and overages while increasing quality assurance
- Use real-time insight into production process to coordinate operational value
- Consider value-added products that contribute to future revenue potential
- Strengthen all elements of regulatory compliance and risk-management oversight
- Decrease immediate burdens on IT operations with available analytics

Using business intelligence for auto manufacturers and support industries is key to understanding the complexity of the market and becoming the company that will stand out from the competition.
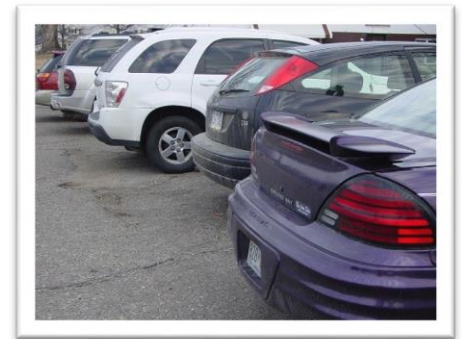
What to Do about XP? Install IGEL Technology's Software Thin Client

Windows XP support will end April 8 and many organizations have not yet decided how to address the problem. IGEL Technology recommends a painless and highly cost-effective solution: the IGEL UDC2 software thin client.The IGEL Universal Desktop Converter 2 (UDC2) software turns PCs, laptops, and the thin clients of other manufacturers into IGEL Linux thin clients allowing all of these devices to come under user-friendly, central management. Rather than investing IT budget in new hardware, companies can set up a virtual infrastructure and use the UDC2 to standardize their existing hardware. The UDC2 will install IGEL's Linux 5 operating system on almost any PC hardware, including desktop and mobile PC's. Additionally, the UDC2 can be installed as a Live USB stick to run IGEL Linux 5 on a temporary basis and still provide access to a Windows operating system.

Significant cost reduction :The low cost of the UDC2 represents significant savings for organizations seeking a solution to replace Windows XP. The software comes with IGEL's Universal Management Suite (UMS), the industry's leading device management platform, which enables user-friendly, centralized deployment and administration of an organization's thin client inventory. With total device management in one location, the administrative cost of maintaining end points falls markedly. Extending the life of existing hardware also frees IT budget to be invested in other projects.

About IGEL Technology : A world leader in thin client solutions, IGEL Technology helps organizations improve the agility, efficiency, and security of their virtual desktop and application delivery systems. IGEL produces one of the industry's widest range of thin clients, based on Linux and Microsoft Windows, allowing customers to access a broad spectrum of server-based infrastructures and applications. IGEL also offers a powerful and intuitive management software for easy deployment and administration of thin clients throughout any size organization. Partnerships with industry leaders like Red Hat, Citrix, VMware, and Microsoft ensure that IGEL provides the most up-to-date technology and trustworthy security to clients in industries that include Healthcare, Education & Research, Public Sector, Financial, Insurance, Retail, Logistics, and Manufacturing.

Galaxy represents IGEL as their Exclusive Partner in India.

About Galaxy

- One of the most respected Information Technology integrator of the best of breed products and solutions for Enterprise Computing, Storage, Networking, Security, Automation, Application Delivery, ERP and Business Intelligence.
- An ISO 9001:2008 organization , founded in 1987
- Committed team of over 200 skilled professionals
- PAN India presence
- Trusted IT services provider to more than a 1000 companies
- Experienced consultants certified on a wide spectrum of technologies
- The Galaxy Technology Innovation Centre, a state-of-the-art integrated hardware and software laboratory, allows customers a hands-on look at the latest storage, backup, security, application delivery and virtualization technologies.
- Customer list includes many of India's leading corporations, banks and government agencies
- Four business units collaborate to provide a full spectrum of services and ensure smooth projects. Together, they provide our customers with truly end to end professional IT Services.

Galaxy Business Solutions	Galaxy Technology Services
System integrators of best of breed technologies to deliver solutions to the problems and challenges that confront enterprises	Skilled pool of resources consistently maintains and delivers enterprise class service levels
Galaxy Network Solutions	**Galaxy BI Consulting Services**
One of India's most trusted active and passive networking specialists	Helps organizations to deliver and leverage business intelligence to create substantial business impact

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Galaxy Asks

"SMAC (Social, Mobile, Analytics and Cloud) was always supposed to the flavour of 2014. In spite of that, few could have imagined WhatsApp getting valued at about USD 19 billion. And even after hearing that the news was true, one could only try and reason why would something like that be valued as high as USD 40 per user. Well, born in the cloud, WhatsApp is a Social App on the Mobile platform. Could Facebook have bought it for the Analytics that would trend 450 million users? "

(Note: We have changed the layout with the last edition. Your feedback will only help us improve in future.)